

Appendix C

Hydrology and Water Quality

- C-1 Delta Water Quality Monitoring Data***
- C-2 Water Resources Modeling Methodology Report***
- C-3 CALSIM II Modeling***
- C-4 DSM2 Delta Modeling***
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Appendix C-1
Delta Water Quality Monitoring Data

Appendix C-1

**DELTA WATER QUALITY
MONITORING DATA**

for the

Alternative Intake Project EIR/EIS

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1 Introduction

This appendix provides an overview of Delta water quality monitoring data used in support of the Contra Costa Water District's (CCWD's) Alternative Intake Project Environmental Impact Report/Environmental Impact Statement (EIR/EIS). Water quality monitoring data are collected for several purposes that include verifying water quality modeling, defining and assessing the project alternatives, and informing engineering considerations.

CCWD's Alternative Intake Project relied upon historical data from ongoing monitoring programs in the Delta along with data collected by CCWD within the project study area. This appendix describes data used for the Alternative Intake Project and presents CCWD data that are not readily available to the public through other resources such as the California Data Exchange Center (CDEC) website.

2 Monitoring Data Sources

2.1 CCWD Monitoring Data

CCWD monitors salinity daily at its three Delta intakes: Old River, Rock Slough, and Mallard Slough. These water quality measurements are utilized to facilitate operational decisions, including diversions to and from storage in the Los Vaqueros Reservoir. In an effort to provide additional data for its internal planning, CCWD initiated a Regional Water Quality Survey in 2001 that involved collecting monthly water quality samples at multiple locations throughout the south and central Delta. Sampling under this program is ongoing. As part of the Alternative Intake Project, CCWD installed in-situ electroconductivity (EC) meters in Old River, Middle River, and Victoria Canal to collect 15-minute EC data¹.

CCWD monitoring data were used to examine project assumptions, including seasonal and spatial trends, operational assumptions, and intake siting considerations. Table 1 provides a list of water quality monitoring stations in and around the project study area. Exhibits 1 and 2 provide maps of the project location area and CCWD's monitoring station sites, respectively.

¹ EC is reported as specific conductance, which is EC normalized to 25 degrees Celsius.

Appendix C-1. Delta Water Quality Monitoring Data

Table 1 Water Quality Data In and Near Victoria Canal						
Station ID	Study	Agency	Name	Available Data	Frequency	Period of Record
A	Ops	CCWD	Old River Pump Station	Temp, EC, Cl	Daily	1/01 - current
B	Ops	CCWD	Rock Slough Intake - PP#1	Temp, EC, Cl	Daily	1/92 - current
C	Ops	CCWD	Mallard Slough Intake	Temp, EC, Cl	Daily	1/02 - current
CIS	CDEC	DWR	Old R @ Coney Island	Temp, EC	Event	5/04 - current
VIC	CDEC	DWR	Victoria Island	Temp, EC	Hourly	3/98 - current
13	Regional	CCWD	Old River at Hwy 4 Bridge	Temp, EC, pH	Monthly	10/01 - current
14	Regional	CCWD	CCWD Intake - Old River	Temp, EC, pH, grab*	Monthly	10/01 - current
15	Regional	CCWD	Widows Island Confluence	Temp, EC, pH, grab*	Monthly	10/01 - current
16	Regional	CCWD	Victoria Canal at tule island break	Temp, EC, pH	Monthly	10/01 - current
17	Regional	CCWD	Victoria Canal at bubble near pier	Temp, EC, pH	Monthly	10/01 - current
18	Regional	CCWD	Middle River at Hwy 4 Bridge	Temp, EC, pH, grab*	Monthly	10/01 - current
19	Regional	CCWD	Middle River at [N] Victoria Canal	Temp, EC, pH	Monthly	10/01 - current
VI1	AIP	CCWD	Victoria Canal at Lower Berm	Temp, EC, pH, grab**	15 min	10/19/04-current
VI2	AIP	CCWD	Victoria Canal at Southern Tip	Temp, EC	15 min	10/19/04-current
VI3	AIP	CCWD	Victoria Canal at Waterski Club	Temp, EC	15 min	10/19/04-current
OR4	AIP	CCWD	Old River at Italian Slough	Temp, EC	15 min	10/19/04-current
UP5	AIP	CCWD	Middle River at Union Point	Temp, EC	15 min	12/15/04-current

Notes:

* CCWD Regional study grab sample data: Specific Conductivity, Total Dissolved Solids, Chloride, Bromide, SO₄ (10/01 - current), NO₃ as N (12/01 - current), and NO₃@NO₃ (2/02 - current).

** Alternative Intake Project (AIP) grab sample data contain regional parameters and TOC (monthly, 10/17/05 to current).

Source: CCWD 2005

Appendix C-1. Delta Water Quality Monitoring Data

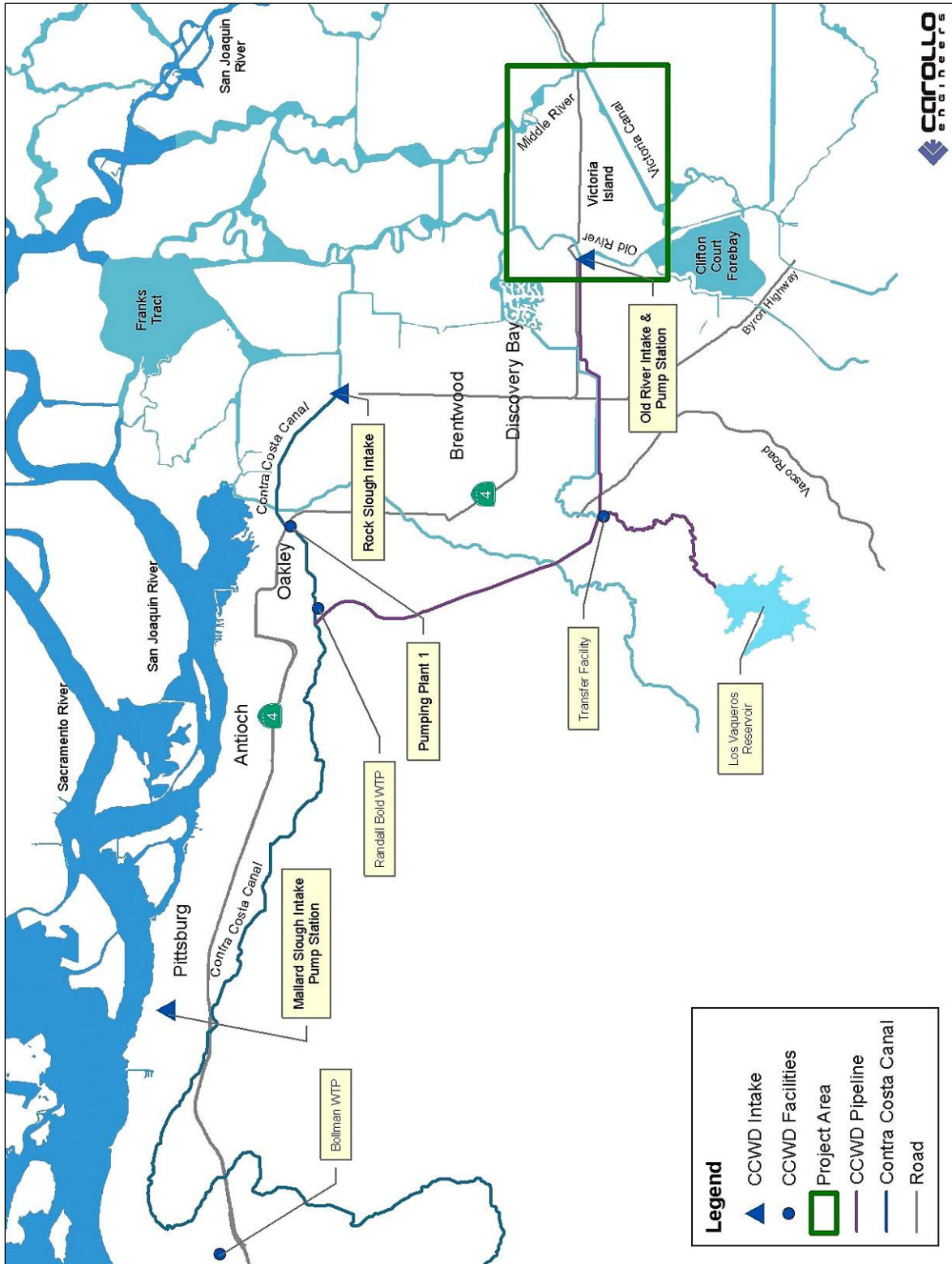


Exhibit 1. Project Location Area for the Proposed Action

Appendix C-1. Delta Water Quality Monitoring Data



Exhibit 2. CCWD Water Quality Monitoring Sites

2.2 Monitoring Data from Other Sources

The California Department of Water Resources (DWR) operates the California Data Exchange Center (CDEC) and Interagency Ecological Program (IEP) as centralized locations to store hydrologic monitoring data from over 160 different agencies, including DWR, the U.S. Department of the Interior, Bureau of Reclamation (Reclamation), and the U.S. Geological Survey (USGS). In addition to water quality monitoring data, available data include weather information, stream flow data, and information on reservoir levels. These data are publicly available through the following DWR websites: <http://cdec.water.ca.gov/> and <http://iep.water.ca.gov/>. DWR also operates the Municipal Water Quality Investigations (MWQI) Program, which collects monitoring data specifically related to drinking water quality in the Delta.

CCWD has historically examined potential alternative intake sites, and CDEC and IEP data have provided a source of information on spatial and seasonal water quality trends throughout the south Delta. As the proposed Alternative Intake Project was developed, CDEC and IEP data were used as a tool to check the calibration of the DSM2 modeling in the vicinity of the project study area. These data are publicly available and therefore not contained in this appendix. Exhibit 3 provides a map of selected sites referenced for the Alternative Intake Project.

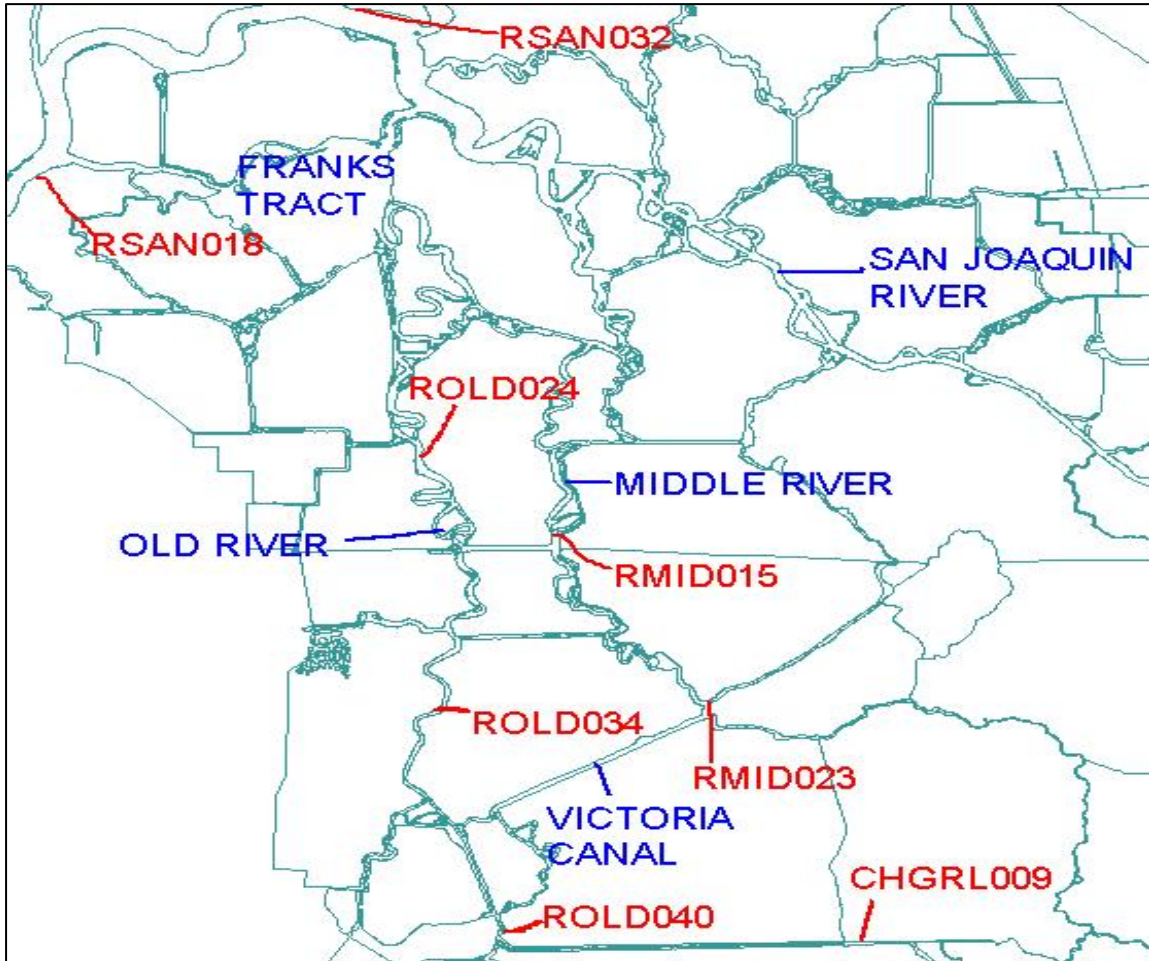
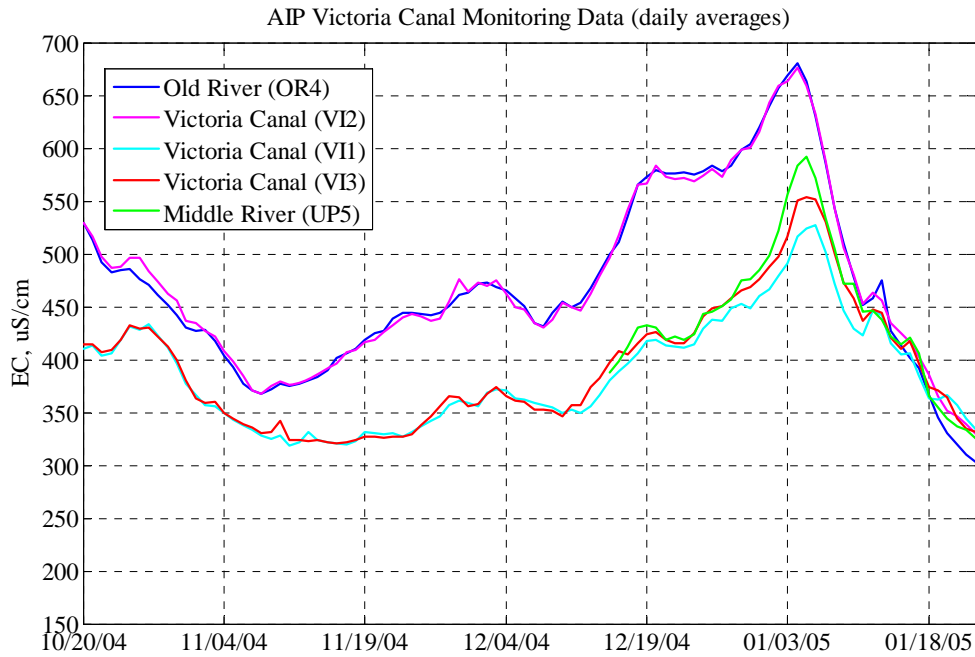


Exhibit 3. Selected Delta Monitoring Sites Referenced for the Alternative Intake Project

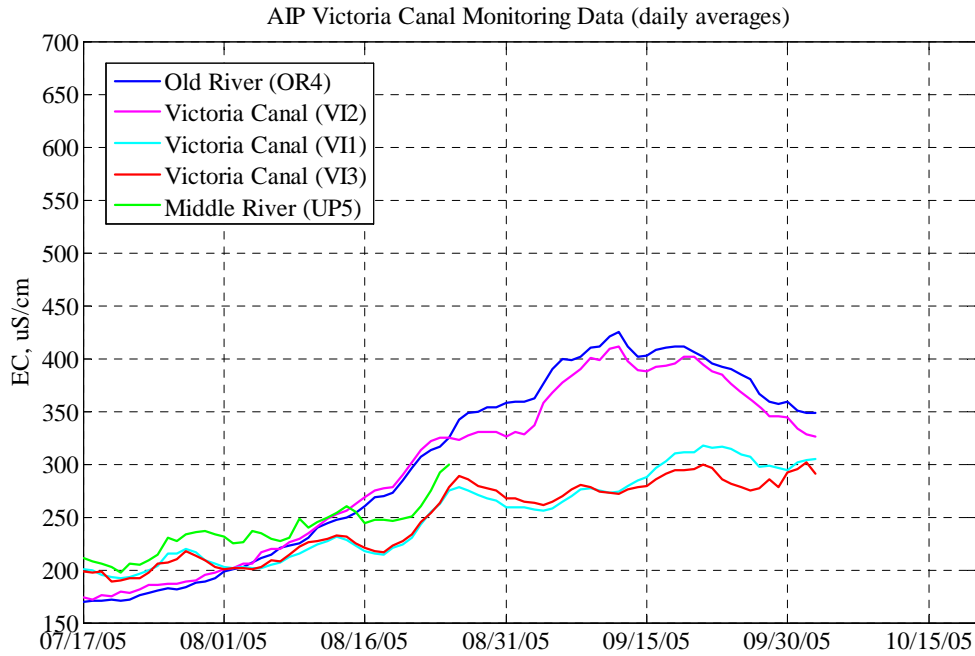
3 Monitoring Data Summary

Exhibit 4 presents data collected at sampling sites in the vicinity of the project study area – Victoria Canal (three sites), Middle River, and Old River in late 2004/early 2005 and summer/fall 2005. While the data at all of the sites is similar during periods of low salinity (e.g., January and July 2005), the salinity of Victoria Canal and Middle River water is significantly lower than that of Old River during the fall period of high salinity (October–December 2004). These data confirm modeling results which conclude that lower salinity is available in Victoria Canal than in Old River during the drier fall periods. This is also confirmed by the grab sample data collected in November 2001 through January 2005.

Appendix C-1. Delta Water Quality Monitoring Data



aip_monitordata.m
15-Dec-2005 LHS



aip_monitordata.m
15-Dec-2005 LHS

Exhibit 4. Monitoring Data Collected in Victoria Canal, Old River, and Middle River

Appendix C-1. Delta Water Quality Monitoring Data

Exhibit 5 plots EC collected at Middle River near Victoria Canal against EC at Old River near CCWD's intake. The scatter plot shows that salinity is similar or slightly lower at Old River during spring months (data points above the line of equal salinity) and salinity is lower at Victoria Canal during fall, which is the drier period (data points below the line of equal salinity).

Additional data collected by CCWD includes chloride and bromide grab samples at the Old River and Middle River sampling locations. These salinity components follow the same trend demonstrated by the EC data shown in Exhibit 5. Because only a limited amount of organic carbon data has been collected in Victoria Canal, no conclusions or relationships have yet been developed for this data.

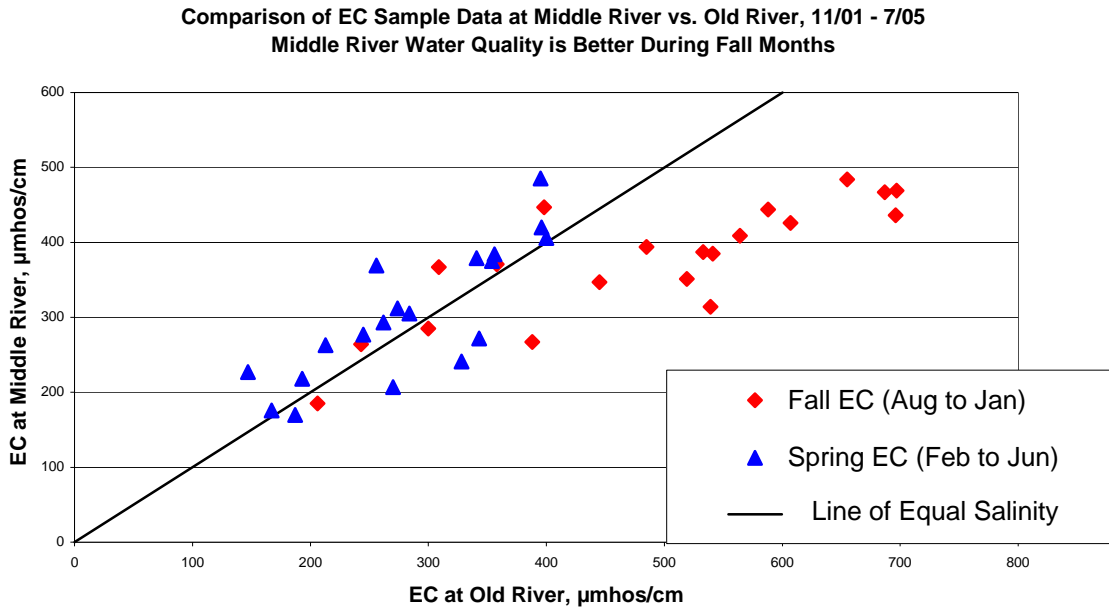


Exhibit 5. Comparison of EC Sample Data at Middle River vs. Old River (November 2001 through July 2005)

Exhibits 6 and 7 and Table 2 provide data in support of Exhibit 4.2-6. These exhibits and table show the increase in fall salinity at CCWD intakes, as illustrated by historical salinity at CCWD's Rock Slough intake. Further discussion is found in Section 4.2, "Delta Water Resources," of the EIR/EIS.

Appendix C-1. Delta Water Quality Monitoring Data

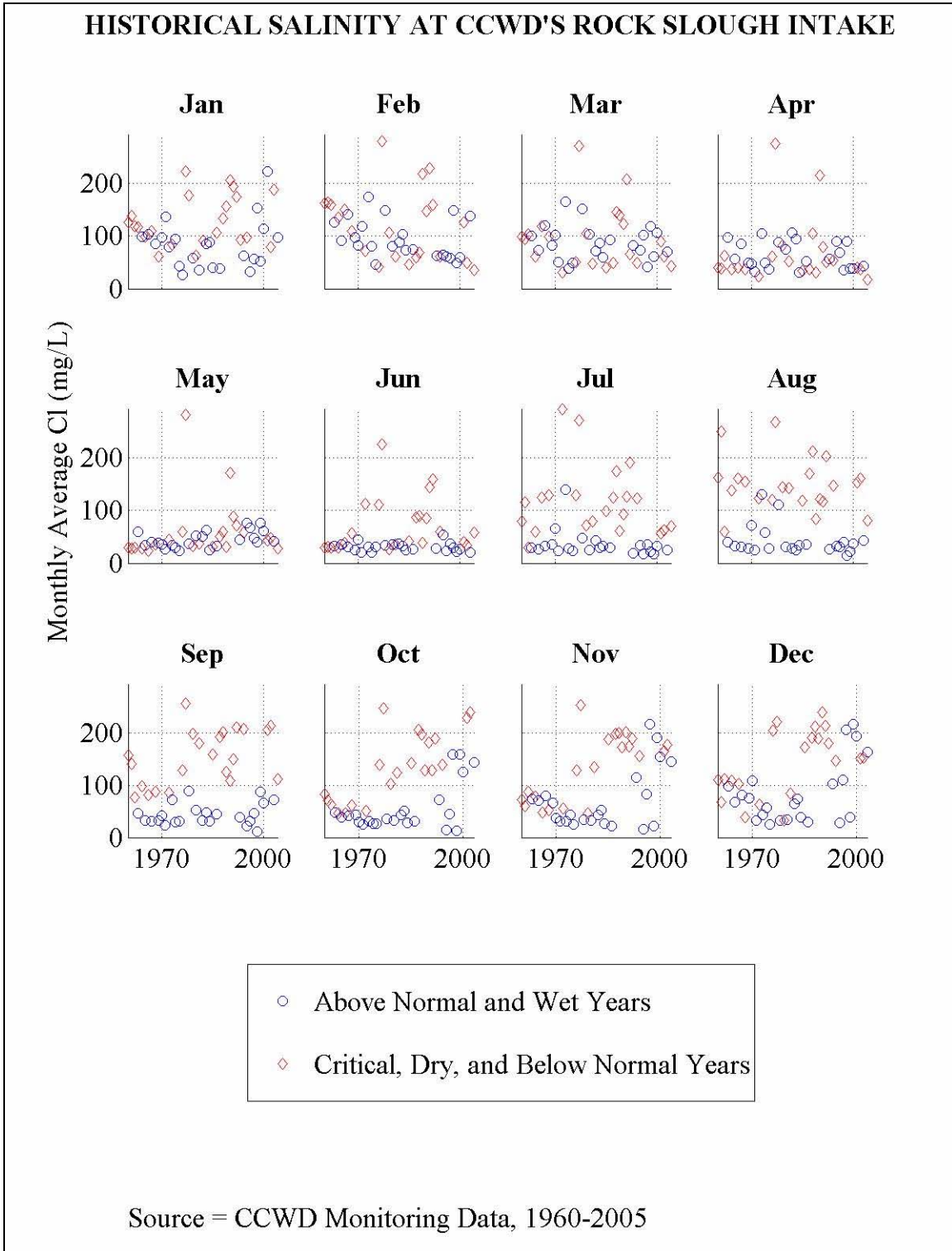


Exhibit 6. Historical Salinity at CCWD's Rock Slough Intake

Appendix C-1. Delta Water Quality Monitoring Data

**CCWD'S ROCK SLOUGH INTAKE
HISTORICAL CALENDAR YEAR AVERAGE SALINITY**

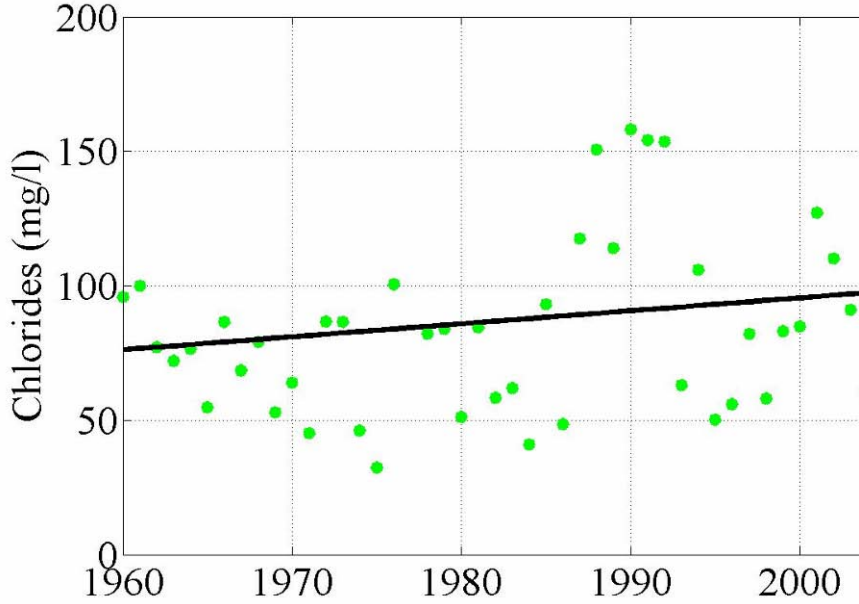


Exhibit 7. CCWD's Rock Slough Intake, Historical Calendar Year Average Salinity

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1960	126	163	99	41	30	30	79	163	158	82	72	111
1961	139	164	94	39	29	31	116	251	141	71	60	68
1962	118	160	104	63	29	29	30	59	77	63	87	112
1963	117	126	101	98	60	32	30	39	46	48	74	98
1964	99	135	61	37	29	29	59	139	98	46	78	109
1965	99	92	73	57	34	36	26	33	33	39	71	67
1966	103	151	118	40	24	39	125	161	82	46	48	103
1967	110	142	120	86	40	31	33	32	31	41	80	81
1968	85	109	100	36	36	56	129	156	87	61	53	39
1969	62	97	83	49	38	25	36	27	32	44	67	76
1970	97	83	102	47	35	45	65	72	41	30	38	108
1971	136	119	51	32	26	21	23	24	24	25	31	32
1972	80	71	31	23	45	112	294	123	85	52	56	64
1973	84	175	166	105	34	32	140	131	72	32	31	44

Appendix C-1. Delta Water Quality Monitoring Data

Table 2 (Continued) Historical Monthly Average Rock Slough Chlorides												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1974	95	82	38	49	29	20	28	58	30	27	43	57
1975	44	46	49	36	23	32	24	28	31	27	25	25
1976	26	41	51	61	60	111	129	120	129	140	129	205
1977	223	281	271	276	283	226	272	269	256	248	254	221
1978	178	149	153	88	38	33	48	111	89	36	34	33
1979	58	107	106	82	33	26	72	145	199	102	47	33
1980	63	80	103	75	52	35	25	31	52	33	32	35
1981	36	61	48	53	37	36	80	142	180	124	134	84
1982	92	89	72	106	51	38	44	28	32	43	43	65
1983	85	104	87	94	63	33	30	25	48	51	52	73
1984	88	73	59	31	25	25	33	34	31	28	27	39
1985	41	46	40	34	31	41	99	119	160	142	188	173
1986	107	75	93	52	32	27	29	36	45	32	23	30
1987	39	59	49	37	51	87	126	170	193	206	198	191
1988	134	69	147	104	59	91	175	212	202	197	201	212
1989	156	219	140	30	31	39	61	83	125	128	173	189
1990	206	148	123	215	171	85	94	122	109	182	202	240
1991	195	229	209	80	88	144	126	117	150	129	174	214
1992	175	159	66	50	72	160	191	203	211	190	189	180
1993	94	63	83	57	45	29	19	26	39	73	115	102
1994	63	62	50	54	58	60	124	147	208	139	157	147
1995	97	64	73	91	76	54	34	32	23	15	15	28
1996	32	61	102	69	67	24	18	32	31	45	83	110
1997	57	58	42	35	47	38	36	41	46	159	218	206
1998	154	149	118	90	40	29	22	15	12	13	22	39
1999	52	50	62	39	77	22	17	22	87	159	191	216
2000	115	60	106	39	61	26	33	36	66	126	154	194
2001	224	126	89	40	43	41	57	154	206	228	166	152
2002	80	49	62	36	48	34	63	161	214	239	178	153
2003	188	139	71	43	41	21	24	43	72	144	145	163
2004	98	36	43	18	29	58	70	81	111			

Appendix C-1. Delta Water Quality Monitoring Data

Tables 3 through 6 provide additional data collected by CCWD through the regional and Alternative Intake Project sampling programs.

Table 3 Regional Survey Grab Sample Data – Station #14 – Old River at CCWD Intake								
Date of Sample	SpCond (µmhos/cm)	TDS (mg/L)	Cl (mg/L)	Br (mg/L)	SO4 (mg/L)	NO ₃ @N (mg/L)	NO ₃ @NO ₃ (mg/L)	pH
10/15/2001	690	390	140	1.6	31	NA	NA	NA
11/7/2001	600	340	100	1.6	34	NA	NA	NA
12/18/2001	420	280	87	0.3	25	3.40	NA	NA
1/8/2002	410	250	53	0.2	34	1.50	NA	NA
1/30/2002	280	210	24	0.1	20	0.79	NA	NA
2/27/2002	350	230	38	0.1	25	0.70	3.1	NA
3/20/2002	290	180	30	<0.1	21	0.55	2.4	NA
4/17/2002	280	170	29	<0.1	21	0.39	1.7	NA
6/12/2002	290	180	30	<0.1	25	0.43	1.9	7.9
7/17/2002	330	180	52	0.2	16	0.27	1.2	7.9
8/14/2002	550	330	112	0.4	23	0.16	0.7	7.9
9/12/2002	730	370	149	0.4	30	<0.45	<2.0	7.1
10/9/2002	720	368	NA	0.4	NA	0.42	1.9	7.9
11/13/2002	610	310	120	0.4	31	0.59	2.6	7.8
12/4/2002	560	300	100	0.3	27	0.52	2.3	7.8
1/8/2003	320	190	37	0.1	23	0.95	4.2	7.5
2/26/2003	220	120	16	<0.1	15	0.39	1.7	7.7
3/12/2003	220	130	17	<0.1	14	0.30	1.3	8.0
4/16/2003	270	160	24	<0.1	21	0.34	1.5	8.0
5/14/2003	430	230	47	0.2	45	0.55	2.4	7.9
6/11/2003	170	100	13	<0.1	12	0.20	0.9	8.0
7/16/2003	200	130	20	<0.1	11	0.18	0.8	7.8
8/20/2003	220	130	24	0.1	11	0.11	0.5	8.0
10/1/2003	560	310	100	0.4	24	0.25	1.1	8.0
11/13/2003	540	290	100	0.4	26	0.41	1.8	7.7
12/17/2003	710	400	150	0.5	32	0.55	2.4	7.7
1/28/2004	240	160	22	0.1	16	0.64	2.8	NA
1/28/2004	240	160	22	0.1	16	0.64	2.8	NA
3/8/2004	270	190	25	0.1	26	0.93	4.1	NA
4/19/2004	250	140	20	0.1	19	0.32	1.4	NA
5/28/2004	360	220	42	0.2	36	0.55	2.4	NA
7/12/2004	330	190	52	0.2	16	0.23	1.0	NA

Appendix C-1. Delta Water Quality Monitoring Data

Date of Sample	SpCond (µmhos/cm)	TDS (mg/L)	Cl (mg/L)	Br (mg/L)	SO4 (mg/L)	NO ₃ @N (mg/L)	NO ₃ @NO ₃ (mg/L)	pH
8/25/2004	420	220	71	0.2	22	0.18	0.8	NA
10/13/2004	610	340	120	0.4	27	0.27	1.2	NA
11/16/2004	450	240	76	0.3	26	0.03	2.5	NA
12/14/2004	560	290	99	0.3	29	0.03	2.9	NA
1/19/2005	320	230	42	0.1	32	0.03	6.2	NA
3/1/2005	410	250	43	0.1	43	NA	4.8	NA
4/12/2005	420	240	54	0.2	54	0.03	3.7	NA
6/6/2005	250	150	29	0.1	29	0.03	2.1	NA

Date of Sample	SpCond (µmhos/cm)	TDS (mg/L)	Cl (mg/L)	Br (mg/L)	SO4 (mg/L)	NO ₃ @N (mg/L)	NO ₃ @NO ₃ (mg/L)	pH
10/15/2001	620	350	110	1.6	31	NA	NA	NA
11/7/2001	570	310	96	<1	35	NA	NA	NA
12/18/2001	530	290	92	0.3	27	3.50	NA	NA
1/8/2002	440	270	62	0.2	40	1.60	NA	NA
1/30/2002	270	190	22	0.1	19	0.72	NA	NA
2/27/2002	350	230	28	0.1	24	0.68	3.0	NA
3/20/2002	340	210	40	0.1	29	0.77	3.4	NA
4/17/2002	300	170	31	0.1	23	0.41	1.8	NA
6/12/2002	300	180	31	0.1	26	0.45	2.0	7.9
7/17/2002	330	180	51	0.2	17	0.25	1.1	8.0
8/14/2002	380	240	63	0.2	19	0.20	0.9	7.7
9/12/2002	670	330	134	0.4	29	<0.45	<2.0	7.1
10/9/2002	730	366	NA	0.4	NA	0.28	1.2	8.0
11/13/2002	610	310	120	0.4	31	0.59	2.6	7.8
12/4/2002	610	320	110	0.3	33	0.52	2.3	7.8
1/8/2003	320	200	40	0.1	24	0.95	4.2	7.6
2/26/2003	230	140	18	<0.1	16	0.43	1.9	7.7
3/12/2003	220	130	18	<0.1	15	0.30	1.3	8.1
4/16/2003	290	150	27	<0.1	23	0.41	1.8	8.0
5/14/2003	430	240	50	0.2	48	0.57	2.5	7.9
6/11/2003	210	120	17	<0.1	16	0.23	1.0	8.0
7/16/2003	200	140	20	<0.1	11	0.14	0.6	8.0
8/20/2003	230	130	28	0.1	12	0.09	0.4	7.9

Appendix C-1. Delta Water Quality Monitoring Data

Table 4 (continued)								
Regional Survey Grab Sample Data – Station #15 – Confluence of Old River and Victoria Canal at Widows Island								
Date of Sample	SpCond (µmhos/cm)	TDS (mg/L)	Cl (mg/L)	Br (mg/L)	SO4 (mg/L)	NO₃@N (mg/L)	NO₃@NO₃ (mg/L)	pH
10/1/2003	580	320	110	0.4	25	0.23	1.0	8.0
11/13/2003	540	290	100	0.4	26	0.41	1.8	7.7
12/17/2003	710	400	150	0.5	32	0.55	2.4	7.7
1/28/2004	270	170	26	0.1	20	0.64	2.8	NA
1/28/2004	270	170	26	0.1	20	0.64	2.8	NA
3/8/2004	300	210	30	0.1	29	1.09	4.8	NA
4/19/2004	260	140	22	0.1	20	0.36	1.6	NA
5/28/2004	400	240	48	0.2	42	0.61	2.7	NA
7/12/2004	330	190	52	0.2	16	0.25	1.1	NA
8/25/2004	380	200	64	0.2	18	0.14	0.6	NA
10/13/2004	450	250	72	0.3	28	0.50	2.2	NA
11/16/2004	460	250	86	0.4	28	0.03	2.6	NA
12/14/2004	490	260	76	0.3	29	0.03	3.3	NA
1/19/2005	78	250	52	0.2	37	0.04	6.5	NA
3/1/2005	430	260	46	0.1	46	NA	5.1	NA
4/12/2005	420	240	54	0.1	53	0.03	3.6	NA
6/6/2005	270	170	31	0.1	30	0.03	2.4	NA

Table 5								
Regional Survey Grab Sample Data – Station #18 – Middle River at Highway 4 Bridge								
Date of Sample	SpCond (µmhos/cm)	TDS (mg/L)	Cl (mg/L)	Br (mg/L)	SO4 (mg/L)	NO₃@N (mg/L)	NO₃@NO₃ (mg/L)	pH
10/15/2001	480	280	72	1.6	30	NA	NA	NA
11/7/2001	460	250	62	<1	37	NA	NA	NA
12/18/2001	340	230	57	0.2	24	4.00	NA	NA
1/8/2002	440	260	57	0.2	45	2.40	NA	NA
1/30/2002	280	200	25	0.1	21	0.85	NA	NA
2/27/2002	380	230	43	0.1	30	0.95	4.2	NA
3/20/2002	400	240	51	0.2	37	0.86	3.8	NA
4/17/2002	310	180	34	0.1	26	0.48	2.1	NA
6/12/2002	310	190	34	0.1	28	0.52	2.3	7.8
7/17/2002	240	140	26	<0.1	15	0.30	1.3	7.8
8/14/2002	400	210	46	0.2	16	0.20	0.9	7.8
9/12/2002	460	240	70	0.2	26	<0.45	<2.0	6.9
10/9/2002	520	271	NA	0.2	NA	0.73	3.2	7.8
11/13/2002	460	250	65	0.2	35	1.00	4.4	7.7
12/4/2002	400	230	55	0.2	24	0.64	2.8	7.7
1/8/2003	370	230	44	0.1	35	1.52	6.7	7.5
2/26/2003	250	140	21	<0.1	17	0.59	2.6	7.7

Appendix C-1. Delta Water Quality Monitoring Data

Date of Sample	SpCond (µmhos/cm)	TDS (mg/L)	Cl (mg/L)	Br (mg/L)	SO4 (mg/L)	NO ₃ @N (mg/L)	NO ₃ @NO ₃ (mg/L)	pH
3/12/2003	270	140	25	0.1	20	0.55	2.4	7.9
4/16/2003	300	170	31	0.1	27	0.52	2.3	8.1
5/14/2003	420	240	52	0.2	51	0.68	3.0	7.9
6/11/2003	180	120	15	<0.1	13	0.27	1.2	7.8
7/16/2003	180	110	15	<0.1	12	0.23	1.0	8.0
8/20/2003	190	110	16	<0.1	11	0.20	0.9	7.9
10/1/2003	400	230	55	0.2	25	0.57	2.5	8.0
11/13/2003	370	200	51	0.2	25	0.61	2.7	7.6
12/17/2003	480	270	79	0.3	29	0.91	4.0	7.6
1/28/2004	260	170	25	0.1	20	0.84	3.7	NA
1/28/2004	260	170	25	0.1	20	0.84	3.7	NA
3/8/2004	380	240	40	0.1	40	1.48	6.5	NA
4/19/2004	280	150	27	0.1	24	0.34	1.5	NA
5/28/2004	380	230	45	0.2	39	0.70	3.1	NA
7/12/2004	270	160	31	0.1	19	0.43	1.9	NA
8/25/2004	270	150	65	0.2	29	0.43	1.9	NA
10/13/2004	430	240	64	0.2	28	0.55	2.4	NA
11/16/2004	350	200	46	0.3	28	0.03	3.5	NA
12/14/2004	410	240	56	0.2	26	0.03	3.5	NA
1/19/2005	360	240	42	0.1	38	0.03	6.9	NA
3/1/2005	500	290	58	0.1	60	NA	6.4	NA
4/12/2005	390	230	49	0.1	49	0.03	3.5	NA
6/6/2005	190	130	23	0.1	22	0.03	1.7	NA

Data Collected 10/17/2005		
Constituent	Concentration	Units
Bromide	0.13	mg/L
Chloride	37.9	mg/L
Electrical Conductivity	322	µS/cm
Nitrate	3.2	mg/L
Nitrite as N	<30	ug/L
Ortho Phosphate	<0.2	mg/L
Specific conductance	310	umhos/cm
Sulfate	25.1	mg/L
Total Dissolved Solids	190	mg/L
Total Organic Carbon	2.0	mg/L

Appendix C-1. Delta Water Quality Monitoring Data

Tables 7 and 8 provide the Bromide data, and Tables 9 and 10 provide the TOC data from Exhibits 4.2-2 and 4.2-3 (presented in Section 4.2, “Delta Water Resources,” of the EIR/EIS), respectively.

Table 7												
Monthly Average Bromide (µg/L) at Rock Slough Intake												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1990										0.51		
1991					0.27	0.47		0.45	0.50	0.38	0.66	0.77
1992	0.46	0.45	0.10	0.08	0.17	0.62	0.68	0.74	0.71	0.71	0.64	0.72
1993	0.29	0.08	0.24	0.06	0.12	0.06	0.04	0.06	0.08	0.21	0.48	0.38
1994	0.21	0.16		0.12	0.15	0.19	0.46	0.51	0.72	0.35	0.52	0.57
1995	0.35	0.14	0.08	0.22	0.09	0.07	0.04	0.03	0.04	0.04	0.04	0.05
1996	0.08	0.12	0.34	0.18	0.18	0.08	0.03		0.11	0.12	0.30	0.41
1997	0.15		0.08	0.07	0.11	0.09	0.07	0.12	0.08		0.78	0.67
1998	0.52	0.38	0.39				0.06	0.05	0.03	0.04	0.04	0.09
1999	0.15	0.11		0.10	0.15	0.08	0.05	0.06		0.44		0.66
2000	0.77	0.12	0.35	0.09	0.10	0.06	0.05	0.07		0.34	0.43	
2001	0.60	0.50	0.30	0.08		0.11					0.58	0.45
2002	0.25	0.09		0.08	0.10	0.11	0.08	0.44	0.60	0.73	0.57	0.46
2003	0.57	0.46	0.17		0.08	0.08		0.15	0.22	0.38	0.43	0.48
2004	0.51	0.08	0.10	0.03	0.04	0.09	0.16	0.29	0.32	0.38	0.32	0.36
2005	0.47	0.11	0.20									

Source: Data from Municipal Water Quality Investigations (MWQI)

Table 8												
Monthly Average Bromide (µg/L) at Old River Intake												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1990							0.29	0.35	0.36	0.53	0.59	0.72
1991	0.58	0.74	0.55	0.15	0.25	0.44	0.39	0.37	0.48	0.32		0.58
1992	0.41		0.08	0.08	0.09	0.47	0.51	0.58	0.61	0.51		
1993	0.10	0.09	0.10	0.08	0.04			0.06	0.20			
1994	0.17			0.15		0.19	0.36				0.45	0.30
1995	0.12	0.08	0.05	0.11	0.05	0.07	0.06	0.04	0.04	0.06	0.05	0.06
1996	0.05	0.16	0.09	0.11	0.15		0.04	0.11	0.07	0.12	0.19	0.30
1997	0.02	0.04	0.05	0.07	0.12	0.09	0.08	0.10	0.06		0.46	0.54
1998	0.24	0.19	0.12	0.08	0.04	0.06	0.08	0.06	0.04	0.05	0.05	0.16
1999	0.20	0.16	0.10	0.08	0.12	0.07	0.06	0.07	0.18	0.29		0.68
2000	0.22	0.08	0.08	0.06	0.10	0.07	0.05	0.08	0.13	0.28	0.38	0.43
2001	0.54	0.18	0.12	0.08	0.12	0.11	0.12	0.34	0.55	0.49	0.38	0.35
2002	0.10	0.09	0.10	0.08	0.12	0.11	0.08	0.39	0.47	0.48	0.36	0.36
2003	0.10	0.05	0.05	0.07	0.11	0.06	0.04	0.10	0.11	0.41	0.38	0.43
2004	0.11	0.07	0.05	0.04	0.07	0.11	0.12	0.29	0.28	0.49	0.16	0.30
2005	0.50	0.11	0.15									

Source: Data from Municipal Water Quality Investigations (MWQI)

Appendix C-1. Delta Water Quality Monitoring Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1991	6.2	4.6	5.5	6.9					3.0			
1992		12.0						7.7	4.6	3.8	5.1	5.7
1993		9.0				3.5		2.8	2.9	2.1	2.7	4.3
1994	4.1		8.7	8.8	6.0	5.0	3.3	3.7	2.9	2.9	4.0	5.2
1995	5.3	11.0	11.0	8.4	5.4	2.5	5.7	3.6	7.7	3.0	2.8	3.0
1996	5.5	6.9	5.1	7.8	7.8	4.1		3.2	3.4		3.9	5.4
1997	6.5	7.6	2.3	2.0	7.3		2.2	3.3	4.2	3.0		
1998	7.8	11.0	8.6	6.4	3.6	2.5	3.1	2.7	3.8	2.2		3.5
1999	3.9	3.6	3.4	4.2	4.6	2.9	1.9	1.7	2.4	2.8	2.1	2.0
2000	1.7	5.5	3.5		3.7	3.2		2.0	3.0			2.9
2001	2.2	3.9			5.1	2.2	3.3	4.8		2.4	2.5	2.9
2002				3.5	3.3	3.5	2.3	3.4	4.2	3.2	2.4	2.8
2003	5.1	4.5	3.8	3.6	3.2	3.8	2.1	2.6	2.0	2.4	2.3	2.3
2004	3.7	3.8	4.7	3.0	3.5	2.1	2.8	2.5	3.1	2.3	2.3	2.6
2005	3.4	5.8	5.7	5.9	4.5	3.0	2.6	2.2	2.9	2.3		

Source: Data from CCWD

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1994							4.5	5.0	3.4	3.1	3.7	4.1
1995	6.8	12.0	7.5	6.2		3.7	4.3	4.2	3.3	3.8	3.7	3.7
1996	5.6	6.5	3.2	5.6	2.0	7.1	6.1	2.5	3.0		3.2	3.7
1997	4.4	4.0	2.4	2.1	2.4	1.1	2.1	3.0	3.8	3.6	5.9	12.0
1998	13.0	8.9	4.8	1.4	3.8	3.6	3.4	3.3	2.8	2.0		
1999	4.2	4.8	2.6	3.0	3.0	2.3	2.9	1.7	1.9	2.0	1.7	2.3
2000	2.6	5.9	5.6		3.4	3.1	2.0	1.8	2.2			2.6
2001	2.4	4.4			3.9	4.5	3.3	3.6	3.4	2.1	2.5	2.8
2002				4.3	3.7	3.4	2.0	2.0	2.0	2.5	2.2	2.8
2003	5.9	4.4	3.4	3.1	3.4	3.1	2.0	3.1	2.0	2.5	2.2	2.7
2004	4.4	4.3	5.2	2.7	3.6	2.4	2.3	2.5	2.6	2.4	3.1	3.0
2005	3.9	6.5	6.6	4.1	3.1	3.1	2.4	2.1	2.5	2.0		

Source: Data from CCWD

Appendix C-2
Water Resources Modeling Methodology Report

Appendix C-2

**Water Resources Modeling
Methodology Report**

for the

Alternative Intake Project EIR/EIS

Prepared By:

Contra Costa Water District

With Technical Assistance From:

EDAW
Carollo Engineers
Surface Water Resources, Inc.
Flow Science, Incorporated

January 2006

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1 Introduction

This report presents the methodology used for hydrologic, operations, hydrodynamic, and water quality modeling completed in support of Contra Costa Water District's (CCWD's) Alternative Intake Project Environmental Impact Report/Environmental Impact Statement (EIR/EIS). The EIR/EIS has been developed to comply with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). The purpose of the modeling effort was to identify potential impacts and understand the benefits of the Proposed Action and project alternatives on beneficial uses of water as determined by direct or indirect changes to surface water deliveries, water quality, and water surface elevation relative to existing and future baseline conditions. The simulations were performed using a set of established computer models that are described in this report. Assumptions used for the modeling studies and the interrelationships between models are also discussed. The set of EIR/EIS appendices covering water resources monitoring and modeling is as follows:

- ▶ Appendix C-1, CCWD Delta Water Quality Monitoring Data;
- ▶ Appendix C-2, Water Resources Modeling Methodology Report;
- ▶ Appendix C-3, CALSIM II Modeling Results;
- ▶ Appendix C-4, DSM2 Delta Modeling Results; and
- ▶ Appendix C-5, CCWD Operations Modeling Results.

Evaluation of the Alternative Intake Project required the use of hydrodynamic, water quality, and operational modeling. CALSIM II was used for overall Delta water supply operations, the Delta Simulation Model II (DSM2) for hydrodynamic and water quality modeling, and a linear programming optimizer model (Solver model) developed by Surface Water Resources, Inc. (SWRI) for CCWD operations. These models are described below in greater detail in Section 2.3 of this report.

The cornerstone of the modeling effort is a hydrologic planning model developed by the U.S. Department of Interior, Bureau of Reclamation (Reclamation) and the California Department of Water Resources (DWR) called CALSIM II. This model simulates operation of California's major water storage, conveyance, and diversion systems, specifically the Central Valley Project (CVP) and the State Water Project (SWP). The two CALSIM II runs ("Today" and "Future") used for the EIR/EIS are the ones that are being used by Reclamation and DWR for the CVP/SWP Operations Criteria and Plan (OCAP) with one exception: the Alternative Intake Project modeling analyses used the OCAP "Today" CALSIM II operation study that has been updated by Reclamation and SWRI under Reclamation's direction for the Sacramento Valley Water Management Program EIS/EIR to be consistent with the recent Federal court decision regarding Trinity River minimum flow requirements.

DWR's DSM2 was used to simulate Delta hydrodynamic conditions and salinity. CCWD operations were simulated using SWRI's Solver model. These models were the best and

Appendix C-2. Water Resources Modeling Methodology Report

most appropriate modeling tools available at the time this work was performed. The CALSIM II and DSM2 models are being used in other environmental impact assessments currently underway to provide a common framework for analyzing changes to water supply and water quality conditions throughout the Bay-Delta system. The SWRI Solver model is based on a CCWD operational model that has been used by CCWD for a number of years in its planning.

The modeling for the Alternative Intake Project EIR/EIS was performed by a team of modeling experts that included CCWD, SWRI, and Flow Science Incorporated (FSI) in the following roles. EDAW, Inc. (EDAW) compiled the report and incorporated the results into the EIR/EIS.

Team	Responsibilities
CCWD	Review and analysis of CALSIM II, DSM2, and Solver model results
SWRI	CALSIM II, DSM2, and Solver modeling for EIR/EIS
FSI	DSM2 verification study
EDAW	Report compilation

2 Modeling Methodology

2.1 Background

The Alternative Intake Project EIR/EIS assesses potential impacts on a wide variety of environmental factors. Due to the complexity and integration of water supply and quality considerations in the Delta, and their ramifications on target fish populations, appropriate hydrologic and water quality models are important tools for quantifying the potential effects of the Alternative Intake Project. Assessment of the Alternative Intake Project requires simulation of three key interrelated systems: the statewide Federal CVP and SWP operations, the Sacramento-San Joaquin Delta, and CCWD's local operations. Separate simulation tools are available for each of these systems, and the information produced from each tool can be coordinated to produce evaluations of how an alternative intake could be operated, the benefits produced, and the potential effects on CVP-SWP project operations; Delta agricultural operations; and, in conjunction with fisheries analysis tools, special-status Delta fishes. The water resources modeling was designed specifically to:

- ▶ quantify potential effects on water supplies for other water users (particularly CVP and SWP);
- ▶ quantify water quality and water level impacts on other water users (particularly CVP, SWP, and Delta agricultural users);
- ▶ quantify water quality benefits to CCWD; and
- ▶ provide input to the fisheries model so that impacts and benefits to key Delta fish species could be quantitatively assessed.

2.2 Modeling Scenarios

Several modeling scenarios were evaluated for the Alternative Intake Project EIR/EIS:

- ▶ Alternative 1, Direct Pipeline Alternative (Proposed Action) and Alternative 2, Indirect Pipeline Alternative.

Alternative intake on Victoria Canal with a capacity of 250 cubic feet per second (cfs) that ties into the existing 250-cfs Old River conveyance system¹. CCWD total

¹ In the future case, capacity at Old River Pump Station was assumed to increase to 320 cfs, consistent with the CCWD Future Water Supply Implementation (Contra Costa Water District 1998)

Appendix C-2. Water Resources Modeling Methodology Report

combined permitted capacity from the Rock Slough, Old River, and Alternative intakes remains 600 cfs.

► **Alternative 3, Modified Operations Alternative.**

A 250-cfs alternative intake on Victoria Canal that ties into the existing Old River conveyance system with immediate operational and water rights modifications to allow a combined diversion capacity of 320 cfs using the proposed alternative intake and the Old River intake together. CCWD total combined permitted capacity from the Rock Slough, Old River, and Alternative intakes remains 600 cfs. Under future conditions, this Alternative is operated in the same manner as Alternative 1.

► **Alternative 4, Desalination Alternative.**

Desalination facility with intake at Mallard Slough serving a portion of CCWD system demands and offsetting some demands on Los Vaqueros Project facilities.

Alternative 2, Indirect Pipeline Alternative, has identical operations as Alternative 1 and would result in the same operations-related impacts and benefits.

Model assumptions addressing reasonably foreseeable or other future projects are not currently available to conduct a full cumulative impacts modeling study. Cumulative impacts were evaluated both qualitatively and quantitatively in the EIR/EIS where information was available.

Alternatives 1, 3, and 4 were evaluated against two baselines, represented by Reclamation and DWR OCAP CALSIM II studies. The existing conditions baseline was represented using the OCAP “Today” study through the Environmental Water Account (EWA) step, with the updated Trinity River minimum flow requirements. The No-Action baseline was represented by the OCAP “Future” study through the EWA step. CALSIM II modeling assumptions are presented in Table 1.

Table 1 OCAP CALSIM II Modeling Assumptions Used for the Alternative Intake Project		
	Existing Conditions Study 3a Today CVPIA 3406 (b)(2) with EWA	Future No-Action Conditions Study 5 Future 3406 (b)(2) and SDIP with EWA
Period of Simulation	73 years (1922–1994)	Same
HYDROLOGY		
Level of Development (Land Use)	2001 Level, DWR Bulletin 160-98 ^a	2020 Level, DWR Bulletin 160-98
Demands		
North of Delta (exc. American R)		
CVP	Land Use based, limited by Full Contract	Same
SWP (FRSA)	Land Use based, limited by Full Contract	Same
Non-Project	Land Use based	Same

Appendix C-2. Water Resources Modeling Methodology Report

Table 1 (continued)		
OCAP CALSIM II Modeling Assumptions Used for the Alternative Intake Project		
Existing Conditions Study 3a	Future No-Action Conditions Study 5	
Today CVPIA 3406 (b)(2) with EWA	Future 3406 (b)(2) and SDIP with EWA	Same
<u>American River Basin</u>		
Water rights	2001 ^b	2020, as projected by Water Forum Analysis ^c
CVP	2001 ^b	2020, as projected by Water Forum Analysis ^d
<u>San Joaquin River Basin</u>		
Friant Unit	Regression of historical	Same
Lower Basin	Fixed annual demands	Same
Stanslaus River Basin	New Melones Interim Operations Plan	Same
<u>South of Delta</u>		
CVP	Full Contract	Same
CCWD	124,000 af/yr ^e	158,000 af/yr ^a
SWP (w/ North Bay Aqueduct)	3.0-4.1 MAF/yr	3.3-4.1 MAF/yr
SWP Article 21 Demand	MWDSC up to 50,000 af/month, Dec-Mar, others up to 84,000 af/month	Same
FACILITIES		
Freeport Regional Water Project	None	Included ^f
Banks Pumping Capacity	6,680 cfs	8,500 cfs
Tracy Pumping Capacity	4,200 cfs + deliveries upstream of DMC constriction	4,600 cfs with intertie
OPERATIONS CONSTRAINTS AND CRITERIA		
<u>Trinity River</u>		
Minimum Flow below Lewiston Dam	Trinity EIS Preferred Alternative (368,600-815,000 af/yr)	Same
Trinity Reservoir End-of-September Minimum Storage	Trinity export-to-inflows Preferred Alternative (600,000 af as able)	Same
<u>Clear Creek</u>		
Minimum Flow below Whiskeytown Dam	Downstream water rights, 1963 USBR Proposal to FWS and NPS, and FWS use of CVPIA 3406(b)(2) water	Same
<u>Upper Sacramento River</u>		
Shasta Lake End-of-September Minimum Storage	SWRCB WR 1993 Winter-run Biological Opinion (1.9 Million af)	Same

Appendix C-2. Water Resources Modeling Methodology Report

Table 1 (continued)		
OCAP CALSIM II Modeling Assumptions Used for the Alternative Intake Project		
	Existing Conditions Study 3a	Future No-Action Conditions Study 5
	Today CVPIA 3406 (b)(2) with EWA	Future 3406 (b)(2) and SDIP with EWA
Minimum Flow below Keswick Dam	Flows for SWRCB WR 90-5 and 1993 Winter-run Biological Opinion temperature control, and FWS use of CVPIA 3406(b)(2) water	Same
<u>Feather River</u>		
Minimum Flow below Thermalito Diversion Dam	1983 DWR, DFG Agreement (600 CFS)	Same
Minimum Flow below Thermalito Afterbay outlet	1983 DWR, DFG Agreement (1000 – 1700 CFS)	Same
<u>American River</u>		
Minimum Flow below Nimbus Dam	SWRCB D-893 (see accompanying Operations Criteria), and FWS use of CVPIA 3406(b)(2) water	Same
Minimum Flow at H Street Bridge	SWRCB D-893	Same
<u>Lower Sacramento River</u>		
Minimum Flow near Rio Vista	SWRCB D-1641	Same
<u>Mokelumne River</u>		
Minimum Flow below Camanche Dam	FERC 2916-029, 1996 (Joint Settlement Agreement) (100 – 325 CFS)	Same
Minimum Flow below Woodbridge Diversion Dam	FERC 2916-029, 1996 (Joint Settlement Agreement) (25 – 300 CFS)	Same
<u>Stanislaus River</u>		
Minimum Flow below Goodwin Dam	1987 USBR, DFG agreement , and FWS use of CVPIA 3406(b)(2) water	Same
Minimum Dissolved Oxygen	SWRCB D-1422	Same
<u>Merced River</u>		
Minimum Flow below Crocker-Huffman Diversion Dam	Davis-Grunsky (180 – 220 CFS, Nov – Mar), and Cowell Agreement	Same
Minimum Flow at Shaffer Bridge	FERC 2179 (25 – 100 CFS)	Same
<u>Tuolumne River</u>		
Minimum Flow at La Grange Bridge	FERC 2299-024, 1995 (Settlement Agreement) (94,000 – 301,000 af/yr)	Same
<u>San Joaquin River</u>		
Maximum Salinity near Vernalis	SWRCB D-1641	Same

Appendix C-2. Water Resources Modeling Methodology Report

Table 1 (continued)		
OCAP CALSIM II Modeling Assumptions Used for the Alternative Intake Project		
	Existing Conditions Study 3a	Future No-Action Conditions Study 5
	Today CVPIA 3406 (b)(2) with EWA	Future 3406 (b)(2) and SDIP with EWA
Minimum Flow near Vernalis	SWRCB D-1641, and Vernalis Adaptive Management Program per San Joaquin River Agreement	Same
<u>Sacramento River-San Joaquin River Delta</u>		
Delta Outflow Index (Flow and Salinity)	SWRCB D-1641	Same
Delta Cross Channel Gate Operation	SWRCB D-1641	Same
Delta Exports	SWRCB D-1641, FWS use of CVPIA 3406(b)(2) water and CALFED Fisheries Agencies use of EWA assets	Same
<u>Upper Sacramento River</u>		
Flow Objective for Navigation (Wilkins Slough)	Discretionary 3,250 – 5,000 cfs based on Lake Shasta storage condition	Same
<u>American River</u>		
Folsom Dam Flood Control	SAFCA, Interim Reoperation of Folsom Dam, Variable 400/670 (without outlet modifications)	Same
<u>Feather River</u>		
Flow at Mouth	Maintain the DFG/DWR flow target above Verona or 2,800 cfs for Apr–Sep, dependent on Oroville inflow and FRSA allocation	Same
<u>Stanislaus River</u>		
Flow below Goodwin Dam	1997 New Melones Interim Operations Plan	Same
<u>San Joaquin River</u>		
Flow near Vernalis	San Joaquin River Agreement in support of the Vernalis Adaptive Management Program	Same
<u>System-wide</u>		
<u>CVP Water Allocation</u>		
CVP Settlement and Exchange	100% (75% in Shasta Critical years)	Same
CVP Refuges	100% (75% in Shasta Critical years)	Same
CVP Agriculture	100% - 0% based on supply	Same
CVP Municipal & Industrial	100% - 50% based on supply	Same
<u>SWP Water Allocation</u>		
North of Delta (FRSA)	Contract specific	Same
South of Delta	Based on supply; Monterey Agreement	Same

Appendix C-2. Water Resources Modeling Methodology Report

Table 1 (continued)		
OCAP CALSIM II Modeling Assumptions Used for the Alternative Intake Project		
	Existing Conditions Study 3a	Future No-Action Conditions Study 5
	Today CVPIA 3406 (b)(2) with EWA	Future 3406 (b)(2) and SDIP with EWA
<u>CVP/SWP Coordinated Operations</u>		
Sharing of Responsibility for In-Basin-Use	1986 Coordinated Operations Agreement	Same
Sharing of Surplus Flows	1986 Coordinated Operations Agreement	Same
Sharing of Restricted Export Capacity	Equal sharing of export capacity under SWRCB D-1641; use of CVPIA 3406(b)(2) only restricts CVP exports; EWA use restricts CVP and/or SWP exports as directed by CALFED Fisheries Agencies	Same
<u>TRANSFERS</u>		
Dry Year Program	None	Same
Phase 8	None	Same
Water Forum Analyses Water transfers/Mitigation Water	None	Water Forum Analyses (up to 47,000 af/yr in dry years) [§]
MWDSC/CVP Settlement Contractors	None	Same
<u>CVP/SWP INTEGRATION</u>		
Dedicated Conveyance at Banks	None	SWP to convey 100,000 af of Level 2 refuge water each year at Banks PP.
NOD Accounting Adjustments	None	CVP to provide the SWP a max of 75,000 af of water to meet in-basin requirements through adjustments in COA accounting.
<u>CVPIA 3406(b)(2)</u>		
Allocation	Dept of Interior 2003 Decision	Same
	800,000 af/yr, 700,000 af/yr in 40-30-30 Dry Years, and 600,000 af/yr in 40-30-30 Critical Years	Same
Actions	1995 WQCP, Fish flow objectives (Oct-Jan), VAMP (Apr 15- May 16) CVP export restriction, 3,000 CFS CVP export limit in May and June (D1485 Striped Bass continuation), Post (May 16-31) VAMP CVP export restriction, Ramping of CVP export (Jun), Upstream Releases (Feb-Sep)	Same
Accounting Adjustments	Per May 2003 Interior Decision, no limit on responsibility for D1641 requirements, no Reset with the Storage metric, and no Offset with the Release and Export metrics	Same

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Table 1 (continued)		
OCAP CALSIM II Modeling Assumptions Used for the Alternative Intake Project		
	Existing Conditions Study 3a	Future No-Action Conditions Study 5
	Today CVPIA 3406 (b)(2) with EWA	Future 3406 (b)(2) and SDIP with EWA
<u>CALFED Environmental Water Account</u>	Modeled	Same
Actions	Dec-Feb reduce total exports by 50,000 af/month relative to total exports without EWA; VAMP (Apr 15 - May 16) export restriction on SWP; Post (May 16-31) VAMP export restriction on SWP and potentially on CVP if B2 Post-VAMP action is not taken; Ramping of exports (Jun)	Same
Assets	Fixed Water Purchases 250,000 af/yr, 230,000 af/yr in 40-30-30 Dry Years, 210,000 af/yr in 40-30-30 Critical Years. The purchases range from 0 af in Wet Years to approximately 153,000 af in Critical Years NOD, and 57,000 af in Critical Years to 250,000 af in Wet Years SOD. Variable assets include the following: used of 50% JPOD export capacity, acquisition of 50% of any CVPIA 3406(b)(2) releases pumped by SWP, flexing of Delta E/I Ratio (post-processed from CALSIM II results), dedicated 500 cfs pumping capacity at Banks in Jul – Sep	Same
Debt restrictions	Delivery debt paid back in full upon assessment; Storage debt paid back over time based on asset/action priorities; SOD and NOD debt carryover is allowed; SOD debt carryover is explicitly managed or spilled; NOD debt carryover must be spilled; SOD and NOD asset carryover is allowed.	Same
<p>^a 2000 Level of Development defined by linearly interpolated values from the 1995 Level of Development and 2020 Level of Development from DWR Bulletin 160-98.</p> <p>^b Presented in attached Table 8-4 -2001 American River Demands (Note that cuts are not predicated on Inflow for the 2001 Demands).</p> <p>^c Presented in attached Table 8-5 -2020 American River Demands.</p> <p>^d Presented in attached Table 8-4 -2001 American River Demands, but modified with PCWA 35 TAF CVP contract supply diverted at the new American River PCWA Pump Station.</p> <p>^e Delta diversions include operations of Los Vaqueros Reservoir and represents average annual diversion.</p> <p>^f Includes modified EBMUD operations of the Mokelumne River.</p> <p>^g This is implemented only in the PCWA Middle Fork Project releases used in defining the CALSIM II inflows to Folsom Lake.</p>		

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2.3 Model Applications

CALSIM II, DSM2, and the Solver models are state-of-the-art planning models that provide insight on project and environmental effects resulting from operational alternatives. Each model is briefly described in the following three sections. These three modeling tools were used in coordination to conduct the analysis. Modeling assumptions used for each model are discussed in Section 2.4 and the study process is described in Section 2.5.

2.3.1 CALSIM II

CALSIM II is Reclamation's and DWR's primary operations and planning model for CVP and SWP operations. The model simulates CVP and SWP system operations and the hydrologic effects of those operations within the geographical area affected by CVP and SWP facilities, including the Delta. Major Central Valley rivers, reservoirs, and CVP and SWP facilities are represented by a network of arcs and nodes.

CALSIM II uses a mass balance approach for the movement of water, and a linear optimizer to determine operations under hydrological, operational, and regulatory constraints. The model uses a monthly time step, so flows are specified as mean monthly flows, and reservoir storage volumes are specified as end-of-month storage.

CALSIM II simulates monthly CVP and SWP operations, which includes the following key water storage and pumping facilities:

- ▶ Trinity, Lewiston, Whiskeytown, and Shasta/Keswick reservoirs (CVP);
- ▶ Spring Creek and Clear Creek tunnels (CVP);
- ▶ Lake Oroville (SWP);
- ▶ Folsom Reservoir and Lake Natoma (CVP);
- ▶ New Melones Reservoir (CVP);
- ▶ Millerton Lake (CVP);
- ▶ Tracy (CVP), Contra Costa (CVP), and Banks (SWP) pumping plants;
- ▶ San Luis Reservoir (shared by CVP and SWP); and
- ▶ East Branch and West Branch SWP reservoirs.

The following CVP/SWP conveyance facilities are also simulated:

- ▶ Tehama-Colusa Canal,
- ▶ Corning Canal,
- ▶ Folsom-South Canal,
- ▶ Delta-Mendota Canal, and
- ▶ California Aqueduct.

Other non-SWP/CVP systems tributary to the Delta also are modeled in CALSIM II, including:

- ▶ New Don Pedro Reservoir,
- ▶ Lake McClure, and

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► Eastman and Hensley Lakes.

The model simulates one month of operation at a time, sequentially from one month to the next, and from one year to the next. Each decision that the model makes regarding streamflow regulation is the result of defined operational requirements and constraints (e.g., flood control storage limitations, minimum instream flow requirements, Delta outflow requirements, and diversion assumptions) or operational rules (e.g., preference among reservoirs for releasing water). To calculate the regulatory and operational requirements that govern state-wide operations, CALSIM II performs five linked studies: D-1485, D-1641, B(2), JPOD, and EWA. These are run in sequence, with output from each study used as input for the next successive study. Ultimately, the model outputs monthly operations over the simulation period including reservoir storage levels, Delta outflow, and SWP and CVP exports.

Additional information on the CALSIM II model and documentation is publicly available from the web site of the DWR Bay-Delta Office, Modeling Support Branch. A detailed discussion of the model and its assumptions is provided at this site: <http://modeling.water.ca.gov/hydro/model/index.html>.

2.3.2 DSM2

DSM2 is the Delta hydrodynamic and salinity model currently used by DWR. The model simulates hydrodynamic and mixing processes in the Delta, using upstream river flows and salinities, downstream tidal stage and salinity, diversion rates, and agricultural return flow and seepage rates and salinities as boundary conditions. It is a valuable tool for analyzing the potential water quality and water level effects of the Alternative Intake Project alternatives.

The hydrodynamic module simulates the channel flows, velocities, and water surface elevations in the Bay-Delta estuary. The hydrodynamics are then used as input into the two other modules, which can be used to determine the movement of constituents. The water quality module calculates and outputs the concentrations of conservative constituents (usually salinity) resulting from different source water qualities and from the mixing caused by water movement throughout the system. The particle-tracking module can be used to track salinity in the form of salt particle movement but was not employed as part of the Alternative Intake Project analyses.

Prior to using DSM2 for analysis of the Alternative Intake Project, DSM2 model results were compared with measured data to understand the limitations of the model in the project area. FSI evaluated the calibration of DSM2 by simulating water years 2002 (a dry year) and 2003 (an above normal year) and comparing model results of flow, stage, and salinity to measurement data recorded at stations throughout the Delta. In addition, model output salinity was also compared to salinity data collected in the project area of interest (Victoria Canal and Old River) beginning in October 2004. The study found that the hydrodynamics component of DSM2 (flow and stage) appears to be well calibrated and agrees well with measured data. The salt transport component of DSM2 was found to be reasonably well calibrated, although there were some differences within the project area. Specifically, at CCWD's existing Old River Intake, the model does well in

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predicting lower salinities and the occurrences of higher salinity periods, but tends to under-predict the peaks of the high salinity events. In Victoria Canal, the model performed well, with an average error of less than 3%. The study concluded that DSM2 does not require changes to the calibration to be used to evaluate the Alternative Intake Project, particularly if any bias or systemic differences between measured and modeled data are considered during the evaluation process. DSM2's existing calibration was used for the Alternative Intake Project analysis without modification (Contra Costa Water District 2005).

Additional information on DSM2 model and documentation is publicly available from the web site of the DWR Bay-Delta Office, Modeling Support Branch. A detailed discussion of the model and its assumptions is provided at this site: <http://modeling.water.ca.gov/delta/models/dsm2/documentation.html>.

2.3.3 Solver Model

The Solver model was developed by SWRI as a linear programming optimization model to simulate CCWD operations, including the timing, amount, and location of CCWD diversions from the Delta; input and withdrawal from Los Vaqueros Reservoir; and water quality delivered to customers. CALSIM II and DSM2 outputs are used as Solver model input, and Solver model outputs can be used as DSM2 inputs. A schematic for the Solver model is shown in Exhibit 1. The model simulates operations of the facilities shown in the schematic based on physical and regulatory constraints operation rules.

The model simulated the performance of assumed scenarios using a linear optimization routine to determine operations that result in the delivery of high-quality water to CCWD's customers, subject to physical, operational, and regulatory constraints.

The Solver model utilized water quality input from DSM2, Delta conditions input from CALSIM II along with CCWD's operational rules to develop monthly operations which maximized the delivery of high-quality water. Using monthly CCWD demand data, the model determined which intakes would be used for diversions based on water quality and physical capacity. When high-quality water was available, the model used excess capacity within the system to fill the Los Vaqueros Reservoir. When chloride concentrations of the available water at the intakes exceeded CCWD's chloride delivery goal of 65 parts per million (ppm), high-quality water was released from Los Vaqueros and blended with the lower quality diversions to meet the goal. The Solver model provides monthly operational data in a manner consistent with CCWD's water quality goals and the Los Vaqueros Project Biological Opinion.

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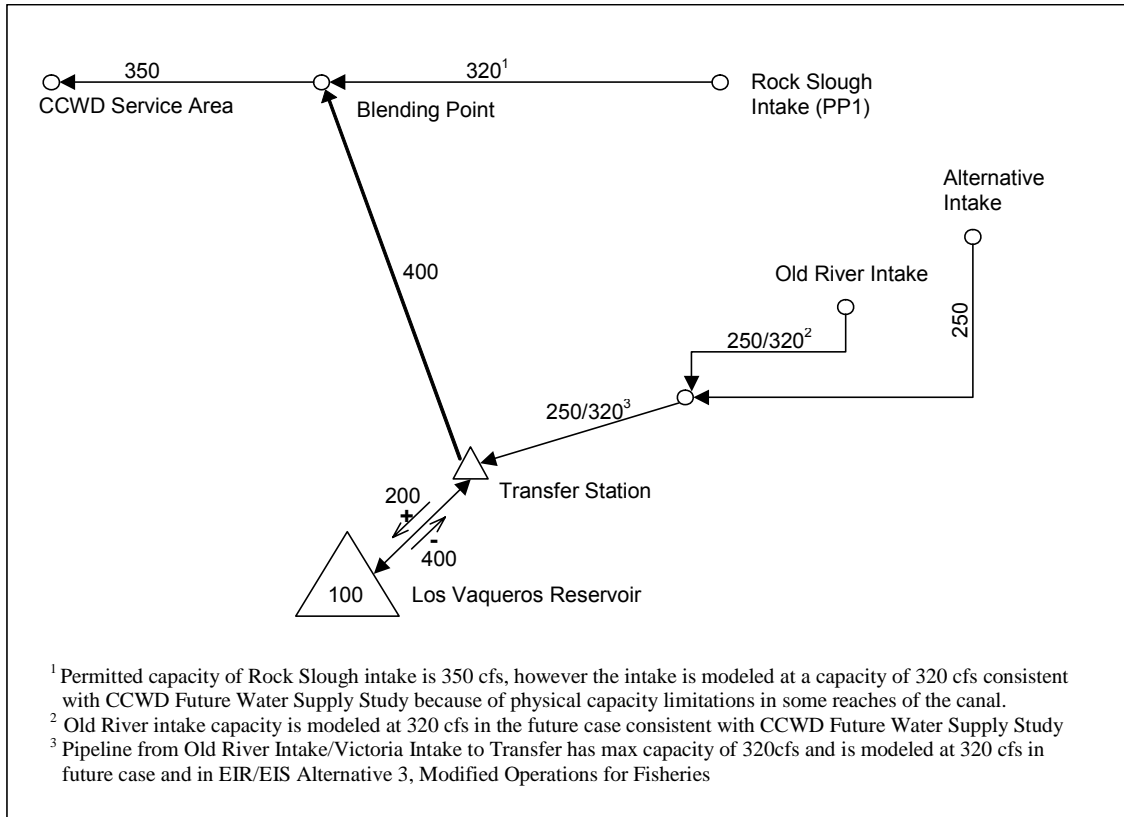


Exhibit 1. Alternative Intake Project Solver Model Schematic (Modeled intake and pipeline conveyance capacities shown in cfs, Los Vaqueros Reservoir Capacity shown in TAF).

2.4 Modeling Assumptions

The assumptions incorporated into the three models discussed above are described below.

2.4.1 CALSIM II

The CALSIM II OCAP studies completed by DWR and Reclamation for the CVP/SWP delta smelt, winter and spring-run Chinook salmon, and steelhead trout Biological Opinions were used as operational representations of the base conditions for the EIR/EIS. The CALSIM II OCAP modeling assumptions used for the Alternative Intake Project are presented in Table 1 at the end of this report.

The existing condition baseline is an updated OCAP CALSIM II study done by Reclamation. The update was required to change the Trinity River minimum flow requirements below Lewiston Dam from the variable flow requirement of 369–453 thousand acre-feet per year (TAF/Year) in the OCAP “Today” CALSIM II run to the variable flow requirement of 369–815 TAF/Year. This change was the result of a 2005 Federal court decision that set the Trinity River minimum flow requirements at 369-815 TAF/Year.

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The OCAP “Future” CALSIM II study was used as the No-Action baseline. The benefits and impacts of each alternative analyzed were calculated against each of these baselines.

Each of these CALSIM II studies included a simulation of the CALFED EWA operation.

There are few differences between assumptions for the OCAP “Today” study (study 3a) used as the existing condition CEQA baseline and the OCAP “Future” study (study 5) used as the No-Action NEPA baseline. The following differences are important to the Alternative Intake Project studies:

- ▶ level of development is 2020 projected versus the 2001 level;
- ▶ American River Basin demand for 2020 is increased to the Sacramento Water Forum 2020 projection;
- ▶ CCWD demand is increased from 124 TAF to 158 TAF;
- ▶ the Freeport Project is part of the No-Action (2020) baseline;
- ▶ the Banks Pumping Plant allowable export capacity is increased to 8,500 cfs in the No-Action baseline;
- ▶ the Delta Mendota Canal – California Aqueduct intertie increases the CVP export capacity to 4,600 cfs year round; and
- ▶ in the No-Action baseline (2020), the CVP is provided 100 TAF of SWP export capacity during July and August in exchange for a variable amount of “usable” CVP stored water being supplied to the SWP.

Detailed CALSIM II modeling assumptions are presented in Table 1. CALSIM II modeling results were used as inputs to the DSM2 and the SOLVER model.

2.4.2 DSM2

CALSIM II and the Alternative Intake Project operations modeling use a 73-year hydrologic period. In the 73-year DSM2 runs used as input to the Solver model, the downstream tidal boundary condition at Martinez was specified as the 19-year mean tide, repeated for each tidal cycle.

DSM2 runs with DWR’s calculation of the modified astronomical tide at the Martinez boundary were used for water quality and water level impacts analysis. These runs were limited to water years 1976 through 1991, since that is the extent of the available modified astronomical tide record. Use of 16 year DSM2 runs with this boundary condition is consistent with the modeling being done for other Delta projects.

DSM2 modeling of existing conditions included temporary barriers in the south Delta at the head of Old River, Grant Line Canal, Old River at Tracy Road Bridge, and Middle River at Old River in both the 16-year impact evaluation and the 73-year benefits evaluation. DSM2 modeling of future conditions used the proposed South Delta

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Improvements Plan permanent barriers at the same locations, the “Plan C” permanent barrier operations were used in the 16-year impacts evaluation, and the “Plan B” permanent barrier operations were used for the 73-year benefits evaluation. The use of the “Plan C” barrier operations and a 16-year impacts analysis was consistent with other projects currently being developed and caused only minimal differences from the use of “Plan B” barrier operations.

The DSM2 modeling includes the CALFED Old River Water Quality Improvement Project and the CALFED Rock Slough Water Quality Improvement Project as part of the future No-Action conditions.

2.4.3 SOLVER Model

The Solver model was run for a 73-year period with the following assumptions:

- ▶ Los Vaqueros Biological Opinion-Based Assumptions
 - No-fill period from March 15 through May 31
 - No-fill period not required when Los Vaqueros is below emergency storage levels
 - No-diversion period for all of April
 - No-diversion period not required when Los Vaqueros is at or below emergency storage
- ▶ Los Vaqueros Filling Criterion
 - Los Vaqueros filled with available water when Los Vaqueros chloride levels can be kept at or below 50 ppm²
- ▶ Los Vaqueros Withdrawal Criteria (not including dead storage)
 - Minimum emergency storage in wet, above normal, and below normal years = 70 TAF
 - Minimum emergency storage in dry and critical years = 44 TAF
- ▶ CCWD Delivery Goal
 - Delivered water quality goal = 65 ppm chloride
- ▶ CCWD Facilities
 - Rock Slough maximum diversion = 320 cfs³
 - Old River maximum diversion = 250 cfs (existing case) and 320 cfs (future case⁴)
 - Maximum Los Vaqueros fill rate = 200 cfs

² A more stringent fill criterion of 40 ppm was used in modeling runs with the alternative intake because the availability of higher quality water at intakes enabled more restrictive fill criteria and resulted in improved project performance. CCWD’s delivered water quality goal of 65 ppm chlorides was used in all cases.

³ Permitted capacity of Rock Slough intake is 350 cfs; however, the intake is modeled at a capacity of 320 cfs consistent with CCWD Future Water Supply Study because of physical capacity limitations in some reaches of the canal.

⁴ Consistent with CCWD Future Water Supply Implementation EIR (Contra Costa Water District 1998).

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- Maximum Los Vaqueros withdrawal rate = 400 cfs
 - Maximum Los Vaqueros storage = 100,000 AF
 - Intertie with EBMUD Freeport Project = 3.2 TAF/yr (future case)
- ▶ CCWD Demand Input
- CCWD base existing demands were from CCWD’s 1996 Future Water Supply Study (Contra Costa Water District 1996) and Future Water Supply Update (2002). The demand varied from 149,000 AF in critical water years to 111,000 AF in wet water years. Monthly distribution was based on historical data taking into account climate conditions. CCWD demands were reduced from the base demand to account for use of local supplies (City of Antioch, Mallard Slough, industrial diversions, recycled water, and rainfall in the service area for all water-year types). The adjusted demands were used in the SWRI Solver model.
 - The existing demands were adjusted for the future study to reflect increases in municipal and industrial demands. The future water-year demand is 176,900 AF in critical years and 139,900 AF in wet years.

2.5 Model Coordination Process

This section describes the model coordination process used for analysis of the alternatives. The general sequence of the process is shown in Exhibit 2.

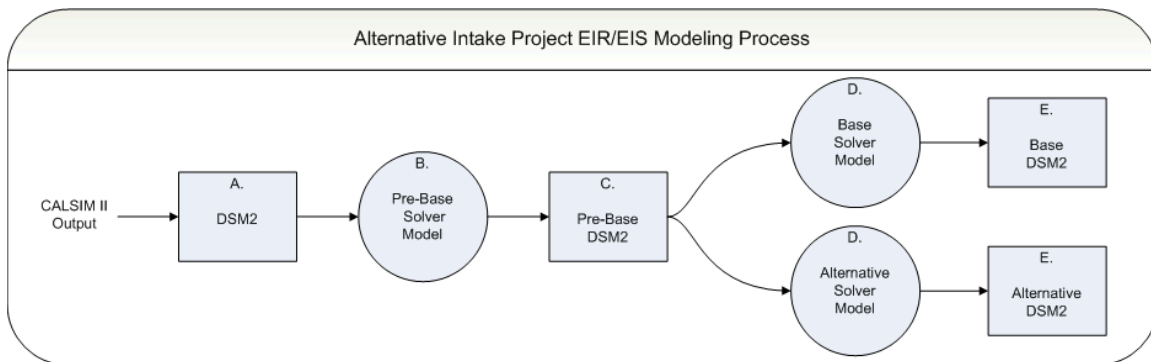


Exhibit 2. Alternative Intake Project EIR/EIS Operations Modeling Process

The series of models was run twice for each alternative, once for existing conditions and once for future conditions. Steps in the model process were as follows:

- A. First, a 73-year DSM2 run using CALSIM II OCAP output was done. In this run, all CCWD diversions calculated in CALSIM II were combined at Rock Slough for a first approximation.⁵

⁵ CALSIM II uses a single point of diversion for CCWD. CCWD diversions are split among intakes subsequently for the DSM2 runs based on operational modeling. The location (Rock Slough or Old River) has no effect on CALSIM II. That model is indifferent on its input as to location.

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- B. The base Solver model was run, with intake water quality from the first DSM2 runs and surplus Delta outflow from the OCAP CALSIM II runs. The base Solver model includes the existing Los Vaqueros Project (i.e., without an alternative intake). This run produced a better approximation of CCWD's operations than the CALSIM II run, with diversions split between the Rock Slough and Old River intakes. CALSIM II results for Sacramento River inflow and surplus Delta outflow were then adjusted to account for the changes in CCWD's operations, as follows: when there was a change in CCWD's total diversions under balanced conditions in the Delta, Sacramento River inflow was adjusted by the same amount. The adjustments were assumed to be due to changes in releases from upstream CVP storage (Shasta Reservoir). When there was a change in CCWD's total diversions under excess Delta conditions, CALSIM II's surplus Delta outflow was adjusted by the same amount. No change in releases from upstream storage was assumed under excess conditions, as would normally occur in real operations.
- C. The 73-year DSM2 run was then rerun with the new diversions calculated by the Solver model at the Rock Slough and Old River intakes, and with the postprocessed CALSIM II values for Sacramento inflow and surplus Delta outflow. This iteration improved the estimates of Delta water quality by better incorporating the effects of CCWD's operations. Although, the changes were generally small to zero because CCWD's diversions are a small fraction of inflow.
- D. The Solver model was rerun, using the new DSM2 intake water quality results from step C and the surplus Delta outflow values from step B. Both base case and project alternatives cases were run, with an additional intake added to the Solver model for Alternatives 1 and 3. Results were used for evaluation of project benefits. Values for surplus Delta outflow and Sacramento River inflow to the Delta were postprocessed as in step B.
- E. Sixteen-year DSM2 runs, with the modified astronomical tide Martinez boundary condition, were performed for the base and with-project cases, using CCWD operational output from step D. DSM2 results were used for assessing Delta water level, flow, and water quality effects of the project.

Two independent approaches were tested to evaluate the effects on water supply: 1) additional CALSIM II runs incorporating the changes in CCWD diversion patterns, and 2) post-processing of the CALSIM base run to incorporate changes in CCWD diversion patterns. After examining the results from both approaches for the Proposed Action, the post-processing approach was used to evaluate the remainder of the alternatives in existing and future conditions because it was found to provide more realistic estimates of the effects of the alternatives on CVP and SWP water supply. Details on the two approaches are provided in the following section.

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2.6 Water Supply Modeling Approaches

The potential impacts on CVP or SWP water supply due to changes in CCWD operations were evaluated using a combination of CALSIM II and CCWD operational modeling. Two approaches were evaluated:

- ▶ CALSIM II re-run incorporating the changes in CCWD diversion patterns, and
- ▶ post-processing of the CALSIM base run to incorporate changes in CCWD diversion patterns.

CALSIM II is an efficient tool for evaluating the complex network of California water supply projects, but it uses relatively coarse logic that can occasionally cause unrealistic operational decisions in response to relatively minor changes in inputs. For large-scale projects, this is of little importance; for a smaller project such as the Proposed Action, the model decisions can result in improbable effects. The post-processing approach was developed as a way to isolate the effects of relatively small-scale changes in CCWD diversions between alternatives and avoid instances where CALSIM II does not adequately model state-wide operational responses to those small changes.

The results of both methods are presented below.

2.6.1 CALSIM II Re-run

The pattern of diversions predicted by the Solver model for the base and alternative cases was used as input for otherwise-identical CALSIM II runs. To avoid compounding unrealistic operations through successive studies, only one component study (JPOD) was run for each alternative, rather than the standard 5-study simulation. The output of these runs, including SWP and CVP deliveries and reservoir storage, was then compared to the base case.

Estimates of CVP and SWP operations generated by CALSIM II for CCWD diversions in the base case and Alternative 1 are compared in Table 2, with a focus on the critical elements of water supply: CVP and SWP deliveries and reservoir storage. Overall, the results show some differences in year-to-year reservoir storage between the base case and Proposed Action. For the most part, the changes in storage and CVP/SWP deliveries are small. However, there are some years with major differences between the base and Alternative 1 cases that appear unrelated to changes in CCWD operations. For example, major differences between the base case and Alternative 1 during the 1987 through 1992 drought were caused by the Alternative 1 run requiring one additional day to achieve compliance with a Delta water quality objective (the requirement for a minimum number of days of 150 mg/L chloride at Rock Slough or Antioch). In response, CALSIM made unrealistically large releases from upstream reservoirs in December 1987 in the alternative case because of the necessary additional day required to achieve compliance. This triggered changes in storage that affected reservoir levels from 1988–1992 and in 1990 impacted SWP deliveries. Paradoxically, CCWD's diversions were slightly reduced (i.e., CCWD left additional CVP water in the Delta compared to the base case) in the years that the large storage releases occurred. This change was a result of unrealistic

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CALSIM results, not a realistic prediction of changes in Delta operations caused by the Proposed Action. In reality, project operators would have been able to achieve compliance on the same day or the next day with a minimal added cost to water supply, by making a minor change to releases earlier in the season.

Table 2									
Summary Results of CALSIM II Re-run ([Alternatives 1&2] - Base)									
(Not Used for AIP Impacts Analysis)									
Water Year	Water Year Type (Sacramento River Index)	Change in							
		SWP Oroville Storage (TAF)	SWP San Luis Storage (TAF)	CVP Shasta Storage (TAF)	CVP Folsom Storage (TAF)	CVP San Luis Storage (TAF)	Total SWP Deliveries (TAF)	Total CVP SOD Deliveries (TAF)	CCWD Diversions (TAF)
1922	AN	0.0	3.6	0.0	0.0	0.0	0.0	0.0	-7.3
1923	BN	0.0	-2.9	0.0	0.0	0.0	0.0	0.0	0.5
1924	C	-3.0	-3.2	-6.6	-5.3	5.9	0.0	0.0	3.4
1925	D	43.6	-51.1	-8.7	2.4	5.3	0.0	0.0	9.0
1926	D	281.1	-91.0	-8.4	-2.8	-16.0	0.0	0.0	15.6
1927	W	79.4	6.1	-1.3	-4.6	-1.0	0.0	0.0	-24.6
1928	AN	0.3	0.0	0.4	-0.2	-2.2	0.0	0.0	-1.3
1929	C	-4.3	-12.7	1.3	-0.5	-7.3	0.0	0.0	10.3
1930	D	-15.7	1.8	17.0	-4.6	-21.4	0.0	0.0	8.7
1931	C	-11.9	3.4	6.9	-17.2	2.3	0.0	0.0	-25.4
1932	D	1.9	-2.6	-2.7	-2.9	13.8	0.0	0.0	17.1
1933	C	5.0	-1.7	-3.0	-1.9	0.3	0.0	0.0	8.2
1934	C	7.1	-0.7	-3.3	-0.6	4.0	0.0	0.0	-24.9
1935	BN	4.5	1.1	-0.6	-0.6	0.8	0.0	0.0	8.8
1936	BN	-0.5	1.0	1.6	-3.9	-2.0	0.0	0.0	1.6
1937	BN	-5.6	-3.2	7.9	-2.8	6.1	0.0	0.0	-2.7
1938	W	-5.4	1.1	1.3	0.2	2.9	0.0	0.0	-6.6
1939	D	-0.2	0.0	-2.2	-1.0	0.0	0.0	0.0	17.6
1940	AN	1.1	-0.6	-0.9	-1.3	-4.8	0.0	0.0	-6.1
1941	W	0.3	-1.0	1.9	0.0	-2.1	0.0	0.0	-6.9
1942	W	-1.2	1.4	-0.3	0.0	0.0	0.0	0.0	-0.8
1943	W	-0.8	0.5	0.0	0.0	0.0	0.0	0.0	4.2
1944	D	-1.6	-8.4	0.4	-3.2	-6.5	0.0	0.0	19.1
1945	BN	-18.6	-1.1	3.9	-2.1	0.3	0.0	0.0	-9.9
1946	BN	-6.2	-8.1	2.9	0.1	-0.2	0.0	6.0	-3.2

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Table 2 (continued) Summary Results of CALSIM II Re-run ([Alternatives 1&2] - Base) (Not used for AIP Impacts Analysis)									
Water Year	Water Year Type (Sacramento River Index)	Change in							
		SWP Oroville Storage (TAF)	SWP San Luis Storage (TAF)	CVP Shasta Storage (TAF)	CVP Folsom Storage (TAF)	CVP San Luis Storage (TAF)	Total SWP Deliveries (TAF)	Total CVP SOD Deliveries (TAF)	CCWD Diversions (TAF)
1947	D	-15.7	1.1	7.5	-1.0	-9.9	0.0	1.8	8.5
1948	BN	-20.4	-3.7	-6.7	0.1	-6.0	0.0	-0.3	-3.1
1949	D	-18.5	-24.3	-8.6	-2.1	9.2	0.0	10.4	12.5
1950	BN	-13.8	-31.6	-0.1	-0.3	2.0	0.0	3.2	-11.9
1951	AN	-1.8	-6.1	0.0	-0.2	1.7	0.0	0.0	-8.7
1952	W	-0.5	-3.2	0.0	0.0	-0.3	0.0	0.0	-8.0
1953	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1
1954	AN	0.0	0.0	0.1	0.0	0.0	0.0	0.0	2.5
1955	D	0.1	10.7	1.2	-0.4	-2.2	0.0	0.0	3.3
1956	W	0.0	2.3	1.1	-2.4	-0.6	0.0	0.0	-10.8
1957	AN	0.0	-0.4	0.0	0.0	0.0	0.0	0.0	6.6
1958	W	0.0	-0.5	-0.7	0.0	2.8	0.0	0.7	-8.5
1959	BN	0.6	0.0	-1.0	0.0	0.0	0.0	0.0	9.7
1960	D	2.1	-0.1	-11.8	-1.0	-4.2	0.0	0.0	37.1
1961	D	3.4	4.4	-14.8	-6.1	-13.7	0.0	-17.7	5.5
1962	BN	8.8	2.6	-0.4	-6.1	3.0	0.0	-2.9	-28.2
1963	W	3.0	0.0	0.6	0.1	5.6	0.0	0.3	-14.6
1964	D	-0.2	1.2	0.5	-1.6	0.8	0.0	-0.3	10.1
1965	W	-0.4	0.5	0.7	-1.0	-0.5	0.0	0.0	-7.6
1966	BN	0.2	0.8	-0.5	-0.4	0.2	0.0	0.4	4.6
1967	W	-2.2	0.0	-1.7	-0.4	0.0	0.0	0.1	-13.4
1968	BN	0.0	0.0	-0.9	-0.1	0.0	0.0	0.0	11.0
1969	W	-1.3	1.5	-1.2	-0.3	-2.6	0.0	-0.5	-11.1
1970	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
1971	W	-1.4	0.0	0.0	0.0	0.0	0.0	0.0	-3.7
1972	BN	-0.4	0.1	-0.8	-0.6	-2.6	0.0	-5.0	8.0
1973	AN	-1.0	-0.2	-1.0	-1.0	0.1	0.0	-1.4	-3.3
1974	W	0.0	0.2	0.0	0.0	-0.1	0.0	0.0	-4.5
1975	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.9

Appendix C-2. Water Resources Modeling Methodology Report

Table 2 (continued)									
Summary Results of CALSIM II Re-run ([Alternatives 1&2] - Base)									
(Not used for AIP Impacts Analysis)									
Water Year	Water Year Type (Sacramento River Index)	Change in							
		SWP Oroville Storage (TAF)	SWP San Luis Storage (TAF)	CVP Shasta Storage (TAF)	CVP Folsom Storage (TAF)	CVP San Luis Storage (TAF)	Total SWP Deliveries (TAF)	Total CVP SOD Deliveries (TAF)	CCWD Diversions (TAF)
1976	C	0.1	0.0	-3.0	-0.6	-2.1	0.0	0.0	14.8
1977	C	-1.1	0.3	-5.5	-3.9	0.1	0.0	0.0	-17.4
1978	AN	-0.2	0.2	-0.2	-0.4	0.2	0.0	0.0	8.7
1979	BN	-0.4	-2.1	1.9	-0.3	-2.8	0.0	0.0	2.7
1980	AN	-1.2	-1.4	1.5	-0.1	-1.8	0.0	-0.4	-3.9
1981	D	-0.1	-0.6	-2.2	-0.5	-5.2	0.0	-1.0	16.3
1982	W	-0.8	-0.1	-0.7	-0.1	-2.9	0.0	-1.0	-23.6
1983	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1984	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5
1985	D	0.0	0.7	-7.0	-0.3	0.0	0.0	0.0	9.9
1986	W	-0.2	-0.2	-12.0	0.4	2.6	0.0	0.0	-13.3
1987	D	1.9	-2.1	-8.0	-1.1	1.6	0.0	0.0	17.7
1988	C	3.2	-157.3	-52.5	-5.0	-106.0	0.0	0.0	-0.9
1989	D	-17.3	-140.4	-149.9	-6.9	4.1	0.0	0.0	16.1
1990	C	89.9	-96.0	-121.8	-1.0	-229.5	-158.4	0.0	-25.4
1991	C	81.1	-7.4	-209.8	-16.0	-87.5	0.0	0.0	-9.8
1992	C	63.9	-59.3	-199.0	-47.1	41.0	0.0	0.0	0.3
1993	AN	-30.5	21.3	-37.3	-23.2	-52.3	0.0	0.0	8.4
1994	C	0.9	-12.3	-25.5	-8.0	-22.6	0.0	0.0	37.9

Notes:

1. Water year types presented above are determined using the DWR Sacramento River Index (40-30-30) based on the historical reconstruction of unimpaired runoff used by the CALSIM II model.
2. The large apparent changes in reservoir storage beginning in 1988 are the result of an extremely inefficient operational decision in the with-project CALSIM II run. The apparent change in SWP deliveries in 1990 is caused by this same operational decision in the with-project run. These results are considered unrealistic, as explained in detail in Section 2.6, "Water Supply Modeling Approaches," of this Appendix.
3. The apparent changes in CVP south of Delta deliveries are caused by similarly unrealistic operational decisions in the with-project CALSIM II run, as described in Section 2.6, "Water Supply Modeling Approaches," of this Appendix.

Appendix C-2. Water Resources Modeling Methodology Report

This example illustrates that the resolution of the monthly CALSIM II model is at times too coarse to realistically predict changes in CVP and SWP operations in response to the small shifts in CCWD diversions as part of the Proposed Action. Accordingly, the post-processing approach was used to evaluate the remainder of the alternatives in existing and future conditions because it provides more realistic estimates of the effects of the alternatives on CVP and SWP water supply.

2.6.2 CALSIM Post-processing Approach

The CALSIM post-processing analysis assumes that any changes in storage resulting from changes in CCWD diversion patterns under balanced conditions would affect upstream storage at CVP's Shasta Reservoir. Any change (reduction or increase) in CCWD diversions from the base case that occurs during balanced conditions was assumed to result in an equal change (increase or reduction) in Shasta Reservoir storage. This is both a reasonable operational scenario and a conservative approach given Shasta's storage and temperature requirements. The approach is conservative because the changes in storage would likely occur in Shasta, Oroville, and San Luis reservoirs. By assuming the total impact occurs only in Shasta Reservoir, the impact is cumulated at one site. More likely, the effects would be spread to all of the CVP and SWP storage reservoirs depending on operator decisions and would be much smaller than shown in this analysis.

Annual changes in Shasta Reservoir storage were summed cumulatively for each year during periods when Shasta Reservoir was below the flood control release level, on the assumption that small changes in storage could accumulate and carry-over from year to year until the reservoir spilled for flood control. The cumulative changes were then examined for two scenarios: years when Shasta Reservoir storage was at or below 1.9 MAF and years when Shasta Reservoir storage was at or below 1 MAF at the end of September in the base case. The 1.9 MAF storage level at the end of September is an important indicator reservoir storage level related to the CVP's ability to maintain river water temperature for winter-run Chinook salmon (an ESA-listed species) the following year, especially if the following year is dry. CVP operations at Shasta Reservoir are subject to a winter-run Chinook salmon Biological Opinion with requirements to maintain downstream Sacramento River water temperatures. Storage at or below 1 MAF at the end of September represents a critical level for the CVP where significant changes in storage could impact project operations in the following year and future years. Evaluating the changes in CVP storage at these storage levels provides an assessment of how the project alternatives could affect water supply during periods when Shasta Reservoir and the CVP and SWP supplies are most vulnerable to changes in the system. A summary of estimated changes in Shasta storage in years that total base case storage is at or below 1.9 MAF and at or below 1.0 MAF at the end of September is presented below in Tables 3 and 4. Results for the entire simulation period are located in Appendix C-3, "CALSIM II Modeling Results."

Appendix C-2. Water Resources Modeling Methodology Report

Table 3			
Shasta Reservoir Storage Change			
Alternatives 1 & 2, Existing Conditions			
Water Year Type ⁴	Base End-of-September Shasta Storage (TAF)	Accumulated Change in Shasta Storage, 1.9 MAF Criterion ¹ (TAF)	Accumulated Change in Shasta Storage, 1.0 MAF Criterion ² (TAF)
1924 (C)	592	-10.8	-10.8
1925 (D)	1,929	-19.9	---
1926 (D)	1,754	-39.0	---
Cumulative, 1924 - 1926 Drought:		-39.0	-10.8
1929 (C)	1,905	-3.5	---
1930 (D)	2,116	---	---
1931 (C)	643	14.7	14.7
1932 (D)	1,045	-3.1	-3.1
1933 (C)	812	-12.5	-12.5
1934 (C)	603	0.2	0.2
Cumulative, 1929 - 1934 Drought:		+ 0.2	+ 0.2
1976 (C)	2829	---	---
1977 (C)	674	-0.2	-0.2
Cumulative, 1977 - 1978 Drought:		-0.2	-0.2
1987 (D)	2,153	---	---
1988 (C)	1,589	16.4	---
1989 (D)	2,463	---	---
1990 (C)	1,903	17.2	---
1991 (C)	1,341	26.6	---
1992 (C)	841	26.3	26.3
Cumulative, 1987 - 1992 Drought:		+ 26.3	+ 26.3
Notes:			
¹ 1.9 MAF is an important reservoir storage level related to river water temperature control, per the 1993 Winter-run Chinook Salmon Biological Opinion. With storage above 1.9 MAF, there is generally enough water in storage for CVP operators to develop an operational plan that can meet the goals of temperature control without curtailing contract deliveries. Below 1.9 MAF, there is the possibility that CVP allocations could be affected.			
² Storage at or below 1 MAF represents a critical level for the CVP where any change in storage could be significant and could impact project operations.			
³ - - indicates that storage in Shasta Reservoir is greater than 1.9 MAF at the end of the water year. Because changes in storage above this criterion are not anticipated to affect CVP operations, they are not included in the accumulated changes.			
⁴ Water (hydrologic) Year Type based on Sacramento Valley 40-30-30 Index D = Dry, C= Critical.			

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Water Year Type ⁴	Base End-of-September Shasta Storage [TAF]	Accumulated Change in Shasta Storage, 1.9 MAF Criterion ¹ [TAF]	Accumulated Change in Shasta Storage, 1.0 MAF Criterion ² [TAF]
1924 (C)	599	-13.7	-13.7
1925 (D)	1,924	-12.7	---
1926 (D)	1,764	12.9	---
Cumulative, 1924 - 1926 Drought:		+ 12.9	-13.7
1929 (C)	1,823	-5.3	---
1930 (D)	2,054	---	---
1931 (C)	612	12.9	12.9
1932 (D)	927	-0.7	-0.7
1933 (C)	681	-12.4	-12.4
1934 (C)	561	13.2	13.2
Cumulative, 1929 - 1934 Drought:		+ 13.2	+ 13.2
1976 (C)	2732	---	---
1977 (C)	584	14.8	14.8
Cumulative, 1977 - 1978 Drought:		+ 14.8	+ 14.8
1987 (D)	2,122	---	---
1988 (C)	1,587	10.7	---
1989 (D)	2,341	---	---
1990 (C)	1,744	16.3	---
1991 (C)	1,179	14.9	---
1992 (C)	865	16.5	16.5
Cumulative, 1987 - 1992 Drought:		+ 16.5	+ 16.5
Notes:			
¹ 1.9 MAF is an important reservoir storage level related to river water temperature control, per the 1993 Winter-run Chinook Salmon Biological Opinion. With storage above 1.9 MAF, there is generally enough water in storage for CVP operators to develop an operational plan that can meet the goals of temperature control without curtailing contract deliveries. Below 1.9 MAF, there is the possibility that CVP allocations could be affected.			
² Storage at or below 1 MAF represents a critical level for the CVP where any change in storage could be significant and could impact project operations.			
³ -- indicates that storage in Shasta Reservoir is greater than 1.9 MAF at the end of the water year. Because changes in storage above this criterion are not anticipated to affect CVP operations, they are not included in the accumulated changes.			
⁴ Water (hydrologic) Year Type based on Sacramento Valley 40-30-30 Index D = Dry, C= Critical.			

3 References

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Appendix C-3
CALSIM II Modeling

Appendix C-3

CALSIM II MODELING

for the

Alternative Intake Project EIR/EIS

Prepared By:

Contra Costa Water District

With Technical Assistance From:

EDAW

Carollo Engineers

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January 2006

Introduction

This section contains tables and graphics derived from the CALSIM II modeling for the Alternative Intake Project as described in Section 4.2. "Delta Water Resources," and in Appendix C-2, "Water Resources Modeling Methodology Report." The results, representing Delta operations and water quality over a 73-year simulation period, are presented as follows:

► Tables of monthly CALSIM II output for the following parameters:

- Total Inflow*;
- Sacramento River Inflow*;
- San Joaquin River Inflow;
- Delta Outflow*;
- SWP Exports;
- CVP Exports;
- X2 Position*;
- QWEST Flow*;
- E/I Ratio*;
- Delta Surplus*;
- Shasta Storage*.

Parameters followed by an asterisk are reported as post-processed data. Post-processing of CALSIM II data to account for changes in timing of CCWD diversions are outlined in Appendix C-2, "Water Resources Modeling Methodology Report."

- Tables presenting the detailed post-processing of Shasta Reservoir storage by month and summarized annually.
- Table summarizing the CALSIM II re-run performed to examine effects of the project on Delta operations. Note that this re-run was only done for a single Alternative (Proposed Action under existing conditions) because based on these results, it was determined that re-running CALSIM was not an accurate method for analyzing the water supply effects of the project. For further explanation of the post-processing and CALSIM II re-run approaches, please refer to Appendix C-2, "Water Resources Modeling Methodology Report."

A CD with a full set of modeling results is available for review through CCWD by contacting Samantha Salvia, Project Manager, at ssalvia@ccwater.com or (925) 688-8057.

Year	Alt Existing Alt 1 & 2 Total Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	14,258	13,192	20,778	19,390	47,737	41,084	31,884	58,533	50,572	24,360	15,841	14,870
1923	14,947	16,759	39,845	37,991	23,568	18,635	31,952	23,286	18,467	21,293	17,749	15,511
1924	12,859	12,506	12,810	14,656	17,186	12,114	10,501	8,610	10,606	11,595	10,040	8,911
1925	9,184	9,350	14,296	14,207	71,381	29,102	26,718	20,791	17,911	19,319	13,502	11,689
1926	11,389	10,208	10,901	19,351	46,024	15,967	26,679	14,989	15,110	17,805	14,867	10,875
1927	11,219	26,507	20,661	34,122	131,975	49,638	53,238	32,831	21,890	20,437	18,136	15,964
1928	12,137	22,268	18,446	26,604	31,063	109,301	33,680	23,137	16,869	20,754	14,823	13,757
1929	13,804	14,106	14,244	14,285	17,501	13,204	10,465	11,104	12,744	12,210	8,931	9,012
1930	9,274	8,566	19,271	22,349	21,362	35,408	14,970	13,987	13,542	18,025	15,432	13,055
1931	10,777	11,985	10,834	14,153	13,386	9,017	10,207	8,382	11,410	13,789	11,712	9,215
1932	9,123	8,563	23,599	24,920	25,957	17,905	14,547	18,775	19,816	14,407	12,042	13,433
1933	11,443	10,147	10,740	15,083	12,568	16,111	13,879	9,491	11,748	13,688	9,984	8,986
1934	9,215	8,635	16,307	20,483	17,994	14,483	13,370	9,617	12,112	12,177	8,929	8,836
1935	9,141	12,315	11,291	34,597	17,987	30,380	58,247	29,998	22,807	20,406	19,083	14,821
1936	14,634	11,598	14,804	42,504	81,077	37,195	29,979	22,384	19,747	21,308	19,089	14,533
1937	14,732	11,638	14,819	15,719	52,635	54,122	33,489	27,212	20,191	20,068	17,355	13,314
1938	13,575	27,431	65,723	38,553	148,142	172,909	82,927	81,289	58,376	24,034	17,280	19,280
1939	23,746	15,525	17,297	16,132	14,420	17,697	14,984	14,857	14,187	20,017	17,060	14,002
1940	14,199	11,051	11,214	39,492	66,157	113,929	76,020	24,608	18,122	24,401	18,920	15,482
1941	14,756	14,553	49,894	105,839	130,340	99,934	80,641	50,198	26,966	24,600	18,947	19,219
1942	17,418	14,711	68,945	85,543	146,998	32,599	56,400	43,840	34,278	23,439	18,476	20,955
1943	19,191	17,570	32,307	92,715	66,571	94,382	35,957	27,428	17,126	22,432	18,642	16,823
1944	14,239	12,534	14,800	16,681	31,773	26,716	16,297	16,728	18,093	18,871	16,930	14,586
1945	14,415	18,401	20,503	15,306	56,094	31,627	19,551	21,565	21,298	23,326	18,305	15,587
1946	14,113	18,605	74,257	56,597	31,573	25,476	20,190	20,652	20,502	22,941	18,379	15,144
1947	15,629	14,789	18,430	13,533	22,718	23,957	16,737	12,961	14,890	18,879	15,659	14,359
1948	13,392	13,477	10,678	18,103	18,009	17,447	31,373	33,414	24,951	23,126	19,053	16,085
1949	14,921	11,869	15,333	13,105	15,378	49,476	17,582	18,151	18,853	20,718	15,293	13,535
1950	11,236	11,348	10,929	24,041	40,250	24,059	24,400	22,286	22,719	21,761	18,564	15,658
1951	14,019	54,338	103,421	78,615	78,496	37,034	21,741	25,550	16,320	23,562	18,787	15,688
1952	15,457	18,180	46,290	93,981	84,957	74,435	74,334	77,758	53,546	23,969	18,865	23,951
1953	25,158	15,092	47,829	107,809	30,572	26,576	21,230	29,032	27,997	22,731	17,577	21,194
1954	16,134	19,168	15,720	36,894	65,186	54,596	46,698	28,463	16,209	23,859	17,586	15,299
1955	16,152	16,806	25,823	22,182	17,078	12,785	16,400	15,120	17,445	17,572	13,077	12,023
1956	11,774	14,257	100,456	174,066	92,923	45,714	25,210	46,660	28,920	20,794	18,306	21,718
1957	19,301	14,271	13,169	16,753	37,957	51,954	25,477	22,533	20,633	22,380	17,934	14,929
1958	20,572	16,383	24,975	40,651	185,858	102,807	103,447	59,942	42,524	23,742	19,298	23,033
1959	22,522	14,738	15,530	38,592	59,101	26,734	14,541	14,751	15,645	22,802	18,119	13,635
1960	13,587	12,046	11,797	14,064	33,624	25,665	16,391	14,999	15,437	21,613	13,259	13,515

Appendix C-3 CALSIM II Modeling

Year	Alt Existing Alt 1 & 2 Total Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	12,372	14,510	18,193	12,848	29,779	19,625	14,952	12,662	13,369	20,700	16,431	13,570
1962	13,392	12,717	18,013	12,166	54,293	31,725	18,574	17,297	16,826	21,566	18,836	15,503
1963	38,489	17,715	29,058	18,969	77,955	35,759	93,602	37,327	22,732	21,797	18,311	15,872
1964	16,211	28,604	14,649	26,249	18,137	14,052	21,254	13,576	15,944	21,329	17,530	13,946
1965	13,680	18,022	79,934	127,648	41,286	29,361	51,290	30,064	18,107	22,228	18,221	16,699
1966	12,784	26,541	22,121	35,725	31,144	30,401	17,803	17,748	15,587	21,493	17,959	14,827
1967	16,118	18,119	42,239	52,888	63,089	66,082	59,372	62,260	55,691	25,830	19,665	23,818
1968	24,928	15,782	18,433	33,583	67,903	41,387	19,863	14,281	15,967	20,303	17,281	14,086
1969	17,069	14,850	27,125	124,899	140,268	71,039	64,900	75,200	48,012	24,101	16,995	20,191
1970	24,516	16,331	61,211	213,424	92,370	45,879	21,375	18,416	15,024	25,710	18,946	15,811
1971	15,131	21,858	66,219	53,986	31,174	51,260	27,479	31,844	23,352	27,111	18,349	21,518
1972	16,670	15,410	19,475	19,183	26,752	38,230	15,165	14,373	21,704	21,479	15,673	12,778
1973	13,501	22,350	28,085	85,915	97,685	65,893	24,309	24,746	21,107	24,378	18,016	14,713
1974	14,761	64,949	72,886	135,875	47,715	116,567	77,357	30,797	25,126	23,567	18,867	24,073
1975	18,525	16,052	19,053	17,973	72,652	96,432	30,677	36,579	30,155	23,482	18,724	23,268
1976	21,756	16,992	17,782	15,331	15,729	16,704	12,195	9,421	13,060	16,907	12,310	12,584
1977	12,977	12,049	10,769	8,330	9,264	8,584	10,501	7,658	10,897	13,038	11,889	8,949
1978	9,379	8,687	16,605	69,915	62,301	73,082	49,679	32,531	27,158	24,616	17,875	17,060
1979	15,410	12,288	12,246	29,913	53,975	40,794	22,663	23,498	21,143	22,485	17,784	13,880
1980	14,191	17,170	22,378	108,552	138,414	65,376	26,514	23,856	20,191	23,971	19,332	18,074
1981	15,682	11,671	16,652	23,821	29,225	32,380	19,600	14,975	15,349	20,761	15,586	14,477
1982	16,269	37,071	94,599	82,914	112,661	89,659	149,785	55,771	35,010	23,741	17,640	21,847
1983	32,682	46,962	91,584	107,531	179,685	253,628	92,603	83,444	94,601	43,951	25,286	35,131
1984	32,457	84,267	158,492	74,101	46,483	43,017	24,063	19,291	18,701	23,172	18,844	16,576
1985	14,383	35,408	24,080	16,546	19,910	18,681	14,993	16,225	15,053	21,345	18,510	17,233
1986	16,052	12,675	20,049	26,991	212,280	158,381	32,079	21,801	21,384	22,283	20,038	17,335
1987	15,393	11,969	13,213	15,976	11,976	26,426	16,757	11,826	12,905	17,063	14,437	12,793
1988	12,168	11,591	19,349	29,092	17,516	10,504	11,698	10,344	12,088	13,342	9,329	8,683
1989	9,357	10,472	12,176	14,434	10,803	48,617	24,417	14,999	13,385	20,116	16,909	14,064
1990	14,760	12,184	15,370	20,741	18,129	13,745	12,904	8,672	9,697	11,580	12,071	9,338
1991	8,957	9,018	7,951	7,050	9,152	33,919	15,065	10,588	9,626	10,547	14,757	8,918
1992	9,092	8,596	8,353	11,147	34,977	21,138	14,368	9,966	12,570	12,949	11,716	10,651
1993	9,556	8,744	14,357	71,100	63,378	50,843	45,025	36,027	30,722	24,509	18,893	16,337
1994	15,770	13,106	15,819	15,015	25,745	15,822	13,541	11,330	13,647	22,470	17,552	14,883
Mean	15,453	17,948	30,368	44,514	55,855	47,495	33,408	26,237	22,280	20,920	16,608	15,534
Max	38,489	84,267	158,492	213,424	212,280	253,628	149,785	83,444	94,601	43,951	25,286	35,131
Min	8,957	8,563	7,951	7,050	9,152	8,584	10,207	7,658	9,626	10,547	8,929	8,683

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Year	Base Existing Base Total Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	14,258	13,375	20,778	19,390	47,737	41,084	31,884	58,533	50,572	24,360	15,841	14,758
1923	14,862	16,675	39,845	37,991	23,692	18,635	31,952	23,286	18,467	21,293	17,749	15,389
1924	12,799	12,459	12,761	14,656	17,232	12,111	10,501	8,611	10,599	11,624	10,040	8,932
1925	9,315	9,371	14,296	14,207	71,381	29,102	26,718	20,791	17,911	19,319	13,389	11,497
1926	11,328	10,175	10,901	19,351	46,024	15,967	26,679	14,989	15,110	17,805	14,794	10,725
1927	11,164	26,507	20,661	34,122	131,975	49,638	53,238	32,831	21,950	20,486	18,136	15,810
1928	12,078	22,268	18,446	26,604	31,063	109,301	33,680	23,137	16,869	20,754	14,823	13,624
1929	13,743	14,051	14,244	14,285	17,536	13,221	10,465	11,104	12,904	12,410	8,819	8,900
1930	9,232	8,540	19,271	22,349	21,562	35,408	14,970	13,987	13,742	18,025	15,222	12,870
1931	10,734	12,074	10,872	14,153	13,468	9,113	10,339	8,382	11,410	13,789	11,712	9,215
1932	9,123	8,563	23,599	24,920	25,799	17,905	14,619	18,775	19,816	14,407	12,042	13,216
1933	11,365	10,135	10,740	15,083	12,568	16,111	13,879	9,491	11,858	13,688	9,934	8,862
1934	9,287	8,743	16,307	20,483	17,994	14,568	13,370	9,617	12,150	12,177	8,849	8,824
1935	9,142	12,316	11,291	34,597	17,987	30,380	58,247	30,003	22,807	20,406	19,083	14,670
1936	14,560	11,551	14,747	42,504	81,077	37,195	29,979	22,384	19,747	21,446	19,089	14,358
1937	14,666	11,593	14,654	15,719	52,635	54,122	33,489	27,212	20,228	20,254	17,465	13,190
1938	13,499	27,431	65,273	38,553	148,142	172,909	82,927	81,289	58,376	24,034	17,280	19,280
1939	23,746	15,525	17,297	16,132	14,420	17,697	14,984	14,857	14,187	19,976	16,889	13,912
1940	14,162	11,029	11,177	39,492	66,157	113,929	76,020	24,608	18,139	24,587	18,966	15,353
1941	14,708	14,535	49,894	105,839	130,340	99,934	80,641	50,198	26,966	24,600	18,947	19,219
1942	17,418	14,637	68,945	85,543	146,998	32,599	56,400	43,840	34,278	23,456	18,476	20,955
1943	19,191	17,570	32,307	92,715	66,571	94,382	35,957	27,428	17,126	22,432	18,642	16,681
1944	14,177	12,498	14,781	16,681	31,773	26,716	16,297	16,728	18,093	18,990	16,755	14,507
1945	14,379	18,401	20,503	15,306	56,094	31,719	19,551	21,565	21,334	23,512	18,228	15,468
1946	14,052	18,648	74,257	56,597	31,608	25,565	20,190	20,652	20,537	23,063	18,283	15,023
1947	15,571	14,752	18,430	13,533	22,856	24,044	16,737	12,961	15,082	18,870	15,466	14,279
1948	13,354	13,443	10,619	18,103	18,059	17,647	31,373	33,414	24,951	23,126	18,897	15,949
1949	14,859	11,907	15,333	13,105	15,418	49,476	17,582	18,151	18,862	20,904	15,159	13,990
1950	11,178	11,313	10,929	24,041	40,250	24,211	24,400	22,286	22,719	21,947	18,787	15,509
1951	13,944	54,338	103,421	78,615	78,496	37,034	21,741	25,550	16,320	23,562	18,787	15,549
1952	15,393	18,122	46,290	93,981	84,957	74,435	74,334	77,758	53,546	23,969	18,865	23,951
1953	25,158	15,092	47,829	107,809	30,572	26,576	21,230	29,032	27,997	22,731	17,577	21,194
1954	16,052	19,168	15,720	36,894	65,186	54,596	46,698	28,463	16,209	23,859	17,586	15,138
1955	16,096	16,749	25,823	22,182	17,277	12,827	16,400	15,120	17,445	17,572	13,010	11,875
1956	11,734	14,229	100,456	174,066	92,923	45,714	25,210	46,660	28,920	20,794	18,306	21,718
1957	19,301	14,271	13,169	16,753	37,957	51,954	25,477	22,533	20,633	22,380	17,934	14,787
1958	20,572	16,264	24,975	40,651	185,858	102,807	103,447	59,942	42,524	23,742	19,298	23,033
1959	22,522	14,738	15,530	38,592	59,101	26,734	14,541	14,751	15,645	22,802	18,087	15,033
1960	13,536	12,014	11,798	14,064	33,624	25,665	16,391	14,999	15,437	21,401	13,088	13,341

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Appendix C-3 CALSIM II Modeling

Base Existing Base Total Delta Inflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	12,326	14,551	18,193	12,848	29,779	19,712	15,026	12,667	13,485	20,695	16,246	13,556
1962	13,518	12,775	18,013	12,166	54,293	31,823	18,574	17,297	16,860	21,752	18,696	15,409
1963	38,489	17,715	29,058	18,969	77,955	35,759	93,602	37,327	22,732	21,797	18,311	15,763
1964	16,134	28,604	14,649	26,249	18,137	14,052	21,254	13,576	15,944	21,320	17,361	13,851
1965	13,640	18,022	79,934	127,648	41,286	29,453	51,290	30,064	18,168	22,329	18,221	16,553
1966	12,729	26,541	22,121	35,725	31,132	30,412	17,803	17,748	15,587	21,493	17,855	14,709
1967	16,074	18,119	42,239	52,888	63,089	66,082	59,372	62,260	55,691	25,830	19,665	25,818
1968	24,928	15,782	18,433	33,583	67,903	41,387	19,863	14,281	15,967	20,303	17,183	14,002
1969	17,024	14,825	27,125	124,899	140,268	71,039	64,900	75,200	48,012	24,101	16,995	20,191
1970	24,516	16,331	61,211	213,424	92,370	45,879	21,375	18,416	15,024	25,710	18,946	15,676
1971	15,074	21,838	66,219	53,986	31,174	51,260	27,479	31,844	23,352	27,111	18,349	21,518
1972	16,662	15,336	19,475	19,183	26,980	38,230	15,165	14,373	21,704	21,479	15,588	12,664
1973	13,461	22,350	28,085	85,915	97,685	65,893	24,309	24,746	21,107	24,378	18,016	14,566
1974	14,702	64,949	72,286	135,875	47,715	116,567	77,357	30,797	25,126	23,567	18,867	24,073
1975	18,525	16,052	19,053	17,973	72,652	96,432	30,677	36,579	30,155	23,482	18,724	23,268
1976	21,756	16,992	17,782	15,331	15,714	16,701	12,195	9,421	13,027	16,860	12,310	12,445
1977	12,929	12,042	10,814	8,330	9,356	8,673	10,568	7,658	10,897	13,038	11,889	8,949
1978	9,379	8,687	16,605	69,915	62,301	73,082	49,679	32,531	27,158	24,616	17,875	16,907
1979	15,267	12,223	12,246	29,913	53,975	40,794	22,663	23,498	21,180	22,576	17,707	13,762
1980	14,135	17,114	22,378	108,552	138,414	65,376	26,514	23,856	20,191	23,971	19,332	17,951
1981	15,556	11,574	16,652	23,821	29,425	32,380	19,600	14,975	15,359	20,722	15,412	14,382
1982	16,223	37,071	94,599	82,914	112,661	89,659	149,785	55,771	35,010	23,741	17,640	21,847
1983	32,682	46,962	91,584	107,531	179,685	253,628	92,603	83,444	94,601	43,951	25,286	35,131
1984	32,457	84,267	158,492	74,101	46,483	43,017	24,063	19,291	18,701	23,172	18,844	16,433
1985	14,321	35,408	24,080	16,546	19,910	18,681	14,993	16,225	15,053	21,294	18,357	17,136
1986	15,993	12,633	20,049	26,991	212,280	158,381	32,079	21,801	21,444	22,470	20,152	17,257
1987	15,295	11,898	13,213	15,976	11,987	26,426	16,757	11,862	12,914	17,249	14,284	12,687
1988	12,132	11,555	19,349	29,092	17,546	10,585	11,698	10,344	12,271	13,542	9,241	8,564
1989	9,316	10,438	12,176	14,434	10,885	48,617	24,417	15,005	13,385	20,116	16,699	13,938
1990	14,862	12,247	15,308	20,741	18,167	13,807	13,003	8,672	9,843	11,478	12,071	9,345
1991	9,083	9,033	7,951	7,050	9,129	33,919	15,100	10,588	9,626	10,547	14,757	8,918
1992	9,092	8,596	8,353	11,147	34,977	21,138	14,363	9,966	12,570	12,949	11,716	10,651
1993	9,556	8,744	14,357	71,100	63,378	50,843	45,025	36,027	30,722	24,509	18,893	16,195
1994	15,643	13,013	15,819	15,015	25,745	15,902	13,541	11,330	13,647	22,277	17,374	14,905
Mean	15,421	17,937	30,363	44,514	55,874	47,515	33,414	26,237	22,301	20,945	16,561	15,445
Max	38,489	84,267	158,492	213,424	212,280	253,628	149,785	83,444	94,601	43,951	25,286	35,131
Min	9,083	8,540	7,951	7,050	9,129	8,673	10,339	7,658	9,626	10,547	8,819	8,564

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Difference Existing Alt 1 & 2 minus Existing Base Total Delta Inflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	-183	0	0	0	0	0	0	0	0	0	0
1923	85	83	0	0	-124	0	0	0	0	0	0	122
1924	60	47	49	0	-46	3	0	0	7	-29	0	-21
1925	-131	-21	0	0	0	0	0	0	0	0	114	192
1926	61	33	0	0	0	0	0	0	0	0	73	150
1927	54	0	0	0	0	0	0	0	-60	-49	0	154
1928	60	0	0	0	0	0	0	0	0	0	0	133
1929	61	55	0	0	-36	-17	0	0	-161	-200	111	112
1930	42	26	0	0	-200	0	0	0	-200	0	210	186
1931	43	-89	-38	0	-82	-96	-132	0	0	0	0	0
1932	0	0	0	0	159	0	-72	0	0	0	0	217
1933	78	12	0	0	0	0	0	0	-110	0	50	124
1934	-72	-109	0	0	0	-85	0	0	-38	0	80	12
1935	-1	-1	0	0	0	0	0	-5	0	0	0	151
1936	74	47	57	0	0	0	0	0	0	-138	0	175
1937	66	45	165	0	0	0	0	0	-38	-186	-110	124
1938	76	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	41	171	90
1940	37	22	37	0	0	0	0	0	-17	-186	-46	129
1941	48	18	0	0	0	0	0	0	0	0	0	0
1942	0	73	0	0	0	0	0	0	0	-16	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	142
1944	62	36	18	0	0	0	0	0	0	-119	175	79
1945	35	0	0	0	0	-92	0	0	-35	-186	77	118
1946	61	-43	0	0	-35	-89	0	0	-36	-122	95	121
1947	58	37	0	0	-138	-87	0	0	-192	9	192	80
1948	38	35	60	0	-50	-200	0	0	0	0	157	136
1949	62	-39	0	0	-41	0	0	0	-10	-186	134	144
1950	58	35	0	0	0	-152	0	0	0	-186	16	149
1951	74	0	0	0	0	0	0	0	0	0	0	138
1952	64	57	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	82	0	0	0	0	0	0	0	0	0	0	161
1955	56	57	0	0	-199	-42	0	0	0	0	67	148
1956	40	28	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	143
1958	0	120	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	32	130
1960	51	32	-1	0	0	0	0	0	0	212	171	173

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Appendix C-3 CALSIM II Modeling

Year	Difference Existing Alt 1 & 2 minus Existing Base Total Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	46	-42	0	0	0	-87	-74	-5	-116	5	185	14
1962	-124	-58	0	0	0	-98	0	0	-35	-186	140	93
1963	0	0	0	0	0	0	0	0	0	0	0	109
1964	77	0	0	0	0	0	0	0	0	9	169	95
1965	41	0	0	0	0	-92	0	0	-61	-101	0	147
1966	55	0	0	0	12	-10	0	0	0	0	103	117
1967	44	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	98	84
1969	45	25	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	135
1971	57	0	0	0	0	0	0	0	0	0	0	0
1972	8	73	0	0	-228	0	0	0	0	0	85	113
1973	40	0	0	0	0	0	0	0	0	0	0	147
1974	59	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	15	3	0	0	33	46	0	139
1977	48	7	-44	0	-91	-89	-66	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	153
1979	143	65	0	0	0	0	0	0	-36	-91	76	118
1980	56	56	0	0	0	0	0	0	0	0	0	123
1981	126	96	0	0	-200	0	0	0	-11	38	175	95
1982	46	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	143
1985	62	0	0	0	0	0	0	0	0	51	154	97
1986	59	42	0	0	0	0	0	0	-59	-186	-114	79
1987	97	71	0	0	0	0	0	0	-10	-186	153	106
1988	36	37	0	0	-30	-81	0	0	-183	-200	88	119
1989	41	34	0	0	-81	0	0	-5	0	0	210	126
1990	-101	-63	62	0	-38	-62	-99	0	-146	102	0	-7
1991	-126	-14	0	0	24	0	-35	0	0	0	0	0
1992	0	0	0	0	0	0	5	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	141
1994	127	93	0	0	0	-80	0	0	0	193	177	-22
Mean	32	11	5	0	-19	-20	-6	0	-21	-25	47	89
Max	143	120	165	0	159	3	5	0	33	212	210	217
Min	-131	-183	-44	0	-228	-200	-132	-5	-200	-200	-114	-22

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Appendix C-3 CALSIM II Modeling

Year	Alt Existing Alt 1 & 2 Sacramento River (no Yolo Bypass) Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	10,785	11,025	17,027	15,602	35,706	47,322	36,022	21,485	13,108	12,174		
1923	10,723	14,315	30,704	28,199	15,747	14,620	23,526	16,691	14,872	18,658	15,225	13,071
1924	10,441	10,598	10,800	12,650	14,658	10,062	8,426	6,885	9,255	10,327	9,161	7,069
1925	7,484	7,661	12,171	12,594	63,177	25,720	19,995	15,390	15,153	17,282	11,593	9,721
1926	9,194	8,433	9,037	17,358	40,081	13,540	19,001	11,549	13,456	16,326	13,813	9,519
1927	9,400	23,340	18,110	31,156	74,785	43,301	44,439	25,644	18,049	17,924	15,813	13,661
1928	10,099	19,731	15,296	23,547	27,167	74,214	26,068	17,782	14,536	18,999	13,147	12,049
1929	11,667	12,149	12,155	12,428	14,819	10,933	7,372	8,391	11,202	10,864	8,064	7,150
1930	7,664	7,136	17,069	20,355	18,844	31,434	11,789	11,317	12,079	16,720	14,574	11,846
1931	9,023	10,515	9,430	12,484	11,627	7,356	8,461	7,047	10,213	12,735	10,989	7,486
1932	7,800	7,129	18,398	20,867	16,707	12,491	8,857	13,732	17,318	12,541	10,305	11,634
1933	9,307	8,419	8,974	12,770	10,279	13,569	10,757	6,502	10,190	12,501	8,825	7,094
1934	7,712	7,162	13,948	18,077	14,966	12,250	11,240	7,829	10,918	11,115	8,137	7,127
1935	7,807	10,552	9,398	28,571	13,949	24,711	47,142	23,123	19,301	18,210	17,197	12,862
1936	12,465	9,787	12,866	38,517	60,695	29,502	20,770	14,896	15,885	18,721	16,703	12,065
1937	12,024	9,705	12,549	12,524	34,701	38,784	22,043	15,806	16,513	17,461	14,988	10,871
1938	10,006	24,926	56,271	31,295	74,238	74,612	60,262	55,478	34,820	19,616	14,199	15,584
1939	14,312	13,244	14,824	13,584	10,786	13,023	9,739	10,551	12,165	18,109	15,198	12,292
1940	11,959	9,308	9,457	32,396	54,548	73,791	65,147	17,416	14,473	21,868	16,479	13,045
1941	12,077	12,391	43,634	73,169	73,774	70,294	60,811	39,039	18,985	21,414	16,016	16,448
1942	12,686	12,366	61,010	68,870	74,385	23,029	43,102	33,728	26,569	19,755	15,334	17,918
1943	13,115	14,139	26,980	71,806	51,452	67,084	25,538	18,248	12,754	19,222	15,778	13,984
1944	10,741	10,200	12,357	14,199	27,027	21,510	10,244	11,092	15,567	16,584	14,709	12,576
1945	12,098	15,827	17,961	13,012	45,608	22,116	10,840	14,523	17,468	20,361	15,439	12,929
1946	10,467	15,728	62,590	49,344	25,589	19,552	12,629	14,165	16,934	20,334	15,860	12,746
1947	13,070	12,347	15,744	11,136	19,250	20,965	13,491	10,243	13,099	17,208	14,345	12,961
1948	11,465	11,733	9,035	16,432	16,217	14,826	25,732	28,345	21,956	21,172	17,218	14,247
1949	12,846	10,133	13,584	11,025	13,049	44,142	12,648	13,882	16,656	18,882	13,526	11,757
1950	9,278	9,562	9,187	20,927	34,954	20,419	18,720	17,336	19,861	19,570	16,423	13,423
1951	12,075	43,849	74,407	61,570	63,916	28,406	14,857	18,830	12,980	21,392	16,761	13,522
1952	12,781	15,912	40,907	73,283	72,235	55,253	59,006	59,646	37,917	19,552	15,584	20,305
1953	16,445	12,927	43,041	73,081	23,614	22,509	15,397	23,526	24,598	20,374	15,352	19,041
1954	13,692	17,202	13,699	34,200	61,562	48,972	39,477	23,473	13,862	21,833	15,643	13,435
1955	13,895	14,989	23,256	19,204	14,355	10,259	13,166	11,856	15,515	15,851	11,776	10,577
1956	10,024	12,468	73,857	75,216	68,767	34,509	17,852	38,152	21,647	17,468	15,388	18,582
1957	14,262	12,273	11,040	14,561	34,197	45,461	20,044	16,815	17,587	20,266	15,939	12,945
1958	18,102	14,356	22,806	37,936	75,279	73,259	73,556	43,674	30,451	20,054	16,061	19,747
1959	15,107	12,222	12,776	35,967	53,078	22,560	9,781	11,179	13,856	21,094	16,468	11,986
1960	11,476	10,464	10,245	12,369	30,012	22,594	13,194	12,197	13,766	20,226	12,329	12,221

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Appendix C-3 CALSIM II Modeling

Alt Existing Alt 1 & 2												
Sacramento River (no Yolo Bypass) Delta Inflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	10,553	12,947	16,508	11,376	27,842	17,729	13,040	11,045	11,827	19,659	15,522	12,302
1962	11,875	13,442	16,538	10,811	46,600	24,973	12,598	12,640	14,706	19,891	17,229	13,804
1963	35,004	16,062	27,058	16,083	68,704	31,405	71,980	29,270	18,320	18,867	15,769	13,311
1964	13,955	25,839	12,437	23,040	15,876	11,777	18,114	10,660	14,317	19,884	16,563	12,511
1965	11,789	16,047	66,627	74,248	31,066	23,434	40,792	22,331	13,362	19,254	15,524	13,912
1966	10,236	22,845	15,588	29,093	24,811	25,512	12,833	13,083	13,611	19,600	15,808	12,842
1967	13,777	15,887	37,330	42,055	56,113	52,843	37,223	43,783	37,156	15,675	16,414	21,536
1968	17,885	13,451	15,336	29,884	61,087	35,771	14,792	10,551	14,071	18,514	15,561	12,212
1969	14,867	12,830	24,069	74,132	73,878	46,259	41,777	47,090	21,546	19,085	13,842	16,146
1970	15,432	14,072	56,675	76,417	71,004	33,887	14,585	12,084	11,768	23,368	16,200	13,398
1971	12,527	18,913	58,611	47,195	27,192	45,146	21,297	26,067	20,167	24,650	15,995	19,223
1972	14,291	13,412	16,896	16,842	23,655	35,300	11,637	11,095	19,794	19,863	13,724	11,086
1973	11,438	19,972	25,906	73,276	72,916	51,290	15,919	17,796	17,848	21,896	15,209	12,150
1974	12,238	61,365	66,979	74,485	39,595	73,722	65,747	22,521	20,229	20,394	15,980	21,130
1975	14,798	13,799	16,479	15,447	64,050	70,779	20,618	28,161	23,879	20,134	15,720	20,220
1976	17,542	14,707	15,486	13,229	13,188	14,278	9,351	6,931	11,440	15,393	10,825	11,138
1977	9,654	9,807	8,959	6,881	7,658	7,050	8,496	5,930	9,540	12,127	11,105	7,840
1978	7,787	7,194	14,713	63,482	41,780	60,128	33,814	20,407	15,443	21,919	15,843	14,268
1979	10,489	10,481	10,185	23,800	41,790	29,747	14,805	16,685	18,679	20,504	15,886	11,855
1980	11,813	15,172	19,934	74,035	74,159	45,030	17,371	15,776	12,955	19,182	16,442	14,362
1981	10,403	9,571	14,407	20,666	25,918	27,522	14,528	10,960	13,513	18,993	13,810	12,777
1982	14,016	34,114	73,825	68,734	73,766	67,935	74,431	35,436	23,291	18,830	14,295	16,538
1983	19,542	36,125	64,334	71,223	74,897	77,285	61,547	56,201	55,396	24,148	21,365	26,809
1984	19,544	64,442	75,012	50,559	34,209	35,063	17,273	12,869	15,076	20,372	16,139	14,019
1985	10,626	32,005	21,554	14,298	16,877	15,545	10,847	12,237	13,117	19,569	16,817	15,508
1986	13,747	10,600	17,617	23,827	78,332	74,255	18,236	12,039	13,496	19,183	17,196	14,468
1987	11,668	9,907	11,134	13,879	19,311	23,471	13,989	9,358	11,222	15,437	13,067	11,463
1988	10,309	10,030	17,838	27,107	15,866	8,828	9,630	8,555	10,648	12,242	8,521	6,056
1989	6,776	9,012	10,616	13,015	9,102	45,178	21,839	13,060	11,751	18,711	16,009	12,792
1990	13,226	10,669	13,965	19,282	16,360	11,767	10,746	7,020	8,500	10,393	11,245	8,113
1991	7,670	7,661	6,654	5,902	7,669	29,815	12,165	8,446	8,277	9,366	13,882	6,949
1992	7,677	7,242	7,058	9,758	31,414	18,450	11,983	8,455	11,346	11,846	10,788	9,435
1993	7,779	7,263	12,558	59,753	55,954	43,205	37,898	29,874	26,472	21,943	16,517	14,035
1994	11,899	11,223	13,824	13,279	21,764	13,762	10,843	8,900	12,108	20,982	16,522	13,603
Mean	12,156	15,373	24,785	32,731	39,181	33,841	24,395	19,321	17,303	18,301	14,586	13,226
Max	35,004	64,442	75,012	76,417	78,332	77,285	74,431	59,646	55,396	24,650	21,365	26,809
Min	7,484	7,129	6,654	5,902	7,658	7,050	7,372	5,930	8,277	9,366	8,064	6,056

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Base Existing Base												
Sacramento River (no Yolo Bypass) Delta Inflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	11,785	11,208	17,027	15,602	35,730	30,706	22,962	47,322	36,022	21,485	13,108	12,062
1923	10,638	14,232	30,704	28,199	15,871	14,620	23,526	16,691	14,872	18,658	15,225	12,949
1924	10,381	10,551	10,751	12,650	14,704	10,058	8,426	6,886	9,248	10,356	9,161	7,090
1925	7,615	7,682	12,171	12,594	63,177	25,720	19,995	15,390	15,153	17,282	11,479	9,529
1926	9,133	8,400	9,037	17,358	40,081	13,540	19,001	11,549	13,436	16,326	13,740	9,370
1927	9,345	23,340	18,110	31,156	74,785	43,301	44,439	25,644	18,110	17,973	15,813	13,507
1928	10,040	19,731	15,296	23,547	27,167	74,214	26,068	17,782	14,536	18,999	13,147	11,916
1929	11,606	12,094	12,155	12,428	14,854	10,950	7,372	8,391	11,362	11,064	7,953	7,038
1930	7,622	7,110	17,069	20,355	19,044	31,434	11,789	11,317	12,279	16,720	14,364	11,661
1931	8,981	10,604	9,468	12,484	11,710	7,452	8,593	7,047	10,213	12,735	10,989	7,486
1932	7,800	7,129	18,398	20,867	16,549	12,491	8,929	13,732	17,318	12,541	10,305	11,417
1933	9,229	8,407	8,974	12,770	10,279	13,569	10,757	6,502	10,300	12,501	8,775	6,969
1934	7,784	7,271	13,948	18,077	14,966	12,335	11,240	7,829	10,956	11,115	8,056	7,114
1935	7,808	10,553	9,398	28,571	13,949	24,711	47,142	23,128	19,301	18,210	17,197	12,711
1936	12,391	9,740	12,809	38,517	60,695	29,502	20,770	14,896	15,885	18,858	16,703	11,891
1937	11,958	9,660	12,384	12,524	34,701	38,784	22,043	15,806	16,551	17,648	15,098	10,747
1938	9,930	24,926	56,271	31,295	74,238	74,612	60,262	55,478	34,820	19,616	14,199	15,584
1939	14,312	13,244	14,824	13,584	10,786	13,023	9,739	10,551	12,165	18,068	15,028	12,202
1940	11,922	9,286	9,420	32,396	54,548	73,791	65,147	17,416	14,490	22,054	16,525	12,916
1941	12,029	12,373	43,634	73,169	73,774	70,294	60,811	39,039	18,985	21,414	16,016	16,448
1942	12,686	12,293	61,010	68,870	74,385	23,029	43,102	33,728	26,569	19,771	15,334	17,918
1943	13,115	14,139	26,980	71,806	51,452	67,084	25,538	18,248	12,754	19,222	15,778	13,842
1944	10,679	10,164	12,339	14,199	27,027	21,510	10,244	11,092	15,567	16,703	14,534	12,498
1945	12,063	15,827	17,961	13,012	45,608	22,208	10,840	14,523	17,503	20,547	15,363	12,811
1946	10,406	15,770	62,590	49,344	25,625	19,641	12,629	14,165	16,970	20,456	15,764	12,624
1947	13,013	12,310	15,744	11,136	19,389	21,052	13,491	10,243	13,290	17,200	14,152	12,881
1948	11,427	11,699	8,975	16,432	16,267	15,026	25,732	28,345	21,956	21,172	17,061	14,111
1949	12,784	10,172	13,584	11,025	13,089	44,142	12,648	13,882	16,666	19,068	13,392	11,613
1950	9,220	9,527	9,187	20,927	34,954	20,572	18,720	17,336	19,861	19,756	16,407	13,274
1951	12,001	43,849	74,407	61,570	63,916	28,406	14,857	18,830	12,980	21,392	16,761	13,383
1952	12,718	15,855	40,907	73,283	72,235	55,253	59,006	59,646	37,917	19,552	15,584	20,305
1953	16,445	12,927	43,041	73,081	23,614	22,509	15,397	23,356	24,598	20,374	15,352	19,041
1954	13,610	17,202	13,699	34,200	61,562	48,972	39,477	23,473	13,862	21,833	15,643	13,274
1955	13,839	14,932	23,256	19,204	14,554	10,301	13,166	11,856	15,515	15,851	11,710	10,428
1956	9,984	12,441	73,857	75,216	68,767	34,509	17,852	38,152	21,647	17,468	15,388	18,582
1957	14,262	12,273	11,040	14,561	34,197	45,461	20,044	16,815	17,587	20,266	15,939	12,803
1958	18,102	14,236	22,806	37,936	75,279	73,250	73,556	43,674	30,451	20,054	16,061	19,747
1959	15,107	14,222	12,772	35,967	53,078	22,560	9,781	11,179	13,856	21,094	16,436	11,856
1960	11,424	10,432	10,246	12,369	30,012	22,594	13,194	12,197	13,766	20,014	12,158	12,047

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Appendix C-3 CALSIM II Modeling

Year	Base Existing Base Sacramento River (no Yolo Bypass) Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	10,507	12,988	16,508	13,716	27,842	17,816	13,114	11,050	11,942	19,654	15,337	12,288
1962	11,999	11,400	16,538	10,811	46,600	25,071	12,598	12,640	14,741	20,077	17,090	13,710
1963	35,004	16,062	27,058	16,083	68,704	31,405	71,980	29,270	18,320	18,867	15,769	13,202
1964	13,878	25,839	12,437	23,040	15,876	11,777	18,114	10,660	14,317	19,875	16,393	12,417
1965	11,749	16,047	66,627	74,248	31,066	23,526	40,792	22,331	13,423	19,354	15,524	13,765
1966	10,181	22,845	15,588	29,093	24,800	25,522	12,833	13,083	13,611	19,600	15,705	12,725
1967	13,733	15,887	37,330	42,055	56,113	52,843	37,223	43,783	37,156	15,675	16,414	21,536
1968	17,885	13,451	15,336	29,884	61,087	35,711	14,792	10,551	14,071	18,514	15,463	12,128
1969	14,822	12,805	24,069	74,132	73,878	46,259	41,777	47,090	21,546	19,085	13,842	16,146
1970	15,432	14,072	56,675	76,417	71,004	33,887	14,585	12,084	11,768	23,368	16,200	13,263
1971	12,470	18,913	58,611	47,195	27,192	45,146	21,297	26,067	20,167	24,650	15,995	19,223
1972	14,283	13,338	16,896	16,842	23,883	35,300	11,637	11,095	19,794	19,863	13,639	10,973
1973	11,398	19,972	25,906	73,276	72,916	51,290	15,919	17,796	17,848	21,896	15,209	12,003
1974	12,178	61,365	66,979	74,485	39,595	73,722	65,747	22,521	20,229	20,394	15,980	21,130
1975	14,798	13,799	16,479	15,447	64,050	70,779	20,618	28,161	23,879	20,134	15,720	20,220
1976	17,542	14,707	15,486	13,229	13,173	14,275	9,351	6,931	11,408	15,347	10,825	10,999
1977	9,606	9,800	9,003	6,881	7,749	7,140	8,562	5,930	9,540	12,127	11,105	7,840
1978	7,787	7,194	14,713	63,482	51,780	60,128	33,814	20,407	15,443	21,919	15,843	14,115
1979	10,346	10,417	10,185	23,800	41,790	29,747	14,805	16,685	18,716	20,595	15,810	11,737
1980	11,757	15,116	19,934	74,035	74,159	45,030	17,371	15,776	12,955	19,182	16,442	14,238
1981	10,277	9,475	14,407	20,666	26,118	27,522	14,528	10,960	13,524	18,955	13,635	12,682
1982	13,970	34,114	73,825	68,734	73,766	67,935	74,431	35,436	23,291	18,830	14,295	16,538
1983	19,542	36,125	64,334	71,223	74,897	77,285	61,547	56,201	55,396	24,148	21,365	26,809
1984	19,544	64,442	75,012	50,559	34,209	35,063	17,273	12,869	15,076	20,372	16,139	13,876
1985	10,564	32,005	21,554	14,298	16,877	15,545	10,847	12,237	13,117	19,517	16,664	15,411
1986	13,688	10,558	17,617	23,827	78,332	74,255	18,236	12,039	13,556	19,369	17,310	14,389
1987	11,571	9,836	11,134	13,879	19,311	23,471	13,989	9,358	11,231	15,623	12,914	11,357
1988	10,273	9,993	17,838	27,107	15,895	8,909	9,630	8,555	10,831	12,442	8,433	5,937
1989	7,635	8,977	10,616	13,015	9,184	45,178	21,839	13,065	11,751	18,711	15,799	12,667
1990	13,327	10,732	13,903	19,282	16,398	11,829	10,845	7,020	8,446	10,291	11,245	8,120
1991	7,796	7,676	6,654	5,902	7,645	29,815	12,200	8,446	8,277	9,366	13,882	6,949
1992	7,677	7,242	7,058	9,758	31,414	18,450	11,978	8,455	11,346	11,846	10,788	9,435
1993	7,779	7,263	12,558	59,753	55,954	43,205	37,898	29,874	26,472	21,943	16,517	13,894
1994	11,772	11,130	13,824	13,279	21,764	13,843	10,843	8,900	12,108	20,789	16,345	13,626
1995	12,164	15,362	24,780	32,731	39,201	33,861	24,401	19,321	17,323	18,326	14,539	13,137
Max	35,004	64,442	75,012	76,417	78,332	77,285	74,431	59,646	55,396	24,650	21,365	26,809
Min	7,615	7,110	6,654	5,902	7,645	7,140	7,372	5,930	8,277	9,366	7,953	5,937

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Year	Difference Existing Alt 1 & 2 minus Existing Base Sacramento River (no Yolo Bypass) Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	-183	0	0	0	0	0	0	0	0	0	0
1923	85	83	0	0	-124	0	0	0	0	0	0	112
1924	60	47	49	0	-46	3	0	0	7	-29	0	-21
1925	-131	-21	0	0	0	0	0	0	0	0	114	192
1926	61	33	0	0	0	0	0	0	0	0	73	150
1927	54	0	0	0	0	0	0	0	-60	-49	0	154
1928	60	0	0	0	0	0	0	0	0	0	0	133
1929	61	55	0	0	-36	-17	0	0	-161	-200	111	112
1930	42	26	0	0	-200	0	0	0	-200	0	210	186
1931	43	-89	-38	0	-82	-96	-132	0	0	0	0	0
1932	0	0	0	0	159	0	-72	0	0	0	0	217
1933	78	12	0	0	0	0	0	0	-110	0	50	124
1934	-72	-109	0	0	0	-85	0	0	-38	0	80	12
1935	-1	-1	0	0	0	0	0	-5	0	0	0	151
1936	74	47	57	0	0	0	0	0	0	-138	0	175
1937	66	45	165	0	0	0	0	0	-38	-186	-110	124
1938	76	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	41	171
1940	37	22	37	0	0	0	0	0	0	-17	-186	-46
1941	48	18	0	0	0	0	0	0	0	0	0	0
1942	0	73	0	0	0	0	0	0	0	-16	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	142
1944	62	36	18	0	0	0	0	0	0	-119	175	79
1945	35	0	0	0	0	-92	0	0	-35	-186	77	118
1946	61	-43	0	0	-35	-89	0	0	-36	-122	95	121
1947	58	37	0	0	-138	-87	0	0	-192	9	192	80
1948	38	35	60	0	-50	-200	0	0	0	0	157	136
1949	62	-39	0	0	-41	0	0	0	-10	-186	134	144
1950	58	35	0	0	0	-152	0	0	0	-186	16	149
1951	74	0	0	0	0	0	0	0	0	0	0	138
1952	64	57	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	82	0	0	0	0	0	0	0	0	0	0	161
1955	56	57	0	0	-199	-42	0	0	0	0	67	148
1956	40	28	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	143
1958	0	120	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	32	130
1960	51	32	-1	0	0	0	0	0	0	212	171	173

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Appendix C-3 CALSIM II Modeling

Difference Existing Alt 1 & 2 minus Existing Base Sacramento River (no Yolo Bypass) Delta Inflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	46	-42	0	0	0	-87	-74	-5	-116	5	185	14
1962	-124	-58	0	0	0	-98	0	0	-35	-186	140	93
1963	0	0	0	0	0	0	0	0	0	0	0	109
1964	77	0	0	0	0	0	0	0	0	9	169	95
1965	41	0	0	0	0	-92	0	0	-61	-101	0	147
1966	55	0	0	12	-10	0	0	0	0	0	103	117
1967	44	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	98	84
1969	45	25	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	135
1971	57	0	0	0	0	0	0	0	0	0	0	0
1972	8	73	0	0	-228	0	0	0	0	0	85	113
1973	40	0	0	0	0	0	0	0	0	0	0	147
1974	59	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	15	3	0	0	33	46	0	139
1977	48	7	-44	0	-91	-89	-66	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	153
1979	143	65	0	0	0	0	0	0	-36	-91	76	118
1980	56	56	0	0	0	0	0	0	0	0	0	123
1981	126	96	0	0	-200	0	0	0	-11	38	175	95
1982	46	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	143
1985	62	0	0	0	0	0	0	0	0	51	154	97
1986	59	42	0	0	0	0	0	0	-59	-186	-114	79
1987	97	71	0	0	0	0	0	0	-10	-186	153	106
1988	36	37	0	0	-30	-81	0	0	-183	-200	88	119
1989	41	34	0	0	-81	0	0	-5	0	0	210	126
1990	-101	-63	62	0	-38	-62	-99	0	-146	102	0	-7
1991	-126	-14	0	0	24	0	-35	0	0	0	0	0
1992	0	0	0	0	0	0	5	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	141
1994	127	93	0	0	0	-80	0	0	0	193	177	-22
Mean	32	11	5	0	-19	-20	-6	0	-21	-25	47	89
Max	143	120	165	0	159	3	5	0	33	212	210	217
Min	-131	-183	-44	0	-228	-200	-132	-5	-200	-200	-114	-22

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Alt Existing Alt 1 & 2 San Joaquin River Delta Inflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	2,253	1,903	2,965	2,941	8,668	8,516	7,064	7,310	11,837	2,231	2,118	2,073
1923	4,026	1,889	5,594	7,787	6,558	3,039	6,325	5,344	2,215	2,216	2,031	
1924	2,163	1,616	1,721	1,681	1,922	1,713	1,779	1,629	1,284	1,221	824	1,144
1925	1,651	1,550	1,549	1,337	3,144	2,647	4,640	4,115	2,177	1,833	1,700	1,751
1926	1,949	1,487	1,558	1,441	2,196	1,815	3,580	3,108	1,600	1,432	1,001	1,293
1927	1,708	1,901	2,040	1,847	5,350	3,865	5,881	5,528	2,383	1,929	1,756	1,728
1928	1,836	1,984	2,385	2,244	2,587	5,396	5,850	4,782	1,886	1,693	1,612	1,636
1929	1,893	1,490	1,538	1,500	1,903	1,732	2,441	2,251	1,372	1,297	812	1,165
1930	1,424	1,267	1,241	1,343	1,682	1,967	2,460	2,224	1,334	1,256	804	1,151
1931	1,616	1,269	1,237	1,215	1,427	1,306	1,466	1,233	1,133	1,007	668	1,031
1932	1,246	1,298	3,292	3,549	7,691	4,641	4,833	3,991	2,028	1,807	1,683	1,737
1933	1,955	1,499	1,492	1,686	1,997	2,097	2,546	2,327	1,214	1,134	1,104	1,191
1934	1,375	1,281	1,411	1,401	1,989	1,699	1,748	1,539	1,110	1,015	738	1,021
1935	1,171	1,436	1,514	3,792	3,363	3,730	6,614	5,646	3,025	2,137	1,828	1,896
1936	2,009	1,593	1,710	2,014	12,057	5,857	6,762	5,404	2,382	1,996	1,823	1,901
1937	2,472	1,655	1,890	2,643	14,731	12,094	9,382	9,542	2,672	2,171	1,941	2,012
1938	3,339	1,811	5,403	6,702	23,079	29,614	17,625	21,316	20,714	3,635	2,363	2,976
1939	9,210	1,953	2,124	2,103	3,173	3,905	4,621	4,007	1,947	1,861	1,807	1,649
1940	2,037	1,568	1,590	4,245	5,766	9,900	6,899	5,480	2,723	2,143	2,065	2,052
1941	2,455	1,874	3,283	5,313	14,816	11,976	10,304	8,906	6,514	2,550	2,307	2,136
1942	4,524	2,020	5,094	8,740	9,861	6,117	7,142	6,545	5,419	2,913	2,434	2,325
1943	5,845	2,535	3,903	13,310	11,539	19,359	7,955	7,162	3,221	2,679	2,366	2,337
1944	3,258	2,040	2,122	2,057	3,352	3,465	5,316	4,832	2,320	2,235	2,167	1,947
1945	2,202	2,024	2,007	1,908	6,620	8,260	7,038	5,604	2,803	2,442	2,343	2,130
1946	3,422	2,136	5,863	4,955	5,257	4,617	6,059	5,341	2,738	2,274	2,197	2,073
1947	2,305	2,019	2,254	2,009	2,826	2,054	2,579	2,402	1,707	1,623	1,260	1,335
1948	1,788	1,525	1,449	1,295	1,477	1,937	3,966	3,596	2,314	1,872	1,778	1,780
1949	1,914	1,518	1,491	1,359	1,778	2,856	3,667	3,352	1,830	1,782	1,712	1,713
1950	1,692	1,479	1,452	2,152	2,914	2,506	3,663	3,259	1,799	1,645	1,599	1,688
1951	1,733	4,011	9,212	12,035	10,143	5,888	5,634	5,289	2,576	1,954	1,823	1,957
1952	2,419	1,844	3,221	7,612	6,601	13,311	9,909	13,249	13,411	3,339	2,305	2,660
1953	8,488	1,892	2,832	6,770	4,991	3,236	4,831	4,474	2,451	1,988	1,897	1,821
1954	2,166	1,643	1,689	1,746	2,370	2,756	4,886	4,380	2,040	1,974	1,886	1,801
1955	2,065	1,586	1,701	1,994	2,048	1,842	2,562	2,454	1,750	1,669	1,246	1,338
1956	1,578	1,557	12,118	18,047	12,293	6,486	6,125	5,361	5,438	2,572	2,197	2,417
1957	4,822	1,691	1,843	1,819	2,863	4,354	4,649	4,553	2,494	1,927	1,809	1,802
1958	2,612	1,717	1,804	2,079	4,024	9,651	15,993	12,353	9,920	2,815	2,411	2,454
1959	7,181	2,226	2,498	2,122	5,075	3,231	4,227	3,269	1,714	1,656	1,593	1,621
1960	1,868	1,407	1,385	1,443	2,276	1,914	2,567	2,351	1,568	1,335	872	1,232

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Appendix C-3 CALSIM II Modeling

Year	Alt Existing Alt 1 & 2 San Joaquin River Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	1,599	1,362	1,425	1,277	1,458	1,332	1,603	1,395	1,439	989	852	1,213
1962	1,428	1,299	1,303	1,251	1,581	1,475	1,806	1,357	1,754	1,623	1,549	1,637
1963	1,894	1,451	1,421	1,921	3,418	2,850	6,096	5,360	3,016	2,253	1,902	1,923
1964	2,036	1,779	1,794	1,756	1,728	1,743	2,488	2,306	1,466	1,387	904	1,257
1965	1,776	1,712	4,227	10,418	7,014	4,927	7,164	5,703	3,205	2,163	1,907	1,962
1966	2,295	2,930	5,747	4,911	4,918	3,512	4,124	4,289	1,874	1,835	1,765	1,701
1967	2,160	1,721	3,006	3,679	3,445	7,373	13,574	13,272	16,154	9,008	2,225	3,265
1968	6,792	2,033	2,745	2,137	4,210	3,331	4,399	3,345	1,778	1,730	1,658	1,649
1969	2,056	1,635	2,011	15,258	26,525	18,968	18,627	23,526	24,616	4,087	2,269	2,895
1970	8,837	1,924	3,743	18,728	9,638	7,906	5,873	5,407	2,633	2,091	2,017	2,038
1971	2,368	1,921	3,217	2,679	2,485	3,487	4,599	4,398	2,337	2,045	1,955	1,828
1972	2,094	1,613	1,843	1,789	2,304	1,846	2,584	2,680	1,605	1,557	1,508	1,508
1973	1,913	1,636	1,646	2,682	8,442	8,784	6,918	5,504	2,338	2,072	1,974	2,010
1974	2,279	1,751	2,691	5,843	5,518	7,849	9,172	6,287	3,536	2,416	2,178	2,215
1975	3,498	1,932	2,092	2,053	6,673	10,272	7,212	5,985	4,838	2,512	2,193	2,229
1976	3,964	1,865	1,964	1,776	2,147	1,845	2,524	2,328	1,546	1,466	1,433	1,249
1977	3,224	2,163	1,750	1,361	1,470	1,335	1,756	1,631	1,287	864	730	1,061
1978	1,508	1,417	1,588	3,786	7,958	9,628	13,082	11,134	11,322	2,616	1,973	2,713
1979	4,676	1,713	1,950	5,140	10,539	9,432	6,518	5,581	2,297	1,934	1,843	1,968
1980	2,328	1,859	1,989	13,356	22,617	13,780	7,825	5,223	2,794	3,981	2,113	2,926
1981	5,046	1,806	1,940	2,210	2,655	3,816	4,484	3,649	1,769	1,721	1,661	1,644
1982	2,126	1,782	1,915	8,239	15,318	16,806	25,550	16,128	9,903	3,843	3,321	4,281
1983	12,833	8,186	20,163	25,133	33,297	40,943	20,455	19,838	34,654	17,855	2,200	6,622
1984	12,696	13,684	23,114	14,724	9,964	6,285	5,655	5,256	2,744	3,321	2,223	2,078
1985	2,347	1,980	2,028	1,843	2,525	2,330	3,331	3,604	1,833	1,729	1,639	1,646
1986	2,129	1,762	1,835	2,261	18,918	25,075	12,117	7,848	6,746	2,516	2,275	2,298
1987	3,514	1,822	1,853	1,734	2,117	2,087	2,543	2,358	1,608	1,574	1,312	1,273
1988	1,694	1,395	1,344	1,339	1,389	1,326	1,779	1,647	1,334	1,042	744	1,117
1989	1,590	1,349	1,449	1,257	1,443	1,738	1,808	1,512	1,349	1,356	844	1,239
1990	1,445	1,386	1,311	1,265	1,494	1,424	1,644	1,384	1,230	1,129	772	1,163
1991	1,196	1,275	1,188	1,092	1,200	2,627	2,327	1,777	1,171	1,129	820	1,104
1992	1,340	1,267	1,190	1,275	2,437	2,013	2,009	1,411	1,155	1,050	870	1,158
1993	1,737	1,409	1,537	7,874	5,570	5,138	4,896	4,688	3,239	2,156	1,959	1,875
1994	3,622	1,622	1,614	1,414	1,816	1,553	2,390	2,251	1,457	1,439	972	1,222
Mean	3,033	1,995	3,015	4,434	6,311	6,293	6,076	5,468	4,173	2,284	1,678	1,890
Max	12,833	13,684	23,114	25,133	33,297	40,943	25,550	23,526	34,654	17,855	2,434	6,622
Min	1,171	1,267	1,188	1,092	1,200	1,306	1,466	1,233	1,110	864	668	1,021

Year	Base Existing Base San Joaquin River Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	2,253	1,903	2,965	2,941	8,668	8,516	7,064	7,310	11,837	2,231	2,118	2,073
1923	4,026	1,889	5,594	7,787	6,558	3,039	6,325	5,344	2,754	2,251	2,116	2,031
1924	2,163	1,616	1,721	1,681	1,922	1,713	1,779	1,629	1,284	1,221	824	1,144
1925	1,651	1,550	1,549	1,337	3,144	2,647	4,640	4,115	2,177	1,833	1,700	1,751
1926	1,949	1,487	1,558	1,441	2,196	1,815	3,580	3,108	1,600	1,432	1,001	1,293
1927	1,708	1,901	2,040	1,847	5,350	3,865	5,881	5,528	2,383	1,929	1,756	1,728
1928	1,836	1,984	2,385	2,244	2,587	5,396	5,850	4,782	1,886	1,693	1,612	1,636
1929	1,893	1,490	1,538	1,500	1,903	1,732	2,441	2,251	1,372	1,297	812	1,165
1930	1,424	1,267	1,241	1,343	1,682	1,967	2,460	2,224	1,334	1,256	804	1,151
1931	1,616	1,269	1,237	1,215	1,427	1,306	1,466	1,233	1,133	1,007	668	1,031
1932	1,246	1,298	3,292	3,549	7,691	4,641	4,833	3,991	2,028	1,807	1,683	1,737
1933	1,955	1,499	1,492	1,686	1,997	2,097	2,546	2,327	1,214	1,134	1,104	1,191
1934	1,375	1,281	1,411	1,401	1,989	1,699	1,748	1,539	1,110	1,015	738	1,021
1935	1,171	1,436	1,514	3,792	3,363	3,730	6,614	5,646	3,025	2,137	1,828	1,896
1936	2,009	1,593	1,710	2,014	12,057	5,857	6,762	5,404	2,382	1,996	1,823	1,901
1937	2,472	1,655	1,890	2,643	14,731	12,094	9,382	9,542	2,672	2,171	1,941	2,012
1938	3,339	1,811	5,403	6,702	23,079	29,614	17,625	21,316	20,714	3,635	2,363	2,976
1939	9,210	1,953	2,124	2,103	3,173	3,905	4,621	4,007	1,947	1,861	1,807	1,649
1940	2,037	1,568	1,590	4,245	5,766	9,900	6,899	5,480	2,723	2,143	2,065	2,052
1941	2,455	1,874	3,283	5,313	14,816	11,976	10,304	8,906	6,514	2,550	2,307	2,136
1942	4,524	2,020	5,094	8,740	9,861	6,117	7,142	6,545	5,419	2,913	2,434	2,325
1943	5,845	2,535	3,903	13,310	11,539	19,359	7,955	7,162	3,221	2,679	2,366	2,337
1944	3,258	2,040	2,122	2,057	3,352	3,465	5,316	4,832	2,320	2,235	2,167	1,947
1945	2,202	2,024	2,007	1,908	6,620	8,260	7,038	5,604	2,803	2,442	2,343	2,130
1946	3,422	2,136	5,863	4,955	5,257	4,617	6,059	5,341	2,738	2,274	2,197	2,073
1947	2,305	2,019	2,254	2,009	2,826	2,054	2,579	2,402	1,707	1,623	1,260	1,335
1948	1,788	1,525	1,449	1,295	1,477	1,937	3,966	3,596	2,314	1,872	1,778	1,780
1949	1,914	1,518	1,491	1,359	1,778	2,856	3,667	3,352	1,830	1,782	1,712	1,713
1950	1,692	1,479	1,452	2,152	2,914	2,506	3,663	3,259	1,799	1,645	1,599	1,688
1951	1,733	4,011	9,212	12,035	10,143	5,888	5,634	5,289	2,576	1,954	1,823	1,957
1952	2,419	1,844	3,221	7,612	6,601	13,311	9,909	13,249	13,411	3,339	2,305	2,660
1953	8,488	1,892	2,832	6,770	4,991	3,236	4,831	4,474	2,451	1,988	1,897	1,821
1954	2,166	1,643	1,689	1,746	2,370	2,756	4,886	4,380	2,040	1,974	1,886	1,801
1955	2,065	1,586	1,701	1,994	2,048	1,842	2,562	2,454	1,750	1,669	1,246	1,338
1956	1,578	1,557	1,218	18,047	12,293	6,486	6,125	5,361	5,438	2,572	2,197	2,417
1957	4,822	1,691	1,843	1,819	2,863	4,354	4,649	4,553	2,494	1,927	1,809	1,802
1958	2,662	1,717	1,804	2,079	4,024	9,651	15,993	12,353	9,920	2,815	2,411	2,454
1959	7,181	2,226	2,498	2,122	5,075	3,231	4,227	3,269	1,714	1,656	1,593	1,621
1960	1,868	1,407	1,385	1,443	2,276	1,914	2,567	2,351	1,568	1,335	872	1,232

Appendix C-3 CALSIM II Modeling

Base Existing Base San Joaquin River Delta Inflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	1,599	1,362	1,425	1,277	1,458	1,332	1,603	1,395	1,439	989	852	1,213
1962	1,428	1,299	1,303	1,251	1,581	1,475	1,806	1,357	1,734	1,623	1,549	1,637
1963	1,894	1,451	1,421	1,921	3,418	2,850	6,096	5,360	3,016	2,253	1,902	1,923
1964	2,036	1,779	1,794	1,756	1,728	1,743	2,488	2,306	1,466	1,387	904	1,257
1965	1,776	1,712	4,227	10,418	7,014	4,927	7,164	5,703	3,205	2,163	1,907	1,962
1966	2,295	2,930	5,747	4,911	4,918	3,512	4,124	4,289	1,874	1,835	1,765	1,701
1967	2,160	1,721	3,006	3,679	3,445	7,373	13,574	13,272	16,154	9,008	2,225	3,265
1968	6,792	2,033	2,745	2,137	4,210	3,331	4,399	3,345	1,778	1,730	1,658	1,649
1969	2,056	1,635	2,011	15,258	26,525	18,968	18,627	23,526	24,616	4,087	2,269	2,895
1970	8,837	1,924	3,743	18,728	9,638	7,906	5,873	5,407	2,633	2,091	2,017	2,038
1971	2,368	1,921	3,217	2,679	2,485	3,487	4,599	4,398	2,337	2,045	1,955	1,828
1972	2,094	1,613	1,843	1,789	2,304	1,846	2,584	2,680	1,605	1,557	1,508	1,508
1973	1,913	1,636	1,646	2,682	8,442	8,784	6,918	5,504	2,338	2,072	1,974	2,010
1974	2,279	1,751	2,691	5,843	5,518	7,849	9,172	6,287	3,536	2,416	2,178	2,215
1975	3,498	1,932	2,092	2,053	6,673	10,272	7,212	5,985	4,838	2,512	2,193	2,229
1976	3,964	1,865	1,964	1,776	2,147	1,845	2,524	2,328	1,546	1,466	1,433	1,249
1977	3,224	2,163	1,750	1,361	1,470	1,335	1,756	1,631	1,287	864	730	1,061
1978	1,508	1,417	1,588	3,786	7,958	9,628	13,082	11,134	11,322	2,616	1,973	2,713
1979	4,676	1,713	1,950	5,140	10,539	9,432	6,518	5,581	2,297	1,934	1,843	1,968
1980	2,328	1,859	1,989	13,356	22,617	13,780	7,825	6,223	5,794	3,981	2,113	2,926
1981	5,046	1,806	1,940	2,210	2,655	3,816	4,484	3,649	1,769	1,721	1,661	1,644
1982	2,126	1,782	1,915	8,239	15,318	16,806	25,550	16,128	9,903	3,843	3,321	4,281
1983	12,833	8,186	20,163	25,133	33,297	40,943	20,455	19,838	34,654	17,855	2,200	6,622
1984	12,696	13,684	23,114	14,724	9,964	6,285	5,655	5,256	2,744	3,321	2,223	2,078
1985	2,347	1,980	2,028	1,843	2,525	2,330	3,331	3,604	1,833	1,729	1,639	1,646
1986	2,129	1,762	1,835	2,261	18,918	25,075	12,117	7,848	6,746	2,516	2,275	2,298
1987	3,514	1,822	1,853	1,734	2,117	2,087	2,543	2,358	1,608	1,574	1,312	1,273
1988	1,694	1,395	1,344	1,339	1,389	1,326	1,779	1,647	1,334	1,042	744	1,117
1989	1,590	1,349	1,449	1,257	1,443	1,738	1,808	1,512	1,349	1,356	844	1,239
1990	1,445	1,386	1,311	1,265	1,494	1,424	1,644	1,384	1,230	1,129	772	1,163
1991	1,196	1,275	1,188	1,092	1,200	2,627	2,327	1,777	1,171	1,129	820	1,104
1992	1,340	1,267	1,190	1,275	2,437	2,013	2,009	1,411	1,155	1,050	870	1,158
1993	1,737	1,409	1,537	7,874	5,570	5,138	4,896	4,688	3,239	2,156	1,959	1,875
1994	3,652	1,622	1,614	1,414	1,816	1,553	2,390	2,251	1,457	1,439	972	1,222
Mean	3,023	1,995	3,015	4,434	6,311	6,293	6,076	5,468	4,173	2,284	1,678	1,890
Max	12,833	13,684	23,114	25,133	33,297	40,943	25,550	23,526	34,654	17,855	2,434	6,622
Min	1,171	1,267	1,188	1,092	1,200	1,306	1,466	1,233	1,110	864	668	1,021

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Appendix C-3 CALSIM II Modeling

Alt Existing Alt 1 & 2 Delta Outflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	4,104	4,500	10,023	9,942	38,968	28,706	24,131	53,211	36,513	8,000	4,000	3,161
1923	4,004	6,508	31,333	27,766	14,900	10,901	25,838	16,532	8,168	6,500	4,000	3,896
1924	4,000	5,871	4,500	7,417	9,241	10,111	6,034	4,124	5,222	6,565	3,667	3,000
1925	3,461	5,200	6,638	7,122	62,085	27,194	20,835	17,200	8,169	5,000	5,960	3,000
1926	4,000	5,538	5,382	9,404	36,243	9,784	21,104	10,806	5,112	5,000	4,883	3,000
1927	4,199	15,269	9,232	24,335	126,531	38,881	46,064	27,474	9,962	9,221	4,000	3,760
1928	4,000	10,589	7,480	16,440	20,191	98,138	26,568	16,383	6,361	8,000	4,000	3,000
1929	5,105	5,631	5,864	6,764	9,434	9,554	6,948	6,579	6,034	4,000	4,755	3,000
1930	3,633	5,427	8,313	12,927	13,985	24,008	10,425	10,245	5,803	5,000	4,818	3,000
1931	4,618	5,283	4,623	7,195	7,697	6,171	6,822	4,427	5,190	6,073	3,141	3,000
1932	4,227	4,694	14,886	14,646	17,717	11,400	11,197	14,008	10,174	5,000	4,510	3,000
1933	4,000	5,306	4,951	12,540	7,373	10,702	10,031	5,726	6,038	4,000	5,314	3,000
1934	3,131	6,293	6,287	12,332	14,842	11,400	9,991	5,599	6,897	4,000	4,846	3,000
1935	3,466	6,422	4,633	25,303	11,400	23,055	52,766	26,440	11,696	6,500	4,000	3,211
1936	4,477	6,184	4,500	33,127	74,382	26,437	23,220	18,373	10,214	6,500	4,000	3,089
1937	4,213	6,698	4,500	7,429	42,699	45,768	26,662	19,727	9,500	6,500	4,762	3,000
1938	4,000	15,598	56,952	30,762	146,012	166,586	74,130	69,544	43,981	8,000	4,000	5,887
1939	11,371	4,500	7,032	9,523	7,675	10,983	10,029	9,726	5,314	5,000	4,051	3,000
1940	5,849	4,500	4,500	30,710	58,715	102,783	68,355	19,037	7,261	8,000	4,000	3,604
1941	4,062	6,995	40,316	97,617	121,492	88,158	73,515	43,356	15,522	8,000	4,840	5,536
1942	5,062	4,500	61,438	82,435	140,500	22,264	50,305	38,926	19,922	8,000	4,000	7,289
1943	6,640	5,911	21,840	85,095	56,520	85,519	29,257	23,206	7,246	9,838	4,000	3,794
1944	4,000	5,130	5,719	7,143	21,584	16,218	10,766	11,241	7,392	5,000	3,500	3,000
1945	6,862	6,811	9,685	6,779	44,440	20,961	13,712	17,537	8,903	6,500	4,000	3,406
1946	4,107	7,525	63,702	45,083	24,469	15,802	13,402	13,264	8,728	6,500	4,000	3,290
1947	4,661	6,661	7,070	6,843	12,519	15,168	11,195	8,711	6,092	5,000	3,715	3,000
1948	6,293	4,500	4,601	8,416	11,209	10,916	25,282	27,635	13,196	6,500	4,000	3,788
1949	4,823	5,385	6,069	6,990	8,486	38,649	12,102	13,856	7,481	5,000	5,107	3,000
1950	4,473	5,611	5,170	14,391	28,415	14,943	17,968	17,913	10,748	6,500	4,303	3,789
1951	4,000	43,050	94,606	71,664	71,698	26,435	16,020	21,710	6,066	9,658	4,000	5,539
1952	4,253	7,552	36,649	86,927	73,247	64,602	67,898	68,604	40,242	8,000	4,000	10,173
1953	12,454	4,500	42,068	101,795	22,330	16,477	15,415	24,624	16,983	8,000	4,000	7,524
1954	4,173	7,275	5,261	26,396	54,353	43,105	39,354	21,539	6,134	8,000	4,000	3,426
1955	5,263	6,346	15,073	13,346	11,400	7,318	12,689	11,291	7,007	5,000	4,740	3,000
1956	4,786	5,622	92,143	166,952	83,055	35,097	19,246	42,902	15,227	8,000	4,000	8,317
1957	7,016	4,500	5,319	7,816	27,307	39,717	18,828	16,432	8,864	8,000	4,000	3,467
1958	8,527	4,500	13,857	32,442	180,816	93,944	97,467	51,598	28,842	8,000	4,398	9,338
1959	9,850	4,500	5,370	29,440	47,746	21,057	8,886	9,571	6,591	7,878	4,000	3,822
1960	4,013	6,603	4,500	6,974	22,983	15,766	11,400	10,973	5,592	5,000	4,464	3,000

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Appendix C-3 CALSIM II Modeling

Alt Existing Alt 1 & 2 Delta Outflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	5,863	5,085	8,204	6,813	18,056	12,386	10,182	9,215	5,865	5,000	4,336	3,000
1962	5,833	4,672	8,072	6,000	45,619	19,904	12,473	12,941	6,488	6,623	4,000	3,599
1963	27,152	5,496	18,299	10,160	67,954	25,844	89,078	33,827	10,618	11,008	4,000	3,787
1964	4,597	17,066	5,412	16,788	11,191	8,018	15,041	8,375	6,443	5,000	4,431	3,117
1965	5,556	6,362	69,989	117,611	28,919	18,569	44,267	23,109	7,555	9,980	4,000	4,064
1966	4,000	15,007	11,169	24,959	20,372	18,681	11,621	12,539	5,662	7,008	4,000	3,360
1967	5,736	6,706	32,081	47,063	51,621	54,918	52,045	53,209	42,118	9,294	4,602	12,156
1968	12,289	4,500	7,599	26,503	59,082	32,736	13,657	9,312	6,144	7,022	4,000	3,000
1969	6,253	4,994	16,122	117,835	132,246	60,286	57,763	64,504	34,563	8,000	4,000	6,428
1970	12,235	6,153	55,433	211,762	85,143	35,269	15,328	13,746	5,530	13,010	4,000	3,438
1971	4,000	10,956	57,426	43,614	25,350	39,137	20,422	27,614	10,760	11,395	4,000	7,816
1972	4,346	4,500	8,621	8,676	16,535	25,414	10,119	8,711	10,704	6,500	4,000	3,000
1973	5,213	12,187	17,694	80,425	90,229	54,896	16,982	18,677	9,721	8,000	4,000	3,241
1974	4,167	53,884	62,577	125,445	35,978	104,933	70,868	26,568	13,283	8,000	4,000	10,229
1975	6,101	4,549	7,811	7,329	63,455	85,687	23,329	30,884	16,078	8,000	4,125	9,477
1976	9,680	4,944	6,250	6,157	8,117	9,195	7,683	4,240	4,710	7,573	3,000	3,000
1977	5,300	3,665	5,629	5,354	6,875	6,115	7,100	4,625	5,168	5,662	3,425	3,000
1978	3,818	5,211	7,012	64,044	57,582	66,314	43,255	23,816	15,122	8,000	4,082	4,159
1979	4,000	5,185	5,962	20,457	45,207	32,285	16,027	17,830	10,066	6,500	4,000	3,000
1980	4,845	6,664	11,671	99,262	130,344	56,522	20,250	19,983	10,063	8,000	4,843	4,472
1981	4,000	4,640	7,924	13,694	18,604	22,757	13,538	9,911	5,387	5,000	3,698	3,330
1982	6,589	25,845	84,350	75,466	101,346	80,667	140,370	45,666	22,722	8,000	4,011	8,879
1983	20,534	36,996	81,691	105,223	179,230	252,419	87,546	74,896	82,943	27,710	10,421	22,794
1984	25,521	79,740	156,487	68,424	39,054	31,331	16,912	13,288	8,266	10,475	4,000	3,647
1985	4,049	24,844	13,320	7,057	10,734	12,368	9,939	11,491	5,460	5,000	4,366	4,463
1986	4,818	5,257	9,281	17,511	206,116	147,733	22,740	13,150	9,282	8,000	5,683	4,468
1987	4,000	4,624	6,570	6,855	13,129	19,952	11,149	7,531	6,168	5,000	3,500	3,000
1988	5,746	4,500	8,464	19,886	11,187	7,887	7,462	6,719	6,771	4,000	4,990	3,000
1989	3,541	5,815	5,268	7,916	7,833	37,218	17,608	10,350	5,767	5,000	4,553	3,728
1990	4,852	5,994	4,500	10,978	11,400	7,726	9,869	5,626	4,000	5,682	3,739	3,000
1991	3,540	5,540	5,137	5,133	7,018	23,020	11,192	6,618	4,000	4,691	4,232	3,000
1992	3,539	5,310	5,779	5,272	25,435	13,615	10,369	5,779	6,736	4,000	3,249	3,000
1993	4,761	3,842	7,572	65,493	54,883	41,746	37,496	31,821	19,712	8,000	4,211	3,694
1994	4,174	5,453	7,341	6,507	15,705	11,012	8,842	7,264	4,000	6,608	3,190	3,778
Mean	6,052	9,448	21,490	36,601	47,756	38,921	27,512	20,875	12,086	7,205	4,253	4,506
Max	27,152	79,740	156,487	211,762	206,116	252,419	140,370	74,896	82,943	27,710	10,421	22,794
Min	3,131	3,665	4,500	5,133	6,875	6,115	6,034	4,124	4,000	4,000	3,000	3,000

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Base Existing Base Delta Outflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	4,000	4,500	9,973	9,942	38,968	28,706	24,131	53,211	36,513	8,000	4,000	3,161
1923	4,104	6,508	31,174	27,762	14,900	10,901	25,838	16,532	8,168	6,500	4,000	3,896
1924	4,000	5,871	4,500	7,399	9,241	10,111	6,034	4,124	5,222	6,565	3,667	3,000
1925	3,461	5,200	6,636	7,122	62,085	27,194	20,835	17,200	8,169	5,000	5,960	3,000
1926	4,000	5,538	5,333	9,389	36,252	9,784	21,104	10,806	5,112	5,000	4,883	3,000
1927	4,199	15,335	9,168	24,133	126,341	38,758	46,064	27,474	9,962	9,221	4,000	3,760
1928	4,000	10,640	7,390	16,272	20,191	98,138	26,568	16,383	6,361	8,000	4,000	3,000
1929	5,105	5,631	6,044	6,821	9,434	9,554	6,948	6,579	6,034	4,000	4,755	3,000
1930	3,633	5,427	8,372	12,927	13,985	24,008	10,425	10,245	5,803	5,000	4,818	3,000
1931	4,618	5,283	4,623	7,162	7,697	6,171	6,822	4,427	5,190	6,073	3,141	3,000
1932	4,227	4,694	14,886	14,646	17,717	11,400	11,197	14,003	10,174	5,000	4,510	3,000
1933	4,000	5,306	5,006	12,550	7,279	10,702	10,031	5,726	6,038	4,000	5,314	3,000
1934	3,131	6,293	6,268	12,333	14,642	11,400	9,991	5,599	6,897	4,000	4,846	3,000
1935	3,466	6,422	4,633	25,307	11,400	23,055	52,766	26,440	11,696	6,500	4,000	3,211
1936	4,477	6,184	4,500	33,131	74,354	26,313	23,220	18,373	10,176	6,500	4,000	3,089
1937	4,213	6,698	4,500	7,413	42,764	45,620	26,662	19,727	9,500	6,500	4,762	3,000
1938	4,000	15,743	56,745	30,632	146,012	166,586	74,130	69,544	43,981	8,000	4,000	5,601
1939	11,358	4,500	7,032	9,523	7,675	10,983	10,029	9,726	5,314	5,000	4,051	3,000
1940	5,849	4,500	4,500	30,720	58,710	102,783	68,280	19,029	7,261	8,000	4,400	3,604
1941	4,062	6,995	40,316	97,592	121,263	88,130	73,515	43,356	15,522	8,000	4,840	5,621
1942	5,168	4,500	61,436	82,397	140,488	22,136	50,305	38,926	19,856	8,000	4,000	7,361
1943	6,571	5,911	21,840	85,095	56,520	85,519	29,257	23,206	7,246	9,838	4,000	3,794
1944	4,000	5,130	5,719	7,189	21,603	16,218	10,766	11,241	7,392	5,000	3,500	3,000
1945	6,862	6,820	9,685	6,779	44,345	20,961	13,712	17,537	8,903	6,500	4,000	3,406
1946	4,107	7,525	63,697	45,082	24,469	15,802	13,402	13,264	8,728	6,500	4,000	3,290
1947	4,661	6,661	7,233	6,843	12,519	15,168	11,195	8,711	6,092	5,000	3,715	3,000
1948	6,293	4,500	4,601	8,497	11,209	10,916	25,000	27,603	13,196	6,500	4,000	3,788
1949	4,823	5,385	6,206	6,991	8,486	38,649	12,102	13,856	7,481	5,000	5,107	3,000
1950	4,473	5,611	5,209	14,443	28,415	14,943	17,806	17,906	10,713	6,500	4,303	3,789
1951	4,000	43,158	94,393	71,457	71,659	26,435	16,020	21,710	6,066	9,658	4,000	3,539
1952	4,253	7,552	36,584	86,909	73,064	64,602	67,898	68,604	40,242	8,000	4,000	10,173
1953	12,454	4,500	42,068	101,795	22,330	16,477	15,415	24,624	16,983	8,000	4,000	7,643
1954	4,173	7,336	5,262	26,394	54,153	43,030	39,354	21,539	6,134	8,000	4,000	3,426
1955	5,263	6,346	15,031	13,343	11,400	7,318	12,689	11,291	7,007	5,000	4,740	3,000
1956	4,786	5,622	92,127	166,938	82,875	35,016	19,246	42,902	15,227	8,000	4,000	8,349
1957	6,986	4,500	5,339	7,859	27,237	39,717	18,828	16,432	8,864	8,000	4,000	3,467
1958	8,594	4,500	13,677	32,413	180,671	93,944	97,467	51,598	28,842	8,000	4,398	9,338
1959	9,850	4,500	5,382	29,434	47,739	21,057	8,886	9,571	6,591	7,878	4,000	3,822
1960	4,013	6,603	4,500	6,976	22,949	15,766	11,400	10,973	5,592	5,000	4,464	3,000

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Year	Base Existing Base Delta Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	5.863	5.085	8.332	6.813	18,088	12,386	10,182	9,215	5,865	5,000	4,336	3,000
1962	5.833	4.672	8.072	6,000	45,619	19,904	12,283	12,933	6,488	6,623	4,000	3,599
1963	27,094	5,496	18,108	10,066	67,954	25,844	89,078	33,827	10,618	11,008	4,000	3,787
1964	4,597	17,101	5,349	16,634	11,191	8,018	15,041	8,375	6,443	5,000	4,431	3,117
1965	5,556	6,434	69,989	117,611	28,781	18,569	44,267	23,109	7,555	9,980	4,000	4,064
1966	4,000	15,117	10,959	24,865	20,372	18,681	11,621	12,539	5,662	7,008	4,000	3,360
1967	5,736	6,859	31,922	47,035	51,426	54,871	52,045	53,209	42,118	9,294	4,602	12,156
1968	12,289	4,500	7,599	26,503	59,082	32,736	13,657	9,312	6,144	7,022	4,000	3,000
1969	6,253	4,994	16,149	117,835	132,071	60,168	57,763	64,504	34,563	8,000	4,000	6,428
1970	12,235	6,153	55,433	211,762	85,143	35,269	15,328	13,746	5,530	13,010	4,000	3,438
1971	4,000	11,007	57,324	43,478	25,350	39,137	20,422	27,614	10,760	11,395	4,000	7,890
1972	4,346	4,500	8,665	8,705	16,535	25,406	10,119	8,711	10,704	6,500	4,000	3,000
1973	5,213	12,217	17,694	80,217	90,166	54,896	16,982	18,677	9,721	8,000	4,000	3,241
1974	4,167	53,932	62,489	125,285	35,978	104,933	70,868	26,568	13,283	8,000	4,000	10,301
1975	6,032	4,549	7,838	7,359	63,392	85,687	23,329	30,884	16,078	8,000	4,125	9,533
1976	9,626	4,944	6,271	6,204	8,117	9,195	7,683	4,238	4,710	7,573	3,000	3,000
1977	5,300	3,665	5,629	5,296	6,875	6,115	7,100	4,625	5,168	5,662	3,425	3,000
1978	3,818	5,211	7,012	64,044	47,583	66,314	43,249	23,816	15,122	8,000	4,082	4,159
1979	4,000	5,185	6,010	20,460	45,042	32,159	16,027	17,830	10,066	6,500	4,000	3,000
1980	4,845	6,664	11,665	99,242	130,109	56,468	20,250	19,983	10,063	8,000	4,843	4,472
1981	4,000	4,640	7,988	13,688	18,604	22,631	13,538	9,911	5,387	5,000	3,698	3,330
1982	6,589	25,862	84,350	75,268	101,139	80,606	140,370	45,666	22,722	8,000	4,011	8,879
1983	20,534	36,996	81,691	105,223	179,230	252,419	87,546	74,896	82,943	27,710	10,421	22,794
1984	25,521	79,740	156,487	68,424	39,054	31,331	16,912	13,288	8,266	10,475	4,000	3,647
1985	4,049	24,882	13,249	6,892	10,734	12,368	9,939	11,491	5,460	5,000	4,366	4,463
1986	4,818	5,257	9,428	17,511	206,259	147,527	22,638	13,143	9,282	8,000	5,683	4,468
1987	4,000	4,624	6,605	6,895	13,145	19,923	11,149	7,531	6,168	5,000	3,500	3,000
1988	5,746	4,500	8,660	19,886	11,187	7,887	7,462	6,719	6,771	4,000	4,990	3,000
1989	3,541	5,815	5,239	7,916	7,833	37,218	17,571	10,350	5,767	5,000	4,553	3,728
1990	4,852	5,994	4,500	10,907	11,400	7,726	9,869	5,623	4,000	5,682	3,739	3,000
1991	3,540	5,540	5,137	5,133	7,018	23,018	11,192	6,613	4,000	4,691	4,232	3,000
1992	3,539	5,310	5,779	5,272	25,435	13,615	10,369	5,779	6,736	4,000	3,249	3,000
1993	4,761	3,842	7,572	65,493	54,883	41,746	37,496	31,821	19,712	8,000	4,211	3,694
1994	4,174	5,453	7,420	6,528	15,740	11,012	8,842	7,264	4,000	6,608	3,190	3,778
Mean	6,051	9,461	21,482	36,576	47,720	38,901	27,500	20,874	12,084	7,205	4,253	4,513
Max	27,094	79,740	156,487	211,762	206,259	252,419	140,370	74,896	82,943	27,710	10,421	22,794
Min	3,131	3,665	4,500	5,133	6,875	6,115	6,034	4,124	4,000	4,000	3,000	3,000

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Year	Difference Existing Alt 1 & 2 minus Existing Base Delta Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	50	0	0	0	0	0	0	0	0
1923	0	0	159	5	0	0	0	0	0	0	0	0
1924	0	0	0	18	0	0	0	0	0	0	0	0
1925	0	0	2	0	0	0	0	0	0	0	0	0
1926	0	0	49	14	-9	0	0	0	0	0	0	0
1927	0	-66	64	202	190	123	0	0	0	0	0	0
1928	0	-51	90	168	0	0	0	0	0	0	0	0
1929	0	0	-180	-58	0	0	0	0	0	0	0	0
1930	0	0	-59	0	0	0	0	0	0	0	0	0
1931	0	0	0	34	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	5	0	0	0	0
1933	0	0	-55	-10	94	0	0	0	0	0	0	0
1934	0	0	18	-1	200	0	0	0	0	0	0	0
1935	0	0	0	-3	0	0	0	0	0	0	0	0
1936	0	0	0	-4	27	124	0	0	38	0	0	0
1937	0	0	0	16	-66	147	0	0	0	0	0	0
1938	0	-145	207	130	0	0	0	0	0	0	0	-14
1939	13	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	-10	0	0	75	7	0	0	0	0
1941	0	0	0	24	229	28	0	0	0	0	0	-85
1942	-106	0	2	38	13	127	0	0	66	0	0	-72
1943	69	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	-46	-19	0	0	0	0	0	0	0
1945	0	-10	0	0	94	0	0	0	0	0	0	0
1946	0	0	6	1	0	0	0	0	0	0	0	0
1947	0	0	-163	0	0	0	0	0	0	0	0	0
1948	0	0	0	-80	0	0	282	32	0	0	0	0
1949	0	0	-137	-1	0	1	0	0	0	0	0	0
1950	0	0	-39	-52	0	0	161	8	36	0	0	0
1951	0	-109	213	207	39	0	0	0	0	0	0	0
1952	0	0	66	17	183	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	-119
1954	0	-61	-1	2	200	75	0	0	0	0	0	0
1955	0	0	42	3	0	0	0	0	0	0	0	0
1956	0	0	15	14	180	81	0	0	0	0	0	-31
1957	30	0	-20	-43	70	0	0	0	0	0	0	0
1958	-67	0	180	9	146	0	0	0	0	0	0	0
1959	0	0	-12	6	7	0	0	0	0	0	0	0
1960	0	0	0	-2	34	0	0	0	0	0	0	0

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Year	Difference Existing Alt 1 & 2 minus Existing Base Delta Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	0	0	-128	0	-31	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	189	8	0	0	0	0
1963	58	0	190	95	0	0	0	0	0	0	0	0
1964	0	-35	63	154	0	0	0	0	0	0	0	0
1965	0	-71	0	0	138	0	0	0	0	0	0	0
1966	0	-110	210	94	0	0	0	0	0	0	0	0
1967	0	-153	158	29	195	46	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	-27	0	175	118	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	-51	103	135	0	0	0	0	0	0	0	-74
1972	0	0	-44	-28	0	9	0	0	0	0	0	0
1973	0	-30	0	208	63	0	0	0	0	0	0	0
1974	0	-48	88	161	0	0	0	0	0	0	0	-72
1975	70	0	-27	-30	63	0	0	0	0	0	0	-56
1976	54	0	-20	-48	0	0	0	2	0	0	0	0
1977	0	0	0	58	0	0	0	0	0	0	0	0
1978	0	0	0	0	-1	0	7	0	0	0	0	0
1979	0	0	-48	-3	166	126	0	0	0	0	0	0
1980	0	0	7	21	235	54	0	0	0	0	0	0
1981	0	0	-63	6	0	125	0	0	0	0	0	0
1982	0	-17	0	198	207	61	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	-38	71	166	0	0	0	0	0	0	0	0
1986	0	0	-147	0	-144	205	102	7	0	0	0	0
1987	0	0	-35	-41	-16	28	0	0	0	0	0	0
1988	0	0	-196	0	0	0	0	0	0	0	0	0
1989	0	0	29	0	0	0	37	0	0	0	0	0
1990	0	0	0	71	0	0	0	4	0	0	0	0
1991	0	0	0	0	0	2	0	5	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	-79	-20	-35	0	0	0	0	0	0	0
Mean	2	-14	8	25	36	20	12	1	2	0	0	-7
Max	70	0	213	208	235	205	282	32	66	0	0	0
Min	-106	-153	-196	-80	-144	0	0	0	0	0	0	-119

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Year	Alt Existing Alt 1 & 2 SWP (Banks) Delta Export (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	5,322	5,346	7,102	8,093	4,130	3,242	3,011	2,469	3,462	5,803	4,520	5,202
1923	3,453	2,536	4,800	3,479	3,899	300	1,260	300	300	300	2,963	1,223
1924	1,843	2,241	4,009	3,824	7,607	300	2,783	1,125	3,137	6,590	929	2,853
1925	2,396	1,026	2,242	6,568	7,346	1,106	2,584	800	2,205	6,698	5,927	3,324
1926	3,540	6,680	6,636	6,863	7,767	6,725	3,432	1,500	4,697	1,954	6,613	5,858
1927	3,080	6,680	6,661	7,002	6,942	7,439	3,032	2,180	2,896	3,563	4,275	4,454
1928	3,462	3,558	4,086	4,037	3,701	1,954	1,118	300	1,207	2,805	300	1,284
1929	1,186	300	6,322	6,693	3,974	6,971	1,624	800	2,020	6,849	6,045	4,330
1930	1,415	2,909	3,290	3,786	2,809	764	300	437	1,364	1,735	4,684	2,398
1931	2,204	1,324	6,846	7,419	5,628	3,966	300	1,125	2,922	2,644	300	3,944
1932	2,272	1,107	4,245	3,003	3,854	3,538	1,194	800	300	3,816	827	1,150
1933	1,754	300	5,747	6,713	3,744	819	300	300	300	2,858	300	2,261
1934	2,320	2,708	2,945	7,483	4,235	5,644	3,432	324	3,412	7,056	7,180	5,402
1935	5,762	2,273	5,697	6,897	8,437	7,561	2,850	800	2,827	7,180	7,180	4,924
1936	5,701	1,635	6,065	5,483	8,500	7,561	3,939	2,569	3,315	6,352	4,718	3,859
1937	3,910	6,680	7,227	8,093	7,029	6,224	4,957	5,302	6,680	6,680	5,465	7,180
1938	6,680	5,681	5,431	4,509	3,847	4,338	984	1,125	1,351	6,431	7,031	5,782
1939	4,421	2,327	4,808	7,625	8,003	7,561	3,432	1,500	2,787	7,180	7,180	5,606
1940	5,390	2,821	6,788	7,952	8,050	7,952	3,943	2,391	4,178	7,180	6,669	7,180
1941	6,680	4,973	3,364	4,418	5,257	6,235	3,432	1,500	6,680	6,020	6,680	7,180
1942	6,680	6,680	5,829	5,900	6,042	6,363	3,032	800	2,475	3,313	6,959	6,420
1943	4,456	2,112	4,495	5,950	7,725	5,093	2,132	1,500	3,791	6,671	6,695	6,315
1944	3,453	6,680	6,629	4,931	8,500	6,904	1,999	800	4,472	7,180	6,520	5,615
1945	4,696	5,906	7,241	7,852	2,547	6,657	2,452	2,594	4,193	7,180	6,551	5,328
1946	5,235	3,273	6,675	2,872	6,023	4,217	1,770	300	2,201	6,955	5,966	4,831
1947	4,106	3,760	2,924	5,717	2,118	3,089	2,964	3,274	4,702	7,180	7,180	5,916
1948	4,524	2,104	4,660	2,511	2,763	7,107	1,839	800	3,604	6,515	3,720	4,140
1949	1,707	1,126	1,256	6,943	7,591	4,243	2,395	800	4,973	7,180	6,574	5,749
1950	5,230	6,680	7,271	8,093	6,263	6,628	2,178	800	2,726	4,655	7,180	5,662
1951	5,681	5,627	6,788	8,093	8,003	6,449	3,365	3,386	6,277	6,680	6,984	7,180
1952	6,680	5,467	2,290	4,563	5,087	6,563	2,335	1,125	4,021	5,109	6,148	7,180
1953	6,096	6,680	5,600	6,835	6,980	7,105	3,232	3,119	2,840	6,452	6,146	5,403
1954	5,345	5,398	6,568	6,890	1,769	2,428	1,103	800	3,004	4,746	2,831	3,231
1955	6,448	3,530	7,271	7,420	5,572	6,708	2,460	800	6,571	4,879	6,680	7,180
1956	6,680	4,354	2,926	5,255	7,160	7,362	2,683	2,581	4,227	5,049	6,312	5,161
1957	6,680	6,406	6,592	6,701	5,842	6,563	4,552	3,191	6,680	6,680	7,180	7,180
1958	6,680	4,840	5,297	5,365	5,297	5,312	987	1,790	1,125	2,369	5,595	7,180
1959	4,115	2,410	4,960	3,791	7,372	4,755	1,741	800	2,249	7,095	2,651	4,719
1960	4,115	2,410	4,960	3,791	7,372	4,755	1,741	800	2,249	7,095	2,651	4,719

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Year	Alt Existing Alt 1 & 2 SWP (Banks) Delta Export (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	2,566	4,713	5,078	3,640	7,144	3,855	1,630	300	300	6,392	5,494	5,014
1962	3,035	3,244	5,166	2,030	8,500	6,875	2,120	539	2,527	5,643	7,180	6,485
1963	6,680	6,680	6,522	6,888	7,315	6,626	3,032	800	4,777	2,042	6,680	5,775
1964	6,157	6,680	4,287	6,827	2,121	3,570	2,138	1,592	2,796	7,180	6,608	5,529
1965	3,601	6,680	6,886	8,093	8,050	5,688	3,432	2,130	3,373	3,170	6,918	6,302
1966	2,905	6,680	7,238	7,884	6,672	6,365	2,057	1,125	2,361	5,655	6,741	6,125
1967	4,836	6,680	6,799	7,356	7,294	7,561	4,299	3,480	6,680	7,180	7,180	7,180
1968	6,680	6,021	5,662	4,610	6,188	5,670	2,225	1,125	2,407	3,875	6,623	5,639
1969	5,207	4,849	6,626	8,093	8,050	5,738	3,073	4,001	6,269	6,680	4,949	7,180
1970	6,680	4,881	3,393	4,540	5,398	6,623	2,148	800	2,197	5,848	7,180	6,101
1971	5,478	6,680	6,714	7,059	1,097	7,225	2,845	1,125	5,194	6,457	6,680	7,180
1972	6,479	5,629	6,600	6,844	5,751	6,945	1,641	1,664	3,257	5,793	5,199	4,251
1973	3,217	6,680	6,547	7,077	6,242	6,908	2,788	1,500	3,698	7,146	6,329	5,019
1974	5,239	6,680	6,648	8,041	7,146	7,550	3,032	800	4,821	6,680	7,086	7,180
1975	6,680	6,185	6,628	6,669	6,276	7,561	3,307	1,500	6,680	6,534	7,180	7,180
1976	6,680	6,680	6,605	4,737	3,547	3,420	1,399	800	1,809	3,571	6,068	5,619
1977	3,730	3,143	2,891	1,667	968	527	300	300	300	300	2,817	1,565
1978	1,025	1,065	5,559	6,603	2,999	5,205	3,205	3,061	4,301	7,180	5,903	6,509
1979	5,339	2,062	1,467	7,741	7,717	5,569	2,652	1,500	3,194	6,858	6,258	5,001
1980	3,923	5,318	6,612	8,093	7,904	4,297	2,567	800	2,886	7,180	6,949	7,174
1981	5,685	1,939	3,975	6,973	6,080	5,494	2,203	1,125	2,324	6,420	4,776	5,469
1982	4,731	6,680	6,594	8,093	8,050	7,561	5,580	4,005	5,270	6,680	6,026	7,180
1983	6,680	6,680	6,381	2,794	2,244	3,394	2,419	2,416	4,126	7,180	7,180	6,061
1984	1,060	2,911	2,846	4,160	5,081	6,904	2,768	1,500	2,868	3,631	7,180	6,234
1985	4,970	6,680	6,633	6,031	4,769	2,379	1,627	800	2,199	7,180	6,680	6,680
1986	5,854	4,396	6,597	7,001	8,050	7,561	4,257	3,068	4,520	6,680	6,608	6,818
1987	5,509	1,982	1,880	6,832	6,285	4,505	1,771	300	492	6,035	6,508	4,676
1988	2,534	2,026	6,507	6,700	1,482	607	1,357	300	300	3,485	377	854
1989	1,300	2,239	2,637	2,666	885	6,939	2,397	800	1,974	6,945	7,127	6,035
1990	4,777	1,818	5,616	6,336	2,802	2,401	300	800	302	300	4,407	1,828
1991	1,138	1,222	1,054	800	802	7,066	1,326	800	300	300	3,990	857
1992	1,427	300	800	2,793	7,388	4,111	1,548	300	714	3,608	2,187	2,955
1993	1,162	2,044	3,276	8,093	7,992	4,744	3,232	1,125	4,387	7,180	6,852	6,064
1994	5,842	2,582	3,736	5,090	7,251	967	1,507	1,394	2,810	6,499	6,512	5,009
Mean	4,335	4,114	5,189	5,913	5,671	5,137	2,432	1,444	3,240	5,472	5,590	5,174
Max	6,680	6,680	7,271	8,093	8,500	7,561	5,580	5,302	6,680	7,180	7,180	7,180
Min	1,025	300	800	800	802	300	300	300	300	300	300	854

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Appendix C-3 CALSIM II Modeling

Year	Base Existing Base SWP (Banks) Delta Export (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	5,175	3,491	6,759	7,206	8,050	7,561	3,407	1,500	6,680	7,180	4,520	5,202
1923	5,322	5,346	7,102	8,093	4,130	3,242	3,011	2,469	3,462	5,803	6,393	5,538
1924	3,453	2,536	4,800	3,479	3,899	300	1,260	300	300	300	2,963	1,223
1925	1,843	2,241	4,009	3,824	7,607	300	2,783	1,125	3,137	6,590	929	2,853
1926	2,396	1,026	2,242	6,568	7,346	1,106	2,584	800	2,205	6,698	5,927	3,324
1927	3,540	6,680	6,636	6,863	7,767	6,725	3,432	1,500	4,697	1,954	6,613	5,858
1928	3,080	6,680	6,661	7,002	6,942	7,439	3,032	2,180	2,896	3,563	4,275	4,454
1929	3,462	3,558	4,086	4,037	3,701	1,954	1,118	300	1,207	2,805	300	1,284
1930	1,186	300	6,322	6,693	3,974	6,971	1,624	800	2,020	6,849	6,045	4,330
1931	1,415	2,909	3,290	3,786	2,809	764	300	437	1,364	1,735	4,684	2,398
1932	2,204	1,324	6,846	7,419	5,628	3,966	300	1,125	2,922	2,644	300	3,944
1933	2,272	1,107	4,245	3,003	3,854	3,538	1,194	800	300	300	3,816	827
1934	1,754	300	5,747	6,713	3,744	819	300	300	300	2,858	300	2,261
1935	2,320	2,708	2,945	7,483	4,235	5,644	3,432	324	3,412	7,056	7,180	5,402
1936	5,762	2,273	5,697	6,897	8,437	7,561	2,850	800	2,827	7,180	7,180	4,924
1937	5,701	1,635	6,065	5,483	8,500	7,561	3,939	2,569	3,315	6,352	4,718	3,859
1938	3,910	6,680	7,227	8,093	7,029	6,224	4,957	5,302	6,680	6,680	5,465	7,180
1939	6,680	5,681	5,431	4,509	3,847	4,338	984	1,125	1,351	6,431	7,031	5,782
1940	4,421	2,327	4,808	7,625	8,003	7,561	3,432	1,500	2,787	7,180	7,180	5,606
1941	5,390	2,821	6,788	7,952	8,050	7,561	3,943	2,391	4,178	7,180	6,669	7,180
1942	6,680	4,973	3,364	4,418	5,257	6,235	3,432	1,500	6,680	6,020	6,680	7,180
1943	6,680	6,680	5,829	5,900	6,042	6,363	3,032	800	2,475	3,313	6,959	6,420
1944	4,456	2,112	4,495	5,950	7,725	5,093	2,132	1,500	3,791	6,671	6,695	6,315
1945	3,453	6,680	6,629	4,931	8,500	6,904	1,999	800	4,472	7,180	6,520	5,615
1946	4,696	5,906	7,241	7,852	2,547	6,657	2,452	2,594	4,193	7,180	6,551	5,328
1947	5,235	3,273	6,675	2,872	6,023	4,217	1,770	300	2,201	6,955	5,966	4,831
1948	4,106	3,760	2,924	5,717	2,118	3,089	2,964	3,274	4,702	7,180	7,180	5,916
1949	4,524	2,104	4,660	2,511	2,763	7,107	1,839	800	3,604	6,515	3,720	4,140
1950	1,707	1,126	1,256	6,943	7,591	4,243	2,395	800	4,973	7,180	6,574	5,749
1951	5,230	6,680	7,271	8,093	6,263	6,628	2,178	800	2,726	4,655	7,180	5,662
1952	5,681	5,627	6,788	8,093	8,003	6,449	3,365	3,386	6,277	6,680	6,984	7,180
1953	6,680	5,467	2,290	4,563	5,087	6,563	2,335	1,125	4,021	5,109	6,148	7,180
1954	6,096	6,680	5,600	6,835	6,980	7,105	3,232	3,119	2,840	6,452	6,146	5,403
1955	5,345	5,398	6,568	6,890	7,629	7,428	1,103	800	3,004	4,746	2,831	3,231
1956	1,648	3,530	7,271	7,420	5,572	6,708	2,460	800	6,571	4,879	6,680	7,180
1957	6,680	4,354	2,926	5,255	7,160	7,362	2,683	2,581	4,227	5,049	6,312	5,161
1958	6,680	6,406	6,592	6,701	8,842	6,563	4,552	3,191	6,680	6,680	7,180	7,180
1959	6,680	4,840	5,297	5,365	8,312	987	1,790	1,125	2,369	5,595	7,180	5,803
1960	4,115	2,410	4,960	3,791	7,372	4,755	1,741	800	2,249	7,095	2,651	4,719

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1961	2,566	4,713	5,078	3,640	7,144	3,855	1,630	300	300	6,392	5,494	5,014
1962	3,035	3,244	5,166	2,030	8,500	6,875	2,120	539	2,527	6,647	7,180	6,485
1963	6,680	6,680	6,522	6,888	7,315	6,626	3,032	800	4,777	2,042	6,680	5,775
1964	6,157	6,680	4,287	6,827	2,121	3,570	2,138	1,592	2,796	7,180	6,608	5,529
1965	3,601	6,680	6,886	8,093	8,050	5,688	3,432	2,130	3,373	3,170	6,918	6,302
1966	2,905	6,680	7,238	7,884	6,672	6,365	2,057	1,125	2,361	5,655	6,741	6,125
1967	4,836	6,680	6,799	7,356	7,294	7,561	4,299	3,480	6,680	7,180	7,180	7,180
1968	6,680	6,021	5,662	4,610	6,188	5,670	2,225	1,125	2,407	3,875	6,623	5,639
1969	5,207	4,849	6,626	8,093	8,050	5,738	3,073	4,001	6,269	6,680	4,949	7,180
1970	6,680	4,881	3,393	4,540	5,398	6,623	2,148	800	2,197	5,848	7,180	6,101
1971	5,478	6,680	6,714	7,059	1,097	7,225	2,845	1,125	5,194	6,457	6,680	7,180
1972	6,479	5,629	6,600	6,844	5,751	6,945	1,641	1,664	3,257	5,793	5,199	4,251
1973	3,217	6,680	6,547	7,077	6,242	6,908	2,788	1,500	3,698	7,146	6,329	5,019
1974	5,239	6,680	6,648	8,041	7,146	7,550	3,032	800	4,821	6,680	7,086	7,180
1975	6,680	6,185	6,628	6,669	6,276	7,561	3,307	1,500	6,680	6,534	7,180	7,180
1976	6,680	6,680	6,605	4,737	3,547	3,420	1,399	800	1,809	3,571	6,068	5,619
1977	3,730	3,143	2,891	1,667	968	527	300	300	300	300	2,817	1,565
1978	1,025	1,065	5,559	6,603	2,999	5,205	3,205	3,061	4,301	7,180	5,903	6,509
1979	5,339	2,062	1,467	7,741	7,717	5,569	2,652	1,500	3,194	6,858	6,258	5,001
1980	3,923	5,318	6,612	8,093	7,904	4,297	2,567	800	2,886	7,180	6,949	7,174
1981	5,685	1,939	3,975	6,973	6,080	5,494	2,203	1,125	2,324	6,420	4,776	5,469
1982	4,731	6,680	6,594	8,093	8,050	7,561	5,580	4,005	5,270	6,680	6,026	7,180
1983	6,680	6,680	6,381	2,794	2,244	3,394	2,419	2,416	4,126	7,180	7,180	6,061
1984	1,060	2,911	2,846	4,160	5,081	6,904	2,768	1,500	2,868	3,631	7,180	6,234
1985	4,970	6,680	6,633	6,031	4,769	2,379	1,627	800	2,199	7,180	6,680	6,680
1986	5,854	4,396	6,597	7,001	8,050	7,561	4,257	3,068	4,520	6,680	6,608	6,818
1987	5,509	1,982	1,880	6,832	6,285	4,505	1,771	300	492	6,035	6,508	4,676
1988	2,534	2,026	6,507	6,700	1,482	607	1,357	300	300	3,485	377	854
1989	1,300	2,239	2,637	2,666	885	6,939	2,397	800	1,974	6,945	7,127	6,035
1990	4,777	1,818	5,616	6,336	2,802	2,401	300	800	302	300	4,407	1,828
1991	1,138	1,222	1,054	800	802	7,066	1,326	800	300	300	3,990	857
1992	1,427	300	800	2,793	7,388	4,111	1,548	300	714	3,608	2,187	2,955
1993	1,162	2,044	3,276	8,093	7,992	4,744	3,232	1,125	4,387	7,180	6,852	6,064
1994	5,842	2,582	3,736	5,090	7,251	967	1,507	1,394	2,810	6,499	6,512	5,009
Mean	4,335	4,114	5,189	5,913	5,671	5,137	2,432	1,444	3,240	5,472	5,590	5,174
Max	6,680	6,680	7,271	8,093	8,500	7,561	5,580	5,302	6,680	7,180	7,180	7,180
Min	1,025	300	800	800	802	300	300	300	300	300	300	854

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	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	3,525	4,265	3,820	3,825	3,804	4,288	2,947	1,500	3,000	4,597	4,530	4,479
1923	4,362	4,256	3,817	3,822	4,130	3,303	2,547	1,911	3,000	4,882	4,538	4,473
1924	4,125	3,054	2,480	3,821	3,899	800	1,260	1,143	800	600	600	2,878
1925	2,988	1,059	3,802	3,805	4,218	800	2,747	1,125	2,487	3,209	3,855	4,156
1926	3,701	2,785	2,378	3,814	4,235	3,641	2,547	800	2,475	800	800	3,617
1927	2,323	4,218	3,805	3,808	800	3,373	2,947	1,500	3,000	4,570	4,543	4,475
1928	4,077	4,254	3,817	3,821	3,811	4,265	2,547	1,911	3,000	4,562	3,372	4,293
1929	3,813	4,247	3,815	3,819	4,243	800	800	1,365	1,878	924	800	2,895
1930	3,065	1,809	3,803	3,806	3,974	4,246	1,624	800	1,460	1,699	1,775	4,172
1931	3,551	2,865	1,800	3,811	2,916	1,083	800	800	800	800	600	1,930
1932	1,256	1,686	3,802	3,805	4,218	1,494	1,547	1,125	1,958	1,897	3,854	4,270
1933	3,702	2,739	710	641	931	1,247	800	800	989	800	600	2,911
1934	3,023	1,018	3,802	1,571	641	965	800	800	800	600	600	1,629
1935	1,943	2,471	3,300	3,806	2,051	2,278	2,076	800	2,650	1,950	4,470	4,166
1936	3,190	2,124	3,663	3,813	2,475	2,436	2,523	800	2,475	2,628	4,499	4,437
1937	3,401	2,190	3,498	3,816	4,238	3,643	1,459	2,138	2,899	2,387	4,474	4,381
1938	4,285	4,232	1,544	800	800	2,143	2,695	3,894	3,000	4,600	4,578	4,494
1939	4,391	4,265	3,825	2,226	2,686	1,877	1,826	1,125	2,563	3,753	2,694	3,281
1940	2,601	3,136	914	3,817	3,804	4,254	2,947	1,500	3,000	4,519	4,490	4,418
1941	3,934	3,729	3,811	3,815	3,786	4,287	3,315	2,391	2,858	4,600	4,557	4,483
1942	4,369	4,258	4,225	1,748	1,924	3,593	2,947	1,500	3,000	4,600	4,558	4,483
1943	4,370	4,259	4,104	4,229	4,250	3,008	2,547	800	3,000	4,600	4,552	4,480
1944	4,364	4,257	3,697	3,822	4,247	4,264	2,132	1,500	2,548	2,464	3,376	3,136
1945	2,858	4,234	3,810	3,814	4,234	4,276	1,999	800	3,000	4,580	4,537	4,472
1946	4,349	4,252	3,816	3,820	4,246	4,259	2,452	2,274	3,000	4,560	4,521	4,464
1947	4,333	4,155	3,815	3,819	4,243	4,217	1,770	800	2,214	2,054	2,913	4,390
1948	2,056	4,233	2,077	3,813	4,233	3,089	2,547	800	3,000	4,566	4,526	4,466
1949	4,338	3,309	3,815	3,819	4,244	4,240	1,839	800	3,000	4,555	3,536	4,462
1950	3,643	3,680	3,595	3,818	4,242	4,240	2,395	800	2,475	3,209	4,454	4,338
1951	3,727	4,226	3,390	800	1,000	3,330	2,178	800	3,000	4,555	4,528	4,467
1952	4,340	4,249	3,815	3,819	3,808	4,309	2,162	3,187	3,000	4,600	4,578	4,494
1953	4,391	4,265	4,227	2,683	2,543	2,604	2,335	1,125	3,000	4,575	4,533	4,470
1954	4,345	4,251	3,816	3,820	3,795	4,286	2,747	1,125	2,840	4,580	4,537	4,472
1955	4,056	4,252	3,816	3,820	3,819	2,062	1,741	800	3,000	3,385	2,245	3,870
1956	3,978	4,235	3,811	4,151	4,234	2,828	2,460	800	2,475	3,339	4,535	4,471
1957	4,347	4,251	3,816	3,820	3,795	4,262	2,683	2,093	3,000	4,587	4,542	4,475
1958	4,354	4,253	3,817	3,938	4,247	4,304	2,281	3,092	3,000	4,600	4,578	4,494
1959	4,391	4,265	3,820	4,232	4,254	3,542	1,790	1,125	1,814	4,398	3,809	2,991
1960	4,013	1,948	1,333	3,819	4,242	4,234	1,741	800	2,475	4,474	2,867	3,699

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	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep											
1961	2,522	4,226	3,808	3,661	4,230	3,062	1,630	800	2,380	4,288	2,947	1,500	3,000	4,597	4,530	4,479							
1962	3,114	4,111	3,814	4,194	4,241	4,277	2,120	1,125	3,000	4,556	4,519	3,546	3,822	4,130	3,303	2,547	1,911	3,000	4,582	4,538	4,473		
1963	4,331	4,246	3,814	3,818	3,792	3,766	2,547	800	3,000	4,284	4,537	4,472	3,821	3,899	800	1,260	1,143	800	600	600	600	2,878	
1964	4,349	4,252	3,816	3,820	4,244	1,370	2,138	800	2,796	4,517	3,464	3,487	3,805	3,802	3,805	4,218	800	2,747	1,125	2,487	3,209	3,855	4,156
1965	4,447	4,237	3,811	3,815	3,786	4,276	2,947	2,274	3,000	4,600	4,554	4,481	3,814	4,235	3,641	2,547	800	2,475	800	800	800	3,617	3,617
1966	4,366	4,257	3,818	3,822	4,249	4,281	2,057	1,125	3,000	4,569	4,026	3,452	3,808	3,808	800	3,373	2,947	1,500	3,000	4,570	4,543	4,475	4,475
1967	4,071	4,249	3,815	3,819	3,794	4,307	3,814	3,232	3,000	4,600	4,578	4,494	3,821	3,811	4,265	2,547	1,911	3,000	4,562	3,372	4,293	4,293	
1968	4,391	4,265	4,227	3,399	2,891	2,634	2,225	1,125	2,563	4,587	4,341	3,489	3,815	3,819	4,243	800	800	1,365	1,878	924	800	2,895	2,895
1969	4,302	4,253	3,817	3,821	3,797	4,320	2,699	3,901	3,000	4,600	4,578	4,494	3,806	3,806	3,974	4,246	1,624	800	1,460	1,699	1,775	4,172	4,172
1970	4,391	4,265	2,158	1,514	1,802	3,207	2,148	800	2,813	1,983	4,528	4,151	3,811	3,811	2,916	1,083	800	800	800	800	800	600	1,930
1971	4,340	4,249	3,815	3,819	4,244	4,280	2,747	1,125	3,000	4,570	4,529	4,468	3,805	3,805	4,218	1,494	1,547	1,125	1,958	1,897	3,854	4,270	4,270
1972	4,341	4,249	3,815	3,819	4,243	4,282	1,641	800	3,000	4,556	3,352	3,946	641	931	1,247	800	800	800	989	800	600	600	2,911
1973	4,331	4,246	3,814	3,818	4,242	4,287	2,788	1,500	2,705	4,586	4,541	4,475	1,571	641	965	800	800	800	600	600	600	1,629	1,629
1974	4,354	4,253	3,817	3,821	4,129	4,292	2,547	800	2,475	4,590	4,544	4,476	3,300	3,806	2,051	2,278	2,076	800	2,650	1,950	4,470	4,166	4,166
1975	4,356	4,254	3,817	3,953	4,247	4,279	2,947	1,500	2,650	4,585	4,540	4,474	3,813	3,813	2,475	2,436	2,523	800	2,475	2,628	4,499	4,437	4,437
1976	4,352	4,253	3,816	4,227	3,600	2,447	1,399	800	2,003	1,132	993	2,286	3,498	3,816	4,238	1,459	2,138	2,899	2,387	4,474	4,381	4,381	4,381
1977	2,552	4,195	1,243	1,334	800	800	800	800	920	2,433	2,703	2,784	800	800	2,143	2,695	3,894	3,000	4,600	4,578	4,494	4,494	4,494
1978	3,052	1,550	3,803	4,212	3,363	3,477	2,900	2,454	3,029	3,000	4,600	4,578	2,226	2,686	1,877	1,826	1,125	2,563	3,753	2,694	3,281	3,281	3,281
1979	4,391	4,265	3,724	3,825	3,477	2,587	2,652	1,500	3,000	4,588	4,543	3,791	3,825	3,825	914	3,817	3,804	4,254	2,947	1,500	3,000	4,519	4,418
1980	4,355	4,254	3,817	3,821	3,860	4,119	2,365	800	3,000	4,600	4,557	4,483	3,815	3,815	3,786	4,287	3,315	2,391	2,858	4,600	4,557	4,483	4,483
1981	4,369	3,930	3,818	3,823	4,250	4,256	2,203	1,125	2,563	4,573	3,951	3,890	1,748	1,924	3,593	2,947	1,500	3,000	4,600	4,558	4,483	4,483	4,483
1982	3,919	4,250	3,816	3,820	3,794	4,297	3,783	3,486	3,000	4,600	4,578	4,494	4,229	4,250	3,008	2,547	800	3,000	4,600	4,552	4,480	4,480	4,480
1983	4,391	4,265	4,227	4,232	1,801	2,678	2,687	3,892	3,000	4,600	4,578	4,494	3,822	4,247	4,264	2,132	1,500	2,548	2,464	3,376	3,136	3,136	3,136
1984	4,391	1,503	1,039	1,513	2,435	3,848	2,768	1,500	3,000	4,377	4,541	4,475	3,810	3,814	4,234	4,276	1,999	800	3,000	4,580	4,537	4,472	4,472
1985	4,353	4,253	3,817	3,821	4,247	4,190	1,627	800	2,475	4,566	4,526	4,466	3,820	3,820	4,246	2,259	2,452	2,274	3,000	4,560	4,521	4,464	4,464
1986	4,044	2,463	3,815	3,819	3,793	4,274	3,783	3,033	3,000	3,060	4,525	4,466	3,815	3,819	4,243	4,217	1,770	800	2,214	2,054	2,913	4,390	4,390
1987	4,337	4,248	3,815	2,332	2,920	1,834	1,771	800	1,582	1,679	1,308	3,114	3,819	4,233	3,089	2,547	800	3,000	4,566	4,526	4,466	4,466	4,466
1988	2,561	4,232	3,810	3,813	4,232	800	1,357	800	837	800	800	2,796	3,815	3,819	4,244	4,240	1,839	800	3,000	4,555	3,536	4,462	4,462
1989	3,090	1,675	3,577	3,807	1,909	4,217	2,397	800	1,072	3,031	2,099	3,179	3,818	3,818	4,242	4,240	2,395	800	2,475	3,209	4,454	4,338	4,338
1990	3,939	3,435	4,070	3,813	4,063	2,401	800	800	800	800	800	2,462	3,390	800	1,000	3,330	2,178	800	3,000	4,555	4,528	4,467	4,467
1991	2,951	1,159	800	938	800	4,229	800	800	1,708	800	3,543	2,891	3,815	3,808	4,309	2,162	3,187	3,000	4,600	4,578	4,494	4,494	4,494
1992	2,952	1,910	800	3,143	4,222	3,299	800	800	800	800	3,030	2,597	2,683	2,543	2,604	2,335	1,125	3,000	4,575	4,533	4,470	4,470	4,470
1993	2,348	1,738	3,809	3,812	3,782	4,276	2,747	1,125	2,563	4,559	4,521	4,464	3,820	3,795	4,286	2,747	1,125	2,840	4,580	4,537	4,472	4,472	4,472
1994	4,333	4,247	3,815	3,819	3,822	2,576	1,507	800	1,903	4,597	4,549	4,135	3,816	3,820	3,819	2,062	1,741	800	3,000	3,385	2,245	4,870	4,870
1995	3,775	3,598	3,400	3,462	3,457	3,248	2,181	1,403	2,473	3,535	3,656	3,943	4,151	4,234	2,828	2,460	800	2,475	3,339	3,339	4,535	4,471	4,471
1996	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,816	3,820	3,795	4,262	2,683	2,093	3,000	4,587	4,542	4,475	4,475
1997	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494
1998	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494
1999	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494
2000	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494
2001	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494
2002	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494
2003	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494
2004	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494
2005	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494
2006	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494
2007	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494
2008	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494
2009	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494
2010	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494
2011	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494

Appendix C-3 CALSIM II Modeling

Base Existing Base CVP (Tracy) Delta Export (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	2,522	4,226	3,808	3,661	4,230	3,062	1,630	800	2,380	3,575	3,769	3,769
1962	3,114	4,111	3,814	4,194	4,241	4,277	2,120	1,125	3,000	4,556	4,519	3,546
1963	4,331	4,246	3,814	3,818	3,792	3,766	2,547	800	3,000	4,284	4,537	4,472
1964	4,349	4,252	3,816	3,820	4,244	1,370	2,138	800	2,796	4,517	3,464	3,487
1965	4,447	4,237	3,811	3,815	3,786	4,276	2,947	2,274	3,000	4,600	4,554	4,481
1966	4,366	4,257	3,818	3,822	4,249	4,281	2,057	1,125	3,000	4,569	4,026	3,452
1967	4,071	4,249	3,815	3,819	3,794	4,307	3,814	3,232	3,000	4,600	4,578	4,494
1968	4,391	4,265	4,227	3,399	2,891	2,634	2,225	1,125	2,563	4,587	4,341	3,489
1969	4,302	4,253	3,817	3,821	3,797	4,320	2,699	3,901	3,000	4,600	4,578	4,494
1970	4,391	4,265	2,158	1,514	1,802	3,207	2,148	800	2,813	1,983	4,528	4,151
1971	4,340	4,249	3,815	3,819	4,244	4,280	2,747	1,125	3,000	4,570	4,529	4,468
1972	4,341	4,249	3,815	3,819	4,243	4,282	1,641	800	3,000	4,556	3,352	3,946
1973	4,331	4,246	3,814	3,818	4,242	4,287	2,788	1,500	2,705	4,586	4,541	4,475
1974	4,354	4,253	3,817	3,821	4,129	4,292	2,547	800	2,475	4,590	4,544	4,476
1975	4,356	4,254	3,817	3,953	4,247	4,279	2,947	1,500	2,650	4,585	4,540	4,474
1976	4,352	4,253	3,816	4,227	3,600	2,447	1,399	800	2,003	1,132	993	2,286
1977	2,552	4,195	1,243	1,334	800	800	800	800	920	2,433	2,703	2,784
1978	3,052	1,550	3,803	4,212	3,363	2,900	2,454	3,029	3,000	4,600	4,578	4,494
1979	4,391	4,265	3,724	3,825	3,477	2,587	2,652	1,500	3,000	4,588	4,543	3,791
1980	4,355	4,254	3,817	3,821	3,860	4,119	2,365	800	3,000	4,600	4,557	4,483
1981	4,369	3,930	3,818	3,823	4,250	4,256	2,203	1,125	2,563	4,573	3,951	3,890
1982	3,919	4,250	3,816	3,820	3,794	4,297	3,783	3,486	3,000	4,600	4,578	4,494
1983	4,391	4,265	4,227	4,232	1,801	2,678	2,687	3,892	3,000	4,600	4,578	4,494
1984	4,391	1,503	1,039	1,513	2,435	3,848	2,768	1,500	3,000	4,377	4,541	4,475
1985	4,353	4,253	3,817	3,821	4,247	4,190	1,627	800	2,475	4,566	4,526	4,466
1986	4,044	2,463	3,815	3,819	3,793	4,274	3,783	3,033	3,000	3,060	4,525	4,466
1987	4,337	4,248	3,815	2,332	2,920	1,834	1,771	800	1,582	1,679	1,308	3,114
1988	2,561	4,232	3,810	3,813	4,232	800	1,357	800	837	800	800	2,796
1989	3,090	1,675	3,577	3,807	1,909	4,217	2,397	800	1,072	3,031	2,099	3,179
1990	3,939	3,435	4,070	3,813	4,063	2,401	800	800	800	800	800	2,462
1991	2,951	1,159	800	938	800	4,229	800	800	1,708	800	3,543	2,891
1992	2,952	1,910	800	3,143	4,222	3,299	800	800	800	800	3,030	2,597
1993	2,348	1,738	3,809	3,812	3,782	4,276	2,747	1,125	2,563	4,559	4,521	4,464
1994	4,333	4,247	3,815	3,819	3,822	2,576	1,507	800	1,903	4,597	4,549	4,135
Mean	3,775	3,598	3,400	3,462	3,457	3,248	2,181	1,403	2,473	3,535	3,656	3,943
Max	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494
Min	1,256	1,018	710	641	641	800	800	800	800	600	600	1,629

Appendix C-3 CALSIM II Modeling

Alt Existing Alt 1 & 2 X2 Position (KM)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	75	83	85	79	78	67	65	66	61	62	73	83
1923	88	87	83	70	67	70	74	69	70	76	80	85
1924	87	87	84	85	82	79	77	81	85	84	82	86
1925	89	89	86	83	81	64	65	67	69	76	82	82
1926	88	87	85	84	80	68	74	70	74	81	83	84
1927	89	87	77	77	70	55	59	59	63	72	76	84
1928	86	87	80	80	74	70	57	63	68	77	79	84
1929	89	86	84	83	82	79	78	80	81	82	86	85
1930	89	88	85	81	76	74	69	74	76	81	83	85
1931	89	87	85	85	82	81	82	81	85	84	83	88
1932	90	88	86	77	74	71	74	75	74	76	82	84
1933	89	88	85	85	78	79	77	77	81	82	86	84
1934	89	90	84	83	77	74	75	76	81	81	85	85
1935	89	89	84	85	72	74	70	62	64	71	78	84
1936	88	87	84	85	70	59	64	66	69	74	79	85
1937	88	87	83	85	82	67	62	64	68	74	79	83
1938	88	88	77	63	64	52	47	52	54	58	72	82
1939	83	78	83	82	79	79	77	77	77	82	84	86
1940	89	85	86	86	71	61	54	55	65	75	78	84
1941	87	87	83	68	56	51	52	53	58	67	75	82
1942	83	84	85	66	57	50	62	59	61	66	75	83
1943	81	81	82	73	59	58	54	61	65	75	76	84
1944	86	87	85	84	82	72	72	72	75	79	83	87
1945	89	84	82	79	80	67	68	71	71	76	80	85
1946	88	87	82	64	61	65	69	72	73	77	80	85
1947	88	86	83	81	81	76	73	75	77	81	83	87
1948	89	84	85	86	81	77	76	69	67	71	78	84
1949	87	86	84	83	82	80	67	72	73	78	82	84
1950	88	87	84	84	76	69	71	70	70	74	79	84
1951	87	87	69	57	55	55	62	68	68	78	77	84
1952	87	87	82	69	58	55	55	55	55	59	73	82
1953	78	76	83	68	56	64	69	71	68	70	76	84
1954	81	85	82	83	71	62	61	61	66	77	79	84
1955	87	85	83	76	74	75	79	76	75	79	83	84
1956	89	86	84	62	50	52	59	66	62	69	76	83
1957	80	81	84	84	81	70	64	68	70	75	78	84
1958	87	81	84	77	68	52	51	51	56	62	74	82
1959	79	78	83	84	71	63	66	74	76	80	80	85
1960	87	87	83	85	82	72	72	74	75	81	83	85

Appendix C-3 CALSIM II Modeling

Alt Existing Alt 1 & 2 X2 Position (KM)													
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1961	89	85	85	81	81	74	74	76	77	77	81	83	85
1962	89	85	85	81	82	67	68	72	73	79	79	81	85
1963	87	73	80	73	75	62	65	56	61	71	74	83	
1964	86	86	76	81	74	75	78	74	77	80	83	85	
1965	88	85	83	64	54	61	67	62	66	75	76	84	
1966	86	87	77	76	69	69	73	74	80	81	81	85	
1967	88	85	82	70	63	60	58	58	58	60	72	81	
1968	77	75	82	81	71	61	63	70	75	80	81	85	
1969	89	84	85	76	57	51	54	56	56	60	73	83	
1970	82	77	81	65	49	51	59	68	71	80	76	83	
1971	87	87	79	64	61	65	62	67	66	73	74	83	
1972	81	84	85	81	79	74	69	74	77	76	80	85	
1973	89	86	78	73	59	54	56	66	68	74	78	84	
1974	88	87	67	60	52	59	53	54	62	70	76	84	
1975	79	81	84	81	81	64	56	63	64	69	76	83	
1976	79	78	83	82	82	80	79	79	84	85	82	88	
1977	90	86	87	85	84	82	82	81	84	84	84	87	
1978	89	88	86	82	64	59	57	59	64	69	76	83	
1979	86	87	85	83	73	64	64	69	70	74	79	85	
1980	89	86	83	78	59	51	55	64	67	74	77	83	
1981	85	86	86	82	76	72	69	72	75	81	83	87	
1982	88	84	72	59	55	52	53	49	56	64	74	83	
1983	80	72	65	57	52	47	42	49	52	52	61	71	
1984	69	67	58	49	53	59	62	68	72	77	76	84	
1985	87	87	73	73	73	78	77	75	76	76	81	83	85
1986	86	85	84	80	73	52	48	61	70	75	78	81	
1987	84	86	86	83	82	76	71	74	78	81	83	87	
1988	89	85	86	81	73	75	78	79	81	81	85	85	
1989	89	89	85	84	81	80	68	69	74	80	83	85	
1990	87	86	84	85	79	76	79	77	81	85	84	87	
1991	89	89	85	85	84	82	72	74	79	85	85	86	
1992	89	89	86	84	84	72	73	75	80	81	85	88	
1993	90	87	87	82	64	60	60	61	63	67	75	83	
1994	86	87	85	82	82	75	75	77	79	85	83	87	
Mean	86	85	82	77	71	66	66	68	70	75	79	84	
Max	90	90	87	86	84	82	82	81	85	85	86	88	
Min	69	67	58	49	49	47	42	49	52	52	61	71	

Base Existing Base X2 Position (KM)													
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1922	75	83	85	79	78	67	65	66	61	62	73	83	
1923	88	87	83	70	67	70	74	69	70	76	80	85	
1924	87	87	84	85	82	79	77	81	85	84	82	86	
1925	89	89	86	83	81	64	65	67	69	76	82	82	
1926	88	87	85	84	80	68	74	70	74	81	83	84	
1927	89	87	77	77	70	55	59	59	63	72	76	84	
1928	86	87	80	80	74	70	57	63	68	77	79	84	
1929	89	86	84	83	82	79	78	80	81	82	86	85	
1930	89	88	85	81	76	74	69	74	76	81	83	85	
1931	89	87	85	85	82	81	82	81	85	84	83	88	
1932	90	88	86	77	74	71	74	75	74	76	82	84	
1933	89	88	85	85	78	79	77	77	81	82	86	84	
1934	89	90	84	83	77	74	75	76	81	81	85	85	
1935	89	89	84	85	72	74	70	62	64	71	78	84	
1936	88	87	84	85	70	59	64	66	69	74	79	85	
1937	88	87	83	85	82	67	62	64	68	74	79	83	
1938	88	88	77	63	64	52	47	52	54	58	72	82	
1939	83	78	83	82	79	79	77	77	77	82	84	86	
1940	89	85	86	86	71	61	54	55	65	75	78	84	
1941	87	87	83	86	68	56	51	52	53	58	67	75	82
1942	83	84	85	66	57	50	62	59	61	66	75	83	
1943	81	81	82	73	59	58	54	61	65	75	76	84	
1944	86	87	85	84	82	72	72	75	75	79	83	87	
1945	89	84	82	79	80	67	68	71	71	76	80	85	
1946	88	87	82	64	61	65	69	72	73	77	80	85	
1947	88	86	83	81	81	76	73	75	77	81	83	87	
1948	89	84	85	86	81	77	76	69	67	71	78	84	
1949	87	86	84	83	82	80	67	72	73	78	82	84	
1950	88	87	84	84	76	69	71	70	70	74	79	84	
1951	87	87	69	57	55	55	62	68	68	78	77	84	
1952	87	87	82	69	58	55	55	55	55	59	73	82	
1953	78	76	83	68	56	64	69	71	68	70	76	84	
1954	81	85	82	83	71	62	61	61	66	77	79	84	
1955	87	85	83	76	74	75	79	76	75	79	83	84	
1956	89	86	84	62	50	52	59	66	62	69	76	83	
1957	80	81	84	84	81	70	64	68	70	75	78	84	
1958	87	81	84	77	68	52	51	51	56	62	74	82	
1959	79	78	83	84	71	63	66	74	76	80	80	85	
1960	87	87	83	85	82	72	72	74	75	81	83	85	

Appendix C-3 CALSIM II Modeling

Base Existing Base X2 Position (KM)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	89	85	85	81	81	74	74	76	77	81	83	85
1962	89	85	81	82	67	68	72	73	79	81	85	85
1963	87	73	80	73	75	62	65	56	61	71	74	83
1964	86	86	76	81	74	75	78	74	77	80	83	85
1965	88	85	83	64	54	61	67	62	66	75	76	84
1966	86	87	77	76	69	69	73	74	80	81	85	85
1967	88	85	82	70	63	60	58	58	58	60	72	81
1968	77	75	82	81	71	61	63	70	75	80	81	85
1969	89	84	85	76	57	51	54	56	56	60	73	83
1970	82	77	81	65	49	51	59	68	71	80	76	83
1971	87	87	79	64	61	65	62	67	66	73	74	83
1972	81	84	85	81	79	74	69	74	77	76	80	85
1973	89	86	78	73	59	54	56	66	68	74	78	84
1974	88	87	67	60	52	59	53	54	62	70	76	84
1975	79	81	84	81	81	64	56	63	64	69	76	83
1976	79	78	83	82	82	80	79	79	84	85	82	88
1977	90	86	87	85	84	82	82	81	84	84	84	87
1978	89	88	86	82	64	59	57	59	64	69	76	83
1979	86	87	85	83	73	64	64	69	70	74	79	85
1980	89	86	83	78	59	51	55	64	67	74	77	83
1981	85	86	86	82	76	72	69	72	75	81	83	87
1982	88	84	72	59	55	52	53	49	56	64	74	83
1983	80	72	65	57	52	47	42	49	52	52	61	71
1984	69	67	58	49	53	59	62	68	72	77	76	84
1985	87	87	73	73	78	77	75	76	76	81	83	85
1986	86	85	84	80	73	52	48	61	70	75	78	81
1987	84	86	86	83	82	76	71	74	78	81	83	87
1988	89	85	86	81	73	75	78	79	81	81	85	85
1989	89	89	85	84	81	80	68	69	74	80	83	85
1990	87	86	84	85	79	76	79	77	81	85	84	87
1991	89	89	85	85	84	82	72	74	79	85	85	86
1992	89	89	86	84	84	72	73	75	80	81	85	88
1993	90	87	87	82	64	60	60	61	63	67	75	83
1994	86	87	85	82	82	75	75	77	79	85	83	87
Mean	86	85	82	77	71	66	66	68	70	75	79	84
Max	90	90	87	86	84	82	82	81	85	85	86	88
Min	69	67	58	49	49	47	42	49	52	52	61	71

Appendix C-3 CALSIM II Modeling

Alt Existing Alt 1 & 2 QWEST (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	-1,736	-1,864	-2,230	-2,245	6,538	2,648	5,447	13,671	7,343	-3,320	-2,405	-2,872
1923	-1,036	-2,765	3,244	3,294	2,166	-654	6,362	3,555	327	-3,320	-3,889	-2,800
1924	-931	-156	-2,208	-1,609	-2,803	2,444	34	-186	1,483	2,533	114	-32
1925	552	1,265	-1,871	-2,023	4,504	5,956	4,184	4,898	162	-3,904	568	-1,338
1926	-92	984	42	-3,816	-1,009	-743	2,420	2,351	-1,261	-2,967	-1,801	-1,103
1927	-60	-1,672	-3,392	-2,586	12,093	1,264	8,055	6,752	-73	-80	-4,265	-3,334
1928	-770	-2,569	-3,247	-1,993	-3,161	7,906	5,281	2,554	-1,022	-2,006	-2,321	-2,915
1929	-671	-1,832	-2,379	-2,156	-2,791	1,189	1,809	904	809	-176	2,002	-116
1930	573	1,942	-4,127	-2,902	-2,083	-3,422	1,405	1,848	154	-3,387	2,634	-2,993
1931	593	-752	-939	-2,164	-1,605	894	894	-127	841	652	-1,611	-334
1932	1,172	1,134	-142	-1,338	3,428	1,686	4,755	3,597	784	-453	290	-2,540
1933	-107	826	-468	2,674	-613	-100	1,990	1,487	1,899	-1,256	2,056	-114
1934	123	2,865	-3,656	-1,476	1,872	1,962	1,635	436	1,966	-382	2,137	-45
1935	428	145	-1,381	-857	76	1,018	11,176	7,922	990	-2,898	-5,052	-3,227
1936	-1,853	716	-3,874	-836	18,768	1,798	6,078	6,988	1,757	-3,203	-4,746	-2,780
1937	-1,754	1,376	-3,861	-1,936	11,090	11,247	8,736	7,643	652	-2,344	-2,715	-2,011
1938	-574	-1,828	6,575	4,049	33,526	38,396	22,529	23,014	15,629	-2,391	-3,044	-2,786
1939	3,727	-3,598	-2,871	-371	-833	548	2,973	2,206	-245	-4,349	-3,695	-3,051
1940	-111	-527	-1,128	1,039	7,232	12,105	11,194	5,523	79	-3,994	-4,608	-3,030
1941	-1,948	-439	620	7,870	17,886	12,340	13,774	10,597	4,879	-3,661	-3,599	-3,450
1942	-1,425	-3,078	7,290	17,768	16,784	821	9,278	10,781	-948	-2,458	-3,837	-2,741
1943	-111	-3,012	-1,028	19,003	11,558	26,058	7,776	8,964	1,122	-305	-4,200	-3,456
1944	-1,095	-593	-2,244	-3,201	-2,206	-2,040	3,062	3,170	-815	-3,276	-3,857	-3,177
1945	802	-3,373	-3,047	-2,599	4,013	2,186	5,442	6,471	-499	-4,314	-3,947	-3,060
1946	-876	-2,454	7,002	2,259	3,191	-39	3,820	2,523	-396	-4,346	-4,241	-3,056
1947	-2,079	-846	-3,648	-943	-3,387	-2,139	915	1,549	-264	-3,642	-3,485	-3,462
1948	559	-2,483	-727	-3,701	-1,954	-1,072	3,950	4,382	245	-5,013	-5,199	-3,662
1949	-1,792	-299	-2,976	-1,204	-2,157	-88	2,489	3,386	-1,417	-4,934	-1,558	-2,694
1950	381	307	-311	-1,848	-1,990	-1,732	3,039	4,494	-532	-3,825	-4,292	-3,121
1951	-2,105	5,352	17,508	16,935	15,204	2,070	4,356	6,852	-201	-2,008	-4,893	-3,373
1952	-2,320	-2,645	1,053	13,140	8,587	14,523	17,884	18,465	9,331	-2,386	-3,991	-1,514
1953	3,341	-3,406	3,748	12,105	2,432	-2,015	3,258	5,823	2,116	-2,838	-3,964	-3,295
1954	-3,011	-3,833	-3,668	-2,951	1,397	-99	5,361	2,799	-804	-3,935	-4,155	-3,450
1955	-2,046	-3,117	-2,085	-1,673	-304	-568	2,342	2,440	-1,179	-2,871	-571	-1,918
1956	155	-1,914	19,118	26,677	14,581	2,724	4,902	11,259	2,706	-1,038	-3,937	-2,243
1957	-607	-2,797	-1,495	-2,788	-1,677	803	2,619	3,081	-751	-2,866	-4,323	-3,093
1958	-1,854	-4,498	-2,394	-441	11,201	14,203	25,997	15,174	4,415	-2,790	-3,987	-1,979
1959	1,688	-2,769	-2,834	-1,120	2,128	2,387	1,800	1,529	-232	-3,528	-4,633	-2,271
1960	-1,704	621	-1,772	-2,023	-3,000	-2,985	1,226	1,899	-1,091	-5,825	-1,239	-2,971

Appendix C-3 CALSIM II Modeling

Year	Alt Existing Ait 1 & 2 QWEST (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	758	-3,045	-3,050	-1,576	-5,413	-2,332	129	1,096	540	-5,466	-3,211	-3,068
1962	-93	-2,109	-3,215	-1,558	4,094	-2,015	2,922	3,568	-949	-3,979	-5,210	-3,534
1963	-3,488	-4,691	-4,492	-2,764	5,789	-1,396	14,181	9,830	424	1,056	-4,196	-3,016
1964	-2,830	-4,393	-2,577	-1,775	-1,612	-1,081	672	734	-1,008	-5,636	-4,339	-3,237
1965	-332	-3,979	9,615	15,619	1,588	-878	8,687	5,294	900	-277	-4,135	-3,236
1966	-736	-667	149	-789	-1,097	-2,840	1,903	2,865	-1,067	-3,537	-4,473	-3,319
1967	-1,495	-3,920	-705	4,290	1,780	6,370	15,081	16,758	11,843	1,694	-3,981	-435
1968	2,154	-3,750	-2,655	63	5,394	1,330	2,174	1,757	-818	-2,589	-4,277	-3,156
1969	-1,793	-3,028	-1,876	22,292	31,837	17,581	22,608	25,307	21,973	-1,993	-2,719	-2,564
1970	3,731	-2,589	7,155	33,500	14,962	4,663	4,005	4,980	140	-2	-4,941	-3,524
1971	-2,371	-1,944	4,349	1,129	2,408	-105	2,997	6,412	-783	-2,578	-4,344	-3,185
1972	-3,237	-3,689	-3,080	-3,800	-3,074	-3,972	1,330	820	-487	-4,134	-3,077	-2,424
1973	-618	-2,114	-4,078	8,671	13,682	7,448	4,479	4,966	58	-4,036	-4,201	-2,850
1974	-2,095	1,493	4,497	8,910	871	9,846	15,001	8,631	1,766	-3,078	-4,304	-2,045
1975	-1,861	-3,922	-3,546	-3,909	7,615	11,339	5,347	8,074	1,963	-2,880	-4,104	-2,140
1976	-292	-4,202	-4,048	-3,201	-2,401	-2,046	855	78	-540	127	-1,850	-2,447
1977	962	-1,738	407	1,010	1,210	1,055	1,093	808	1,427	492	-1,532	-40
1978	765	1,644	-3,102	7,359	11,447	12,877	14,117	7,718	7,124	-4,048	-4,056	-3,309
1979	-1,028	-938	-183	1,300	8,396	7,443	4,441	4,958	-234	-4,531	-4,349	-6,697
1980	-1,043	-2,893	-2,762	17,343	27,301	13,902	6,447	7,788	3,740	-2,258	-3,854	-3,033
1981	-820	-591	-1,627	-2,503	-3,166	-350	2,273	2,029	-1,106	-4,987	-3,149	-3,099
1982	-876	-3,206	3,846	12,932	20,399	21,646	34,548	16,536	8,813	-2,034	-3,223	-348
1983	9,137	5,609	23,497	35,351	48,354	58,114	28,424	26,740	36,786	14,027	-1,726	880
1984	14,207	22,514	37,256	19,220	9,909	1,882	3,204	3,817	481	-476	-4,451	-3,560
1985	-2,221	-2,844	-2,048	-3,358	-3,053	-405	1,917	2,604	-797	-5,435	-4,600	-3,939
1986	-2,399	-964	-3,139	-995	33,585	30,758	7,605	4,264	2,653	-2,163	-3,501	-3,295
1987	-1,749	-873	-392	-3,184	-3,034	108	442	1,138	1,206	-2,583	-2,773	-2,454
1988	956	-1,181	-3,982	-3,530	-1,642	1,340	348	804	2,127	-967	1,985	-118
1989	480	782	-1,436	-1,385	791	-1,131	105	715	399	-4,528	-3,871	-3,024
1990	-2,022	-151	-4,637	-3,539	-2,048	-1,287	1,873	686	1,174	1,772	-1,146	-83
1991	574	1,728	1,588	1,628	1,083	-2,905	1,949	753	822	1,566	-2,589	-41
1992	501	1,801	1,939	-1,451	-2,154	-1,605	1,286	137	1,638	-970	-1,373	-1,010
1993	1,724	334	-1,023	11,157	5,979	5,025	5,651	7,290	-1,281	-4,087	-4,406	-3,538
1994	-1,733	-1,221	-1,846	-3,135	-4,365	285	733	834	-1,425	-4,786	-5,465	-3,127
Mean	-243	-963	479	3,196	5,536	4,660	6,152	5,636	1,993	-2,286	-3,116	-2,403
Max	14,207	22,514	37,256	35,351	48,354	58,114	34,548	26,740	36,786	14,027	2,137	880
Min	-3,488	-4,691	-4,637	-3,909	-5,413	-3,972	34	-186	-1,425	-5,825	-5,465	-3,939

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Appendix C-3 CALSIM II Modeling

Year	Base Existing Base QWEST (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	-1,841	-2,066	-2,280	-2,245	6,538	2,648	5,447	13,671	7,343	-3,762	-2,809	-2,715
1923	-975	-2,640	3,085	3,289	2,041	-650	6,362	3,555	322	-3,321	-3,893	-2,715
1924	-891	-122	-2,155	-1,627	-2,835	2,436	34	-186	1,563	2,505	66	-79
1925	456	1,247	-1,873	-2,023	4,504	5,956	4,184	4,898	162	-3,903	642	-1,230
1926	-46	1,042	-8	-3,830	-1,001	-738	2,420	3,352	-1,261	-2,967	-1,812	-1,012
1927	23	-1,606	-3,456	-2,788	11,902	1,141	8,055	6,752	-1,111	-72	-4,261	-3,209
1928	-723	-2,518	-3,337	-2,161	-3,161	7,906	5,281	2,555	-1,017	-2,005	-2,324	-2,812
1929	-629	-1,797	-2,199	-2,099	-2,811	1,153	1,809	898	682	-393	2,063	-44
1930	646	1,991	-4,069	-2,902	-2,275	-3,422	1,405	1,848	7	-3,446	-2,495	-2,809
1931	674	-818	-968	-2,198	-1,672	807	775	-127	824	646	-1,630	-352
1932	1,159	1,125	-142	-1,338	3,571	1,690	4,683	3,592	781	-452	231	-2,408
1933	-59	860	-414	2,684	-707	-100	2,007	1,479	1,747	-1,277	2,086	-9
1934	67	2,773	-3,674	-1,476	1,672	1,870	1,658	429	1,963	-403	2,150	-52
1935	413	129	-1,381	-854	68	1,018	11,176	7,918	990	-2,900	-5,089	-3,115
1936	-1,803	780	-3,821	-832	18,741	1,674	6,078	6,988	1,719	-3,291	-4,749	-2,654
1937	-1,710	1,408	-3,725	-1,952	11,156	11,099	8,736	7,643	624	-2,477	-2,829	-1,933
1938	-525	-1,683	6,367	3,919	33,526	38,396	22,529	23,014	15,629	-2,389	-3,042	-2,772
1939	3,714	-3,597	-2,871	-371	-827	552	2,973	2,207	-241	-4,302	-3,570	-2,988
1940	-88	-518	-1,104	1,049	7,232	12,105	11,119	5,515	69	-4,125	-4,658	-2,928
1941	-1,916	-409	620	7,845	17,657	12,312	13,774	10,597	4,879	-3,650	-3,596	-3,365
1942	-1,318	-2,955	7,288	17,730	16,771	694	9,278	10,781	-1,014	-2,473	-3,839	-2,670
1943	-180	-3,012	-1,028	19,003	11,558	26,058	7,776	8,964	1,122	-303	-4,197	-3,339
1944	-1,054	-569	-2,234	-3,156	-2,187	-2,039	3,062	3,170	-815	-3,360	-3,735	-3,121
1945	824	-3,363	-3,047	-2,599	3,918	2,118	5,442	6,471	-525	-4,447	-3,874	-2,971
1946	-834	-2,491	6,996	2,258	3,167	-129	3,820	2,523	-422	-4,467	-4,149	-2,968
1947	-2,041	-828	-3,485	-943	-3,520	-2,214	915	1,549	-403	-3,683	-3,352	-3,405
1948	611	-2,432	-664	-3,621	-1,990	-1,251	3,669	4,350	245	-5,014	-5,079	-3,568
1949	-1,752	-324	-2,839	-1,204	-2,177	-89	2,489	3,386	-1,424	-5,066	-1,472	-2,608
1950	417	329	-272	-1,796	-1,990	-1,860	2,878	4,486	-568	-3,958	-4,292	-3,023
1951	-2,052	5,460	17,296	16,728	15,164	2,070	4,356	6,852	-195	-2,007	-4,897	-3,275
1952	-2,278	-2,607	987	13,122	8,403	14,523	17,884	18,465	9,331	-2,374	-3,994	-1,514
1953	3,341	-3,409	3,748	12,105	2,432	-2,015	3,258	5,823	2,116	-2,835	-3,961	-3,176
1954	-2,964	-3,772	-3,067	-2,952	1,197	-174	5,361	2,800	-803	-3,934	-4,159	-3,330
1955	-2,011	-3,081	-2,127	-1,676	-483	-606	2,342	2,440	-1,175	-2,867	-544	-1,828
1956	179	-1,899	19,103	26,663	14,402	2,643	4,902	11,259	2,706	-982	-3,931	-2,212
1957	-638	-2,789	-1,474	-2,745	-1,747	803	2,619	3,081	-751	-2,865	-4,327	-2,991
1958	-1,787	-4,353	-2,574	-450	11,055	14,203	25,997	15,174	4,415	-2,789	-3,987	-1,979
1959	1,688	-2,762	-2,822	-1,126	2,121	2,386	1,800	1,529	-222	-3,521	-4,637	-2,182
1960	-1,669	676	-1,770	-2,020	-3,034	-2,985	1,226	1,899	-1,090	-5,668	-1,128	-2,862

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Appendix C-3 CALSIM II Modeling

Year	Base Existing Base QWEST (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	179	-3,074	-2,922	-1,576	-5,382	-2,407	66	1,094	456	-5,435	-3,589	-3,080
1962	819	-2,156	-3,215	-1,555	4,094	-2,096	2,732	3,560	-974	-4,107	-5,115	-3,471
1963	-3,546	-4,691	-4,683	-2,859	5,789	-1,396	14,181	9,830	427	1,058	-4,195	-2,948
1964	-2,777	-4,358	-2,640	-1,929	-1,605	-1,077	672	734	-1,004	-5,630	-4,223	-3,174
1965	-305	-3,908	9,615	15,619	1,450	-956	8,687	5,295	862	-333	-4,134	-3,132
1966	-698	-557	-61	-882	-1,085	-2,851	1,903	2,865	-1,057	-3,531	-4,412	-3,238
1967	-1,468	-3,767	-863	4,261	1,585	6,324	15,081	16,758	11,843	1,694	-3,981	-435
1968	2,154	-3,748	-2,655	63	5,394	1,330	2,174	1,757	-819	-2,584	-4,217	-3,094
1969	-1,765	-3,003	-1,849	22,292	31,663	17,464	22,608	25,307	21,973	-1,992	-2,716	-2,564
1970	3,731	-2,589	7,155	33,500	14,962	4,663	4,005	4,980	149	1	-4,939	-3,410
1971	-2,331	-1,893	4,246	994	2,409	-105	2,997	6,412	-772	-2,575	-4,341	-3,111
1972	-3,250	-3,636	-3,036	-3,772	-3,273	-3,981	1,330	820	-476	-4,127	-3,045	-3,349
1973	-573	-2,084	-4,078	8,462	13,619	7,448	4,479	4,966	60	-4,035	-4,205	-2,744
1974	-2,051	1,541	4,409	8,750	871	9,846	15,001	8,631	1,766	-3,076	-4,301	-1,973
1975	-1,931	-3,920	-3,519	-3,879	7,552	11,339	5,347	8,074	1,963	-2,877	-4,102	-2,084
1976	-346	-4,202	-4,028	-3,154	-2,371	-2,041	855	76	-436	153	-1,908	-2,360
1977	993	-1,753	358	952	1,133	976	1,032	802	1,412	486	-1,549	-55
1978	754	1,631	-3,102	7,359	11,448	12,877	14,110	7,718	7,124	-4,047	-4,093	-3,205
1979	-928	-867	-1,135	1,302	8,230	7,316	4,441	4,958	-261	-4,621	-4,276	-2,616
1980	-1,008	-2,856	-2,769	17,322	27,066	13,846	6,447	7,788	3,740	-2,257	-3,858	-2,961
1981	-738	-517	-1,563	-2,509	-3,336	-475	2,273	2,029	-1,117	-4,946	-3,029	-3,036
1982	-851	-3,189	3,846	12,735	20,193	21,585	34,548	16,536	8,813	-1,978	-3,195	-348
1983	9,137	5,609	23,497	35,351	48,354	58,114	28,424	26,740	36,786	14,027	-1,726	880
1984	14,207	22,514	37,256	19,220	9,909	1,882	3,204	3,817	494	-472	-4,448	-3,457
1985	-2,180	-2,806	-2,120	-3,524	-3,042	-406	1,917	2,605	-794	-5,387	-4,495	-3,877
1986	-2,363	-940	-2,993	-995	33,728	30,552	7,503	4,257	2,617	-2,292	-3,576	-3,214
1987	-1,685	-822	-357	-3,143	-3,018	80	442	1,138	1,198	-2,714	-2,674	-2,382
1988	979	-1,160	-3,786	-3,530	-1,668	1,268	348	804	1,981	-1,190	2,005	-32
1989	551	837	-1,466	-1,385	718	-1,131	68	712	400	-4,612	-3,690	-2,881
1990	-2,092	-197	-4,586	-3,610	-2,078	-1,356	1,791	682	1,063	1,859	-1,214	-108
1991	470	1,707	1,588	1,628	1,101	-2,907	1,904	748	854	1,536	-2,643	-58
1992	489	1,792	1,939	-1,451	-2,154	-1,613	1,280	129	1,626	-983	-1,388	-1,024
1993	1,715	328	-1,023	11,157	5,979	5,025	5,651	7,290	-1,281	-4,086	-4,443	-3,448
1994	-1,644	-1,126	-1,767	-3,115	-4,330	204	733	834	-1,479	-4,638	-5,344	-3,173
Mean	-223	-938	475	3,171	5,484	4,621	6,134	5,635	1,977	-2,306	-3,092	-2,335
Max	14,207	22,514	37,256	35,351	48,354	58,114	34,548	26,740	36,786	14,027	2,150	880
Min	-3,546	-4,691	-4,683	-3,879	-5,382	-3,981	34	-186	-1,479	-5,668	-5,344	-3,877

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Appendix C-3 CALSIM II Modeling

Year	Difference Existing Alt 1 & 2 minus Existing Base QWEST (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	105	202	50	0	0	0	0	0	0	0	0	0
1923	-61	-124	159	5	125	-4	0	0	0	6	1	4
1924	-39	-34	-53	18	32	8	0	1	-79	28	49	47
1925	96	18	2	0	0	0	0	0	0	1	0	-73
1926	-46	-58	49	14	-9	-5	0	-2	-1	0	11	-92
1927	-83	-66	64	202	190	123	0	0	38	-8	-3	-125
1928	-46	-51	90	168	0	0	0	-1	-4	-1	4	-104
1929	-42	-36	-180	-58	20	36	0	6	127	217	-61	-72
1930	-73	-49	-58	0	191	0	0	0	148	59	-139	-183
1931	-81	66	29	34	67	87	119	0	17	6	19	18
1932	13	9	0	0	-143	-4	72	5	3	0	59	-132
1933	-48	-34	-55	-10	94	0	-17	8	153	21	-29	-105
1934	56	92	18	-1	200	92	-23	7	3	21	-13	7
1935	15	17	0	-3	8	0	0	5	0	2	37	-112
1936	-50	-64	-54	-4	27	124	0	0	38	88	4	-127
1937	-44	-31	-135	16	-66	147	0	0	28	133	114	-77
1938	-48	-145	207	130	0	0	0	0	0	-1	-2	-14
1939	13	-2	0	0	-6	-4	0	-1	-4	-47	-125	-63
1940	-23	-8	-23	-10	0	0	75	7	11	131	50	-102
1941	-32	-30	0	24	229	28	0	0	0	-11	-2	-85
1942	-106	-123	2	38	13	127	0	0	66	15	2	-72
1943	69	0	0	0	0	0	0	0	0	-3	-2	-117
1944	-41	-25	-10	-45	-19	0	0	0	-1	84	-122	-55
1945	-22	-10	0	0	94	67	0	0	26	133	-73	-88
1946	-42	37	6	1	24	90	0	0	26	122	-92	-88
1947	-38	-18	-163	0	133	75	0	0	139	41	-133	-57
1948	-52	-51	-63	-80	37	179	282	32	0	2	-120	-94
1949	-40	25	-137	-1	20	1	0	0	8	131	-86	-86
1950	-36	-21	-39	-52	0	128	161	8	36	133	0	-98
1951	-54	-109	213	207	39	0	0	0	-6	-1	4	-98
1952	-42	-38	66	17	183	0	0	0	0	-11	3	0
1953	0	3	0	0	0	0	0	0	0	0	-3	-2
1954	-47	-61	-1	2	200	75	0	-1	-1	-1	4	-120
1955	-34	-36	42	3	179	38	0	0	-4	-4	-27	-90
1956	-24	-15	15	14	180	81	0	0	0	-57	-6	-31
1957	30	-7	-20	-43	70	0	0	0	1	-2	4	-102
1958	-67	-145	180	9	146	0	0	0	0	-1	0	0
1959	0	-7	-12	6	7	0	0	0	-10	-7	4	-89
1960	-35	-55	-2	-2	34	0	0	0	-1	-157	-110	-109

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Appendix C-3 CALSIM II Modeling

Difference Existing Alt 1 & 2 minus Existing Base QWEST (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	-61	29	-128	0	-31	75	63	3	84	-30	-132	13
1962	86	48	0	-3	0	81	189	8	24	128	-94	-63
1963	58	0	190	95	0	1	0	0	-3	-2	-2	-68
1964	-54	-35	63	154	-6	-4	0	0	-4	-6	-116	-63
1965	-27	-71	0	0	138	78	0	-1	38	55	-1	-105
1966	-38	-110	210	94	-12	11	0	0	-10	-6	-60	-80
1967	-26	-153	158	29	195	46	0	0	0	0	0	0
1968	0	-2	0	0	0	0	0	0	0	-5	-60	-62
1969	-29	-26	-27	0	175	118	0	0	0	0	-1	-2
1970	0	0	0	0	0	0	0	0	-9	-3	-1	-114
1971	-40	-51	103	135	-1	0	0	0	-12	-3	-2	-74
1972	13	-53	-44	-28	199	9	0	0	-11	-7	-32	-75
1973	-46	-30	0	208	63	0	0	0	-2	-1	4	-105
1974	-44	-48	88	161	0	0	0	0	0	-2	-3	-72
1975	70	-2	-27	-30	63	0	0	0	0	-2	-2	-56
1976	54	0	-20	-48	-30	-4	0	2	-103	-27	58	-87
1977	-31	15	49	58	77	80	61	6	15	6	17	15
1978	11	14	0	0	-1	0	7	0	0	0	37	-104
1979	-99	-71	-48	-3	166	126	0	0	27	90	-73	-81
1980	-34	-37	7	21	235	54	0	0	0	-1	4	-72
1981	-82	-74	-63	6	171	125	0	0	11	-40	-120	-62
1982	-26	-17	0	198	207	61	0	0	0	-55	-29	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	-13	-4	-3	-103
1985	-41	-38	71	166	-12	1	0	-1	-4	-48	-105	-63
1986	-36	-25	-147	0	-144	205	102	7	37	130	76	-81
1987	-64	-52	-35	-41	-16	28	0	0	9	131	-98	-72
1988	-23	-21	-196	0	26	72	0	0	145	223	-19	-86
1989	-71	-55	29	0	73	0	37	3	-1	84	-182	-143
1990	69	46	-52	71	30	69	82	4	112	-88	68	25
1991	104	21	0	0	-19	2	45	5	-32	30	54	17
1992	12	8	0	0	0	8	6	7	12	13	15	14
1993	10	6	0	0	0	0	0	0	0	0	37	-90
1994	-89	-95	-79	-20	-35	81	0	0	54	-148	-121	-46
Mean	-20	-26	4	25	52	39	17	2	15	20	-24	-68
Max	105	202	213	208	235	205	282	32	153	223	114	47
Min	-106	-153	-196	-80	-144	-5	-23	-2	-103	-157	-182	-183

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Alt Existing Alt 1 & 2 E/I Ratio												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0.61	0.59	0.51	0.57	0.25	0.29	0.20	0.19	0.19	0.48	0.57	0.64
1923	0.65	0.57	0.27	0.31	0.35	0.35	0.17	0.19	0.35	0.49	0.62	0.65
1924	0.59	0.45	0.57	0.50	0.45	0.09	0.24	0.17	0.10	0.08	0.35	0.46
1925	0.53	0.35	0.54	0.54	0.17	0.04	0.21	0.11	0.31	0.51	0.35	0.60
1926	0.53	0.37	0.42	0.53	0.25	0.30	0.19	0.11	0.31	0.42	0.45	0.54
1927	0.52	0.41	0.50	0.31	0.06	0.20	0.12	0.09	0.35	0.32	0.61	0.65
1928	0.59	0.49	0.57	0.41	0.35	0.11	0.17	0.18	0.35	0.39	0.52	0.63
1929	0.53	0.55	0.55	0.55	0.45	0.21	0.18	0.15	0.24	0.30	0.12	0.46
1930	0.46	0.25	0.52	0.47	0.37	0.32	0.22	0.11	0.26	0.47	0.51	0.65
1931	0.46	0.48	0.47	0.53	0.43	0.20	0.11	0.15	0.19	0.18	0.45	0.47
1932	0.38	0.35	0.45	0.45	0.38	0.30	0.13	0.12	0.25	0.31	0.34	0.61
1933	0.52	0.38	0.46	0.24	0.38	0.30	0.14	0.17	0.11	0.34	0.10	0.44
1934	0.52	0.15	0.58	0.40	0.24	0.12	0.08	0.11	0.09	0.28	0.10	0.45
1935	0.46	0.42	0.55	0.33	0.35	0.26	0.09	0.04	0.27	0.44	0.61	0.64
1936	0.61	0.38	0.63	0.25	0.13	0.27	0.18	0.07	0.27	0.46	0.61	0.64
1937	0.62	0.33	0.64	0.59	0.24	0.21	0.16	0.17	0.31	0.44	0.53	0.62
1938	0.60	0.40	0.13	0.23	0.05	0.05	0.09	0.11	0.17	0.47	0.58	0.60
1939	0.47	0.64	0.53	0.42	0.45	0.35	0.19	0.15	0.28	0.51	0.57	0.65
1940	0.49	0.49	0.51	0.29	0.18	0.10	0.08	0.12	0.32	0.48	0.62	0.65
1941	0.63	0.45	0.21	0.11	0.09	0.12	0.09	0.10	0.26	0.48	0.59	0.61
1942	0.63	0.63	0.11	0.07	0.05	0.30	0.11	0.07	0.28	0.45	0.61	0.56
1943	0.58	0.62	0.31	0.11	0.15	0.10	0.16	0.06	0.32	0.35	0.62	0.65
1944	0.62	0.51	0.55	0.58	0.38	0.35	0.26	0.18	0.35	0.48	0.59	0.65
1945	0.44	0.59	0.51	0.57	0.23	0.35	0.20	0.07	0.35	0.50	0.60	0.65
1946	0.64	0.54	0.15	0.21	0.21	0.35	0.24	0.24	0.35	0.51	0.60	0.65
1947	0.61	0.50	0.57	0.49	0.45	0.35	0.21	0.08	0.30	0.48	0.57	0.64
1948	0.46	0.59	0.47	0.53	0.35	0.35	0.18	0.12	0.31	0.51	0.61	0.64
1949	0.59	0.46	0.55	0.48	0.45	0.23	0.21	0.09	0.35	0.53	0.47	0.63
1950	0.47	0.42	0.44	0.45	0.29	0.35	0.20	0.07	0.33	0.48	0.59	0.64
1951	0.64	0.20	0.10	0.11	0.09	0.27	0.20	0.06	0.35	0.39	0.62	0.64
1952	0.65	0.54	0.23	0.13	0.14	0.14	0.07	0.08	0.17	0.47	0.61	0.49
1953	0.44	0.64	0.14	0.07	0.25	0.34	0.22	0.08	0.25	0.43	0.61	0.55
1954	0.65	0.57	0.60	0.29	0.17	0.21	0.13	0.15	0.35	0.46	0.61	0.64
1955	0.58	0.57	0.40	0.48	0.33	0.35	0.17	0.11	0.34	0.46	0.39	0.59
1956	0.48	0.54	0.11	0.07	0.11	0.21	0.20	0.03	0.31	0.39	0.61	0.54
1957	0.57	0.60	0.51	0.54	0.29	0.22	0.21	0.21	0.35	0.43	0.60	0.64
1958	0.54	0.65	0.42	0.26	0.05	0.11	0.07	0.10	0.23	0.47	0.61	0.51
1959	0.49	0.62	0.59	0.25	0.21	0.17	0.25	0.15	0.27	0.44	0.61	0.64
1960	0.60	0.36	0.53	0.54	0.34	0.35	0.21	0.11	0.31	0.53	0.42	0.62

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Appendix C-3 CALSIM II Modeling

Year	Alt Existing Alt 1 & 2 E/I Ratio											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	0.41	0.61	0.49	0.57	0.38	0.35	0.22	0.09	0.20	0.52	0.55	0.65
1962	0.46	0.57	0.50	0.51	0.23	0.35	0.23	0.10	0.33	0.47	0.62	0.65
1963	0.28	0.62	0.35	0.56	0.14	0.29	0.06	0.04	0.34	0.29	0.61	0.64
1964	0.65	0.38	0.55	0.40	0.35	0.35	0.20	0.18	0.35	0.55	0.57	0.64
1965	0.51	0.60	0.13	0.09	0.29	0.34	0.12	0.15	0.35	0.35	0.63	0.64
1966	0.57	0.41	0.50	0.33	0.35	0.35	0.23	0.13	0.34	0.48	0.60	0.64
1967	0.55	0.60	0.25	0.21	0.18	0.18	0.14	0.11	0.17	0.46	0.60	0.45
1968	0.44	0.65	0.54	0.24	0.13	0.20	0.22	0.16	0.31	0.42	0.63	0.65
1969	0.56	0.61	0.38	0.10	0.08	0.14	0.09	0.11	0.19	0.47	0.56	0.58
1970	0.45	0.56	0.09	0.03	0.08	0.21	0.20	0.09	0.33	0.30	0.62	0.65
1971	0.65	0.50	0.16	0.20	0.17	0.22	0.20	0.07	0.35	0.41	0.61	0.54
1972	0.65	0.64	0.53	0.55	0.37	0.29	0.22	0.17	0.29	0.48	0.55	0.64
1973	0.56	0.48	0.37	0.13	0.11	0.17	0.23	0.12	0.30	0.48	0.60	0.64
1974	0.65	0.17	0.14	0.09	0.24	0.10	0.07	0.05	0.29	0.48	0.62	0.48
1975	0.60	0.65	0.55	0.59	0.14	0.12	0.20	0.08	0.31	0.47	0.63	0.50
1976	0.51	0.64	0.59	0.58	0.45	0.35	0.23	0.17	0.29	0.28	0.57	0.63
1977	0.48	0.61	0.38	0.36	0.19	0.15	0.10	0.14	0.11	0.21	0.46	0.48
1978	0.43	0.30	0.56	0.15	0.10	0.11	0.11	0.19	0.27	0.48	0.59	0.64
1979	0.63	0.51	0.42	0.38	0.21	0.20	0.23	0.13	0.29	0.51	0.61	0.63
1980	0.58	0.56	0.46	0.11	0.08	0.13	0.19	0.07	0.29	0.49	0.59	0.64
1981	0.64	0.50	0.47	0.45	0.35	0.30	0.22	0.15	0.32	0.53	0.56	0.65
1982	0.53	0.29	0.11	0.14	0.11	0.13	0.06	0.13	0.24	0.47	0.60	0.53
1983	0.34	0.23	0.12	0.07	0.02	0.02	0.06	0.08	0.08	0.27	0.46	0.30
1984	0.17	0.05	0.02	0.08	0.16	0.25	0.23	0.16	0.31	0.35	0.62	0.64
1985	0.65	0.31	0.43	0.59	0.45	0.35	0.22	0.10	0.31	0.55	0.60	0.65
1986	0.62	0.54	0.52	0.40	0.06	0.07	0.25	0.28	0.35	0.44	0.56	0.65
1987	0.64	0.52	0.43	0.57	0.42	0.24	0.21	0.09	0.16	0.45	0.54	0.61
1988	0.42	0.54	0.53	0.36	0.33	0.13	0.23	0.11	0.09	0.32	0.13	0.42
1989	0.47	0.37	0.51	0.45	0.26	0.23	0.20	0.11	0.23	0.50	0.55	0.65
1990	0.59	0.43	0.63	0.49	0.38	0.35	0.09	0.18	0.11	0.09	0.43	0.46
1991	0.45	0.26	0.23	0.25	0.17	0.33	0.14	0.15	0.21	0.10	0.51	0.42
1992	0.48	0.26	0.19	0.53	0.33	0.35	0.16	0.11	0.12	0.34	0.44	0.52
1993	0.37	0.43	0.49	0.17	0.19	0.18	0.13	0.06	0.23	0.48	0.60	0.64
1994	0.64	0.52	0.48	0.59	0.43	0.22	0.22	0.19	0.34	0.49	0.63	0.61
Mean	0.47	0.41	0.35	0.25	0.23	0.17	0.12	0.27	0.42	0.54	0.59	0.59
Max	0.65	0.65	0.64	0.59	0.45	0.35	0.26	0.28	0.35	0.55	0.63	0.65
Min	0.17	0.05	0.02	0.03	0.02	0.02	0.06	0.03	0.08	0.08	0.10	0.30

Appendix C-3 CALSIM II Modeling

Year	Base Existing Base E/I Ratio											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0.61	0.59	0.51	0.57	0.25	0.29	0.20	0.05	0.19	0.48	0.57	0.65
1923	0.65	0.57	0.27	0.31	0.35	0.35	0.17	0.19	0.35	0.49	0.62	0.64
1924	0.59	0.45	0.57	0.50	0.45	0.09	0.24	0.17	0.10	0.08	0.35	0.46
1925	0.53	0.35	0.54	0.54	0.17	0.04	0.21	0.11	0.31	0.51	0.35	0.60
1926	0.53	0.37	0.42	0.53	0.25	0.30	0.19	0.11	0.31	0.42	0.45	0.54
1927	0.52	0.41	0.50	0.31	0.06	0.20	0.12	0.09	0.35	0.32	0.61	0.65
1928	0.59	0.49	0.57	0.41	0.35	0.11	0.17	0.18	0.35	0.39	0.52	0.63
1929	0.53	0.55	0.55	0.55	0.45	0.21	0.18	0.15	0.24	0.30	0.12	0.46
1930	0.46	0.25	0.52	0.47	0.37	0.32	0.22	0.11	0.26	0.47	0.51	0.65
1931	0.46	0.48	0.47	0.53	0.43	0.20	0.11	0.15	0.19	0.18	0.45	0.47
1932	0.38	0.35	0.45	0.45	0.38	0.30	0.13	0.12	0.25	0.31	0.34	0.61
1933	0.52	0.38	0.46	0.24	0.38	0.30	0.14	0.17	0.11	0.34	0.14	0.45
1934	0.52	0.15	0.58	0.40	0.24	0.12	0.08	0.11	0.09	0.28	0.10	0.44
1935	0.46	0.42	0.55	0.33	0.35	0.26	0.09	0.04	0.27	0.44	0.61	0.64
1936	0.61	0.38	0.63	0.25	0.13	0.27	0.18	0.07	0.27	0.46	0.61	0.64
1937	0.62	0.33	0.64	0.59	0.24	0.21	0.16	0.17	0.31	0.44	0.53	0.62
1938	0.60	0.40	0.13	0.23	0.05	0.05	0.09	0.11	0.17	0.47	0.58	0.60
1939	0.47	0.64	0.53	0.42	0.45	0.35	0.19	0.15	0.28	0.51	0.57	0.65
1940	0.49	0.49	0.51	0.29	0.18	0.10	0.08	0.12	0.32	0.48	0.62	0.65
1941	0.63	0.45	0.21	0.11	0.09	0.12	0.09	0.10	0.26	0.48	0.59	0.61
1942	0.63	0.63	0.11	0.07	0.05	0.30	0.11	0.07	0.28	0.45	0.61	0.56
1943	0.58	0.62	0.31	0.11	0.15	0.10	0.16	0.06	0.32	0.35	0.62	0.65
1944	0.62	0.51	0.55	0.58	0.38	0.35	0.26	0.18	0.35	0.48	0.59	0.65
1945	0.44	0.59	0.51	0.57	0.23	0.35	0.20	0.07	0.35	0.50	0.60	0.65
1946	0.64	0.54	0.15	0.21	0.21	0.35	0.24	0.24	0.35	0.51	0.60	0.65
1947	0.61	0.50	0.57	0.49	0.45	0.35	0.21	0.08	0.30	0.48	0.57	0.64
1948	0.46	0.59	0.47	0.53	0.35	0.35	0.18	0.12	0.31	0.51	0.61	0.64
1949	0.59	0.46	0.55	0.48	0.45	0.23	0.21	0.09	0.35	0.53	0.47	0.63
1950	0.47	0.42	0.44	0.45	0.29	0.35	0.20	0.07	0.33	0.48	0.59	0.64
1951	0.64	0.20	0.10	0.11	0.09	0.27	0.20	0.06	0.35	0.39	0.62	0.64
1952	0.65	0.54	0.23	0.13	0.14	0.14	0.07	0.08	0.17	0.47	0.61	0.49
1953	0.44	0.64	0.14	0.07	0.25	0.34	0.22	0.08	0.25	0.43	0.61	0.55
1954	0.65	0.57	0.60	0.29	0.17	0.21	0.13	0.15	0.35	0.46	0.61	0.64
1955	0.58	0.57	0.40	0.48	0.33	0.35	0.17	0.11	0.34	0.46	0.39	0.59
1956	0.48	0.54	0.11	0.07	0.11	0.21	0.20	0.03	0.31	0.39	0.61	0.54
1957	0.57	0.60	0.51	0.54	0.29	0.22	0.21	0.21	0.35	0.43	0.60	0.64
1958	0.54	0.65	0.42	0.26	0.05	0.11	0.07	0.10	0.23	0.47	0.61	0.51
1959	0.49	0.62	0.59	0.25	0.21	0.17	0.25	0.15	0.27	0.44	0.61	0.64
1960	0.60	0.36	0.53	0.54	0.34	0.35	0.21	0.11	0.31	0.53	0.42	0.62

Appendix C-3 CALSIM II Modeling

Year	Base Existing Base E/I Ratio											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	0.41	0.61	0.49	0.57	0.38	0.35	0.22	0.09	0.20	0.52	0.55	0.65
1962	0.46	0.57	0.50	0.51	0.23	0.35	0.23	0.10	0.33	0.47	0.62	0.65
1963	0.28	0.62	0.35	0.56	0.14	0.29	0.06	0.04	0.34	0.29	0.61	0.64
1964	0.65	0.38	0.55	0.40	0.35	0.20	0.18	0.35	0.55	0.57	0.64	0.64
1965	0.51	0.60	0.13	0.09	0.29	0.34	0.12	0.15	0.35	0.35	0.63	0.64
1966	0.57	0.41	0.50	0.33	0.35	0.35	0.23	0.13	0.34	0.48	0.60	0.64
1967	0.55	0.60	0.25	0.21	0.18	0.18	0.14	0.11	0.17	0.46	0.60	0.45
1968	0.44	0.65	0.54	0.24	0.13	0.20	0.22	0.16	0.31	0.42	0.63	0.65
1969	0.56	0.61	0.38	0.10	0.08	0.14	0.09	0.11	0.19	0.47	0.56	0.58
1970	0.45	0.56	0.09	0.03	0.08	0.21	0.20	0.09	0.33	0.30	0.62	0.65
1971	0.65	0.50	0.16	0.20	0.17	0.22	0.20	0.07	0.35	0.41	0.61	0.54
1972	0.65	0.64	0.53	0.55	0.37	0.29	0.22	0.17	0.29	0.48	0.55	0.64
1973	0.56	0.48	0.37	0.13	0.11	0.17	0.23	0.12	0.30	0.48	0.60	0.64
1974	0.65	0.17	0.14	0.09	0.24	0.10	0.07	0.05	0.29	0.48	0.62	0.48
1975	0.60	0.65	0.55	0.59	0.14	0.12	0.20	0.08	0.31	0.47	0.63	0.50
1976	0.51	0.64	0.59	0.58	0.45	0.35	0.23	0.17	0.29	0.28	0.57	0.63
1977	0.48	0.61	0.38	0.36	0.19	0.15	0.10	0.14	0.11	0.21	0.46	0.48
1978	0.43	0.30	0.56	0.15	0.10	0.11	0.11	0.19	0.27	0.48	0.59	0.64
1979	0.63	0.51	0.42	0.38	0.21	0.20	0.23	0.13	0.29	0.51	0.61	0.64
1980	0.58	0.56	0.46	0.11	0.08	0.13	0.19	0.07	0.29	0.49	0.59	0.64
1981	0.64	0.50	0.47	0.45	0.35	0.30	0.22	0.15	0.32	0.53	0.56	0.65
1982	0.53	0.29	0.11	0.14	0.11	0.13	0.06	0.13	0.24	0.47	0.60	0.53
1983	0.34	0.23	0.12	0.07	0.02	0.02	0.06	0.08	0.08	0.27	0.46	0.30
1984	0.17	0.05	0.02	0.08	0.16	0.25	0.23	0.16	0.31	0.35	0.62	0.64
1985	0.65	0.31	0.43	0.59	0.45	0.35	0.22	0.10	0.31	0.55	0.60	0.65
1986	0.62	0.54	0.52	0.40	0.06	0.07	0.25	0.28	0.35	0.44	0.56	0.65
1987	0.64	0.52	0.43	0.57	0.42	0.24	0.21	0.09	0.16	0.45	0.54	0.61
1988	0.42	0.54	0.53	0.36	0.33	0.13	0.23	0.11	0.09	0.32	0.13	0.42
1989	0.47	0.37	0.51	0.45	0.26	0.23	0.20	0.11	0.23	0.50	0.55	0.65
1990	0.59	0.43	0.63	0.49	0.38	0.35	0.09	0.18	0.11	0.09	0.43	0.46
1991	0.45	0.26	0.23	0.25	0.17	0.33	0.14	0.15	0.21	0.10	0.51	0.42
1992	0.48	0.26	0.19	0.53	0.33	0.35	0.16	0.11	0.12	0.34	0.44	0.52
1993	0.37	0.43	0.49	0.17	0.19	0.18	0.13	0.06	0.23	0.48	0.60	0.64
1994	0.64	0.52	0.48	0.59	0.43	0.22	0.22	0.19	0.34	0.49	0.63	0.61
Mean	0.53	0.47	0.41	0.35	0.25	0.23	0.17	0.12	0.27	0.42	0.54	0.59
Max	0.65	0.65	0.64	0.59	0.45	0.35	0.26	0.28	0.35	0.55	0.63	0.65
Min	0.17	0.05	0.02	0.03	0.02	0.02	0.06	0.03	0.08	0.08	0.10	0.30

Year	Alt Existing Alt 1 & 2 Delta Surplus Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	4,792	2,583	21,119	7,314	10,949	44,049	14,348	0	0	0
1923	0	0	23,095	19,698	0	0	5,606	6,584	0	0	0	0
1924	0	0	1,351	0	1,351	0	114	0	0	0	0	0
1925	0	0	2,273	1,122	45,065	0	9,294	7,635	0	0	0	0
1926	0	0	882	3,233	10,363	0	9,764	0	0	0	0	0
1927	0	6,641	4,674	17,901	107,754	18,698	28,828	6,181	0	0	0	0
1928	0	3,560	2,501	10,147	2,824	75,968	5,127	0	0	0	0	0
1929	0	0	858	2,262	0	0	0	0	0	0	0	0
1930	0	0	1,258	6,256	0	3,364	256	1,798	0	0	0	0
1931	0	0	1,130	0	0	0	0	285	0	0	0	0
1932	0	0	7,321	7,649	0	0	0	4,939	0	0	0	0
1933	0	0	451	3,333	332	2,307	0	0	0	0	0	0
1934	0	0	1,192	6,204	1,937	0	0	0	0	0	0	0
1935	0	0	1,133	17,185	0	7,847	42,531	0	1,369	0	0	0
1936	0	0	24,375	50,094	3,034	8,003	9,325	2,278	0	0	0	0
1937	0	0	1,068	24,358	22,364	9,107	3,222	0	0	0	0	0
1938	0	7,313	52,452	24,762	122,749	148,917	59,496	52,095	25,427	0	0	1,363
1939	6,702	0	2,532	5,023	0	0	0	0	0	0	0	0
1940	0	0	21,969	32,460	76,689	49,669	2,127	0	0	0	0	0
1941	0	0	33,488	87,973	96,816	66,167	57,422	27,231	633	0	0	1,205
1942	318	0	55,948	76,156	118,881	4,593	37,589	18,589	6,620	0	0	2,913
1943	2,110	1,027	17,182	77,229	32,367	66,528	11,194	4,020	443	0	0	0
1944	0	0	0	1,051	5,510	0	619	4,512	0	0	0	0
1945	0	1,587	4,306	779	27,033	0	4,593	1,227	0	0	0	0
1946	0	0	57,340	38,859	0	0	3,497	2,065	0	0	0	0
1947	0	0	2,234	843	0	0	0	1,054	0	0	0	0
1948	0	0	1,274	0	1,274	0	14,654	17,095	2,962	0	0	0
1949	0	0	1,020	2,490	0	10,565	2,528	2,838	0	0	0	0
1950	0	0	670	7,589	6,431	0	6,954	6,948	1,489	0	0	0
1951	0	35,730	87,351	65,224	52,040	8,302	1,864	13,132	0	0	0	0
1952	0	0	30,152	76,023	51,267	43,807	52,292	48,511	20,326	0	0	6,014
1953	8,163	0	37,568	95,795	1,073	423	5,935	13,899	7,939	0	0	3,165
1954	0	2,592	761	10,476	34,460	20,672	20,652	0	0	0	0	0
1955	0	0	9,609	5,943	0	0	0	0	3,367	0	0	0
1956	0	0	83,337	156,566	65,077	18,441	3,815	34,006	3,058	0	0	3,819
1957	2,362	0	819	2,844	10,943	18,766	0	9,180	0	0	0	0
1958	3,536	0	8,703	24,364	157,192	71,902	81,542	34,645	9,978	0	0	5,098
1959	5,529	0	870	23,955	23,307	0	336	1,934	0	0	0	0
1960	0	0	0	1,902	8,022	0	0	3,501	0	0	0	0

Appendix C-3 CALSIM II Modeling

Year	Alt Existing Alt 1 & 2 Delta Surplus Outflow (CFS)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1961	0	0	1,109	813	4,490	0	0	0	0	0	0	0	0
1962	0	0	1,174	0	6,854	0	2,838	1,541	0	0	0	0	0
1963	20,046	895	13,364	2,689	46,372	0	71,980	13,383	0	0	0	0	0
1964	0	10,084	912	10,185	0	0	0	1,277	0	0	0	0	0
1965	0	508	63,460	109,582	7,617	0	33,082	0	0	0	0	0	0
1966	0	5,399	5,383	17,810	0	0	1,328	1,536	0	0	0	0	0
1967	0	824	26,079	35,994	24,984	32,280	33,440	38,454	24,196	1,294	602	7,901	0
1968	7,935	0	3,099	20,503	42,037	8,679	0	3,845	0	0	0	0	0
1969	0	0	9,416	106,839	106,740	42,436	43,433	44,050	14,430	0	0	2,253	0
1970	7,453	1,653	50,933	204,301	68,694	17,837	0	9,859	0	0	0	0	0
1971	0	2,997	50,217	37,417	0	18,444	0	18,481	0	0	0	3,522	0
1972	0	0	1,219	2,676	0	6,145	0	1,245	0	0	0	0	0
1973	0	5,346	12,156	69,416	66,161	34,022	2,255	10,006	0	0	0	0	0
1974	0	44,709	56,299	117,681	15,545	82,810	52,936	8,918	3,243	0	0	6,185	0
1975	1,554	0	2,925	1,329	49,370	62,519	4,214	21,240	2,123	0	0	5,382	0
1976	4,772	183	1,750	1,605	0	0	308	240	0	0	0	0	0
1977	0	0	0	854	0	0	0	0	0	0	0	0	0
1978	0	0	1,193	53,305	29,122	44,537	23,351	4,997	4,798	0	0	0	0
1979	0	0	1,201	12,454	23,096	13,121	0	9,913	0	0	0	0	0
1980	0	0	6,414	90,526	105,148	39,260	4,749	8,494	2,409	0	0	0	0
1981	0	0	1,246	7,587	0	4,696	3,483	3,757	0	0	0	0	0
1982	0	20,229	78,620	64,998	78,900	55,890	123,153	29,811	9,077	0	0	3,892	0
1983	15,634	30,266	75,329	96,822	161,464	236,647	75,529	60,655	65,842	19,710	6,421	18,856	0
1984	21,521	75,240	151,987	62,424	21,887	12,303	0	6,505	0	0	0	0	0
1985	0	4,741	8,102	1,057	0	0	0	0	0	0	0	0	0
1986	0	0	3,595	10,504	178,566	124,782	7,661	1,429	0	0	0	0	0
1987	0	0	1,107	1,860	1,729	5,210	0	0	0	0	0	0	0
1988	0	0	1,158	13,093	0	0	703	286	0	0	0	0	0
1989	0	0	1,310	3,308	0	11,589	7,862	0	0	0	0	0	0
1990	0	0	0	1,827	0	0	0	946	0	0	0	0	0
1991	0	0	458	633	0	1,711	0	250	0	0	0	0	0
1992	0	0	601	772	9,288	0	0	0	0	0	0	0	0
1993	0	0	1,280	52,814	27,164	20,251	13,264	11,954	8,052	0	0	0	0
1994	0	0	1,351	1,623	1,438	0	0	81	0	0	0	0	0
Mean	1,474	3,582	16,030	29,451	29,947	21,532	14,381	9,578	3,165	288	102	980	0
Max	21,521	75,240	151,987	204,301	178,566	236,647	123,153	60,655	65,842	19,710	6,421	18,856	0
Min	0	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-3 CALSIM II Modeling

Year	Base Existing Base Delta Surplus Outflow (CFS)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1922	0	0	4,742	2,583	21,119	7,314	10,949	44,049	14,348	0	0	0	0
1923	0	0	22,936	19,694	0	0	5,606	6,584	0	0	0	0	0
1924	0	0	0	1,333	0	0	114	0	0	0	0	0	0
1925	0	0	1,271	1,122	45,065	0	9,294	7,635	0	0	0	0	0
1926	0	0	833	3,219	10,372	0	9,764	0	0	0	0	0	0
1927	0	6,707	4,610	17,699	107,563	18,575	28,828	6,181	0	0	0	0	0
1928	0	3,611	2,410	9,979	2,824	75,968	5,127	0	0	0	0	0	0
1929	0	0	1,038	2,320	0	0	0	0	0	0	0	0	0
1930	0	0	1,316	6,256	0	3,364	256	1,798	0	0	0	0	0
1931	0	0	0	1,097	0	0	0	285	0	0	0	0	0
1932	0	0	7,321	7,649	0	0	0	4,934	0	0	0	0	0
1933	0	0	506	3,343	238	2,307	0	0	0	0	0	0	0
1934	0	0	1,174	6,204	1,737	0	0	0	0	0	0	0	0
1935	0	0	1,133	17,189	0	7,847	42,531	0	1,369	0	0	0	0
1936	0	0	0	24,380	50,066	2,910	8,003	9,325	2,240	0	0	0	0
1937	0	0	0	1,052	24,424	22,216	9,107	3,222	0	0	0	0	0
1938	0	7,458	52,245	24,632	122,749	148,917	59,496	52,095	25,427	0	0	1,377	0
1939	6,689	0	2,532	5,023	0	0	0	0	0	0	0	0	0
1940	0	0	0	21,979	32,460	76,689	49,594	2,120	0	0	0	0	0
1941	0	0	33,488	87,949	96,586	66,139	57,422	27,231	633	0	0	1,290	0
1942	424	0	55,946	76,117	118,868	4,465	37,589	18,589	6,554	0	0	2,985	0
1943	2,041	1,027	17,182	77,229	32,367	66,528	11,194	4,020	443	0	0	0	0
1944	0	0	0	1,097	5,529	0	619	4,512	0	0	0	0	0
1945	0	1,597	4,306	779	26,939	0	4,593	1,227	0	0	0	0	0
1946	0	0	57,334	38,858	0	0	3,497	2,065	0	0	0	0	0
1947	0	0	2,397	843	0	0	0	1,054	0	0	0	0	0
1948	0	0	0	1,355	0	0	14,372	17,063	2,962	0	0	0	0
1949	0	0	1,157	2,491	0	10,564	2,528	2,838	0	0	0	0	0
1950	0	0	709	7,641	6,431	0	6,793	6,941	1,454	0	0	0	0
1951	0	35,838	87,139	65,017	52,001	8,302	1,864	13,132	0	0	0	0	0
1952	0	0	30,086	76,006	51,083	43,807	52,292	48,511	20,326	0	0	6,014	0
1953	8,163	0	37,568	95,795	1,073	423	5,935	13,899	7,939	0	0	3,284	0
1954	0	2,653	762	10,474	34,260	20,597	20,652	0	0	0	0	0	0
1955	0	0	9,567	5,939	0	0	0	3,367	0	0	0	0	0
1956	0	0	83,322	156,552	64,897	18,360	3,815	34,006	3,058	0	0	3,851	0
1957	2,332	0	839	2,887	10,873	18,766	0	9,180	0	0	0	0	0
1958	3,602	0	8,523	24,355	157,046	71,902	81,542	34,645	9,978	0	0	398	5,098
1959	5,529	0	882	23,950	23,300	0	336	1,934	0	0	0	0	0
1960	0	0	0	1,904	7,988	0	0	3,501	0	0	0	0	0

Appendix C-3 CALSIM II Modeling

Year	Base Existing Base Delta Surplus Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	0	0	1,238	813	4,321	0	0	0	0	0	0	0
1962	0	0	1,174	0	6,854	0	2,648	1,533	0	0	0	0
1963	19,987	895	13,174	2,595	46,372	0	71,980	13,383	0	0	0	0
1964	0	10,119	849	10,031	0	0	0	1,277	0	0	0	0
1965	0	579	63,460	109,582	7,479	0	33,082	0	0	0	0	0
1966	0	5,508	5,173	17,716	0	0	1,328	1,536	0	0	0	0
1967	0	977	25,921	35,966	24,789	32,234	33,440	38,454	24,196	1,294	602	7,901
1968	7,935	0	3,099	20,503	42,037	8,679	0	3,845	0	0	0	0
1969	0	0	9,443	106,839	106,566	42,318	43,433	44,050	14,430	0	0	2,253
1970	7,453	1,653	50,933	204,301	68,694	17,837	0	9,859	0	0	0	0
1971	0	3,047	50,114	37,281	0	18,444	0	18,481	0	0	0	3,596
1972	0	0	1,263	2,705	0	6,136	0	1,245	0	0	0	0
1973	0	5,376	12,156	69,208	66,098	34,022	2,255	10,006	0	0	0	0
1974	0	44,757	56,211	117,520	15,545	82,810	52,936	8,918	3,243	0	0	6,257
1975	1,484	0	2,952	1,359	49,307	62,519	4,214	21,240	2,123	0	0	5,438
1976	4,717	183	1,771	1,653	0	0	308	238	0	0	0	0
1977	0	0	0	796	0	0	0	0	0	0	0	0
1978	0	0	1,193	53,305	29,123	44,537	23,345	4,997	4,798	0	0	0
1979	0	0	1,249	12,456	22,931	12,995	0	9,913	0	0	0	0
1980	0	0	6,407	90,506	104,913	39,206	4,749	8,494	2,409	0	0	0
1981	0	0	1,310	7,581	0	4,571	3,483	3,757	0	0	0	0
1982	0	20,246	78,620	64,801	78,693	55,829	123,153	29,811	9,077	0	0	3,892
1983	15,634	30,266	75,329	96,822	161,464	236,647	75,529	60,655	65,842	19,710	6,421	18,856
1984	21,521	75,240	151,987	62,424	21,887	12,303	0	6,505	0	0	0	0
1985	0	4,778	8,031	892	0	0	0	0	0	0	0	0
1986	0	0	3,742	10,504	178,710	124,577	7,559	1,421	0	0	0	0
1987	0	0	1,142	1,901	1,745	5,182	0	0	0	0	0	0
1988	0	0	1,354	13,093	0	0	703	286	0	0	0	0
1989	0	0	1,281	3,308	0	11,589	7,825	0	0	0	0	0
1990	0	0	0	1,756	0	0	0	943	0	0	0	0
1991	0	0	458	633	0	1,709	0	245	0	0	0	0
1992	0	0	601	772	9,288	0	0	0	0	0	0	0
1993	0	0	1,280	52,814	27,164	20,251	13,264	11,954	8,052	0	0	0
1994	0	0	1,430	1,643	1,473	0	0	81	0	0	0	0
Mean	1,473	3,596	16,022	29,426	29,911	21,512	14,369	9,577	3,163	288	102	988
Max	21,521	75,240	151,987	204,301	178,710	236,647	123,153	60,655	65,842	19,710	6,421	18,856
Min	0	0	0	0	0	0	0	0	0	0	0	0

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Year	Difference Existing Alt 1 & 2 minus Existing Base Delta Surplus Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	50	0	0	0	0	0	0	0	0	0
1923	0	0	159	5	0	0	0	0	0	0	0	0
1924	0	0	0	18	0	0	0	0	0	0	0	0
1925	0	0	2	0	0	0	0	0	0	0	0	0
1926	0	0	49	14	-9	0	0	0	0	0	0	0
1927	0	-66	64	202	190	123	0	0	0	0	0	0
1928	0	-51	90	168	0	0	0	0	0	0	0	0
1929	0	0	-180	-58	0	0	0	0	0	0	0	0
1930	0	0	-58	0	0	0	0	0	0	0	0	0
1931	0	0	0	34	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	5	0	0	0	0
1933	0	0	-55	-10	94	0	0	0	0	0	0	0
1934	0	0	18	-1	200	0	0	0	0	0	0	0
1935	0	0	0	-3	0	0	0	0	0	0	0	0
1936	0	0	0	-4	27	124	0	0	38	0	0	0
1937	0	0	0	16	-66	147	0	0	0	0	0	0
1938	0	-145	207	130	0	0	0	0	0	0	0	-14
1939	13	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	-10	0	0	75	7	0	0	0	0
1941	0	0	0	24	229	28	0	0	0	0	0	-85
1942	-106	0	2	38	13	127	0	0	66	0	0	-72
1943	69	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	-45	-19	0	0	0	0	0	0	0
1945	0	-10	0	0	94	0	0	0	0	0	0	0
1946	0	0	6	1	0	0	0	0	0	0	0	0
1947	0	0	-163	0	0	0	0	0	0	0	0	0
1948	0	0	0	-80	0	0	282	32	0	0	0	0
1949	0	0	-137	-1	0	1	0	0	0	0	0	0
1950	0	0	-39	-52	0	0	161	8	36	0	0	0
1951	0	-109	213	207	39	0	0	0	0	0	0	0
1952	0	0	66	17	183	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	-119
1954	0	-61	-1	2	200	75	0	0	0	0	0	0
1955	0	0	42	3	0	0	0	0	0	0	0	0
1956	0	0	15	14	180	81	0	0	0	0	0	-31
1957	30	0	-20	-43	70	0	0	0	0	0	0	0
1958	-67	0	180	9	146	0	0	0	0	0	0	0
1959	0	0	-12	6	7	0	0	0	0	0	0	0
1960	0	0	0	-2	34	0	0	0	0	0	0	0

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Appendix C-3 CALSIM II Modeling

Year	Difference Existing Alt 1 & 2 minus Existing Base Delta Surplus Outflow (GFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	0	0	-128	0	-31	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	189	8	0	0	0	0
1963	58	0	190	95	0	0	0	0	0	0	0	0
1964	0	-35	63	154	0	0	0	0	0	0	0	0
1965	0	-71	0	0	138	0	0	0	0	0	0	0
1966	0	-110	210	94	0	0	0	0	0	0	0	0
1967	0	-153	158	29	195	46	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	-27	0	175	118	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	-51	103	135	0	0	0	0	0	0	0	-74
1972	0	0	-44	-28	0	9	0	0	0	0	0	0
1973	0	-30	0	208	63	0	0	0	0	0	0	0
1974	0	-48	88	161	0	0	0	0	0	0	0	-72
1975	70	0	-27	-30	63	0	0	0	0	0	0	-56
1976	54	0	-20	-48	0	0	0	2	0	0	0	0
1977	0	0	0	58	0	0	0	0	0	0	0	0
1978	0	0	0	0	-1	0	7	0	0	0	0	0
1979	0	0	-48	-3	166	126	0	0	0	0	0	0
1980	0	0	7	21	235	54	0	0	0	0	0	0
1981	0	0	-63	6	0	125	0	0	0	0	0	0
1982	0	-17	0	198	207	61	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	-38	71	166	0	0	0	0	0	0	0	0
1986	0	0	-147	0	-144	205	102	7	0	0	0	0
1987	0	0	-35	-41	-16	28	0	0	0	0	0	0
1988	0	0	-196	0	0	0	0	0	0	0	0	0
1989	0	0	29	0	0	0	37	0	0	0	0	0
1990	0	0	0	71	0	0	0	4	0	0	0	0
1991	0	0	0	0	0	2	0	5	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	-79	-20	-35	0	0	0	0	0	0	0
Mean	2	-14	8	25	36	20	12	1	2	0	0	-7
Max	70	0	213	208	235	205	282	32	66	0	0	0
Min	-106	-153	-196	-80	-144	0	0	0	0	0	0	-119

Appendix C-3 CALSIM II Modeling

Year	Alt Existing Alt 1 & 2 Shasta Reservoir Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	2,806	2,843	2,928	3,032	3,323	3,628	4,106	4,262	3,970	3,505	3,105	2,931
1923	2,926	2,934	3,022	3,221	3,287	3,339	3,642	3,382	3,096	2,656	2,268	2,146
1924	2,080	2,001	1,964	2,053	2,213	2,202	1,986	1,674	1,277	846	628	581
1925	587	693	783	1,019	2,257	2,442	3,106	3,166	2,893	2,405	2,052	1,909
1926	1,850	1,847	1,895	1,938	2,653	2,844	3,139	2,991	2,593	2,144	1,834	1,715
1927	1,711	2,186	2,693	3,162	3,462	4,035	4,552	4,552	4,267	3,765	3,358	3,206
1928	3,174	3,252	3,313	3,512	3,906	3,965	4,463	4,280	3,882	3,241	2,899	2,725
1929	2,631	2,626	2,637	2,739	2,928	3,097	3,167	3,044	2,740	2,366	2,029	1,902
1930	1,840	1,792	2,312	2,516	2,883	3,315	3,463	3,360	3,008	2,605	2,231	2,108
1931	2,058	2,049	2,037	2,110	2,200	2,367	2,114	1,835	1,537	1,079	757	657
1932	644	641	832	1,016	1,123	1,533	1,689	1,877	1,710	1,440	1,184	1,042
1933	964	948	937	960	1,000	1,584	1,713	1,776	1,656	1,349	957	799
1934	718	675	799	1,093	1,418	1,719	1,812	1,657	1,299	897	608	603
1935	587	688	725	1,010	1,339	1,728	2,723	2,947	2,651	2,301	1,955	1,776
1936	1,746	1,712	1,717	2,340	3,218	3,498	3,720	3,608	3,394	2,931	2,509	2,336
1937	2,223	2,130	2,079	2,058	2,150	2,794	3,432	3,580	3,387	3,009	2,593	2,399
1938	2,349	2,866	3,310	3,641	3,560	3,416	4,058	4,552	4,466	4,064	3,638	3,400
1939	3,250	3,200	3,310	3,504	3,634	4,031	3,831	3,533	3,073	2,515	2,166	2,082
1940	1,974	1,891	2,020	2,897	3,252	3,435	4,143	4,074	3,755	3,246	2,858	2,740
1941	2,723	2,731	3,293	3,317	3,423	3,940	4,456	4,552	4,485	4,150	3,651	3,400
1942	3,250	3,218	3,316	3,389	3,516	3,894	4,531	4,552	4,457	4,066	3,700	3,400
1943	3,250	3,252	3,356	3,541	3,848	4,118	4,552	4,521	4,272	3,675	3,279	3,147
1944	3,123	3,130	3,096	3,162	3,397	3,631	3,617	3,521	3,263	2,897	2,558	2,424
1945	2,416	2,585	2,870	3,070	3,776	4,015	4,193	4,206	3,975	3,444	3,033	2,861
1946	2,880	3,108	3,265	3,622	3,553	3,950	4,150	4,077	3,715	3,271	2,902	2,756
1947	2,678	2,731	2,797	2,808	3,028	3,501	3,664	3,316	3,111	2,671	2,340	2,246
1948	2,332	2,343	2,359	2,920	2,701	3,009	3,909	4,263	4,278	3,922	3,537	3,400
1949	3,242	3,214	3,201	3,195	3,318	4,071	4,392	4,340	3,951	3,301	2,885	2,726
1950	2,624	2,560	2,513	2,759	3,116	3,497	3,835	3,791	3,509	3,151	2,816	2,724
1951	3,002	3,252	3,322	3,624	3,794	4,181	4,265	4,283	3,938	3,292	2,905	2,796
1952	2,798	2,950	3,006	3,604	3,739	4,022	4,290	4,552	4,401	4,150	3,700	3,400
1953	3,250	3,217	3,345	3,366	3,714	4,116	4,452	4,552	4,500	4,053	3,700	3,400
1954	3,250	3,252	3,364	3,552	3,661	4,106	4,546	4,311	4,124	3,520	3,199	3,161
1955	3,081	3,195	3,360	3,427	3,518	3,675	3,698	3,780	3,464	2,964	2,660	2,580
1956	2,552	2,612	3,252	3,252	3,288	3,946	4,459	4,552	4,376	4,046	3,700	3,400
1957	3,250	3,187	3,208	3,317	3,675	4,129	4,139	4,392	4,221	3,615	3,255	3,275
1958	3,250	3,229	3,338	3,531	3,252	3,416	4,173	4,552	4,500	4,150	3,700	3,400
1959	3,250	3,196	3,233	3,648	3,777	3,987	4,036	3,829	3,334	2,764	2,343	2,470
1960	2,386	2,303	2,296	2,495	3,204	3,815	3,936	3,930	3,596	2,982	2,605	2,510

Appendix C-3 CALSIM II Modeling

Year	Shasta Reservoir Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	2,446	2,524	2,951	3,161	3,914	4,280	4,341	4,313	3,924	3,286	2,793	2,692
1962	2,505	2,453	2,753	2,854	3,675	4,126	4,399	4,305	3,972	3,414	3,021	2,914
1963	3,250	3,252	3,349	3,459	3,944	4,036	4,137	4,422	4,214	3,697	3,390	3,361
1964	3,250	3,252	3,321	3,687	3,850	4,000	3,676	3,456	3,223	2,757	2,437	2,342
1965	2,341	2,447	2,522	3,368	3,803	3,904	4,500	4,434	4,136	3,538	3,281	3,215
1966	3,198	3,252	3,326	3,725	4,037	4,229	4,552	4,417	3,935	3,305	2,913	2,831
1967	2,721	3,047	3,335	3,551	3,920	4,033	4,479	4,552	4,500	4,150	3,700	3,400
1968	3,250	3,222	3,305	3,545	3,654	4,191	4,162	4,039	3,665	3,074	2,761	2,687
1969	2,602	2,644	2,956	3,358	3,480	4,030	4,434	4,552	4,399	4,052	3,684	3,400
1970	3,250	3,247	3,317	3,252	3,431	4,061	3,978	3,839	3,551	3,009	2,703	2,659
1971	2,685	3,130	3,319	3,515	3,673	3,873	4,375	4,552	4,500	4,000	3,682	3,400
1972	3,250	3,196	3,323	3,666	3,979	4,249	4,424	4,304	3,830	3,216	2,912	2,889
1973	2,981	3,214	3,346	3,552	3,636	4,162	4,447	4,424	4,028	3,436	3,180	3,135
1974	3,222	3,252	3,267	3,252	3,694	3,416	4,289	4,480	4,348	4,116	3,700	3,400
1975	3,250	3,207	3,324	3,487	3,936	3,756	4,343	4,552	4,440	4,150	3,700	3,400
1976	3,250	3,252	3,318	3,529	3,647	3,876	3,955	3,797	3,273	2,901	2,853	2,815
1977	2,803	2,772	2,755	2,783	2,740	2,725	2,440	2,271	1,746	1,149	744	674
1978	550	575	1,112	3,024	3,567	4,000	4,552	4,552	4,235	3,727	3,329	3,301
1979	3,182	3,144	3,089	3,171	3,453	3,960	4,134	4,181	3,678	3,179	2,888	2,793
1980	2,839	2,948	3,064	3,528	3,292	3,938	4,239	4,179	3,875	3,464	3,150	3,103
1981	3,077	3,047	3,131	3,428	3,777	4,256	4,397	4,159	3,604	2,964	2,648	2,553
1982	2,522	3,252	3,276	3,616	3,530	3,953	4,094	4,304	4,138	3,855	3,558	3,400
1983	3,250	3,252	3,328	3,371	3,252	3,417	4,074	4,552	4,500	4,150	3,700	3,400
1984	3,250	3,252	3,285	3,650	3,995	4,246	4,347	4,311	4,069	3,466	3,249	3,237
1985	3,250	3,252	3,360	3,484	3,618	3,752	3,857	3,505	3,094	2,646	2,322	2,293
1986	2,183	2,195	2,352	2,917	3,252	3,534	3,973	3,910	3,505	3,147	2,834	2,843
1987	2,864	2,843	2,827	2,943	3,284	4,011	3,823	3,537	3,058	2,587	2,263	2,157
1988	2,080	2,052	2,556	2,990	2,873	2,934	2,956	2,934	2,536	2,045	1,744	1,605
1989	1,507	1,714	1,812	1,917	2,031	3,413	3,797	3,594	3,247	2,793	2,446	2,459
1990	2,556	2,535	2,472	2,693	2,676	2,946	2,797	2,940	2,761	2,243	1,977	1,920
1991	1,870	1,877	1,830	1,833	1,845	2,249	2,394	2,323	2,046	1,743	1,479	1,367
1992	1,351	1,276	1,271	1,317	1,974	2,420	2,645	2,364	1,950	1,481	1,043	867
1993	791	764	995	1,643	2,373	3,841	4,467	4,552	4,500	3,917	3,644	3,400
1994	3,250	3,185	3,229	3,341	3,566	3,663	3,504	3,209	2,761	2,178	1,683	1,514
Mean	2,539	2,586	2,725	2,959	3,212	3,554	3,824	3,806	3,526	3,059	2,706	2,575
Max	3,250	3,252	3,364	3,725	4,037	4,280	4,552	4,552	4,500	4,150	3,700	3,400
Min	550	575	725	960	1,000	1,533	1,689	1,657	1,277	846	608	581

Year	Shasta Reservoir Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	2,806	2,832	2,917	3,021	3,312	3,617	4,095	4,252	3,959	3,494	3,094	2,927
1923	2,927	2,940	3,028	3,227	3,286	3,338	3,641	3,381	3,095	2,655	2,267	2,153
1924	2,090	2,014	1,980	2,069	2,226	2,215	2,000	1,688	1,291	858	640	592
1925	589	695	784	1,020	2,258	2,443	3,108	3,168	2,894	2,406	2,060	1,929
1926	1,874	1,872	1,920	1,963	2,679	2,869	3,164	3,016	2,618	2,170	1,864	1,754
1927	1,754	2,229	2,735	3,204	3,462	4,035	4,552	4,552	4,264	3,758	3,351	3,208
1928	3,181	3,252	3,313	3,512	3,906	3,965	4,463	4,280	3,882	3,241	2,899	2,733
1929	2,643	2,641	2,652	2,754	2,941	3,109	3,178	3,056	2,742	2,356	2,025	1,905
1930	1,847	1,799	2,320	2,524	2,879	3,312	3,459	3,357	2,993	2,590	2,228	2,116
1931	2,069	2,055	2,041	2,114	2,199	2,361	2,099	1,820	1,522	1,064	742	643
1932	629	626	817	1,002	1,117	1,528	1,679	1,867	1,700	1,431	1,174	1,045
1933	972	957	945	969	1,008	1,593	1,722	1,785	1,658	1,351	962	812
1934	726	677	800	1,095	1,420	1,716	1,808	1,653	1,293	891	607	603
1935	587	688	725	1,010	1,339	1,727	2,723	2,946	2,650	2,300	1,955	1,785
1936	1,759	1,728	1,736	2,359	3,238	3,518	3,739	3,627	3,413	2,941	2,519	2,357
1937	2,249	2,158	2,117	2,096	2,188	2,832	3,470	3,618	3,423	3,034	2,610	2,424
1938	2,378	2,896	3,310	3,641	3,560	3,416	4,058	4,552	4,466	4,064	3,638	3,400
1939	3,250	3,200	3,310	3,504	3,634	4,031	3,831	3,533	3,073	2,517	2,179	2,101
1940	1,995	1,913	2,044	2,921	3,252	3,435	4,143	4,074	3,754	3,233	2,842	2,733
1941	2,718	2,727	3,293	3,317	3,423	3,940	4,456	4,552	4,485	4,150	3,651	3,400
1942	3,250	3,222	3,316	3,389	3,516	3,894	4,531	4,552	4,457	4,065	3,700	3,400
1943	3,250	3,252	3,356	3,541	3,848	4,118	4,552	4,521	4,272	3,675	3,279	3,156
1944	3,135	3,144	3,111	3,178	3,412	3,646	3,633	3,536	3,279	2,905	2,577	2,448
1945	2,442	2,611	2,895	3,096	3,802	4,035	4,213	4,226	3,993	3,451	3,045	2,880
1946	2,903	3,127	3,265	3,622	3,551	3,942	4,142	4,070	3,706	3,254	2,891	2,752
1947	2,677	2,732	2,798	2,810	3,022	3,490	3,652	3,305	3,089	2,649	2,329	2,241
1948	2,329	2,342	2,362	2,923	2,701	2,996	3,897	4,250	4,265	3,909	3,534	3,400
1949	3,246	3,216	3,203	3,197	3,318	4,071	4,392	4,340	3,951	3,289	2,882	2,731
1950	2,632	2,571	2,523	2,769	3,126	3,498	3,836	3,792	3,510	3,141	2,806	2,723
1951	3,007	3,252	3,322	3,624	3,794	4,181	4,265	4,283	3,938	3,292	2,905	2,804
1952	2,810	2,966	3,306	3,604	3,739	4,022	4,290	4,552	4,401	4,150	3,700	3,400
1953	3,250	3,217	3,345	3,366	3,714	4,116	4,452	4,552	4,500	4,053	3,700	3,400
1954	3,250	3,252	3,364	3,552	3,661	4,106	4,546	4,311	4,124	3,520	3,199	3,170
1955	3,094	3,212	3,360	3,427	3,507	3,661	3,684	3,766	3,451	2,951	2,650	2,579
1956	2,554	2,616	3,252	3,252	3,288	3,946	4,459	4,552	4,376	4,046	3,700	3,400
1957	3,250	3,187	3,208	3,317	3,675	4,129	4,139	4,392	4,221	3,615	3,255	3,284
1958	3,250	3,236	3,338	3,531	3,252	3,416	4,173	4,552	4,500	4,150	3,700	3,400
1959	3,250	3,196	3,323	3,648	3,777	3,987	4,036	3,829	3,334	2,764	2,345	2,480
1960	2,399	2,318	2,310	2,509	3,219	3,830	3,951	3,945	3,610	3,010	2,643	2,559

Appendix C-3 CALSIM II Modeling

Year	Base Existing Base Shasta Reservoir Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	2,497	2,573	3,000	3,210	3,914	4,280	4,336	4,308	3,912	3,275	2,793	2,693
1962	2,498	2,443	2,743	2,844	3,675	4,120	4,393	4,299	3,964	3,395	3,010	2,909
1963	3,250	3,252	3,349	3,459	3,944	4,036	4,137	4,422	4,214	3,697	3,390	3,368
1964	3,250	3,252	3,321	3,687	3,850	4,000	3,676	3,456	3,223	2,757	2,448	2,358
1965	2,361	2,466	3,252	3,368	3,803	3,898	4,500	4,434	4,132	3,528	3,271	3,214
1966	3,200	3,252	3,326	3,725	4,037	4,229	4,552	4,417	3,935	3,305	2,920	2,844
1967	2,737	3,063	3,335	3,551	3,920	4,033	4,479	4,552	4,500	4,150	3,700	3,400
1968	3,250	3,222	3,305	3,545	3,654	4,191	4,162	4,039	3,665	3,074	2,767	2,698
1969	2,616	2,660	2,971	3,358	3,480	4,030	4,434	4,552	4,399	4,052	3,684	3,400
1970	3,250	3,247	3,317	3,252	3,431	4,061	3,978	3,839	3,551	3,009	2,703	2,667
1971	2,696	3,141	3,319	3,515	3,673	3,873	4,375	4,552	4,500	4,000	3,682	3,400
1972	3,250	3,200	3,327	3,670	3,979	4,249	4,424	4,304	3,830	3,216	2,917	2,901
1973	2,996	3,228	3,346	3,552	3,636	4,162	4,447	4,424	4,028	3,436	3,180	3,144
1974	3,235	3,252	3,267	3,252	3,694	3,416	4,289	4,480	4,348	4,116	3,700	3,400
1975	3,250	3,207	3,324	3,487	3,936	3,756	4,343	4,552	4,440	4,150	3,700	3,400
1976	3,250	3,252	3,318	3,529	3,647	3,877	3,956	3,798	3,276	2,907	2,859	2,829
1977	2,820	2,789	2,770	2,798	2,750	2,729	2,441	2,271	1,747	1,149	744	674
1978	550	575	1,112	3,025	3,567	4,000	4,552	4,552	4,235	3,727	3,329	3,310
1979	3,200	3,166	3,111	3,193	3,475	3,981	4,156	4,203	3,698	3,193	2,907	2,819
1980	2,868	2,980	3,096	3,528	3,292	3,938	4,239	4,179	3,875	3,464	3,150	3,111
1981	3,092	3,068	3,151	3,449	3,787	4,256	4,397	4,159	3,603	2,966	2,661	2,571
1982	2,543	3,252	3,276	3,616	3,530	3,953	4,094	4,304	4,138	3,855	3,558	3,400
1983	3,250	3,252	3,328	3,371	3,252	3,417	4,074	4,552	4,500	4,150	3,700	3,400
1984	3,250	3,252	3,285	3,650	3,995	4,246	4,347	4,311	4,069	3,466	3,249	3,245
1985	3,250	3,252	3,360	3,484	3,618	3,752	3,857	3,505	3,094	2,649	2,335	2,311
1986	2,205	2,220	2,376	2,941	3,252	3,534	3,973	3,910	3,502	3,132	2,812	2,825
1987	2,853	2,836	2,820	2,936	3,277	4,003	3,816	3,530	3,050	2,568	2,253	2,153
1988	2,079	2,053	2,557	2,991	2,872	2,928	2,950	2,928	2,519	2,016	1,720	1,589
1989	1,493	1,702	1,800	1,905	2,015	3,396	3,781	3,578	3,230	2,776	2,442	2,463
1990	2,554	2,529	2,469	2,690	2,671	2,938	2,782	2,926	2,738	2,226	1,960	1,903
1991	1,845	1,851	1,804	1,807	1,820	2,225	2,367	2,296	2,019	1,716	1,452	1,341
1992	1,324	1,249	1,244	1,290	1,948	2,393	2,618	2,338	1,924	1,455	1,017	841
1993	765	737	968	1,617	2,347	3,814	4,440	4,552	4,500	3,917	3,644	3,400
1994	3,250	3,191	3,234	3,346	3,346	3,571	3,664	3,505	3,209	2,762	2,191	1,706
Mean	2,545	2,592	2,729	2,963	3,213	3,554	3,823	3,806	3,524	3,056	2,706	2,580
Max	3,250	3,252	3,364	3,725	4,037	4,280	4,552	4,552	4,500	4,150	3,700	3,400
Min	550	575	725	969	1,008	1,528	1,679	1,653	1,291	838	607	592

Year	Difference Existing Alt 1 & 2 minus Existing Base Shasta Reservoir Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	11	11	11	11	11	11	11	11	11	11	4
1923	-1	-6	-6	-6	-6	1	1	1	1	1	1	-6
1924	-10	-13	-16	-16	-13	-13	-13	-13	-14	-12	-12	-11
1925	-3	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-8
1926	-24	-26	-26	-26	-26	-26	-26	-26	-26	-26	-30	-39
1927	-42	-42	-42	-42	0	0	0	0	0	4	7	-3
1928	-6	0	0	0	0	0	0	0	0	0	0	-8
1929	-12	-15	-15	-15	-13	-12	-12	-12	-2	10	3	-4
1930	-6	-8	-8	-8	3	3	3	3	3	15	15	-9
1931	-11	-6	-4	-4	1	7	15	15	15	15	15	15
1932	15	15	15	15	6	6	10	10	10	10	10	-3
1933	-8	-9	-9	-9	-9	-9	-9	-9	-2	-2	-5	-12
1934	-8	-2	-2	-2	-2	4	4	4	4	6	6	0
1935	0	0	0	0	0	0	0	0	1	1	1	-8
1936	-13	-16	-19	-19	-19	-19	-19	-19	-19	-11	-11	-21
1937	-25	-28	-38	-38	-38	-38	-38	-38	-36	-24	-18	-25
1938	-30	-30	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	-3	-13
1940	-21	-22	-24	-24	0	0	0	0	0	1	12	15
1941	5	4	0	0	0	0	0	0	0	0	0	0
1942	0	-4	0	0	0	0	0	0	0	0	1	0
1943	0	0	0	0	0	0	0	0	0	0	0	-8
1944	-12	-14	-16	-16	-16	-16	-16	-16	-16	-8	-19	-24
1945	-26	-26	-26	-26	-26	-20	-20	-20	-20	-18	-7	-18
1946	-22	-20	0	0	2	7	7	7	7	10	17	11
1947	0	-2	-2	-2	6	11	11	11	11	23	22	10
1948	3	1	-3	-3	0	13	13	13	13	13	13	3
1949	-4	-1	-1	-1	1	1	0	0	0	1	12	4
1950	-8	-11	-11	-11	-11	-11	-11	-11	-11	-10	9	0
1951	-4	0	0	0	0	0	0	0	0	0	0	-8
1952	-12	-16	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	-10
1955	-13	-16	0	0	11	14	14	14	14	14	14	10
1956	-2	-3	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	-8
1958	0	-7	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	-10
1960	-13	-15	-15	-15	-15	-15	-15	-15	-15	-15	-28	-38

Appendix C-3 CALSIM II Modeling

Year	Difference Existing Alt 1 & 2 minus Existing Base Shasta Reservoir Storage (TAF)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1961	-51	-49	-49	0	0	0	4	5	12	11	0	-1	
1962	7	10	10	0	0	6	6	6	6	8	20	11	5
1963	0	0	0	0	0	0	0	0	0	0	0	0	-6
1964	0	0	0	0	0	0	0	0	0	0	-1	-11	-17
1965	-19	-19	0	0	0	6	0	0	0	4	10	10	1
1966	-2	0	0	0	0	0	0	0	0	0	0	-6	-13
1967	-16	-16	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	-6	-11
1969	-14	-15	-15	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0	-8
1971	-12	-12	0	0	0	0	0	0	0	0	0	0	0
1972	0	-4	-4	0	0	0	0	0	0	0	0	-5	-12
1973	-14	-14	0	0	0	0	0	0	0	0	0	0	-9
1974	-12	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	-1	-1	-1	-1	-1	-3	-6	-6	-14
1977	-17	-17	-15	-15	-10	-4	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0	-9
1979	-18	-22	-22	-22	-22	-22	-22	-22	-20	-14	-19	-26	-26
1980	-29	-32	-32	0	0	0	0	0	0	0	0	0	-7
1981	-15	-21	-21	-10	0	0	0	0	0	1	-2	-12	-18
1982	-21	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	-3	-13	-18
1986	-22	-25	-25	0	0	0	0	0	0	4	15	22	17
1987	11	7	7	7	7	7	7	7	7	8	19	10	3
1988	1	-1	-1	1	6	6	6	6	6	17	29	24	16
1989	14	12	12	12	16	16	16	16	17	17	17	4	-4
1990	3	6	3	3	3	5	8	14	14	23	17	17	17
1991	25	26	26	26	24	24	27	27	27	27	27	27	27
1992	27	27	27	27	27	27	27	26	26	26	26	26	26
1993	26	26	26	26	26	26	26	0	0	0	0	0	0
1994	0	-6	-6	-6	-6	-1	-1	-1	-1	-1	-12	-23	-22
Mean	-6	-6	-5	-4	-1	0	0	0	0	1	3	0	-5
Max	27	27	27	27	27	27	27	27	27	27	29	27	27
Min	-51	-49	-49	0	0	6	6	6	6	8	20	11	5

Appendix C-3 CALSIM II Modeling

Year	Alt Existing Alt 3 Total Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	14,258	13,175	20,778	19,390	47,737	41,084	31,884	58,533	50,572	24,360	15,841	14,870
1923	14,946	16,758	39,845	37,991	23,568	18,635	31,952	23,286	18,467	21,293	17,749	15,510
1924	12,857	12,505	12,809	14,656	17,186	12,113	10,501	8,608	10,604	11,594	10,040	8,910
1925	9,183	9,364	14,296	14,207	71,381	29,060	26,718	20,791	17,911	19,319	13,559	11,671
1926	11,387	10,206	10,901	19,351	46,024	16,014	26,679	14,989	15,110	17,805	14,886	10,875
1927	11,218	26,507	20,661	34,122	131,975	49,638	53,238	32,831	21,890	20,437	18,136	15,964
1928	12,136	22,268	18,446	26,604	31,063	109,301	33,680	23,137	16,869	20,754	14,823	13,757
1929	13,804	14,105	14,244	14,285	17,500	13,204	10,465	11,104	12,723	12,210	8,931	9,012
1930	9,274	8,566	19,271	22,349	21,362	35,408	14,970	13,987	13,582	18,025	15,362	13,055
1931	10,776	11,984	10,834	14,153	13,386	9,016	10,226	8,382	11,410	13,789	11,712	9,215
1932	9,123	8,563	23,599	24,920	25,999	17,951	14,547	18,775	19,816	14,407	12,042	13,433
1933	11,439	10,104	10,740	15,083	12,568	16,111	13,879	9,491	11,724	13,688	9,984	8,986
1934	9,216	8,635	16,307	20,483	17,994	14,483	13,370	9,617	12,112	12,177	8,929	8,836
1935	9,099	12,315	11,291	34,597	17,987	30,380	58,247	30,102	22,807	20,406	19,108	14,821
1936	14,634	11,598	14,674	42,504	81,077	37,195	29,979	22,384	19,747	21,308	19,089	14,533
1937	14,733	11,638	14,860	15,719	52,635	54,122	33,489	27,212	20,191	20,068	17,355	13,314
1938	13,575	27,431	65,723	38,553	148,142	172,909	82,927	81,289	58,376	24,034	17,280	19,280
1939	23,746	15,525	17,297	16,132	14,420	17,697	14,984	14,857	14,187	20,017	17,060	14,002
1940	14,199	11,051	11,214	39,492	66,157	113,929	76,020	24,608	18,087	24,401	18,920	15,481
1941	14,755	14,552	49,894	105,839	130,340	99,934	80,641	50,198	26,966	24,600	18,947	19,219
1942	17,418	14,711	68,945	85,543	146,998	32,599	56,400	43,840	34,278	23,439	18,476	20,955
1943	19,191	17,570	32,307	92,715	66,571	94,382	35,957	27,428	17,126	22,432	18,642	16,823
1944	14,238	12,533	14,799	16,681	31,773	26,762	16,297	16,728	18,093	18,827	16,930	14,585
1945	14,414	18,401	20,503	15,306	56,094	31,627	19,551	21,565	21,298	23,326	18,305	15,586
1946	14,112	18,604	74,257	56,597	31,573	25,476	20,190	20,652	20,502	22,941	18,379	15,143
1947	15,627	14,788	18,430	13,533	22,696	23,955	16,737	12,961	14,882	18,691	15,659	14,356
1948	13,389	13,475	10,678	18,103	18,007	17,627	31,373	33,414	24,951	23,126	19,053	16,084
1949	14,918	11,867	15,333	13,105	15,371	49,476	17,582	18,151	18,853	20,718	15,293	13,528
1950	11,232	11,344	10,929	24,041	40,250	24,076	24,400	22,286	22,719	21,761	18,564	15,658
1951	14,016	54,338	103,421	78,615	78,496	37,034	21,741	25,550	16,320	23,562	18,787	15,687
1952	15,454	18,178	46,290	93,981	84,957	74,435	74,334	77,758	53,546	23,969	18,865	23,951
1953	25,158	15,092	47,829	107,809	30,572	26,576	21,230	29,032	27,997	22,731	17,577	21,194
1954	16,134	19,168	15,720	36,894	65,186	54,596	46,698	28,463	16,209	23,859	17,586	15,299
1955	16,151	16,805	25,823	22,182	17,078	12,785	16,400	15,120	17,445	17,572	13,065	12,014
1956	11,772	14,256	100,456	174,066	92,923	45,714	25,210	46,660	28,920	20,794	18,306	21,718
1957	19,301	14,271	13,169	16,753	37,957	51,954	25,477	22,533	20,633	22,380	17,934	14,928
1958	20,572	16,386	24,975	40,651	185,858	102,807	103,447	59,942	42,524	23,742	19,298	23,033
1959	22,522	17,738	15,530	38,592	59,101	26,734	14,541	14,751	15,645	22,802	18,119	13,635
1960	13,586	12,045	11,798	14,064	33,624	25,712	16,391	14,999	15,437	21,570	13,263	13,511

Appendix C-3 CALSIM II Modeling

Year	Base Existing Base											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1991	12,370	12,131	12,848	29,779	19,655	14,952	12,662	13,285	20,585	16,431	13,568	14,758
1992	14,862	16,675	39,845	37,991	23,692	18,635	31,884	58,533	50,572	24,360	15,841	14,758
1993	12,799	12,459	12,761	14,656	17,232	12,111	10,501	8,611	10,599	11,624	10,040	8,932
1994	9,315	9,371	14,296	14,207	71,381	29,102	26,718	20,791	17,911	19,319	13,389	11,497
1995	11,328	10,175	10,901	19,351	46,024	15,967	26,679	14,989	15,110	17,805	14,794	10,725
1996	11,164	26,507	20,661	34,122	131,975	49,638	53,238	32,831	21,950	20,486	18,136	15,810
1997	12,078	22,268	18,446	26,604	31,063	109,301	33,680	23,137	16,869	20,754	14,823	13,624
1998	13,743	14,051	14,244	14,285	17,536	13,221	10,465	11,104	12,904	12,410	8,819	8,900
1999	9,232	8,540	19,271	22,349	21,562	35,408	14,970	13,987	13,742	18,025	15,222	12,870
2000	10,734	12,074	10,872	14,153	13,468	9,113	10,339	8,382	11,410	13,789	11,712	9,215
2001	9,123	8,563	23,599	24,920	25,799	17,905	14,619	18,775	19,816	14,407	12,042	13,216
2002	11,365	10,135	10,740	15,083	12,568	16,111	13,879	9,491	11,858	13,688	9,934	8,862
2003	9,287	8,743	16,307	20,483	17,994	14,568	13,370	9,617	12,150	12,177	8,849	8,824
2004	9,142	12,316	11,291	34,597	17,987	30,380	58,247	30,003	22,807	20,406	19,083	14,670
2005	14,560	11,551	14,747	42,504	81,077	37,195	29,979	22,384	19,747	21,446	19,089	14,358
2006	14,666	11,593	14,654	15,719	52,635	54,122	33,489	27,212	20,228	20,254	17,465	13,190
2007	13,499	27,431	65,273	38,553	148,142	172,909	82,927	81,289	58,376	24,034	17,280	19,280
2008	23,746	15,525	17,297	16,132	14,420	17,697	14,984	14,857	14,187	19,976	16,889	13,912
2009	14,162	11,029	11,177	39,492	66,157	113,929	76,020	24,608	18,139	24,587	18,966	15,353
2010	14,708	14,535	49,894	105,839	130,340	99,934	80,641	50,198	26,966	24,600	18,947	19,219
2011	17,418	14,637	68,945	85,543	146,998	32,599	56,400	43,840	34,278	23,456	18,476	20,955
2012	19,191	17,570	32,307	92,715	66,571	94,382	35,957	27,428	17,126	22,432	18,642	16,681
2013	14,177	12,498	14,781	16,681	31,773	26,716	16,297	16,728	18,093	18,990	16,755	14,507
2014	14,379	18,401	20,503	15,306	56,094	31,719	19,551	21,565	21,334	23,512	18,228	15,468
2015	14,052	18,648	74,257	56,597	31,608	25,565	20,190	20,652	20,537	23,063	18,283	15,023
2016	15,571	14,752	18,430	13,533	22,856	24,044	16,737	12,961	15,082	18,870	15,466	14,279
2017	14,859	11,907	15,333	13,105	15,418	49,476	17,582	18,151	18,862	20,904	15,159	13,990
2018	13,354	13,443	10,619	18,103	18,059	17,647	31,373	33,414	24,951	23,126	18,897	15,949
2019	14,859	11,907	15,333	13,105	15,418	49,476	17,582	18,151	18,862	20,904	15,159	13,990
2020	11,178	11,313	10,929	24,041	40,250	24,211	24,400	22,286	22,719	21,944	18,787	15,509
2021	13,944	54,338	103,421	78,615	78,496	37,034	21,741	25,550	16,320	23,562	18,787	15,549
2022	15,393	18,122	46,290	93,981	84,957	74,435	74,334	77,758	53,546	23,969	18,865	23,951
2023	25,158	15,092	47,829	107,809	30,572	26,576	21,230	29,032	27,997	22,731	17,577	21,194
2024	16,052	19,168	15,720	36,894	65,186	54,596	46,698	28,463	16,209	23,859	17,586	15,138
2025	16,096	16,749	25,823	22,182	17,277	12,827	16,400	15,120	17,445	17,572	13,010	11,875
2026	11,734	14,229	100,456	174,066	92,923	45,714	25,210	46,660	28,920	20,794	18,306	21,718
2027	19,301	14,271	13,169	16,753	37,957	51,954	25,477	22,533	20,633	22,380	17,934	14,787
2028	20,572	16,264	24,975	40,651	185,858	102,807	103,447	59,942	42,524	23,742	19,298	23,033
2029	22,522	14,738	15,530	38,592	59,101	26,734	14,541	14,751	15,645	22,802	18,087	15,033
2030	13,536	12,014	11,798	14,064	33,624	25,665	16,391	14,999	15,437	21,401	13,088	13,341

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Appendix C-3 CALSIM II Modeling

Year	Alt Existing Alt 3											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1991	12,370	12,131	12,848	29,779	19,655	14,952	12,662	13,285	20,585	16,431	13,568	14,758
1992	14,862	16,675	39,845	37,991	23,692	18,635	31,884	58,533	50,572	24,360	15,841	14,758
1993	12,799	12,459	12,761	14,656	17,232	12,111	10,501	8,611	10,599	11,624	10,040	8,932
1994	9,315	9,371	14,296	14,207	71,381	29,102	26,718	20,791	17,911	19,319	13,389	11,497
1995	11,328	10,175	10,901	19,351	46,024	15,967	26,679	14,989	15,110	17,805	14,794	10,725
1996	11,164	26,507	20,661	34,122	131,975	49,638	53,238	32,831	21,950	20,486	18,136	15,810
1997	12,078	22,268	18,446	26,604	31,063	109,301	33,680	23,137	16,869	20,754	14,823	13,624
1998	13,743	14,051	14,244	14,285	17,536	13,221	10,465	11,104	12,904	12,410	8,819	8,900
1999	9,232	8,540	19,271	22,349	21,562	35,408	14,970	13,987	13,742	18,025	15,222	12,870
2000	10,734	12,074	10,872	14,153	13,468	9,113	10,339	8,382	11,410	13,789	11,712	9,215
2001	9,123	8,563	23,599	24,920	25,799	17,905	14,619	18,775	19,816	14,407	12,042	13,216
2002	11,365	10,135	10,740	15,083	12,568	16,111	13,879	9,491	11,858	13,688	9,934	8,862
2003	9,287	8,743	16,307	20,483	17,994	14,568	13,370	9,617	12,150	12,177	8,849	8,824
2004	9,142	12,316	11,291	34,597	17,987	30,380	58,247	30,003	22,807	20,406	19,083	14,670
2005	14,560	11,551	14,747	42,504	81,077	37,195	29,979	22,384	19,747	21,446	19,089	14,358
2006	14,666	11,593	14,654	15,719	52,635	54,122	33,489	27,212	20,228	20,254	17,465	13,190
2007	13,499	27,431	65,273	38,553	148,142	172,909	82,927	81,289	58,376	24,034	17,280	19,280
2008	23,746	15,525	17,297	16,132	14,420	17,697	14,984	14,857	14,187	19,976	16,889	13,912
2009	14,162	11,029	11,177	39,492	66,157	113,929	76,020	24,608	18,139	24,587	18,966	15,353
2010	14,708	14,535	49,894	105,839	130,340	99,934	80,641	50,198	26,966	24,600	18,947	19,219
2011	17,418	14,637	68,945	85,543	146,998	32,599	56,400	43,840	34,278	23,456	18,476	20,955
2012	19,191	17,570	32,307	92,715	66,571	94,382	35,957	27,428	17,126	22,432	18,642	16,681
2013	14,177	12,498	14,781	16,681	31,773	26,716	16,297	16,728	18,093	18,990	16,755	14,507
2014	14,379	18,401	20,503	15,306	56,094	31,719	19,551	21,565	21,334	23,512	18,228	15,468
2015	14,052	18,648	74,257	56,597	31,608	25,565	20,190	20,652	20,537	23,063	18,283	15,023
2016	15,571	14,752	18,430	13,533	22,856	24,044	16,737	12,961	15,082	18,870	15,466	14,279
2017	14,859	11,907	15,333	13,105	15,418	49,476	17,582	18,151	18,862	20,904	15,159	13,990
2018	13,354	13,443	10,619	18,103	18,059	17,647	31,373	33,414	24,951	23,126	18,897	15,949
2019	14,859	11,907	15,333	13,105	15,418	49,476	17,582	18,151	18,862	20,904	15,159	13,990
2020	11,178	11,313	10,929	24,041	40,250	24,211	24,400	22,286	22,719	21,944	18,787	15,509
2021	13,944	54,338	103,421	78,615	78,496	37,034	21,741	25,550	16,320	23,562	18,787	15,549
2022	15,393	18,122	46,290	93,981	84,957	74,435	74,334	77,758	53,546	23,969	18,865	23,951
2023	25,158	15,092	47,829	107,809	30,572	26,576	21,230	29,032	27,997	22,731	17,577	21,194
2024	16,052	19,168	15,720	36,894	65,186	54,596	46,698	28,463	16,209	23,859	17,586	15,138
2025	16,096	16,749	25,823	22,182	17,277	12,827	16,400	15,120	17,445	17,572	13,010	11,875
2026	11,734	14,229	100,456	174,066	92,923	45,714	25,210	46,660	28,920	20,794	18,306	21,718
2027	19,301	14,271	13,169	16,753	37,957	51,954	25,477	22,533	20,633	22,380	17,934	14,787
2028	20,572	16,264	24,975	40,651	185,858	102,807	103,447	59,942	42,524	23,742	19,298	23,033
2029	22,522	14,738	15,530	38,592	59,101	26,734	14,541	14,751	15,645	22,802	18,087	15,033
2030	13,536	12,014	11,798	14,064	33,624	25,665	16,391	14,999	15,437	21,401	13,088	13,341

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Appendix C-3 CALSIM II Modeling

Year	Base Existing Base Total Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	12,326	14,551	18,193	12,848	29,779	19,712	15,026	12,667	13,485	20,695	16,246	13,556
1962	13,518	12,775	18,013	12,166	54,293	31,823	18,574	17,297	16,860	21,752	18,696	15,409
1963	38,489	17,715	29,058	18,969	77,955	35,759	93,602	37,327	22,732	21,797	18,311	15,763
1964	16,134	28,604	14,649	26,249	18,137	14,052	21,254	13,576	15,944	21,320	17,361	13,851
1965	13,640	18,022	79,934	127,648	41,286	29,453	51,290	30,064	18,168	22,329	18,221	16,553
1966	12,729	26,541	22,121	35,725	31,132	30,412	17,803	17,748	15,587	21,493	17,855	14,709
1967	16,074	18,119	42,239	52,888	63,089	66,082	59,372	62,260	55,691	25,830	19,665	25,818
1968	24,928	15,782	18,433	33,583	67,903	41,387	19,863	14,281	15,967	20,303	17,183	14,002
1969	17,024	14,825	27,125	124,899	140,268	71,039	64,900	75,200	48,012	24,101	16,995	20,191
1970	24,516	16,331	61,211	213,424	92,370	45,879	21,375	18,416	15,024	25,710	18,946	15,676
1971	15,074	21,838	66,219	53,986	31,174	51,260	27,479	31,844	23,352	27,111	18,349	21,518
1972	16,662	15,336	19,475	19,183	26,980	38,230	15,165	14,373	21,704	21,479	15,588	12,664
1973	13,461	22,350	28,085	85,915	97,685	65,893	24,309	24,746	21,107	24,378	18,016	14,566
1974	14,702	64,949	72,286	135,875	47,715	116,567	77,357	30,797	25,126	23,567	18,867	24,073
1975	18,525	16,052	19,053	17,973	72,652	96,432	30,677	36,579	30,155	23,482	18,724	23,268
1976	21,756	16,992	17,782	15,331	15,714	16,701	12,195	9,421	13,027	16,860	12,310	12,445
1977	12,929	12,042	10,814	8,330	9,356	8,673	10,568	7,658	10,897	13,038	11,889	8,949
1978	9,379	8,687	16,605	69,915	62,301	73,082	49,679	32,531	27,158	24,616	17,875	16,907
1979	15,267	12,223	12,246	29,913	53,975	40,794	22,663	23,498	21,180	22,576	17,707	13,762
1980	14,135	17,114	22,378	108,552	138,414	65,376	26,514	23,856	20,191	23,971	19,332	17,951
1981	15,556	11,574	16,652	23,821	29,425	32,380	19,600	14,975	15,359	20,722	15,412	14,382
1982	16,223	37,071	94,599	82,914	112,661	89,659	149,785	55,771	35,010	23,741	17,640	21,847
1983	32,682	46,962	91,584	107,531	179,685	253,628	92,603	83,444	94,601	43,951	25,286	35,131
1984	32,457	84,267	158,492	74,101	46,483	43,017	24,063	19,291	18,701	23,172	18,844	16,433
1985	14,321	35,408	24,080	16,546	19,910	18,681	14,993	16,225	15,053	21,294	18,357	17,136
1986	15,993	12,633	20,049	26,991	212,280	158,381	32,079	21,801	21,444	22,470	20,152	17,257
1987	15,295	11,898	13,213	15,976	11,976	26,426	16,757	11,862	12,914	17,249	14,284	12,687
1988	12,132	11,555	19,349	29,092	17,546	10,585	11,698	10,344	12,271	13,542	9,241	8,564
1989	9,316	10,438	12,176	14,434	10,885	48,617	24,417	15,005	13,385	20,116	16,699	13,938
1990	14,862	12,247	15,308	20,741	18,167	13,807	13,003	8,672	9,843	11,478	12,071	9,345
1991	9,083	9,033	7,951	7,050	9,129	33,919	15,100	10,588	9,626	10,547	14,757	8,918
1992	9,092	8,596	8,353	11,147	34,977	21,138	14,363	9,966	12,570	12,949	11,716	10,651
1993	9,556	8,744	14,357	71,100	63,378	50,843	45,025	36,027	30,722	24,509	18,893	16,195
1994	15,643	13,013	15,819	15,015	25,745	15,902	13,541	11,330	13,647	22,277	17,374	14,905
Mean	15,421	17,937	30,363	44,514	55,874	47,515	33,414	26,237	22,301	20,945	16,561	15,445
Max	38,489	84,267	158,492	213,424	212,280	253,628	149,785	83,444	94,601	43,951	25,286	35,131
Min	9,083	8,540	7,951	7,050	9,129	8,673	10,339	7,658	9,626	10,547	8,819	8,564

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Year	Difference Existing Alt 3 minus Existing Base Total Delta Inflow (CFS)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1922	0	-200	0	0	0	0	0	0	0	0	0	0	112
1923	84	83	0	0	-124	0	0	0	0	0	0	0	0
1924	58	46	49	0	-46	2	0	-2	5	-30	0	-22	0
1925	-133	-7	0	0	0	-42	0	0	0	0	0	170	174
1926	59	30	0	0	0	47	0	0	0	0	0	92	150
1927	53	0	0	0	0	0	0	0	-60	-49	0	0	154
1928	59	0	0	0	0	0	0	0	0	0	0	0	133
1929	60	55	0	0	-36	-17	0	0	-182	-200	111	112	0
1930	42	26	0	0	-200	0	0	0	-160	0	140	186	0
1931	42	-90	-38	0	-83	-97	-113	0	0	0	0	0	0
1932	0	0	0	0	200	47	-72	0	0	0	0	0	217
1933	73	-32	0	0	0	0	0	0	-134	0	50	124	0
1934	-72	-109	0	0	0	-85	0	0	-38	0	80	12	0
1935	-43	-1	0	0	0	0	0	99	0	0	0	25	152
1936	74	47	-73	0	0	0	0	0	0	-138	0	175	0
1937	67	45	206	0	0	0	0	0	-38	-186	-110	124	0
1938	76	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	41	171	90	0
1940	37	22	37	0	0	0	0	0	-52	-186	-46	129	0
1941	47	17	0	0	0	0	0	0	0	0	0	0	0
1942	0	73	0	0	0	0	0	0	0	-16	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0	142
1944	61	35	18	0	0	47	0	0	0	-163	175	78	0
1945	35	0	0	0	0	-92	0	0	-35	-186	77	117	0
1946	60	-44	0	0	-35	-89	0	0	-36	-122	95	120	0
1947	56	36	0	0	-160	-89	0	0	-200	-180	192	77	0
1948	36	33	59	0	-52	-20	0	0	0	0	0	157	135
1949	59	-41	0	0	-48	0	0	0	-10	-186	134	138	0
1950	54	32	0	0	0	-135	0	0	0	-186	16	149	0
1951	72	0	0	0	0	0	0	0	0	0	0	0	138
1952	61	56	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0	0
1954	82	0	0	0	0	0	0	0	0	0	0	0	161
1955	54	56	0	0	-199	-42	0	0	0	0	54	139	0
1956	38	27	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0	142
1958	0	122	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	32	129
1960	50	31	-1	0	0	47	0	0	0	169	175	169	0

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Appendix C-3 CALSIM II Modeling

Year	Difference Existing Alt. 3 minus Existing Base Total Delta Inflow (CFS)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1961	44	-43	0	0	0	0	-57	-74	-5	-200	-110	185	12
1962	-126	-59	0	0	0	-37	0	0	0	0	-84	140	95
1963	0	0	0	0	0	0	0	0	0	0	0	0	109
1964	78	0	0	0	0	0	0	0	0	0	9	170	96
1965	42	0	0	0	0	-92	0	0	0	-61	-101	0	147
1966	56	0	0	0	12	-10	0	0	0	0	0	103	117
1967	45	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	98	84
1969	45	25	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0	135
1971	56	0	0	0	0	0	0	0	0	0	0	0	0
1972	8	73	0	0	-228	0	0	0	0	0	0	85	112
1973	39	0	0	0	0	0	0	0	0	0	0	0	147
1974	59	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	14	3	0	0	0	32	46	0	139
1977	47	7	-45	0	-92	-90	-62	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0	153
1979	143	97	0	0	0	0	0	0	0	-36	-91	76	117
1980	55	56	0	0	0	0	0	0	0	0	0	0	123
1981	126	96	0	0	-200	0	0	0	0	-11	38	175	93
1982	45	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0	143
1985	62	0	0	0	0	0	0	0	0	0	51	153	97
1986	59	42	0	0	0	0	0	0	0	-59	-186	-114	79
1987	97	70	0	0	0	0	0	0	0	-10	-186	153	104
1988	34	35	0	0	0	-26	0	0	-193	-200	88	119	0
1989	41	34	0	0	-81	0	0	-5	0	0	0	220	124
1990	-103	-65	0	0	-38	-85	-99	0	-146	102	0	0	-2
1991	-91	0	0	0	24	0	-35	0	0	0	0	0	0
1992	0	0	0	0	0	51	-47	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0	141
1994	127	93	0	0	0	-80	0	0	0	0	193	177	-23
Mean	31	11	3	0	-19	-13	-7	1	-22	-29	48	88	0
Max	143	122	206	0	200	51	0	99	32	193	220	217	0
Min	-133	-200	-73	0	-228	-135	-113	-5	-200	-200	-114	-23	0

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Year	Alt Existing Alt. 3 Sacramento River (no Yolo Bypass) Delta Inflow (CFS)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1922	11,785	11,008	17,027	15,602	35,706	30,706	47,322	36,022	21,485	13,108	12,174	13,108	12,174
1923	10,721	14,314	30,704	28,199	15,747	14,620	23,526	16,691	14,872	18,658	15,225	13,070	13,070
1924	10,439	10,597	10,799	12,650	14,657	10,061	8,426	6,884	9,253	10,326	9,161	7,068	7,068
1925	7,482	7,675	12,171	12,594	63,177	25,678	19,995	15,390	15,153	17,282	11,649	9,703	9,703
1926	9,193	8,431	9,037	17,358	40,081	13,587	19,001	11,549	13,456	16,326	13,832	9,519	9,519
1927	9,399	23,340	18,110	31,156	74,785	43,301	44,439	25,644	18,049	17,924	15,813	13,661	13,661
1928	10,099	19,731	15,296	23,547	27,167	74,214	26,068	17,782	14,536	18,999	13,147	12,049	12,049
1929	11,667	12,149	12,155	12,428	14,819	10,934	7,372	8,391	11,181	10,864	8,064	7,150	7,150
1930	7,664	7,136	17,069	20,355	18,844	31,434	11,789	11,317	12,119	16,720	14,504	11,846	11,846
1931	9,023	10,515	9,430	12,484	11,627	7,356	8,480	7,047	10,213	12,735	10,989	7,486	7,486
1932	7,800	7,129	18,398	20,867	16,749	12,538	8,857	13,732	17,318	12,541	10,305	11,633	11,633
1933	9,303	8,375	8,974	12,770	10,279	13,569	10,757	6,502	10,166	12,501	8,825	7,094	7,094
1934	7,712	7,162	13,948	18,077	14,966	12,250	11,240	7,829	10,918	11,115	8,137	7,127	7,127
1935	7,765	10,552	9,398	28,571	13,949	24,711	47,142	23,227	19,301	18,210	17,223	12,862	12,862
1936	12,465	9,787	12,736	38,517	60,695	29,502	20,770	14,896	15,885	18,721	16,703	12,065	12,065
1937	12,025	9,705	12,590	12,524	34,701	38,784	22,043	15,806	16,513	17,461	14,988	10,871	10,871
1938	10,006	24,926	56,271	31,295	74,238	74,612	60,262	55,478	34,820	19,616	14,199	15,584	15,584
1939	14,312	13,244	14,824	13,584	10,786	13,023	9,739	10,551	12,165	18,109	15,198	12,292	12,292
1940	11,959	9,308	9,457	32,396	54,548	73,791	65,147	17,416	14,438	21,868	16,479	13,045	13,045
1941	12,076	12,390	43,634	73,169	73,774	70,294	60,811	39,039	18,985	21,414	16,016	16,448	16,448
1942	12,686	12,366	61,010	68,870	74,385	23,029	43,102	33,728	26,569	19,755	15,334	17,918	17,918
1943	13,115	14,139	26,980	71,806	51,452	67,084	25,538	18,248	12,754	19,222	15,778	13,984	13,984
1944	10,740	10,200	12,357	14,199	27,027	21,557	10,244	11,092	15,567	16,540	14,709	12,575	12,575
1945	12,098	15,827	17,961	13,012	45,608	22,116	10,840	14,523	17,468	20,361	15,439	12,928	12,928
1946	10,466	15,727	62,590	49,344	25,589	19,552	12,629	14,165	16,934	20,334	15,860	12,744	12,744
1947	13,069	12,346	15,744	11,136	19,229	20,963	13,491	10,243	13,090	17,020	14,345	12,958	12,958
1948	11,463	11,731	9,035	16,432	16,216	15,006	25,732	28,345	21,956	21,172	17,218	14,246	14,246
1949	12,843	10,131	13,584	11,025	13,042	44,142	12,648	13,882	16,656	18,882	13,526	11,750	11,750
1950	9,274	9,559	9,187	20,927	34,954	20,437	18,720	17,336	19,861	19,570	16,423	13,423	13,423
1951	12,073	43,849	74,407	61,570	63,916	28,406	14,857	18,830	12,980	21,392	16,761	13,521	13,521
1952	12,779	15,911	40,907	73,283	72,235	55,253	59,006	59,646	37,917	19,552	15,584	20,305	20,305
1953	16,445	12,927	43,041	73,081	23,614	22,509	15,397	23,556	24,598	20,374	15,352	19,041	19,041
1954	13,692	17,202	13,699	34,200	61,562	48,972	39,477	23,473	13,862	13,862	13,435	13,435	13,435
1955	13,894	14,988	23,256	19,204	14,355	10,259	13,166	11,856	15,515	15,851	11,764	10,568	10,568
1956	10,022	12,467	73,857	75,216	68,767	34,509	17,852	38,152	21,647	17,468	15,388	18,582	18,582
1957	14,262	12,273	11,040	14,561	34,197	45,461	20,044	16,815	17,587	20,266	15,939	12,944	12,944
1958	18,102	14,338	22,806	37,936	75,279	73,259	73,556	43,674	30,451	20,054	16,061	19,747	19,747
1959	15,107	12,222	12,772	35,967	53,078	22,560	9,781	11,179	13,856	21,094	16,468	11,985	11,985
1960	11,475	10,464	10,245	12,369	30,012	22,641	13,194	12,197	13,766	20,183	12,333	12,216	12,216

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Appendix C-3 CALSIM II Modeling

Alt Existing Alt 3 Sacramento River (no Yolo Bypass) Delta Inflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	10,550	12,945	16,508	11,376	17,759	13,040	11,045	11,742	19,544	15,522	12,300	
1962	11,872	11,340	16,538	10,811	46,600	25,034	12,598	12,640	14,741	19,993	17,229	13,805
1963	35,004	16,062	27,058	16,083	68,704	31,405	71,980	29,270	18,320	18,867	15,769	13,311
1964	13,956	25,839	12,437	23,040	15,876	11,777	18,114	10,660	14,317	19,884	16,563	12,512
1965	11,790	16,047	66,627	74,248	31,066	23,434	40,792	22,331	13,362	19,254	15,524	13,912
1966	10,237	22,845	15,588	29,093	24,811	25,512	12,833	13,083	13,611	19,600	15,808	12,843
1967	13,778	15,887	37,330	42,055	56,113	52,843	37,223	43,783	37,156	15,675	16,414	21,536
1968	17,885	13,451	15,336	29,884	61,087	35,711	14,792	10,551	14,071	18,514	15,561	12,212
1969	14,867	12,830	24,069	74,132	73,878	46,259	41,777	47,090	21,546	19,085	13,842	16,146
1970	15,432	14,072	56,675	76,417	71,004	33,887	14,585	12,084	11,768	23,368	16,200	13,398
1971	12,526	18,913	58,611	47,195	27,192	45,146	21,297	26,067	20,167	24,650	15,995	19,223
1972	14,291	13,412	16,896	16,842	23,655	35,300	11,637	11,095	19,794	19,863	13,724	11,085
1973	11,437	19,972	25,906	73,276	72,916	51,290	15,919	17,796	17,848	21,896	15,209	12,150
1974	12,237	61,365	66,979	74,485	39,595	73,722	65,747	22,521	20,229	20,394	15,980	21,130
1975	14,798	13,799	16,479	15,447	64,050	70,779	20,618	28,161	23,879	20,134	15,720	20,220
1976	17,542	14,707	15,486	13,229	13,188	14,277	9,351	6,931	11,440	15,393	10,825	11,137
1977	9,653	9,807	8,959	6,881	7,657	7,050	8,501	5,930	9,540	12,127	11,105	7,840
1978	7,787	7,194	14,713	63,482	51,780	60,128	33,814	20,407	15,443	21,919	15,843	14,268
1979	10,489	10,513	10,185	23,800	41,790	29,747	14,805	16,685	18,679	20,504	15,886	11,854
1980	11,812	15,171	19,934	74,035	74,159	45,030	17,371	15,776	12,955	19,182	16,442	14,362
1981	10,403	9,571	14,407	20,666	25,918	27,522	14,528	10,960	13,513	18,993	13,810	12,776
1982	14,015	34,114	73,825	68,734	73,766	67,935	74,431	35,436	23,291	18,830	14,295	16,538
1983	19,542	36,125	64,334	71,223	74,897	77,285	61,547	56,201	55,396	24,148	21,365	26,809
1984	19,544	64,442	75,012	50,559	34,209	35,063	17,273	12,869	15,076	20,372	16,139	14,019
1985	10,625	32,005	21,554	14,298	16,877	15,545	10,847	12,237	13,117	19,569	16,817	15,508
1986	13,747	10,600	17,617	23,827	78,332	74,255	18,236	12,039	13,496	19,183	17,196	14,468
1987	11,668	9,906	11,134	13,879	19,311	23,471	13,989	9,358	11,222	15,437	13,067	11,461
1988	10,307	10,028	17,838	27,107	15,895	8,883	9,630	8,555	10,638	12,242	8,521	6,056
1989	7,676	9,012	10,616	13,015	9,102	45,178	21,839	13,060	11,751	18,711	16,019	12,791
1990	13,224	10,667	13,903	19,282	16,360	11,744	10,746	7,020	8,500	10,393	11,245	8,118
1991	7,705	7,676	6,654	5,902	7,669	29,815	12,165	8,446	8,277	9,366	13,882	6,949
1992	7,677	7,242	7,058	9,758	31,414	18,501	11,931	8,455	11,346	11,846	10,788	9,435
1993	7,779	7,263	12,558	59,753	55,954	43,205	37,898	29,874	26,472	21,943	16,517	14,035
1994	11,899	11,222	13,824	13,279	21,764	13,762	10,843	8,900	12,108	20,982	16,522	13,603
Mean	12,195	15,373	24,783	32,731	39,182	33,848	24,394	19,323	17,501	18,297	14,587	13,225
Max	35,004	64,442	75,012	76,417	78,332	77,285	74,431	59,646	55,396	24,650	21,365	26,809
Min	7,482	7,129	6,654	5,902	7,657	7,050	7,372	5,930	8,277	9,366	8,064	6,056

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Base Existing Base Sacramento River (no Yolo Bypass) Delta Inflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	11,785	11,208	17,027	15,602	35,730	30,706	22,962	47,322	36,022	21,485	13,108	12,062
1923	10,638	14,232	30,704	28,199	15,871	14,620	23,526	16,691	14,872	18,658	15,225	12,949
1924	10,381	10,551	10,751	12,650	14,704	10,058	8,426	6,886	9,248	10,356	9,161	7,090
1925	7,615	7,682	12,171	12,594	63,177	25,720	19,995	15,390	15,153	17,282	11,479	9,529
1926	9,133	8,400	9,037	17,358	40,081	13,540	19,001	11,549	13,436	16,326	13,740	9,370
1927	9,345	23,340	18,110	31,156	74,785	43,301	44,439	25,644	18,110	17,973	15,813	13,507
1928	10,040	19,731	15,296	23,547	27,167	74,214	26,068	17,782	14,536	18,999	13,147	11,916
1929	11,606	12,094	12,155	12,428	14,854	10,950	7,372	8,391	11,362	11,064	7,953	7,038
1930	7,622	7,110	17,069	20,355	19,044	31,434	11,789	11,317	12,279	16,720	14,364	11,661
1931	8,981	10,604	9,468	12,484	11,710	7,452	8,593	7,047	10,213	12,735	10,989	7,486
1932	7,800	7,129	18,398	20,867	16,549	12,491	8,929	13,732	17,318	12,541	10,305	11,417
1933	9,229	8,407	8,974	12,770	10,279	13,569	10,757	6,502	10,300	12,501	8,775	6,969
1934	7,784	7,271	13,948	18,077	14,966	12,335	11,240	7,829	10,956	11,115	8,056	7,114
1935	7,808	10,553	9,398	28,571	13,949	24,711	47,142	23,128	19,301	18,210	17,197	12,711
1936	12,391	9,740	12,809	38,517	60,695	29,502	20,770	14,896	15,885	18,858	16,703	11,891
1937	11,958	9,660	12,384	12,524	34,701	38,784	22,043	15,806	16,551	17,648	15,098	10,747
1938	9,930	24,926	56,271	31,295	74,238	74,612	60,262	55,478	34,820	19,616	14,199	15,584
1939	14,312	13,244	14,824	13,584	10,786	13,023	9,739	10,551	12,165	18,068	15,028	12,202
1940	11,922	9,286	9,420	32,396	54,548	73,791	65,147	17,416	14,490	22,054	16,525	12,916
1941	12,029	12,373	43,634	73,169	73,774	70,294	60,811	39,039	18,985	21,414	16,016	16,448
1942	12,686	12,293	61,010	68,870	74,385	23,029	43,102	33,728	26,569	19,771	15,334	17,918
1943	13,115	14,139	26,980	71,806	51,452	67,084	25,538	18,248	12,754	19,222	15,778	13,842
1944	10,679	10,164	12,339	14,199	27,027	21,510	10,244	11,092	15,567	16,703	14,534	12,498
1945	12,063	15,827	17,961	13,012	45,608	22,208	10,840	14,523	17,503	20,547	15,363	12,811
1946	10,406	15,770	62,590	49,344	25,625	19,641	12,629	14,165	16,970	20,456	15,764	12,624
1947	13,013	12,310	15,744	11,136	19,389	21,052	13,491	10,243	13,290	17,200	14,152	12,881
1948	11,427	11,699	8,975	16,432	16,267	15,026	25,732	28,345	21,956	21,172	17,061	14,111
1949	12,784	10,172	13,584	11,025	13,089	44,142	12,648	13,882	16,666	19,068	13,392	11,613
1950	9,220	9,527	9,187	20,927	34,954	20,572	18,720	17,336	19,861	19,756	16,407	13,274
1951	12,001	43,849	74,407	61,570	63,916	28,406	14,857	18,830	12,980	21,392	16,761	13,383
1952	12,718	15,855	40,907	73,283	72,235	55,253	59,006	59,646	37,917	19,552	15,584	20,305
1953	16,445	12,927	43,041	73,081	23,614	22,509	15,397	23,356	24,598	20,374	15,352	19,041
1954	13,610	17,202	13,699	34,200	61,562	48,972	39,477	23,473	13,862	13,862	15,643	13,274
1955	13,839	14,932	23,256	19,204	14,554	10,301	13,166	11,856	15,515	15,851	11,710	10,428
1956	9,984	12,441	73,857	75,216	68,767	34,509	17,852	38,152	21,647	17,468	15,388	18,582
1957	14,262	12,273	11,040	14,561	34,197	45,461	20,044	16,815	17,587	20,266	15,939	12,803
1958	18,102	14,232	22,806	37,936	75,279	22,560	9,781	11,179	13,856	21,094	16,436	11,856
1959	15,107	12,226	12,772	35,967	53,078	32,569	7,811	11,179	13,856	21,094	16,436	11,856
1960	11,424	10,432	10,246	12,369	30,012	22,594	13,194	12,197	13,766	20,014	12,158	12,047

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Appendix C-3 CALSIM II Modeling

Year	Base Existing Base Sacramento River (no Yolo Bypass) Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	10,507	12,988	16,508	13,716	27,842	17,816	13,114	11,050	11,942	19,654	15,337	12,288
1962	11,999	11,400	16,538	10,811	46,600	25,071	12,598	12,640	14,741	20,077	17,090	13,710
1963	35,004	16,062	27,058	16,083	68,704	31,405	71,980	29,270	18,320	18,867	15,769	13,202
1964	13,878	25,839	12,437	23,040	15,876	11,777	18,114	10,660	14,317	19,875	16,393	12,417
1965	11,749	16,047	66,627	74,248	31,066	23,526	40,792	22,331	13,423	19,354	15,524	13,765
1966	10,181	22,845	15,588	29,093	24,800	25,522	12,833	13,083	13,611	19,600	15,705	12,725
1967	13,733	15,887	37,330	42,055	56,113	52,843	37,223	43,783	37,156	15,675	16,414	21,536
1968	17,885	13,451	15,336	29,884	61,087	35,711	14,792	10,551	14,071	18,514	15,463	12,128
1969	14,822	12,805	24,069	74,132	73,878	46,259	41,777	47,090	21,546	19,085	13,842	16,146
1970	15,432	14,072	56,675	76,417	71,004	33,887	14,585	12,084	11,768	23,368	16,200	13,263
1971	12,470	18,913	58,611	47,195	27,192	45,146	21,297	26,067	20,167	24,650	15,995	19,223
1972	14,283	13,338	16,896	16,842	23,883	35,300	11,637	11,095	19,794	19,863	13,639	10,973
1973	11,398	19,972	25,906	73,276	72,916	51,290	15,919	17,796	17,848	21,896	15,209	12,003
1974	12,178	61,365	66,979	74,485	39,595	73,722	65,747	22,521	20,229	20,394	15,980	21,130
1975	14,798	13,799	16,479	15,447	64,050	70,779	20,618	28,161	23,879	20,134	15,720	20,220
1976	17,542	14,707	15,486	13,229	13,173	14,275	9,351	6,931	11,408	15,347	10,825	10,999
1977	9,606	9,800	9,003	6,881	7,749	7,140	8,562	5,930	9,540	12,127	11,105	7,840
1978	7,787	7,194	14,713	63,482	51,780	60,128	33,814	20,407	15,443	21,919	15,843	14,115
1979	10,346	10,417	10,185	23,800	41,790	29,747	14,805	16,685	18,716	20,595	15,810	11,737
1980	11,757	15,116	19,934	74,035	74,159	45,030	17,371	15,776	12,955	19,182	16,442	14,238
1981	10,277	9,475	14,407	20,666	26,118	27,522	14,528	10,960	13,524	18,955	13,635	12,682
1982	13,970	34,114	73,825	68,734	73,766	67,935	74,431	35,436	23,291	18,830	14,295	16,538
1983	19,542	36,125	64,334	71,223	74,897	77,285	61,547	56,201	55,396	24,148	21,365	26,809
1984	19,544	64,442	75,012	50,559	34,209	35,063	17,273	12,869	15,076	20,372	16,139	13,876
1985	10,564	32,005	21,554	14,298	16,877	15,545	10,847	12,237	13,117	19,517	16,664	15,411
1986	13,688	10,558	17,617	23,827	78,332	74,255	18,236	12,039	13,556	19,369	17,310	14,389
1987	11,571	9,836	11,134	13,879	19,311	23,471	13,989	9,358	11,231	15,623	12,914	11,357
1988	10,273	9,993	17,838	27,107	15,895	8,909	6,630	8,555	10,831	12,442	8,433	5,937
1989	7,635	8,977	10,616	13,015	9,184	45,178	21,839	13,065	11,751	18,711	15,799	12,667
1990	13,327	10,732	13,903	19,282	16,398	11,829	10,845	7,020	8,446	10,291	11,245	8,120
1991	7,796	7,676	6,654	5,902	7,645	29,815	12,200	8,446	8,277	9,366	13,882	6,949
1992	7,677	7,242	7,058	9,758	31,414	18,450	11,978	8,455	11,346	11,846	10,788	9,435
1993	7,779	7,263	12,558	59,753	55,954	43,205	37,898	29,874	26,472	21,943	16,517	13,894
1994	11,772	11,130	13,824	13,279	21,764	13,843	10,843	8,900	12,108	20,789	16,345	13,626
1995	12,164	15,362	24,780	32,731	39,201	33,861	24,401	19,321	17,323	18,326	14,539	13,137
Max	35,004	64,442	75,012	76,417	78,332	77,285	74,431	59,646	55,396	24,650	21,365	26,809
Min	7,615	7,110	6,654	5,902	7,645	7,140	7,372	5,930	8,277	9,366	7,953	5,937

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Year	Difference Existing Alt 3 minus Existing Base Sacramento River (no Yolo Bypass) Delta Inflow (CFS)														
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep			
1922	0	-200	0	0	0	0	0	0	0	0	0	0	112		
1923	84	83	0	0	-124	0	0	0	0	0	0	0	0	121	
1924	58	46	49	0	-46	2	0	-2	5	-30	0	-22	0	174	
1925	-133	-7	0	0	0	-42	0	0	0	0	0	0	0	150	
1926	59	30	0	0	0	0	47	0	0	0	0	0	0	133	
1927	53	0	0	0	0	0	0	0	0	0	-60	-49	0	112	
1928	59	0	0	0	0	0	0	0	0	0	0	0	0	186	
1929	60	55	0	0	-36	-17	0	0	0	-182	-200	111	0	0	
1930	42	26	0	0	-200	0	0	0	0	-160	0	140	0	0	
1931	42	-90	-38	0	-83	-97	-113	0	0	0	0	0	0	0	
1932	0	0	0	0	200	47	-72	0	0	0	0	0	0	0	
1933	73	-32	0	0	0	0	0	0	-134	0	0	50	0	0	
1934	-72	-109	0	0	0	-85	0	0	-38	0	0	80	12	0	
1935	-43	-1	0	0	0	0	0	0	99	0	0	0	25	152	
1936	74	47	-73	0	0	0	0	0	0	0	0	-138	0	175	
1937	67	45	206	0	0	0	0	0	0	0	-38	-186	-110	124	
1938	76	0	0	0	0	0	0	0	0	0	0	0	0	0	
1939	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1940	37	22	37	0	0	0	0	0	0	-52	-186	-46	129	0	
1941	47	17	0	0	0	0	0	0	0	0	0	0	0	0	
1942	0	73	0	0	0	0	0	0	0	0	0	-16	0	0	
1943	0	0	0	0	0	0	0	0	0	0	0	0	0	142	
1944	61	35	18	0	0	0	47	0	0	0	-163	175	78	0	
1945	35	0	0	0	0	-92	0	0	-35	-186	77	117	0	0	
1946	60	-44	0	0	-35	-89	0	0	-36	-122	95	120	0	0	
1947	56	36	0	0	-160	-89	0	0	-200	-180	192	77	0	0	
1948	36	33	59	0	-52	-20	0	0	0	0	0	0	157	135	
1949	59	-41	0	0	-48	0	0	0	0	-10	-186	134	138	0	
1950	54	32	0	0	0	-135	0	0	0	0	-186	16	149	0	
1951	72	0	0	0	0	0	0	0	0	0	0	0	0	138	
1952	61	56	0	0	0	0	0	0	0	0	0	0	0	0	
1953	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1954	82	0	0	0	0	0	0	0	0	0	0	0	0	161	
1955	54	56	0	0	-199	-42	0	0	0	0	0	0	54	139	
1956	38	27	0	0	0	0	0	0	0	0	0	0	0	0	
1957	0	0	0	0	0	0	0	0	0	0	0	0	0	142	
1958	0	122	0	0	0	0	0	0	0	0	0	0	0	0	
1959	0	0	0	0	0	0	0	0	0	0	0	0	0	32	129
1960	50	31	-1	0	0	0	47	0	0	0	169	175	169	0	

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Difference Existing Alt. 3 minus Existing Base Sacramento River (no Yolo Bypass) Delta Inflow (CFS)													
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1961	44	-43	0	0	0	0	-57	-74	-5	-200	-110	185	12
1962	-126	-59	0	0	0	0	-37	0	0	0	-84	140	95
1963	0	0	0	0	0	0	0	0	0	0	0	0	109
1964	78	0	0	0	0	0	0	0	0	9	170	96	0
1965	42	0	0	0	0	-92	0	0	0	-61	-101	0	147
1966	56	0	0	12	-10	0	0	0	0	0	0	103	117
1967	45	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	98	84
1969	45	25	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0	135
1971	56	0	0	0	0	0	0	0	0	0	0	0	0
1972	8	73	0	0	-228	0	0	0	0	0	0	85	112
1973	39	0	0	0	0	0	0	0	0	0	0	0	147
1974	59	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	14	3	0	0	0	0	32	46	0	139
1977	47	7	-45	0	-92	-90	-62	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0	153
1979	143	97	0	0	0	0	0	0	0	-36	-91	76	117
1980	55	56	0	0	0	0	0	0	0	0	0	0	123
1981	126	96	0	0	-200	0	0	0	0	-11	38	175	93
1982	45	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0	143
1985	62	0	0	0	0	0	0	0	0	0	51	153	97
1986	59	42	0	0	0	0	0	0	0	-59	-186	-114	79
1987	97	70	0	0	0	0	0	0	0	-10	-186	153	104
1988	34	35	0	0	0	-26	0	0	0	-193	-200	88	119
1989	41	34	0	0	-81	0	0	-5	0	0	0	220	124
1990	-103	-65	0	0	-38	-85	-99	0	-146	102	0	0	-2
1991	-91	0	0	24	0	-35	0	0	0	0	0	0	0
1992	0	0	0	0	0	51	-47	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0	141
1994	127	93	0	0	0	-80	0	0	0	0	193	177	-23
Mean	31	11	3	0	-19	-13	-7	1	-22	-29	48	88	
Max	143	122	206	0	200	51	0	99	32	193	220	217	
Min	-133	-200	-73	0	-228	-135	-113	-5	-200	-200	-114	-23	

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Alt Existing Alt. 3 San Joaquin River Delta Inflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	2,253	1,903	2,965	2,941	8,668	8,516	7,064	7,310	11,837	2,231	2,118	2,073
1923	4,026	1,889	5,594	7,787	6,558	3,039	6,325	5,344	2,754	2,215	2,116	2,031
1924	2,163	1,616	1,721	1,681	1,922	1,713	1,779	1,629	1,284	1,221	824	1,144
1925	1,651	1,550	1,549	1,337	3,144	2,647	4,640	4,115	2,177	1,833	1,700	1,751
1926	1,949	1,487	1,558	1,441	2,196	1,815	3,580	3,108	1,600	1,432	1,001	1,293
1927	1,708	1,901	2,040	1,847	5,350	3,865	5,881	5,528	2,383	1,929	1,756	1,728
1928	1,836	1,984	2,385	2,244	2,587	5,396	5,850	4,782	1,886	1,693	1,612	1,636
1929	1,893	1,490	1,538	1,500	1,903	1,732	2,441	2,251	1,372	1,297	812	1,165
1930	1,424	1,267	1,241	1,343	1,682	1,967	2,460	2,224	1,334	1,256	804	1,151
1931	1,616	1,269	1,237	1,215	1,427	1,306	1,466	1,233	1,133	1,007	668	1,031
1932	1,246	1,298	3,292	3,549	7,691	4,641	4,833	3,991	2,028	1,807	1,683	1,737
1933	1,955	1,499	1,492	1,686	1,997	2,097	2,546	2,327	1,214	1,134	1,104	1,191
1934	1,375	1,281	1,411	1,401	1,989	1,699	1,748	1,539	1,110	1,015	738	1,021
1935	1,171	1,436	1,514	3,792	3,363	3,730	6,614	5,646	3,025	2,137	1,828	1,896
1936	2,009	1,593	1,710	2,014	12,057	5,857	6,762	5,404	2,382	1,996	1,823	1,901
1937	2,472	1,655	1,890	2,643	14,731	12,094	9,382	9,542	2,672	2,171	1,941	2,012
1938	3,339	1,811	5,403	6,702	23,079	29,614	17,625	21,316	20,714	3,635	2,363	2,976
1939	9,210	1,953	2,124	2,103	3,173	3,905	4,621	4,007	1,947	1,861	1,807	1,649
1940	2,037	1,568	1,590	4,245	5,766	9,900	6,899	5,480	2,723	2,143	2,065	2,052
1941	2,455	1,874	3,283	5,313	14,816	11,976	10,304	8,906	6,514	2,530	2,307	2,136
1942	4,524	2,020	5,094	8,740	9,861	6,117	7,142	6,545	5,419	2,913	2,434	2,325
1943	5,845	2,535	3,903	13,310	11,539	19,359	7,955	7,162	3,221	2,679	2,366	2,337
1944	3,258	2,040	2,122	2,057	3,352	3,465	5,316	4,832	2,320	2,235	2,167	1,947
1945	2,202	2,024	2,007	1,908	6,620	8,260	7,038	5,604	2,803	2,442	2,343	2,130
1946	3,422	2,136	5,863	4,955	5,257	4,617	6,059	5,341	2,738	2,274	2,197	2,073
1947	2,305	2,019	2,254	2,009	2,826	2,054	2,579	2,402	1,707	1,623	1,260	1,335
1948	1,788	1,525	1,449	1,295	1,477	1,937	3,966	3,596	2,314	1,872	1,778	1,780
1949	1,914	1,518	1,491	1,359	1,778	2,856	3,667	3,352	1,830	1,782	1,712	1,713
1950	1,692	1,479	1,452	2,152	2,914	2,506	3,663	3,259	1,799	1,645	1,599	1,688
1951	1,733	4,011	9,212	12,035	10,143	5,888	5,634	5,289	2,576	1,954	1,823	1,957
1952	2,419	1,844	3,221	7,612	6,601	13,311	9,909	13,249	13,411	3,339	2,305	2,660
1953	8,488	1,892	2,832	6,770	4,991	3,236	4,831	4,474	2,451	1,988	1,897	1,821
1954	2,166	1,643	1,689	1,746	2,370	2,756	4,886	4,380	2,040	1,974	1,886	1,801
1955	2,065	1,586	1,701	1,994	2,048	1,842	2,562	2,454	1,750	1,669	1,246	1,338
1956	1,578	1,557	12,118	18,047	12,293	6,486	6,125	5,361	5,438	2,572	2,197	2,417
1957	4,822	1,691	1,843	1,819	2,863	4,354	4,649	4,553	2,494	1,927	1,809	1,802
1958	2,622	1,717	1,804	2,079	4,024	9,651	15,993	12,353	9,920	2,815	2,411	2,454
1959	7,181	2,226	2,498	2,122	5,075	3,231	4,227	3,269	1,714	1,656	1,593	1,621
1960	1,868	1,407	1,385	1,443	2,276	1,914	2,567	2,351	1,568	1,335	872	1,232

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Appendix C-3 CALSIM II Modeling

Year	Alt Existing Alt 3 San Joaquin River Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	1,599	1,362	1,425	1,277	1,458	1,332	1,603	1,395	1,439	989	852	1,213
1962	1,428	1,299	1,303	1,251	1,581	1,475	1,806	1,357	1,754	1,623	1,549	1,637
1963	1,894	1,451	1,421	1,921	3,418	2,850	6,096	5,360	3,016	2,253	1,902	1,923
1964	2,036	1,779	1,794	1,756	1,728	1,743	2,488	2,306	1,466	1,387	904	1,257
1965	1,776	1,712	4,227	10,418	7,014	4,927	7,164	5,703	3,205	2,163	1,907	1,962
1966	2,295	2,930	5,747	4,911	4,918	3,512	4,124	4,289	1,874	1,835	1,765	1,701
1967	2,160	1,721	3,006	3,679	3,445	7,373	13,574	13,272	16,154	9,008	2,225	3,265
1968	6,792	2,033	2,745	2,137	4,210	3,331	4,399	3,345	1,778	1,730	1,658	1,649
1969	2,056	1,635	2,011	15,258	26,525	18,968	18,627	23,526	24,616	4,087	2,269	2,895
1970	8,837	1,924	3,743	18,728	9,638	7,906	5,873	5,407	2,633	2,091	2,017	2,038
1971	2,368	1,921	3,217	2,679	2,485	3,487	4,599	4,398	2,337	2,045	1,955	1,828
1972	2,094	1,613	1,843	1,789	2,304	1,846	2,584	2,680	1,605	1,557	1,508	1,508
1973	1,913	1,636	1,646	2,682	8,442	8,784	6,918	5,504	2,338	2,072	1,974	2,010
1974	2,279	1,751	2,691	5,843	5,518	7,849	9,172	6,287	3,536	2,416	2,178	2,215
1975	3,498	1,932	2,092	2,053	6,673	10,272	7,212	5,985	4,838	2,512	2,193	2,229
1976	3,964	1,865	1,964	1,776	2,147	1,845	2,524	2,328	1,546	1,466	1,433	1,249
1977	3,224	2,163	1,750	1,361	1,470	1,335	1,756	1,631	1,287	864	730	1,061
1978	1,508	1,417	1,588	3,786	7,958	9,628	13,082	11,134	11,322	2,616	1,973	2,713
1979	4,676	1,713	1,950	5,140	10,539	9,432	6,518	5,581	2,297	1,934	1,843	1,968
1980	2,328	1,859	1,989	13,356	22,617	13,780	7,825	5,223	2,794	3,981	2,113	2,926
1981	5,046	1,806	1,940	2,210	2,655	3,816	4,484	3,649	1,769	1,721	1,661	1,644
1982	2,126	1,782	1,915	8,239	15,318	16,806	25,550	16,128	9,903	3,843	3,321	4,281
1983	12,833	8,186	20,163	25,133	33,297	40,943	20,455	19,838	34,654	17,855	2,200	6,622
1984	12,696	13,684	23,114	14,724	9,964	6,285	5,655	5,256	2,744	3,321	2,223	2,078
1985	2,347	1,980	2,028	1,843	2,525	2,330	3,331	3,604	1,833	1,729	1,639	1,646
1986	2,129	1,762	1,835	2,261	18,918	25,075	12,117	7,848	6,746	2,516	2,275	2,298
1987	3,514	1,822	1,853	1,734	2,117	2,087	2,543	2,358	1,608	1,574	1,312	1,273
1988	1,694	1,395	1,344	1,339	1,389	1,326	1,779	1,647	1,334	1,042	744	1,117
1989	1,590	1,349	1,449	1,257	1,443	1,738	1,808	1,512	1,349	1,356	844	1,239
1990	1,445	1,386	1,311	1,265	1,494	1,424	1,644	1,384	1,230	1,129	772	1,163
1991	1,196	1,275	1,188	1,092	1,200	2,627	2,327	1,777	1,171	1,129	820	1,104
1992	1,340	1,267	1,190	1,275	2,437	2,013	2,009	1,411	1,155	1,050	870	1,158
1993	1,737	1,409	1,537	7,874	5,570	5,138	4,896	4,688	3,239	2,156	1,959	1,875
1994	3,622	1,622	1,614	1,414	1,816	1,553	2,390	2,251	1,457	1,439	972	1,222
Mean	3,033	1,995	3,015	4,434	6,311	6,293	6,076	5,468	4,173	2,284	1,678	1,890
Max	12,833	13,684	23,114	25,133	33,297	40,943	25,550	23,526	34,654	17,855	2,434	6,622
Min	1,171	1,267	1,188	1,092	1,200	1,306	1,466	1,233	1,110	864	668	1,021

Year	Base Existing Base San Joaquin River Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	2,253	1,903	2,965	2,941	8,668	8,516	7,064	7,310	11,837	2,231	2,118	2,073
1923	4,026	1,889	5,594	7,787	6,558	3,039	6,325	5,344	2,754	2,251	2,116	2,031
1924	2,163	1,616	1,721	1,681	1,922	1,713	1,779	1,629	1,284	1,221	824	1,144
1925	1,651	1,550	1,549	1,337	3,144	2,647	4,640	4,115	2,177	1,833	1,700	1,751
1926	1,949	1,487	1,558	1,441	2,196	1,815	3,580	3,108	1,600	1,432	1,001	1,293
1927	1,708	1,901	2,040	1,847	5,350	3,865	5,881	5,528	2,383	1,929	1,756	1,728
1928	1,836	1,984	2,385	2,244	2,587	5,396	5,850	4,782	1,886	1,693	1,612	1,636
1929	1,893	1,490	1,538	1,500	1,903	1,732	2,441	2,251	1,372	1,297	812	1,165
1930	1,424	1,267	1,241	1,343	1,682	1,967	2,460	2,224	1,334	1,256	804	1,151
1931	1,616	1,269	1,237	1,215	1,427	1,306	1,466	1,233	1,133	1,007	668	1,031
1932	1,246	1,298	3,292	3,549	7,691	4,641	4,833	3,991	2,028	1,807	1,683	1,737
1933	1,955	1,499	1,492	1,686	1,997	2,097	2,546	2,327	1,214	1,134	1,104	1,191
1934	1,375	1,281	1,411	1,401	1,989	1,699	1,748	1,539	1,110	1,015	738	1,021
1935	1,171	1,436	1,514	3,792	3,363	3,730	6,614	5,646	3,025	2,137	1,828	1,896
1936	2,009	1,593	1,710	2,014	12,057	5,857	6,762	5,404	2,382	1,996	1,823	1,901
1937	2,472	1,655	1,890	2,643	14,731	12,094	9,382	9,542	2,672	2,171	1,941	2,012
1938	3,339	1,811	5,403	6,702	23,079	29,614	17,625	21,316	20,714	3,635	2,363	2,976
1939	9,210	1,953	2,124	2,103	3,173	3,905	4,621	4,007	1,947	1,861	1,807	1,649
1940	2,037	1,568	1,590	4,245	5,766	9,900	6,899	5,480	2,723	2,143	2,065	2,052
1941	2,455	1,874	3,283	5,313	14,816	11,976	10,304	8,906	6,514	2,550	2,307	2,136
1942	4,524	2,020	5,094	8,740	9,861	6,117	7,142	6,545	5,419	2,913	2,434	2,325
1943	5,845	2,535	3,903	13,310	11,539	19,359	7,955	7,162	3,221	2,679	2,366	2,337
1944	3,258	2,040	2,122	2,057	3,352	3,465	5,316	4,832	2,320	2,235	2,167	1,947
1945	2,202	2,024	2,007	1,908	6,620	8,260	7,038	5,604	2,803	2,442	2,343	2,130
1946	3,422	2,136	5,863	4,955	5,257	4,617	6,059	5,341	2,738	2,274	2,197	2,073
1947	2,305	2,019	2,254	2,009	2,826	2,054	2,579	2,402	1,707	1,623	1,260	1,335
1948	1,788	1,525	1,449	1,295	1,477	1,937	3,966	3,596	2,314	1,872	1,778	1,780
1949	1,914	1,518	1,491	1,359	1,778	2,856	3,667	3,352	1,830	1,782	1,712	1,713
1950	1,692	1,479	1,452	2,152	2,914	2,506	3,663	3,259	1,799	1,645	1,599	1,688
1951	1,733	4,011	9,212	12,035	10,143	5,888	5,634	5,289	2,576	1,954	1,823	1,957
1952	2,419	1,844	3,221	7,612	6,601	13,311	9,909	13,249	13,411	3,339	2,305	2,660
1953	8,488	1,892	2,832	6,770	4,991	3,236	4,831	4,474	2,451	1,988	1,897	1,821
1954	2,166	1,643	1,689	1,746	2,370	2,756	4,886	4,380	2,040	1,974	1,886	1,801
1955	2,065	1,586	1,701	1,994	2,048	1,842	2,562	2,454	1,750	1,669	1,246	1,338
1956	1,578	1,557	1,218	18,047	12,293	6,486	6,125	5,361	5,438	2,572	2,197	2,417
1957	4,822	1,691	1,843	1,819	2,863	4,354	4,649	4,553	2,494	1,927	1,809	1,802
1958	2,662	1,717	1,804	2,079	4,024	9,651	15,993	12,353	9,920	2,815	2,411	2,454
1959	7,181	2,226	2,498	2,122	5,075	3,231	4,227	3,269	1,714	1,656	1,593	1,621
1960	1,868	1,407	1,385	1,443	2,276	1,914	2,567	2,351	1,568	1,335	872	1,232

Appendix C-3 CALSIM II Modeling

Base Existing Base San Joaquin River Delta Inflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	1,599	1,362	1,425	1,277	1,458	1,332	1,603	1,395	1,439	989	852	1,213
1962	1,428	1,299	1,303	1,251	1,581	1,475	1,806	1,957	1,754	1,623	1,549	1,637
1963	1,894	1,451	1,421	1,921	3,418	2,850	6,096	5,360	3,016	2,253	1,902	1,923
1964	2,036	1,779	1,794	1,756	1,728	1,743	2,488	2,306	1,466	1,387	904	1,257
1965	1,776	1,712	4,227	10,418	7,014	4,927	7,164	5,703	3,205	2,163	1,907	1,962
1966	2,295	2,930	5,747	4,911	4,918	3,512	4,124	4,289	1,874	1,835	1,765	1,701
1967	2,160	1,721	3,006	3,679	3,445	7,373	13,574	13,272	16,154	9,008	2,225	3,265
1968	6,792	2,033	2,745	2,137	4,210	3,331	4,399	3,345	1,778	1,730	1,658	1,649
1969	2,056	1,635	2,011	15,258	26,525	18,968	18,627	23,526	24,616	4,087	2,269	2,895
1970	8,837	1,924	3,743	18,728	9,638	7,906	5,873	5,407	2,633	2,091	2,017	2,038
1971	2,368	1,921	3,217	2,679	2,485	3,487	4,599	4,398	2,337	2,045	1,955	1,828
1972	2,094	1,613	1,843	1,789	2,304	1,846	2,584	2,680	1,605	1,557	1,508	1,508
1973	1,913	1,636	1,646	2,682	8,442	8,784	6,918	5,504	2,338	2,072	1,974	2,010
1974	2,279	1,751	2,691	5,843	5,518	7,849	9,172	6,287	3,536	2,416	2,178	2,215
1975	3,498	1,932	2,092	2,053	6,673	10,272	7,212	5,985	4,838	2,512	2,193	2,229
1976	3,964	1,865	1,964	1,776	2,147	1,845	2,524	2,328	1,546	1,466	1,433	1,249
1977	3,224	2,163	1,750	1,361	1,470	1,335	1,756	1,631	1,287	864	730	1,061
1978	1,508	1,417	1,588	3,786	7,958	9,628	13,082	11,134	11,322	2,616	1,973	2,713
1979	4,676	1,713	1,950	5,140	10,539	9,432	6,518	5,581	2,297	1,934	1,843	1,968
1980	2,328	1,859	1,989	13,356	22,617	13,780	7,825	6,223	5,794	3,981	2,113	2,926
1981	5,046	1,806	1,940	2,210	2,655	3,816	4,484	3,649	1,769	1,721	1,661	1,644
1982	2,126	1,782	1,915	8,239	15,318	16,806	25,550	16,128	9,903	3,843	3,321	4,281
1983	12,833	8,186	20,163	25,133	33,297	40,943	20,455	19,838	34,654	17,855	2,200	6,622
1984	12,696	13,684	23,114	14,724	9,964	6,285	5,655	5,256	2,744	3,321	2,223	2,078
1985	2,347	1,980	2,028	1,843	2,525	2,330	3,331	3,604	1,833	1,729	1,639	1,646
1986	2,129	1,762	1,835	2,261	18,918	25,075	12,117	7,848	6,746	2,516	2,275	2,298
1987	3,514	1,822	1,853	1,734	2,117	2,087	2,543	2,358	1,608	1,574	1,312	1,273
1988	1,694	1,395	1,344	1,339	1,389	1,326	1,779	1,647	1,334	1,042	744	1,117
1989	1,590	1,349	1,449	1,257	1,443	1,738	1,808	1,512	1,349	1,356	844	1,239
1990	1,445	1,386	1,311	1,265	1,494	1,424	1,644	1,384	1,230	1,129	772	1,163
1991	1,196	1,275	1,188	1,092	1,200	2,627	2,327	1,777	1,171	1,129	820	1,104
1992	1,340	1,267	1,190	1,275	2,437	2,013	2,009	1,411	1,155	1,050	870	1,158
1993	1,737	1,409	1,537	7,874	5,570	5,138	4,896	4,688	3,239	2,156	1,959	1,875
1994	3,652	1,622	1,614	1,414	1,816	1,553	2,390	2,251	1,457	1,439	972	1,222
Mean	3,023	1,995	3,015	4,434	6,311	6,293	6,076	5,468	4,173	2,284	1,678	1,890
Max	12,833	13,684	23,114	25,133	33,297	40,943	25,550	23,526	34,654	17,855	2,434	6,622
Min	1,171	1,267	1,188	1,092	1,200	1,306	1,466	1,233	1,110	864	668	1,021

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Appendix C-3 CALSIM II Modeling

Alt Existing Alt 3 Delta Outflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	4,104	4,500	10,023	9,942	38,968	28,706	24,131	53,211	36,513	8,000	4,000	3,161
1923	4,004	6,508	31,331	27,766	14,900	10,901	25,838	16,532	8,168	6,500	4,000	3,896
1924	4,000	5,871	4,500	7,418	9,241	10,111	6,034	4,124	5,222	6,565	3,667	3,000
1925	3,461	5,200	6,638	7,122	62,019	27,194	20,835	17,200	8,169	5,000	5,960	3,000
1926	4,000	5,538	5,384	9,404	36,371	9,784	21,104	10,806	5,112	5,000	4,883	3,000
1927	4,199	15,270	9,231	24,335	126,531	38,881	46,064	27,474	9,962	9,221	4,000	3,760
1928	4,000	10,589	7,479	16,440	20,191	98,138	26,568	16,383	6,361	8,000	4,000	3,000
1929	5,105	5,631	5,863	6,764	9,434	9,554	6,948	6,579	6,034	4,000	4,755	3,000
1930	3,633	5,427	8,313	12,927	13,985	23,973	10,425	10,245	5,803	5,000	4,818	3,000
1931	4,618	5,283	4,623	7,195	7,697	6,171	6,822	4,427	5,190	6,073	3,141	3,000
1932	4,227	4,694	14,886	14,646	17,717	11,400	11,197	14,008	10,174	5,000	4,510	3,000
1933	4,000	5,306	4,952	12,541	7,373	10,667	10,031	5,726	6,038	4,000	5,314	3,000
1934	3,131	6,293	6,287	12,332	14,842	11,400	9,991	5,599	6,897	4,000	4,846	3,000
1935	3,466	6,422	4,633	25,303	11,400	23,186	52,766	26,440	11,696	6,500	4,000	3,211
1936	4,477	6,184	4,500	33,127	74,333	26,353	23,220	18,373	10,214	6,500	4,000	3,089
1937	4,213	6,698	4,500	7,429	42,746	45,768	26,662	19,727	9,500	6,500	4,762	3,000
1938	4,000	15,598	56,952	30,762	146,012	166,586	74,130	69,544	43,981	8,000	4,000	5,587
1939	11,371	4,500	7,032	9,523	7,675	10,983	10,029	9,726	5,314	5,000	4,051	3,000
1940	5,849	4,500	4,500	30,710	58,691	102,771	68,355	19,037	7,261	8,000	4,000	3,604
1941	4,062	6,995	40,316	97,614	121,492	88,158	73,515	43,356	15,522	8,000	4,840	5,536
1942	5,062	4,500	61,438	82,435	140,500	22,264	50,305	38,926	19,922	8,000	4,000	7,289
1943	6,640	5,911	21,840	85,095	56,520	85,519	29,257	23,206	7,246	9,838	4,000	3,794
1944	4,000	5,130	5,719	7,143	21,585	16,218	10,766	11,241	7,392	5,000	3,500	3,000
1945	6,862	6,811	9,661	6,779	44,464	20,961	13,712	17,537	8,903	6,500	4,000	3,406
1946	4,107	7,525	63,699	45,083	24,469	15,802	13,402	13,264	8,728	6,500	4,000	3,290
1947	4,661	6,661	7,083	6,843	12,519	15,168	11,195	8,711	6,092	5,000	3,715	3,000
1948	6,293	4,500	4,601	8,417	11,209	10,916	25,221	27,635	13,196	6,500	4,000	3,788
1949	4,823	5,385	6,024	6,991	8,486	38,682	12,102	13,856	7,481	5,000	5,107	3,000
1950	4,473	5,611	5,174	14,391	28,415	14,943	17,968	17,913	10,748	6,500	4,303	3,789
1951	4,000	43,047	94,606	71,664	71,698	26,435	16,020	21,710	6,066	9,658	4,000	3,539
1952	4,253	7,552	36,644	86,927	73,247	64,602	67,898	68,604	40,242	8,000	4,000	10,173
1953	12,454	4,500	42,068	101,795	22,330	16,477	15,415	24,624	16,983	8,000	4,000	7,524
1954	4,173	7,275	5,261	26,396	54,353	43,105	39,354	21,539	6,134	8,000	4,000	3,426
1955	5,263	6,346	15,070	13,346	11,400	7,318	12,689	11,291	7,007	5,000	4,740	3,000
1956	4,786	5,622	92,119	166,952	83,055	35,097	19,246	42,902	15,227	8,000	4,000	8,317
1957	7,016	4,500	5,319	7,816	27,307	39,717	18,828	16,432	8,864	8,000	4,000	3,467
1958	8,528	4,500	13,857	32,442	180,816	93,944	97,467	51,598	28,842	8,000	4,398	9,338
1959	9,850	4,500	5,370	29,440	47,746	21,057	8,886	9,571	6,591	7,878	4,000	3,822
1960	4,013	6,603	4,500	6,974	22,984	15,766	11,400	10,973	5,592	5,000	4,464	3,000

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Appendix C-3 CALSIM II Modeling

Alt Existing Alt 3 Delta Outflow (CFS)													
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1961	5,863	5,085	8,216	6,813	18,073	12,386	10,182	9,215	10,182	5,865	5,000	4,336	3,000
1962	5,833	4,672	8,072	6,000	45,619	19,904	12,473	12,941	6,488	6,623	4,000	3,599	3,000
1963	27,151	5,496	18,302	10,160	67,954	25,844	89,078	33,827	10,618	11,008	4,000	3,787	3,000
1964	4,597	17,065	5,413	16,788	11,191	8,018	15,041	8,375	6,443	5,000	4,431	3,117	3,000
1965	5,556	6,362	69,989	117,611	28,922	18,569	44,267	23,109	7,555	9,980	4,000	4,064	3,000
1966	4,000	15,008	11,169	24,959	20,372	18,681	11,621	12,539	5,662	7,008	4,000	3,360	3,000
1967	5,736	6,694	32,084	47,073	51,621	54,918	52,045	53,209	42,118	9,294	4,602	12,156	3,000
1968	12,289	4,500	7,599	26,503	59,082	32,736	13,657	9,312	6,144	7,022	4,000	3,000	3,000
1969	6,253	4,994	16,077	117,835	132,294	60,286	57,763	64,504	34,563	8,000	4,000	6,428	3,000
1970	12,235	6,153	55,433	211,762	85,143	35,269	15,328	13,746	5,530	13,010	4,000	3,438	3,000
1971	4,000	10,957	57,424	43,614	25,350	39,137	20,422	27,614	10,760	11,395	4,000	7,816	3,000
1972	4,346	4,500	8,621	8,676	16,535	25,414	10,119	8,711	10,704	6,500	4,000	3,000	3,000
1973	5,213	12,187	17,694	80,423	90,229	54,896	16,982	18,677	9,721	8,000	4,000	3,241	3,000
1974	4,167	53,884	62,576	125,445	35,978	104,933	70,868	26,568	13,283	8,000	4,000	10,229	3,000
1975	6,101	4,549	7,811	7,329	63,455	85,687	23,329	30,884	16,078	8,000	4,125	9,477	3,000
1976	9,680	4,944	6,250	6,157	8,117	9,195	7,683	4,240	4,710	7,573	3,000	3,000	3,000
1977	5,300	3,665	5,629	5,355	6,875	6,115	7,100	4,625	5,168	5,662	3,425	3,000	3,000
1978	3,818	5,211	7,012	64,044	57,512	66,313	43,174	23,765	15,122	8,000	4,082	4,159	3,000
1979	4,000	5,185	5,962	20,457	45,242	32,285	16,027	17,830	10,066	6,500	4,000	3,000	3,000
1980	4,845	6,664	11,669	99,262	130,344	56,522	20,250	19,983	10,063	8,000	4,843	4,472	3,000
1981	4,000	4,640	7,924	13,694	18,604	22,757	13,538	9,911	5,387	5,000	3,698	3,330	3,000
1982	6,589	25,845	84,350	75,464	101,346	80,667	140,370	45,666	22,722	8,000	4,011	8,879	3,000
1983	20,534	36,996	81,691	105,223	179,230	252,419	87,546	74,896	82,943	27,710	10,421	22,794	3,000
1984	25,521	79,740	156,487	68,424	39,054	31,331	16,912	13,288	8,266	10,475	4,000	3,647	3,000
1985	4,049	24,845	13,319	7,057	10,734	12,368	9,939	11,491	5,460	5,000	4,366	4,463	3,000
1986	4,818	5,257	9,217	17,511	206,185	147,733	22,740	13,150	9,282	8,000	5,683	4,468	3,000
1987	4,000	4,624	6,571	6,855	13,130	19,949	11,149	7,531	6,168	5,000	3,500	3,000	3,000
1988	5,746	4,500	8,541	19,886	11,187	7,887	7,462	6,719	6,771	4,000	4,990	3,000	3,000
1989	3,541	5,815	5,268	7,916	7,833	37,183	17,608	10,350	5,767	5,000	4,553	3,728	3,000
1990	4,852	5,994	4,500	10,978	11,400	7,726	9,869	5,626	4,000	5,682	3,739	3,000	3,000
1991	3,540	5,540	5,137	5,133	7,018	23,019	11,192	6,618	4,000	4,691	4,232	3,000	3,000
1992	3,539	5,310	5,779	5,272	25,435	13,615	10,369	5,779	6,736	4,000	3,249	3,000	3,000
1993	4,761	3,842	7,572	65,493	54,869	41,746	37,509	31,821	19,712	8,000	4,211	3,694	3,000
1994	4,174	5,453	7,340	6,507	15,705	11,012	8,842	7,264	4,000	6,608	3,190	3,778	3,000
Mean	6,052	9,447	21,489	36,601	47,758	38,920	27,510	20,874	12,086	7,205	4,253	4,506	3,000
Max	27,151	79,740	156,487	211,762	206,185	252,419	140,370	74,896	82,943	27,710	10,421	22,794	3,000
Min	3,131	3,665	4,500	5,133	6,875	6,115	6,034	4,124	4,000	4,000	3,000	3,000	3,000

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Base Existing Base Delta Outflow (CFS)													
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1922	4,000	4,500	9,973	9,942	38,968	28,706	24,131	33,211	36,513	8,000	4,000	3,161	3,000
1923	4,104	6,508	31,174	27,762	14,900	10,901	25,838	16,532	8,168	6,500	4,000	3,896	3,000
1924	4,000	5,871	4,500	7,399	9,241	10,111	6,034	4,124	5,222	6,565	3,667	3,000	3,000
1925	3,461	5,200	6,636	7,122	62,085	27,194	20,835	17,200	8,169	5,000	5,960	3,000	3,000
1926	4,000	5,538	5,333	9,389	36,252	9,784	21,104	10,806	5,112	5,000	4,883	3,000	3,000
1927	4,199	15,335	9,168	24,133	126,341	38,758	46,064	27,474	9,962	9,221	4,000	3,760	3,000
1928	4,000	10,640	7,390	16,272	20,191	98,138	26,568	16,383	6,361	8,000	4,000	3,000	3,000
1929	5,105	5,631	6,044	6,821	9,434	9,554	6,948	6,579	6,034	4,000	4,735	3,000	3,000
1930	3,633	5,427	8,372	12,927	13,985	24,008	10,425	10,245	5,803	5,000	4,818	3,000	3,000
1931	4,618	5,283	4,623	7,162	7,697	6,171	6,822	4,427	5,190	6,073	3,141	3,000	3,000
1932	4,227	4,694	14,886	14,646	17,717	11,400	11,197	14,003	10,174	5,000	4,510	3,000	3,000
1933	4,000	5,306	5,006	12,550	7,279	10,702	10,031	5,726	6,038	4,000	5,314	3,000	3,000
1934	3,131	6,293	6,268	12,333	14,642	11,400	9,991	5,599	6,897	4,000	4,846	3,000	3,000
1935	3,466	6,422	4,633	25,307	11,400	23,055	52,766	26,440	11,696	6,500	4,000	3,211	3,000
1936	4,477	6,184	4,500	33,131	74,354	26,313	23,220	18,373	10,176	6,500	4,000	3,089	3,000
1937	4,213	6,698	4,500	7,413	42,764	45,620	26,662	19,727	9,500	6,500	4,000	4,762	3,000
1938	4,000	15,743	56,745	30,632	146,012	166,586	74,130	69,544	43,981	8,000	4,000	5,601	3,000
1939	11,358	4,500	7,032	9,523	7,675	10,983	10,029	9,726	5,314	5,000	4,051	3,000	3,000
1940	5,849	4,500	4,500	30,720	58,710	102,783	68,280	19,029	7,261	8,000	4,000	3,604	3,000
1941	4,062	6,995	40,316	97,592	121,263	88,130	73,515	43,356	15,522	8,000	4,840	5,621	3,000
1942	5,168	4,500	61,436	82,397	140,488	22,136	50,305	38,926	19,856	8,000	4,000	7,361	3,000
1943	6,571	5,911	21,840	85,095	56,520	85,519	29,257	23,206	7,246	9,838	4,000	3,794	3,000
1944	4,000	5,130	5,719	7,189	21,603	16,218	10,766	11,241	7,392	5,000	3,500	3,000	3,000
1945	6,862	6,820	9,685	6,779	44,345	20,961	13,712	17,537	8,903	6,500	4,000	3,406	3,000
1946	4,107	7,525	63,697	45,082	24,469	15,802	13,402	13,264	8,728	6,500	4,000	3,290	3,000
1947	4,661	6,661	7,233	6,843	12,519	15,168	11,195	8,711	6,092	5,000	3,715	3,000	3,000
1948	6,293	4,500	4,601	8,497	11,209	10,916	25,000	27,603	13,196	6,500	4,000	3,788	3,000
1949	4,823	5,385	6,206	6,991	8,486	38,649	12,102	13,856	7,481	5,000	5,107	3,000	3,000
1950	4,473	5,611	5,209	14,443	28,415	14,943	17,806	17,906	10,713	6,500	4,303	3,789	3,000
1951	4,000	43,158	94,393	71,457	71,659	26,435	16,020	21,710	6,066	9,658	4,000	3,539	3,000
1952	4,253	7,552	36,584	86,909	73,064	64,602	67,898	68,604	40,242	8,000	4,000	10,173	3,000
1953	12,454	4,500	42,068	101,795	22,330	16,477	15,415	24,624	16,983	8,000	4,000	7,643	3,000
1954	4,173	7,336	5,262	26,394	54,153	43,030	39,354	21,539	6,134	8,000	4,000	3,426	3,000
1955	5,263	6,346	15,031	13,343	11,400	7,318	12,689	11,291	7,007	5,000	4,740	3,000	3,000
1956	4,786	5,622	92,127	166,938	82,875	35,016	19,246	42,902	15,227	8,000	4,000	8,349	3,000
1957	6,986	4,500	5,339	7,859	27,237	39,717	18,828	16,432	8,864	8,000	4,000	3,467	3,000
1958	8,594	4,500	13,677	32,413	180,671	93,944	97,467	51,598	28,842	8,000	4,398	9,338	3,000
1959	9,850	4,500	5,382	29,434	47,739	21,057	8,886	9,571	6,591	7,878	4,000	3,822	3,000
1960	4,013	6,603	4,500	6,976	22,949	15,766	11,400	10,973	5,592	5,000	4,464	3,000	3,000

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Year	Base Existing Base Delta Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	5.863	5.085	8.332	6.813	18,088	12,386	10,182	9,215	5,865	5,000	4,336	3,000
1962	5.833	4.672	8.072	6,000	45,619	19,904	12,283	12,933	6,488	6,623	4,000	3,599
1963	27,094	5,496	18,108	10,066	67,954	25,844	89,078	33,827	10,618	11,008	4,000	3,787
1964	4,597	17,101	5,349	16,634	11,191	8,018	15,041	8,375	6,443	5,000	4,431	3,117
1965	5,556	6,434	69,989	117,611	28,781	18,569	44,267	23,109	7,555	9,980	4,000	4,064
1966	4,000	15,117	10,959	24,865	20,372	18,681	11,621	12,539	5,662	7,008	4,000	3,360
1967	5,736	6,859	31,922	47,035	51,426	54,871	52,045	53,209	42,118	9,294	4,602	12,156
1968	12,289	4,500	7,599	26,503	59,082	32,736	13,657	9,312	6,144	7,022	4,000	3,000
1969	6,253	4,994	16,149	117,835	132,071	60,168	57,763	64,504	34,563	8,000	4,000	6,428
1970	12,235	6,153	55,433	211,762	85,143	35,269	15,328	13,746	5,530	13,010	4,000	3,438
1971	4,000	11,007	57,324	43,478	25,350	39,137	20,422	27,614	10,760	11,395	4,000	7,890
1972	4,346	4,500	8,665	8,705	16,535	25,406	10,119	8,711	10,704	6,500	4,000	3,000
1973	5,213	12,217	17,694	80,217	90,166	54,896	16,982	18,677	9,721	8,000	4,000	3,241
1974	4,167	53,932	62,489	125,285	35,978	104,933	70,868	26,568	13,283	8,000	4,000	10,301
1975	6,032	4,549	7,838	7,359	63,392	85,687	23,329	30,884	16,078	8,000	4,125	9,533
1976	9,626	4,944	6,271	6,204	8,117	9,195	7,683	4,238	4,710	7,573	3,000	3,000
1977	5,300	3,665	5,629	5,296	6,875	6,115	7,100	4,625	5,168	5,662	3,425	3,000
1978	3,818	5,211	7,012	64,044	47,583	66,314	43,249	23,816	15,122	8,000	4,082	4,159
1979	4,000	5,185	6,010	20,460	45,042	32,159	16,027	17,830	10,066	6,500	4,000	3,000
1980	4,845	6,664	11,665	99,242	130,109	56,468	20,250	19,983	10,063	8,000	4,843	4,472
1981	4,000	4,640	7,988	13,688	18,604	22,631	13,538	9,911	5,387	5,000	3,698	3,330
1982	6,589	25,862	84,350	75,268	101,139	80,606	140,370	45,666	22,722	8,000	4,011	8,879
1983	20,534	36,996	81,691	105,223	179,230	252,419	87,546	74,896	82,943	27,710	10,421	22,794
1984	25,521	79,740	156,487	68,424	39,054	31,331	16,912	13,288	8,266	10,475	4,000	3,647
1985	4,049	24,882	13,249	6,892	10,734	12,368	9,939	11,491	5,460	5,000	4,366	4,463
1986	4,818	5,257	9,428	17,511	206,259	147,527	22,638	13,143	9,282	8,000	5,683	4,468
1987	4,000	4,624	6,605	6,895	13,145	19,923	11,149	7,531	6,168	5,000	3,500	3,000
1988	5,746	4,500	8,660	19,886	11,187	7,887	7,462	6,719	6,771	4,000	4,990	3,000
1989	3,541	5,815	5,239	7,916	7,833	37,218	17,571	10,350	5,767	5,000	4,553	3,728
1990	4,852	5,994	4,500	10,907	11,400	7,726	9,869	5,623	4,000	5,682	3,739	3,000
1991	3,540	5,540	5,137	5,133	7,018	23,018	11,192	6,613	4,000	4,691	4,232	3,000
1992	3,539	5,310	5,779	5,272	25,435	13,615	10,369	5,779	6,736	4,000	3,249	3,000
1993	4,761	3,842	7,572	65,493	54,883	41,746	37,496	31,821	19,712	8,000	4,211	3,694
1994	4,174	5,453	7,420	6,528	15,740	11,012	8,842	7,264	4,000	6,608	3,190	3,778
Mean	6,051	9,461	21,482	36,576	47,720	38,901	27,500	20,874	12,084	7,205	4,253	4,513
Max	27,094	79,740	156,487	211,762	206,259	252,419	140,370	74,896	82,943	27,710	10,421	22,794
Min	3,131	3,665	4,500	5,133	6,875	6,115	6,034	4,124	4,000	4,000	3,000	3,000

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Year	Difference Existing Alt 3 minus Existing Base Delta Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	50	0	0	0	0	0	0	0	0	0
1923	0	0	157	5	0	0	0	0	0	0	0	0
1924	0	0	0	19	0	0	0	0	0	0	0	0
1925	0	0	2	0	-66	0	0	0	0	0	0	0
1926	0	0	52	15	119	0	0	0	0	0	0	0
1927	0	-65	63	202	190	123	0	0	0	0	0	0
1928	0	-51	89	168	0	0	0	0	0	0	0	0
1929	0	0	-181	-58	0	0	0	0	0	0	0	0
1930	0	0	-58	0	0	-35	0	0	0	0	0	0
1931	0	0	0	34	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	5	0	0	0	0
1933	0	0	-54	-9	94	-35	0	0	0	0	0	0
1934	0	0	18	-1	200	0	0	0	0	0	0	0
1935	0	0	0	-3	0	131	0	0	0	0	0	0
1936	0	0	0	-4	-21	40	0	0	38	0	0	0
1937	0	0	0	16	-19	147	0	0	0	0	0	0
1938	0	-145	207	130	0	0	0	0	0	0	0	-14
1939	13	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	-10	-24	-12	75	7	0	0	0	0
1941	0	0	0	21	229	28	0	0	0	0	0	-85
1942	-106	0	2	38	13	127	0	0	66	0	0	-72
1943	69	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	-46	-18	0	0	0	0	0	0	0
1945	0	-9	-24	0	119	0	0	0	0	0	0	0
1946	0	0	3	1	0	0	0	0	0	0	0	0
1947	0	0	-150	0	0	0	0	0	0	0	0	0
1948	0	0	0	-80	0	0	0	221	32	0	0	0
1949	0	0	-182	0	0	33	0	0	0	0	0	0
1950	0	0	-35	-52	0	0	161	8	36	0	0	0
1951	0	-111	213	207	39	0	0	0	0	0	0	0
1952	0	0	61	17	183	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	-119
1954	0	-61	-1	2	200	75	0	0	0	0	0	0
1955	0	0	39	3	0	0	0	0	0	0	0	0
1956	0	0	-8	14	180	81	0	0	0	0	0	-31
1957	30	0	-20	-43	70	0	0	0	0	0	0	0
1958	-65	0	180	9	146	0	0	0	0	0	0	0
1959	0	0	-12	6	7	0	0	0	0	0	0	0
1960	0	0	0	-2	35	0	0	0	0	0	0	0

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Appendix C-3 CALSIM II Modeling

Year	Difference Existing Alt 3 minus Existing Base Delta Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	0	0	-117	0	-15	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	189	8	0	0	0	0
1963	57	0	194	95	0	0	0	0	0	0	0	0
1964	0	-36	64	154	0	0	0	0	0	0	0	0
1965	0	-72	0	0	141	0	0	0	0	0	0	0
1966	0	-109	210	94	0	0	0	0	0	0	0	0
1967	0	-164	162	38	195	46	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	-71	0	224	118	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	-50	101	135	0	0	0	0	0	0	0	-74
1972	0	0	-44	-28	0	9	0	0	0	0	0	0
1973	0	-29	0	206	63	0	0	0	0	0	0	0
1974	0	-48	87	161	0	0	0	0	0	0	0	-72
1975	70	0	-27	-30	63	0	0	0	0	0	0	-56
1976	54	0	-20	-48	0	0	0	2	0	0	0	0
1977	0	0	0	58	0	0	0	0	0	0	0	0
1978	0	0	0	0	-71	-1	-74	-51	0	0	0	0
1979	0	0	-48	-3	200	126	0	0	0	0	0	0
1980	0	0	5	21	235	54	0	0	0	0	0	0
1981	0	0	-63	6	0	125	0	0	0	0	0	0
1982	0	-17	0	195	207	61	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	-37	70	166	0	0	0	0	0	0	0	0
1986	0	0	-211	0	-74	205	102	7	0	0	0	0
1987	0	0	-34	-41	-15	26	0	0	0	0	0	0
1988	0	0	-119	0	0	0	0	0	0	0	0	0
1989	0	0	29	0	0	-35	37	0	0	0	0	0
1990	0	0	0	71	0	0	0	4	0	0	0	0
1991	0	0	0	0	0	0	0	5	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	-14	0	13	0	0	0	0	0
1994	0	0	-79	-20	-35	0	0	0	0	0	0	0
Mean	2	-14	7	25	38	20	10	0	2	0	0	-7
Max	70	0	213	207	235	205	221	32	66	0	0	0
Min	-106	-164	-211	-80	-74	-35	-74	-51	0	0	0	-119

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Appendix C-3 CALSIM II Modeling

Year	Alt Existing Alt 3 SWP (Banks) Delta Export (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	5,322	5,346	7,102	8,093	4,130	3,242	3,011	2,469	3,462	5,803	4,520	5,202
1923	3,453	2,536	4,800	3,479	3,899	300	1,260	300	300	300	2,963	1,223
1924	1,843	2,241	4,009	3,824	7,607	300	2,783	1,125	3,137	6,590	929	2,853
1925	2,396	1,026	2,242	6,568	7,346	1,106	2,584	800	2,205	6,698	5,927	3,324
1926	3,540	6,680	6,636	6,863	7,767	6,725	3,432	1,500	4,697	1,954	6,613	5,858
1927	3,080	6,680	6,661	7,002	6,942	7,439	3,032	2,180	2,896	3,563	4,275	4,454
1928	3,462	3,558	4,086	4,037	3,701	1,954	1,118	300	1,207	2,805	300	1,284
1929	1,186	300	6,322	6,693	3,974	6,971	1,624	800	2,020	6,849	6,045	4,330
1930	1,415	2,909	3,290	3,786	2,809	764	300	437	1,364	1,735	4,684	2,398
1931	2,204	1,324	6,846	7,419	5,628	3,966	300	1,125	2,922	2,644	300	3,944
1932	2,272	1,107	4,245	3,003	3,854	3,538	1,194	800	300	3,816	827	1,150
1933	1,754	300	5,747	6,713	3,744	819	300	300	300	2,858	300	2,261
1934	2,320	2,708	2,945	7,483	4,235	5,644	3,432	324	3,412	7,056	7,180	5,402
1935	5,762	2,273	5,697	6,897	8,437	7,561	2,850	800	2,827	7,180	7,180	4,924
1936	5,701	1,635	6,065	5,483	8,500	7,561	3,939	2,569	3,315	6,352	4,718	3,859
1937	3,910	6,680	7,227	8,093	7,029	6,224	4,957	5,302	6,680	6,680	5,465	7,180
1938	6,680	5,681	5,431	4,509	3,847	4,338	984	1,125	1,351	6,431	7,031	5,782
1939	4,421	2,327	4,808	7,625	8,003	7,561	3,432	1,500	2,787	7,180	7,180	5,606
1940	5,390	2,821	6,788	7,952	8,050	7,952	3,943	2,391	4,178	7,180	6,669	7,180
1941	6,680	4,973	3,364	4,418	5,257	6,235	3,432	1,500	6,680	6,020	6,680	7,180
1942	6,680	6,680	5,829	5,900	6,042	6,363	3,032	800	2,475	3,313	6,959	6,420
1943	4,456	2,112	4,495	5,950	7,725	5,093	2,132	1,500	3,791	6,671	6,695	6,315
1944	3,453	6,680	6,629	4,931	8,500	6,904	1,999	800	4,472	7,180	6,520	5,615
1945	4,696	5,906	7,241	7,852	2,547	6,657	2,452	2,594	4,193	7,180	6,551	5,328
1946	5,235	3,273	6,675	2,872	6,023	4,217	1,770	300	2,201	6,955	5,966	4,831
1947	4,106	3,760	2,924	5,717	2,118	3,089	2,964	3,274	4,702	7,180	7,180	5,916
1948	4,524	2,104	4,660	2,511	2,763	7,107	1,839	800	3,604	6,515	3,720	4,140
1949	1,707	1,126	1,256	6,943	7,591	4,243	2,395	800	4,973	7,180	6,574	5,749
1950	5,230	6,680	7,271	8,093	6,263	6,628	2,178	800	2,726	4,655	7,180	5,662
1951	5,681	5,627	6,788	8,093	8,003	6,449	3,365	3,386	6,277	6,680	6,984	7,180
1952	6,680	5,467	2,290	4,563	5,087	6,563	2,335	1,125	4,021	5,109	6,148	7,180
1953	6,096	6,680	5,600	6,835	6,980	7,105	3,232	3,119	2,840	6,452	6,146	5,403
1954	5,345	5,398	6,568	6,890	1,769	2,428	1,103	800	3,004	4,746	2,831	3,231
1955	6,448	3,530	7,271	7,420	5,572	6,708	2,460	800	6,571	4,879	6,680	7,180
1956	6,680	4,354	2,926	5,255	7,160	7,362	2,683	2,581	4,227	5,049	6,312	5,161
1957	6,680	6,406	6,592	6,701	8,842	6,563	4,552	3,191	6,680	6,680	7,180	7,180
1958	6,680	4,840	5,297	5,365	8,312	987	1,790	1,125	2,369	5,595	7,180	5,803
1959	4,115	2,410	4,960	3,791	7,372	4,755	1,741	800	2,249	7,095	2,651	4,719
1960	4,115	2,410	4,960	3,791	7,372	4,755	1,741	800	2,249	7,095	2,651	4,719

Contra Costa Water District Alternative Intake Project
Draft Environmental Impact Report/Environmental Impact Statement

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Appendix C-3 CALSIM II Modeling

Year	Alt Existing Alt 3 SWP (Banks) Delta Export (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	2,566	4,713	5,078	7,144	3,855	1,630	300	300	300	6,392	5,494	5,014
1962	3,035	3,244	5,166	2,030	8,500	6,875	2,120	539	2,527	5,643	7,180	6,485
1963	6,680	6,680	6,522	6,888	7,315	6,626	3,032	800	4,777	2,042	6,680	5,775
1964	6,157	6,680	4,287	6,827	2,121	3,570	2,138	1,592	2,796	7,180	6,608	5,529
1965	3,601	6,680	6,886	8,093	8,050	5,688	3,432	2,130	3,373	3,170	6,918	6,302
1966	2,905	6,680	7,238	7,884	6,672	6,365	2,057	1,125	2,361	5,655	6,741	6,125
1967	4,836	6,680	6,799	7,356	7,294	7,561	4,299	3,480	6,680	7,180	7,180	7,180
1968	6,680	6,021	5,662	4,610	6,188	5,670	2,225	1,125	2,407	3,875	6,623	5,639
1969	5,207	4,849	6,626	8,093	8,050	5,738	3,073	4,001	6,269	6,680	4,949	7,180
1970	6,680	4,881	3,393	4,540	5,398	6,623	2,148	800	2,197	5,848	7,180	6,101
1971	5,478	6,680	6,714	7,059	1,097	7,225	2,845	1,125	5,194	6,457	6,680	7,180
1972	6,479	5,629	6,600	6,844	5,751	6,945	1,641	1,664	3,257	5,793	5,199	4,251
1973	3,217	6,680	6,547	7,077	6,242	6,908	2,788	1,500	3,698	7,146	6,329	5,019
1974	5,239	6,680	6,648	8,041	7,146	7,550	3,032	800	4,821	6,680	7,086	7,180
1975	6,680	6,185	6,628	6,669	6,276	7,561	3,307	1,500	6,680	6,534	7,180	7,180
1976	6,680	6,680	6,605	4,737	3,547	3,420	1,399	800	1,809	3,571	6,068	5,619
1977	3,730	3,143	2,891	1,667	968	527	300	300	300	300	2,817	1,565
1978	1,025	1,065	5,559	6,603	2,999	5,205	3,205	3,061	4,301	7,180	5,903	6,509
1979	5,339	2,062	1,467	7,741	7,717	5,569	2,652	1,500	3,194	6,858	6,258	5,001
1980	3,923	5,318	6,612	8,093	7,904	4,297	2,567	800	2,886	7,180	6,949	7,174
1981	5,685	1,939	3,975	6,973	6,080	5,494	2,203	1,125	2,324	6,420	4,776	5,469
1982	4,731	6,680	6,594	8,093	8,050	7,561	5,580	4,005	5,270	6,680	6,026	7,180
1983	6,680	6,680	6,381	2,794	2,244	3,394	2,419	2,416	4,126	7,180	7,180	6,061
1984	1,060	2,911	2,846	4,160	5,081	6,904	2,768	1,500	2,868	3,631	7,180	6,234
1985	4,970	6,680	6,633	6,031	4,769	2,379	1,627	800	2,199	7,180	6,680	6,680
1986	5,854	4,396	6,597	7,001	8,050	7,561	4,257	3,068	4,520	6,680	6,608	6,818
1987	5,509	1,982	1,880	6,832	6,285	4,505	1,771	300	492	6,035	6,508	4,676
1988	2,534	2,026	6,507	6,700	1,482	607	1,357	300	300	3,485	377	854
1989	1,300	2,239	2,637	2,666	885	6,939	2,397	800	1,974	6,945	7,127	6,035
1990	4,777	1,818	5,616	6,336	2,802	2,401	300	800	302	300	4,407	1,828
1991	1,138	1,222	1,054	800	802	7,066	1,326	800	300	300	3,990	857
1992	1,427	300	800	2,793	7,388	4,111	1,548	300	714	3,608	2,187	2,955
1993	1,162	2,044	3,276	8,093	7,992	4,744	3,232	1,125	4,387	7,180	6,852	6,064
1994	5,842	2,582	3,736	5,090	7,251	967	1,507	1,394	2,810	6,499	6,512	5,009
Mean	4,335	4,114	5,189	5,913	5,671	5,137	2,432	1,444	3,240	5,472	5,590	5,174
Max	6,680	6,680	7,271	8,093	8,500	7,561	5,580	5,302	6,680	7,180	7,180	7,180
Min	1,025	300	800	800	802	300	300	300	300	300	300	854

Appendix C-3 CALSIM II Modeling

Year	Base Existing Base SWP (Banks) Delta Export (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	5,175	3,491	6,759	7,206	8,050	7,561	3,407	1,500	6,680	7,180	4,520	5,202
1923	5,322	5,346	7,102	8,093	4,130	3,242	3,011	2,469	3,462	5,803	6,393	5,538
1924	3,453	2,536	4,800	3,479	3,899	300	1,260	300	300	300	2,963	1,223
1925	1,843	2,241	4,009	3,824	7,607	300	2,783	1,125	3,137	6,590	929	2,853
1926	2,396	1,026	2,242	6,568	7,346	1,106	2,584	800	2,205	6,698	5,927	3,324
1927	3,540	6,680	6,636	6,863	7,767	6,725	3,432	1,500	4,697	1,954	6,613	5,858
1928	3,080	6,680	6,661	7,002	6,942	7,439	3,032	2,180	2,896	3,563	4,275	4,454
1929	3,462	3,558	4,086	4,037	3,701	1,954	1,118	300	1,207	2,805	300	1,284
1930	1,186	300	6,322	6,693	3,974	6,971	1,624	800	2,020	6,849	6,045	4,330
1931	1,415	2,909	3,290	3,786	2,809	764	300	437	1,364	1,735	4,684	2,398
1932	2,204	1,324	6,846	7,419	5,628	3,966	300	1,125	2,922	2,644	300	3,944
1933	2,272	1,107	4,245	3,003	3,854	3,538	1,194	800	300	3,816	827	1,150
1934	1,754	300	5,747	6,713	3,744	819	300	300	300	2,858	300	2,261
1935	2,320	2,708	2,945	7,483	4,235	5,644	3,432	324	3,412	7,056	7,180	5,402
1936	5,762	2,273	5,697	6,897	8,437	7,561	2,850	800	2,827	7,180	7,180	4,924
1937	5,701	1,635	6,065	5,483	8,500	7,561	3,939	2,569	3,315	6,352	4,718	3,859
1938	3,910	6,680	7,227	8,093	7,029	6,224	4,957	5,302	6,680	6,680	5,465	7,180
1939	6,680	5,681	5,431	4,509	3,847	4,338	984	1,125	1,351	6,431	7,031	5,782
1940	4,421	2,327	4,808	7,625	8,003	7,561	3,432	1,500	2,787	7,180	7,180	5,606
1941	5,390	2,821	6,788	7,952	8,050	7,561	3,943	2,391	4,178	7,180	6,669	7,180
1942	6,680	4,973	3,364	4,418	5,257	6,235	3,432	1,500	6,680	6,020	6,680	7,180
1943	6,680	6,680	5,829	5,900	6,042	6,363	3,032	800	2,475	3,313	6,959	6,420
1944	4,456	2,112	4,495	5,950	7,725	5,093	2,132	1,500	3,791	6,671	6,695	6,315
1945	3,453	6,680	6,629	4,931	8,500	6,904	1,999	800	4,472	7,180	6,520	5,615
1946	4,696	5,906	7,241	7,852	2,547	6,657	2,452	2,594	4,193	7,180	6,551	5,328
1947	5,235	3,273	6,675	2,872	6,023	4,217	1,770	300	2,201	6,955	5,966	4,831
1948	4,106	3,760	2,924	5,717	2,118	3,089	2,964	3,274	4,702	7,180	7,180	5,916
1949	4,524	2,104	4,660	2,511	2,763	7,107	1,839	800	3,604	6,515	3,720	4,140
1950	1,707	1,126	1,256	6,943	7,591	4,243	2,395	800	4,973	7,180	6,574	5,749
1951	5,230	6,680	7,271	8,093	6,263	6,628	2,178	800	2,726	4,655	7,180	5,662
1952	5,681	5,627	6,788	8,093	8,003	6,449	3,365	3,386	6,277	6,680	6,984	7,180
1953	6,680	5,467	2,290	4,563	5,087	6,563	2,335	1,125	4,021	5,109	6,148	7,180
1954	6,096	6,680	5,600	6,835	6,980	7,105	3,232	3,119	2,840	6,452	6,146	5,403
1955	5,345	5,398	6,568	6,890	1,769	2,428	1,103	800	3,004	4,746	2,831	3,231
1956	1,648	3,530	7,271	7,420	5,572	6,708	2,460	800	6,571	4,879	6,680	7,180
1957	6,680	4,354	2,926	5,255	7,160	7,362	2,683	2,581	4,227	5,049	6,312	5,161
1958	6,680	6,406	6,592	6,701	8,842	6,563	4,552	3,191	6,680	6,680	7,180	7,180
1959	6,680	4,840	5,297	5,365	8,312	987	1,790	1,125	2,369	5,595	7,180	5,803
1960	4,115	2,410	4,960	3,791	7,372	4,755	1,741	800	2,249	7,095	2,651	4,719

Appendix C-3 CALSIM II Modeling

Base Existing Base SWP (Banks) Delta Export (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	2,566	4,713	5,078	3,640	7,144	3,855	1,630	300	300	6,392	5,494	5,014
1962	3,035	3,244	5,166	2,030	8,500	6,875	2,120	539	2,527	6,647	7,180	6,485
1963	6,680	6,680	6,522	6,888	7,315	6,626	3,032	800	4,777	2,042	6,680	5,775
1964	6,157	6,680	4,287	6,827	2,121	3,570	2,138	1,592	2,796	7,180	6,608	5,529
1965	3,601	6,680	6,886	8,093	8,050	5,688	3,432	2,130	3,373	3,170	6,918	6,302
1966	2,905	6,680	7,238	7,884	6,672	6,365	2,057	1,125	2,361	5,655	6,741	6,125
1967	4,836	6,680	6,799	7,356	7,294	7,561	4,299	3,480	6,680	7,180	7,180	7,180
1968	6,680	6,021	5,662	4,610	6,188	5,670	2,225	1,125	2,407	3,875	6,623	5,639
1969	5,207	4,849	6,626	8,093	8,050	5,738	3,073	4,001	6,269	6,680	4,949	7,180
1970	6,680	4,881	3,393	4,540	5,398	6,623	2,148	800	2,197	5,848	7,180	6,101
1971	5,478	6,680	6,714	7,059	1,097	7,225	2,845	1,125	5,194	6,457	6,680	7,180
1972	6,479	5,629	6,600	6,844	5,751	6,945	1,641	1,664	3,257	5,793	5,199	4,251
1973	3,217	6,680	6,547	7,077	6,242	6,908	2,788	1,500	3,698	7,146	6,329	5,019
1974	5,239	6,680	6,648	8,041	7,146	7,550	3,032	800	4,821	6,680	7,086	7,180
1975	6,680	6,185	6,628	6,669	6,276	7,561	3,307	1,500	6,680	6,534	7,180	7,180
1976	6,680	6,680	6,605	4,737	3,547	3,420	1,399	800	1,809	3,571	6,068	5,619
1977	3,730	3,143	2,891	1,667	968	527	300	300	300	300	2,817	1,565
1978	1,025	1,065	5,559	6,603	2,999	5,205	3,205	3,061	4,301	7,180	5,903	6,509
1979	5,339	2,062	1,467	7,741	7,717	5,569	2,652	1,500	3,194	6,858	6,258	5,001
1980	3,923	5,318	6,612	8,093	7,904	4,297	2,567	800	2,886	7,180	6,949	7,174
1981	5,685	1,939	3,975	6,973	6,080	5,494	2,203	1,125	2,324	6,420	4,776	5,469
1982	4,731	6,680	6,594	8,093	8,050	7,561	5,580	4,005	5,270	6,680	6,026	7,180
1983	6,680	6,680	6,381	2,794	2,244	3,394	2,419	2,416	4,126	7,180	7,180	6,061
1984	1,060	2,911	2,846	4,160	5,081	6,904	2,768	1,500	2,868	3,631	7,180	6,234
1985	4,970	6,680	6,633	6,031	4,769	2,379	1,627	800	2,199	7,180	6,680	6,680
1986	5,854	4,396	6,597	7,001	8,050	7,561	4,257	3,068	4,520	6,680	6,608	6,818
1987	5,509	1,982	1,880	6,832	6,285	4,505	1,771	300	492	6,035	6,508	4,676
1988	2,534	2,026	6,507	6,700	1,482	607	1,357	300	300	3,485	377	854
1989	1,300	2,239	2,637	2,666	885	6,939	2,397	800	1,974	6,945	7,127	6,035
1990	4,777	1,818	5,616	6,336	2,802	2,401	300	800	302	300	4,407	1,828
1991	1,138	1,222	1,054	800	802	7,066	1,326	800	300	300	3,990	857
1992	1,427	300	800	2,793	7,388	4,111	1,548	300	714	3,608	2,187	2,955
1993	1,162	2,044	3,276	8,093	7,992	4,744	3,232	1,125	4,387	7,180	6,852	6,064
1994	5,842	2,582	3,736	5,090	7,251	967	1,507	1,394	2,810	6,499	6,512	5,009
Mean	4,335	4,114	5,189	5,913	5,671	5,137	2,432	1,444	3,240	5,472	5,590	5,174
Max	6,680	6,680	7,271	8,093	8,500	7,561	5,580	5,302	6,680	7,180	7,180	7,180
Min	1,025	300	800	800	802	300	300	300	300	300	300	854

Alt Existing Alt 3 CVP (Tracy) Delta Export (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	3,525	4,265	3,820	3,825	3,804	4,288	2,947	1,500	3,000	4,597	4,530	4,479
1923	4,362	4,256	3,817	3,822	4,130	3,303	2,547	1,911	3,000	4,582	4,538	4,473
1924	4,125	3,054	2,480	3,821	3,899	800	1,260	1,143	800	600	600	2,878
1925	2,988	1,059	3,802	3,805	4,218	800	2,747	1,125	2,487	3,209	3,855	4,156
1926	3,701	2,785	2,378	3,814	4,235	3,641	2,547	800	2,475	800	800	3,617
1927	2,323	4,218	3,805	3,808	800	3,373	2,947	1,500	3,000	4,570	4,543	4,475
1928	4,077	4,254	3,817	3,821	3,811	4,265	2,547	1,911	3,000	4,562	3,372	4,293
1929	3,813	4,247	3,815	3,819	4,243	800	1,365	1,878	924	800	2,895	
1930	3,065	1,809	3,803	3,806	3,974	4,246	1,624	800	1,460	1,699	1,775	4,172
1931	3,551	2,865	1,800	3,811	2,916	1,083	800	800	800	800	600	1,930
1932	1,256	1,686	3,802	3,805	4,218	1,494	1,547	1,125	1,958	1,897	3,854	4,270
1933	3,702	2,739	710	641	931	1,247	800	800	989	800	600	2,911
1934	3,023	1,018	3,802	1,571	641	965	800	800	800	600	600	1,629
1935	1,943	2,471	3,300	3,806	2,051	2,278	2,076	800	2,650	1,950	4,470	4,166
1936	3,190	2,124	3,663	3,813	2,475	2,436	2,523	800	2,475	2,628	4,499	4,437
1937	3,401	2,190	3,498	3,816	4,238	3,643	1,459	2,138	2,899	2,387	4,474	4,381
1938	4,285	4,232	1,544	800	800	2,143	2,695	3,894	3,000	4,600	4,578	4,494
1939	4,391	4,265	3,825	2,226	2,686	1,877	1,826	1,125	2,563	3,753	2,694	3,281
1940	2,601	3,136	914	3,817	3,804	4,254	2,947	1,500	3,000	4,519	4,490	4,418
1941	3,934	3,729	3,811	3,815	3,786	4,287	3,315	2,391	2,858	4,600	4,557	4,483
1942	4,369	4,258	4,225	1,748	1,924	3,593	2,947	1,500	3,000	4,600	4,558	4,483
1943	4,370	4,259	4,104	4,229	4,250	3,008	2,547	800	3,000	4,600	4,552	4,480
1944	4,364	4,257	3,697	3,822	4,247	4,264	2,132	1,500	2,548	2,464	3,376	3,136
1945	2,858	4,234	3,810	3,814	4,234	4,276	1,999	800	3,000	4,580	4,537	4,472
1946	4,349	4,252	3,816	3,820	4,246	4,259	2,452	2,274	3,000	4,560	4,521	4,464
1947	4,333	4,155	3,815	3,819	4,243	4,217	1,770	800	2,214	2,054	2,913	4,390
1948	2,056	4,233	2,077	3,813	4,233	3,089	2,547	800	3,000	4,566	4,526	4,466
1949	4,338	3,309	3,815	3,819	4,244	4,240	1,839	800	3,000	4,555	3,536	4,462
1950	3,643	3,680	3,595	3,818	4,242	4,240	2,395	800	2,475	3,209	4,454	4,338
1951	3,727	4,226	3,390	3,810	1,000	3,330	2,178	800	3,000	4,555	4,528	4,467
1952	4,340	4,249	3,815	3,819	3,808	4,309	2,162	3,187	3,000	4,600	4,578	4,494
1953	4,391	4,265	4,227	2,683	2,543	2,604	2,335	1,125	3,000	4,575	4,533	4,470
1954	4,345	4,251	3,816	3,820	3,795	4,286	2,747	1,125	2,840	4,580	4,537	4,472
1955	4,056	4,252	3,816	3,820	3,819	2,062	1,741	800	3,000	3,385	2,245	3,870
1956	3,978	4,235	3,811	4,151	4,234	2,828	2,460	800	2,475	3,339	4,535	4,471
1957	4,347	4,251	3,816	3,820	3,795	4,262	2,683	2,093	3,000	4,587	4,542	4,475
1958	4,354	4,253	3,817	3,938	4,247	4,304	2,281	3,092	3,000	4,600	4,578	4,494
1959	4,391	4,265	3,820	4,232	4,254	3,542	1,790	1,125	1,814	4,398	3,809	2,991
1960	4,013	1,948	1,333	3,819	4,242	4,234	1,741	800	2,475	4,474	2,867	3,699

Appendix C-3 CALSIM II Modeling

Year	CVP (Tracy) Delta Export (CFS)																						
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep											
1961	2,522	4,226	3,808	3,661	4,230	3,062	1,630	800	2,380	4,288	2,947	1,500	3,000	4,597	4,530	4,479							
1962	3,114	4,111	3,814	4,194	4,241	4,277	2,120	1,125	3,000	4,556	4,519	3,546	3,822	4,130	3,303	2,547	1,911	3,000	4,582	4,538	4,473		
1963	4,331	4,246	3,814	3,818	3,792	3,766	2,547	800	3,000	4,284	4,537	4,472	3,821	3,899	800	1,260	1,143	800	600	600	600	2,878	
1964	4,349	4,252	3,816	3,820	4,244	1,370	2,138	800	2,796	4,517	3,464	3,487	3,805	3,802	3,805	4,218	800	2,747	1,125	2,487	3,209	3,855	4,156
1965	4,447	4,237	3,811	3,815	3,786	4,276	2,947	2,274	3,000	4,600	4,554	4,481	3,814	3,814	3,814	4,235	3,641	2,547	800	2,475	800	800	3,617
1966	4,366	4,257	3,818	3,822	4,249	4,281	2,057	1,125	3,000	4,569	4,026	3,452	3,805	3,808	800	3,373	2,947	1,500	3,000	4,570	4,543	4,475	
1967	4,071	4,249	3,815	3,819	3,794	4,307	3,814	3,232	3,000	4,600	4,578	4,494	3,821	3,811	3,821	3,811	4,265	2,547	1,911	3,000	4,562	3,372	4,293
1968	4,391	4,265	4,227	3,399	2,891	2,634	2,225	1,125	2,563	4,587	4,341	3,489	3,815	3,819	4,243	800	1,365	1,878	924	800	2,895	800	2,895
1969	4,302	4,253	3,817	3,821	3,797	4,320	2,699	3,901	3,000	4,600	4,578	4,494	3,806	3,806	3,806	3,974	4,246	1,624	800	1,460	1,699	1,775	4,172
1970	4,391	4,265	2,158	1,514	1,802	3,207	2,148	800	2,813	1,983	4,528	4,151	3,811	3,811	2,916	1,083	800	800	800	800	800	600	1,930
1971	4,340	4,249	3,815	3,819	4,244	4,280	2,747	1,125	3,000	4,570	4,529	4,468	3,805	3,805	3,805	4,218	1,494	1,547	1,125	1,958	1,897	3,854	4,270
1972	4,341	4,249	3,815	3,819	4,243	4,282	1,641	800	3,000	4,556	3,352	3,946	641	931	1,247	800	800	800	989	800	600	600	2,911
1973	4,331	4,246	3,814	3,818	4,242	4,287	2,788	1,500	2,705	4,586	4,541	4,475	1,571	641	965	800	800	800	600	600	600	600	1,629
1974	4,354	4,253	3,817	3,821	4,129	4,292	2,547	800	2,475	4,590	4,544	4,476	3,806	3,806	3,806	2,051	2,278	2,076	800	2,650	1,950	4,470	4,166
1975	4,356	4,254	3,817	3,953	4,247	4,279	2,947	1,500	2,650	4,585	4,540	4,474	3,813	3,813	3,813	2,475	2,436	2,523	800	2,475	2,628	4,499	4,437
1976	4,352	4,253	3,816	4,227	3,600	2,447	1,399	800	2,003	1,132	993	2,286	3,498	3,816	4,238	3,643	1,459	2,138	2,899	2,387	4,474	4,381	4,381
1977	2,552	4,195	1,243	1,334	800	800	800	800	920	2,433	2,703	2,784	800	800	800	2,143	2,695	3,894	3,000	4,600	4,578	4,494	4,494
1978	3,052	1,550	3,803	4,212	3,363	2,900	2,454	3,029	3,000	4,600	4,578	4,494	2,226	2,686	1,877	1,826	1,125	2,563	3,753	2,694	3,281	3,281	3,281
1979	4,391	4,265	3,724	3,825	3,477	2,587	2,652	1,500	3,000	4,588	4,543	3,791	914	3,817	3,804	4,254	2,947	1,500	3,000	4,519	4,490	4,418	4,418
1980	4,355	4,254	3,817	3,821	3,860	4,119	2,365	800	3,000	4,600	4,557	4,483	3,815	3,815	3,815	3,786	4,287	3,315	2,391	2,858	4,600	4,557	4,483
1981	4,369	3,930	3,818	3,823	4,250	4,256	2,203	1,125	2,563	4,573	3,951	3,890	4,225	1,748	1,924	3,593	2,947	1,500	3,000	4,600	4,558	4,483	4,483
1982	3,919	4,250	3,816	3,820	3,794	4,297	3,783	3,486	3,000	4,600	4,578	4,494	4,104	4,229	4,250	3,008	2,547	800	3,000	4,600	4,552	4,480	4,480
1983	4,391	4,265	4,227	4,232	1,801	2,678	2,687	3,892	3,000	4,600	4,578	4,494	3,822	4,247	4,264	2,132	1,500	2,548	2,464	3,376	3,136	3,136	3,136
1984	4,391	1,503	1,039	1,513	2,435	3,848	2,768	1,500	3,000	4,377	4,541	4,475	3,810	3,814	4,234	4,276	1,999	800	3,000	4,580	4,537	4,472	4,472
1985	4,353	4,253	3,817	3,821	4,247	4,190	1,627	800	2,475	4,566	4,526	4,466	3,816	3,820	4,246	2,259	2,452	2,274	3,000	4,560	4,521	4,464	4,464
1986	4,044	2,463	3,815	3,819	3,793	4,274	3,783	3,033	3,000	3,060	4,525	4,466	3,815	3,819	4,243	4,217	1,770	800	2,214	2,054	2,913	4,390	4,390
1987	4,337	4,248	3,815	2,332	2,920	1,834	1,771	800	1,582	1,679	1,308	3,114	3,819	4,244	4,244	3,089	2,547	800	3,000	4,566	4,526	4,466	4,466
1988	2,561	4,232	3,810	3,813	4,232	800	1,357	800	837	800	800	2,796	3,815	3,819	4,244	4,240	1,839	800	3,000	4,555	3,536	4,462	4,462
1989	3,090	1,675	3,577	3,807	1,909	4,217	2,397	800	1,072	3,031	2,099	3,179	3,818	3,818	3,818	4,242	4,240	2,395	800	2,475	3,209	4,454	4,338
1990	3,939	3,435	4,070	3,813	4,063	2,401	800	800	800	800	800	2,462	3,390	800	1,000	3,330	2,178	800	3,000	4,555	4,528	4,467	4,467
1991	2,951	1,159	800	938	800	4,229	800	800	1,708	800	3,543	2,891	3,815	3,819	3,808	4,309	2,162	3,187	3,000	4,600	4,578	4,494	4,494
1992	2,952	1,910	800	3,143	4,222	3,299	800	800	800	800	3,030	2,597	2,683	2,543	2,604	2,335	1,125	3,000	4,575	4,533	4,470	4,470	4,470
1993	2,348	1,738	3,809	3,812	3,782	4,276	2,747	1,125	2,563	4,559	4,521	4,464	3,816	3,820	3,795	4,286	2,747	1,125	2,840	4,580	4,537	4,472	4,472
1994	4,333	4,247	3,815	3,819	3,822	2,576	1,507	800	1,903	4,597	4,549	4,135	3,816	3,820	3,819	2,062	1,741	800	3,000	4,385	2,245	4,370	4,370
1995	3,775	3,598	3,400	3,462	3,457	3,248	2,181	1,403	2,473	3,535	3,656	3,943	3,811	4,151	4,234	2,828	2,460	800	2,475	3,339	4,535	4,471	4,471
1996	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,816	3,820	3,795	4,262	2,683	2,093	3,000	4,587	4,542	4,475	4,475
1997	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494
1998	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494
1999	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494
2000	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494
2001	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494
2002	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494
2003	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494
2004	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494
2005	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494
2006	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494
2007	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494
2008	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494
2009	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494
2010	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494
2011	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494	3,817	3,938	4,247	4,300	2,281	3,092	3,000	4,600	4,578	4,494	4,494
2012	4																						

Appendix C-3 CALSIM II Modeling

Base Existing Base CVP (Tracy) Delta Export (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	2,522	4,226	3,808	3,661	4,230	3,062	1,630	800	2,380	3,575	3,769	3,769
1962	3,114	4,111	3,814	4,194	4,241	4,277	2,120	1,125	3,000	4,556	4,519	3,546
1963	4,331	4,246	3,814	3,818	3,792	3,766	2,547	800	3,000	4,284	4,537	4,472
1964	4,349	4,252	3,816	3,820	4,244	1,370	2,138	800	2,796	4,517	3,464	3,487
1965	4,447	4,237	3,811	3,815	3,786	4,276	2,947	2,274	3,000	4,600	4,554	4,481
1966	4,366	4,257	3,818	3,822	4,249	4,281	2,057	1,125	3,000	4,569	4,026	3,452
1967	4,071	4,249	3,815	3,819	3,794	4,307	3,814	3,232	3,000	4,600	4,578	4,494
1968	4,391	4,265	4,227	3,399	2,891	2,634	2,225	1,125	2,563	4,587	4,341	3,489
1969	4,302	4,253	3,817	3,821	3,797	4,320	2,699	3,901	3,000	4,600	4,578	4,494
1970	4,391	4,265	2,158	1,514	1,802	3,207	2,148	800	2,813	1,983	4,528	4,151
1971	4,340	4,249	3,815	3,819	4,244	4,280	2,747	1,125	3,000	4,570	4,529	4,468
1972	4,341	4,249	3,815	3,819	4,243	4,282	1,641	800	3,000	4,556	3,352	3,946
1973	4,331	4,246	3,814	3,818	4,242	4,287	2,788	1,500	2,705	4,586	4,541	4,475
1974	4,354	4,253	3,817	3,821	4,129	4,292	2,547	800	2,475	4,590	4,544	4,476
1975	4,356	4,254	3,817	3,953	4,247	4,279	2,947	1,500	2,650	4,585	4,540	4,474
1976	4,352	4,253	3,816	4,227	3,600	2,447	1,399	800	2,003	1,132	993	2,286
1977	2,552	4,195	1,243	1,334	800	800	800	800	920	2,433	2,703	2,784
1978	3,052	1,550	3,803	4,212	3,363	2,900	2,454	3,029	3,000	4,600	4,578	4,494
1979	4,391	4,265	3,724	3,825	3,477	2,587	2,652	1,500	3,000	4,588	4,543	3,791
1980	4,355	4,254	3,817	3,821	3,860	4,119	2,365	800	3,000	4,600	4,557	4,483
1981	4,369	3,930	3,818	3,823	4,250	4,256	2,203	1,125	2,563	4,573	3,951	3,890
1982	3,919	4,250	3,816	3,820	3,794	4,297	3,783	3,486	3,000	4,600	4,578	4,494
1983	4,391	4,265	4,227	4,232	1,801	2,678	2,687	3,892	3,000	4,600	4,578	4,494
1984	4,391	1,503	1,039	1,513	2,435	3,848	2,768	1,500	3,000	4,377	4,541	4,475
1985	4,353	4,253	3,817	3,821	4,247	4,190	1,627	800	2,475	4,566	4,526	4,466
1986	4,044	2,463	3,815	3,819	3,793	4,274	3,783	3,033	3,000	3,060	4,525	4,466
1987	4,337	4,248	3,815	2,332	2,920	1,834	1,771	800	1,582	1,679	1,308	3,114
1988	2,561	4,232	3,810	3,813	4,232	800	1,357	800	837	800	800	2,796
1989	3,090	1,675	3,577	3,807	1,909	4,217	2,397	800	1,072	3,031	2,099	3,179
1990	3,939	3,435	4,070	3,813	4,063	2,401	800	800	800	800	800	2,462
1991	2,951	1,159	800	938	800	4,229	800	800	1,708	800	3,543	2,891
1992	2,952	1,910	800	3,143	4,222	3,299	800	800	800	800	3,030	2,597
1993	2,348	1,738	3,809	3,812	3,782	4,276	2,747	1,125	2,563	4,559	4,521	4,464
1994	4,333	4,247	3,815	3,819	3,822	2,576	1,507	800	1,903	4,597	4,549	4,135
Mean	3,775	3,598	3,400	3,462	3,457	3,248	2,181	1,403	2,473	3,535	3,656	3,943
Max	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494
Min	1,256	1,018	710	641	641	800	800	800	800	600	600	1,629

Appendix C-3 CALSIM II Modeling

Alt Existing Alt 3 X2 Position (KM)													
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1922	75	83	85	79	78	67	65	66	61	62	73	83	
1923	88	87	83	70	74	67	70	74	69	70	76	80	85
1924	87	87	84	85	82	79	77	81	85	84	82	86	
1925	89	89	86	83	81	64	65	67	69	76	82	82	
1926	88	87	85	84	80	68	74	70	74	81	83	84	
1927	89	87	77	77	70	55	59	59	63	72	76	84	
1928	86	87	80	80	74	70	57	63	68	77	79	84	
1929	89	86	84	83	82	79	78	80	81	82	86	85	
1930	89	88	85	81	76	74	69	74	76	81	83	85	
1931	89	87	85	85	82	81	82	81	85	84	83	88	
1932	90	88	86	77	74	71	74	75	74	76	82	84	
1933	89	88	85	85	78	79	77	77	81	82	86	84	
1934	89	90	84	83	77	74	75	76	81	81	85	85	
1935	89	89	84	85	72	74	70	62	64	71	78	84	
1936	88	87	84	85	70	59	64	66	69	74	79	85	
1937	88	87	83	85	82	67	62	64	68	74	79	83	
1938	88	88	77	63	64	52	47	52	54	58	72	82	
1939	83	78	83	82	79	79	77	77	77	82	84	86	
1940	89	85	86	86	71	61	54	55	65	75	78	84	
1941	87	87	83	68	56	51	52	53	58	67	75	82	
1942	83	84	85	66	57	50	62	59	61	66	75	83	
1943	81	81	82	73	59	58	54	61	65	75	76	84	
1944	86	87	85	84	82	72	72	72	75	79	83	87	
1945	89	84	82	79	80	67	68	71	71	76	80	85	
1946	88	87	82	64	61	65	69	72	73	77	80	85	
1947	88	86	83	81	81	76	73	75	77	81	83	87	
1948	89	84	85	86	81	77	76	70	67	71	78	84	
1949	87	86	84	83	82	80	67	72	73	78	82	84	
1950	88	87	84	84	76	69	71	70	70	74	79	84	
1951	87	87	69	57	55	55	62	68	68	78	77	84	
1952	87	87	82	69	58	55	55	55	55	59	73	82	
1953	78	76	83	68	56	64	69	71	68	70	76	84	
1954	81	85	82	83	71	62	61	61	66	77	79	84	
1955	87	85	83	76	74	75	79	76	75	79	83	84	
1956	89	86	84	62	50	52	59	66	62	69	76	83	
1957	80	81	84	84	81	70	64	68	70	75	78	84	
1958	87	81	84	77	68	52	51	51	56	62	74	82	
1959	79	78	83	84	71	63	66	74	76	80	80	85	
1960	87	87	83	85	82	72	72	74	75	81	83	85	

Appendix C-3 CALSIM II Modeling

Alt Existing Alt 3 X2 Position (KM)													
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1961	89	85	85	81	81	74	74	76	77	77	81	83	85
1962	89	85	85	81	82	67	68	72	73	79	79	81	85
1963	87	73	80	73	75	62	65	56	61	71	74	83	
1964	86	86	76	81	74	75	78	74	77	80	83	85	
1965	88	85	83	64	54	61	67	62	66	75	76	84	
1966	86	87	77	76	69	69	73	74	80	81	81	85	
1967	88	85	82	70	63	60	58	58	58	60	72	81	
1968	77	75	82	81	71	61	63	70	75	80	81	85	
1969	89	84	85	76	57	51	54	56	56	60	73	83	
1970	82	77	81	65	49	51	59	68	71	80	76	83	
1971	87	87	79	64	61	65	62	67	66	73	74	83	
1972	81	84	85	81	79	74	69	74	77	76	80	85	
1973	89	86	78	73	59	54	56	66	68	74	78	84	
1974	88	87	67	60	52	59	53	54	62	70	76	84	
1975	79	81	84	81	81	81	64	56	63	64	69	76	83
1976	79	78	83	82	82	80	79	79	84	85	82	88	
1977	90	86	87	85	84	82	82	81	84	84	84	87	
1978	89	88	86	82	64	59	57	59	64	70	76	83	
1979	86	87	85	83	73	64	64	69	70	74	79	85	
1980	89	86	83	78	59	51	55	64	67	74	77	83	
1981	85	86	86	82	76	72	69	72	75	81	83	87	
1982	88	84	72	59	55	52	53	49	56	64	74	83	
1983	80	72	65	57	52	47	42	49	52	52	61	71	
1984	69	67	58	49	53	59	62	68	72	77	76	84	
1985	87	87	73	73	73	78	77	75	76	76	81	83	85
1986	86	85	84	80	74	52	48	61	70	75	78	81	
1987	84	86	86	83	82	76	71	74	78	81	83	87	
1988	89	85	86	81	73	75	78	79	81	81	85	85	
1989	89	89	85	84	81	80	68	69	74	80	83	85	
1990	87	86	84	85	79	76	79	77	81	85	84	87	
1991	89	89	85	85	84	82	72	74	79	85	85	86	
1992	89	89	86	84	84	72	73	75	80	81	85	88	
1993	90	87	87	82	64	60	60	61	63	67	75	83	
1994	86	87	85	82	82	75	75	77	79	85	83	87	
Mean	86	85	82	77	71	66	66	68	70	75	79	84	
Max	90	90	87	86	84	84	82	82	81	85	85	86	88
Min	69	67	58	49	49	47	42	49	52	52	61	71	

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Base Existing Base X2 Position (KM)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	75	83	85	79	78	67	65	66	61	62	73	83
1923	88	87	83	70	67	70	74	69	70	76	80	85
1924	87	87	84	85	82	79	77	81	85	84	82	86
1925	89	89	86	83	81	64	65	67	69	76	82	82
1926	88	87	85	84	80	68	74	70	74	81	83	84
1927	89	87	77	77	70	55	59	59	63	72	76	84
1928	86	87	80	80	74	70	57	63	68	77	79	84
1929	89	86	84	83	82	79	78	80	81	82	86	85
1930	89	88	85	81	76	74	69	74	76	81	83	85
1931	89	87	85	85	82	81	82	81	85	84	83	88
1932	90	88	86	77	74	71	74	75	74	76	82	84
1933	89	88	85	85	78	79	77	77	81	82	86	84
1934	89	90	84	83	77	74	75	76	81	81	85	85
1935	89	89	84	85	72	74	70	62	64	71	78	84
1936	88	87	84	85	70	59	64	66	69	74	79	85
1937	88	87	83	85	82	67	62	64	68	74	79	83
1938	88	88	77	63	64	52	47	52	54	58	72	82
1939	83	78	83	82	79	79	77	77	77	82	84	86
1940	89	85	86	86	71	61	54	55	65	75	78	84
1941	87	87	83	86	56	51	52	53	58	67	75	82
1942	83	84	85	66	57	50	62	59	61	66	75	83
1943	81	81	82	73	59	58	54	61	65	75	76	84
1944	86	87	85	84	82	72	72	75	75	79	83	87
1945	89	84	82	79	80	67	68	71	71	76	80	85
1946	88	87	82	64	61	65	69	72	73	77	80	85
1947	88	86	83	81	81	76	73	75	77	81	83	87
1948	89	84	85	86	81	77	76	70	67	71	78	84
1949	87	86	84	83	82	80	67	72	73	78	82	84
1950	88	87	84	84	76	69	71	70	70	74	79	84
1951	87	87	69	57	55	55	62	68	68	78	77	84
1952	87	87	82	69	58	55	55	55	55	59	73	82
1953	78	76	83	68	56	64	69	71	68	70	76	84
1954	81	85	82	83	71	62	61	61	66	77	79	84
1955	87	85	83	76	74	75	79	76	75	79	83	84
1956	89	86	84	62	50	52	59	66	62	69	76	83
1957	80	81	84	84	84	81	70	64	68	70	75	84
1958	87	81	84	77	68	52	51	51	56	62	74	82
1959	79	78	83	84	71	63	66	74	76	80	80	85
1960	87	87	83	85	82	72	72	74	75	81	83	85

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Appendix C-3 CALSIM II Modeling

Base Existing Base X2 Position (KM)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	89	85	85	81	81	74	74	76	77	81	83	85
1962	89	85	85	81	82	67	68	72	73	79	81	85
1963	87	73	80	73	75	62	65	56	61	71	74	83
1964	86	86	76	81	74	75	78	74	77	80	83	85
1965	88	85	83	64	54	61	67	62	66	75	76	84
1966	86	87	77	76	69	69	73	74	80	81	85	84
1967	88	85	82	70	63	60	58	58	58	60	72	81
1968	77	75	82	81	71	61	63	70	75	80	81	85
1969	89	84	85	76	57	51	54	56	56	60	73	83
1970	82	77	81	65	49	51	59	68	71	80	76	83
1971	87	87	79	64	61	65	62	67	66	73	74	83
1972	81	84	85	81	79	74	69	74	77	76	80	85
1973	89	86	78	73	59	54	56	66	68	74	78	84
1974	88	87	67	60	52	59	53	54	62	70	76	84
1975	79	81	84	81	81	64	56	63	64	69	76	83
1976	79	78	83	82	82	80	79	79	84	85	82	88
1977	90	86	87	85	84	82	82	81	84	84	84	87
1978	89	88	86	82	64	59	57	59	64	70	76	83
1979	86	87	85	83	73	64	64	69	70	74	79	85
1980	89	86	83	78	59	51	55	64	67	74	77	83
1981	85	86	86	82	76	72	69	72	75	81	83	87
1982	88	84	72	59	55	52	53	49	56	64	74	83
1983	80	72	65	57	52	47	42	49	52	52	61	71
1984	69	67	58	49	53	59	62	68	72	77	76	84
1985	87	87	73	73	78	77	75	76	76	81	83	85
1986	86	85	84	80	74	52	48	61	70	75	78	81
1987	84	86	86	83	82	76	71	74	78	81	83	87
1988	89	85	86	81	73	75	78	79	81	81	85	85
1989	89	89	85	84	81	80	68	69	74	80	83	85
1990	87	86	84	85	79	76	79	77	81	85	84	87
1991	89	89	85	85	84	82	72	74	79	85	85	86
1992	89	89	86	84	84	72	73	75	80	81	85	88
1993	90	87	87	82	64	60	60	61	63	67	75	83
1994	86	87	85	82	82	75	75	77	79	85	83	87
Mean	86	85	82	77	71	66	66	68	70	75	79	84
Max	90	90	87	86	84	82	82	81	85	85	86	88
Min	69	67	58	49	49	47	42	49	52	52	61	71

Appendix C-3 CALSIM II Modeling

Alt Existing Alt 3 QWEST (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	-1,736	-1,851	-2,230	-2,245	6,538	2,648	5,447	13,671	7,343	-3,320	-2,405	-2,872
1923	-1,035	-2,764	3,242	3,294	2,166	-654	6,362	3,555	327	-3,320	-3,889	-2,799
1924	-929	-155	-2,207	-1,608	-2,803	2,444	34	-184	1,485	2,534	114	-31
1925	553	1,255	-1,871	-2,023	4,439	5,992	4,184	4,898	162	-3,904	529	-1,325
1926	-91	986	44	-3,815	-882	-784	2,420	2,351	-1,261	-2,967	-1,815	-1,103
1927	-59	-1,672	-3,393	-2,586	12,093	1,264	8,055	6,752	-73	-80	-4,265	-3,334
1928	-769	-2,569	-3,248	-1,993	-3,161	7,906	5,281	2,554	-1,022	-2,006	-2,321	-2,915
1929	-670	-1,832	-2,380	-2,156	-2,791	1,188	1,809	904	824	-176	2,002	-116
1930	573	1,942	-4,127	-2,902	-2,083	-3,457	1,405	1,848	125	-3,387	-2,585	-2,993
1931	593	-752	-939	-2,164	-1,605	894	877	-127	841	652	-1,611	-334
1932	1,172	1,134	-142	-1,338	3,392	1,645	4,755	3,597	784	-453	290	-2,540
1933	-104	859	-468	2,675	-613	-135	1,990	1,487	1,917	-1,256	2,056	-114
1934	123	2,865	-3,656	-1,476	1,872	1,962	1,635	436	1,966	-382	2,137	-45
1935	458	145	-1,381	-857	76	1,148	11,176	7,832	990	-2,898	-5,070	-3,227
1936	-1,853	715	-3,773	-836	18,719	1,714	6,078	6,988	1,757	-3,203	-4,746	-2,780
1937	-1,755	1,376	-3,893	-1,936	11,137	11,247	8,736	7,643	652	-2,344	-2,715	-2,011
1938	-574	-1,828	6,575	4,049	33,526	38,396	22,529	23,014	15,629	-2,391	-3,044	-2,786
1939	3,727	-3,598	-2,871	-371	-833	548	2,973	2,206	-245	-4,349	-3,695	-3,051
1940	-111	-527	-1,127	1,039	7,208	12,093	11,194	5,523	105	-3,994	-4,608	-3,029
1941	-1,947	-439	620	7,867	17,886	12,340	13,774	10,597	4,879	-3,661	-3,599	-3,450
1942	-1,425	-3,078	7,290	17,768	16,784	821	9,278	10,781	-948	-2,458	-3,837	-2,741
1943	-111	-3,012	-1,028	19,003	11,558	26,058	7,776	8,964	1,122	-305	-4,200	-3,456
1944	-1,095	-593	-2,244	-3,201	-2,205	-2,080	3,062	3,170	-815	-3,245	-3,857	-3,176
1945	802	-3,372	-3,071	-2,599	4,037	2,186	5,442	6,471	-499	-4,314	-3,947	-3,059
1946	-875	-2,454	6,999	2,259	3,191	-39	3,820	2,523	-396	-4,346	-4,241	-3,055
1947	-2,078	-845	-3,634	-943	-3,369	-2,137	915	1,549	-258	-3,509	-3,485	-3,460
1948	561	-2,481	-727	-3,701	-1,952	-1,228	3,889	4,382	245	-5,013	-5,199	-3,661
1949	-1,790	-297	-3,021	-1,204	-2,151	-56	2,489	3,386	-1,417	-4,934	-1,558	-2,689
1950	384	310	-307	-1,848	-1,990	-1,747	3,039	4,494	-532	-3,825	-4,292	-3,121
1951	-2,104	5,349	17,508	16,935	15,204	2,070	4,356	6,852	-201	-2,008	-4,893	-3,373
1952	-2,318	-2,644	1,048	13,140	8,587	14,523	17,884	18,465	9,331	-2,386	-3,991	-1,514
1953	3,341	-3,406	3,748	12,105	2,432	-2,015	3,258	5,823	2,116	-2,838	-3,964	-3,295
1954	-3,011	-3,833	-3,668	-2,951	1,397	-99	5,361	2,799	-804	-3,935	-4,155	-3,450
1955	-2,044	-3,117	-2,088	-1,673	-304	-568	2,342	2,440	-1,179	-2,871	-563	-1,911
1956	156	-1,913	19,095	26,677	14,581	2,724	4,902	11,259	2,706	-1,038	-3,937	-2,243
1957	-607	-2,797	-1,495	-2,788	-1,677	803	2,619	3,081	-751	-2,866	-4,323	-3,093
1958	-1,853	-4,500	-2,394	-441	11,201	14,203	25,997	15,174	4,415	-2,790	-3,987	-1,979
1959	1,688	-2,769	-2,834	-1,120	2,128	2,387	1,800	1,529	-232	-3,528	-4,633	-2,270
1960	-1,703	622	-1,772	-2,023	-2,999	-3,026	1,226	1,899	-1,091	-5,794	-1,242	-2,968

Appendix C-3 CALSIM II Modeling

Alt Existing Alt 3 QWEST (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	760	-3,044	-3,039	-1,576	-5,397	-2,357	129	1,096	601	-5,384	-3,211	-3,066
1962	-92	-2,107	-3,215	-1,558	4,094	-2,067	2,922	3,568	-975	-4,051	-5,120	-3,535
1963	-3,489	-4,691	-4,489	-2,764	5,789	-1,396	14,181	9,830	424	1,056	-4,196	-3,016
1964	-2,831	-4,394	-2,575	-1,775	-1,612	-1,081	672	734	-1,008	-5,636	-4,339	-3,238
1965	-333	-3,980	9,615	15,619	1,591	-878	8,687	5,294	900	-277	-4,135	-3,236
1966	-736	-667	149	-789	-1,097	-2,840	1,903	2,865	-1,067	-3,537	-4,473	-3,319
1967	-1,495	-3,932	-701	4,299	1,780	6,370	15,081	16,758	11,843	1,694	-3,981	-435
1968	2,154	-3,750	-2,655	63	5,394	1,330	2,174	1,757	-818	-2,589	-4,277	-3,156
1969	-1,793	-3,028	-1,920	22,292	31,886	17,581	22,608	25,307	21,973	-1,993	-2,719	-2,564
1970	3,731	-2,589	7,155	33,500	14,962	4,663	4,005	4,980	140	-2	-4,941	-3,524
1971	-2,370	-1,944	4,347	1,129	2,408	-105	2,997	6,412	-783	-2,578	-4,344	-3,185
1972	-3,237	-3,689	-3,080	-3,800	-3,074	-3,972	1,330	820	-487	-4,134	-3,077	-2,424
1973	-618	-2,114	-4,078	8,668	13,682	7,448	4,479	4,966	58	-4,036	-4,201	-2,850
1974	-2,095	1,493	4,496	8,910	871	9,846	15,001	8,631	1,766	-3,078	-4,304	-2,045
1975	-1,861	-3,922	-3,546	-3,909	7,615	11,339	5,347	8,074	1,963	-2,880	-4,104	-2,140
1976	-292	-4,202	-4,048	-3,201	-2,401	-2,045	855	78	-539	127	-1,850	-2,447
1977	962	-1,738	407	1,011	1,211	1,056	1,089	808	1,427	492	-1,532	-40
1978	765	1,644	-3,102	7,359	11,377	12,876	14,036	7,667	7,124	-4,048	-4,056	-3,309
1979	-1,028	-963	-183	1,300	8,431	7,443	4,441	4,958	-234	-4,531	-4,349	-2,697
1980	-1,042	-2,893	-2,764	17,343	27,301	13,902	6,447	7,788	3,740	-2,258	-3,854	-3,033
1981	-820	-591	-1,627	-2,503	-3,166	-350	2,273	2,029	-1,106	-4,987	-3,149	-3,098
1982	-876	-3,206	3,846	12,930	20,399	21,646	34,548	16,536	8,813	-2,034	-3,223	-3,48
1983	9,137	5,609	23,497	35,351	48,354	58,114	28,424	26,740	36,786	14,027	-1,726	880
1984	14,207	22,514	37,256	19,220	9,909	1,882	3,204	3,817	481	-476	-4,451	-3,560
1985	-2,221	-2,843	-2,049	-3,358	-3,053	-405	1,917	2,604	-797	-5,435	-4,600	-3,939
1986	-2,399	-964	-3,204	-995	33,654	30,758	7,605	4,264	2,653	-2,163	-3,501	-3,295
1987	-1,749	-873	-392	-3,184	-3,033	106	442	1,138	1,206	-2,583	-2,773	-2,452
1988	958	-1,180	-3,905	-3,530	-1,668	1,293	348	804	2,134	-967	1,985	-118
1989	480	782	-1,436	-1,385	791	-1,166	105	715	399	-4,528	-3,878	-3,023
1990	-2,021	-150	-4,589	-3,539	-2,048	-1,266	1,873	686	1,174	1,772	-1,146	-86
1991	549	1,717	1,588	1,628	1,083	-2,907	1,949	753	822	1,566	-2,589	-41
1992	501	1,801	1,939	-1,451	-2,154	-1,649	1,331	137	1,638	-970	-1,373	-1,010
1993	1,724	334	-1,023	11,157	5,966	5,025	5,664	7,290	-1,281	-4,087	-4,406	-3,538
1994	-1,733	-1,220	-1,847	-3,135	-4,365	285	733	834	-1,425	-4,786	-5,465	-3,127
Mean	-243	-963	480	3,196	5,337	4,633	6,150	5,635	1,994	-3,116	-2,403	-403
Max	14,207	22,514	37,256	35,351	48,354	58,114	34,548	26,740	36,786	14,027	2,137	880
Min	-3,489	-4,691	-4,589	-3,909	-5,397	-3,972	34	-184	-1,425	-5,794	-5,465	-3,939

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Appendix C-3 CALSIM II Modeling

Base Existing Base QWEST (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	-1,841	-2,066	-2,280	-2,245	6,538	2,648	5,447	13,671	7,343	-3,762	-2,809	-2,763
1923	-975	-2,640	3,085	3,289	2,041	-650	6,362	3,555	322	-3,321	-3,893	-2,715
1924	-891	-122	-2,155	-1,627	-2,835	2,436	34	-186	1,563	2,505	66	-79
1925	456	1,247	-1,873	-2,023	4,504	5,956	4,184	4,898	162	-3,903	642	-1,230
1926	-46	1,042	-8	-3,830	-1,001	-738	2,420	3,352	-1,261	-2,967	-1,812	-1,012
1927	23	-1,606	-3,456	-2,788	11,902	1,141	8,055	6,752	-1,111	-72	-4,261	-3,209
1928	-723	-2,518	-3,337	-2,161	-3,161	7,906	5,281	2,555	-1,017	-2,005	-2,324	-2,812
1929	-629	-1,797	-2,199	-2,099	-2,811	1,153	1,809	898	682	-393	2,063	-44
1930	646	1,991	-4,069	-2,902	-2,275	-3,422	1,405	1,848	7	-3,446	-2,495	-2,809
1931	674	-818	-968	-2,198	-1,672	807	775	-127	824	646	-1,630	-352
1932	1,159	1,125	-142	-1,338	3,571	1,690	4,683	3,592	781	-452	231	-2,408
1933	-59	860	-414	2,684	-707	-100	2,007	1,479	1,747	-1,277	2,086	-9
1934	67	2,773	-3,674	-1,476	1,672	1,870	1,658	429	1,963	-403	2,150	-52
1935	413	129	-1,381	-854	68	1,018	11,176	7,918	990	-2,900	-5,089	-3,115
1936	-1,803	780	-3,821	-832	18,741	1,674	6,078	6,988	1,719	-3,291	-4,749	-2,654
1937	-1,710	1,408	-3,725	-1,952	11,156	11,099	8,736	7,643	624	-2,477	-2,829	-1,933
1938	-525	-1,683	3,267	3,919	33,526	38,396	22,529	23,014	15,629	-2,389	-3,042	-2,772
1939	3,714	-3,597	-2,871	-371	-827	552	2,973	2,207	-241	-4,302	-3,570	-2,988
1940	-88	-518	-1,104	1,049	7,232	12,105	11,119	5,515	69	-4,125	-4,658	-2,928
1941	-1,916	-409	620	7,845	17,657	12,312	13,774	10,597	4,879	-3,650	-3,596	-3,365
1942	-1,318	-2,955	7,288	17,730	16,771	694	9,278	10,781	-1,014	-2,473	-3,839	-2,670
1943	-180	-3,012	-1,028	19,003	11,558	26,058	7,776	8,964	1,122	-303	-4,197	-3,339
1944	-1,054	-569	-2,234	-3,156	-2,187	-2,039	3,062	3,170	-815	-3,360	-3,735	-3,121
1945	824	-3,363	-3,047	-2,599	3,918	2,118	5,442	6,471	-525	-4,447	-3,874	-2,971
1946	-834	-2,491	6,996	2,258	3,167	-129	3,820	2,523	-422	-4,467	-4,149	-2,968
1947	-2,041	-828	-3,485	-943	-3,520	-2,214	915	1,549	-403	-3,683	-3,352	-3,405
1948	611	-2,432	-664	-3,621	-1,990	-1,251	3,669	4,350	245	-5,014	-5,079	-3,568
1949	-1,752	-324	-2,839	-1,204	-2,177	-89	2,489	3,386	-1,424	-5,066	-1,472	-2,608
1950	417	329	-272	-1,796	-1,990	-1,860	2,878	4,486	-568	-3,958	-4,292	-3,023
1951	-2,052	5,460	17,296	16,728	15,164	2,070	4,356	6,852	-195	-2,007	-4,897	-3,275
1952	-2,278	-2,607	987	13,122	8,403	14,523	17,884	18,465	9,331	-2,374	-3,994	-1,514
1953	3,341	-3,409	3,748	12,105	2,432	-2,015	3,258	5,823	2,116	-2,835	-3,961	-3,176
1954	-2,964	-3,772	-3,627	-2,952	1,197	-174	5,361	2,800	-803	-3,934	-4,159	-3,330
1955	-2,011	-3,081	-2,127	-1,676	-483	-606	2,342	2,440	-1,175	-2,867	-544	-1,828
1956	179	-1,899	19,103	26,663	14,402	2,643	4,902	11,259	2,706	-982	-3,931	-2,212
1957	-638	-2,789	-1,474	-2,745	-1,747	803	2,619	3,081	-751	-2,865	-4,327	-2,991
1958	-1,787	-4,353	-2,574	-450	11,055	14,203	25,997	15,174	4,415	-2,789	-3,987	-1,979
1959	1,688	-2,762	-2,822	-1,126	2,121	2,386	1,800	1,529	-222	-3,521	-4,637	-2,182
1960	-1,669	676	-1,770	-2,020	-3,034	-2,985	1,226	1,899	-1,090	-5,668	-1,128	-2,862

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Appendix C-3 CALSIM II Modeling

Year	Base Existing Base QWEST (CFS)												Difference Existing Alt 3 minus Existing Base QWEST (CFS)
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1961	179	-3,074	-2,922	-1,576	-5,382	-2,407	66	1,094	456	-5,435	-3,589	-3,080	-109
1962	819	-2,156	-3,215	-1,555	4,094	-2,096	2,732	3,560	-974	-4,107	-5,115	-3,471	4
1963	-3,546	-4,691	-4,683	-2,859	5,789	-1,396	14,181	9,830	427	1,058	-4,195	-2,948	47
1964	-2,777	-4,358	-2,640	-1,929	-1,605	-1,077	672	734	-1,004	-5,630	-4,223	-3,174	-94
1965	-305	-3,908	9,615	15,619	1,450	-956	8,687	5,295	862	-333	-4,134	-3,132	-92
1966	-698	-557	-61	-882	-1,085	-2,851	1,903	2,865	-1,057	-3,531	-4,412	-3,238	-125
1967	-1,468	-3,767	-863	4,261	1,585	6,324	15,081	16,758	11,843	1,694	-3,981	-435	-104
1968	2,154	-3,748	-2,655	63	5,394	1,330	2,174	1,757	-819	-2,584	-4,217	-3,094	-72
1969	-1,765	-3,003	-1,849	22,292	31,663	17,464	22,608	25,307	21,973	-1,992	-2,716	-2,564	-183
1970	3,731	-2,589	7,155	33,500	14,962	4,663	4,005	4,980	149	1	-4,939	-3,410	18
1971	-2,331	-1,893	4,246	994	2,409	-105	2,997	6,412	-772	-2,575	-4,341	-3,111	132
1972	-3,250	-3,636	-3,036	-3,772	-3,273	-3,981	1,330	820	-476	-4,127	-3,045	-2,349	-105
1973	-573	-2,084	-4,078	8,462	13,619	7,448	4,479	4,966	60	-4,035	-4,205	-2,744	7
1974	-2,051	1,541	4,409	8,750	871	9,846	15,001	8,631	1,766	-3,076	-4,301	-1,973	-112
1975	-1,931	-3,920	-3,519	-3,879	7,552	11,339	5,347	8,074	1,963	-2,877	-4,102	-2,084	-127
1976	-346	-4,202	-4,028	-3,154	-2,371	-2,041	855	76	-436	153	-1,908	-2,360	-14
1977	993	-1,753	358	952	1,133	976	1,032	802	1,412	486	-1,549	-55	-63
1978	754	1,631	-3,102	7,359	11,448	12,877	14,110	7,718	7,124	-4,047	-4,093	-3,205	-101
1979	-928	-867	-1,135	1,302	8,230	7,316	4,441	4,958	-261	-4,621	-4,276	-2,616	-85
1980	-1,008	-2,856	-2,769	17,322	27,066	13,846	6,447	7,788	3,740	-2,257	-3,858	-2,961	-72
1981	-738	-517	-1,563	-2,509	-3,336	-475	2,273	2,029	-1,117	-4,946	-3,029	-3,036	-85
1982	-851	-3,189	3,846	12,735	20,193	21,585	34,548	16,536	8,813	-1,978	-3,195	-348	-117
1983	9,137	5,609	23,497	35,351	48,354	58,114	28,424	26,740	36,786	14,027	-1,726	880	-55
1984	14,207	22,514	37,256	19,220	9,909	1,882	3,204	3,817	494	-472	-4,448	-3,457	-88
1985	-2,180	-2,806	-2,120	-3,524	-3,042	-406	1,917	2,605	-794	-5,387	-4,495	-3,877	-87
1986	-2,363	-940	-2,993	-995	33,728	30,552	7,503	4,257	2,617	-2,292	-3,576	-3,214	-55
1987	-1,685	-822	-357	-3,143	-3,018	80	442	1,138	1,198	-2,714	-2,674	-2,382	-88
1988	979	-1,160	-3,786	-3,530	-1,668	1,268	348	804	1,981	-1,190	2,005	-32	-93
1989	551	837	-1,466	-1,385	718	-1,131	68	712	400	-4,612	-3,690	-2,881	-81
1990	-2,092	-197	-4,586	-3,610	-2,078	-1,356	1,791	682	1,063	1,859	-1,214	-108	-98
1991	470	1,707	1,588	1,628	1,101	-2,907	1,904	748	854	1,536	-2,643	-58	-97
1992	489	1,792	1,939	-1,451	-2,154	-1,613	1,280	129	1,626	-983	-1,388	-1,024	0
1993	1,715	328	-1,023	11,157	5,979	5,025	5,651	7,290	-1,281	-4,086	-4,443	-3,448	-119
1994	-1,644	-1,126	-1,767	-3,115	-4,330	204	733	834	-1,479	-4,638	-5,344	-3,173	-120
Mean	-223	-938	475	3,171	5,484	4,621	6,134	5,635	1,977	-2,306	-3,092	-2,335	-83
Max	14,207	22,514	37,256	35,351	48,354	58,114	34,548	26,740	36,786	14,027	2,150	880	-31
Min	-3,546	-4,691	-4,683	-3,879	-5,382	-3,981	34	-186	-1,479	-5,668	-5,344	-3,877	0

Year	Difference Existing Alt 3 minus Existing Base QWEST (CFS)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1922	105	214	50	0	0	0	0	0	0	0	0	0	-109
1923	-60	-124	157	5	125	-4	0	0	0	6	1	4	-84
1924	-38	-33	-52	19	32	9	0	2	-78	29	49	47	47
1925	97	7	2	0	-66	36	0	0	1	0	-113	-94	-94
1926	-45	-56	52	15	119	-46	0	-2	-1	0	-2	-92	-92
1927	-82	-65	63	202	190	123	0	0	38	-8	-3	-125	-125
1928	-46	-51	89	168	0	0	0	-1	-4	-1	4	-104	-104
1929	-41	-35	-181	-58	20	36	0	6	142	217	-61	-72	-72
1930	-73	-49	-58	0	191	-35	0	0	118	59	-89	-183	-183
1931	-81	66	29	34	67	87	102	0	17	6	19	18	18
1932	13	9	0	0	-179	-45	72	5	3	0	59	-132	-132
1933	-45	-1	-54	-9	94	-35	-17	8	170	21	-29	-105	-105
1934	56	92	18	-1	200	92	-23	7	3	21	-13	7	7
1935	45	17	0	-3	8	131	0	-86	0	2	19	-112	-112
1936	-50	-65	48	-4	-21	40	0	0	38	88	4	-127	-127
1937	-45	-32	-168	16	-19	147	0	0	28	133	114	-77	-77
1938	-49	-145	207	130	0	0	0	0	-1	-4	-47	-125	-63
1939	13	-2	0	0	-6	-4	0	-1	-4	-47	-125	-63	-63
1940	-23	-8	-23	-10	-24	-12	75	7	36	131	50	-101	-101
1941	-31	-30	0	21	229	28	0	0	0	-11	-2	-85	-85
1942	-106	-123	2	38	13	127	0	0	66	15	2	-72	-72
1943	69	0	0	0	0	0	0	0	0	-3	-2	-117	-117
1944	-40	-24	-10	-45	-18	-41	0	0	-1	115	-122	-55	-55
1945	-21	-9	-24	0	119	67	0	0	26	133	-73	-88	-88
1946	-41	37	3	1	24	90	0	0	26	122	-92	-87	-87
1947	-37	-17	-150	0	152	77	0	0	145	174	-133	-55	-55
1948	-50	-50	-63	-80	38	23	221	32	0	2	-120	-93	-93
1949	-38	27	-182	0	26	33	0	0	8	131	-86	-81	-81
1950	-33	-19	-35	-52	0	113	161	8	36	133	0	-98	-98
1951	-52	-111	213	207	39	0	0	0	-6	-1	4	-97	-97
1952	-40	-37	61	17	183	0	0	0	0	-11	3	0	0
1953	0	3	0	0	0	0	0	0	0	0	-3	-2	-119
1954	-47	-61	-1	2	200	75	0	-1	-1	-1	4	-120	-120
1955	-33	-35	39	3	179	38	0	0	-4	-4	-18	-83	-83
1956	-23	-14	-8	14	180	81	0	0	0	-57	-6	-31	-31
1957	30	-7	-20	-43	70	0	0	0	1	-2	4	-101	-101
1958	-65	-146	180	9	146	0	0	0	0	-1	0	0	0
1959	0	-7	-12	6	7	0	0	0	-10	-7	4	-88	-88
1960	-34	-54	-3	-2	35	-41	0	0	-1	-127	-113	-106	-106

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Year	Difference Existing Alt 3 minus Existing Base QWEST (CFS)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1961	-59	30	-117	0	-15	49	63	3	145	3	51	-132	14
1962	87	49	0	-3	0	29	189	8	-1	55	-94	-64	
1963	57	0	194	95	0	1	0	0	-3	-2	-2	-68	
1964	-54	-36	64	154	-6	-4	0	0	-4	-6	-116	-64	
1965	-27	-72	0	0	141	78	0	-1	38	55	-1	-105	
1966	-38	-109	210	94	-12	11	0	0	-10	-6	-60	-81	
1967	-27	-164	162	38	195	46	0	0	0	0	0	0	
1968	0	-2	0	0	0	0	0	0	0	-5	-60	-62	
1969	-28	-26	-71	0	224	118	0	0	0	0	-1	-2	
1970	0	0	0	0	0	0	0	0	-9	-3	-1	-114	
1971	-39	-50	101	135	-1	0	0	0	-12	-3	-2	-74	
1972	13	-53	-44	-28	199	9	0	0	-11	-7	-32	-75	
1973	-45	-29	0	206	63	0	0	0	-2	-1	4	-105	
1974	-43	-48	87	161	0	0	0	0	0	-2	-3	-72	
1975	70	-2	-27	-30	63	0	0	0	0	-2	-2	-56	
1976	54	0	-20	-48	-30	-4	0	2	-103	-27	58	-87	
1977	-30	15	50	58	78	80	57	6	15	6	17	15	
1978	11	14	0	0	-71	-1	-74	-51	0	0	37	-104	
1979	-99	-95	-48	-3	200	126	0	0	27	90	-73	-81	
1980	-34	-37	5	21	235	54	0	0	0	-1	4	-72	
1981	-82	-74	-63	6	171	125	0	0	11	-40	-120	-61	
1982	-25	-17	0	195	207	61	0	0	0	-55	-29	0	
1983	0	0	0	0	0	0	0	0	0	0	0	0	
1984	0	0	0	0	0	0	0	0	-13	-4	-3	-103	
1985	-41	-37	70	166	-12	1	0	-1	-4	-48	-105	-62	
1986	-35	-24	-211	0	-74	205	102	7	37	130	76	-81	
1987	-64	-51	-34	-41	-15	26	0	0	9	131	-98	-71	
1988	-21	-19	-119	0	0	25	0	0	152	223	-19	-86	
1989	-71	-55	29	0	73	-35	37	3	-1	84	-189	-142	
1990	71	47	-3	71	30	90	82	4	112	-87	68	22	
1991	79	10	0	0	-19	0	45	5	-32	30	54	17	
1992	12	8	0	0	0	-36	51	7	12	13	15	14	
1993	10	6	0	0	-14	0	13	0	0	0	37	-90	
1994	-88	-95	-79	-20	-35	81	0	0	54	-148	-121	-46	
Mean	-20	-25	4	25	54	32	16	0	16	23	-24	-68	
Max	105	214	213	207	235	205	221	32	170	223	114	47	
Min	-106	-164	-211	-80	-179	-46	-74	-86	-103	-148	-189	-183	

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Year	Alt Existing Alt 3 E/I Ratio												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1922	0.61	0.59	0.51	0.57	0.25	0.29	0.20	0.05	0.19	0.48	0.57	0.64	
1923	0.65	0.57	0.27	0.31	0.35	0.35	0.17	0.19	0.35	0.49	0.62	0.65	
1924	0.59	0.45	0.57	0.50	0.45	0.09	0.24	0.17	0.10	0.08	0.35	0.46	
1925	0.53	0.35	0.54	0.54	0.17	0.04	0.21	0.11	0.31	0.51	0.35	0.60	
1926	0.53	0.37	0.42	0.53	0.25	0.30	0.19	0.11	0.31	0.42	0.45	0.54	
1927	0.52	0.41	0.50	0.31	0.06	0.20	0.12	0.09	0.35	0.32	0.61	0.65	
1928	0.59	0.49	0.57	0.41	0.35	0.11	0.17	0.18	0.35	0.39	0.52	0.63	
1929	0.53	0.55	0.55	0.55	0.45	0.21	0.18	0.15	0.24	0.30	0.12	0.46	
1930	0.46	0.25	0.52	0.47	0.37	0.32	0.22	0.11	0.26	0.47	0.51	0.65	
1931	0.46	0.48	0.47	0.53	0.43	0.20	0.11	0.15	0.19	0.18	0.45	0.47	
1932	0.38	0.35	0.45	0.45	0.38	0.30	0.13	0.12	0.25	0.31	0.34	0.61	
1933	0.52	0.38	0.46	0.24	0.38	0.30	0.14	0.17	0.11	0.34	0.14	0.45	
1934	0.52	0.15	0.58	0.40	0.24	0.12	0.08	0.11	0.09	0.28	0.10	0.44	
1935	0.47	0.42	0.55	0.33	0.35	0.26	0.09	0.04	0.27	0.44	0.61	0.64	
1936	0.61	0.38	0.64	0.25	0.13	0.27	0.18	0.07	0.27	0.46	0.61	0.64	
1937	0.62	0.33	0.64	0.59	0.24	0.21	0.16	0.17	0.31	0.44	0.53	0.62	
1938	0.60	0.40	0.13	0.23	0.05	0.05	0.09	0.11	0.17	0.47	0.58	0.60	
1939	0.47	0.64	0.53	0.42	0.45	0.35	0.19	0.15	0.28	0.51	0.57	0.65	
1940	0.49	0.49	0.51	0.29	0.18	0.10	0.08	0.12	0.32	0.48	0.62	0.65	
1941	0.63	0.45	0.21	0.11	0.09	0.12	0.09	0.10	0.26	0.48	0.59	0.61	
1942	0.63	0.63	0.11	0.07	0.05	0.30	0.11	0.07	0.28	0.45	0.61	0.56	
1943	0.58	0.62	0.31	0.11	0.15	0.10	0.16	0.06	0.32	0.35	0.62	0.65	
1944	0.62	0.51	0.55	0.58	0.38	0.35	0.26	0.18	0.35	0.48	0.59	0.65	
1945	0.44	0.59	0.51	0.57	0.23	0.35	0.20	0.07	0.35	0.50	0.60	0.65	
1946	0.64	0.55	0.15	0.21	0.21	0.35	0.24	0.24	0.35	0.51	0.60	0.65	
1947	0.61	0.50	0.57	0.49	0.45	0.35	0.21	0.08	0.30	0.48	0.57	0.64	
1948	0.46	0.59	0.47	0.53	0.35	0.35	0.18	0.12	0.31	0.51	0.61	0.64	
1949	0.59	0.46	0.55	0.48	0.45	0.23	0.21	0.09	0.35	0.53	0.47	0.63	
1950	0.47	0.42	0.44	0.45	0.29	0.35	0.20	0.07	0.33	0.48	0.59	0.64	
1951	0.64	0.20	0.10	0.11	0.09	0.27	0.20	0.06	0.35	0.39	0.62	0.64	
1952	0.65	0.54	0.23	0.13	0.14	0.14	0.07	0.08	0.17	0.47	0.61	0.49	
1953	0.44	0.64	0.14	0.07	0.25	0.34	0.22	0.08	0.25	0.43	0.61	0.55	
1954	0.65	0.57	0.60	0.29	0.17	0.21	0.13	0.15	0.35	0.46	0.61	0.64	
1955	0.58	0.57	0.40	0.48	0.33	0.35	0.17	0.11	0.34	0.46	0.39	0.59	
1956	0.48	0.54	0.11	0.07	0.11	0.21	0.20	0.03	0.31	0.39	0.61	0.54	
1957	0.57	0.60	0.51	0.54	0.29	0.22	0.21	0.21	0.21	0.35	0.43	0.60	0.64
1958	0.54	0.65	0.42	0.26	0.05	0.11	0.07	0.10	0.23	0.47	0.61	0.51	
1959	0.49	0.62	0.59	0.25	0.21	0.17	0.25	0.15	0.27	0.44	0.61	0.64	
1960	0.60	0.36	0.53	0.54	0.34	0.35	0.21	0.11	0.31	0.54	0.42	0.62	

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Appendix C-3 CALSIM II Modeling

Year	Alt Existing Alt 3 E/I Ratio											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	0.41	0.61	0.49	0.57	0.38	0.35	0.22	0.09	0.20	0.52	0.55	0.65
1962	0.46	0.57	0.50	0.51	0.23	0.35	0.23	0.10	0.33	0.47	0.62	0.65
1963	0.28	0.62	0.35	0.56	0.14	0.29	0.06	0.04	0.34	0.29	0.61	0.64
1964	0.65	0.38	0.55	0.40	0.35	0.35	0.20	0.18	0.35	0.55	0.57	0.64
1965	0.51	0.60	0.13	0.09	0.29	0.34	0.12	0.15	0.35	0.35	0.63	0.64
1966	0.57	0.41	0.50	0.33	0.35	0.35	0.23	0.13	0.34	0.48	0.60	0.64
1967	0.55	0.60	0.25	0.21	0.18	0.18	0.14	0.11	0.17	0.46	0.60	0.45
1968	0.44	0.65	0.54	0.24	0.13	0.20	0.22	0.16	0.31	0.42	0.63	0.65
1969	0.56	0.61	0.38	0.10	0.08	0.14	0.09	0.11	0.19	0.47	0.56	0.58
1970	0.45	0.56	0.09	0.03	0.08	0.21	0.20	0.09	0.33	0.30	0.62	0.65
1971	0.65	0.50	0.16	0.20	0.17	0.22	0.20	0.07	0.35	0.41	0.61	0.54
1972	0.65	0.64	0.53	0.55	0.37	0.29	0.22	0.17	0.29	0.48	0.55	0.64
1973	0.56	0.48	0.37	0.13	0.11	0.17	0.23	0.12	0.30	0.48	0.60	0.64
1974	0.65	0.17	0.14	0.09	0.24	0.10	0.07	0.05	0.29	0.48	0.62	0.48
1975	0.60	0.65	0.55	0.59	0.14	0.12	0.20	0.08	0.31	0.47	0.63	0.50
1976	0.51	0.64	0.59	0.58	0.45	0.35	0.23	0.17	0.29	0.28	0.57	0.63
1977	0.48	0.61	0.38	0.36	0.19	0.15	0.10	0.14	0.11	0.21	0.46	0.48
1978	0.43	0.30	0.56	0.15	0.10	0.11	0.11	0.19	0.27	0.48	0.59	0.64
1979	0.63	0.51	0.42	0.38	0.21	0.20	0.20	0.13	0.29	0.51	0.61	0.63
1980	0.58	0.56	0.46	0.11	0.08	0.13	0.19	0.07	0.29	0.49	0.59	0.64
1981	0.64	0.50	0.47	0.45	0.35	0.30	0.22	0.15	0.32	0.53	0.56	0.65
1982	0.53	0.29	0.11	0.14	0.11	0.13	0.06	0.13	0.24	0.47	0.60	0.53
1983	0.34	0.23	0.12	0.07	0.02	0.02	0.06	0.08	0.08	0.27	0.46	0.30
1984	0.17	0.05	0.02	0.08	0.16	0.25	0.23	0.16	0.31	0.35	0.62	0.64
1985	0.65	0.31	0.43	0.59	0.45	0.35	0.22	0.10	0.31	0.55	0.60	0.65
1986	0.62	0.54	0.52	0.40	0.06	0.07	0.25	0.28	0.35	0.44	0.56	0.65
1987	0.64	0.52	0.43	0.57	0.42	0.24	0.21	0.09	0.16	0.45	0.54	0.61
1988	0.42	0.54	0.53	0.36	0.33	0.13	0.23	0.11	0.09	0.32	0.13	0.42
1989	0.47	0.37	0.51	0.45	0.26	0.23	0.20	0.11	0.23	0.50	0.54	0.65
1990	0.59	0.43	0.63	0.49	0.38	0.35	0.09	0.18	0.11	0.09	0.43	0.46
1991	0.45	0.26	0.23	0.25	0.17	0.33	0.14	0.15	0.21	0.10	0.51	0.42
1992	0.48	0.26	0.19	0.53	0.33	0.35	0.16	0.11	0.12	0.34	0.44	0.52
1993	0.37	0.43	0.49	0.17	0.19	0.18	0.13	0.06	0.23	0.48	0.60	0.64
1994	0.64	0.52	0.48	0.59	0.43	0.22	0.22	0.19	0.34	0.49	0.63	0.61
Mean	0.53	0.47	0.41	0.35	0.25	0.23	0.17	0.12	0.27	0.42	0.54	0.59
Max	0.65	0.65	0.64	0.59	0.45	0.35	0.26	0.28	0.35	0.55	0.63	0.65
Min	0.17	0.05	0.02	0.03	0.02	0.02	0.06	0.03	0.08	0.08	0.10	0.30

Year	Base Existing Base E/I Ratio											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0.61	0.58	0.51	0.57	0.25	0.29	0.20	0.05	0.19	0.48	0.57	0.65
1923	0.65	0.57	0.27	0.31	0.35	0.35	0.17	0.19	0.35	0.49	0.62	0.65
1924	0.59	0.45	0.57	0.50	0.45	0.09	0.24	0.17	0.10	0.08	0.35	0.46
1925	0.52	0.35	0.54	0.54	0.17	0.04	0.21	0.11	0.31	0.51	0.36	0.61
1926	0.54	0.37	0.42	0.53	0.25	0.30	0.19	0.11	0.31	0.42	0.45	0.55
1927	0.53	0.41	0.50	0.31	0.06	0.20	0.12	0.09	0.35	0.32	0.61	0.65
1928	0.59	0.49	0.57	0.41	0.35	0.11	0.17	0.18	0.35	0.39	0.52	0.64
1929	0.53	0.55	0.55	0.55	0.45	0.21	0.18	0.15	0.24	0.30	0.12	0.47
1930	0.46	0.25	0.52	0.47	0.37	0.32	0.22	0.11	0.25	0.47	0.51	0.66
1931	0.46	0.48	0.47	0.53	0.42	0.20	0.11	0.15	0.19	0.18	0.45	0.47
1932	0.38	0.35	0.45	0.45	0.38	0.30	0.13	0.12	0.25	0.31	0.34	0.62
1933	0.52	0.38	0.46	0.24	0.38	0.30	0.14	0.17	0.11	0.34	0.14	0.46
1934	0.51	0.15	0.58	0.40	0.24	0.12	0.08	0.11	0.09	0.28	0.10	0.44
1935	0.46	0.42	0.55	0.33	0.35	0.26	0.09	0.04	0.27	0.44	0.61	0.65
1936	0.61	0.38	0.63	0.25	0.13	0.27	0.18	0.07	0.27	0.46	0.61	0.65
1937	0.62	0.33	0.65	0.59	0.24	0.21	0.16	0.17	0.31	0.43	0.53	0.62
1938	0.61	0.40	0.13	0.23	0.05	0.05	0.09	0.11	0.17	0.47	0.58	0.60
1939	0.47	0.64	0.53	0.42	0.45	0.35	0.19	0.15	0.28	0.51	0.58	0.65
1940	0.50	0.50	0.51	0.29	0.18	0.10	0.08	0.12	0.32	0.48	0.61	0.65
1941	0.63	0.45	0.21	0.11	0.09	0.12	0.09	0.10	0.26	0.48	0.59	0.61
1942	0.63	0.63	0.11	0.07	0.05	0.30	0.11	0.07	0.28	0.45	0.61	0.56
1943	0.58	0.62	0.31	0.11	0.15	0.10	0.16	0.06	0.32	0.35	0.62	0.65
1944	0.62	0.51	0.55	0.58	0.38	0.35	0.26	0.18	0.35	0.48	0.60	0.65
1945	0.44	0.59	0.51	0.57	0.23	0.35	0.20	0.07	0.35	0.50	0.61	0.65
1946	0.64	0.54	0.15	0.21	0.21	0.35	0.24	0.24	0.35	0.51	0.61	0.65
1947	0.61	0.50	0.57	0.49	0.45	0.35	0.21	0.08	0.29	0.48	0.57	0.64
1948	0.46	0.59	0.47	0.53	0.35	0.35	0.18	0.12	0.31	0.51	0.62	0.65
1949	0.60	0.45	0.55	0.48	0.45	0.23	0.21	0.09	0.35	0.53	0.48	0.64
1950	0.48	0.42	0.44	0.45	0.29	0.35	0.20	0.07	0.33	0.47	0.59	0.65
1951	0.64	0.20	0.10	0.11	0.09	0.27	0.20	0.06	0.35	0.39	0.62	0.65
1952	0.65	0.54	0.23	0.13	0.14	0.14	0.07	0.08	0.17	0.47	0.61	0.49
1953	0.44	0.64	0.14	0.07	0.25	0.34	0.22	0.08	0.25	0.43	0.61	0.55
1954	0.65	0.57	0.60	0.29	0.17	0.21	0.13	0.15	0.35	0.46	0.61	0.65
1955	0.58	0.57	0.40	0.48	0.32	0.35	0.17	0.11	0.34	0.46	0.39	0.60
1956	0.48	0.54	0.11	0.07	0.11	0.21	0.20	0.03	0.31	0.39	0.61	0.54
1957	0.57	0.60	0.51	0.54	0.29	0.22	0.21	0.21	0.35	0.43	0.60	0.65
1958	0.54	0.66	0.42	0.26	0.05	0.11	0.07	0.10	0.23	0.47	0.61	0.51
1959	0.49	0.62	0.59	0.25	0.21	0.17	0.25	0.15	0.27	0.44	0.61	0.65
1960	0.60	0.36	0.53	0.54	0.34	0.35	0.21	0.11	0.31	0.54	0.42	0.63

Appendix C-3 CALSIM II Modeling

Base Existing Base E/I Ratio													
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1961	0.41	0.61	0.49	0.57	0.38	0.35	0.22	0.09	0.20	0.32	0.52	0.36	0.65
1962	0.45	0.57	0.50	0.51	0.23	0.35	0.23	0.10	0.30	0.47	0.63	0.63	0.65
1963	0.28	0.62	0.35	0.56	0.14	0.29	0.06	0.04	0.34	0.29	0.61	0.61	0.65
1964	0.65	0.38	0.55	0.40	0.35	0.35	0.20	0.18	0.35	0.55	0.58	0.58	0.65
1965	0.52	0.60	0.13	0.09	0.29	0.34	0.12	0.15	0.35	0.35	0.63	0.63	0.65
1966	0.57	0.41	0.50	0.33	0.35	0.35	0.23	0.13	0.34	0.48	0.60	0.60	0.65
1967	0.55	0.60	0.25	0.21	0.18	0.18	0.14	0.11	0.17	0.46	0.60	0.60	0.45
1968	0.44	0.65	0.54	0.24	0.13	0.20	0.22	0.16	0.31	0.42	0.64	0.64	0.65
1969	0.56	0.61	0.38	0.10	0.08	0.14	0.09	0.11	0.19	0.47	0.56	0.56	0.58
1970	0.45	0.56	0.09	0.03	0.08	0.21	0.20	0.09	0.33	0.30	0.62	0.62	0.65
1971	0.65	0.50	0.16	0.20	0.17	0.22	0.20	0.07	0.35	0.41	0.61	0.61	0.54
1972	0.65	0.64	0.53	0.55	0.37	0.29	0.22	0.17	0.29	0.48	0.55	0.55	0.65
1973	0.56	0.48	0.37	0.13	0.11	0.17	0.23	0.12	0.30	0.48	0.60	0.60	0.65
1974	0.65	0.17	0.14	0.09	0.24	0.10	0.07	0.05	0.29	0.48	0.62	0.62	0.48
1975	0.60	0.65	0.55	0.59	0.14	0.12	0.20	0.08	0.31	0.47	0.63	0.63	0.50
1976	0.51	0.64	0.59	0.58	0.45	0.35	0.23	0.17	0.29	0.28	0.57	0.57	0.63
1977	0.48	0.61	0.38	0.36	0.19	0.15	0.10	0.14	0.11	0.21	0.46	0.46	0.48
1978	0.43	0.30	0.56	0.15	0.10	0.11	0.11	0.19	0.27	0.48	0.59	0.59	0.65
1979	0.64	0.51	0.42	0.38	0.21	0.20	0.23	0.13	0.29	0.51	0.61	0.61	0.64
1980	0.58	0.56	0.46	0.11	0.08	0.13	0.19	0.07	0.29	0.49	0.59	0.59	0.65
1981	0.64	0.51	0.47	0.45	0.35	0.30	0.22	0.15	0.32	0.53	0.57	0.57	0.65
1982	0.53	0.29	0.11	0.14	0.11	0.13	0.06	0.13	0.24	0.47	0.60	0.60	0.53
1983	0.34	0.23	0.12	0.07	0.02	0.02	0.06	0.08	0.08	0.27	0.46	0.46	0.30
1984	0.17	0.05	0.02	0.08	0.16	0.25	0.23	0.16	0.31	0.35	0.62	0.62	0.65
1985	0.65	0.31	0.43	0.59	0.45	0.35	0.22	0.10	0.31	0.55	0.61	0.61	0.65
1986	0.62	0.54	0.52	0.40	0.06	0.07	0.25	0.28	0.35	0.43	0.55	0.55	0.65
1987	0.64	0.52	0.43	0.57	0.42	0.24	0.21	0.09	0.16	0.45	0.55	0.55	0.61
1988	0.42	0.54	0.53	0.36	0.33	0.13	0.23	0.11	0.09	0.32	0.13	0.13	0.42
1989	0.47	0.37	0.51	0.45	0.26	0.23	0.20	0.11	0.23	0.50	0.55	0.55	0.66
1990	0.59	0.43	0.63	0.49	0.38	0.35	0.08	0.18	0.11	0.10	0.43	0.43	0.46
1991	0.45	0.26	0.23	0.25	0.17	0.33	0.14	0.15	0.21	0.10	0.51	0.51	0.42
1992	0.48	0.26	0.19	0.53	0.33	0.35	0.16	0.11	0.12	0.34	0.44	0.44	0.52
1993	0.37	0.43	0.49	0.17	0.19	0.18	0.13	0.06	0.23	0.48	0.60	0.60	0.65
1994	0.65	0.52	0.48	0.59	0.43	0.22	0.22	0.19	0.34	0.50	0.64	0.64	0.61
Mean	0.54	0.47	0.41	0.35	0.25	0.23	0.17	0.12	0.27	0.42	0.54	0.54	0.59
Max	0.65	0.66	0.65	0.59	0.45	0.35	0.26	0.28	0.35	0.55	0.64	0.64	0.66
Min	0.17	0.05	0.02	0.03	0.02	0.02	0.06	0.03	0.08	0.08	0.10	0.10	0.30

Appendix C-3 CALSIM II Modeling

Difference Existing Alt 3 minus Existing Base E/I Ratio													
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1922	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1923	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1924	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1925	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1926	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1927	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1928	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1929	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1930	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1931	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1932	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1933	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1934	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1935	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1936	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1937	0.00	0.00	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1938	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1939	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1940	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1941	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1942	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1943	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1944	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1945	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1946	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1947	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1948	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1949	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1950	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1951	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1952	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1953	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1954	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1955	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1956	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1957	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1958	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1959	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1960	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01

Appendix C-3 CALSIM II Modeling

Year	Difference Existing Alt 3 minus Existing Base E/I Ratio												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1961	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00
1962	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1963	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1964	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00
1965	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1966	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1967	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1968	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1969	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1970	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1971	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1972	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1973	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1974	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1975	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1976	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1977	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1978	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1979	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1980	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1981	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00
1982	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1983	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1984	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1985	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00
1986	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1987	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00
1988	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1989	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01
1990	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1991	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1992	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1993	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1994	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00
Mean	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Min	-0.01	0.00	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01

Appendix C-3 CALSIM II Modeling

Year	Delta Surplus Outflow (CFS)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1922	0	0	4,792	2,583	21,119	7,314	10,949	44,049	14,348	0	0	0	0
1923	0	0	23,093	19,698	0	0	5,606	6,584	0	0	0	0	0
1924	0	0	0	1,352	0	0	114	0	0	0	0	0	0
1925	0	0	1,273	1,122	44,999	0	9,294	7,635	0	0	0	0	0
1926	0	0	884	3,234	10,491	0	9,764	0	0	0	0	0	0
1927	0	6,642	4,673	17,901	107,754	18,698	28,828	6,181	0	0	0	0	0
1928	0	3,560	2,500	10,147	2,824	75,968	5,127	0	0	0	0	0	0
1929	0	0	857	2,262	0	0	0	0	0	0	0	0	0
1930	0	0	1,258	6,256	0	3,329	256	1,798	0	0	0	0	0
1931	0	0	0	1,130	0	0	0	285	0	0	0	0	0
1932	0	0	7,321	7,649	0	0	0	4,939	0	0	0	0	0
1933	0	0	452	3,333	332	2,272	0	0	0	0	0	0	0
1934	0	0	1,192	6,204	1,937	0	0	0	0	0	0	0	0
1935	0	0	1,133	17,185	0	7,977	42,531	0	1,369	0	0	0	0
1936	0	0	0	24,375	50,045	2,950	8,003	9,325	2,278	0	0	0	0
1937	0	0	0	1,068	24,405	22,364	9,107	3,222	0	0	0	0	0
1938	0	7,313	52,452	24,762	122,749	148,917	59,496	52,095	25,427	0	0	1,363	0
1939	6,702	0	2,532	5,023	0	0	0	0	0	0	0	0	0
1940	0	0	0	21,969	32,436	76,677	49,669	2,127	0	0	0	0	0
1941	0	0	33,488	87,971	96,816	66,167	57,422	27,231	633	0	0	1,205	0
1942	318	0	55,948	76,156	118,881	4,593	37,589	18,589	6,620	0	0	2,913	0
1943	2,110	1,027	17,182	77,229	32,367	66,528	11,194	4,020	443	0	0	0	0
1944	0	0	0	1,051	5,511	0	619	4,512	0	0	0	0	0
1945	0	1,588	4,282	779	27,057	0	4,593	1,227	0	0	0	0	0
1946	0	0	57,337	38,859	0	0	3,497	2,065	0	0	0	0	0
1947	0	0	2,247	843	0	0	0	1,054	0	0	0	0	0
1948	0	0	0	1,275	0	0	14,593	17,095	2,962	0	0	0	0
1949	0	0	975	2,491	0	10,597	2,528	2,838	0	0	0	0	0
1950	0	0	674	7,589	6,431	0	6,954	6,948	1,489	0	0	0	0
1951	0	35,727	87,351	65,224	52,040	8,302	1,864	13,132	0	0	0	0	0
1952	0	0	30,147	76,023	51,267	43,807	52,292	48,511	20,326	0	0	6,014	0
1953	8,163	0	37,568	95,795	1,073	423	5,935	13,899	7,939	0	0	3,165	0
1954	0	2,592	761	10,476	34,460	20,672	20,652	0	0	0	0	0	0
1955	0	0	9,606	5,943	0	0	0	3,367	0	0	0	0	0
1956	0	0	83,314	156,566	65,077	18,441	3,815	34,006	3,058	0	0	3,819	0
1957	2,362	0	819	2,844	10,943	18,766	0	9,180	0	0	0	0	0
1958	3,537	0	8,703	24,364	157,192	71,902	81,542	34,645	9,978	0	398	5,098	0
1959	5,529	0	870	23,955	23,307	0	336	1,934	0	0	0	0	0
1960	0	0	0	1,902	8,023	0	0	3,501	0	0	0	0	0

Appendix C-3 CALSIM II Modeling

Year	Alt Existing Alt 3 Delta Surplus Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	0	0	1,121	813	4,306	0	0	0	0	0	0	0
1962	0	0	1,174	0	6,854	0	2,838	1,541	0	0	0	0
1963	20,044	895	13,367	2,689	46,372	0	71,980	13,383	0	0	0	0
1964	0	10,083	913	10,185	0	0	0	1,277	0	0	0	0
1965	0	507	63,460	109,582	7,620	0	33,082	0	0	0	0	0
1966	0	5,399	5,383	17,810	0	0	1,328	1,536	0	0	0	0
1967	0	812	26,083	36,004	24,984	32,280	33,440	38,454	24,196	1,294	602	7,901
1968	7,935	0	3,099	20,503	42,037	8,679	0	3,845	0	0	0	0
1969	0	0	9,372	106,839	106,789	42,436	43,433	44,050	14,430	0	0	2,253
1970	7,453	1,653	50,933	204,301	68,694	17,837	0	9,859	0	0	0	0
1971	0	2,997	50,215	37,417	0	18,444	0	18,481	0	0	0	3,522
1972	0	0	1,219	2,676	0	6,145	0	1,245	0	0	0	0
1973	0	5,347	12,156	69,413	66,161	34,022	2,255	10,006	0	0	0	0
1974	0	44,710	56,298	117,681	15,545	82,810	52,936	8,918	3,243	0	0	6,185
1975	1,554	0	2,925	1,329	49,370	62,519	4,214	21,240	2,123	0	0	5,382
1976	4,772	183	1,750	1,605	0	0	308	240	0	0	0	0
1977	0	0	0	855	0	0	0	0	0	0	0	0
1978	0	0	1,193	53,305	29,052	44,536	23,270	4,946	4,798	0	0	0
1979	0	0	1,201	12,454	23,131	13,121	0	9,913	0	0	0	0
1980	0	0	6,412	90,526	105,148	39,260	4,749	8,494	2,409	0	0	0
1981	0	0	1,246	7,587	0	4,696	3,483	3,757	0	0	0	0
1982	0	20,230	78,620	64,996	78,900	55,890	123,153	29,811	9,077	0	0	3,892
1983	15,634	30,266	75,329	96,822	161,464	236,647	75,529	60,655	65,842	19,710	6,421	18,856
1984	21,521	75,240	151,987	62,424	21,887	12,303	0	6,505	0	0	0	0
1985	0	4,741	8,101	1,057	0	0	0	0	0	0	0	0
1986	0	0	3,531	10,504	178,636	124,782	7,661	1,429	0	0	0	0
1987	0	0	1,108	1,860	1,730	5,208	0	0	0	0	0	0
1988	0	0	1,235	13,093	0	0	703	286	0	0	0	0
1989	0	0	1,310	3,308	0	11,554	7,862	0	0	0	0	0
1990	0	0	0	1,828	0	0	0	946	0	0	0	0
1991	0	0	458	633	0	1,709	0	250	0	0	0	0
1992	0	0	601	772	9,288	0	0	0	0	0	0	0
1993	0	0	1,280	52,814	27,151	20,251	13,277	11,954	8,052	0	0	0
1994	0	0	1,350	1,623	1,438	0	0	81	0	0	0	0
Mean	1,474	3,582	16,029	29,451	29,949	21,531	14,379	9,577	3,165	288	102	980
Max	21,521	75,240	151,987	204,301	178,636	236,647	123,153	60,655	65,842	19,710	6,421	18,856
Min	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-3 CALSIM II Modeling

Year	Base Existing Base Delta Surplus Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	4,742	2,583	21,119	7,314	10,949	44,049	14,348	0	0	0
1923	0	0	22,936	19,694	0	0	5,606	6,584	0	0	0	0
1924	0	0	0	1,333	0	0	114	0	0	0	0	0
1925	0	0	1,271	1,122	45,065	0	9,294	7,635	0	0	0	0
1926	0	0	833	3,219	10,372	0	9,764	0	0	0	0	0
1927	0	6,707	4,610	17,699	107,563	18,575	28,828	6,181	0	0	0	0
1928	0	3,611	2,410	9,979	2,824	75,968	5,127	0	0	0	0	0
1929	0	0	1,038	2,320	0	0	0	0	0	0	0	0
1930	0	0	1,316	6,256	0	3,364	256	1,798	0	0	0	0
1931	0	0	0	1,097	0	0	0	285	0	0	0	0
1932	0	0	7,321	7,649	0	0	0	4,934	0	0	0	0
1933	0	0	506	3,343	238	2,307	0	0	0	0	0	0
1934	0	0	1,174	6,204	1,737	0	0	0	0	0	0	0
1935	0	0	1,133	17,189	0	7,847	42,531	0	1,369	0	0	0
1936	0	0	0	24,380	50,066	2,910	8,003	9,325	2,240	0	0	0
1937	0	0	0	1,052	24,424	22,216	9,107	3,222	0	0	0	0
1938	0	7,458	52,245	24,632	122,749	148,917	59,496	52,095	25,427	0	0	1,377
1939	6,689	0	2,532	5,023	0	0	0	0	0	0	0	0
1940	0	0	0	21,979	32,460	76,689	49,594	2,120	0	0	0	0
1941	0	0	33,488	87,949	96,586	66,139	57,422	27,231	633	0	0	1,290
1942	424	0	55,946	76,117	118,868	4,465	37,589	18,589	6,554	0	0	2,985
1943	2,041	1,027	17,182	77,229	32,367	66,528	11,194	4,020	443	0	0	0
1944	0	0	0	1,097	5,529	0	619	4,512	0	0	0	0
1945	0	1,597	4,306	779	26,939	0	4,593	1,227	0	0	0	0
1946	0	0	57,334	38,858	0	0	3,497	2,065	0	0	0	0
1947	0	0	2,397	843	0	0	0	1,054	0	0	0	0
1948	0	0	0	1,355	0	0	14,372	17,063	2,962	0	0	0
1949	0	0	1,157	2,491	0	10,564	2,528	2,838	0	0	0	0
1950	0	0	709	7,641	6,431	0	6,793	6,941	1,454	0	0	0
1951	0	35,838	87,139	65,017	52,001	8,302	1,864	13,132	0	0	0	0
1952	0	0	30,086	76,006	51,083	43,807	52,292	48,511	20,326	0	0	6,014
1953	8,163	0	37,568	95,795	1,073	423	5,935	13,899	7,939	0	0	3,284
1954	0	2,653	762	10,474	34,260	20,597	20,652	0	0	0	0	0
1955	0	0	9,567	5,939	0	0	0	3,367	0	0	0	0
1956	0	0	83,322	156,552	64,897	18,360	3,815	34,006	3,058	0	0	3,851
1957	2,332	0	839	2,887	10,873	18,766	0	9,180	0	0	0	0
1958	3,602	0	8,523	24,355	157,046	71,902	81,542	34,645	9,978	0	0	5,098
1959	5,529	0	882	23,950	23,300	0	336	1,934	0	0	0	0
1960	0	0	0	1,904	7,988	0	0	3,501	0	0	0	0

Appendix C-3 CALSIM II Modeling

Year	Base Existing Base Delta Surplus Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	0	0	1,238	813	4,321	0	0	0	0	0	0	0
1962	0	0	1,174	0	6,854	0	2,648	1,533	0	0	0	0
1963	19,987	895	13,174	2,595	46,372	0	71,980	13,383	0	0	0	0
1964	0	10,119	849	10,031	0	0	0	1,277	0	0	0	0
1965	0	579	63,460	109,582	7,479	0	33,082	0	0	0	0	0
1966	0	5,508	5,173	17,716	0	0	1,328	1,536	0	0	0	0
1967	0	977	25,921	35,966	24,789	32,234	33,440	38,454	24,196	1,294	602	7,901
1968	7,935	0	3,099	20,503	42,037	8,679	0	3,845	0	0	0	0
1969	0	0	9,443	106,839	106,566	42,318	43,433	44,050	14,430	0	0	2,253
1970	7,453	1,653	50,933	204,301	68,694	17,837	0	9,859	0	0	0	0
1971	0	3,047	50,114	37,281	0	18,444	0	18,481	0	0	0	3,596
1972	0	0	1,263	2,705	0	6,136	0	1,245	0	0	0	0
1973	0	5,376	12,156	69,208	66,098	34,022	2,255	10,006	0	0	0	0
1974	0	44,757	56,211	117,520	15,545	82,810	52,936	8,918	3,243	0	0	6,257
1975	1,484	0	2,952	1,359	49,307	62,519	4,214	21,240	2,123	0	0	5,438
1976	4,717	183	1,771	1,653	0	0	308	238	0	0	0	0
1977	0	0	0	796	0	0	0	0	0	0	0	0
1978	0	0	1,193	53,305	29,123	44,537	23,345	4,997	4,798	0	0	0
1979	0	0	1,249	12,456	22,931	12,995	0	9,913	0	0	0	0
1980	0	0	6,407	90,506	104,913	39,206	4,749	8,494	2,409	0	0	0
1981	0	0	1,310	7,581	0	4,571	3,483	3,757	0	0	0	0
1982	0	20,246	78,620	64,801	78,693	55,829	123,153	29,811	9,077	0	0	3,892
1983	15,634	30,266	75,329	96,822	161,464	236,647	75,529	60,655	65,842	19,710	6,421	18,856
1984	21,521	75,240	151,987	62,424	21,887	12,303	0	6,505	0	0	0	0
1985	0	4,778	8,031	892	0	0	0	0	0	0	0	0
1986	0	0	3,742	10,504	178,710	124,577	7,559	1,421	0	0	0	0
1987	0	0	1,142	1,901	1,745	5,182	0	0	0	0	0	0
1988	0	0	1,354	13,093	0	0	703	286	0	0	0	0
1989	0	0	1,281	3,308	0	11,589	7,825	0	0	0	0	0
1990	0	0	0	1,756	0	0	0	943	0	0	0	0
1991	0	0	458	633	0	1,709	0	245	0	0	0	0
1992	0	0	601	772	9,288	0	0	0	0	0	0	0
1993	0	0	1,280	52,814	27,164	20,251	13,264	11,954	8,052	0	0	0
1994	0	0	1,430	1,643	1,473	0	0	81	0	0	0	0
Mean	1,473	3,596	16,022	29,426	29,911	21,512	14,369	9,577	3,163	288	102	988
Max	21,521	75,240	151,987	204,301	178,710	236,647	123,153	60,655	65,842	19,710	6,421	18,856
Min	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-3 CALSIM II Modeling

Year	Difference Existing Alt 3 minus Existing Base Delta Surplus Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	50	0	0	0	0	0	0	0	0
1923	0	0	157	5	0	0	0	0	0	0	0	0
1924	0	0	0	19	0	0	0	0	0	0	0	0
1925	0	0	0	2	0	-66	0	0	0	0	0	0
1926	0	0	52	15	119	0	0	0	0	0	0	0
1927	0	-65	63	202	190	123	0	0	0	0	0	0
1928	0	-51	89	168	0	0	0	0	0	0	0	0
1929	0	0	-181	-58	0	0	0	0	0	0	0	0
1930	0	0	-58	0	0	-35	0	0	0	0	0	0
1931	0	0	0	34	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	5	0	0	0	0
1933	0	0	-54	-9	94	-35	0	0	0	0	0	0
1934	0	0	18	-1	200	0	0	0	0	0	0	0
1935	0	0	0	-3	0	131	0	0	0	0	0	0
1936	0	0	0	-4	-21	40	0	0	38	0	0	0
1937	0	0	0	16	-19	147	0	0	0	0	0	0
1938	0	-145	207	130	0	0	0	0	0	0	0	-14
1939	13	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	-10	-24	-12	-12	75	7	0	0	0	0
1941	0	0	0	21	229	28	0	0	0	0	0	-85
1942	-106	0	2	38	13	127	0	0	66	0	0	-72
1943	69	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	-45	-18	0	0	0	0	0	0	0
1945	0	-9	-24	0	119	0	0	0	0	0	0	0
1946	0	0	3	1	0	0	0	0	0	0	0	0
1947	0	0	-150	0	0	0	0	0	0	0	0	0
1948	0	0	0	-80	0	0	0	221	32	0	0	0
1949	0	0	-182	0	0	33	0	0	0	0	0	0
1950	0	0	-35	-52	0	0	161	8	36	0	0	0
1951	0	-111	213	207	39	0	0	0	0	0	0	0
1952	0	0	61	17	183	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	-119
1954	0	-61	-1	2	200	75	0	0	0	0	0	0
1955	0	0	39	3	0	0	0	0	0	0	0	0
1956	0	0	-8	14	180	81	0	0	0	0	0	-31
1957	30	0	-20	-43	70	0	0	0	0	0	0	0
1958	-65	0	180	9	146	0	0	0	0	0	0	0
1959	0	0	-12	6	7	0	0	0	0	0	0	0
1960	0	0	0	-2	35	0	0	0	0	0	0	0

Appendix C-3 CALSIM II Modeling

Year	Difference Existing Alt 3 minus Existing Base Delta Surplus Outflow (GFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	0	0	-117	0	-15	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	189	8	0	0	0	0
1963	57	0	194	95	0	0	0	0	0	0	0	0
1964	0	-36	64	154	0	0	0	0	0	0	0	0
1965	0	-72	0	0	141	0	0	0	0	0	0	0
1966	0	-109	210	94	0	0	0	0	0	0	0	0
1967	0	-164	162	38	195	46	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	-71	0	224	118	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	-50	101	135	0	0	0	0	0	0	0	-74
1972	0	0	-44	-28	0	9	0	0	0	0	0	0
1973	0	-29	0	206	63	0	0	0	0	0	0	0
1974	0	-48	87	161	0	0	0	0	0	0	0	-72
1975	70	0	-27	-30	63	0	0	0	0	0	0	-56
1976	54	0	-20	-48	0	0	0	2	0	0	0	0
1977	0	0	0	58	0	0	0	0	0	0	0	0
1978	0	0	0	0	-71	-1	-74	-51	0	0	0	0
1979	0	0	-48	-3	200	126	0	0	0	0	0	0
1980	0	0	5	21	235	54	0	0	0	0	0	0
1981	0	0	-63	6	0	125	0	0	0	0	0	0
1982	0	-17	0	195	207	61	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	-37	70	166	0	0	0	0	0	0	0	0
1986	0	0	-211	0	-74	205	102	7	0	0	0	0
1987	0	0	-34	-41	-15	26	0	0	0	0	0	0
1988	0	0	-119	0	0	0	0	0	0	0	0	0
1989	0	0	29	0	0	-35	37	0	0	0	0	0
1990	0	0	0	71	0	0	0	4	0	0	0	0
1991	0	0	0	0	0	0	0	5	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	-14	0	13	0	0	0	0	0
1994	0	0	-79	-20	-35	0	0	0	0	0	0	0
Mean	2	-14	7	25	38	20	10	0	2	0	0	-7
Max	70	0	213	207	235	205	221	32	66	0	0	0
Min	-106	-164	-211	-80	-74	-35	-74	-51	0	0	0	-119

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Year	Alt Existing Alt 3 Shasta Reservoir Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	2,806	2,844	2,929	3,033	3,324	3,629	4,107	4,263	3,971	3,506	3,106	2,932
1923	2,927	2,935	3,024	3,223	3,288	3,340	3,643	3,383	3,097	2,657	2,269	2,148
1924	2,082	2,003	1,966	2,054	2,214	2,203	1,988	1,676	1,279	848	630	583
1925	589	695	784	1,020	2,258	2,445	3,110	3,170	2,896	2,408	2,052	1,910
1926	1,852	1,848	1,896	1,939	2,655	2,842	3,137	2,989	2,591	2,143	1,831	1,713
1927	1,709	2,184	2,690	3,159	3,462	4,035	4,552	4,552	4,267	3,765	3,358	3,206
1928	3,175	3,252	3,313	3,512	3,906	3,965	4,463	4,280	3,882	3,241	2,899	2,725
1929	2,631	2,626	2,637	2,739	2,928	3,097	3,167	3,044	2,741	2,367	2,030	1,903
1930	1,842	1,793	2,313	2,518	2,884	3,316	3,464	3,362	3,007	2,604	2,234	2,111
1931	2,061	2,052	2,040	2,114	2,203	2,371	2,116	1,837	1,539	1,081	759	660
1932	646	643	834	1,018	1,123	1,530	1,686	1,874	1,707	1,437	1,181	1,039
1933	962	948	937	960	999	1,584	1,713	1,776	1,657	1,350	958	800
1934	719	676	800	1,095	1,420	1,721	1,813	1,658	1,300	898	609	605
1935	591	692	729	1,014	1,343	1,731	2,727	2,944	2,649	2,298	1,951	1,772
1936	1,742	1,708	1,720	2,344	3,222	3,502	3,723	3,612	3,398	2,935	2,513	2,340
1937	2,227	2,134	2,080	2,060	2,152	2,795	3,433	3,581	3,388	3,011	2,594	2,400
1938	2,350	2,868	3,310	3,641	3,560	4,058	4,552	4,466	4,064	3,638	3,400	3,400
1939	3,250	3,200	3,310	3,504	3,634	4,031	3,831	3,533	3,073	2,515	2,166	2,082
1940	1,974	1,891	2,020	2,897	3,252	3,435	4,143	4,074	3,757	3,248	2,860	2,743
1941	2,725	2,733	3,293	3,317	3,423	3,940	4,456	4,552	4,485	4,150	3,651	3,400
1942	3,250	3,218	3,316	3,389	3,516	3,894	4,531	4,552	4,457	4,066	3,700	3,400
1943	3,250	3,252	3,356	3,541	3,848	4,118	4,552	4,521	4,272	3,675	3,279	3,147
1944	3,123	3,130	3,096	3,162	3,397	3,628	3,615	3,518	3,260	2,896	2,558	2,424
1945	2,416	2,585	2,870	3,070	3,776	4,015	4,193	4,206	3,975	3,444	3,033	2,861
1946	2,881	3,108	3,265	3,622	3,553	3,950	4,150	4,077	3,715	3,271	2,902	2,756
1947	2,678	2,731	2,797	2,809	3,029	3,502	3,665	3,318	3,114	2,685	2,353	2,260
1948	2,346	2,357	2,373	2,935	2,715	3,012	3,912	4,266	4,281	3,925	3,540	3,400
1949	3,242	3,214	3,202	3,196	3,319	4,071	4,392	4,340	3,951	3,301	2,885	2,726
1950	2,625	2,561	2,514	2,760	3,116	3,497	3,835	3,790	3,509	3,151	2,815	2,723
1951	3,002	3,252	3,322	3,624	3,794	4,181	4,265	4,283	3,938	3,292	2,905	2,796
1952	2,798	2,951	3,306	3,604	3,739	4,022	4,290	4,552	4,401	4,150	3,700	3,400
1953	3,250	3,217	3,345	3,366	3,714	4,116	4,452	4,552	4,500	4,053	3,700	3,400
1954	3,250	3,252	3,364	3,552	3,661	4,106	4,546	4,311	4,124	3,520	3,199	3,161
1955	3,081	3,196	3,360	3,427	3,518	3,675	3,698	3,780	3,464	2,964	2,661	2,581
1956	2,554	2,614	3,252	3,252	3,288	3,946	4,459	4,552	4,376	4,046	3,700	3,400
1957	3,250	3,187	3,208	3,317	3,675	4,129	4,139	4,392	4,221	3,615	3,255	3,276
1958	3,250	3,228	3,338	3,531	3,252	3,416	4,173	4,552	4,500	4,150	3,700	3,400
1959	3,250	3,196	3,233	3,648	3,777	3,987	4,036	3,829	3,334	2,764	2,343	2,470
1960	2,386	2,303	2,296	2,495	3,204	3,812	3,933	3,927	3,593	2,982	2,605	2,510

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Year	Shasta Reservoir Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	2,446	2,524	2,951	3,161	3,914	4,280	4,341	4,313	3,929	3,298	2,805	2,704
1962	2,517	2,466	2,766	2,867	3,675	4,122	4,395	4,301	3,967	3,402	3,008	2,902
1963	3,250	3,252	3,349	3,459	3,944	4,036	4,137	4,422	4,214	3,697	3,390	3,361
1964	3,250	3,252	3,321	3,687	3,850	4,000	3,676	3,456	3,223	2,757	2,437	2,341
1965	3,341	2,447	3,252	3,368	3,803	3,904	4,500	4,434	4,136	3,538	3,281	3,215
1966	3,198	3,252	3,326	3,725	4,037	4,229	4,552	4,417	3,935	3,305	2,913	2,831
1967	2,721	3,047	3,335	3,551	3,920	4,033	4,479	4,552	4,500	4,150	3,700	3,400
1968	3,250	3,222	3,305	3,545	3,654	4,191	4,162	4,039	3,665	3,074	2,761	2,687
1969	2,602	2,644	2,956	3,358	3,480	4,030	4,434	4,552	4,399	4,052	3,684	3,400
1970	3,250	3,247	3,317	3,252	3,431	4,061	3,978	3,839	3,551	3,009	2,703	2,659
1971	2,685	3,130	3,319	3,515	3,673	3,873	4,375	4,552	4,500	4,000	3,682	3,400
1972	3,250	3,196	3,323	3,666	3,979	4,249	4,424	4,304	3,830	3,216	2,912	2,889
1973	2,982	3,214	3,346	3,552	3,636	4,162	4,447	4,424	4,028	3,436	3,180	3,135
1974	3,222	3,252	3,267	3,252	3,694	3,416	4,289	4,480	4,348	4,116	3,700	3,400
1975	3,250	3,207	3,324	3,487	3,936	3,756	4,343	4,552	4,440	4,150	3,700	3,400
1976	3,250	3,252	3,318	3,529	3,647	3,876	3,955	3,797	3,273	2,901	2,853	2,815
1977	2,803	2,772	2,755	2,784	2,741	2,725	2,440	2,270	1,746	1,148	744	674
1978	550	575	1,112	3,024	3,567	4,000	4,552	4,552	4,235	3,727	3,329	3,301
1979	3,182	3,142	3,087	3,169	3,451	3,958	4,132	4,179	3,676	3,177	2,886	2,791
1980	2,837	2,946	3,062	3,528	3,292	3,938	4,239	4,179	3,875	3,464	3,150	3,103
1981	3,077	3,047	3,131	3,428	3,777	4,256	4,397	4,159	3,604	2,964	2,648	2,553
1982	2,522	3,252	3,276	3,616	3,530	3,953	4,094	4,304	4,138	3,855	3,558	3,400
1983	3,250	3,252	3,328	3,371	3,252	3,417	4,074	4,552	4,500	4,150	3,700	3,400
1984	3,250	3,252	3,285	3,650	3,995	4,246	4,347	4,311	4,069	3,466	3,249	3,237
1985	3,250	3,252	3,360	3,484	3,618	3,752	3,857	3,505	3,094	2,646	2,322	2,293
1986	2,183	2,195	2,352	2,917	3,252	3,534	3,973	3,910	3,505	3,147	2,834	2,843
1987	2,864	2,843	2,827	2,944	3,284	4,011	3,823	3,538	3,058	2,587	2,263	2,157
1988	2,081	2,052	2,557	2,991	2,871	2,929	2,951	2,929	2,532	2,040	1,740	1,601
1989	1,503	1,710	1,808	1,913	2,027	3,409	3,793	3,590	3,243	2,789	2,441	2,455
1990	2,552	2,531	2,471	2,692	2,675	2,947	2,798	2,941	2,762	2,244	1,977	1,921
1991	1,868	1,875	1,827	1,831	1,843	2,247	2,391	2,321	2,044	1,740	1,477	1,365
1992	1,348	1,273	1,269	1,315	1,972	2,414	2,642	2,362	1,948	1,479	1,040	865
1993	789	761	992	1,641	2,371	3,838	4,464	4,552	4,500	3,917	3,644	3,400
1994	3,250	3,185	3,229	3,341	3,566	3,663	3,504	3,209	2,761	2,178	1,683	1,514
Mean	2,539	2,586	2,729	2,960	3,212	3,554	3,824	3,806	3,525	3,059	2,706	2,575
Max	3,250	3,252	3,364	3,725	4,037	4,280	4,552	4,552	4,500	4,150	3,700	3,400
Min	550	575	729	960	999	1,530	1,686	1,658	1,279	848	609	583

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Year	Shasta Reservoir Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	2,806	2,832	2,917	3,021	3,312	3,617	4,095	4,252	3,994	3,094	2,927	2,927
1923	2,927	2,940	3,028	3,227	3,286	3,338	3,641	3,381	3,055	2,655	2,267	2,153
1924	2,090	2,014	1,980	2,069	2,226	2,215	2,000	1,688	1,291	858	640	592
1925	589	695	784	1,020	2,258	2,443	3,108	3,168	2,894	2,406	2,060	1,929
1926	1,874	1,872	1,920	1,963	2,679	2,869	3,164	3,016	2,618	2,170	1,864	1,754
1927	1,754	2,229	2,735	3,204	3,462	4,035	4,552	4,552	4,264	3,758	3,351	3,208
1928	3,181	3,252	3,313	3,512	3,906	3,965	4,463	4,280	3,882	3,241	2,899	2,733
1929	2,643	2,641	2,652	2,754	2,941	3,109	3,178	3,056	2,742	2,356	2,025	1,905
1930	1,847	1,799	2,320	2,524	2,879	3,312	3,459	3,357	2,993	2,590	2,228	2,116
1931	2,069	2,055	2,041	2,114	2,199	2,361	2,099	1,820	1,522	1,064	742	643
1932	629	626	817	1,002	1,117	1,528	1,679	1,867	1,700	1,431	1,174	1,045
1933	972	957	945	969	1,008	1,593	1,722	1,785	1,658	1,351	962	812
1934	726	677	800	1,095	1,420	1,716	1,808	1,653	1,293	891	607	603
1935	587	688	725	1,010	1,339	1,727	2,723	2,946	2,650	2,300	1,955	1,785
1936	1,759	1,728	1,736	2,359	3,238	3,518	3,739	3,627	3,413	2,941	2,519	2,357
1937	2,249	2,158	2,117	2,096	2,188	2,832	3,470	3,618	3,423	3,034	2,610	2,424
1938	2,378	2,896	3,310	3,641	3,560	3,416	4,058	4,552	4,466	4,064	3,638	3,400
1939	3,250	3,200	3,310	3,504	3,634	4,031	3,831	3,533	3,073	2,517	2,179	2,101
1940	1,995	1,913	2,044	2,921	3,252	3,435	4,143	4,074	3,754	3,233	2,842	2,733
1941	2,718	2,727	3,293	3,317	3,423	3,940	4,456	4,552	4,485	4,150	3,651	3,400
1942	3,250	3,222	3,316	3,389	3,516	3,894	4,531	4,552	4,457	4,065	3,700	3,400
1943	3,250	3,252	3,356	3,541	3,848	4,118	4,552	4,521	4,272	3,675	3,279	3,156
1944	3,135	3,144	3,111	3,178	3,412	3,646	3,633	3,536	3,279	2,905	2,577	2,448
1945	2,442	2,611	2,895	3,096	3,802	4,035	4,213	4,226	3,993	3,451	3,045	2,880
1946	2,903	3,127	3,265	3,622	3,551	3,942	4,142	4,070	3,706	3,254	2,891	2,752
1947	2,677	2,732	2,798	2,810	3,022	3,490	3,652	3,305	3,089	2,649	2,329	2,241
1948	2,329	2,342	2,362	2,923	2,701	2,996	3,897	4,250	4,265	3,909	3,534	3,400
1949	3,246	3,216	3,203	3,197	3,318	4,071	4,392	4,340	3,951	3,289	2,882	2,731
1950	2,632	2,571	2,523	2,769	3,126	3,498	3,836	3,792	3,510	3,141	2,806	2,723
1951	3,007	3,252	3,322	3,624	3,794	4,181	4,265	4,283	3,938	3,292	2,905	2,804
1952	2,810	2,966	3,306	3,604	3,739	4,022	4,290	4,552	4,401	4,150	3,700	3,400
1953	3,250	3,217	3,345	3,366	3,714	4,116	4,452	4,552	4,500	4,053	3,700	3,400
1954	3,250	3,252	3,364	3,552	3,661	4,106	4,546	4,311	4,124	3,520	3,199	3,170
1955	3,094	3,212	3,360	3,427	3,507	3,661	3,684	3,766	3,451	2,951	2,650	2,579
1956	2,554	2,616	3,252	3,252	3,288	3,946	4,459	4,552	4,376	4,046	3,700	3,400
1957	3,250	3,187	3,208	3,317	3,675	4,129	4,139	4,392	4,221	3,615	3,255	3,284
1958	3,250	3,236	3,338	3,531	3,752	3,416	4,173	4,552	4,500	4,150	3,700	3,400
1959	3,250	3,196	3,233	3,648	3,331	3,777	3,987	4,036	3,829	3,334	2,764	2,480
1960	2,399	2,318	2,310	2,509	3,219	3,830	3,951	3,945	3,610	3,010	2,643	2,559

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Year	Base Existing Base Shasta Reservoir Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	2,497	2,573	3,000	3,210	3,914	4,280	4,336	4,308	3,912	3,275	2,793	2,693
1962	2,498	2,443	2,743	2,844	3,675	4,120	4,393	4,299	3,964	3,395	3,010	2,909
1963	3,250	3,252	3,349	3,459	3,944	4,036	4,137	4,422	4,214	3,697	3,390	3,368
1964	3,250	3,252	3,321	3,687	3,850	4,000	3,676	3,456	3,223	2,757	2,448	2,358
1965	2,361	2,466	3,252	3,368	3,803	3,898	4,500	4,434	4,132	3,528	3,271	3,214
1966	3,200	3,252	3,326	3,725	4,037	4,229	4,552	4,417	3,935	3,305	2,920	2,844
1967	2,737	3,063	3,335	3,551	3,920	4,033	4,479	4,552	4,500	4,150	3,700	3,400
1968	3,250	3,222	3,305	3,545	3,654	4,191	4,162	4,039	3,665	3,074	2,767	2,698
1969	2,616	2,660	2,971	3,358	3,480	4,030	4,434	4,552	4,399	4,052	3,684	3,400
1970	3,250	3,247	3,317	3,252	3,431	4,061	3,978	3,839	3,551	3,009	2,703	2,667
1971	2,696	3,141	3,319	3,515	3,673	3,873	4,375	4,552	4,500	4,000	3,682	3,400
1972	3,250	3,200	3,327	3,670	3,979	4,249	4,424	4,304	3,830	3,216	2,917	2,901
1973	2,996	3,228	3,346	3,552	3,636	4,162	4,447	4,424	4,028	3,436	3,180	3,144
1974	3,235	3,252	3,267	3,252	3,694	3,416	4,289	4,480	4,348	4,116	3,700	3,400
1975	3,250	3,207	3,324	3,487	3,936	3,756	4,343	4,552	4,440	4,150	3,700	3,400
1976	3,250	3,252	3,318	3,529	3,647	3,877	3,956	3,798	3,276	2,907	2,859	2,829
1977	2,820	2,789	2,770	2,798	2,750	2,729	2,441	2,271	1,747	1,149	744	674
1978	550	575	1,112	3,025	3,567	4,000	4,552	4,552	4,235	3,727	3,329	3,310
1979	3,200	3,166	3,111	3,193	3,475	3,981	4,156	4,203	3,698	3,193	2,907	2,819
1980	2,868	2,980	3,096	3,528	3,292	3,938	4,239	4,179	3,875	3,464	3,150	3,111
1981	3,092	3,068	3,151	3,449	3,787	4,256	4,397	4,159	3,603	2,966	2,661	2,571
1982	2,543	3,252	3,276	3,616	3,530	3,953	4,094	4,304	4,138	3,855	3,558	3,400
1983	3,250	3,252	3,328	3,371	3,252	3,417	4,074	4,552	4,500	4,150	3,700	3,400
1984	3,250	3,252	3,285	3,650	3,995	4,246	4,347	4,311	4,069	3,466	3,249	3,245
1985	3,250	3,252	3,360	3,484	3,618	3,752	3,857	3,505	3,094	2,649	2,335	2,311
1986	2,205	2,220	2,376	2,941	3,252	3,534	3,973	3,910	3,502	3,132	2,812	2,825
1987	2,853	2,836	2,820	2,936	3,277	4,003	3,816	3,530	3,050	2,568	2,253	2,153
1988	2,079	2,053	2,557	2,991	2,872	2,928	2,950	2,928	2,519	2,016	1,720	1,589
1989	1,493	1,702	1,800	1,905	2,015	3,396	3,781	3,578	3,230	2,776	2,442	2,463
1990	2,554	2,529	2,469	2,690	2,671	2,938	2,782	2,926	2,738	2,226	1,960	1,903
1991	1,845	1,851	1,804	1,807	1,820	2,225	2,367	2,296	2,019	1,716	1,452	1,341
1992	1,324	1,249	1,244	1,290	1,948	2,393	2,618	2,338	1,924	1,455	1,017	841
1993	765	737	968	1,617	2,347	3,814	4,440	4,552	4,500	3,917	3,644	3,400
1994	3,250	3,191	3,234	3,346	3,346	3,571	3,664	3,505	3,209	2,762	2,191	1,706
Mean	2,545	2,592	2,729	2,963	3,213	3,554	3,823	3,806	3,524	3,056	2,706	2,580
Max	3,250	3,252	3,364	3,725	4,037	4,280	4,552	4,552	4,500	4,150	3,700	3,400
Min	550	575	725	969	1,008	1,528	1,679	1,653	1,291	858	607	592

Year	Difference Existing Alt 3 minus Existing Base Shasta Reservoir Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	0
1923	0	-5	-5	-5	-5	2	2	2	2	2	2	2
1924	-9	-11	-14	-14	-12	-12	-12	-12	-12	-12	-10	-9
1925	-1	0	0	0	0	0	0	0	0	0	0	-8
1926	-22	-24	-24	-24	-24	-27	-27	-27	-27	-27	-33	-42
1927	-45	-45	-45	-45	-45	0	0	0	0	0	0	-3
1928	-6	0	0	0	0	0	0	0	0	0	0	-8
1929	-12	-15	-15	-15	-15	-13	-12	-12	-12	-11	11	4
1930	-5	-6	-6	-6	-6	5	5	5	5	14	14	6
1931	-8	-3	0	0	0	4	10	17	17	17	17	17
1932	17	17	17	17	5	3	7	7	7	7	7	-6
1933	-11	-9	-9	-9	-9	-9	-9	-9	-9	-1	-1	-4
1934	-7	0	0	0	0	0	5	5	5	5	7	2
1935	4	4	4	4	4	4	4	4	-2	-2	-2	-3
1936	-17	-20	-15	-15	-15	-15	-15	-15	-15	-15	-7	-17
1937	-21	-24	-37	-37	-37	-37	-37	-37	-37	-35	-23	-16
1938	-28	-28	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	-3	-13
1940	-21	-22	-24	-24	0	0	0	0	0	0	3	15
1941	7	6	0	0	0	0	0	0	0	0	0	0
1942	0	-4	0	0	0	0	0	0	0	0	1	0
1943	0	0	0	0	0	0	0	0	0	0	0	-8
1944	-12	-14	-15	-15	-15	-18	-18	-18	-18	-8	-8	-19
1945	-26	-26	-26	-26	-26	-26	-20	-20	-20	-18	-7	-11
1946	-22	-19	0	0	0	2	7	7	7	10	17	11
1947	1	-2	-2	-2	-2	7	13	13	13	25	36	24
1948	17	15	12	12	12	15	16	16	16	16	16	6
1949	-4	-1	-1	-1	-1	1	0	0	0	1	12	4
1950	-8	-10	-10	-10	-10	-10	-1	-1	-1	-1	10	9
1951	-4	0	0	0	0	0	0	0	0	0	0	-8
1952	-12	-15	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	-10
1955	-13	-16	0	0	0	11	14	14	14	14	14	10
1956	0	-2	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	-8
1958	0	-7	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	-10
1960	-13	-15	-15	-15	-15	-17	-17	-17	-17	-17	-28	-39

Appendix C-3 CALSIM II Modeling

Year	Difference Existing Alt. 3 minus Existing Base Shasta Reservoir Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	-51	-49	-49	0	0	0	4	5	17	23	12	11
1962	19	23	23	0	0	2	2	2	2	7	-1	-7
1963	0	0	0	0	0	0	0	0	0	0	0	-6
1964	0	0	0	0	0	0	0	0	0	-1	-11	-17
1965	-19	-19	0	0	0	6	0	0	4	10	10	1
1966	-2	0	0	0	0	0	0	0	0	0	-6	-13
1967	-16	-16	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	-6	-11
1969	-14	-15	-15	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	-8
1971	-11	-11	0	0	0	0	0	0	0	0	0	0
1972	0	-4	-4	0	0	0	0	0	0	0	-5	-12
1973	-14	-14	0	0	0	0	0	0	0	0	0	-9
1974	-12	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	-1	-1	-1	-1	-3	-6	-6	-14
1977	-17	-17	-15	-15	-9	-4	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	-9
1979	-18	-24	-24	-24	-24	-24	-24	-24	-21	-16	-21	-27
1980	-31	-34	-34	0	0	0	0	0	0	0	0	-7
1981	-15	-21	-21	-10	0	0	0	0	1	-2	-12	-18
1982	-21	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	-3	-13	-18
1986	-22	-24	-24	-24	0	0	0	0	4	15	22	17
1987	11	7	7	7	7	7	7	7	8	19	10	4
1988	2	-1	-1	-1	-1	1	1	1	13	25	19	12
1989	10	8	8	12	12	12	12	13	13	13	-1	-8
1990	-2	2	2	4	9	15	15	15	24	18	18	18
1991	23	23	23	22	22	24	24	24	24	24	24	24
1992	24	24	24	24	24	21	24	24	24	24	24	24
1993	24	24	24	24	24	24	24	0	0	0	0	0
1994	0	-6	-6	-6	-6	-1	-1	-1	-1	-12	-23	-22
Mean	-6	-4	-3	-1	-1	0	0	0	1	3	0	-5
Max	24	24	24	24	24	24	24	24	25	36	24	24
Min	-51	-49	-49	-37	-37	-37	-37	-37	-35	-28	-39	-49

Appendix C-3 CALSIM II Modeling

Year	Alt Existing Alternative Desal Total Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	14,063	13,175	20,778	19,990	47,737	41,084	31,884	58,533	50,572	24,360	15,841	14,707
1923	14,838	16,652	39,845	37,991	23,616	18,635	31,952	23,286	18,467	21,293	17,749	15,363
1924	12,782	12,444	12,716	14,656	17,155	12,075	10,501	8,557	10,543	11,515	9,948	8,860
1925	9,258	9,332	14,296	14,207	71,381	29,102	26,718	20,791	17,911	19,319	13,389	11,448
1926	11,313	10,164	10,901	19,351	46,024	15,967	26,679	14,989	15,110	17,805	14,794	10,694
1927	11,152	26,507	20,661	34,122	131,975	49,638	53,238	32,831	21,890	20,437	18,136	15,783
1928	12,061	22,268	18,446	26,604	31,063	109,301	33,680	23,137	16,869	20,754	14,823	13,589
1929	13,726	14,034	14,244	14,285	17,471	13,221	10,465	11,104	12,904	12,410	8,772	8,877
1930	9,223	8,534	19,271	22,349	21,562	35,408	14,970	13,987	13,742	18,025	15,184	12,854
1931	10,728	11,937	10,759	14,153	13,355	8,998	10,328	8,382	11,331	13,703	11,631	9,143
1932	9,066	8,524	23,599	24,920	25,957	17,905	14,547	18,775	19,816	14,407	12,042	13,188
1933	11,356	10,128	10,740	15,083	12,568	16,111	13,879	9,491	11,858	13,688	9,870	8,830
1934	9,141	8,595	16,307	20,483	17,994	14,568	13,370	9,617	12,178	12,177	8,793	8,699
1935	9,085	12,277	11,291	34,597	17,987	30,380	58,247	30,003	22,807	20,406	19,083	14,653
1936	14,550	11,543	14,697	42,504	81,077	37,195	29,979	22,384	19,747	21,346	19,089	14,337
1937	14,655	11,582	14,629	15,719	52,635	54,122	33,489	27,212	20,228	20,254	17,384	13,154
1938	13,485	27,431	65,273	38,553	148,142	172,909	82,927	81,289	58,376	24,034	17,280	19,280
1939	23,746	15,525	17,297	16,132	14,420	17,697	14,984	14,857	14,187	19,899	16,861	13,895
1940	14,150	11,012	11,161	39,492	66,157	113,929	76,020	24,608	18,139	24,582	18,920	15,334
1941	14,698	14,510	49,894	105,839	130,340	99,934	80,641	50,198	26,966	24,600	18,947	19,219
1942	17,418	14,620	68,945	85,543	146,998	32,599	56,400	43,840	34,278	23,439	18,476	20,955
1943	19,191	17,570	32,307	92,715	66,571	94,382	35,957	27,428	17,126	22,432	18,642	16,652
1944	14,160	12,485	14,760	16,681	31,773	26,716	16,297	16,728	18,093	18,990	16,726	14,495
1945	14,369	18,401	20,503	15,306	56,094	31,704	19,551	21,565	21,298	23,326	18,166	15,448
1946	14,040	18,531	74,257	56,597	31,756	25,476	20,190	20,652	20,502	22,941	18,227	15,001
1947	15,556	14,721	18,430	13,533	22,856	24,044	16,737	12,961	15,082	18,844	15,445	14,269
1948	13,345	13,425	10,599	18,103	17,972	17,619	31,373	33,414	24,951	23,126	18,825	15,928
1949	14,843	11,811	15,333	13,105	15,436	49,476	17,582	18,151	18,862	20,904	15,115	13,359
1950	11,164	11,300	10,929	24,041	40,250	24,132	24,400	22,286	22,719	21,947	18,548	15,479
1951	13,925	54,338	103,421	78,615	78,496	37,034	21,741	25,550	16,320	23,562	18,787	15,524
1952	15,376	18,107	46,290	93,981	84,957	74,435	74,334	77,758	53,546	23,969	18,865	23,951
1953	25,158	15,092	47,829	107,809	30,572	26,576	21,230	29,032	27,997	22,731	17,577	21,194
1954	16,018	19,168	15,720	36,894	65,186	54,596	46,698	28,463	16,209	23,859	17,586	15,113
1955	16,079	16,732	25,823	22,182	17,206	12,785	16,400	15,120	17,445	17,572	12,945	11,844
1956	11,721	14,215	100,456	174,066	92,923	45,714	25,210	46,660	28,920	20,794	18,306	21,718
1957	19,301	14,271	13,169	16,753	37,957	51,954	25,477	22,533	20,633	22,380	17,934	14,768
1958	20,572	16,226	24,975	40,651	185,858	102,807	103,447	59,942	42,524	23,742	19,298	23,033
1959	22,522	17,438	15,530	38,592	59,101	26,734	14,541	14,751	15,645	22,802	18,013	13,488
1960	13,526	12,003	11,730	14,064	33,624	25,665	16,391	14,999	15,437	21,322	13,058	13,319

Appendix C-3 CALSIM II Modeling

Alt Existing Alternative Desal Total Delta Inflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	12,314	14,437	18,193	12,848	29,779	19,712	14,981	12,667	13,485	20,695	16,223	13,445
1962	13,443	12,735	18,013	12,166	54,293	31,823	18,574	17,297	16,860	21,752	18,655	15,395
1963	38,489	17,715	29,058	18,969	77,955	35,759	93,602	37,327	22,732	21,797	18,311	15,724
1964	16,121	28,604	14,649	26,249	18,137	14,052	21,254	13,576	15,944	21,243	17,340	13,838
1965	13,630	18,022	79,934	127,648	41,286	29,418	51,290	30,064	18,107	22,228	18,221	16,524
1966	12,712	26,541	22,121	35,725	31,144	30,401	17,803	17,748	15,587	21,493	17,800	14,687
1967	16,056	18,119	42,239	52,888	63,089	66,082	59,372	62,260	55,691	25,830	19,665	23,818
1968	24,928	15,782	18,433	33,583	67,903	41,387	19,863	14,281	15,967	20,303	17,128	13,987
1969	17,010	14,778	27,125	124,899	140,268	71,039	64,900	75,200	48,012	24,101	16,995	20,191
1970	24,516	16,331	61,211	213,424	92,370	45,879	21,375	18,416	15,024	25,710	18,946	15,644
1971	15,061	21,858	66,219	53,986	31,174	51,260	27,479	31,844	23,352	27,111	18,349	21,518
1972	16,605	15,317	19,475	19,183	26,977	38,230	15,165	14,373	21,704	21,479	15,528	12,647
1973	13,452	22,350	28,085	85,915	97,685	65,893	24,309	24,746	21,107	24,378	18,016	14,537
1974	14,691	64,949	72,286	135,875	47,715	116,567	77,357	30,797	25,126	23,567	18,867	24,073
1975	18,525	16,052	19,053	17,973	72,652	96,432	30,677	36,579	30,155	23,482	18,724	23,268
1976	21,756	16,992	17,782	15,331	15,704	16,661	12,195	9,421	12,976	16,789	12,310	12,423
1977	12,917	11,953	10,697	8,330	9,320	8,631	10,568	7,592	10,818	12,952	11,808	8,877
1978	9,322	8,648	16,605	69,915	62,301	73,082	49,679	32,531	27,158	24,616	17,875	16,881
1979	15,250	12,210	12,246	26,226	53,975	40,794	22,663	23,498	21,143	22,485	17,645	13,742
1980	14,122	17,090	22,378	108,552	138,414	65,376	26,514	23,856	20,191	23,971	19,332	17,914
1981	15,533	11,560	16,652	23,821	29,425	32,380	19,600	14,975	15,349	20,644	15,387	14,367
1982	16,211	37,071	94,599	82,914	112,661	89,659	149,785	55,771	35,010	23,741	17,640	21,847
1983	32,682	46,962	91,584	107,531	179,685	253,628	92,603	83,444	94,601	43,951	25,286	35,131
1984	32,457	84,267	158,492	74,101	46,483	43,017	24,063	19,291	18,701	23,172	18,844	16,405
1985	14,308	35,408	24,080	16,546	19,910	18,681	14,993	16,225	15,053	21,220	18,333	17,119
1986	15,978	12,618	20,049	26,991	212,280	158,381	32,079	21,801	21,444	22,470	20,146	17,207
1987	15,273	11,885	13,213	15,976	11,826	21,987	26,426	16,757	11,826	12,914	17,215	14,248
1988	12,122	11,542	19,349	29,092	17,546	10,585	11,698	10,344	12,271	13,542	9,192	8,545
1989	9,310	10,434	12,176	14,434	10,763	48,617	24,417	14,999	13,385	20,116	16,679	13,919
1990	14,685	12,115	15,207	20,741	18,130	13,807	13,002	8,672	9,865	11,417	11,951	9,273
1991	9,026	8,994	7,951	7,050	9,116	33,919	15,072	10,588	9,626	10,461	14,676	8,846
1992	9,035	8,557	8,353	11,147	34,977	21,138	14,363	9,966	12,570	12,949	11,635	10,579
1993	9,499	8,705	14,357	71,100	63,378	50,843	45,025	36,027	30,722	24,509	18,893	16,165
1994	15,630	13,003	15,819	15,015	25,745	15,902	13,541	11,330	13,647	22,249	17,358	14,801
Mean	15,398	17,911	30,355	44,514	55,869	47,508	33,412	26,236	22,295	20,922	16,535	15,417
Max	38,489	84,267	158,492	213,424	212,280	253,628	149,785	83,444	94,601	43,951	25,286	35,131
Min	9,026	8,524	7,951	7,050	9,116	8,631	10,328	7,592	9,626	10,461	8,772	8,545

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Base Existing Alternative Base Total Delta Inflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	14,063	13,175	20,778	19,390	47,737	41,084	31,884	58,533	50,572	24,360	15,841	14,740
1923	14,851	16,665	39,845	37,991	23,734	18,635	31,952	23,286	18,467	21,293	17,749	15,379
1924	12,792	12,453	12,784	14,656	17,232	12,104	10,501	8,598	10,603	11,632	10,040	8,932
1925	9,315	9,371	14,296	14,207	71,381	29,102	26,718	20,791	17,911	19,319	13,389	11,489
1926	11,324	10,172	10,901	19,351	46,024	15,967	26,679	14,989	15,110	17,805	14,794	10,721
1927	11,162	26,507	20,661	34,122	131,975	49,638	53,238	32,831	21,950	20,494	18,136	15,809
1928	12,077	22,268	18,446	26,604	31,063	109,301	33,680	23,137	16,869	20,754	14,823	13,623
1929	13,743	14,050	14,244	14,285	17,539	13,221	10,465	11,104	12,904	12,410	8,819	8,899
1930	9,232	8,540	19,271	22,349	21,562	35,408	14,970	13,987	13,742	18,025	15,221	12,870
1931	10,734	12,075	10,872	14,153	13,468	9,113	10,339	8,382	11,410	13,789	11,712	9,215
1932	9,123	8,563	23,599	24,920	25,799	17,905	14,619	18,775	19,816	14,407	12,042	13,216
1933	11,365	10,135	10,740	15,083	12,568	16,111	13,879	9,491	11,858	13,688	9,934	8,861
1934	9,287	8,743	16,307	20,483	17,994	14,568	13,370	9,617	12,149	12,177	8,849	8,825
1935	9,142	12,316	11,291	34,597	17,987	30,380	58,247	30,003	22,807	20,406	19,083	14,670
1936	14,560	11,551	14,747	42,504	81,077	37,195	29,979	22,384	19,747	21,446	19,089	14,358
1937	14,666	11,593	14,654	15,719	52,635	54,122	33,489	27,212	20,228	20,254	17,465	13,190
1938	13,499	27,431	65,723	38,553	148,142	172,909	82,927	81,289	58,376	24,034	17,280	19,280
1939	23,746	15,525	17,297	16,132	14,420	17,697	14,984	14,857	14,187	19,976	16,889	13,912
1940	14,162	11,029	11,177	39,492	66,157	113,929	76,020	24,608	18,139	24,587	18,966	15,353
1941	14,708	14,535	49,894	105,839	130,340	99,934	80,641	50,198	26,966	24,600	18,947	19,219
1942	17,418	14,637	68,945	85,543	146,998	32,599	56,400	43,840	34,278	23,456	18,476	20,955
1943	19,191	17,570	32,307	92,715	66,571	94,382	35,957	27,428	17,126	22,432	18,642	16,681
1944	14,177	12,498	14,781	16,681	31,773	26,716	16,297	16,728	18,093	18,990	16,755	14,507
1945	14,379	18,401	20,503	15,306	56,094	31,719	19,551	21,565	21,334	23,512	18,228	15,468
1946	14,052	18,648	74,257	56,597	31,608	25,565	20,190	20,652	20,537	23,063	18,283	15,023
1947	15,571	14,752	18,430	13,533	22,856	24,044	16,737	12,961	15,082	18,870	15,466	14,279
1948	13,354	13,443	10,619	18,103	18,059	17,647	31,373	33,414	24,951	23,126	18,897	15,949
1949	14,859	11,907	15,333	13,105	15,418	49,476	17,582	18,151	18,862	20,904	15,159	13,990
1950	11,178	11,313	10,929	24,041	40,250	24,211	24,400	22,286	22,719	21,944	18,548	15,509
1951	13,944	54,338	103,421	78,615	78,496	37,034	21,741	25,550	16,320	23,562	18,787	15,549
1952	15,393	18,122	46,290	93,981	84,957	74,435	74,334	77,758	53,546	23,969	18,865	23,951
1953	25,158	15,092	47,829	107,809	30,572	26,576	21,230	29,032	27,997	22,731	17,577	21,194
1954	16,052	19,168	15,720	36,894	65,186	54,596	46,698	28,463	16,209	23,859	17,586	15,138
1955	16,096	16,749	25,823	22,182	17,277	12,827	16,400	15,120	17,445	17,572	13,010	11,875
1956	11,734	14,229	100,456	174,066	92,923	45,714	25,210	46,660	28,920	20,794	18,306	21,718
1957	19,301	14,271	13,169	16,753	37,957	51,954	25,477	22,533	20,633	22,380	17,934	14,787
1958	20,572	16,264	24,975	40,651	185,858	102,807	103,447	59,942	42,524	23,742	19,298	23,033
1959	22,522	14,738	15,530	38,592	59,101	26,734	14,541	14,751	15,645	22,802	18,087	15,033
1960	13,536	12,014	11,798	14,064	33,624	25,665	16,391	14,999	15,437	21,401	13,088	13,341

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Appendix C-3 CALSIM II Modeling

Year	Base Existing Alternative Base Total Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	12,326	14,551	18,193	12,848	29,779	19,712	15,026	12,667	13,485	20,695	16,246	13,556
1962	13,518	12,775	18,013	12,166	44,293	31,823	18,574	17,297	16,860	21,752	18,696	15,409
1963	38,489	17,715	29,058	18,969	77,955	35,759	93,602	37,327	22,732	21,797	18,311	15,763
1964	16,134	28,604	14,649	26,249	18,137	14,052	21,254	13,576	15,944	21,320	17,361	13,851
1965	13,640	18,022	79,934	127,648	41,286	29,453	51,290	30,064	18,168	22,329	18,221	16,553
1966	12,729	26,541	22,121	35,725	31,132	30,412	17,803	17,748	15,587	21,493	17,855	14,709
1967	16,074	18,119	42,239	52,888	63,089	66,082	59,372	62,260	55,691	25,830	19,665	25,818
1968	24,928	15,782	18,433	33,583	67,903	41,387	19,863	14,281	15,967	20,303	17,183	14,002
1969	17,024	14,825	27,125	124,899	140,268	71,039	64,900	75,200	48,012	24,101	16,995	20,191
1970	24,516	16,331	61,211	213,424	92,370	45,879	21,375	18,416	15,024	25,710	18,946	15,676
1971	15,074	21,838	66,219	53,986	31,174	51,260	27,479	31,844	23,352	27,111	18,349	21,518
1972	16,662	15,336	19,475	19,183	26,980	38,230	15,165	14,373	21,704	21,479	15,588	12,664
1973	13,461	22,350	28,085	85,915	97,685	65,893	24,309	24,746	21,107	24,378	18,016	14,566
1974	14,702	64,949	72,886	135,875	47,715	116,567	77,357	30,797	25,126	23,567	18,867	24,073
1975	18,525	16,052	19,053	17,973	72,652	96,432	30,677	36,579	30,155	23,482	18,724	23,268
1976	21,756	16,992	17,782	15,331	15,714	16,701	12,195	9,421	13,027	16,860	12,310	12,445
1977	12,929	12,042	10,814	8,330	9,356	8,673	10,568	7,658	10,897	13,038	11,889	8,949
1978	9,379	8,687	16,605	69,915	62,301	73,082	49,679	32,531	27,158	24,616	17,875	16,907
1979	15,267	12,223	12,246	29,913	53,975	40,794	22,663	23,498	21,180	22,576	17,707	13,762
1980	14,135	17,114	22,378	108,552	138,414	65,376	26,514	23,856	20,191	23,971	19,332	17,951
1981	15,556	11,574	16,652	23,821	29,425	32,380	19,600	14,975	15,359	20,722	15,412	14,382
1982	16,223	37,071	94,599	82,914	112,661	89,659	149,785	55,771	35,010	23,741	17,640	21,847
1983	32,682	46,962	91,584	107,531	179,685	253,628	92,603	83,444	94,601	43,951	25,286	35,131
1984	32,457	84,267	158,492	74,101	46,483	43,017	24,063	19,291	18,701	23,172	18,844	16,433
1985	14,321	35,408	24,080	16,546	19,910	18,681	14,993	16,225	15,053	21,294	18,357	17,136
1986	15,993	12,633	20,049	26,991	212,280	158,381	32,079	21,801	21,444	22,470	20,152	17,257
1987	15,295	11,898	13,213	15,976	11,987	26,426	16,757	11,826	12,914	17,249	14,284	12,687
1988	12,132	11,555	19,349	29,092	17,546	10,585	11,698	10,344	12,271	13,542	9,241	8,564
1989	9,316	10,438	12,176	14,434	10,885	48,617	24,417	15,005	13,385	20,116	16,699	13,938
1990	14,862	12,247	15,308	20,741	18,167	13,807	13,003	8,672	9,843	11,478	12,071	9,345
1991	9,083	9,033	7,951	7,050	9,129	33,919	15,100	10,588	9,626	10,547	14,757	8,918
1992	9,092	8,596	8,353	11,147	34,977	21,138	14,363	9,966	12,570	12,949	11,716	10,651
1993	9,556	8,744	14,357	71,100	63,378	50,843	45,025	36,027	30,722	24,509	18,893	16,195
1994	15,643	13,013	15,819	15,015	25,745	15,902	13,541	11,330	13,647	22,277	17,374	14,905
Mean	15,418	17,934	30,364	44,514	55,875	47,515	33,414	26,237	22,301	20,945	16,561	15,444
Max	38,489	84,267	158,492	213,424	212,280	253,628	149,785	83,444	94,601	43,951	25,286	35,131
Min	9,083	8,540	7,951	7,050	9,129	8,673	10,339	7,658	9,626	10,547	8,819	8,564

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Year	Difference Existing Alt Desal minus Existing Base Total Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	0
1923	-13	-13	0	0	-118	0	0	0	0	0	0	-17
1924	-10	-8	-68	0	-77	-30	0	-41	-60	-116	-92	-72
1925	-57	-39	0	0	0	0	0	0	0	0	0	-41
1926	-11	-8	0	0	0	0	0	0	0	0	0	-28
1927	-10	0	0	0	0	0	0	0	-60	-57	0	-26
1928	-16	0	0	0	0	0	0	0	0	0	0	-35
1929	-17	-16	0	0	-68	0	0	0	0	0	-47	-22
1930	-8	-6	0	0	0	0	0	0	0	0	0	-15
1931	-6	-138	-113	0	-114	-115	-11	0	-79	-86	-81	-72
1932	-57	-39	0	0	159	0	-72	0	0	0	0	-29
1933	-10	-7	0	0	0	0	0	0	0	0	-64	-32
1934	-146	-148	0	0	0	0	0	0	28	0	-56	-126
1935	-57	-39	0	0	0	0	0	0	0	0	0	-17
1936	-10	-8	-50	0	0	0	0	0	0	-100	0	-21
1937	-11	-11	-25	0	0	0	0	0	0	0	-81	-36
1938	-14	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	-78	-28	-17
1940	-12	-16	-16	0	0	0	0	0	0	-5	-46	-19
1941	-10	-25	0	0	0	0	0	0	0	0	0	0
1942	0	-18	0	0	0	0	0	0	0	-16	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	-28
1944	-17	-13	-22	0	0	0	0	0	0	0	-29	-12
1945	-10	0	0	0	0	-15	0	0	-35	-186	-62	-20
1946	-12	-117	0	0	148	-89	0	0	-36	-122	-57	-22
1947	-15	-31	0	0	0	0	0	0	0	-26	-21	-10
1948	-8	-17	-20	0	-87	-29	0	0	0	0	-72	-21
1949	-16	-96	0	0	18	0	0	0	0	0	-44	-32
1950	-14	-13	0	0	0	-79	0	0	0	0	-1	-31
1951	-20	0	0	0	0	0	0	0	0	0	0	-25
1952	-17	-16	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	-35	0	0	0	0	0	0	0	0	0	0	-25
1955	-17	-17	0	0	-71	-42	0	0	0	0	-65	-30
1956	-13	-14	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	-19
1958	0	-38	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	-75	-17
1960	-10	-11	-68	0	0	0	0	0	0	-79	-30	-23

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Appendix C-3 CALSIM II Modeling

Year	Existing Alt Delta minus Existing Base Total Delta Inflow (CFS)												Aug	Sep	
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul					
1961	-12	-114	0	0	0	0	0	-45	0	0	0	0	0	-23	-111
1962	-74	-40	0	0	0	0	0	0	0	0	0	0	0	-41	-14
1963	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-39
1964	-13	0	0	0	0	0	0	0	0	0	-77	-20	-13	0	0
1965	-9	0	0	0	0	-34	0	0	0	-61	-101	0	-29	0	0
1966	-17	0	0	0	12	-10	0	0	0	0	0	0	-55	-23	0
1967	-18	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0	-55	-15	0
1969	-14	-47	0	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-31
1971	-13	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1972	-57	-19	0	0	-3	0	0	0	0	0	0	0	0	-59	-17
1973	-9	0	0	0	0	0	0	0	0	0	0	0	0	0	-29
1974	-11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	-10	-40	0	0	0	-51	-71	0	0	0	-22
1977	-12	-89	-117	0	-36	-42	0	0	-66	-79	-86	-81	-72	0	0
1978	-57	-39	0	0	0	0	0	0	0	0	0	0	0	0	-27
1979	-17	-13	0	0	0	0	0	0	0	-36	-91	-62	-20	0	0
1980	-13	-24	0	0	0	0	0	0	0	0	0	0	0	0	-37
1981	-23	-14	0	0	0	0	0	0	0	0	-11	-78	-25	-15	0
1982	-13	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-28
1985	-14	0	0	0	0	0	0	0	0	0	0	-74	-24	-17	0
1986	-15	-14	0	0	0	0	0	0	0	0	0	0	0	-6	-49
1987	-22	-13	0	0	0	0	0	0	0	0	0	-35	-36	-13	0
1988	-9	-13	0	0	0	0	0	0	0	0	0	0	0	-50	-19
1989	-6	-4	0	0	-122	0	0	0	-5	0	0	0	-20	-20	0
1990	-176	-132	-101	0	-37	0	0	-1	0	22	-61	-120	-72	0	0
1991	-57	-39	0	0	-12	0	-28	0	0	0	-86	-81	-72	0	0
1992	-57	-39	0	0	0	0	0	0	0	0	0	0	-81	-72	0
1993	-57	-39	0	0	0	0	0	0	0	0	0	0	0	0	-30
1994	-13	-10	0	0	0	0	0	0	0	0	0	-29	-17	-104	0
Mean	-20	-22	-8	0	-6	-7	-2	-2	-2	-6	-23	-25	-27	0	0
Max	0	0	0	0	159	0	0	0	0	28	0	0	0	0	0
Min	-176	-148	-117	0	-122	-115	-72	-66	-79	-186	-120	-120	-126	0	0

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Year	Sacramento River (no Yolo Bypass) Delta Inflow (CFS)												Aug	Sep	
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul					
1921	11,590	11,008	17,027	15,602	30,706	22,962	47,322	36,022	21,485	13,108	12,011	12,011	12,011	12,011	12,011
1922	10,613	14,208	30,704	28,199	15,795	14,620	23,526	16,691	14,872	18,658	15,225	12,922	12,922	12,922	12,922
1924	10,363	10,537	10,706	12,650	14,627	10,022	8,426	6,832	9,192	10,247	9,069	7,018	7,018	7,018	7,018
1925	7,558	7,643	12,171	12,594	63,177	25,720	19,995	15,390	15,153	17,282	11,479	9,481	9,481	9,481	9,481
1926	9,119	8,389	9,037	17,358	40,081	13,540	19,001	11,549	13,456	16,326	13,740	9,338	9,338	9,338	9,338
1927	9,334	23,340	18,110	31,156	74,785	43,301	44,439	25,644	18,049	17,924	15,813	13,480	13,480	13,480	13,480
1928	10,023	19,731	15,296	23,547	27,167	74,214	26,068	17,782	14,536	18,999	13,147	11,881	11,881	11,881	11,881
1929	11,589	12,077	12,155	12,428	14,790	10,950	7,372	8,391	11,362	11,064	7,905	7,015	7,015	7,015	7,015
1930	7,613	7,104	17,069	20,355	19,044	31,434	11,789	11,317	12,279	16,720	14,326	11,645	11,645	11,645	11,645
1931	8,974	10,468	9,355	12,484	11,596	7,337	8,582	7,047	10,134	12,649	10,908	7,414	7,414	7,414	7,414
1932	7,743	7,090	18,398	20,867	16,707	12,491	8,857	13,732	17,318	12,541	10,305	11,388	11,388	11,388	11,388
1933	9,220	8,399	8,974	12,770	10,279	13,569	10,757	6,502	10,300	12,501	8,712	6,938	6,938	6,938	6,938
1934	7,638	7,123	13,948	18,077	14,966	12,335	11,240	7,829	10,983	11,115	8,001	6,990	6,990	6,990	6,990
1935	7,751	10,514	9,398	28,571	13,949	24,711	47,142	23,128	19,301	18,210	17,197	12,694	12,694	12,694	12,694
1936	12,381	9,732	12,759	38,517	60,695	29,502	20,770	14,896	15,885	18,758	16,703	11,870	11,870	11,870	11,870
1937	11,947	9,649	12,359	12,524	34,701	38,784	22,043	15,806	16,551	17,648	15,017	10,711	10,711	10,711	10,711
1938	9,916	24,926	56,271	31,295	74,238	74,612	60,262	55,478	34,820	19,616	14,199	15,584	15,584	15,584	15,584
1939	14,312	13,244	14,824	13,584	10,786	13,023	9,739	10,551	12,165	17,991	14,999	12,186	12,186	12,186	12,186
1940	11,010	9,270	9,404	32,396	54,548	73,791	65,147	17,416	14,490	22,049	16,479	12,897	12,897	12,897	12,897
1941	12,191	12,348	43,634	73,169	73,774	70,294	60,811	39,039	18,985	21,414	16,016	16,448	16,448	16,448	16,448
1942	12,686	12,275	61,010	68,870	74,385	23,029	43,102	33,728	26,569	19,755	15,334	17,918	17,918	17,918	17,918
1943	13,115	14,139	26,980	71,806	51,452	67,084	25,538	18,248	12,754	19,222	15,778	13,813	13,813	13,813	13,813
1944	10,662	10,151	12,317	14,199	27,027	21,510	10,244	11,092	15,567	16,703	14,505	12,485	12,485	12,485	12,485
1945	12,053	15,827	17,961	13,012	45,608	22,192	10,840	14,523	17,468	20,361	15,300	12,791	12,791	12,791	12,791
1946	10,394	15,653	62,590	49,344	25,773	19,552	12,629	14,165	16,934	20,334	15,708	12,602	12,602	12,602	12,602
1947	12,998	12,279	15,744	11,136	19,388	21,052	13,491	10,243	13,290	17,174	14,132	12,871	12,871	12,871	12,871
1948	11,419	11,681	8,956	16,432	16,180	14,997	25,732	28,345	21,956	21,172	16,989	14,090	14,090	14,090	14,090
1949	12,768	10,076	13,584	11,025	13,107	44,142	12,648	13,882	16,666	19,068	13,348	11,581	11,581	11,581	11,581
1950	9,206	9,514	9,187	20,927	34,954	20,493	18,720	17,336	19,861	19,756	16,406	13,243	13,243	13,243	13,243
1951	11,981	43,849	74,407	61,570	63,916	28,406	14,857	18,830	12,980	21,392	16,761	13,358	13,358	13,358	13,358
1952	12,701	15,840	40,907	73,283	72,235	55,253	59,006	59,646	37,917	19,552	15,584	20,305	20,305	20,305	20,305
1953	16,445	12,927	43,041	73,081	23,614	22,509	15,397	23,556	24,598	20,374	15,352	19,041	19,041	19,041	19,041
1954	13,575	17,202	13,699	34,200	61,562	48,972	39,477	23,473	13,862	21,833	15,643	13,249	13,249	13,249	13,249
1955	13,822	14,915	23,256	19,204	14,482	10,259	13,166	11,856	15,515	15,851	11,645	10,398	10,398	10,398	10,398
1956	9,971	12,426	73,857	75,216	68,767	34,509	17,852	38,152	21,647	17,468	15,388	18,582	18,582	18,582	18,582
1957	14,262	12,273	11,040	14,561	34,197	45,461	20,044	16,815	17,587	20,266	15,939	12,784	12,784	12,784	12,784
1958	18,102	14,199	22,806	37,936	75,279	73,259	70,444	63,674	30,451	20,054	16,061	19,747	19,747	19,747	19,747
1959	15,107	12,222	12,772	35,967	53,078	22,560	9,781	11,179	13,856	21,094	16,362	11,839	11,839	11,839	11,839
1960	11,415	10,422	10,178	12,369	30,012	22,594	13,194	12,197	13,766	19,935	12,128	12,024	12,024	12,024	12,024

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Appendix C-3 CALSIM II Modeling

Alt Existing Alt Desal												
Sacramento River (no Yolo Bypass) Delta Inflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	10,495	12,874	16,508	17,816	13,069	11,050	11,942	19,654	15,314	12,177		
1962	11,924	13,600	16,538	10,811	46,600	25,071	12,598	12,640	14,741	20,077	17,049	13,696
1963	35,004	16,062	27,058	16,083	68,704	31,405	71,980	29,270	18,320	18,867	15,769	13,163
1964	13,865	25,839	12,437	23,040	15,876	11,777	18,114	10,660	14,317	19,798	16,373	12,403
1965	11,739	16,047	66,627	74,248	31,066	23,492	40,792	22,331	13,362	19,254	15,524	13,737
1966	10,164	22,845	15,588	29,093	24,811	25,512	12,833	13,083	13,611	19,600	15,649	12,703
1967	13,715	15,887	37,330	42,055	56,113	52,843	37,223	43,783	37,156	15,675	16,414	21,536
1968	17,885	13,451	15,336	29,884	61,087	35,711	14,792	10,551	14,071	18,514	15,408	12,113
1969	14,808	12,758	24,069	74,132	73,878	46,259	41,777	47,090	21,546	19,085	13,842	16,146
1970	15,432	14,072	56,675	76,417	71,004	33,887	14,585	12,084	11,768	23,368	16,200	13,232
1971	12,457	18,913	58,611	47,195	27,192	45,146	21,297	26,067	20,167	24,650	15,995	19,223
1972	14,226	13,319	16,896	16,842	23,880	35,300	11,637	11,095	19,794	19,863	13,579	10,955
1973	11,388	19,972	25,906	73,276	72,916	51,290	15,919	17,796	17,848	21,896	15,209	11,973
1974	12,167	61,365	66,979	74,485	39,595	73,722	65,747	22,521	20,229	20,394	15,980	21,130
1975	14,798	13,799	16,479	15,447	64,050	70,779	20,618	28,161	23,879	20,134	15,720	20,220
1976	17,542	14,707	15,486	13,229	13,163	14,235	9,351	6,931	11,356	15,275	10,825	10,976
1977	9,594	9,712	8,887	6,881	7,713	7,098	8,562	5,864	9,461	12,041	11,024	7,768
1978	7,730	7,155	14,713	63,482	51,780	60,128	33,814	20,407	15,443	21,919	15,843	14,089
1979	10,329	10,404	10,185	23,800	41,790	29,747	14,805	16,685	18,679	20,504	15,748	11,717
1980	11,744	15,092	19,934	74,035	74,159	45,030	17,371	15,776	12,955	19,182	16,442	14,201
1981	10,255	9,460	14,407	20,666	26,118	27,522	14,528	10,960	13,513	18,876	13,611	12,667
1982	13,957	34,114	73,825	68,734	73,766	67,935	74,431	35,436	23,291	18,830	14,295	16,538
1983	19,542	36,125	64,334	71,223	74,897	77,285	61,547	56,201	55,396	24,148	21,365	26,809
1984	19,544	64,442	75,012	50,559	34,209	35,063	17,273	12,869	15,076	20,372	16,139	13,848
1985	10,550	32,005	21,554	14,298	16,877	15,545	10,847	12,237	13,117	19,443	16,640	15,393
1986	13,673	10,543	17,617	23,827	74,255	18,236	12,039	13,556	19,369	17,304	14,340	
1987	11,549	9,823	11,134	13,879	19,311	23,471	13,989	9,358	11,231	15,588	12,879	11,344
1988	10,263	9,980	17,838	27,107	15,895	8,909	9,630	8,555	10,831	12,442	8,383	5,919
1989	7,629	8,973	10,616	13,015	9,062	45,178	21,839	13,060	11,751	18,711	15,779	12,647
1990	13,151	10,600	13,801	19,282	16,361	11,829	10,844	7,020	8,469	10,229	11,124	8,048
1991	7,739	7,637	6,654	5,902	7,633	29,815	12,172	8,446	8,277	9,280	13,801	6,877
1992	7,620	7,203	7,058	9,758	31,414	18,450	11,978	8,455	11,346	11,846	10,707	9,363
1993	7,722	7,224	12,558	59,753	55,954	43,205	37,898	29,874	26,472	21,943	16,517	13,864
1994	11,759	11,119	13,824	13,279	21,764	13,843	10,843	8,900	12,108	20,760	16,328	13,522
Mean	12,141	15,336	24,772	32,731	39,195	33,854	24,399	19,320	17,317	18,303	14,514	13,109
Max	35,004	64,442	75,012	76,417	78,332	77,285	74,431	59,646	55,396	24,650	21,365	26,809
Min	7,558	7,090	6,654	5,902	7,633	7,098	7,372	5,864	8,277	9,280	7,905	5,919

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Base Existing Base												
Sacramento River (no Yolo Bypass) Delta Inflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	11,590	11,008	17,027	15,602	35,730	30,706	47,322	36,022	36,022	21,485	13,108	12,045
1923	10,626	14,221	30,704	28,199	15,913	14,620	23,526	16,691	14,872	18,658	15,225	12,939
1924	10,374	10,545	10,773	12,650	14,704	10,052	8,426	6,874	9,253	10,364	9,161	7,090
1925	7,615	7,682	12,171	12,594	63,177	25,720	19,995	15,390	15,153	17,282	11,479	9,521
1926	9,129	8,397	9,037	17,358	40,081	13,540	19,001	11,549	13,436	16,326	13,740	9,366
1927	9,343	23,340	18,110	31,156	74,785	43,301	44,439	25,644	18,110	17,982	15,813	13,506
1928	10,039	19,731	15,296	23,547	27,167	74,214	26,068	17,782	14,536	18,999	13,147	11,916
1929	11,606	12,093	12,155	12,428	14,857	10,950	7,372	8,391	11,362	11,064	7,952	7,037
1930	7,621	7,110	17,069	20,355	19,044	31,434	11,789	11,317	12,279	16,720	14,363	11,661
1931	8,981	10,605	9,468	12,484	11,710	7,452	8,593	7,047	10,213	12,735	10,989	7,486
1932	7,800	7,129	18,398	20,867	16,549	12,491	8,929	13,732	17,318	12,541	10,305	11,416
1933	9,229	8,407	8,974	12,770	10,279	13,569	10,757	6,502	10,300	12,501	8,775	6,969
1934	7,784	7,271	13,948	18,077	14,966	12,335	11,240	7,829	10,954	11,115	8,056	7,116
1935	7,808	10,553	9,398	28,571	13,949	24,711	47,142	23,128	19,301	18,210	17,197	12,711
1936	12,391	9,740	12,809	38,517	60,695	29,502	20,770	14,896	15,885	18,858	16,703	11,891
1937	11,958	9,660	12,384	12,524	34,701	38,784	22,043	15,806	16,551	17,648	15,098	10,747
1938	9,930	24,926	56,271	31,295	74,238	74,612	60,262	55,478	34,820	19,616	14,199	15,584
1939	14,312	13,244	14,824	13,584	10,786	13,023	9,739	10,551	12,165	18,068	15,028	12,202
1940	11,922	9,286	9,420	32,396	54,548	73,791	65,147	17,416	14,490	22,054	16,525	12,916
1941	12,029	12,373	43,634	73,169	73,774	70,294	60,811	39,039	18,985	21,414	16,016	16,448
1942	12,686	12,293	61,010	68,870	74,385	23,029	43,102	33,728	26,569	19,771	15,334	17,918
1943	13,115	14,139	26,980	71,806	51,452	67,084	25,538	18,248	12,754	19,222	15,778	13,842
1944	10,679	10,164	12,339	14,199	27,027	21,510	10,244	11,092	15,567	16,703	14,534	12,498
1945	12,063	15,827	17,961	13,012	45,608	22,208	10,840	14,523	17,503	20,547	15,363	12,811
1946	10,406	15,770	62,590	49,344	25,625	19,641	12,629	14,165	16,970	20,456	15,764	12,624
1947	13,013	12,310	15,744	11,136	19,389	21,052	13,491	10,243	13,290	17,200	14,152	12,881
1948	11,427	11,699	8,975	16,432	16,267	15,026	25,732	28,345	21,956	21,172	17,061	14,111
1949	12,784	10,172	13,584	11,025	13,089	44,142	12,648	13,882	16,666	19,068	13,392	11,613
1950	9,220	9,527	9,187	20,927	34,954	20,572	18,720	17,336	19,861	19,756	16,407	13,274
1951	12,001	43,849	74,407	61,570	63,916	28,406	14,857	18,830	12,980	21,392	16,761	13,383
1952	12,718	15,855	40,907	73,283	72,235	55,253	59,006	59,646	37,917	19,552	15,584	20,305
1953	16,445	12,927	43,041	73,081	23,614	22,509	15,397	23,356	24,598	20,374	15,352	19,041
1954	13,610	17,202	13,699	34,200	61,562	48,972	39,477	23,473	13,862	21,833	15,643	13,274
1955	13,839	14,932	23,256	19,204	14,554	10,301	13,166	11,856	15,515	15,851	11,710	10,428
1956	9,984	12,441	73,857	75,216	68,767	34,509	17,852	38,152	21,647	17,468	15,388	18,582
1957	14,262	12,273	11,040	14,561	34,197	45,461	20,044	16,815	17,587	20,266	15,939	12,803
1958	18,102	14,236	22,806	37,936	75,279	73,259	73,556	43,674	30,451	20,054	16,061	19,747
1959	15,107	12,222	12,772	35,967	53,078	22,560	9,781	11,179	13,856	21,094	16,436	11,856
1960	11,424	10,432	10,246	12,369	30,012	22,594	13,194	12,197	13,766	20,014	12,158	12,047

Contra Costa Water District Alternative Intake Project
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Appendix C-3 CALSIM II Modeling

Year	Base Existing Base Sacramento River (no Yolo Bypass) Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
	1961	10,507	12,988	16,508	13,716	27,842	17,816	13,114	11,050	11,942	19,654	15,337
1962	11,999	11,400	16,538	10,811	46,600	25,071	12,598	12,640	14,741	20,077	17,090	13,710
1963	35,004	16,062	27,058	16,083	68,704	31,405	71,980	29,270	18,320	18,867	15,769	13,202
1964	13,878	25,839	12,437	23,040	15,876	11,777	18,114	10,660	14,317	19,875	16,393	12,417
1965	11,749	16,047	66,627	74,248	31,066	23,526	40,792	22,331	13,423	19,354	15,524	13,765
1966	10,181	22,845	15,588	29,093	24,800	25,522	12,833	13,083	13,611	19,600	15,705	12,725
1967	13,733	15,887	37,330	42,055	56,113	52,843	37,223	43,783	37,156	15,675	16,414	21,536
1968	17,885	13,451	15,336	29,884	61,087	35,711	14,792	10,551	14,071	18,514	15,463	12,128
1969	14,822	12,805	24,069	74,132	73,878	46,259	41,777	47,090	21,546	19,085	13,842	16,146
1970	15,432	14,072	56,675	76,417	71,004	33,887	14,585	12,084	11,768	23,368	16,200	13,263
1971	12,470	18,913	58,611	47,195	27,192	45,146	21,297	26,067	20,167	24,650	15,995	19,223
1972	14,283	13,338	16,896	16,842	23,883	35,300	11,637	11,095	19,794	19,863	13,639	10,973
1973	11,398	19,972	25,906	73,276	72,916	51,290	15,919	17,796	17,848	21,896	15,209	12,003
1974	12,178	61,365	66,979	74,485	39,595	73,722	65,747	22,521	20,229	20,394	15,980	21,130
1975	14,798	13,799	16,479	15,447	64,050	70,779	20,618	28,161	23,879	20,134	15,720	20,220
1976	17,542	14,707	15,486	13,229	13,173	14,275	9,351	6,931	11,408	15,347	10,825	10,999
1977	9,606	9,800	9,003	6,881	7,749	7,140	8,562	5,930	9,540	12,127	11,105	7,840
1978	7,787	7,194	14,713	63,482	51,780	60,128	33,814	20,407	15,443	21,919	15,843	14,115
1979	10,346	10,417	10,185	23,800	41,790	29,747	14,805	16,685	18,716	20,595	15,810	11,737
1980	11,757	15,116	19,934	74,035	74,159	45,030	17,371	15,776	12,955	19,182	16,442	14,238
1981	10,277	9,475	14,407	20,666	26,118	27,522	14,528	10,960	13,524	18,955	13,635	12,682
1982	13,970	34,114	73,825	68,734	73,766	67,935	74,431	35,436	23,291	18,830	14,295	16,538
1983	19,542	36,125	64,334	71,223	74,897	77,285	61,547	56,201	55,396	24,148	21,365	26,809
1984	19,544	64,442	75,012	50,559	34,209	35,063	17,273	12,869	15,076	20,372	16,139	13,876
1985	10,564	32,005	21,554	14,298	16,877	15,545	10,847	12,237	13,117	19,517	16,664	15,411
1986	13,688	10,558	17,617	23,827	78,332	74,255	18,236	12,039	13,556	19,369	17,310	14,389
1987	11,571	9,836	11,134	13,879	19,311	23,471	13,989	9,358	11,231	15,623	12,914	11,357
1988	10,273	9,993	17,838	27,107	15,895	8,909	9,630	8,555	10,831	12,442	8,433	5,937
1989	7,635	8,977	10,616	13,015	9,184	45,178	21,839	13,065	11,751	18,711	15,799	12,667
1990	13,327	10,732	13,903	19,282	16,398	11,829	10,845	7,020	8,446	10,291	11,245	8,120
1991	7,796	7,676	6,654	5,902	7,645	29,815	12,200	8,446	8,277	9,366	13,882	6,949
1992	7,677	7,242	7,058	9,758	31,414	18,450	11,978	8,455	11,346	11,846	10,788	9,435
1993	7,779	7,263	12,558	59,753	55,954	43,205	37,898	29,874	26,472	21,943	16,517	13,894
1994	11,772	11,130	13,824	13,279	21,764	13,843	10,843	8,900	12,108	20,789	16,345	13,626
Mean	12,161	15,359	24,780	32,731	39,201	33,861	24,401	19,321	17,324	18,326	14,539	13,136
Max	35,004	64,442	75,012	76,417	78,332	77,285	74,431	59,646	55,396	24,650	21,365	26,809
Min	7,615	7,110	6,654	5,902	7,645	7,140	7,372	5,930	8,277	9,366	7,952	5,937

Year	Difference Existing Alt Desal minus Existing Base Sacramento River (no Yolo Bypass) Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
	1922	0	0	0	0	0	0	0	0	0	0	0
1923	-13	-13	0	0	-118	0	0	0	0	0	0	-34
1924	-10	-8	-68	0	-77	-30	0	-41	-60	-116	-92	-72
1925	-57	-39	0	0	0	0	0	0	0	0	0	-41
1926	-11	-8	0	0	0	0	0	0	0	0	0	-28
1927	-10	0	0	0	0	0	0	0	-60	-57	0	-26
1928	-16	0	0	0	0	0	0	0	0	0	0	-35
1929	-17	-16	0	0	-68	0	0	0	0	0	-47	-22
1930	-8	-6	0	0	0	0	0	0	0	0	0	-15
1931	-6	-138	-113	0	-114	-115	-11	0	-79	-86	-81	-72
1932	-57	-39	0	0	159	0	0	-72	0	0	0	-29
1933	-10	-7	0	0	0	0	0	0	0	0	0	-32
1934	-146	-148	0	0	0	0	0	0	28	0	-56	-126
1935	-57	-39	0	0	0	0	0	0	0	0	0	-17
1936	-10	-8	-50	0	0	0	0	0	0	-100	0	-21
1937	-11	-11	-25	0	0	0	0	0	0	0	-81	-36
1938	-14	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	-78	-17
1940	-12	-16	-16	0	0	0	0	0	0	0	-5	-19
1941	-10	-25	0	0	0	0	0	0	0	0	0	0
1942	0	-18	0	0	0	0	0	0	0	-16	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	-28
1944	-17	-13	-22	0	0	0	0	0	0	0	-29	-12
1945	-10	0	0	0	0	-15	0	0	-35	-186	-62	-20
1946	-12	-117	0	0	148	-89	0	0	-36	-122	-57	-22
1947	-15	-31	0	0	0	0	0	0	0	-26	-21	-10
1948	-8	-17	-20	0	-87	-29	0	0	0	0	-72	-21
1949	-16	-96	0	0	18	0	0	0	0	0	-44	-32
1950	-14	-13	0	0	0	-79	0	0	0	0	-1	-31
1951	-20	0	0	0	0	0	0	0	0	0	0	-25
1952	-17	-16	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	-35	0	0	0	0	0	0	0	0	0	0	-25
1955	-17	-17	0	0	-71	-42	0	0	0	0	0	-30
1956	-13	-14	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	-19
1958	0	-38	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	-17
1960	-10	-11	-68	0	0	0	0	0	0	-79	-30	-23

Appendix C-3 CALSIM II Modeling

Year	Difference Existing Alt Desal minus Existing Base Sacramento River (no Yolo Bypass) Delta Inflow (CFS)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1961	-12	-114	0	0	0	0	0	-45	0	0	0	-23	-111
1962	-74	-40	0	0	0	0	0	0	0	0	0	-41	-14
1963	0	0	0	0	0	0	0	0	0	0	0	0	-39
1964	-13	0	0	0	0	0	0	0	0	-77	-20	-13	0
1965	-9	0	0	0	0	-34	0	0	-61	-101	0	-29	0
1966	-17	0	0	12	-10	0	0	0	0	0	-55	-23	0
1967	-18	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	-55	-15	0
1969	-14	-47	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0	-31
1971	-13	0	0	0	0	0	0	0	0	0	0	0	0
1972	-57	-19	0	0	-3	0	0	0	0	0	0	-59	-17
1973	-9	0	0	0	0	0	0	0	0	0	0	0	-29
1974	-11	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	-10	-40	0	0	-51	-71	0	0	-22
1977	-12	-89	-117	0	-36	-42	0	-66	-79	-86	-81	-72	0
1978	-57	-39	0	0	0	0	0	0	0	0	0	0	-27
1979	-17	-13	0	0	0	0	0	0	-36	-91	-62	-20	0
1980	-13	-24	0	0	0	0	0	0	0	0	0	0	-37
1981	-23	-14	0	0	0	0	0	0	0	-11	-78	-25	-15
1982	-13	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0	-28
1985	-14	0	0	0	0	0	0	0	0	0	-74	-24	-17
1986	-15	-14	0	0	0	0	0	0	0	0	0	-6	-49
1987	-22	-13	0	0	0	0	0	0	0	-35	-36	-13	0
1988	-9	-13	0	0	0	0	0	0	0	0	0	-50	-19
1989	-6	-4	0	0	-122	0	0	-5	0	0	0	-20	-20
1990	-176	-132	-101	0	-37	0	-1	0	22	-61	-120	-72	0
1991	-57	-39	0	0	-12	0	-28	0	0	-86	-81	-72	0
1992	-57	-39	0	0	0	0	0	0	0	0	0	-81	-72
1993	-57	-39	0	0	0	0	0	0	0	0	0	0	-30
1994	-13	-10	0	0	0	0	0	0	0	0	-29	-17	-104
Mean	-20	-22	-8	0	-6	-7	-2	-2	-6	-23	-25	-27	0
Max	0	0	0	0	159	0	0	0	28	0	0	0	0
Min	-176	-148	-117	0	-122	-115	-72	-66	-79	-186	-120	-126	0

Appendix C-3 CALSIM II Modeling

Year	Alt Existing Alt Desal San Joaquin River Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	2,253	1,903	2,965	2,941	8,668	8,516	7,064	7,310	11,837	2,231	2,118	2,073
1923	4,026	1,889	5,594	7,787	6,558	3,039	6,325	5,344	2,215	2,116	2,031	0
1924	2,163	1,616	1,721	1,681	1,922	1,713	1,779	1,629	1,284	1,221	824	1,144
1925	1,651	1,550	1,549	1,337	3,144	2,647	4,640	4,115	2,177	1,833	1,700	1,751
1926	1,949	1,487	1,558	1,441	2,196	1,815	3,580	3,108	1,600	1,432	1,001	1,293
1927	1,708	1,901	2,040	1,847	5,350	3,865	5,881	5,528	2,383	1,929	1,756	1,728
1928	1,836	1,984	2,385	2,244	2,587	5,396	5,850	4,782	1,886	1,693	1,612	1,636
1929	1,893	1,490	1,538	1,500	1,903	1,732	2,441	2,251	1,372	1,297	812	1,165
1930	1,424	1,267	1,241	1,343	1,682	1,967	2,460	2,224	1,334	1,256	804	1,151
1931	1,616	1,269	1,237	1,215	1,427	1,306	1,466	1,233	1,133	1,007	668	1,031
1932	1,246	1,298	3,292	3,549	7,691	4,641	4,833	3,991	2,028	1,807	1,683	1,737
1933	1,955	1,499	1,492	1,686	1,997	2,097	2,546	2,327	1,214	1,134	1,104	1,911
1934	1,375	1,281	1,411	1,401	1,989	1,699	1,748	1,539	1,110	1,015	738	1,021
1935	1,171	1,436	1,514	3,792	3,363	3,730	6,614	5,646	3,025	2,137	1,828	1,896
1936	2,009	1,593	1,710	2,014	12,057	5,857	6,762	5,404	2,382	1,996	1,823	1,901
1937	2,472	1,655	1,890	2,643	14,731	12,094	9,382	9,542	2,672	2,171	1,941	2,012
1938	3,339	1,811	5,403	6,702	23,079	29,614	17,625	21,316	20,714	3,635	2,363	2,976
1939	9,210	1,953	2,124	2,103	3,173	3,905	4,621	4,007	1,947	1,861	1,807	1,649
1940	2,037	1,568	1,590	4,245	5,766	9,900	6,899	5,480	2,723	2,143	2,065	2,052
1941	2,455	1,874	3,283	5,313	14,816	11,976	10,304	8,906	6,514	2,530	2,307	2,136
1942	4,524	2,020	5,094	8,740	9,861	6,117	7,142	6,545	5,419	2,913	2,434	2,325
1943	5,845	2,535	3,903	13,310	11,539	19,359	7,955	7,162	3,221	2,679	2,366	2,337
1944	3,258	2,040	2,122	2,057	3,352	3,465	5,316	4,832	2,320	2,235	2,167	1,947
1945	2,202	2,024	2,007	1,908	6,620	8,260	7,038	5,604	2,803	2,442	2,343	2,130
1946	3,422	2,136	5,863	4,955	5,257	4,617	6,059	5,341	2,738	2,274	2,197	2,073
1947	2,305	2,019	2,254	2,009	2,826	2,054	2,579	2,402	1,707	1,623	1,260	1,335
1948	1,788	1,525	1,449	1,295	1,477	1,937	3,966	3,596	2,314	1,872	1,778	1,780
1949	1,914	1,518	1,491	1,359	1,778	2,856	3,667	3,352	1,830	1,782	1,712	1,713
1950	1,692	1,479	1,452	2,152	2,914	2,506	3,663	3,259	1,799	1,645	1,599	1,688
1951	1,733	4,011	9,212	12,035	10,143	5,888	5,634	5,289	2,576	1,954	1,823	1,957
1952	2,419	1,844	3,221	7,612	6,601	13,311	9,909	13,249	13,411	3,339	2,305	2,660
1953	8,488	1,892	2,832	6,770	4,991	3,236	4,831	4,474	2,451	1,988	1,897	1,821
1954	2,166	1,643	1,689	1,746	2,370	2,756	4,886	4,380	2,040	1,974	1,886	1,801
1955	2,065	1,586	1,701	1,994	2,048	1,842	2,562	2,454	1,750	1,669	1,246	1,338
1956	1,578	1,557	12,118	18,047	12,293	6,486	6,125	5,361	5,438	2,572	2,197	2,417
1957	4,822	1,691	1,843	1,819	2,863	4,354	4,649	4,553	2,494	1,927	1,809	1,802
1958	2,662	1,717	1,804	2,079	4,024	9,651	15,993	12,353	9,920	2,815	2,411	2,454
1959	7,181	2,226	2,498	2,122	5,075	3,231	4,227	3,269	1,714	1,656	1,593	1,621
1960	1,868	1,407	1,385	1,443	2,276	1,914	2,567	2,351	1,568	1,335	872	1,232

Appendix C-3 CALSIM II Modeling

Year	Alt Existing Alt Desal San Joaquin River Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	1,599	1,362	1,425	1,277	1,458	1,332	1,603	1,395	1,439	989	852	1,213
1962	1,428	1,299	1,303	1,251	1,581	1,475	1,806	1,957	1,754	1,623	1,549	1,637
1963	1,894	1,451	1,421	1,921	3,418	2,850	6,096	5,360	3,016	2,253	1,902	1,923
1964	2,036	1,779	1,794	1,756	1,728	1,743	2,488	2,306	1,466	1,387	904	1,257
1965	1,776	1,712	4,227	10,418	7,014	4,927	7,164	5,703	3,205	2,163	1,907	1,962
1966	2,295	2,930	5,747	4,911	4,918	3,512	4,124	4,289	1,874	1,835	1,765	1,701
1967	2,160	1,721	3,006	3,679	3,445	7,373	13,574	13,272	16,154	9,008	2,225	3,265
1968	6,792	2,033	2,745	2,137	4,210	3,331	4,399	3,345	1,778	1,730	1,658	1,649
1969	2,056	1,635	2,011	15,258	26,525	18,968	18,627	23,526	24,616	4,087	2,269	2,895
1970	8,837	1,924	3,743	18,728	9,638	7,906	5,873	5,407	2,633	2,091	2,017	2,038
1971	2,368	1,921	3,217	2,679	2,485	3,487	4,599	4,398	2,337	2,045	1,955	1,828
1972	2,094	1,613	1,843	1,789	2,304	1,846	2,584	2,680	1,605	1,557	1,508	1,508
1973	1,913	1,636	1,646	2,682	8,442	8,784	6,918	5,504	2,338	2,072	1,974	2,010
1974	2,279	1,751	2,691	5,843	5,518	7,849	9,172	6,287	3,536	2,416	2,178	2,215
1975	3,498	1,932	2,092	2,053	6,673	10,272	7,212	5,985	4,838	2,512	2,193	2,229
1976	3,964	1,865	1,964	1,776	2,147	1,845	2,524	2,328	1,546	1,466	1,433	1,249
1977	3,224	2,163	1,750	1,361	1,470	1,335	1,756	1,631	1,287	864	730	1,061
1978	1,508	1,417	1,588	3,786	7,958	9,628	13,082	11,134	11,322	2,616	1,973	2,713
1979	4,676	1,713	1,950	5,140	10,539	9,432	6,518	5,581	2,297	1,934	1,843	1,968
1980	2,328	1,859	1,989	13,356	22,617	13,780	7,825	5,223	2,794	3,981	2,113	2,926
1981	5,046	1,806	1,940	2,210	2,655	3,816	4,484	3,649	1,769	1,721	1,661	1,644
1982	2,126	1,782	1,915	8,239	15,318	16,806	25,550	16,128	9,903	3,843	3,321	4,281
1983	12,833	8,186	20,163	25,133	33,297	40,943	20,455	19,838	34,654	17,855	2,200	6,622
1984	12,696	13,684	23,114	14,724	9,964	6,285	5,655	5,256	2,744	3,321	2,223	2,078
1985	2,347	1,980	2,028	1,843	2,525	2,330	3,331	3,604	1,833	1,729	1,639	1,646
1986	2,129	1,762	1,835	2,261	18,918	25,075	12,117	7,848	6,746	2,516	2,275	2,298
1987	3,514	1,822	1,853	1,734	2,117	2,087	2,543	2,358	1,608	1,574	1,312	1,273
1988	1,694	1,395	1,344	1,339	1,389	1,326	1,779	1,647	1,334	1,042	744	1,117
1989	1,590	1,349	1,449	1,257	1,443	1,738	1,808	1,512	1,349	1,356	844	1,239
1990	1,445	1,386	1,311	1,265	1,494	1,424	1,644	1,384	1,230	1,129	772	1,163
1991	1,196	1,275	1,188	1,092	1,200	2,627	2,327	1,777	1,171	1,129	820	1,104
1992	1,340	1,267	1,190	1,275	2,437	2,013	2,009	1,411	1,155	1,050	870	1,158
1993	1,737	1,409	1,537	7,874	5,570	5,138	4,896	4,688	3,239	2,156	1,959	1,875
1994	3,632	1,622	1,614	1,414	1,816	1,553	2,390	2,251	1,457	1,439	972	1,222
Mean	3,033	1,995	3,015	4,434	6,311	6,293	6,076	5,468	4,173	2,284	1,678	1,890
Max	12,833	13,684	23,114	25,133	33,297	40,943	25,550	23,526	34,654	17,855	2,434	6,622
Min	1,171	1,267	1,188	1,092	1,200	1,306	1,466	1,233	1,110	864	668	1,021

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Year	Base Existing Base San Joaquin River Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	2,253	1,903	2,965	2,941	8,668	8,516	7,064	7,310	11,837	2,231	2,118	2,073
1923	4,026	1,889	5,594	7,787	6,558	3,039	6,325	5,344	2,754	2,251	2,116	2,031
1924	2,163	1,616	1,721	1,681	1,922	1,713	1,779	1,629	1,284	1,221	824	1,144
1925	1,651	1,550	1,549	1,337	3,144	2,647	4,640	4,115	2,177	1,833	1,700	1,751
1926	1,949	1,487	1,558	1,441	2,196	1,815	3,580	3,108	1,600	1,432	1,001	1,293
1927	1,708	1,901	2,040	1,847	5,350	3,865	5,881	5,528	2,383	1,929	1,756	1,728
1928	1,836	1,984	2,385	2,244	2,587	5,396	5,850	4,782	1,886	1,693	1,612	1,636
1929	1,893	1,490	1,538	1,500	1,903	1,732	2,441	2,251	1,372	1,297	812	1,165
1930	1,424	1,267	1,241	1,343	1,682	1,967	2,460	2,224	1,334	1,256	804	1,151
1931	1,616	1,269	1,237	1,215	1,427	1,306	1,466	1,233	1,133	1,007	668	1,031
1932	1,246	1,298	3,292	3,549	7,691	4,641	4,833	3,991	2,028	1,807	1,683	1,737
1933	1,955	1,499	1,492	1,686	1,997	2,097	2,546	2,327	1,214	1,134	1,104	1,191
1934	1,375	1,281	1,411	1,401	1,989	1,699	1,748	1,539	1,110	1,015	738	1,021
1935	1,171	1,436	1,514	3,792	3,363	3,730	6,614	5,646	3,025	2,137	1,828	1,896
1936	2,009	1,593	1,710	2,014	12,057	5,857	6,762	5,404	2,382	1,996	1,823	1,901
1937	2,472	1,655	1,890	2,643	14,731	12,094	9,382	9,542	2,672	2,171	1,941	2,012
1938	3,339	1,811	5,403	6,702	23,079	29,614	17,625	21,316	20,714	3,635	2,363	2,976
1939	9,210	1,953	2,124	2,103	3,173	3,905	4,621	4,007	1,947	1,861	1,807	1,649
1940	2,037	1,568	1,590	4,245	5,766	9,900	6,899	5,480	2,723	2,143	2,065	2,052
1941	2,455	1,874	3,283	5,313	14,816	11,976	10,304	8,906	6,514	2,550	2,307	2,136
1942	4,524	2,020	5,094	8,740	9,861	6,117	7,142	6,545	5,419	2,913	2,434	2,325
1943	5,845	2,535	3,903	13,310	11,539	19,359	7,955	7,162	3,221	2,679	2,366	2,337
1944	3,258	2,040	2,122	2,057	3,352	3,465	5,316	4,832	2,320	2,235	2,167	1,947
1945	2,202	2,024	2,007	1,908	6,620	8,260	7,038	5,604	2,803	2,442	2,343	2,130
1946	3,422	2,136	5,863	4,955	5,257	4,617	6,059	5,341	2,738	2,274	2,197	2,073
1947	2,305	2,019	2,254	2,009	2,826	2,054	2,579	2,402	1,707	1,623	1,260	1,335
1948	1,788	1,525	1,449	1,295	1,477	1,937	3,966	3,596	2,314	1,872	1,778	1,780
1949	1,914	1,518	1,491	1,359	1,778	2,856	3,667	3,352	1,830	1,782	1,712	1,713
1950	1,692	1,479	1,452	2,152	2,914	2,506	3,663	3,259	1,799	1,645	1,599	1,688
1951	1,733	4,011	9,212	12,035	10,143	5,888	5,634	5,289	2,576	1,954	1,823	1,957
1952	2,419	1,844	3,221	7,612	6,601	13,311	9,909	13,249	13,411	3,339	2,305	2,660
1953	8,488	1,892	2,832	6,770	4,991	3,236	4,831	4,474	2,451	1,988	1,897	1,821
1954	2,166	1,643	1,689	1,746	2,370	2,756	4,886	4,380	2,040	1,974	1,886	1,801
1955	2,065	1,586	1,701	1,994	2,048	1,842	2,562	2,454	1,750	1,669	1,246	1,338
1956	1,578	1,557	12,118	18,047	12,293	6,486	6,125	5,361	5,438	2,572	2,197	2,417
1957	4,822	1,691	1,843	1,819	2,863	4,354	4,649	4,553	2,494	1,927	1,809	1,802
1958	2,662	1,717	1,804	2,079	4,024	9,651	15,993	12,353	9,920	2,815	2,411	2,454
1959	7,181	2,226	2,498	2,122	5,075	3,231	4,227	3,269	1,714	1,656	1,593	1,621
1960	1,868	1,407	1,385	1,443	2,276	1,914	2,567	2,351	1,568	1,335	872	1,232

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Appendix C-3 CALSIM II Modeling

Base (continued) Existing Base San Joaquin River Delta Inflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	1,599	1,362	1,425	1,277	1,458	1,332	1,603	1,395	1,439	989	852	1,213
1962	1,428	1,299	1,303	1,251	1,581	1,467	1,806	1,357	1,754	1,623	1,549	1,637
1963	1,894	1,451	1,421	1,921	3,418	2,850	6,096	5,360	3,016	2,253	1,902	1,923
1964	2,036	1,779	1,794	1,756	1,728	1,743	2,488	2,306	1,466	1,387	904	1,257
1965	1,776	1,712	4,227	10,418	7,014	4,927	7,164	5,703	3,205	2,163	1,907	1,962
1966	2,295	2,930	5,747	4,911	4,918	3,512	4,124	4,289	1,874	1,835	1,765	1,701
1967	2,160	1,721	3,006	3,679	3,445	7,373	13,574	13,272	16,154	9,008	2,225	3,265
1968	6,792	2,033	2,745	2,137	4,210	3,331	4,399	3,345	1,778	1,730	1,658	1,649
1969	2,056	1,635	2,011	15,258	26,525	18,968	18,627	23,526	24,616	4,087	2,269	2,895
1970	8,837	1,924	3,743	18,728	9,638	7,906	5,873	5,407	2,633	2,091	2,017	2,038
1971	2,368	1,921	3,217	2,679	2,485	3,487	4,599	4,398	2,337	2,045	1,955	1,828
1972	2,094	1,613	1,843	1,789	2,304	1,846	2,584	2,680	1,605	1,557	1,508	1,508
1973	1,913	1,636	1,646	2,682	8,442	8,784	6,918	5,504	2,338	2,072	1,974	2,010
1974	2,279	1,751	2,691	5,843	5,518	7,849	9,172	6,287	3,536	2,416	2,178	2,215
1975	3,498	1,932	2,092	2,053	6,673	10,272	7,212	5,985	4,838	2,512	2,193	2,229
1976	3,964	1,865	1,964	1,776	2,147	1,845	2,524	2,328	1,546	1,466	1,433	1,249
1977	3,224	2,163	1,750	1,361	1,470	1,335	1,756	1,631	1,287	864	730	1,061
1978	1,508	1,417	1,588	3,786	7,958	9,428	13,082	11,134	11,322	2,616	1,973	2,713
1979	4,676	1,713	1,950	5,140	10,539	9,432	6,518	5,581	2,297	1,934	1,843	1,968
1980	2,328	1,859	1,989	13,356	22,617	13,780	7,825	6,223	5,794	3,981	2,113	2,926
1981	5,046	1,806	1,940	2,210	2,655	3,816	4,484	3,649	1,769	1,721	1,661	1,644
1982	2,126	1,782	1,915	8,239	15,318	16,806	25,550	16,128	9,903	3,843	3,321	4,281
1983	12,833	8,186	20,163	25,133	33,297	40,943	20,455	19,838	34,654	17,855	2,200	6,622
1984	12,696	13,684	23,114	14,724	9,964	6,285	5,655	5,256	2,744	3,321	2,223	2,078
1985	2,347	1,980	2,028	1,843	2,325	2,330	3,331	3,604	1,833	1,729	1,639	1,646
1986	2,129	1,762	1,835	2,261	18,918	25,075	12,117	7,848	6,746	2,516	2,275	2,298
1987	3,514	1,822	1,853	1,734	2,117	2,087	2,543	2,358	1,608	1,574	1,312	1,273
1988	1,694	1,395	1,344	1,339	1,389	1,326	1,779	1,647	1,334	1,042	744	1,117
1989	1,590	1,349	1,449	1,257	1,443	1,738	1,808	1,512	1,349	1,356	844	1,239
1990	1,445	1,386	1,311	1,265	1,494	1,424	1,644	1,384	1,230	1,129	772	1,163
1991	1,196	1,275	1,188	1,092	1,200	2,627	2,327	1,777	1,171	1,129	820	1,104
1992	1,340	1,267	1,190	1,275	2,437	2,013	2,009	1,411	1,155	1,050	870	1,158
1993	1,737	1,409	1,537	7,874	5,570	5,138	4,896	4,688	3,239	2,156	1,959	1,875
1994	3,622	1,622	1,614	1,414	1,816	1,553	2,390	2,251	1,457	1,439	972	1,222
Mean	3,033	1,995	3,015	4,434	6,311	6,293	6,076	5,468	4,173	2,284	1,678	1,890
Max	12,833	13,684	23,114	25,133	33,297	40,943	25,550	23,526	34,654	17,855	2,434	6,622
Min	1,171	1,267	1,188	1,092	1,200	1,306	1,466	1,233	1,110	864	668	1,021

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Alt Existing Alt/Desal Delta Outflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	4,000	4,500	10,174	27,762	38,968	28,706	24,131	53,211	36,513	8,000	4,000	3,161
1923	4,104	6,508	11,174	22,762	14,900	10,901	25,838	16,532	8,168	6,500	4,000	3,896
1924	4,000	5,871	4,500	7,492	9,241	10,111	6,034	4,124	5,222	6,565	3,667	3,000
1925	3,461	5,200	6,670	7,157	62,085	27,194	20,835	17,200	8,169	5,000	5,960	3,000
1926	4,000	5,538	5,409	9,474	36,252	9,784	21,104	10,806	5,112	5,000	4,883	3,000
1927	4,199	15,353	9,168	24,133	126,341	38,758	46,064	27,474	9,962	9,221	4,000	3,760
1928	4,000	10,657	7,390	16,377	20,191	98,138	26,568	16,383	6,361	8,000	4,000	3,000
1929	5,105	5,631	6,063	6,837	9,434	9,554	6,948	6,579	6,034	4,000	4,755	3,000
1930	3,633	5,427	8,393	12,927	13,985	24,008	10,425	10,245	5,803	5,000	4,818	3,000
1931	4,618	5,283	4,623	7,276	7,697	6,171	6,822	4,493	5,190	6,073	3,141	3,000
1932	4,227	4,694	14,920	14,646	17,717	11,400	11,197	14,008	10,174	5,000	4,510	3,000
1933	4,000	5,306	5,018	12,600	7,186	10,702	10,031	5,726	6,038	4,000	5,314	3,000
1934	3,131	6,293	6,381	12,426	14,642	11,400	9,991	5,599	6,897	4,000	4,846	3,000
1935	3,466	6,422	4,667	25,342	11,400	23,055	52,766	26,440	11,696	6,500	4,000	3,211
1936	4,477	6,184	4,500	33,179	74,354	26,313	23,220	18,373	10,176	6,500	4,000	3,089
1937	4,213	6,698	4,500	7,490	42,808	45,620	26,662	19,727	9,500	6,500	4,762	3,000
1938	4,000	15,766	56,745	30,725	146,012	166,586	74,130	69,544	43,981	8,000	4,000	5,671
1939	11,359	4,500	7,032	9,523	7,675	10,983	10,029	9,726	5,314	5,000	4,051	3,000
1940	5,849	4,500	4,500	30,753	58,715	102,783	68,355	19,037	7,261	8,000	4,400	3,664
1941	4,062	6,995	40,316	97,592	121,432	88,158	73,515	43,356	15,522	8,000	4,840	5,667
1942	5,193	4,500	61,463	82,397	140,524	22,138	50,305	38,926	19,922	8,000	4,000	7,412
1943	6,591	5,911	21,840	85,095	56,520	85,519	29,257	23,206	7,246	9,838	4,000	3,794
1944	4,000	5,130	5,719	7,204	21,617	16,218	10,766	11,241	7,392	5,000	3,500	3,000
1945	6,862	6,849	9,685	6,779	44,345	20,961	13,712	17,537	8,903	6,500	4,000	3,406
1946	4,107	7,525	63,697	45,082	24,469	15,802	13,402	13,264	8,728	6,500	4,000	3,290
1947	4,661	6,661	7,269	6,894	12,519	15,168	11,195	8,711	6,092	5,000	3,715	3,000
1948	6,293	4,500	4,601	8,508	11,209	10,916	25,197	27,635	13,196	6,500	4,000	3,788
1949	4,823	5,385	6,278	7,032	8,486	38,649	12,102	13,856	7,481	5,000	5,107	3,000
1950	4,473	5,611	5,229	14,466	28,415	14,943	17,950	17,906	10,713	6,500	4,303	3,789
1951	4,000	43,188	94,393	71,588	71,588	26,435	16,020	21,710	6,066	9,658	4,000	3,539
1952	4,253	7,552	36,584	86,909	73,180	64,602	67,898	68,604	40,242	8,000	4,000	10,173
1953	12,454	4,500	42,068	101,795	22,330	16,477	15,415	24,624	16,983	8,000	4,000	7,680
1954	4,173	7,359	5,296	26,394	54,153	43,103	39,354	21,539	6,134	8,000	4,000	3,426
1955	5,263	6,346	15,031	13,343	11,400	7,318	12,689	11,291	7,007	5,000	4,740	3,000
1956	4,786	5,622	92,127	166,938	82,923	35,097	19,246	42,902	15,227	8,000	4,000	8,414
1957	6,993	4,500	5,367	7,875	27,264	39,717	18,828	16,432	8,864	8,000	4,000	3,467
1958	8,610	4,500	13,677	32,413	180,774	93,944	97,467	51,598	28,842	8,000	4,398	3,338
1959	9,850	4,500	5,412	29,434	47,744	21,057	8,886	9,571	6,591	7,878	4,000	3,822
1960	4,013	6,603	4,500	7,054	23,017	15,766	11,400	10,973	5,592	5,000	4,464	3,000

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Appendix C-3 CALSIM II Modeling

Year	Alt Existing Alt Desal Delta Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	5.863	5.085	8.419	6.813	18.131	12.386	10.182	9.215	5.865	5.000	4.336	3.000
1962	5.833	4.672	8.107	6.000	15.904	12.285	12.933	6.488	6.623	4.000	3.599	3.000
1963	27.202	5.496	18.108	10.111	67.954	25.844	89.078	33.827	10.618	11.008	4.000	3.787
1964	4.597	17.110	5.349	16.740	11.191	8.018	15.041	8.375	6.443	5.000	4.431	3.117
1965	5.556	6.448	69.989	117.611	28.781	18.569	44.267	23.109	7.555	9.980	4.000	4.064
1966	4.000	15.150	10.959	24.953	20.372	18.681	11.621	12.539	5.662	7.008	4.000	3.360
1967	5.736	6.885	31.922	47.035	51.514	54.918	52.045	53.209	42.118	9.294	4.602	12.156
1968	12.289	4.500	7.599	26.503	59.082	32.736	13.657	9.312	6.144	7.022	4.000	3.000
1969	6.253	4.994	16.149	117.835	132.071	60.284	57.763	64.504	34.563	8.000	4.000	6.428
1970	12.235	6.153	55.433	211.762	85.143	35.269	15.328	13.746	5.530	13.010	4.000	3.438
1971	4.000	11.023	57.324	43.585	25.350	39.137	20.422	27.614	10.760	11.395	4.000	7.942
1972	4.346	4.500	8.682	8.728	16.535	25.470	10.119	8.711	10.704	6.500	4.000	3.000
1973	5.213	12.255	17.694	80.284	90.229	54.896	16.982	18.677	9.721	8.000	4.000	3.241
1974	4.167	53.930	62.489	125.393	33.978	104.933	70.868	26.568	13.283	8.000	4.000	10.353
1975	6.051	4.549	7.862	7.381	63.417	85.687	23.329	30.884	16.078	8.000	4.125	9.590
1976	9.641	4.944	6.298	6.220	8.117	9.195	7.683	4.287	4.710	7.573	3.000	3.000
1977	5.300	3.665	5.629	5.401	6.875	6.115	7.100	4.625	5.168	5.662	3.425	3.000
1978	3.818	5.211	7.046	64.044	57.583	66.314	43.249	23.816	15.122	8.000	4.082	4.159
1979	4.000	5.185	6.025	20.494	45.042	32.160	16.027	17.830	10.066	6.500	4.000	3.000
1980	4.845	6.664	11.665	99.242	130.189	56.522	20.250	19.983	10.063	8.000	4.843	4.472
1981	4.000	4.640	8.006	13.688	18.604	22.649	13.538	9.911	5.387	5.000	3.698	3.330
1982	6.589	25.895	84.350	75.269	101.346	80.667	140.370	45.666	22.722	8.000	4.011	8.879
1983	20.534	36.996	81.691	105.223	179.230	252.419	87.546	74.896	82.943	27.710	10.421	22.794
1984	25.521	79.740	156.487	68.424	39.054	31.331	16.912	13.288	8.266	10.475	4.000	3.647
1985	4.049	24.894	13.249	7.003	10.734	12.368	9.939	11.491	5.460	5.000	4.366	4.463
1986	4.818	5.257	9.456	17.511	206.294	147.611	22.740	13.150	9.282	8.000	5.683	4.468
1987	4.000	4.624	6.620	6.913	13.157	19.923	11.149	7.531	6.168	5.000	3.500	3.000
1988	5.746	4.500	8.677	19.886	11.187	7.887	7.462	6.719	6.771	4.000	4.990	3.000
1989	3.541	5.815	5.338	8.026	7.833	37.218	17.608	10.350	5.767	5.000	4.553	3.728
1990	4.852	5.994	4.500	10.955	11.400	7.726	9.869	5.623	4.000	5.682	3.739	3.000
1991	3.540	5.540	5.171	5.168	7.018	23.060	11.192	6.613	4.000	4.691	4.232	3.000
1992	3.539	5.310	5.813	5.307	25.471	13.615	10.369	5.779	6.736	4.000	3.249	3.000
1993	4.761	3.842	7.606	65.493	54.883	41.746	37.496	31.821	19.712	8.000	4.211	3.694
1994	4.174	5.453	7.444	6.555	15.761	11.012	8.842	7.264	4.000	6.608	3.190	3.778
Mean	6.054	9.466	21.498	36.608	47.736	38.910	27.508	20.876	12.085	7.205	4.253	4.519
Max	27.202	79.740	156.487	211.762	206.294	252.419	140.370	74.896	82.943	27.710	10.421	22.794
Min	3.131	3.665	4.500	5.168	6.875	6.115	6.034	4.124	4.000	4.000	3.000	3.000

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Year	Base Existing Base Delta Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	4.104	4.500	10.023	9.942	38.968	28.706	24.131	53.211	36.513	8.000	4.000	3.161
1923	4.104	4.500	31.174	27.762	14.900	10.901	25.838	16.532	8.168	6.500	4.000	3.896
1924	4.000	5.871	4.500	7.399	9.241	10.111	6.034	4.124	5.222	6.565	3.667	3.000
1925	3.461	5.200	6.636	7.122	62.085	27.194	20.835	17.200	8.169	5.000	5.960	3.000
1926	4.000	5.538	5.312	9.389	36.252	9.784	21.104	10.806	5.112	5.000	4.883	3.000
1927	4.199	15.338	9.168	24.133	126.341	38.758	46.064	27.474	9.962	9.221	4.000	3.760
1928	4.000	10.641	7.390	16.269	20.191	98.138	26.568	16.383	6.361	8.000	4.000	3.000
1929	5.105	5.631	6.045	6.822	9.434	9.554	6.948	6.579	6.034	4.000	4.735	3.000
1930	3.633	5.427	8.370	12.927	13.985	24.008	10.425	10.245	5.803	5.000	4.818	3.000
1931	4.618	5.283	4.623	7.162	7.697	6.171	6.822	4.427	5.190	6.073	3.141	3.000
1932	4.227	4.694	14.886	14.646	17.717	11.400	11.197	14.003	10.174	5.000	4.510	3.000
1933	4.000	5.306	5.006	12.550	7.279	10.702	10.031	5.726	6.038	4.000	5.314	3.000
1934	3.131	6.293	6.268	12.333	14.642	11.400	9.991	5.599	6.897	4.000	4.846	3.000
1935	3.466	6.422	4.633	25.307	11.400	23.055	52.766	26.440	11.696	6.500	4.000	3.211
1936	4.477	6.184	4.500	33.131	74.354	26.313	23.220	18.373	10.176	6.500	4.000	3.089
1937	4.213	6.698	4.500	7.413	42.764	45.620	26.662	19.727	9.500	6.500	4.762	3.000
1938	4.000	15.743	56.745	30.632	146.012	166.586	74.130	69.544	43.981	8.000	4.000	5.601
1939	11.358	4.500	7.032	9.523	7.675	10.983	10.029	9.726	5.314	5.000	4.051	3.000
1940	5.849	4.500	4.500	30.720	58.715	102.783	68.280	19.029	7.261	8.000	4.000	3.604
1941	4.062	6.995	40.316	97.592	121.263	88.130	73.515	43.356	15.522	8.000	4.840	5.621
1942	5.168	4.500	61.436	82.397	140.488	22.136	50.305	38.926	19.856	8.000	4.000	7.361
1943	6.571	5.911	21.840	85.095	56.520	85.519	29.257	23.206	7.246	9.838	4.000	3.794
1944	4.000	5.130	5.719	7.189	21.603	16.218	10.766	11.241	7.392	5.000	3.500	3.000
1945	6.862	6.820	9.685	6.779	44.345	20.961	13.712	17.537	8.903	6.500	4.000	3.406
1946	4.107	7.525	63.697	45.082	24.469	15.802	13.402	13.264	8.728	6.500	4.000	3.290
1947	4.661	6.661	7.233	6.843	12.519	15.168	11.195	8.711	6.092	5.000	3.715	3.000
1948	6.293	4.500	4.601	8.497	11.209	10.916	25.000	27.603	13.196	6.500	4.000	3.788
1949	4.823	5.385	6.206	6.991	8.486	38.649	12.102	13.856	7.481	5.000	5.107	3.000
1950	4.473	5.611	5.209	14.443	28.415	14.943	17.806	17.906	10.713	6.500	4.303	3.789
1951	4.000	43.158	94.393	71.457	71.659	26.435	16.020	21.710	6.066	9.658	4.000	3.539
1952	4.253	7.552	36.584	86.909	73.064	64.602	67.898	68.604	40.242	8.000	4.000	10.173
1953	12.454	4.500	42.068	101.795	22.330	16.477	15.415	24.624	16.983	8.000	4.000	7.643
1954	4.173	7.336	5.262	26.394	54.153	43.030	39.354	21.539	6.134	8.000	4.000	3.426
1955	5.263	6.346	15.031	13.343	11.400	7.318	12.689	11.291	7.007	5.000	4.740	3.000
1956	4.786	5.622	92.127	166.938	82.875	35.016	19.246	42.902	15.227	8.000	4.000	8.349
1957	6.986	4.500	5.339	7.859	27.237	39.717	18.828	16.432	8.864	8.000	4.000	3.467
1958	8.594	4.500	13.677	32.413	180.671	93.944	97.467	51.598	28.842	8.000	4.398	9.338
1959	9.850	4.500	5.382	29.434	47.739	21.057	8.886	9.571	6.591	7.878	4.000	3.822
1960	4.013	6.603	4.500	6.976	22.949	15.766	11.400	10.973	5.592	5.000	4.464	3.000

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Year	Base Existing Base Delta Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	5,863	5,085	8,332	18,088	10,182	9,215	5,865	5,000	4,336	3,000		
1962	8,833	4,672	8,072	6,000	45,619	19,904	12,283	12,933	6,488	6,623	4,000	3,599
1963	27,094	5,496	18,108	10,066	67,954	25,844	89,078	33,827	10,618	11,008	4,000	3,787
1964	4,597	17,101	5,349	16,634	11,191	8,018	15,041	8,375	6,443	5,000	4,431	3,117
1965	5,556	6,434	69,989	117,611	28,781	18,569	44,267	23,109	7,555	9,980	4,000	4,064
1966	4,000	15,117	10,959	24,865	20,372	18,681	11,621	12,539	5,662	7,008	4,000	3,360
1967	5,736	6,859	31,922	47,035	51,426	54,871	52,045	53,209	42,118	9,294	4,602	12,156
1968	12,289	4,500	7,599	26,503	59,082	32,736	13,657	9,312	6,144	7,022	4,000	3,000
1969	6,253	4,994	16,149	117,835	132,071	60,168	57,763	64,504	34,563	8,000	4,000	6,428
1970	12,235	6,153	55,433	211,762	85,143	35,269	15,328	13,746	5,530	13,010	4,000	3,438
1971	4,000	11,007	57,324	43,478	25,350	39,137	20,422	27,614	10,760	11,395	4,000	7,890
1972	4,346	4,500	8,665	8,705	16,535	25,406	10,119	8,711	10,704	6,500	4,000	3,000
1973	5,213	12,217	17,694	80,217	90,166	54,896	16,982	18,677	9,721	8,000	4,000	3,241
1974	4,167	53,932	62,489	125,285	35,978	104,933	70,868	26,568	13,283	8,000	4,000	10,301
1975	6,032	4,549	7,838	7,359	63,392	85,687	23,329	30,884	16,078	8,000	4,125	9,533
1976	9,626	4,944	6,271	6,204	8,117	9,195	7,683	4,238	4,710	7,573	3,000	3,000
1977	5,300	3,665	5,629	5,296	6,875	6,115	7,100	4,625	5,168	5,662	3,425	3,000
1978	3,818	5,211	7,012	64,044	57,583	66,314	43,249	23,816	15,122	8,000	4,082	4,159
1979	4,000	5,185	6,010	20,460	45,042	32,159	16,027	17,830	10,066	6,500	4,000	3,000
1980	4,845	6,664	11,665	99,242	130,109	56,468	20,250	19,983	10,063	8,000	4,843	4,472
1981	4,000	4,640	7,988	13,688	18,604	22,631	13,538	9,911	5,387	5,000	3,698	3,330
1982	6,589	25,862	84,350	75,268	101,139	80,606	140,370	45,666	22,722	8,000	4,011	8,879
1983	20,534	36,996	81,691	105,223	179,230	252,419	87,546	74,896	82,943	27,710	10,421	22,794
1984	25,521	79,740	156,487	68,424	39,054	31,331	16,912	13,288	8,266	10,475	4,000	3,647
1985	4,049	24,882	13,249	6,892	10,734	12,368	9,939	11,491	5,460	5,000	4,366	4,463
1986	4,818	5,257	9,428	17,511	206,259	147,527	22,638	13,143	9,282	8,000	5,683	4,468
1987	4,000	4,624	6,605	6,895	13,145	19,923	11,149	7,531	6,168	5,000	3,500	3,000
1988	5,746	4,500	8,660	19,886	11,187	7,887	7,462	6,719	6,771	4,000	4,990	3,000
1989	3,541	5,815	5,239	7,916	7,833	37,218	17,571	10,350	5,767	5,000	4,553	3,728
1990	4,852	5,994	4,500	10,907	11,400	7,726	9,869	5,623	4,000	5,682	3,739	3,000
1991	3,540	5,540	5,137	5,133	7,018	23,018	11,192	6,613	4,000	4,691	4,232	3,000
1992	3,539	5,310	5,779	5,272	25,435	13,615	10,369	5,779	6,736	4,000	3,249	3,000
1993	4,761	3,842	7,572	65,493	54,883	41,746	37,496	31,821	19,712	8,000	4,211	3,694
1994	4,174	5,453	7,420	6,528	15,740	11,012	8,842	7,264	4,000	6,608	3,190	3,778
Mean	6,051	9,461	21,483	36,576	47,720	38,901	27,500	20,874	12,084	7,205	4,253	4,513
Max	27,094	79,740	156,487	211,762	206,259	252,419	140,370	74,896	82,943	27,710	10,421	22,794
Min	3,131	3,665	4,500	5,133	6,875	6,115	6,034	4,124	4,000	4,000	3,000	3,000

Year	Difference Existing Alt Desal minus Existing Base Delta Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	0
1923	0	0	0	0	0	0	0	0	0	0	0	0
1924	0	0	0	93	0	0	0	0	0	0	0	0
1925	0	0	34	35	0	0	0	0	0	0	0	0
1926	0	0	97	85	0	0	0	0	0	0	0	0
1927	0	16	0	0	0	1	0	0	0	0	0	0
1928	0	16	0	108	0	0	0	0	0	0	0	0
1929	0	0	18	15	0	0	0	0	0	0	0	0
1930	0	0	23	0	0	0	0	0	0	0	0	0
1931	0	0	0	114	0	0	0	66	0	0	0	0
1932	0	0	34	0	0	0	0	5	0	0	0	0
1933	0	0	12	51	-93	0	0	0	0	0	0	0
1934	0	0	113	93	0	0	0	0	0	0	0	0
1935	0	0	34	35	0	0	0	0	0	0	0	0
1936	0	0	0	47	0	0	0	0	0	0	0	0
1937	0	0	0	77	43	0	0	0	0	0	0	0
1938	0	23	0	93	0	0	0	0	0	0	0	71
1939	1	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	33	0	0	75	7	0	0	0	0
1941	0	0	0	0	169	28	0	0	0	0	0	47
1942	25	0	28	0	36	2	0	0	66	0	0	52
1943	20	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	16	14	0	0	0	0	0	0	0
1945	0	29	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	36	52	0	0	0	0	0	0	0	0
1948	0	0	0	11	0	0	197	32	0	0	0	0
1949	0	0	71	41	0	0	0	0	0	0	0	0
1950	0	0	19	23	0	0	143	0	0	0	0	0
1951	0	30	0	131	39	0	0	0	0	0	0	0
1952	0	0	0	0	116	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	37
1954	0	22	34	0	0	72	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	48	81	0	0	0	0	65
1957	7	0	28	17	27	0	0	0	0	0	0	0
1958	17	0	0	0	103	0	0	0	0	0	0	0
1959	0	0	30	0	5	0	0	0	0	0	0	0
1960	0	0	0	78	68	0	0	0	0	0	0	0

Appendix C-3 CALSIM II Modeling

Year	Difference Existing Alt Desal minus Existing Base Delta Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	0	0	87	0	43	0	0	0	0	0	0	0
1962	0	0	34	0	0	0	1	0	0	0	0	0
1963	108	0	0	45	0	0	0	0	0	0	0	0
1964	0	8	0	106	0	0	0	0	0	0	0	0
1965	0	15	0	0	0	0	0	0	0	0	0	0
1966	0	33	0	88	0	0	0	0	0	0	0	0
1967	0	26	0	0	88	46	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	117	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	16	0	106	0	0	0	0	0	0	0	52
1972	0	0	17	23	0	64	0	0	0	0	0	0
1973	0	38	0	67	63	0	0	0	0	0	0	0
1974	0	17	0	109	0	0	0	0	0	0	0	52
1975	19	0	24	23	25	0	0	0	0	0	0	57
1976	15	0	28	15	0	0	0	0	49	0	0	0
1977	0	0	0	105	0	0	0	0	0	0	0	0
1978	0	0	34	0	0	0	0	0	0	0	0	0
1979	0	0	15	34	0	1	0	0	0	0	0	0
1980	0	0	0	0	0	80	54	0	0	0	0	0
1981	0	0	18	0	0	18	0	0	0	0	0	0
1982	0	33	0	0	207	61	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	13	0	111	0	0	0	0	0	0	0	0
1986	0	0	29	0	35	84	102	7	0	0	0	0
1987	0	0	15	18	13	0	0	0	0	0	0	0
1988	0	0	17	0	0	0	0	0	0	0	0	0
1989	0	0	99	110	0	0	37	0	0	0	0	0
1990	0	0	0	0	48	0	0	0	0	0	0	0
1991	0	0	34	35	0	42	0	0	0	0	0	0
1992	0	0	34	35	36	0	0	0	0	0	0	0
1993	0	0	34	0	0	0	0	0	0	0	0	0
1994	0	0	24	28	21	0	0	0	0	0	0	0
Mean	3	5	16	32	16	9	8	2	1	0	0	6
Max	108	38	113	131	207	117	197	66	66	0	0	71
Min	0	0	0	0	-93	0	0	0	0	0	0	0

Appendix C-3 CALSIM II Modeling

Year	Alt Existing Alt Desal SWP (Banks) Delta Export (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	5,322	5,346	7,102	8,093	4,130	3,242	3,011	2,469	3,462	5,803	4,520	5,202
1923	3,453	2,536	4,800	3,479	3,899	300	1,260	300	300	300	2,963	1,223
1924	1,843	2,241	4,009	3,824	7,607	300	2,783	1,125	3,137	6,590	929	2,853
1925	2,396	1,026	2,242	6,568	7,346	1,106	2,584	800	2,205	6,698	5,927	3,324
1926	3,540	6,680	6,636	6,863	7,767	6,725	3,432	1,500	4,697	1,954	6,613	5,858
1927	3,080	6,680	6,661	7,002	6,942	7,439	3,032	2,180	2,896	3,563	4,275	4,454
1928	3,462	3,558	4,086	4,037	3,701	1,954	1,118	300	1,207	2,805	300	1,284
1929	1,186	300	6,322	6,693	3,974	6,971	1,624	800	2,020	6,849	6,045	4,330
1930	1,415	2,909	3,290	3,786	2,809	764	300	437	1,364	1,735	4,684	2,398
1931	2,204	1,324	6,846	7,419	5,628	3,966	300	1,125	2,922	2,644	300	3,944
1932	2,272	1,107	4,245	3,003	3,854	3,538	1,194	800	300	3,816	827	1,150
1933	1,754	300	5,747	6,713	3,744	819	300	300	300	2,858	300	2,261
1934	2,320	2,708	2,945	7,483	4,235	5,644	3,432	324	3,412	7,056	7,180	5,402
1935	5,762	2,273	5,697	6,897	8,437	7,561	2,850	800	2,827	7,180	7,180	4,924
1936	5,701	1,635	6,065	5,483	8,500	7,561	3,939	2,569	3,315	6,352	4,718	3,859
1937	3,910	6,680	7,227	8,093	7,029	6,224	4,957	5,302	6,680	6,680	5,465	7,180
1938	6,680	5,681	5,431	4,509	3,847	4,338	984	1,125	1,351	6,431	7,031	5,782
1939	4,421	2,327	4,808	7,625	8,003	7,561	3,432	1,500	2,787	7,180	7,180	5,606
1940	5,390	2,821	6,788	7,952	8,050	7,952	3,943	2,391	4,178	7,180	6,669	7,180
1941	6,680	4,973	3,364	4,418	5,257	6,235	3,432	1,500	6,680	6,020	6,680	7,180
1942	6,680	6,680	5,829	5,900	6,042	6,363	3,032	800	2,475	3,313	6,959	6,420
1943	4,456	2,112	4,495	5,950	7,725	5,093	2,132	1,500	3,791	6,671	6,695	6,315
1944	3,453	6,680	6,629	4,931	8,500	6,904	1,999	800	4,472	7,180	6,520	5,615
1945	4,696	5,906	7,241	7,852	2,547	6,657	2,452	2,594	4,193	7,180	6,551	5,328
1946	5,235	3,273	6,675	2,872	6,023	4,217	1,770	300	2,201	6,955	5,966	4,831
1947	4,106	3,760	2,924	5,717	2,118	3,089	2,964	3,274	4,702	7,180	7,180	5,916
1948	4,524	2,104	4,660	2,511	2,763	7,107	1,839	800	3,604	6,515	3,720	4,140
1949	1,707	1,126	1,256	6,943	7,591	4,243	2,395	800	4,973	7,180	6,574	5,749
1950	5,230	6,680	7,271	8,093	6,263	6,628	2,178	800	2,726	4,655	7,180	5,662
1951	5,681	5,627	6,788	8,093	8,003	6,449	3,365	3,386	6,277	6,680	6,984	7,180
1952	6,680	5,467	2,290	4,563	5,087	6,563	2,335	1,125	4,021	5,109	6,148	7,180
1953	6,096	6,680	5,600	6,835	6,980	7,105	3,232	3,119	2,840	6,452	6,146	5,403
1954	5,345	5,398	6,568	6,890	1,769	2,428	1,103	800	3,004	4,746	2,831	3,231
1955	6,448	3,530	7,271	7,420	5,572	6,708	2,460	800	6,571	4,879	6,680	7,180
1956	6,680	4,354	2,926	5,255	7,160	7,362	2,683	2,581	4,227	5,049	6,312	5,161
1957	6,680	6,406	6,592	6,701	5,842	6,563	4,552	3,191	6,680	6,680	7,180	7,180
1958	6,680	4,840	5,297	5,365	8,312	987	1,790	1,125	2,369	5,595	7,180	5,803
1959	4,115	2,410	4,960	3,791	7,372	4,755	1,741	800	2,249	7,095	2,651	4,719
1960	4,115	2,410	4,960	3,791	7,372	4,755	1,741	800	2,249	7,095	2,651	4,719

Appendix C-3 CALSIM II Modeling

Year	Alt Existing Alt Desal SWP (Banks) Delta Export (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	2,566	4,713	5,078	7,144	3,855	1,630	300	300	300	6,392	5,494	5,014
1962	3,035	3,244	5,166	2,030	8,500	6,875	2,120	539	2,527	5,643	7,180	6,485
1963	6,680	6,680	6,522	6,888	7,315	6,626	3,032	800	4,777	2,042	6,680	5,775
1964	6,157	6,680	4,287	6,827	2,121	3,570	2,138	1,592	2,796	7,180	6,608	5,529
1965	3,601	6,680	6,886	8,093	8,050	5,688	3,432	2,130	3,373	3,170	6,918	6,302
1966	2,905	6,680	7,238	7,884	6,672	6,365	2,057	1,125	2,361	5,655	6,741	6,125
1967	4,836	6,680	6,799	7,356	7,294	7,561	4,299	3,480	6,680	7,180	7,180	7,180
1968	6,680	6,021	5,662	4,610	6,188	5,670	2,225	1,125	2,407	3,875	6,623	5,639
1969	5,207	4,849	6,626	8,093	8,050	5,738	3,073	4,001	6,269	6,680	4,949	7,180
1970	6,680	4,881	3,393	4,540	5,398	6,623	2,148	800	2,197	5,848	7,180	6,101
1971	5,478	6,680	6,714	7,059	1,097	7,225	2,845	1,125	5,194	6,457	6,680	7,180
1972	6,479	5,629	6,600	6,844	5,751	6,945	1,641	1,664	3,257	5,793	5,199	4,251
1973	3,217	6,680	6,547	7,077	6,242	6,908	2,788	1,500	3,698	7,146	6,329	5,019
1974	5,239	6,680	6,648	8,041	7,146	7,550	3,032	800	4,821	6,680	7,086	7,180
1975	6,680	6,185	6,628	6,669	6,276	7,561	3,307	1,500	6,680	6,534	7,180	7,180
1976	6,680	6,680	6,605	4,737	3,547	3,420	1,399	800	1,809	3,571	6,068	5,619
1977	3,730	3,143	2,891	1,667	968	527	300	300	300	300	2,817	1,565
1978	1,025	1,065	5,559	6,603	2,999	5,205	3,205	3,061	4,301	7,180	5,903	6,509
1979	5,339	2,062	1,467	7,741	7,717	5,569	2,652	1,500	3,194	6,858	6,258	5,001
1980	3,923	5,318	6,612	8,093	7,904	4,297	2,567	800	2,886	7,180	6,949	7,174
1981	5,685	1,939	3,975	6,973	6,080	5,494	2,203	1,125	2,324	6,420	4,776	5,469
1982	4,731	6,680	6,594	8,093	8,050	7,561	5,580	4,005	5,270	6,680	6,026	7,180
1983	6,680	6,680	6,381	2,794	2,244	3,394	2,419	2,416	4,126	7,180	7,180	6,061
1984	1,060	2,911	2,846	4,160	5,081	6,904	2,768	1,500	2,868	3,631	7,180	6,234
1985	4,970	6,680	6,633	6,031	4,769	2,379	1,627	800	2,199	7,180	6,680	6,680
1986	5,854	4,396	6,597	7,001	8,050	7,561	4,257	3,068	4,520	6,680	6,608	6,818
1987	5,509	1,982	1,880	6,832	6,285	4,505	1,771	300	492	6,035	6,508	4,676
1988	2,534	2,026	6,507	6,700	1,482	607	1,357	300	300	3,485	377	854
1989	1,300	2,239	2,637	2,666	885	6,939	2,397	800	1,974	6,945	7,127	6,035
1990	4,777	1,818	5,616	6,336	2,802	2,401	300	800	302	300	4,407	1,828
1991	1,138	1,222	1,054	800	802	7,066	1,326	800	300	300	3,990	857
1992	1,427	300	800	2,793	7,388	4,111	1,548	300	714	3,608	2,187	2,955
1993	1,162	2,044	3,276	8,093	7,992	4,744	3,232	1,125	4,387	7,180	6,852	6,064
1994	5,842	2,582	3,736	5,090	7,251	967	1,507	1,394	2,810	6,499	6,512	5,009
Mean	4,335	4,114	5,189	5,913	5,671	5,137	2,432	1,444	3,240	5,472	5,590	5,174
Max	6,680	6,680	7,271	8,093	8,500	7,561	5,580	5,302	6,680	7,180	7,180	7,180
Min	1,025	300	800	800	802	300	300	300	300	300	300	854

Appendix C-3 CALSIM II Modeling

Year	Base Existing Base SWP (Banks) Delta Export (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	5,175	3,491	6,759	7,206	8,050	7,561	3,407	1,500	6,680	7,180	4,520	5,202
1923	5,322	5,346	7,102	8,093	4,130	3,242	3,011	2,469	3,462	5,803	6,393	5,538
1924	3,453	2,536	4,800	3,479	3,899	300	1,260	300	300	300	2,963	1,223
1925	1,843	2,241	4,009	3,824	7,607	300	2,783	1,125	3,137	6,590	929	2,853
1926	2,396	1,026	2,242	6,568	7,346	1,106	2,584	800	2,205	6,698	5,927	3,324
1927	3,540	6,680	6,636	6,863	7,767	6,725	3,432	1,500	4,697	1,954	6,613	5,858
1928	3,080	6,680	6,661	7,002	6,942	7,439	3,032	2,180	2,896	3,563	4,275	4,454
1929	3,462	3,558	4,086	4,037	3,701	1,954	1,118	300	1,207	2,805	300	1,284
1930	1,186	300	6,322	6,693	3,974	6,971	1,624	800	2,020	6,849	6,045	4,330
1931	1,415	2,909	3,290	3,786	2,809	764	300	437	1,364	1,735	4,684	2,398
1932	2,204	1,324	6,846	7,419	5,628	3,966	300	1,125	2,922	2,644	300	3,944
1933	2,272	1,107	4,245	3,003	3,854	3,538	1,194	800	300	3,816	827	1,150
1934	1,754	300	5,747	6,713	3,744	819	300	300	300	2,858	300	2,261
1935	2,320	2,708	2,945	7,483	4,235	5,644	3,432	324	3,412	7,056	7,180	5,402
1936	5,762	2,273	5,697	6,897	8,437	7,561	2,850	800	2,827	7,180	7,180	4,924
1937	5,701	1,635	6,065	5,483	8,500	7,561	3,939	2,569	3,315	6,352	4,718	3,859
1938	3,910	6,680	7,227	8,093	7,029	6,224	4,957	5,302	6,680	6,680	5,465	7,180
1939	6,680	5,681	5,431	4,509	3,847	4,338	984	1,125	1,351	6,431	7,031	5,782
1940	4,421	2,327	4,808	7,625	8,003	7,561	3,432	1,500	2,787	7,180	7,180	5,606
1941	5,390	2,821	6,788	7,952	8,050	7,561	3,943	2,391	4,178	7,180	6,669	7,180
1942	6,680	4,973	3,364	4,418	5,257	6,235	3,432	1,500	6,680	6,020	6,680	7,180
1943	6,680	6,680	5,829	5,900	6,042	6,363	3,032	800	2,475	3,313	6,959	6,420
1944	4,456	2,112	4,495	5,950	7,725	5,093	2,132	1,500	3,791	6,671	6,695	6,315
1945	3,453	6,680	6,629	4,931	8,500	6,904	1,999	800	4,472	7,180	6,520	5,615
1946	4,696	5,906	7,241	7,852	2,547	6,657	2,452	2,594	4,193	7,180	6,551	5,328
1947	5,235	3,273	6,675	2,872	6,023	4,217	1,770	300	2,201	6,955	5,966	4,831
1948	4,106	3,760	2,924	5,717	2,118	3,089	2,964	3,274	4,702	7,180	7,180	5,916
1949	4,524	2,104	4,660	2,511	2,763	7,107	1,839	800	3,604	6,515	3,720	4,140
1950	1,707	1,126	1,256	6,943	7,591	4,243	2,395	800	4,973	7,180	6,574	5,749
1951	5,230	6,680	7,271	8,093	6,263	6,628	2,178	800	2,726	4,655	7,180	5,662
1952	5,681	5,627	6,788	8,093	8,003	6,449	3,365	3,386	6,277	6,680	6,984	7,180
1953	6,680	5,467	2,290	4,563	5,087	6,563	2,335	1,125	4,021	5,109	6,148	7,180
1954	6,096	6,680	5,600	6,835	6,980	7,105	3,232	3,119	2,840	6,452	6,146	5,403
1955	5,345	5,398	6,568	6,890	1,769	2,428	1,103	800	3,004	4,746	2,831	3,231
1956	1,648	3,530	7,271	7,420	5,572	6,708	2,460	800	6,571	4,879	6,680	7,180
1957	6,680	4,354	2,926	5,255	7,160	7,362	2,683	2,581	4,227	5,049	6,312	5,161
1958	6,680	6,406	6,592	6,701	8,842	6,563	4,552	3,191	6,680	6,680	7,180	7,180
1959	6,680	4,840	5,297	5,365	8,312	987	1,790	1,125	2,369	5,595	7,180	5,803
1960	4,115	2,410	4,960	3,791	7,372	4,755	1,741	800	2,249	7,095	2,651	4,719

Appendix C-3 CALSIM II Modeling

Year	Base Existing Base SWP (Banks) Delta Export (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	2,566	4,713	5,078	3,640	7,144	3,855	1,630	300	300	6,392	5,494	5,014
1962	3,035	3,244	5,166	2,030	8,500	6,875	2,120	539	2,527	6,547	7,180	6,485
1963	6,680	6,680	6,522	6,888	7,315	6,626	3,032	800	4,777	2,042	6,680	5,775
1964	6,157	6,680	4,287	6,827	2,121	3,570	2,138	1,592	2,796	7,180	6,608	5,529
1965	3,601	6,680	6,886	8,093	8,050	5,688	3,432	2,130	3,373	3,170	6,918	6,302
1966	2,905	6,680	7,238	7,884	6,672	6,365	2,057	1,125	2,361	5,655	6,741	6,125
1967	4,836	6,680	6,799	7,356	7,294	7,561	4,299	3,480	6,680	7,180	7,180	7,180
1968	6,680	6,021	5,662	4,610	6,188	5,670	2,225	1,125	2,407	3,875	6,623	5,639
1969	5,207	4,849	6,626	8,093	8,050	5,738	3,073	4,001	6,269	6,680	4,949	7,180
1970	6,680	4,881	3,393	4,540	5,398	6,623	2,148	800	2,197	5,848	7,180	6,101
1971	5,478	6,680	6,714	7,059	1,097	7,225	2,845	1,125	5,194	6,457	6,680	7,180
1972	6,479	5,629	6,600	6,844	5,751	6,945	1,641	1,664	3,257	5,793	5,199	4,251
1973	3,217	6,680	6,547	7,077	6,242	6,908	2,788	1,500	3,698	7,146	6,329	5,019
1974	5,239	6,680	6,648	8,041	7,146	7,550	3,032	800	4,821	6,680	7,086	7,180
1975	6,680	6,185	6,628	6,669	6,276	7,561	3,307	1,500	6,680	6,534	7,180	7,180
1976	6,680	6,680	6,605	4,737	3,547	3,420	1,399	800	1,809	3,571	6,068	5,619
1977	3,730	3,143	2,891	1,667	968	527	300	300	300	300	2,817	1,565
1978	1,025	1,065	5,559	6,603	2,999	5,205	3,205	3,061	4,301	7,180	5,903	6,509
1979	5,339	2,062	1,467	7,741	7,717	5,569	2,652	1,500	3,194	6,858	6,258	5,001
1980	3,923	5,318	6,612	8,093	7,904	4,297	2,567	800	2,886	7,180	6,949	7,174
1981	5,685	1,939	3,975	6,973	6,080	5,494	2,203	1,125	2,324	6,420	4,776	5,469
1982	4,731	6,680	6,594	8,093	8,050	7,561	5,580	4,005	5,270	6,680	6,026	7,180
1983	6,680	6,680	6,381	2,794	2,244	3,394	2,419	2,416	4,126	7,180	7,180	6,061
1984	1,060	2,911	2,846	4,160	5,081	6,904	2,768	1,500	2,868	3,631	7,180	6,234
1985	4,970	6,680	6,633	6,031	4,769	2,379	1,627	800	2,199	7,180	6,680	6,680
1986	5,854	4,396	6,597	7,001	8,050	7,561	4,257	3,068	4,520	6,680	6,608	6,818
1987	5,509	1,982	1,880	6,832	6,285	4,505	1,771	300	492	6,035	6,508	4,676
1988	2,534	2,026	6,507	6,700	1,482	607	1,357	300	300	3,485	377	854
1989	1,300	2,239	2,637	2,666	885	6,939	2,397	800	1,974	6,945	7,127	6,035
1990	4,777	1,818	5,616	6,336	2,802	2,401	300	800	302	300	4,407	1,828
1991	1,138	1,222	1,054	800	802	7,066	1,326	800	300	300	3,990	857
1992	1,427	300	800	2,793	7,388	4,111	1,548	300	714	3,608	2,187	2,955
1993	1,162	2,044	3,276	8,093	7,992	4,744	3,232	1,125	4,387	7,180	6,852	6,064
1994	5,842	2,582	3,736	5,090	7,251	967	1,507	1,394	2,810	6,499	6,512	5,009
Mean	4,335	4,114	5,189	5,913	5,671	5,137	2,432	1,444	3,240	5,472	5,590	5,174
Max	6,680	6,680	7,271	8,093	8,500	7,561	5,580	5,302	6,680	7,180	7,180	7,180
Min	1,025	300	800	800	802	300	300	300	300	300	300	854

Year	Alt Existing Alt Desal CVP (Tracy) Delta Export (CFS)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1922	3,525	4,265	3,820	3,825	3,804	4,288	2,947	1,500	3,000	4,597	4,530	4,479	
1923	4,362	4,256	3,817	3,822	4,130	3,303	2,547	1,911	3,000	4,582	4,538	4,473	
1924	4,125	3,054	2,480	3,821	3,899	800	1,260	1,143	800	600	600	2,878	
1925	2,988	1,059	3,802	3,805	4,218	800	2,747	1,125	2,487	3,209	3,855	4,156	
1926	3,701	2,785	2,378	3,814	4,235	3,641	2,547	800	2,475	800	800	3,617	
1927	2,323	4,218	3,805	3,808	800	3,373	2,947	1,500	3,000	4,570	4,543	4,475	
1928	4,077	4,254	3,817	3,821	3,811	4,265	2,547	1,911	3,000	4,562	3,372	4,293	
1929	3,813	4,247	3,815	3,819	4,243	800	1,365	1,878	924	800	2,895		
1930	3,065	1,809	3,803	3,806	3,974	4,246	1,624	800	1,460	1,699	1,775	4,172	
1931	3,551	2,865	1,800	3,811	2,916	1,083	800	800	800	800	600	1,930	
1932	1,256	1,686	3,802	3,805	4,218	1,494	1,547	1,125	1,958	1,897	3,854	4,270	
1933	3,702	2,739	710	641	931	1,247	800	800	989	800	600	2,911	
1934	3,023	1,018	3,802	1,571	641	965	800	800	800	600	600	1,629	
1935	1,943	2,471	3,300	3,806	2,051	2,278	2,076	800	2,650	1,950	4,470	4,166	
1936	3,190	2,124	3,663	3,813	2,475	2,436	2,523	800	2,475	2,628	4,499	4,437	
1937	3,401	2,190	3,498	3,816	4,238	3,643	1,459	2,138	2,899	2,387	4,474	4,381	
1938	4,285	4,232	1,544	800	800	2,143	2,695	3,894	3,000	4,600	4,578	4,494	
1939	4,391	4,265	3,825	2,226	2,686	1,877	1,826	1,125	2,563	3,753	2,694	3,281	
1940	2,601	3,136	914	3,817	3,804	4,254	2,947	1,500	3,000	4,519	4,490	4,418	
1941	3,934	3,729	3,811	3,815	3,786	4,287	3,315	2,391	2,858	4,600	4,557	4,483	
1942	4,369	4,258	4,225	1,748	1,924	3,593	2,947	1,500	3,000	4,600	4,558	4,483	
1943	4,370	4,259	4,104	4,229	4,250	3,008	2,547	800	3,000	4,600	4,552	4,480	
1944	4,364	4,257	3,697	3,822	4,247	4,264	2,132	1,500	2,548	2,464	3,376	3,136	
1945	2,858	4,234	3,810	3,814	4,234	4,276	1,999	800	3,000	4,580	4,537	4,472	
1946	4,349	4,252	3,816	3,820	4,246	4,246	2,259	2,452	2,274	3,000	4,560	4,521	4,464
1947	4,333	4,155	3,815	3,819	4,243	4,217	1,770	800	2,214	2,054	2,913	4,390	
1948	2,056	4,233	2,077	3,813	4,233	3,089	2,547	800	3,000	4,566	4,526	4,466	
1949	4,338	3,309	3,815	3,819	4,244	4,240	1,839	800	3,000	4,555	3,536	4,462	
1950	3,643	3,680	3,595	3,818	4,242	4,240	2,395	800	2,475	3,209	4,454	4,338	
1951	3,727	4,226	3,390	3,800	1,000	3,330	2,178	800	3,000	4,555	4,528	4,467	
1952	4,340	4,249	3,815	3,819	3,808	4,309	2,162	3,187	3,000	4,600	4,578	4,494	
1953	4,391	4,265	4,227	2,683	2,543	2,604	2,335	1,125	3,000	4,575	4,533	4,470	
1954	4,345	4,251	3,816	3,820	3,795	4,286	2,747	1,125	2,840	4,580	4,537	4,472	
1955	4,056	4,252	3,816	3,820	3,819	2,062	1,741	800	3,000	3,385	2,245	3,870	
1956	3,978	4,235	3,811	4,151	4,234	2,828	2,460	2,475	3,339	4,535	4,471		
1957	4,347	4,251	3,816	3,820	3,795	4,262	2,683	2,093	3,000	4,587	4,542	4,475	
1958	4,354	4,253	3,817	3,938	4,247	4,304	2,281	3,092	3,000	4,600	4,578	4,494	
1959	4,391	4,265	3,820	4,232	4,254	3,542	1,790	1,125	1,814	4,398	3,809	2,991	
1960	4,013	1,948	1,333	3,819	4,242	4,234	1,741	800	2,475	4,474	2,867	3,699	

Appendix C-3 CALSIM II Modeling

Year	Alt Existing Alt Desal CVP (Tracy) Delta Export (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	2,522	4,226	3,808	3,661	4,230	3,062	1,630	800	2,380	4,339	3,575	3,769
1962	3,114	4,111	3,814	4,194	4,241	4,277	2,120	1,125	3,000	4,556	4,519	3,546
1963	4,331	4,246	3,814	3,818	3,792	3,766	2,547	800	3,000	4,284	4,537	4,472
1964	4,349	4,252	3,816	3,820	4,244	1,370	2,138	800	2,796	4,517	3,464	3,487
1965	4,447	4,237	3,811	3,815	3,786	4,276	2,947	2,274	3,000	4,600	4,554	4,481
1966	4,366	4,257	3,818	3,822	4,249	4,281	2,057	1,125	3,000	4,569	4,026	3,452
1967	4,071	4,249	3,815	3,819	3,794	4,307	3,814	3,232	3,000	4,600	4,578	4,494
1968	4,391	4,265	4,227	3,399	2,891	2,634	2,225	1,125	2,563	4,587	4,341	3,489
1969	4,302	4,253	3,817	3,821	3,797	4,320	2,699	3,901	3,000	4,600	4,578	4,494
1970	4,391	4,265	2,158	1,514	1,802	3,207	2,148	800	2,813	1,983	4,528	4,151
1971	4,340	4,249	3,815	3,819	4,244	4,280	2,747	1,125	3,000	4,570	4,529	4,468
1972	4,341	4,249	3,815	3,819	4,243	4,282	1,641	800	3,000	4,556	3,352	3,946
1973	4,331	4,246	3,814	3,818	4,242	4,287	2,788	1,500	2,705	4,586	4,541	4,475
1974	4,354	4,253	3,817	3,821	4,129	4,292	2,547	800	2,475	4,590	4,544	4,476
1975	4,356	4,254	3,817	3,953	4,247	4,279	2,947	1,500	2,650	4,585	4,540	4,474
1976	4,352	4,253	3,816	4,227	3,600	2,447	1,399	800	2,003	1,132	993	2,286
1977	2,552	4,195	1,243	1,334	800	800	800	800	920	2,433	2,703	2,784
1978	3,052	1,550	3,803	4,212	3,363	2,900	2,454	3,029	3,000	4,600	4,578	4,494
1979	4,391	4,265	3,724	3,825	3,477	2,587	2,652	1,500	3,000	4,588	4,543	3,791
1980	4,355	4,254	3,817	3,821	3,860	4,119	2,365	800	3,000	4,600	4,557	4,483
1981	4,369	3,930	3,818	3,823	4,250	4,256	2,203	1,125	2,563	4,573	3,951	3,890
1982	3,919	4,250	3,816	3,820	3,794	4,297	3,783	3,486	3,000	4,600	4,578	4,494
1983	4,391	4,265	4,227	4,232	1,801	2,678	2,687	3,892	3,000	4,600	4,578	4,494
1984	4,391	1,503	1,039	1,513	2,435	3,848	2,768	1,500	3,000	4,377	4,541	4,475
1985	4,353	4,253	3,817	3,821	4,247	4,190	1,627	800	2,475	4,566	4,526	4,466
1986	4,044	2,463	3,815	3,819	3,793	4,274	3,783	3,033	3,000	3,060	4,525	4,466
1987	4,337	4,248	3,815	2,332	2,920	1,834	1,771	800	1,582	1,679	1,308	3,114
1988	2,561	4,232	3,810	3,813	4,232	800	1,357	800	837	800	800	2,796
1989	3,090	1,675	3,577	3,807	1,909	4,217	2,397	800	1,072	3,031	2,099	3,179
1990	3,939	3,435	4,070	3,813	4,063	2,401	800	800	800	800	800	2,462
1991	2,951	1,159	800	938	800	4,229	800	800	1,708	800	3,543	2,891
1992	2,952	1,910	800	3,143	4,222	3,299	800	800	800	800	3,030	2,597
1993	2,348	1,738	3,809	3,812	3,782	4,276	2,747	1,125	2,563	4,559	4,521	4,464
1994	4,333	4,247	3,815	3,819	3,822	2,576	1,507	800	1,903	4,597	4,549	4,135
Mean	3,775	3,598	3,400	3,462	3,457	3,248	2,181	1,403	2,473	3,535	3,656	3,943
Max	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494
Min	1,256	1,018	710	641	641	800	800	800	800	800	600	1,629

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Year	Base Existing Base CVP (Tracy) Delta Export (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	3,525	4,265	3,820	3,825	3,804	4,288	2,947	1,500	3,000	4,597	4,550	4,479
1923	4,362	4,256	3,817	3,822	4,130	3,303	2,547	1,911	3,000	4,582	4,538	4,473
1924	4,125	3,054	2,480	3,821	3,899	800	1,260	1,143	800	600	600	2,878
1925	2,988	1,059	3,802	3,805	4,218	800	2,747	1,125	2,487	3,209	3,855	4,156
1926	3,701	2,785	2,378	3,814	4,235	3,641	2,547	800	2,475	800	800	3,617
1927	2,323	4,218	3,805	3,808	800	3,373	2,947	1,500	3,000	4,570	4,543	4,475
1928	4,077	4,254	3,817	3,821	3,811	4,265	2,547	1,911	3,000	4,562	3,372	4,293
1929	3,813	4,247	3,815	3,819	4,243	800	800	1,365	1,878	924	800	2,895
1930	3,065	1,809	3,803	3,806	3,974	4,246	1,624	800	1,460	1,699	1,775	4,172
1931	3,551	2,865	1,800	3,811	2,916	1,083	800	800	800	800	600	1,930
1932	1,256	1,686	3,802	3,805	4,218	1,494	1,547	1,125	1,958	1,897	3,854	4,270
1933	3,702	2,739	710	641	931	1,247	800	800	989	800	600	2,911
1934	3,023	1,018	3,802	1,571	641	965	800	800	800	600	600	1,629
1935	1,943	4,471	3,300	3,806	2,051	2,278	2,076	800	2,650	1,950	4,470	4,166
1936	3,190	2,124	3,663	3,813	2,475	2,436	2,523	800	2,475	2,628	4,499	4,437
1937	3,401	2,190	3,498	3,816	4,238	3,643	1,459	2,138	2,899	2,387	4,474	4,381
1938	4,285	4,232	1,544	800	800	2,143	2,695	3,894	3,000	4,600	4,578	4,494
1939	4,391	4,265	3,825	2,226	2,686	1,877	1,826	1,125	2,563	3,753	2,694	3,281
1940	2,601	3,136	914	3,817	3,804	4,254	2,947	1,500	3,000	4,519	4,490	4,418
1941	3,934	3,729	3,811	3,815	3,786	4,287	3,315	2,391	2,858	4,600	4,557	4,483
1942	4,369	4,258	4,225	1,748	1,924	3,593	2,947	1,500	3,000	4,600	4,558	4,483
1943	4,370	4,259	4,104	4,229	4,250	3,008	2,547	800	3,000	4,600	4,552	4,480
1944	4,364	4,257	3,697	3,822	4,247	4,264	2,132	1,500	2,548	2,464	3,376	3,136
1945	2,858	4,234	3,810	3,814	4,234	4,276	1,999	800	3,000	4,580	4,537	4,472
1946	4,349	4,252	3,816	3,820	4,246	2,259	2,452	2,274	3,000	4,560	4,521	4,464
1947	4,333	4,155	3,815	3,819	4,243	4,217	1,770	800	2,214	2,054	2,913	4,390
1948	2,056	4,233	2,077	3,813	4,233	3,089	2,547	800	3,000	4,566	4,526	4,466
1949	4,338	3,309	3,815	3,819	4,244	4,240	1,839	800	3,000	4,555	3,536	4,462
1950	3,643	3,680	3,595	3,818	4,242	4,240	2,395	800	2,475	3,209	4,454	4,338
1951	3,727	4,226	3,390	800	1,000	3,330	2,178	800	3,000	4,555	4,528	4,467
1952	4,340	4,249	3,815	3,819	3,808	4,309	2,162	3,187	3,000	4,600	4,578	4,494
1953	4,391	4,265	4,227	2,683	2,543	2,604	2,335	1,125	3,000	4,575	4,533	4,470
1954	4,345	4,251	3,816	3,820	3,795	4,286	2,747	1,125	2,840	4,580	4,537	4,472
1955	4,056	4,252	3,816	3,820	3,819	2,062	1,741	800	3,000	3,385	2,245	3,870
1956	3,978	4,235	3,811	4,151	4,234	2,828	2,460	800	2,475	3,339	4,535	4,471
1957	4,347	4,251	3,816	3,820	3,795	4,262	2,683	2,093	3,000	4,587	4,542	4,475
1958	4,354	4,253	3,817	3,938	4,247	4,304	2,281	3,092	3,000	4,600	4,578	4,494
1959	4,391	4,265	3,820	4,232	4,254	3,542	1,790	1,125	1,814	4,398	3,809	2,991
1960	4,013	1,948	1,333	3,819	4,242	4,234	1,741	800	2,475	4,474	2,867	3,699

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Appendix C-3 CALSIM II Modeling

Base Existing Base CVP (Tracy) Delta Export (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	2,522	4,226	3,808	3,661	4,230	3,062	1,630	800	2,380	3,575	3,769	
1962	3,114	4,111	3,814	4,194	4,241	4,277	2,120	1,125	3,000	4,556	4,519	3,546
1963	4,331	4,246	3,814	3,818	3,792	3,766	2,547	800	3,000	4,284	4,537	4,472
1964	4,349	4,252	3,816	3,820	4,244	1,370	2,138	800	2,796	4,517	3,464	3,487
1965	4,447	4,237	3,811	3,815	3,786	4,276	2,947	2,274	3,000	4,600	4,554	4,481
1966	4,366	4,257	3,818	3,822	4,249	4,281	2,057	1,125	3,000	4,569	4,026	3,452
1967	4,071	4,249	3,815	3,819	3,794	4,307	3,814	3,232	3,000	4,600	4,578	4,494
1968	4,391	4,265	4,227	3,399	2,891	2,634	2,225	1,125	2,563	4,587	4,341	3,489
1969	4,302	4,253	3,817	3,821	3,797	4,320	2,699	3,901	3,000	4,600	4,578	4,494
1970	4,391	4,265	2,158	1,514	1,802	3,207	2,148	800	2,813	1,983	4,528	4,151
1971	4,340	4,249	3,815	3,819	4,244	4,280	2,747	1,125	3,000	4,570	4,529	4,468
1972	4,341	4,249	3,815	3,819	4,243	4,282	1,641	800	3,000	4,556	3,352	3,946
1973	4,331	4,246	3,814	3,818	4,242	4,287	2,788	1,500	2,705	4,586	4,541	4,475
1974	4,354	4,253	3,817	3,821	4,129	4,292	2,547	800	2,475	4,590	4,544	4,476
1975	4,356	4,254	3,817	3,953	4,247	4,279	2,947	1,500	2,650	4,585	4,540	4,474
1976	4,352	4,253	3,816	4,227	3,600	2,447	1,399	800	2,003	1,132	993	2,286
1977	2,552	4,195	1,243	1,334	800	800	800	800	920	2,433	2,703	2,784
1978	3,052	1,550	3,803	4,212	3,363	2,900	2,454	3,029	3,000	4,600	4,578	4,494
1979	4,391	4,265	3,724	3,825	3,477	2,587	2,652	1,500	3,000	4,588	4,543	3,791
1980	4,355	4,254	3,817	3,821	3,860	4,119	2,365	800	3,000	4,600	4,557	4,483
1981	4,369	3,930	3,818	3,823	4,250	4,256	2,203	1,125	2,563	4,573	3,951	3,890
1982	3,919	4,250	3,816	3,820	3,794	4,297	3,783	3,486	3,000	4,600	4,578	4,494
1983	4,391	4,265	4,227	4,232	1,801	2,678	2,687	3,892	3,000	4,600	4,578	4,494
1984	4,391	1,503	1,039	1,513	2,435	3,848	2,768	1,500	3,000	4,377	4,541	4,475
1985	4,353	4,253	3,817	3,821	4,247	4,190	1,627	800	2,475	4,566	4,526	4,466
1986	4,044	2,463	3,815	3,819	3,793	4,274	3,783	3,033	3,000	3,060	4,525	4,466
1987	4,337	4,248	3,815	2,332	2,920	1,834	1,771	800	1,582	1,679	1,308	3,114
1988	2,561	4,232	3,810	3,813	4,232	800	1,357	800	837	800	800	2,796
1989	3,090	1,675	3,577	3,807	1,909	4,217	2,397	800	1,072	3,031	2,099	3,179
1990	3,939	3,435	4,070	3,813	4,063	2,401	800	800	800	800	800	2,462
1991	2,951	1,159	800	938	800	4,229	800	800	1,708	800	3,543	2,891
1992	2,952	1,910	800	3,143	4,222	3,299	800	800	800	800	3,030	2,597
1993	2,348	1,738	3,809	3,812	3,782	4,276	2,747	1,125	2,563	4,559	4,521	4,464
1994	4,333	4,247	3,815	3,819	3,822	2,576	1,507	800	1,903	4,597	4,549	4,135
Mean	3,775	3,598	3,400	3,462	3,457	3,248	2,181	1,403	2,473	3,535	3,656	3,943
Max	4,391	4,265	4,227	4,232	4,254	4,320	3,814	3,901	3,000	4,600	4,578	4,494
Min	1,256	1,018	710	641	641	800	800	800	800	600	600	1,629

Appendix C-3 CALSIM II Modeling

Alt Existing Alt Desal X2 Position (KM)													
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1922	75	83	85	79	78	67	65	66	61	62	73	83	
1923	88	87	83	70	74	67	70	74	69	70	76	80	85
1924	87	87	84	85	82	79	77	81	85	84	82	86	86
1925	89	89	86	83	81	64	65	67	69	76	82	82	82
1926	88	87	85	84	80	68	74	70	74	74	81	83	84
1927	89	87	77	77	70	55	59	59	63	72	76	84	84
1928	86	87	80	80	74	70	57	63	68	77	79	84	84
1929	89	86	84	83	82	79	78	80	81	82	86	85	85
1930	89	88	85	81	76	74	69	74	76	81	83	85	85
1931	89	87	85	85	82	80	82	81	84	84	84	83	88
1932	90	88	86	77	74	71	74	75	74	76	82	84	84
1933	89	88	85	85	78	80	77	77	81	82	86	84	84
1934	89	90	84	83	77	74	75	76	81	81	85	85	84
1935	89	89	84	85	72	74	70	62	64	71	78	84	84
1936	88	87	84	85	70	59	64	66	69	74	79	85	85
1937	88	87	83	85	82	67	62	64	68	74	79	83	83
1938	88	88	77	63	64	52	47	52	54	58	72	82	82
1939	83	78	83	82	79	79	77	77	77	82	84	86	86
1940	89	85	86	86	71	61	54	55	65	75	78	84	84
1941	87	87	83	68	56	51	52	53	58	67	75	82	82
1942	83	84	85	66	57	50	62	60	61	66	75	83	83
1943	81	81	82	73	59	58	54	61	65	75	76	84	84
1944	86	87	85	84	82	72	72	75	75	79	83	87	87
1945	89	84	82	79	80	67	68	71	71	76	80	85	85
1946	88	87	82	64	61	65	69	72	73	77	80	85	85
1947	88	86	83	81	81	76	73	75	77	81	83	87	87
1948	89	84	85	86	81	77	76	70	67	71	78	84	84
1949	87	86	84	83	81	80	67	72	73	78	82	84	84
1950	88	87	84	84	76	69	71	70	70	74	79	84	84
1951	87	87	69	57	55	55	62	68	68	78	77	84	84
1952	87	87	82	69	58	55	55	55	55	59	73	82	82
1953	78	76	83	68	56	64	69	71	68	70	76	84	84
1954	81	85	82	83	71	62	61	61	66	77	79	84	84
1955	87	85	83	76	74	75	79	76	75	79	83	84	84
1956	89	86	84	62	50	52	59	66	62	69	76	83	83
1957	80	81	84	84	84	81	70	64	68	70	75	78	84
1958	87	81	84	77	68	52	51	51	56	62	74	82	82
1959	79	78	83	84	71	63	66	74	76	80	80	85	85
1960	87	87	83	85	82	72	72	74	75	81	83	85	85

Appendix C-3 CALSIM II Modeling

Year	Base Existing Base X2 Position (KM)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	75	83	85	79	78	67	65	66	61	62	73	83
1923	88	87	83	70	67	70	74	69	70	76	80	85
1924	87	87	84	85	82	79	77	81	85	84	82	86
1925	89	89	86	83	81	64	65	67	69	76	82	82
1926	88	87	85	84	80	68	74	70	74	81	83	84
1927	89	87	77	77	70	55	59	59	63	72	76	84
1928	86	87	80	80	74	71	57	63	68	77	79	84
1929	89	86	84	83	82	79	78	80	81	82	86	85
1930	89	88	85	81	76	74	69	74	76	81	82	85
1931	89	87	85	85	82	81	82	81	85	84	83	88
1932	90	88	86	77	74	71	74	75	74	76	82	84
1933	89	88	85	85	78	79	77	77	81	82	86	84
1934	89	90	84	83	77	74	75	76	81	81	85	85
1935	89	89	84	85	72	74	70	62	64	71	78	84
1936	88	87	84	85	70	59	64	66	69	74	79	85
1937	88	87	83	85	82	67	62	64	68	74	79	83
1938	88	88	77	63	64	52	47	52	54	58	72	82
1939	83	78	83	82	79	79	77	77	77	82	84	86
1940	89	85	86	86	71	61	54	55	65	75	78	84
1941	87	87	83	86	68	56	51	52	53	58	67	75
1942	83	84	85	66	57	50	62	60	61	66	75	83
1943	81	81	82	73	59	58	54	61	65	75	76	84
1944	86	87	85	84	82	72	72	75	75	79	83	87
1945	89	84	82	79	80	67	68	71	71	76	80	85
1946	88	87	82	64	61	65	69	72	73	77	80	85
1947	88	86	83	81	81	76	73	75	77	81	83	87
1948	89	84	85	86	81	77	76	70	67	71	78	84
1949	87	86	84	83	82	80	67	72	73	78	82	84
1950	88	87	84	84	76	69	71	70	70	74	79	84
1951	87	87	69	57	55	55	62	68	68	78	77	84
1952	87	87	82	69	58	55	55	55	55	59	73	82
1953	78	76	83	68	56	64	69	71	68	70	76	84
1954	81	85	82	83	71	62	61	61	66	77	79	84
1955	87	85	83	76	74	75	79	76	75	79	83	84
1956	89	86	84	62	50	52	59	66	62	69	76	83
1957	80	81	84	84	81	70	64	68	70	75	78	84
1958	87	81	84	77	68	52	51	51	56	62	74	82
1959	79	78	83	84	71	63	66	74	76	80	80	85
1960	87	87	83	85	82	72	72	74	75	81	83	85

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Appendix C-3 CALSIM II Modeling

Year	Alt Existing Alt Desal X2 Position (KM)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	89	85	85	81	81	74	74	76	77	77	81	83
1962	89	85	85	81	82	67	68	72	73	79	81	85
1963	87	73	80	73	76	62	65	56	61	71	74	83
1964	86	86	76	81	74	75	78	74	77	80	83	85
1965	88	85	83	64	54	61	67	62	66	75	76	84
1966	86	87	77	76	70	69	69	73	74	80	81	85
1967	88	85	82	70	63	60	58	58	58	60	72	81
1968	77	75	82	81	71	61	63	70	75	80	81	85
1969	89	84	85	76	57	51	54	56	56	60	73	83
1970	82	77	81	65	49	51	59	68	71	80	76	83
1971	87	87	79	64	61	65	62	67	66	73	74	83
1972	81	84	85	81	79	74	69	74	77	76	80	85
1973	89	86	78	73	60	54	56	66	68	74	78	84
1974	88	87	67	60	52	59	53	54	62	70	76	84
1975	79	81	84	81	81	64	56	63	64	69	76	83
1976	79	78	83	82	82	80	79	79	84	85	82	88
1977	90	86	87	85	84	82	82	81	84	84	84	87
1978	89	88	86	82	64	59	57	59	64	69	76	83
1979	86	87	85	83	73	64	64	69	70	74	79	85
1980	89	86	83	78	59	51	55	64	67	74	77	83
1981	85	86	86	81	76	72	69	72	75	81	83	87
1982	88	84	72	59	55	52	53	49	56	64	74	83
1983	80	72	65	57	52	47	42	49	52	52	61	71
1984	69	67	58	49	53	59	62	68	72	77	76	84
1985	87	87	73	73	73	78	77	75	76	76	81	83
1986	86	85	84	80	73	52	48	61	70	75	78	81
1987	84	86	86	83	82	76	71	74	78	81	83	87
1988	89	85	86	81	73	75	78	79	81	81	85	85
1989	89	89	85	84	81	80	68	69	74	80	83	85
1990	87	86	84	85	79	76	79	77	81	85	84	87
1991	89	89	85	85	84	82	72	74	79	85	85	86
1992	89	89	86	84	84	72	73	75	80	81	85	88
1993	90	87	87	82	64	60	60	61	63	67	75	83
1994	86	87	85	82	82	75	75	77	79	85	83	87
Mean	86	85	82	77	71	66	66	68	70	75	79	84
Max	90	90	87	86	84	82	82	81	85	85	86	88
Min	69	67	58	49	49	47	42	49	52	52	61	71

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Appendix C-3 CALSIM II Modeling

Base Existing Base X2 Position (KM)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	89	85	85	81	81	74	74	76	77	81	83	85
1962	89	85	85	81	82	67	68	72	73	79	81	85
1963	87	73	80	73	76	62	65	56	61	71	74	83
1964	86	86	76	81	74	75	78	74	77	80	83	85
1965	88	85	83	64	54	61	67	62	66	75	76	84
1966	86	87	77	76	70	69	69	73	74	80	81	85
1967	88	85	82	70	63	60	58	58	58	60	72	81
1968	77	75	82	81	71	61	63	70	75	80	81	85
1969	89	84	85	76	57	51	54	56	56	60	73	83
1970	82	77	81	65	49	51	59	68	71	80	76	83
1971	87	87	79	64	61	65	62	67	66	73	74	83
1972	81	84	85	81	79	74	69	74	77	76	80	85
1973	89	86	78	73	60	54	56	66	68	74	78	84
1974	88	87	67	60	52	59	53	54	62	70	76	84
1975	79	81	84	81	81	64	56	63	64	69	76	83
1976	79	78	83	82	82	80	79	79	84	85	82	88
1977	90	86	87	85	84	82	82	81	84	84	84	87
1978	89	88	86	82	64	59	57	59	64	69	76	83
1979	86	87	85	83	73	64	64	69	70	74	79	85
1980	89	86	83	78	59	51	55	64	67	74	77	83
1981	85	86	86	81	76	72	69	72	75	81	83	87
1982	88	84	72	59	55	52	53	49	56	64	74	83
1983	80	72	65	57	52	47	42	49	52	52	61	71
1984	69	67	58	49	53	59	62	68	72	77	76	84
1985	87	87	73	73	79	77	75	76	76	81	83	85
1986	86	85	84	80	73	52	48	61	70	75	78	81
1987	84	86	86	83	82	76	71	74	78	81	83	87
1988	89	85	86	81	73	75	78	79	81	81	85	85
1989	89	89	85	84	81	80	68	69	74	80	83	85
1990	87	86	84	85	79	76	79	77	81	85	84	87
1991	89	89	85	85	84	82	72	74	79	85	85	86
1992	89	89	86	84	84	72	73	75	80	81	85	88
1993	90	87	87	82	64	60	60	61	63	67	75	83
1994	86	87	85	82	82	75	75	77	79	85	83	87
Mean	86	85	82	77	71	66	66	68	70	75	79	84
Max	90	90	87	86	84	82	82	81	85	85	86	88
Min	69	67	58	49	49	47	42	49	52	52	61	71

Alt Existing Alt Desal QWEST (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	-1,704	-1,914	-2,230	-2,245	6,538	2,648	5,447	13,671	7,343	-3,762	-2,409	-2,727
1923	-958	-2,623	3,085	3,289	2,107	-650	6,362	3,555	322	-3,321	-3,893	-2,696
1924	-879	-111	-2,120	-1,534	-2,768	2,467	34	-140	1,603	2,582	131	-28
1925	496	1,277	-1,839	-1,988	4,504	5,956	4,184	4,898	162	-3,903	642	-1,196
1926	-35	1,050	68	-3,745	-1,001	-738	2,420	2,352	-1,261	-2,967	-1,812	-990
1927	31	-1,588	-3,456	-2,788	11,902	1,142	8,055	6,752	-67	-38	-4,261	-3,190
1928	-711	-2,501	-3,337	-2,056	-3,161	7,906	5,281	2,555	-1,017	-2,005	-2,324	-2,787
1929	-616	-1,784	-2,180	-2,083	-2,755	1,153	1,809	898	682	-393	2,097	-28
1930	652	1,996	-4,048	-2,902	-2,275	-3,422	1,405	1,848	7	-3,446	-2,468	-2,799
1931	679	-714	-879	-2,083	-1,573	907	785	-61	882	707	-1,573	-301
1932	1,200	1,155	-108	-1,338	3,434	1,690	4,746	3,597	781	-452	231	-2,388
1933	-52	866	-402	2,734	-800	-100	2,007	1,479	1,747	-1,277	2,131	14
1934	170	2,886	-3,561	-1,383	1,672	1,870	1,658	429	1,943	-403	2,190	36
1935	453	158	-1,347	-819	68	1,018	11,176	7,918	990	-2,900	-5,089	-3,103
1936	-1,796	786	-3,781	-785	18,741	1,674	6,078	6,988	1,719	-3,220	-4,749	-2,639
1937	-1,702	1,416	-3,706	-1,875	11,199	11,099	8,736	7,643	624	-2,477	-2,772	-1,908
1938	-515	-1,660	6,367	4,012	33,526	38,396	22,529	23,014	15,629	-2,389	-3,042	-2,702
1939	3,716	-3,597	-2,871	-371	-827	552	2,973	2,207	-241	-4,247	-3,550	-2,976
1940	-80	-506	-1,092	1,082	7,232	12,105	11,194	5,523	69	-4,121	-4,625	-2,915
1941	-1,909	-390	620	7,845	17,826	12,340	13,774	10,597	4,879	-3,650	-3,596	-3,319
1942	-1,293	-2,942	7,315	17,730	16,808	696	9,278	10,781	-948	-2,462	-3,839	-2,618
1943	-160	-3,012	-1,028	19,003	11,558	26,058	7,776	8,964	1,122	-303	-4,197	-3,319
1944	-1,042	-558	-2,217	-3,140	-2,173	-2,039	3,062	3,170	-815	-3,360	-3,714	-3,112
1945	831	-3,334	-3,047	-2,599	3,918	2,132	5,442	6,471	-500	-4,316	-3,830	-2,957
1946	-826	-2,402	6,996	2,258	3,038	-51	3,820	2,523	-396	-4,381	-4,109	-2,952
1947	-2,030	-804	-3,448	-891	-3,520	-2,214	915	1,549	-403	-3,665	-3,337	-3,398
1948	617	-2,419	-649	-3,610	-1,915	-1,226	3,865	4,382	245	-5,014	-5,028	-3,554
1949	-1,741	-251	-2,767	-1,163	-2,192	-89	2,489	3,386	-1,424	-5,066	-1,441	-2,585
1950	427	338	-252	-1,773	-1,990	-1,792	3,021	4,486	-568	-3,958	-4,291	-3,001
1951	-2,038	5,490	17,296	16,860	15,204	2,070	4,356	6,852	-195	-2,007	-4,897	-3,258
1952	-2,266	-2,595	987	13,122	8,520	14,523	17,884	18,465	9,331	-2,374	-3,994	-1,514
1953	3,341	-3,409	3,748	12,105	2,432	-2,015	3,258	5,823	2,116	-2,835	-3,961	-3,139
1954	-2,940	-3,750	-3,633	-2,952	1,197	-102	5,361	2,800	-803	-3,934	-4,159	-3,312
1955	-2,000	-3,068	-2,127	-1,676	-421	-570	2,342	2,440	-1,175	-2,867	-499	-1,806
1956	188	-1,888	19,103	26,663	14,449	2,724	4,902	11,259	2,706	-982	-3,931	-2,147
1957	-631	-2,789	-1,447	-2,729	-1,719	803	2,619	3,081	-751	-2,865	-4,327	-2,978
1958	-1,771	-4,325	-2,574	-450	11,159	14,203	25,997	15,174	4,415	-2,789	-3,987	-1,979
1959	1,688	-2,762	-2,792	-1,126	2,126	2,386	1,800	1,529	-222	-3,521	-4,584	-2,170
1960	-1,662	684	-1,716	-1,942	-2,966	-2,985	1,226	1,899	-1,090	-5,612	-1,107	-2,846

Appendix C-3 CALSIM II Modeling

Year	Existing Alt Desal QWEST (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	828	-2,987	-2,835	-1,576	-5,339	-2,407	105	1,094	456	-5,435	-3,573	-3,002
1962	-126	-2,126	-3,180	-1,555	4,094	-2,096	2,734	3,560	-974	-4,107	-5,087	-3,461
1963	-3,438	-4,691	-4,683	-2,813	5,789	-1,396	14,181	9,830	427	1,058	-4,195	-2,921
1964	-2,768	-4,349	-2,640	-1,823	-1,605	-1,077	672	734	-1,004	-5,575	-4,209	-3,164
1965	-298	-3,893	9,615	15,619	1,450	-926	8,687	5,295	907	-261	-4,134	-3,111
1966	-686	-524	-61	-794	-1,095	-2,842	1,903	2,865	-1,057	-3,531	-4,373	-3,222
1967	-1,456	-3,741	-863	4,261	1,674	6,370	15,081	16,758	11,843	1,694	-3,981	-435
1968	2,154	-3,748	-2,655	63	5,394	1,330	2,174	1,757	-819	-2,584	-4,178	-3,084
1969	-1,755	-2,967	-1,849	22,292	31,663	17,580	22,608	25,307	21,973	-1,992	-2,716	-2,564
1970	3,731	-2,589	7,155	33,500	14,962	4,663	4,005	4,980	149	1	-4,939	-3,388
1971	-2,322	-1,878	4,246	1,100	2,409	-105	2,997	6,412	-772	-2,575	-4,341	-3,060
1972	-3,210	-3,622	-3,019	-3,748	-3,270	-3,916	1,330	820	-476	-4,127	-3,003	-3,337
1973	-566	-2,046	-4,078	8,529	13,682	7,448	4,479	4,966	60	-4,035	-4,205	-2,724
1974	-2,043	1,558	4,409	8,858	871	9,846	15,001	8,631	1,766	-3,076	-4,301	-1,921
1975	-1,912	-3,920	-3,495	-3,856	7,578	11,339	5,347	8,074	1,963	-2,877	-4,102	-2,027
1976	-332	-4,202	-4,000	-3,138	-2,362	-2,007	855	125	-399	204	-1,908	-2,344
1977	1,001	-1,686	449	1,057	1,164	1,012	1,032	859	549	547	-1,492	-4
1978	794	1,660	-3,068	7,359	11,448	12,877	14,110	7,718	7,124	-4,047	-4,093	-3,186
1979	-916	-857	-120	1,336	8,230	7,318	4,441	4,958	-234	-4,557	-4,232	-2,602
1980	-1,000	-2,838	-2,769	17,322	27,145	13,902	6,447	7,888	3,740	-2,257	-3,858	-2,935
1981	-722	-506	-1,545	-2,509	-3,336	-457	2,273	2,029	-1,109	-4,891	-3,011	-3,026
1982	-842	-3,157	3,846	12,735	20,399	21,646	34,548	16,536	8,813	-1,978	-3,195	-348
1983	9,137	5,609	23,497	35,351	48,354	58,114	28,424	26,740	36,786	14,027	-1,726	880
1984	14,207	22,514	37,256	19,220	9,909	1,882	3,204	3,817	494	-472	-4,448	-3,437
1985	-2,170	-2,793	-2,120	-3,412	-3,042	-406	1,917	2,605	-794	-5,334	-4,478	-3,865
1986	-2,353	-929	-2,964	-995	33,763	30,636	7,605	4,264	2,617	-2,292	-3,572	-3,179
1987	-1,669	-812	-342	-3,125	-3,005	80	442	1,138	1,198	-2,689	-2,649	-2,372
1988	985	-1,151	-3,769	-3,530	-1,668	1,268	348	804	1,981	-1,190	2,040	-18
1989	555	840	-1,366	-1,275	823	-1,131	105	716	400	-4,612	-3,675	-2,867
1990	-1,967	-96	-4,506	-3,562	-2,046	-1,356	1,792	682	1,047	1,903	-1,129	-57
1991	510	1,737	1,622	1,663	1,112	-2,865	1,928	748	854	1,597	-2,586	-7
1992	530	1,822	1,973	-1,416	-2,118	-1,613	1,280	129	1,626	-983	-1,331	-973
1993	1,755	358	-989	11,157	5,979	5,025	5,651	7,290	-1,281	-4,086	-4,443	-3,427
1994	-1,635	-1,118	-1,743	-3,087	-4,309	204	733	834	-1,479	-4,618	-5,332	-3,100
Mean	-204	-914	498	3,204	5,504	4,636	6,144	5,639	1,983	-2,290	-3,074	-2,309
Max	14,207	22,514	37,256	35,351	48,354	58,114	34,548	26,740	36,786	14,027	2,190	880
Min	-3,438	-4,691	-4,683	-3,856	-5,339	-3,916	34	-140	-1,479	-5,612	-5,332	-3,865

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Appendix C-3 CALSIM II Modeling

Year	Base Existing Base QWEST (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	-1,704	-1,914	-2,230	-2,245	6,538	2,648	5,447	13,671	7,343	-3,762	-2,409	-2,750
1923	-967	-2,632	3,085	3,289	2,004	-650	6,362	3,555	322	-3,321	-3,893	-2,708
1924	-886	-117	-2,173	-1,627	-2,835	2,442	34	-176	1,560	2,500	66	-79
1925	456	1,247	-1,873	-2,023	4,504	5,956	4,184	4,898	162	-3,903	642	-1,225
1926	-43	1,044	-29	-3,830	-1,001	-738	2,420	2,352	-1,261	-2,967	-1,812	-1,009
1927	24	-1,604	-3,456	-2,788	11,902	1,141	8,055	6,752	-1,111	-78	-4,261	-3,209
1928	-723	-2,517	-3,337	-2,164	-3,161	7,906	5,281	2,555	-1,017	-2,005	-2,324	-2,811
1929	-628	-1,796	-2,198	-2,098	-2,814	1,153	1,809	898	682	-393	2,064	-44
1930	646	1,991	-4,071	-2,902	-2,275	-3,422	1,405	1,848	7	-3,446	-2,495	-2,809
1931	674	-819	-968	-2,198	-1,672	807	775	-127	824	646	-1,630	-352
1932	1,159	1,125	-142	-1,338	3,571	1,690	4,683	3,592	781	-452	231	-2,408
1933	-59	860	-413	2,684	-707	-100	2,007	1,479	1,747	-1,277	2,086	-9
1934	67	2,773	-3,674	-1,476	1,672	1,870	1,658	429	1,964	-403	2,150	-53
1935	413	129	-1,381	-854	68	1,018	11,176	7,918	990	-2,900	-5,089	-3,115
1936	-1,803	780	-3,821	-832	18,741	1,674	6,078	6,988	1,719	-3,291	-4,749	-2,654
1937	-1,710	1,408	-3,725	-1,952	11,156	11,099	8,736	7,643	624	-2,477	-2,829	-1,933
1938	-525	-1,683	3,267	3,919	33,526	38,396	22,529	23,014	15,629	-2,389	-3,042	-2,772
1939	3,714	-3,597	-2,871	-371	-827	552	2,973	2,207	-241	-4,302	-3,570	-2,988
1940	-88	-518	-1,104	1,049	7,232	12,102	11,119	5,515	69	-4,125	-4,658	-2,928
1941	-1,916	-409	620	7,845	17,657	12,312	13,774	10,597	4,879	-3,650	-3,596	-3,365
1942	-1,318	-2,955	7,288	17,730	16,771	694	9,278	10,781	-1,014	-2,473	-3,839	-2,670
1943	-180	-3,012	-1,028	19,003	11,558	26,058	7,776	8,964	1,122	-303	-4,197	-3,339
1944	-1,054	-569	-2,234	-3,156	-2,187	-2,039	3,062	3,170	-815	-3,360	-3,735	-3,121
1945	824	-3,363	-3,047	-2,599	3,918	2,118	5,442	6,471	-525	-4,447	-3,874	-2,971
1946	-834	-2,491	6,996	2,258	3,167	-129	3,820	2,523	-422	-4,467	-4,149	-2,968
1947	-2,041	-828	-3,485	-943	-3,520	-2,214	915	1,549	-403	-3,683	-3,352	-3,405
1948	611	-2,432	-664	-3,621	-1,990	-1,251	3,669	4,350	245	-5,014	-5,079	-3,568
1949	-1,752	-324	-2,839	-1,204	-2,177	-89	2,489	3,386	-1,424	-5,066	-1,472	-2,608
1950	417	329	-272	-1,796	-1,990	-1,860	2,878	4,486	-568	-3,958	-4,292	-3,023
1951	-2,052	5,460	17,296	16,728	15,164	2,070	4,356	6,852	-195	-2,007	-4,897	-3,275
1952	-2,278	-2,607	987	13,122	8,403	14,523	17,884	18,465	9,331	-2,374	-3,994	-1,514
1953	3,341	-3,409	3,748	12,105	2,432	-2,015	3,258	5,823	2,116	-2,835	-3,961	-3,176
1954	-2,964	-3,772	-3,667	-2,952	1,197	-174	5,361	2,800	-803	-3,934	-4,159	-3,330
1955	-2,011	-3,081	-2,127	-1,676	-483	-606	2,342	2,440	-1,175	-2,867	-544	-1,828
1956	179	-1,899	19,103	26,663	14,402	2,643	4,902	11,259	2,706	-982	-3,931	-2,212
1957	-638	-2,789	-1,474	-2,745	-1,747	803	2,619	3,081	-751	-2,865	-4,327	-2,991
1958	-1,787	-4,353	-2,574	-450	11,055	14,203	25,997	15,174	4,415	-2,789	-3,987	-1,979
1959	1,688	-2,762	-2,822	-1,126	2,121	2,386	1,800	1,529	-222	-3,521	-4,637	-2,182
1960	-1,669	676	-1,770	-2,020	-3,034	-2,985	1,226	1,899	-1,090	-5,668	-1,128	-2,862

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Appendix C-3 CALSIM II Modeling

Year	Base Existing Base QWEST (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	819	-3,074	-2,922	-1,576	-5,382	-2,407	66	1,094	456	-5,435	-3,589	-3,080
1962	179	-2,156	-3,215	-1,555	4,094	-2,096	2,732	3,560	-974	-4,107	-5,115	-3,471
1963	-3,546	-4,691	-4,683	-2,859	5,789	-1,396	14,181	9,830	427	1,058	-4,195	-2,948
1964	-2,777	-4,358	-2,640	-1,929	-1,605	-1,077	672	734	-1,004	-5,630	-4,223	-3,174
1965	-305	-3,908	9,615	15,619	1,450	-956	8,687	5,295	862	-333	-4,134	-3,132
1966	-698	-557	-61	-882	-1,085	-2,851	1,903	2,865	-1,057	-3,531	-4,412	-3,238
1967	-1,468	-3,767	-863	4,261	1,585	6,324	15,081	16,758	11,843	1,694	-3,981	-435
1968	2,154	-3,748	-2,655	63	5,394	1,330	2,174	1,757	-819	-2,584	-4,217	-3,094
1969	-1,765	-3,003	-1,849	22,292	31,663	17,464	22,608	25,307	21,973	-1,992	-2,716	-2,564
1970	3,731	-2,589	7,155	33,500	14,962	4,663	4,005	4,980	149	1	-4,939	-3,410
1971	-2,331	-1,893	4,246	994	2,409	-105	2,997	6,412	-772	-2,575	-4,341	-3,111
1972	-3,250	-3,636	-3,036	-3,772	-3,273	-3,981	1,330	820	-476	-4,127	-3,045	-2,349
1973	-573	-2,084	-4,078	8,462	13,619	7,448	4,479	4,966	60	-4,035	-4,205	-2,744
1974	-2,051	1,541	4,409	8,750	871	9,846	15,001	8,631	1,766	-3,076	-4,301	-1,973
1975	-1,931	-3,920	-3,519	-3,879	7,552	11,339	5,347	8,074	1,963	-2,877	-4,102	-2,084
1976	-346	-4,202	-4,028	-3,154	-2,371	-2,041	855	76	-436	153	-1,908	-2,360
1977	993	-1,753	358	952	1,133	976	1,032	802	1,412	486	-1,549	-55
1978	754	1,631	-3,102	7,359	11,448	12,877	14,110	7,718	7,124	-4,047	-4,093	-3,205
1979	-928	-867	-135	1,302	8,230	7,316	4,441	4,958	-261	-4,621	-4,276	-2,616
1980	-1,008	-2,856	-2,769	17,322	27,066	13,848	6,447	7,788	3,740	-2,257	-3,858	-2,961
1981	-738	-517	-1,563	-2,509	-3,336	-475	2,273	2,029	-1,117	-4,946	-3,029	-3,036
1982	-851	-3,189	3,846	12,735	20,193	21,585	34,548	16,536	8,813	-1,978	-3,195	-348
1983	9,137	5,609	23,497	35,351	48,354	58,114	28,424	26,740	36,786	14,027	-1,726	880
1984	14,207	22,514	37,256	19,220	9,909	1,882	3,204	3,817	494	-472	-4,448	-3,457
1985	-2,180	-2,806	-2,120	-3,524	-3,042	-406	1,917	2,605	-794	-5,387	-4,495	-3,877
1986	-2,363	-940	-2,993	-995	33,728	30,552	7,503	4,257	2,617	-2,292	-3,576	-3,214
1987	-1,685	-822	-357	-3,143	-3,018	80	442	1,138	1,198	-2,714	-2,674	-2,382
1988	979	-1,160	-3,786	-3,530	-1,668	1,268	348	804	1,981	-1,190	2,005	-32
1989	551	837	-1,466	-1,385	718	-1,131	68	712	400	-4,612	-3,690	-2,881
1990	-2,092	-197	-4,586	-3,610	-2,078	-1,356	1,791	682	1,063	1,859	-1,214	-108
1991	470	1,707	1,588	1,628	1,101	-2,907	1,904	748	854	1,536	-2,643	-58
1992	489	1,792	1,939	-1,451	-2,154	-1,613	1,280	129	1,626	-983	-1,388	-1,024
1993	1,715	328	-1,023	11,157	5,979	5,025	5,651	7,290	-1,281	-4,086	-4,443	-3,448
1994	-1,644	-1,126	-1,767	-3,115	-4,330	204	733	834	-1,479	-4,638	-5,344	-3,173
Mean	-221	-935	476	3,171	5,483	4,621	6,134	5,635	1,977	-2,306	-3,092	-2,334
Max	14,207	22,514	37,256	35,351	48,354	58,114	34,548	26,740	36,786	14,027	2,150	880
Min	-3,546	-4,691	-4,683	-3,879	-5,382	-3,981	34	-176	-1,479	-5,668	-5,344	-3,877

Appendix C-3 CALSIM II Modeling

Year	Difference Existing Alt Desal minus Existing Base QWEST (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	0
1923	9	10	0	0	102	0	0	0	0	0	0	0
1924	7	6	53	93	67	26	0	36	44	82	65	51
1925	40	30	34	35	0	0	0	0	0	0	0	29
1926	8	6	97	85	0	0	0	0	0	0	0	19
1927	7	16	0	0	0	1	0	0	44	40	0	18
1928	11	16	0	108	0	0	0	0	0	0	0	24
1929	12	12	18	15	59	0	0	0	0	0	33	16
1930	6	5	23	0	0	0	0	0	0	0	26	11
1931	4	105	89	114	99	100	9	66	58	61	57	51
1932	40	30	34	0	-137	0	62	5	0	0	0	20
1933	7	6	12	51	-93	0	0	0	0	0	45	22
1934	103	113	113	93	0	0	0	0	-21	0	39	89
1935	40	30	34	35	0	0	0	0	0	0	0	12
1936	7	6	39	47	0	0	0	0	0	71	0	15
1937	8	8	20	77	43	0	0	0	0	0	57	26
1938	10	23	0	93	0	0	0	0	0	0	0	71
1939	1	0	0	0	0	0	0	0	0	0	55	20
1940	9	12	12	33	0	0	75	7	0	4	33	13
1941	7	19	0	0	169	28	0	0	0	0	0	47
1942	25	13	28	0	36	2	0	0	66	12	0	52
1943	20	0	0	0	0	0	0	0	0	0	0	20
1944	12	10	17	16	14	0	0	0	0	0	21	9
1945	7	29	0	0	0	13	0	0	26	132	44	14
1946	9	89	0	0	-128	77	0	0	26	86	40	16
1947	11	24	36	52	0	0	0	0	0	18	15	7
1948	6	13	15	11	75	25	197	32	0	0	51	15
1949	11	73	71	41	-15	0	0	0	0	0	31	22
1950	10	10	19	23	0	68	143	0	0	0	1	22
1951	14	30	0	131	39	0	0	0	0	0	0	18
1952	12	12	0	0	116	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	37
1954	24	22	34	0	0	72	0	0	0	0	0	18
1955	12	13	0	0	62	37	0	0	0	0	46	21
1956	9	11	0	0	48	81	0	0	0	0	0	65
1957	7	0	28	17	27	0	0	0	0	0	0	13
1958	17	29	0	0	103	0	0	0	0	0	0	0
1959	0	0	30	0	5	0	0	0	0	0	53	12
1960	7	8	53	78	68	0	0	0	0	56	21	16

Appendix C-3 CALSIM II Modeling

Year	Difference Existing Alt Desal minus Existing Base QWEST (CFS)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1961	9	87	87	0	43	0	39	0	0	0	0	16	79
1962	53	30	34	0	0	0	1	0	0	0	0	29	10
1963	108	0	0	45	0	0	0	0	0	0	0	0	28
1964	9	8	0	106	0	0	0	0	0	0	54	14	9
1965	7	15	0	0	0	30	0	0	0	45	71	0	20
1966	12	33	0	88	-10	9	0	0	0	0	39	16	0
1967	13	26	0	0	88	46	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	39	11	0
1969	10	36	0	0	0	117	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0	22
1971	9	16	0	106	0	0	0	0	0	0	0	0	52
1972	40	15	17	23	3	64	0	0	0	0	0	42	12
1973	7	38	0	67	63	0	0	0	0	0	0	0	21
1974	8	17	0	109	0	0	0	0	0	0	0	0	52
1975	19	0	24	23	25	0	0	0	0	0	0	0	57
1976	15	0	28	15	9	34	0	49	37	50	0	16	0
1977	8	67	92	105	31	36	0	57	58	61	57	51	0
1978	40	30	34	0	0	0	0	0	0	0	0	0	19
1979	12	10	15	34	0	1	0	0	0	26	64	44	14
1980	9	18	0	0	80	54	0	0	0	0	0	0	26
1981	16	11	18	0	0	18	0	0	8	55	17	11	0
1982	9	33	0	0	207	61	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0	20
1985	10	13	0	111	0	0	0	0	0	52	17	12	0
1986	10	11	29	0	35	84	102	7	0	0	4	35	0
1987	16	10	15	18	13	0	0	0	0	24	25	9	0
1988	7	10	17	0	0	0	0	0	0	0	35	13	0
1989	4	3	99	110	106	0	37	4	0	0	14	14	0
1990	125	101	79	48	32	0	1	0	-16	43	85	51	0
1991	40	30	34	35	11	42	24	0	0	61	57	51	0
1992	40	30	34	35	36	0	0	0	0	0	57	51	0
1993	40	30	34	0	0	0	0	0	0	0	0	21	0
1994	9	8	24	28	21	0	0	0	0	20	12	73	0
Mean	17	22	22	32	21	15	9	4	5	16	18	25	0
Max	125	113	113	131	207	117	197	66	66	132	85	89	0
Min	0	0	0	0	-137	0	0	0	-21	0	0	0	0

Appendix C-3 CALSIM II Modeling

Year	Alt Existing Alt Desal E/I Ratio											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0.62	0.59	0.51	0.57	0.25	0.29	0.20	0.15	0.19	0.48	0.57	0.66
1923	0.65	0.57	0.27	0.31	0.35	0.35	0.17	0.19	0.35	0.49	0.62	0.65
1924	0.59	0.45	0.57	0.50	0.45	0.09	0.24	0.17	0.10	0.08	0.36	0.46
1925	0.52	0.35	0.54	0.54	0.17	0.04	0.21	0.11	0.31	0.51	0.36	0.61
1926	0.54	0.37	0.42	0.53	0.25	0.30	0.19	0.11	0.31	0.42	0.45	0.55
1927	0.53	0.41	0.50	0.31	0.06	0.20	0.12	0.09	0.35	0.32	0.61	0.65
1928	0.59	0.49	0.57	0.41	0.35	0.11	0.17	0.18	0.35	0.39	0.52	0.64
1929	0.53	0.55	0.55	0.55	0.45	0.21	0.18	0.15	0.24	0.30	0.13	0.47
1930	0.46	0.25	0.52	0.47	0.37	0.32	0.22	0.11	0.25	0.47	0.51	0.66
1931	0.46	0.48	0.47	0.53	0.43	0.20	0.11	0.15	0.19	0.18	0.45	0.47
1932	0.38	0.35	0.45	0.45	0.38	0.30	0.13	0.12	0.25	0.31	0.34	0.62
1933	0.52	0.38	0.46	0.24	0.38	0.30	0.14	0.17	0.11	0.34	0.10	0.46
1934	0.52	0.15	0.58	0.40	0.24	0.12	0.08	0.11	0.09	0.28	0.10	0.45
1935	0.47	0.42	0.55	0.33	0.35	0.26	0.09	0.04	0.27	0.44	0.61	0.65
1936	0.61	0.38	0.63	0.25	0.13	0.27	0.18	0.07	0.27	0.46	0.61	0.65
1937	0.62	0.33	0.65	0.59	0.24	0.21	0.16	0.17	0.31	0.43	0.53	0.62
1938	0.61	0.40	0.13	0.23	0.05	0.05	0.09	0.11	0.17	0.47	0.58	0.60
1939	0.47	0.64	0.53	0.42	0.45	0.35	0.19	0.15	0.28	0.51	0.58	0.65
1940	0.50	0.50	0.51	0.29	0.18	0.10	0.08	0.12	0.32	0.48	0.62	0.65
1941	0.63	0.45	0.21	0.11	0.09	0.12	0.09	0.10	0.26	0.48	0.59	0.61
1942	0.63	0.63	0.11	0.07	0.05	0.30	0.11	0.07	0.28	0.45	0.61	0.56
1943	0.58	0.62	0.31	0.11	0.15	0.10	0.16	0.06	0.32	0.35	0.62	0.65
1944	0.62	0.51	0.55	0.58	0.38	0.35	0.26	0.18	0.35	0.48	0.60	0.65
1945	0.44	0.59	0.51	0.57	0.23	0.35	0.20	0.07	0.35	0.50	0.61	0.65
1946	0.64	0.55	0.15	0.21	0.21	0.35	0.24	0.24	0.35	0.51	0.61	0.65
1947	0.61	0.50	0.57	0.49	0.45	0.35	0.21	0.08	0.29	0.48	0.57	0.64
1948	0.46	0.59	0.47	0.53	0.35	0.35	0.18	0.12	0.31	0.51	0.62	0.65
1949	0.60	0.46	0.55	0.48	0.45	0.23	0.21	0.09	0.35	0.53	0.48	0.64
1950	0.48	0.42	0.44	0.45	0.29	0.35	0.20	0.07	0.33	0.47	0.59	0.65
1951	0.64	0.20	0.10	0.11	0.09	0.27	0.20	0.06	0.35	0.39	0.62	0.65
1952	0.65	0.54	0.23	0.13	0.14	0.14	0.07	0.08	0.17	0.47	0.61	0.49
1953	0.44	0.64	0.14	0.07	0.25	0.34	0.22	0.08	0.25	0.43	0.61	0.55
1954	0.65	0.57	0.60	0.29	0.17	0.21	0.13	0.15	0.35	0.46	0.61	0.65
1955	0.58	0.57	0.40	0.48	0.32	0.35	0.17	0.11	0.34	0.46	0.39	0.60
1956	0.48	0.54	0.11	0.07	0.11	0.21	0.20	0.03	0.31	0.39	0.61	0.54
1957	0.57	0.60	0.51	0.54	0.29	0.22	0.21	0.21	0.35	0.43	0.60	0.65
1958	0.54	0.66	0.42	0.26	0.05	0.11	0.07	0.10	0.23	0.47	0.61	0.51
1959	0.49	0.62	0.59	0.25	0.21	0.17	0.25	0.15	0.27	0.44	0.61	0.65
1960	0.60	0.36	0.54	0.54	0.34	0.35	0.21	0.11	0.31	0.54	0.42	0.63

Appendix C-3 CALSIM II Modeling

Year	Alt Existing Alt Desal E/I Ratio											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	0.41	0.61	0.49	0.57	0.38	0.35	0.22	0.09	0.20	0.52	0.36	0.65
1962	0.46	0.57	0.50	0.51	0.23	0.35	0.23	0.10	0.33	0.47	0.63	0.65
1963	0.28	0.62	0.35	0.56	0.14	0.29	0.06	0.04	0.34	0.29	0.61	0.65
1964	0.65	0.38	0.55	0.40	0.35	0.35	0.20	0.18	0.35	0.55	0.58	0.65
1965	0.52	0.60	0.13	0.09	0.29	0.34	0.12	0.15	0.35	0.35	0.63	0.65
1966	0.57	0.41	0.50	0.33	0.35	0.35	0.23	0.13	0.34	0.48	0.60	0.65
1967	0.55	0.60	0.25	0.21	0.18	0.18	0.14	0.11	0.17	0.46	0.60	0.45
1968	0.44	0.65	0.54	0.24	0.13	0.20	0.22	0.16	0.31	0.42	0.64	0.65
1969	0.56	0.61	0.38	0.10	0.08	0.14	0.09	0.11	0.19	0.47	0.56	0.58
1970	0.45	0.56	0.09	0.03	0.08	0.21	0.20	0.09	0.33	0.30	0.62	0.65
1971	0.65	0.50	0.16	0.20	0.17	0.22	0.20	0.07	0.35	0.41	0.61	0.54
1972	0.65	0.64	0.53	0.55	0.37	0.29	0.22	0.17	0.29	0.48	0.55	0.65
1973	0.56	0.48	0.37	0.13	0.11	0.17	0.23	0.12	0.30	0.48	0.60	0.65
1974	0.65	0.17	0.14	0.09	0.24	0.10	0.07	0.05	0.29	0.48	0.62	0.48
1975	0.60	0.65	0.55	0.59	0.14	0.12	0.20	0.08	0.31	0.47	0.63	0.50
1976	0.51	0.64	0.59	0.58	0.45	0.35	0.23	0.17	0.29	0.28	0.57	0.64
1977	0.49	0.61	0.39	0.36	0.19	0.15	0.10	0.14	0.11	0.21	0.47	0.49
1978	0.44	0.30	0.56	0.15	0.10	0.11	0.11	0.19	0.27	0.48	0.59	0.65
1979	0.64	0.51	0.42	0.38	0.21	0.20	0.23	0.13	0.29	0.51	0.61	0.64
1980	0.59	0.56	0.46	0.11	0.08	0.13	0.19	0.07	0.29	0.49	0.59	0.65
1981	0.65	0.51	0.47	0.45	0.35	0.30	0.22	0.15	0.32	0.53	0.57	0.65
1982	0.53	0.29	0.11	0.14	0.11	0.13	0.06	0.13	0.24	0.47	0.60	0.53
1983	0.34	0.23	0.12	0.07	0.02	0.02	0.06	0.08	0.08	0.27	0.46	0.30
1984	0.17	0.05	0.02	0.08	0.16	0.25	0.23	0.16	0.31	0.35	0.62	0.65
1985	0.65	0.31	0.43	0.59	0.45	0.35	0.22	0.10	0.31	0.55	0.61	0.65
1986	0.62	0.54	0.52	0.40	0.06	0.07	0.25	0.28	0.35	0.43	0.55	0.66
1987	0.64	0.52	0.43	0.57	0.42	0.24	0.21	0.09	0.16	0.45	0.55	0.61
1988	0.42	0.54	0.53	0.36	0.33	0.13	0.23	0.11	0.09	0.32	0.13	0.43
1989	0.47	0.37	0.51	0.45	0.26	0.23	0.20	0.11	0.23	0.50	0.55	0.66
1990	0.59	0.43	0.64	0.49	0.38	0.35	0.08	0.18	0.11	0.10	0.44	0.46
1991	0.45	0.26	0.23	0.25	0.17	0.33	0.14	0.15	0.21	0.10	0.51	0.42
1992	0.48	0.26	0.19	0.53	0.33	0.35	0.16	0.11	0.12	0.34	0.45	0.52
1993	0.37	0.43	0.49	0.17	0.19	0.18	0.13	0.06	0.23	0.48	0.60	0.65
1994	0.65	0.52	0.48	0.59	0.43	0.22	0.22	0.19	0.34	0.50	0.64	0.62
Mean	0.48	0.41	0.35	0.25	0.23	0.17	0.12	0.27	0.42	0.54	0.54	0.59
Max	0.65	0.66	0.65	0.59	0.45	0.35	0.26	0.28	0.35	0.55	0.64	0.66
Min	0.17	0.05	0.02	0.03	0.02	0.02	0.06	0.03	0.08	0.08	0.10	0.30

Appendix C-3 CALSIM II Modeling

Year	Base Existing Base E/I Ratio											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0.62	0.59	0.51	0.57	0.25	0.29	0.20	0.05	0.19	0.48	0.57	0.66
1923	0.65	0.57	0.27	0.31	0.35	0.35	0.17	0.19	0.35	0.49	0.62	0.65
1924	0.59	0.45	0.57	0.50	0.45	0.09	0.24	0.17	0.10	0.08	0.35	0.46
1925	0.52	0.35	0.54	0.54	0.17	0.04	0.21	0.11	0.31	0.51	0.36	0.61
1926	0.54	0.37	0.42	0.53	0.25	0.30	0.19	0.11	0.31	0.42	0.45	0.55
1927	0.53	0.41	0.50	0.31	0.06	0.20	0.12	0.09	0.35	0.32	0.61	0.65
1928	0.59	0.49	0.57	0.41	0.35	0.11	0.17	0.18	0.35	0.39	0.52	0.64
1929	0.53	0.55	0.55	0.55	0.45	0.21	0.18	0.15	0.24	0.30	0.12	0.47
1930	0.46	0.25	0.52	0.47	0.37	0.32	0.22	0.11	0.25	0.47	0.51	0.66
1931	0.46	0.48	0.47	0.53	0.42	0.20	0.11	0.15	0.19	0.18	0.45	0.47
1932	0.38	0.35	0.45	0.45	0.38	0.30	0.13	0.12	0.25	0.31	0.34	0.62
1933	0.52	0.38	0.46	0.24	0.38	0.30	0.14	0.17	0.11	0.34	0.14	0.46
1934	0.51	0.15	0.58	0.40	0.24	0.12	0.08	0.11	0.09	0.28	0.10	0.44
1935	0.46	0.42	0.55	0.33	0.35	0.26	0.09	0.04	0.27	0.44	0.61	0.65
1936	0.61	0.38	0.63	0.25	0.13	0.27	0.18	0.07	0.27	0.46	0.61	0.65
1937	0.62	0.33	0.65	0.59	0.24	0.21	0.16	0.17	0.31	0.43	0.53	0.62
1938	0.61	0.40	0.13	0.23	0.05	0.05	0.09	0.11	0.17	0.47	0.58	0.60
1939	0.47	0.64	0.53	0.42	0.45	0.35	0.19	0.15	0.28	0.51	0.58	0.65
1940	0.50	0.50	0.51	0.29	0.18	0.10	0.08	0.12	0.32	0.48	0.61	0.65
1941	0.63	0.45	0.21	0.11	0.09	0.12	0.09	0.10	0.26	0.48	0.59	0.61
1942	0.63	0.63	0.11	0.07	0.05	0.30	0.11	0.07	0.28	0.45	0.61	0.56
1943	0.58	0.62	0.31	0.11	0.15	0.10	0.16	0.06	0.32	0.35	0.62	0.65
1944	0.62	0.51	0.55	0.58	0.38	0.35	0.26	0.18	0.35	0.48	0.60	0.65
1945	0.44	0.59	0.51	0.57	0.23	0.35	0.20	0.07	0.35	0.50	0.61	0.65
1946	0.64	0.54	0.15	0.21	0.21	0.35	0.24	0.24	0.35	0.51	0.61	0.65
1947	0.61	0.50	0.57	0.49	0.45	0.35	0.21	0.08	0.29	0.48	0.57	0.64
1948	0.46	0.59	0.47	0.53	0.35	0.35	0.18	0.12	0.31	0.51	0.62	0.65
1949	0.60	0.45	0.55	0.48	0.45	0.23	0.21	0.09	0.35	0.53	0.48	0.64
1950	0.48	0.42	0.44	0.45	0.29	0.35	0.20	0.07	0.33	0.47	0.59	0.65
1951	0.64	0.20	0.10	0.11	0.09	0.27	0.20	0.06	0.35	0.39	0.62	0.65
1952	0.65	0.54	0.23	0.13	0.14	0.14	0.07	0.08	0.17	0.47	0.61	0.49
1953	0.44	0.64	0.14	0.07	0.25	0.34	0.22	0.08	0.25	0.43	0.61	0.55
1954	0.65	0.57	0.60	0.29	0.17	0.21	0.13	0.15	0.35	0.46	0.61	0.65
1955	0.58	0.57	0.40	0.48	0.32	0.35	0.17	0.11	0.34	0.46	0.39	0.60
1956	0.48	0.54	0.11	0.07	0.11	0.21	0.20	0.03	0.31	0.39	0.61	0.54
1957	0.57	0.60	0.51	0.54	0.29	0.22	0.21	0.21	0.35	0.43	0.60	0.65
1958	0.54	0.66	0.42	0.26	0.05	0.11	0.07	0.10	0.23	0.47	0.61	0.51
1959	0.49	0.62	0.59	0.25	0.21	0.17	0.25	0.15	0.27	0.44	0.61	0.65
1960	0.60	0.36	0.53	0.54	0.34	0.35	0.21	0.11	0.31	0.54	0.42	0.63

Appendix C-3 CALSIM II Modeling

Year	Base Existing Base E/I Ratio											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	0.41	0.61	0.49	0.57	0.38	0.35	0.22	0.09	0.20	0.52	0.56	0.65
1962	0.45	0.57	0.50	0.51	0.23	0.35	0.23	0.10	0.33	0.47	0.63	0.65
1963	0.28	0.62	0.35	0.56	0.14	0.29	0.06	0.04	0.34	0.29	0.61	0.65
1964	0.65	0.38	0.55	0.40	0.35	0.20	0.18	0.35	0.55	0.58	0.65	0.65
1965	0.52	0.60	0.13	0.09	0.29	0.34	0.12	0.15	0.35	0.35	0.63	0.65
1966	0.57	0.41	0.50	0.33	0.35	0.35	0.23	0.13	0.34	0.48	0.60	0.65
1967	0.55	0.60	0.25	0.21	0.18	0.18	0.14	0.11	0.17	0.46	0.60	0.45
1968	0.44	0.65	0.54	0.24	0.13	0.20	0.22	0.16	0.31	0.42	0.64	0.65
1969	0.56	0.61	0.38	0.10	0.08	0.14	0.09	0.11	0.19	0.47	0.56	0.58
1970	0.45	0.56	0.09	0.03	0.08	0.21	0.20	0.09	0.33	0.30	0.62	0.65
1971	0.65	0.50	0.16	0.20	0.17	0.22	0.20	0.07	0.35	0.41	0.61	0.54
1972	0.65	0.64	0.53	0.55	0.37	0.29	0.22	0.17	0.29	0.48	0.55	0.65
1973	0.56	0.48	0.37	0.13	0.11	0.17	0.23	0.12	0.30	0.48	0.60	0.65
1974	0.65	0.17	0.14	0.09	0.24	0.10	0.07	0.05	0.29	0.48	0.62	0.48
1975	0.60	0.65	0.55	0.59	0.14	0.12	0.20	0.08	0.31	0.47	0.63	0.50
1976	0.51	0.64	0.59	0.58	0.45	0.35	0.23	0.17	0.29	0.28	0.57	0.63
1977	0.48	0.61	0.38	0.36	0.19	0.15	0.10	0.14	0.11	0.21	0.46	0.48
1978	0.43	0.30	0.56	0.15	0.10	0.11	0.11	0.19	0.27	0.48	0.59	0.65
1979	0.64	0.51	0.42	0.38	0.21	0.20	0.23	0.13	0.29	0.51	0.61	0.64
1980	0.58	0.56	0.46	0.11	0.08	0.13	0.19	0.07	0.29	0.49	0.59	0.65
1981	0.64	0.51	0.47	0.45	0.35	0.30	0.22	0.15	0.32	0.53	0.57	0.65
1982	0.53	0.29	0.11	0.14	0.11	0.13	0.06	0.13	0.24	0.47	0.60	0.53
1983	0.34	0.23	0.12	0.07	0.02	0.02	0.06	0.08	0.08	0.27	0.46	0.30
1984	0.17	0.05	0.02	0.08	0.16	0.25	0.23	0.16	0.31	0.35	0.62	0.65
1985	0.65	0.31	0.43	0.59	0.45	0.35	0.22	0.10	0.31	0.55	0.61	0.65
1986	0.62	0.54	0.52	0.40	0.06	0.07	0.25	0.28	0.35	0.43	0.55	0.65
1987	0.64	0.52	0.43	0.57	0.42	0.24	0.21	0.09	0.16	0.45	0.55	0.61
1988	0.42	0.54	0.53	0.36	0.33	0.13	0.23	0.11	0.09	0.32	0.13	0.42
1989	0.47	0.37	0.51	0.45	0.26	0.23	0.20	0.11	0.23	0.50	0.55	0.66
1990	0.59	0.43	0.63	0.49	0.38	0.35	0.08	0.18	0.11	0.10	0.43	0.46
1991	0.45	0.26	0.23	0.25	0.17	0.33	0.14	0.15	0.21	0.10	0.51	0.42
1992	0.48	0.26	0.19	0.53	0.33	0.35	0.16	0.11	0.12	0.34	0.44	0.52
1993	0.37	0.43	0.49	0.17	0.19	0.18	0.13	0.06	0.23	0.48	0.60	0.65
1994	0.65	0.52	0.48	0.59	0.43	0.22	0.22	0.19	0.34	0.50	0.64	0.61
Mean	0.54	0.47	0.41	0.35	0.25	0.23	0.17	0.12	0.27	0.42	0.54	0.59
Max	0.65	0.66	0.65	0.59	0.45	0.35	0.26	0.28	0.35	0.55	0.64	0.66
Min	0.17	0.05	0.02	0.03	0.02	0.02	0.06	0.03	0.08	0.08	0.10	0.30

Year	Alt Existing Alt Desal Delta Surplus Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	4,792	2,583	21,119	7,314	10,949	44,049	14,348	0	0	0
1923	0	0	22,936	19,694	0	0	5,606	6,584	0	0	0	0
1924	0	0	1,426	0	1,426	0	0	114	0	0	0	0
1925	0	0	1,305	1,157	45,065	0	9,294	7,635	0	0	0	0
1926	0	0	909	3,304	10,372	0	9,764	0	0	0	0	0
1927	0	6,726	4,610	17,699	107,563	18,576	28,828	6,181	0	0	0	0
1928	0	3,628	2,410	10,085	2,824	75,968	5,127	0	0	0	0	0
1929	0	0	1,057	2,335	0	0	0	0	0	0	0	0
1930	0	0	1,337	6,256	0	3,364	256	1,798	0	0	0	0
1931	0	0	0	1,211	0	0	0	351	0	0	0	0
1932	0	0	7,355	7,649	0	0	0	4,939	0	0	0	0
1933	0	0	518	3,393	145	2,307	0	0	0	0	0	0
1934	0	0	1,287	6,297	1,737	0	0	0	0	0	0	0
1935	0	0	1,167	17,224	0	7,847	42,531	0	1,369	0	0	0
1936	0	0	0	24,427	50,066	2,910	8,003	9,325	2,240	0	0	0
1937	0	0	0	1,129	24,467	22,216	9,107	3,222	0	0	0	0
1938	0	7,481	52,245	24,725	122,749	148,917	59,496	52,095	25,427	0	0	1,448
1939	6,690	0	2,532	5,023	0	0	0	0	0	0	0	0
1940	0	0	22,012	32,460	76,689	49,669	2,127	0	0	0	0	0
1941	0	0	33,488	87,949	96,755	66,167	57,422	27,231	633	0	0	1,337
1942	450	0	55,974	76,117	118,905	4,467	37,589	18,589	6,620	0	0	3,037
1943	2,061	1,027	17,182	77,229	32,367	66,528	11,194	4,020	443	0	0	0
1944	0	0	0	1,113	5,543	0	619	4,512	0	0	0	0
1945	0	1,625	4,306	779	26,939	0	4,593	1,227	0	0	0	0
1946	0	0	57,334	38,858	0	0	3,497	2,065	0	0	0	0
1947	0	0	2,433	894	0	0	1,054	0	0	0	0	0
1948	0	0	0	1,366	0	0	14,569	17,095	2,962	0	0	0
1949	0	0	1,229	2,532	0	10,564	2,528	2,838	0	0	0	0
1950	0	0	729	7,664	6,431	0	6,936	6,941	1,454	0	0	0
1951	0	35,868	87,139	65,148	52,040	8,302	1,864	13,132	0	0	0	0
1952	0	30,086	76,006	51,200	43,807	52,292	48,511	20,326	0	0	6,014	0
1953	8,163	0	37,568	95,795	1,073	423	5,935	13,899	7,939	0	0	3,321
1954	0	2,676	796	10,474	34,260	20,670	20,652	0	0	0	0	0
1955	0	0	9,567	5,939	0	0	0	3,367	0	0	0	0
1956	0	0	83,322	156,552	64,945	18,441	3,815	34,006	3,058	0	0	3,916
1957	2,339	0	867	2,904	10,901	18,766	0	9,180	0	0	0	0
1958	3,619	0	8,523	24,355	157,150	71,902	81,542	34,645	9,978	0	0	5,098
1959	5,529	0	912	23,950	23,305	0	336	1,934	0	0	0	0
1960	0	0	0	1,982	8,056	0	0	3,501	0	0	0	0

Appendix C-3 CALSIM II Modeling

Year	Alt Existing Alt Desal Delta Surplus Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	0	0	1,324	813	4,564	0	0	0	0	0	0	0
1962	0	0	1,209	0	6,854	0	2,650	1,533	0	0	0	0
1963	20,095	895	13,174	2,640	46,372	0	71,980	13,383	0	0	0	0
1964	0	10,127	849	10,137	0	0	0	1,277	0	0	0	0
1965	0	594	63,460	109,582	7,479	0	33,082	0	0	0	0	0
1966	0	5,542	5,173	17,804	0	0	1,328	1,536	0	0	0	0
1967	0	1,003	25,921	35,966	24,877	32,280	33,440	38,454	24,196	1,294	602	7,901
1968	7,935	0	3,099	20,503	42,037	8,679	0	3,845	0	0	0	0
1969	0	0	9,443	106,839	106,566	42,435	43,433	44,050	14,430	0	0	2,253
1970	7,453	1,653	50,933	204,301	68,694	17,837	0	9,859	0	0	0	0
1971	0	3,063	50,114	37,387	0	18,444	0	18,481	0	0	0	3,648
1972	0	0	1,280	2,728	0	6,200	0	1,245	0	0	0	0
1973	0	5,414	12,156	69,275	66,161	34,022	2,255	10,006	0	0	0	0
1974	0	44,775	56,211	117,629	15,545	82,810	52,936	8,918	3,243	0	0	6,310
1975	1,503	0	2,976	1,381	49,332	62,519	4,214	21,240	2,123	0	0	5,495
1976	4,732	183	1,798	1,668	0	0	308	287	0	0	0	0
1977	0	0	0	901	0	0	0	0	0	0	0	0
1978	0	0	1,227	53,305	29,123	44,537	23,345	4,997	4,798	0	0	0
1979	0	0	1,264	12,490	22,931	12,996	0	9,913	0	0	0	0
1980	0	0	6,407	90,506	104,992	39,260	4,749	8,494	2,409	0	0	0
1981	0	0	1,328	7,581	0	4,589	3,483	3,757	0	0	0	0
1982	0	20,279	78,620	64,801	78,900	55,890	123,153	29,811	9,077	0	0	3,892
1983	15,634	30,266	75,329	96,822	161,464	236,647	75,529	60,655	65,842	19,710	6,421	18,856
1984	21,521	75,240	151,987	62,424	21,887	12,303	0	6,505	0	0	0	0
1985	0	4,791	8,031	1,003	0	0	0	0	0	0	0	0
1986	0	0	3,770	10,504	178,745	124,661	7,661	1,429	0	0	0	0
1987	0	0	1,157	1,919	1,758	5,182	0	0	0	0	0	0
1988	0	0	1,371	13,093	0	0	703	286	0	0	0	0
1989	0	0	1,389	3,418	0	11,589	7,862	0	0	0	0	0
1990	0	0	0	1,805	0	0	0	943	0	0	0	0
1991	0	0	492	668	0	1,751	0	245	0	0	0	0
1992	0	0	635	807	9,324	0	0	0	0	0	0	0
1993	0	0	1,314	52,814	27,164	20,251	13,264	11,954	8,052	0	0	0
1994	0	0	1,453	1,671	1,494	0	0	81	0	0	0	0
Mean	1,476	3,601	16,038	29,458	29,927	21,521	14,377	9,579	3,164	288	102	993
Max	21,521	75,240	151,987	204,301	178,745	236,647	123,153	60,655	65,842	19,710	6,421	18,856
Min	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-3 CALSIM II Modeling

Year	Base Existing Base Delta Surplus Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	4,792	2,583	21,119	7,314	10,949	44,049	14,348	0	0	0
1923	0	0	22,936	19,694	0	0	5,606	6,584	0	0	0	0
1924	0	0	0	1,333	0	0	114	0	0	0	0	0
1925	0	0	1,271	1,122	45,065	0	9,294	7,635	0	0	0	0
1926	0	0	812	3,219	10,372	0	9,764	0	0	0	0	0
1927	0	6,710	4,610	17,699	107,563	18,575	28,828	6,181	0	0	0	0
1928	0	3,612	2,410	9,977	2,824	75,968	5,127	0	0	0	0	0
1929	0	0	1,039	2,321	0	0	0	0	0	0	0	0
1930	0	0	1,314	6,256	0	3,364	256	1,798	0	0	0	0
1931	0	0	0	1,097	0	0	0	285	0	0	0	0
1932	0	0	7,321	7,649	0	0	0	4,934	0	0	0	0
1933	0	0	506	3,342	238	2,307	0	0	0	0	0	0
1934	0	0	1,174	6,204	1,737	0	0	0	0	0	0	0
1935	0	0	1,133	17,189	0	7,847	42,531	0	1,369	0	0	0
1936	0	0	0	24,380	50,066	2,910	8,003	9,325	2,240	0	0	0
1937	0	0	0	1,052	24,424	22,216	9,107	3,222	0	0	0	0
1938	0	7,458	52,245	24,632	122,749	148,917	59,496	52,095	25,427	0	0	1,377
1939	6,689	0	2,532	5,023	0	0	0	0	0	0	0	0
1940	0	0	0	21,979	32,460	76,689	49,594	2,120	0	0	0	0
1941	0	0	33,488	87,949	96,586	66,139	57,422	27,231	633	0	0	1,290
1942	424	0	55,946	76,117	118,868	4,465	37,589	18,589	6,554	0	0	2,985
1943	2,041	1,027	17,182	77,229	32,367	66,528	11,194	4,020	443	0	0	0
1944	0	0	0	1,097	5,529	0	619	4,512	0	0	0	0
1945	0	1,597	4,306	779	26,939	0	4,593	1,227	0	0	0	0
1946	0	0	57,334	38,858	0	0	3,497	2,065	0	0	0	0
1947	0	0	2,397	843	0	0	0	1,054	0	0	0	0
1948	0	0	0	1,355	0	0	14,372	17,063	2,962	0	0	0
1949	0	0	1,157	2,491	0	10,564	2,528	2,838	0	0	0	0
1950	0	0	709	7,641	6,431	0	6,793	6,941	1,454	0	0	0
1951	0	35,838	87,139	65,017	52,001	8,302	1,864	13,132	0	0	0	0
1952	0	0	30,086	76,006	51,083	43,807	52,292	48,511	20,326	0	0	6,014
1953	8,163	0	37,568	95,795	1,073	423	5,935	13,899	7,939	0	0	3,284
1954	0	2,653	762	10,474	34,260	20,597	20,652	0	0	0	0	0
1955	0	0	9,567	5,939	0	0	0	3,367	0	0	0	0
1956	0	0	83,322	156,552	64,897	18,360	3,815	34,006	3,058	0	0	3,851
1957	2,332	0	839	2,887	10,873	18,766	0	9,180	0	0	0	0
1958	3,602	0	8,523	24,355	157,046	71,902	81,542	34,645	9,978	0	0	5,098
1959	5,529	0	882	23,950	23,300	0	336	1,934	0	0	0	0
1960	0	0	0	1,904	7,988	0	0	3,501	0	0	0	0

Appendix C-3 CALSIM II Modeling

Year	Base (continued) Existing Base Delta Surplus Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	0	0	1,238	813	4,321	0	0	0	0	0	0	0
1962	0	0	1,174	0	6,854	0	2,648	1,533	0	0	0	0
1963	19,987	895	13,174	2,595	46,372	0	71,980	13,383	0	0	0	0
1964	0	10,119	849	10,031	0	0	0	1,277	0	0	0	0
1965	0	579	63,460	109,582	7,479	0	33,082	0	0	0	0	0
1966	0	5,508	5,173	17,716	0	0	1,328	1,536	0	0	0	0
1967	0	977	25,921	35,966	24,789	32,234	33,440	38,454	24,196	1,294	602	7,901
1968	7,935	0	3,099	20,503	42,037	8,679	0	3,845	0	0	0	0
1969	0	0	9,443	106,839	106,566	42,318	43,433	44,050	14,430	0	0	2,253
1970	7,453	1,653	50,933	204,301	68,694	17,837	0	9,859	0	0	0	0
1971	0	3,047	50,114	37,281	0	18,444	0	18,481	0	0	0	3,596
1972	0	0	1,263	2,705	0	6,136	0	1,245	0	0	0	0
1973	0	5,376	12,156	69,208	66,098	34,022	2,255	10,006	0	0	0	0
1974	0	44,757	56,211	117,520	15,545	82,810	52,936	8,918	3,243	0	0	6,257
1975	1,484	0	2,952	1,359	49,307	62,519	4,214	21,240	2,123	0	0	5,438
1976	4,717	183	1,771	1,653	0	0	308	238	0	0	0	0
1977	0	0	0	796	0	0	0	0	0	0	0	0
1978	0	0	1,193	53,305	29,123	44,537	23,345	4,997	4,798	0	0	0
1979	0	0	1,249	12,456	22,931	12,995	0	9,913	0	0	0	0
1980	0	0	6,407	90,506	104,913	39,206	4,749	8,494	2,409	0	0	0
1981	0	0	1,310	7,581	0	4,571	3,483	3,757	0	0	0	0
1982	0	20,246	78,620	64,801	78,693	55,829	123,153	29,811	9,077	0	0	3,892
1983	15,634	30,266	75,329	96,822	161,464	236,647	75,529	60,655	65,842	19,710	6,421	18,856
1984	21,521	75,240	151,987	62,424	21,887	12,303	0	6,505	0	0	0	0
1985	0	4,778	8,031	892	0	0	0	0	0	0	0	0
1986	0	0	3,742	10,504	178,710	124,577	7,559	1,421	0	0	0	0
1987	0	0	1,142	1,901	1,745	5,182	0	0	0	0	0	0
1988	0	0	1,354	13,093	0	0	703	286	0	0	0	0
1989	0	0	1,281	3,308	0	11,589	7,825	0	0	0	0	0
1990	0	0	0	1,756	0	0	0	943	0	0	0	0
1991	0	0	458	633	0	1,709	0	245	0	0	0	0
1992	0	0	601	772	9,288	0	0	0	0	0	0	0
1993	0	0	1,280	52,814	27,164	20,251	13,264	11,954	8,052	0	0	0
1994	0	0	1,430	1,643	1,473	0	0	81	0	0	0	0
Mean	1,473	3,596	16,023	29,426	29,911	21,512	14,369	9,577	3,163	288	102	988
Max	21,521	75,240	151,987	204,301	178,710	236,647	123,153	60,655	65,842	19,710	6,421	18,856
Min	0	0	0	0	0	0	0	0	0	0	0	0

Year	Difference Existing Alt Desal minus Existing Base Delta Surplus Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	0
1923	0	0	0	0	0	0	0	0	0	0	0	0
1924	0	0	0	93	0	0	0	0	0	0	0	0
1925	0	0	34	35	0	0	0	0	0	0	0	0
1926	0	0	97	85	0	0	0	0	0	0	0	0
1927	0	16	0	0	0	1	0	0	0	0	0	0
1928	0	16	0	108	0	0	0	0	0	0	0	0
1929	0	0	18	15	0	0	0	0	0	0	0	0
1930	0	0	23	0	0	0	0	0	0	0	0	0
1931	0	0	0	114	0	0	0	66	0	0	0	0
1932	0	0	34	0	0	0	0	5	0	0	0	0
1933	0	0	12	51	-93	0	0	0	0	0	0	0
1934	0	0	113	93	0	0	0	0	0	0	0	0
1935	0	0	34	35	0	0	0	0	0	0	0	0
1936	0	0	0	47	0	0	0	0	0	0	0	0
1937	0	0	0	77	43	0	0	0	0	0	0	0
1938	0	23	0	93	0	0	0	0	0	0	0	71
1939	1	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	33	0	0	75	7	0	0	0	0
1941	0	0	0	0	169	28	0	0	0	0	0	47
1942	25	0	28	0	36	2	0	0	66	0	0	52
1943	20	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	16	14	0	0	0	0	0	0	0
1945	0	29	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	36	52	0	0	0	0	0	0	0	0
1948	0	0	0	11	0	0	197	32	0	0	0	0
1949	0	0	71	41	0	0	0	0	0	0	0	0
1950	0	0	19	23	0	0	143	0	0	0	0	0
1951	0	30	0	131	39	0	0	0	0	0	0	0
1952	0	0	0	0	116	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	37
1954	0	22	34	0	0	72	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	48	81	0	0	0	0	65
1957	7	0	28	17	27	0	0	0	0	0	0	0
1958	17	0	0	0	103	0	0	0	0	0	0	0
1959	0	0	30	0	5	0	0	0	0	0	0	0
1960	0	0	0	78	68	0	0	0	0	0	0	0

Appendix C-3 CALSIM II Modeling

Year	Difference Existing Alt Desal minus Existing Base Delta Surplus Outflow (GFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	0	0	87	0	43	0	0	0	0	0	0	0
1962	0	0	34	0	0	0	1	0	0	0	0	0
1963	108	0	0	45	0	0	0	0	0	0	0	0
1964	0	8	0	106	0	0	0	0	0	0	0	0
1965	0	15	0	0	0	0	0	0	0	0	0	0
1966	0	33	0	88	0	0	0	0	0	0	0	0
1967	0	26	0	0	88	46	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	117	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	16	0	106	0	0	0	0	0	0	0	52
1972	0	0	17	23	0	64	0	0	0	0	0	0
1973	0	38	0	67	63	0	0	0	0	0	0	0
1974	0	17	0	109	0	0	0	0	0	0	0	52
1975	19	0	24	23	25	0	0	0	0	0	0	57
1976	15	0	28	15	0	0	0	0	49	0	0	0
1977	0	0	105	0	0	0	0	0	0	0	0	0
1978	0	0	34	0	0	0	0	0	0	0	0	0
1979	0	0	15	34	0	1	0	0	0	0	0	0
1980	0	0	0	0	0	80	54	0	0	0	0	0
1981	0	0	18	0	0	18	0	0	0	0	0	0
1982	0	33	0	0	207	61	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	13	0	111	0	0	0	0	0	0	0	0
1986	0	0	29	0	35	84	102	7	0	0	0	0
1987	0	0	15	18	13	0	0	0	0	0	0	0
1988	0	0	17	0	0	0	0	0	0	0	0	0
1989	0	0	99	110	0	0	37	0	0	0	0	0
1990	0	0	0	0	48	0	0	0	0	0	0	0
1991	0	0	34	35	0	42	0	0	0	0	0	0
1992	0	0	34	35	36	0	0	0	0	0	0	0
1993	0	0	34	0	0	0	0	0	0	0	0	0
1994	0	0	24	28	21	0	0	0	0	0	0	0
Mean	3	5	16	32	16	9	8	2	1	0	0	6
Max	108	38	113	131	207	117	197	66	66	0	0	71
Min	0	0	0	0	-93	0	0	0	0	0	0	0

Appendix C-3 CALSIM II Modeling

Year	Alt Existing Alt Desal Shasta Reservoir Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	2,818	2,079	2,072	2,146	2,237	2,406	2,145	1,866	1,573	1,120	803	708
1923	2,955	2,970	3,058	3,257	3,320	3,372	3,675	3,415	3,129	2,689	2,301	2,188
1924	2,127	2,052	2,020	2,109	2,271	2,262	2,047	1,738	1,344	918	706	662
1925	663	771	860	1,096	2,334	2,519	3,184	3,244	2,970	2,482	2,136	2,008
1926	1,954	1,953	2,001	2,044	2,759	2,950	3,245	3,097	2,699	2,250	1,944	1,836
1927	1,837	2,312	2,818	3,287	3,462	4,035	4,552	4,552	4,267	3,765	3,358	3,216
1928	3,190	3,252	3,313	3,512	3,906	3,965	4,463	4,280	3,882	3,241	2,899	2,735
1929	2,646	2,645	2,656	2,758	2,949	3,117	3,186	3,064	2,750	2,364	2,036	1,917
1930	1,859	1,812	2,333	2,537	2,892	3,325	3,472	3,370	3,006	2,603	2,244	2,133
1931	2,086	2,079	2,072	2,146	2,237	2,406	2,145	1,866	1,573	1,120	803	708
1932	698	697	888	1,072	1,179	1,589	1,745	1,933	1,766	1,497	1,240	1,113
1933	1,041	1,026	1,014	1,038	1,077	1,662	1,791	1,854	1,726	1,420	1,035	886
1934	810	769	893	1,187	1,512	1,808	1,901	1,745	1,384	981	702	705
1935	692	795	832	1,117	1,446	1,835	2,830	3,054	2,758	2,407	2,062	1,893
1936	1,868	1,837	1,848	2,472	3,350	3,630	3,851	3,740	3,526	3,060	2,638	2,477
1937	2,369	2,280	2,240	2,219	2,311	2,955	3,592	3,741	3,546	3,157	2,738	2,554
1938	2,509	3,027	3,310	3,641	3,560	3,416	4,058	4,552	4,466	4,064	3,638	3,400
1939	3,250	3,200	3,310	3,504	3,634	4,031	3,831	3,533	3,073	2,522	2,186	2,108
1940	2,003	1,922	2,054	2,931	3,252	3,435	4,143	4,074	3,754	3,234	2,846	2,737
1941	2,723	2,733	3,293	3,317	3,423	3,940	4,456	4,552	4,485	4,150	3,651	3,400
1942	3,250	3,223	3,316	3,389	3,516	3,894	4,531	4,552	4,457	4,066	3,700	3,400
1943	3,250	3,252	3,356	3,541	3,848	4,118	4,552	4,521	4,272	3,675	3,279	3,157
1944	3,138	3,148	3,116	3,182	3,417	3,651	3,638	3,541	3,283	2,910	2,583	2,455
1945	2,450	2,619	2,903	3,104	3,810	4,044	4,222	4,235	4,004	3,473	3,071	2,907
1946	2,931	3,163	3,265	3,622	3,543	3,939	4,140	4,067	3,705	3,261	2,901	2,764
1947	2,690	2,747	2,813	2,825	3,036	3,504	3,667	3,320	3,103	2,665	2,347	2,259
1948	2,347	2,361	2,383	2,944	2,726	3,024	3,924	4,278	4,293	3,937	3,566	3,400
1949	3,247	3,222	3,210	3,204	3,323	4,071	4,392	4,340	3,951	3,289	2,884	2,735
1950	2,638	2,577	2,530	2,776	3,132	3,509	3,847	3,803	3,521	3,152	2,817	2,736
1951	3,021	3,252	3,322	3,624	3,794	4,181	4,265	4,283	3,938	3,292	2,905	2,806
1952	2,812	2,969	3,306	3,604	3,739	4,022	4,290	4,552	4,401	4,150	3,700	3,400
1953	3,250	3,217	3,345	3,366	3,714	4,116	4,452	4,552	4,500	4,053	3,700	3,400
1954	3,250	3,252	3,364	3,552	3,661	4,106	4,546	4,311	4,124	3,520	3,199	3,172
1955	3,097	3,215	3,360	3,427	3,511	3,667	3,691	3,773	3,457	2,957	2,661	2,592
1956	2,567	2,630	3,252	3,252	3,288	3,946	4,459	4,552	4,376	4,046	3,700	3,400
1957	3,250	3,187	3,208	3,317	3,675	4,129	4,139	4,392	4,221	3,615	3,255	3,285
1958	3,250	3,238	3,338	3,531	3,252	3,416	4,173	4,552	4,500	4,150	3,700	3,400
1959	3,250	3,196	3,233	3,648	3,777	3,987	4,036	3,829	3,334	2,764	2,350	2,486
1960	2,405	2,324	2,321	2,520	2,320	3,841	3,962	3,956	3,621	3,026	2,661	2,578

Appendix C-3 CALSIM II Modeling

Year	Shasta Reservoir Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	2,517	2,600	3,027	3,914	4,280	4,339	4,311	3,915	3,277	2,797	2,704	2,702
1962	2,513	2,461	2,862	3,675	4,120	4,393	4,299	3,964	3,395	3,012	2,912	2,912
1963	3,250	3,252	3,349	3,459	3,944	4,036	4,137	4,422	4,214	3,697	3,390	3,370
1964	3,250	3,252	3,321	3,687	3,850	4,000	3,676	3,456	3,223	2,762	2,454	2,365
1965	3,268	2,474	3,252	3,368	3,803	3,900	4,500	4,434	4,136	3,538	3,281	3,226
1966	3,213	3,252	3,326	3,725	4,037	4,229	4,552	4,417	3,935	3,305	2,923	2,849
1967	2,742	3,069	3,335	3,551	3,920	4,033	4,479	4,552	4,500	4,150	3,700	3,400
1968	3,250	3,222	3,305	3,545	3,654	4,191	4,162	4,039	3,665	3,074	2,771	2,703
1969	2,621	2,668	2,979	3,358	3,480	4,030	4,434	4,552	4,399	4,052	3,684	3,400
1970	3,250	3,247	3,317	3,252	3,431	4,061	3,978	3,839	3,551	3,009	2,703	2,669
1971	2,699	3,144	3,319	3,515	3,673	3,873	4,375	4,552	4,500	4,000	3,682	3,400
1972	3,250	3,201	3,328	3,672	3,979	4,249	4,424	4,304	3,830	3,216	2,921	2,906
1973	3,001	3,233	3,346	3,552	3,636	4,162	4,447	4,424	4,028	3,436	3,180	3,146
1974	3,237	3,252	3,267	3,252	3,694	3,416	4,289	4,480	4,348	4,116	3,700	3,400
1975	3,250	3,207	3,324	3,487	3,936	3,756	4,343	4,552	4,440	4,150	3,700	3,400
1976	3,250	3,252	3,318	3,529	3,648	3,880	3,959	3,801	3,282	2,917	2,869	2,841
1977	2,832	2,807	2,795	2,823	2,777	2,758	2,470	2,304	1,785	1,192	793	727
1978	606	634	1,171	3,083	3,567	4,000	4,552	4,552	4,235	3,727	3,329	3,312
1979	3,203	3,169	3,114	3,196	3,478	3,985	4,159	4,206	3,703	3,204	2,922	2,835
1980	2,885	2,999	3,114	3,528	3,292	3,938	4,239	4,179	3,875	3,464	3,150	3,113
1981	3,095	3,072	3,156	3,453	3,791	4,256	4,397	4,159	3,604	2,971	2,667	2,579
1982	2,551	3,252	3,276	3,616	3,530	3,953	4,094	4,304	4,138	3,855	3,558	3,400
1983	3,250	3,252	3,328	3,371	3,252	3,417	4,074	4,552	4,500	4,150	3,700	3,400
1984	3,250	3,252	3,285	3,650	3,995	4,246	4,347	4,311	4,069	3,466	3,249	3,247
1985	3,250	3,252	3,360	3,484	3,618	3,752	3,857	3,505	3,094	2,654	2,341	2,318
1986	2,213	2,228	2,385	2,950	3,252	3,534	3,973	3,910	3,502	3,132	2,812	2,829
1987	2,858	2,841	2,825	2,942	3,282	4,009	3,821	3,536	3,055	2,575	2,263	2,164
1988	2,090	2,065	2,569	3,003	2,884	2,940	2,962	2,940	2,531	2,027	1,735	1,605
1989	1,510	1,718	1,817	1,922	2,038	3,420	3,804	3,601	3,254	2,800	2,467	2,489
1990	2,591	2,573	2,521	2,742	2,725	2,991	2,836	2,979	2,790	2,282	2,023	1,970
1991	1,915	1,924	1,877	1,880	1,894	2,299	2,443	2,372	2,095	1,797	1,538	1,431
1992	1,418	1,345	1,340	1,386	2,044	2,489	2,714	2,434	2,020	1,551	1,117	946
1993	874	848	1,079	1,728	2,458	3,925	4,551	4,552	4,500	3,917	3,644	3,400
1994	3,250	3,191	3,235	3,347	3,572	3,664	3,506	3,210	2,762	2,193	1,710	1,546
Mean	2,568	2,616	2,751	2,985	3,232	3,573	3,842	3,824	3,542	3,075	2,727	2,602
Max	3,250	3,252	3,364	3,725	4,037	4,280	4,552	4,552	4,500	4,150	3,700	3,400
Min	606	634	832	1,038	1,077	1,589	1,745	1,738	1,344	918	702	662

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Year	Shasta Reservoir Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	2,806	2,832	2,917	3,021	3,312	3,617	4,095	4,252	3,994	3,494	3,094	2,927
1923	2,927	2,940	3,028	3,227	3,286	3,338	3,641	3,381	3,055	2,655	2,267	2,153
1924	2,090	2,014	1,980	2,069	2,226	2,215	2,000	1,688	1,291	858	640	592
1925	589	695	784	1,020	2,258	2,443	3,108	3,168	2,894	2,406	2,060	1,929
1926	1,874	1,872	1,920	1,963	2,679	2,869	3,164	3,016	2,618	2,170	1,864	1,754
1927	1,754	2,229	2,735	3,204	3,462	4,035	4,552	4,552	4,264	3,758	3,351	3,208
1928	3,181	3,252	3,313	3,512	3,906	3,965	4,463	4,280	3,882	3,241	2,899	2,733
1929	2,643	2,641	2,652	2,754	2,941	3,109	3,178	3,056	2,742	2,356	2,025	1,905
1930	1,847	1,799	2,320	2,524	2,879	3,312	3,459	3,357	2,993	2,590	2,228	2,116
1931	2,069	2,055	2,041	2,114	2,199	2,361	2,099	1,820	1,522	1,064	742	643
1932	629	626	817	1,002	1,117	1,528	1,679	1,867	1,700	1,431	1,174	1,045
1933	972	957	945	969	1,008	1,593	1,722	1,785	1,658	1,351	962	812
1934	726	677	800	1,095	1,420	1,716	1,808	1,653	1,293	891	607	603
1935	587	688	725	1,010	1,339	1,727	2,723	2,946	2,650	2,300	1,955	1,785
1936	1,759	1,728	1,736	2,359	3,238	3,518	3,739	3,627	3,413	2,941	2,519	2,357
1937	2,249	2,158	2,117	2,096	2,188	2,832	3,470	3,618	3,423	3,034	2,610	2,424
1938	2,378	2,896	3,310	3,641	3,560	3,416	4,058	4,552	4,466	4,064	3,638	3,400
1939	3,250	3,200	3,310	3,504	3,634	4,031	3,831	3,533	3,073	2,517	2,179	2,101
1940	1,995	1,913	2,044	2,921	3,252	3,435	4,143	4,074	3,754	3,233	2,842	2,733
1941	2,718	2,727	3,293	3,317	3,423	3,940	4,456	4,552	4,485	4,150	3,651	3,400
1942	3,250	3,222	3,316	3,389	3,516	3,894	4,531	4,552	4,457	4,065	3,700	3,400
1943	3,250	3,252	3,356	3,541	3,848	4,118	4,552	4,521	4,272	3,675	3,279	3,156
1944	3,135	3,144	3,111	3,178	3,412	3,646	3,633	3,536	3,279	2,905	2,577	2,448
1945	2,442	2,611	2,895	3,096	3,802	4,035	4,213	4,226	3,993	3,451	3,045	2,880
1946	2,903	3,127	3,265	3,622	3,551	3,942	4,142	4,070	3,706	3,254	2,891	2,752
1947	2,677	2,732	2,798	2,810	3,022	3,490	3,652	3,305	3,089	2,649	2,329	2,241
1948	2,329	2,342	2,362	2,923	2,701	2,996	3,897	4,250	4,265	3,909	3,534	3,400
1949	3,246	3,216	3,203	3,197	3,318	4,071	4,392	4,340	3,951	3,289	2,882	2,731
1950	2,632	2,571	2,523	2,769	3,126	3,498	3,836	3,792	3,510	3,141	2,806	2,723
1951	3,007	3,252	3,322	3,624	3,794	4,181	4,265	4,283	3,938	3,292	2,905	2,804
1952	2,810	2,966	3,306	3,604	3,739	4,022	4,290	4,552	4,401	4,150	3,700	3,400
1953	3,250	3,217	3,345	3,366	3,714	4,116	4,452	4,552	4,500	4,053	3,700	3,400
1954	3,250	3,252	3,364	3,552	3,661	4,106	4,546	4,311	4,124	3,520	3,199	3,170
1955	3,094	3,212	3,360	3,427	3,507	3,661	3,684	3,766	3,451	2,951	2,650	2,579
1956	2,554	2,616	3,252	3,252	3,288	3,946	4,459	4,552	4,376	4,046	3,700	3,400
1957	3,250	3,187	3,208	3,317	3,675	4,129	4,139	4,392	4,221	3,615	3,255	3,284
1958	3,250	3,236	3,338	3,531	3,252	3,416	4,173	4,552	4,500	4,150	3,700	3,400
1959	3,250	3,196	3,233	3,648	3,777	3,987	4,036	3,829	3,334	2,764	2,345	2,480
1960	2,399	2,318	2,310	2,509	3,219	3,830	3,951	3,945	3,610	3,010	2,643	2,559

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Appendix C-3 CALSIM II Modeling

Year	Base Existing Base Shasta Reservoir Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	2,497	2,573	3,000	3,210	3,914	4,280	4,336	4,308	3,912	3,275	2,793	2,693
1962	2,498	2,443	2,743	2,844	3,675	4,120	4,393	4,299	3,964	3,395	3,010	2,909
1963	3,250	3,252	3,349	3,459	3,944	4,036	4,137	4,422	4,214	3,697	3,390	3,368
1964	3,250	3,252	3,321	3,687	3,850	4,000	3,676	3,456	3,223	2,757	2,448	2,358
1965	2,361	2,466	3,252	3,368	3,803	3,898	4,500	4,434	4,132	3,528	3,271	3,214
1966	3,200	3,252	3,326	3,725	4,037	4,229	4,552	4,417	3,935	3,305	2,920	2,844
1967	2,737	3,063	3,335	3,551	3,920	4,033	4,479	4,552	4,500	4,150	3,700	3,400
1968	3,250	3,222	3,305	3,545	3,654	4,191	4,162	4,039	3,665	3,074	2,767	2,698
1969	2,616	2,660	2,971	3,358	3,480	4,030	4,434	4,552	4,399	4,052	3,684	3,400
1970	3,250	3,247	3,317	3,252	3,431	4,061	3,978	3,839	3,551	3,009	2,703	2,667
1971	2,696	3,141	3,319	3,515	3,673	3,873	4,375	4,552	4,500	4,000	3,682	3,400
1972	3,250	3,200	3,327	3,670	3,979	4,249	4,424	4,304	3,830	3,216	2,917	2,901
1973	2,996	3,228	3,346	3,552	3,636	4,162	4,447	4,424	4,028	3,436	3,180	3,144
1974	3,235	3,252	3,267	3,252	3,694	3,416	4,289	4,480	4,348	4,116	3,700	3,400
1975	3,250	3,207	3,324	3,487	3,936	3,756	4,343	4,552	4,440	4,150	3,700	3,400
1976	3,250	3,252	3,318	3,529	3,647	3,877	3,956	3,798	3,276	2,907	2,859	2,829
1977	2,820	2,789	2,770	2,798	2,750	2,729	2,441	2,271	1,747	1,149	744	674
1978	550	575	1,112	3,025	3,567	4,000	4,552	4,552	4,235	3,727	3,329	3,310
1979	3,200	3,166	3,111	3,193	3,475	3,981	4,156	4,203	3,698	3,193	2,907	2,819
1980	2,868	2,980	3,096	3,528	3,292	3,938	4,239	4,179	3,875	3,464	3,150	3,111
1981	3,092	3,068	3,151	3,449	3,787	4,256	4,397	4,159	3,603	2,966	2,661	2,571
1982	2,543	3,252	3,276	3,616	3,530	3,953	4,094	4,304	4,138	3,855	3,558	3,400
1983	3,250	3,252	3,328	3,371	3,252	3,417	4,074	4,552	4,500	4,150	3,700	3,400
1984	3,250	3,252	3,285	3,650	3,995	4,246	4,347	4,311	4,069	3,466	3,249	3,245
1985	3,250	3,252	3,360	3,484	3,618	3,752	3,857	3,505	3,094	2,649	2,335	2,311
1986	2,205	2,220	2,376	2,941	3,252	3,534	3,973	3,910	3,502	3,132	2,812	2,825
1987	2,853	2,836	2,820	2,936	3,277	4,003	3,816	3,530	3,050	2,568	2,253	2,153
1988	2,079	2,053	2,557	2,991	2,872	2,928	2,950	2,928	2,519	2,016	1,720	1,589
1989	1,493	1,702	1,800	1,905	2,015	3,396	3,781	3,578	3,230	2,776	2,442	2,463
1990	2,554	2,529	2,469	2,690	2,671	2,938	2,782	2,926	2,738	2,226	1,960	1,903
1991	1,845	1,851	1,804	1,807	1,820	2,225	2,367	2,296	2,019	1,716	1,452	1,341
1992	1,324	1,249	1,244	1,290	1,948	2,393	2,618	2,338	1,924	1,455	1,017	841
1993	765	737	968	1,617	2,347	3,814	4,440	4,552	4,500	3,917	3,644	3,400
1994	3,250	3,191	3,234	3,346	3,571	3,664	3,505	3,209	2,762	2,191	1,706	1,536
Mean	2,545	2,592	2,729	2,963	3,213	3,554	3,823	3,806	3,524	3,056	2,706	2,580
Max	3,250	3,252	3,364	3,725	4,037	4,280	4,552	4,552	4,500	4,150	3,700	3,400
Min	550	575	725	969	1,008	1,528	1,679	1,653	1,291	858	607	592

Appendix C-3 CALSIM II Modeling

Year	Difference Existing Alt Desal minus Existing Base Shasta Reservoir Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	12	24	24	24	24	24	24	24	24	24	24	27
1923	28	30	30	30	34	34	34	34	34	34	34	36
1924	37	38	40	40	45	47	47	50	54	60	66	70
1925	74	76	76	76	76	76	76	76	76	76	76	79
1926	80	80	80	80	80	80	80	80	80	80	80	82
1927	83	83	83	83	0	0	0	0	0	4	7	8
1928	9	0	0	0	0	0	0	0	0	0	0	2
1929	3	4	4	4	4	8	8	8	8	8	8	11
1930	13	13	13	13	13	13	13	13	13	13	13	15
1931	17	25	32	32	38	45	46	46	46	51	56	61
1932	69	71	71	71	62	62	66	66	66	66	66	68
1933	68	69	69	69	69	69	69	69	69	69	69	73
1934	84	92	92	92	92	92	92	92	92	91	91	94
1935	105	107	107	107	107	107	107	107	107	107	107	108
1936	109	110	113	113	113	113	113	113	113	113	119	120
1937	121	121	123	123	123	123	123	123	123	123	123	130
1938	131	131	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	5	6
1940	8	9	10	10	10	0	0	0	0	0	0	3
1941	5	6	0	0	0	0	0	0	0	0	0	0
1942	0	1	0	0	0	0	0	0	0	0	1	0
1943	0	0	0	0	0	0	0	0	0	0	0	2
1944	3	3	5	5	5	5	5	5	5	5	5	7
1945	8	8	8	8	8	8	8	9	9	11	22	26
1946	28	35	0	0	-8	-3	-3	-3	-3	-1	7	10
1947	13	14	14	14	14	15	15	15	15	15	16	17
1948	18	20	21	21	26	28	28	28	28	28	28	32
1949	1	7	7	7	6	6	0	0	0	0	0	3
1950	5	6	6	6	6	11	11	11	11	11	11	13
1951	14	0	0	0	0	0	0	0	0	0	0	0
1952	3	3	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	2
1955	3	4	0	0	4	7	7	7	7	7	7	11
1956	13	14	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	2	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	5
1960	6	7	11	11	11	11	11	11	11	11	16	18

Appendix C-3 CALSIM II Modeling

Year	Difference Existing Alt. Desal minus Existing Base Shasta Reservoir Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	20	27	27	0	0	0	3	3	3	3	4	11
1962	15	18	18	0	0	0	0	0	0	0	3	3
1963	0	0	0	0	0	0	0	0	0	0	0	2
1964	0	0	0	0	0	0	0	0	0	5	6	7
1965	7	7	0	0	0	2	0	0	4	10	10	12
1966	13	0	0	0	0	0	0	0	0	0	3	5
1967	6	6	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	3	4
1969	5	8	8	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	2
1971	3	3	0	0	0	0	0	0	0	0	0	0
1972	0	1	1	0	0	0	0	0	0	0	4	5
1973	5	5	0	0	0	0	0	0	0	0	0	2
1974	2	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	1	3	3	3	3	6	10	12
1977	13	18	25	25	27	30	30	34	38	44	49	53
1978	56	59	59	59	0	0	0	0	0	0	0	2
1979	3	3	3	3	3	3	3	3	3	6	11	15
1980	17	18	18	0	0	0	0	0	0	0	0	2
1981	4	4	4	4	4	0	0	0	0	1	5	7
1982	9	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	2
1985	0	0	0	0	0	0	0	0	0	0	5	6
1986	8	9	9	9	9	0	0	0	0	0	0	3
1987	5	5	5	5	5	5	5	5	5	8	10	11
1988	11	12	12	12	12	12	12	12	12	12	15	16
1989	16	17	17	17	23	23	23	24	24	24	25	26
1990	37	45	51	51	53	53	53	53	52	56	63	67
1991	71	73	73	73	74	74	76	76	76	76	81	86
1992	94	96	96	96	96	96	96	96	96	96	101	105
1993	109	111	111	111	111	111	111	111	111	0	0	0
1994	0	1	1	1	1	1	1	1	1	2	3	10
Mean	23	24	22	21	19	19	19	18	18	19	21	22
Max	131	131	123	123	123	123	123	123	123	123	128	130
Min	0	0	0	0	0	-8	-3	-3	-1	0	0	0

Appendix C-3 CALSIM II Modeling

Year	Alt Future Alt 1 & 2 Total Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	14,815	13,952	21,851	19,628	47,690	40,798	31,717	56,660	48,096	25,459	12,350	16,601
1923	15,474	18,342	38,677	38,201	23,874	19,687	31,916	21,621	18,568	23,565	20,253	15,333
1924	14,922	12,446	13,354	14,785	17,842	12,091	9,244	8,632	10,700	11,352	10,674	8,745
1925	9,591	10,007	16,245	14,750	71,234	29,018	27,076	19,722	17,483	16,120	9,938	11,852
1926	11,368	10,531	11,356	20,018	46,683	16,083	27,108	14,879	12,968	18,118	14,535	10,397
1927	10,935	26,592	20,850	34,864	129,913	49,875	53,622	32,411	21,865	24,059	18,676	15,888
1928	14,507	21,190	18,347	25,512	29,502	106,410	33,715	23,499	17,737	20,076	15,049	13,866
1929	12,549	14,906	14,916	14,708	18,339	14,041	11,159	10,525	11,579	12,482	9,254	8,683
1930	9,496	8,675	20,129	23,722	21,164	34,510	15,751	14,112	12,331	18,406	16,294	12,302
1931	10,829	10,005	9,535	14,665	13,256	9,453	10,375	8,382	10,894	13,710	11,948	8,792
1932	9,086	8,584	24,452	25,425	24,981	18,075	16,479	16,613	19,573	18,291	12,377	12,011
1933	11,443	10,114	11,351	16,412	13,574	15,640	13,831	9,479	11,428	13,101	9,474	8,953
1934	9,290	8,667	16,819	21,059	17,474	14,445	13,466	9,615	12,067	12,336	9,999	8,859
1935	9,168	13,243	11,967	34,793	18,044	31,405	57,607	30,130	21,668	21,014	18,806	15,928
1936	14,401	11,869	14,343	42,680	81,924	37,453	30,649	22,424	20,654	21,697	20,682	13,477
1937	12,114	11,761	15,027	16,761	50,812	54,801	33,350	27,446	20,483	17,234	16,137	13,427
1938	13,095	28,103	65,222	38,929	148,393	173,421	83,404	81,157	57,573	25,348	17,431	16,949
1939	23,415	14,239	16,943	16,242	17,978	17,962	15,990	13,917	13,884	19,352	15,746	13,865
1940	13,362	10,980	11,129	39,319	67,194	115,657	75,884	24,198	18,138	25,775	20,536	14,386
1941	15,446	15,879	45,988	104,834	130,626	100,410	81,228	50,689	27,161	25,415	18,539	17,696
1942	17,035	15,572	66,947	85,694	147,162	32,874	56,973	44,030	33,770	20,945	19,376	18,418
1943	18,897	17,841	34,378	92,945	66,768	94,736	36,602	27,684	18,471	22,123	19,847	15,754
1944	13,997	13,649	15,222	16,794	30,686	26,125	16,279	16,924	18,034	19,832	17,750	14,229
1945	13,469	18,827	19,929	15,001	56,040	32,296	20,036	20,584	21,583	23,890	19,220	14,375
1946	13,960	18,994	72,627	54,176	32,236	24,391	19,883	20,545	20,475	24,292	20,216	14,145
1947	16,177	16,448	19,275	13,670	22,807	23,507	16,757	12,977	15,606	19,741	13,967	13,153
1948	12,032	13,157	10,834	16,598	16,277	17,672	32,584	32,226	23,833	24,302	19,286	12,707
1949	18,025	13,231	16,251	13,588	16,428	48,546	17,410	17,674	17,911	19,206	14,466	12,707
1950	11,265	12,986	11,859	23,210	40,175	24,348	24,435	21,235	21,503	23,041	21,071	13,973
1951	14,078	53,472	103,051	78,937	78,659	37,057	21,345	24,953	16,372	24,656	20,219	15,054
1952	15,883	17,790	45,701	91,812	85,323	74,826	74,549	77,621	53,034	24,929	19,110	22,103
1953	22,883	15,113	48,598	107,929	30,594	26,856	21,521	28,797	27,146	25,358	18,008	19,412
1954	16,364	19,564	13,897	35,968	65,700	55,011	46,790	28,645	16,239	25,190	17,602	17,066
1955	16,237	17,118	24,224	21,244	18,755	13,405	16,871	16,095	17,287	17,415	17,676	12,133
1956	11,678	14,266	98,276	171,999	93,372	45,867	25,944	46,221	28,756	19,415	19,044	19,838
1957	18,985	14,301	13,719	16,991	38,068	52,122	25,500	21,770	20,867	23,051	18,701	14,784
1958	19,597	16,522	25,719	40,761	183,210	103,267	104,645	59,984	41,995	25,056	19,181	21,931
1959	20,417	14,067	15,701	38,790	59,217	26,313	14,574	14,770	17,206	24,274	19,700	13,037
1960	14,024	10,852	12,244	14,501	33,986	24,498	13,981	15,332	14,404	21,116	13,148	10,141

Appendix C-3 CALSIM II Modeling

Alt Future Intf 1 & 2 Total Delta Inflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	10,968	14,987	18,278	13,592	32,163	18,459	14,978	13,882	16,451	22,072	22,033	12,398
1962	11,234	13,445	17,275	12,157	50,890	30,862	17,833	17,648	17,100	24,138	15,138	15,147
1963	35,912	17,148	28,287	19,934	83,407	35,541	94,802	36,818	22,553	24,040	19,289	16,962
1964	16,542	27,615	15,452	26,040	17,517	13,944	18,934	14,100	15,396	21,616	18,729	12,791
1965	11,502	18,189	80,521	125,573	41,239	28,223	52,533	29,084	20,700	21,634	19,449	15,796
1966	13,546	23,866	19,437	33,026	68,157	41,488	19,973	14,256	16,682	20,317	17,811	14,557
1967	15,152	17,644	40,619	51,269	63,262	66,533	60,384	62,346	55,235	25,350	19,440	23,952
1968	24,606	15,942	19,437	33,026	68,157	41,488	19,973	14,256	16,682	20,317	17,811	13,988
1969	15,726	15,138	26,798	124,178	140,791	71,393	65,268	73,760	48,020	24,748	14,468	20,269
1970	23,626	16,012	61,920	213,574	92,560	46,174	21,435	18,844	14,736	24,091	20,395	18,661
1971	15,236	21,251	63,679	54,171	30,999	51,322	27,745	31,343	23,003	28,464	19,178	18,575
1972	16,865	15,839	19,964	19,043	25,950	37,860	15,687	14,496	22,685	22,251	17,533	12,872
1973	13,931	23,151	24,521	84,036	97,973	66,214	24,490	23,840	21,408	24,478	18,016	14,827
1974	15,174	62,152	72,425	136,400	47,912	116,982	77,340	30,948	25,025	23,889	20,111	22,976
1975	17,316	14,660	19,338	18,081	72,627	96,850	31,770	35,259	30,783	24,443	19,536	22,150
1976	21,358	16,452	15,783	14,654	16,225	17,199	12,029	9,343	12,405	16,005	13,820	12,899
1977	11,264	11,879	9,805	9,149	10,559	8,684	10,597	7,475	10,872	14,559	12,919	8,695
1978	9,385	8,716	17,489	69,417	60,730	73,331	50,601	32,235	26,434	25,933	15,576	16,686
1979	15,178	13,244	15,718	27,364	50,831	42,298	23,813	22,074	21,014	22,128	16,485	13,570
1980	14,915	17,114	22,819	106,862	139,565	65,790	26,474	23,935	20,049	25,272	14,930	17,357
1981	15,191	11,786	16,956	24,367	29,455	34,415	20,840	14,950	16,242	22,274	18,066	14,719
1982	14,092	34,141	93,574	82,951	109,008	94,908	144,567	59,721	33,578	25,054	18,680	20,249
1983	29,359	47,604	91,657	107,571	179,821	254,011	93,119	83,711	93,813	42,951	24,541	34,364
1984	32,116	84,974	158,518	74,233	46,636	43,130	24,174	19,327	18,703	24,169	20,264	15,135
1985	16,211	33,993	24,253	16,760	20,224	18,796	15,765	16,347	14,939	22,733	20,285	15,743
1986	15,399	13,303	19,813	25,557	210,850	157,628	32,155	22,293	20,102	22,907	15,479	14,887
1987	13,998	11,894	12,890	16,139	22,173	27,020	16,818	11,835	13,994	17,468	14,506	12,221
1988	12,571	11,435	19,403	30,883	16,869	10,417	11,737	10,179	12,010	14,145	9,469	8,664
1989	9,354	11,484	11,608	15,039	11,238	50,756	23,466	15,179	15,429	20,224	14,614	14,503
1990	14,616	12,139	14,407	21,201	18,810	13,983	13,113	9,535	9,646	11,114	13,113	9,279
1991	9,114	8,692	8,046	7,459	9,592	34,723	16,527	10,823	9,546	10,818	11,970	9,263
1992	9,093	8,620	8,915	11,626	35,785	21,968	15,294	9,977	12,639	12,676	9,715	9,570
1993	9,448	8,782	15,642	68,847	63,179	51,223	44,561	36,945	31,658	25,490	17,607	15,129
1994	15,410	12,812	15,738	15,173	25,924	19,099	13,591	11,515	13,561	22,532	19,863	14,559
Mean	15,147	17,945	30,268	44,387	55,900	47,773	33,576	26,108	22,213	21,416	16,691	14,919
Max	35,912	84,974	158,518	213,574	210,850	254,011	144,567	83,711	93,813	42,951	24,541	34,364
Min	9,086	8,584	8,046	7,459	9,592	8,684	9,244	7,475	9,546	10,818	8,999	8,664

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Appendix C-3 CALSIM II Modeling

Base Future Base Total Delta Inflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	14,621	13,818	21,851	19,628	47,690	40,798	31,717	56,660	48,096	25,459	12,350	16,524
1923	15,370	18,257	38,677	38,201	24,033	19,687	31,916	21,621	18,568	23,565	20,144	15,186
1924	14,846	12,529	13,154	14,785	17,903	12,072	9,244	8,627	10,848	11,397	10,674	8,818
1925	9,714	10,007	16,245	14,750	71,234	29,017	27,076	19,722	17,483	16,120	9,938	11,731
1926	11,298	10,489	11,356	20,018	46,683	16,083	27,108	14,879	13,110	18,318	14,735	10,377
1927	10,867	26,592	20,850	34,864	129,913	49,875	53,622	32,411	21,861	24,059	18,676	15,698
1928	14,422	21,138	18,347	25,512	29,502	106,410	33,715	23,499	17,737	20,076	15,049	13,705
1929	12,478	14,853	14,916	14,708	18,399	14,105	11,159	10,525	11,779	12,635	9,062	8,562
1930	9,474	8,817	20,129	23,722	21,364	34,510	15,751	14,112	12,531	18,499	16,118	12,091
1931	10,956	10,005	9,535	14,665	13,256	9,453	10,375	8,382	10,894	13,710	11,948	8,792
1932	9,086	8,584	24,452	25,425	24,981	18,075	16,479	16,613	19,573	18,291	12,377	11,782
1933	11,330	10,088	11,351	16,412	13,574	15,640	13,831	9,479	11,628	13,101	9,360	8,818
1934	9,430	8,803	16,819	21,059	17,474	14,480	13,579	9,615	12,067	12,336	8,999	8,859
1935	9,168	13,243	11,967	34,793	18,037	31,405	57,607	30,035	21,668	21,014	18,711	15,739
1936	14,311	11,870	14,426	42,680	81,924	37,453	30,649	22,424	20,654	21,808	20,682	13,594
1937	12,030	11,717	14,888	16,761	50,812	54,801	33,350	27,446	20,483	17,336	16,137	13,311
1938	13,015	28,103	65,222	38,929	148,393	173,421	83,404	81,157	57,573	25,348	17,431	16,917
1939	23,415	14,384	16,943	16,242	17,960	18,028	15,990	13,917	13,884	19,280	15,571	13,754
1940	13,314	10,957	10,960	39,319	67,194	115,657	75,884	24,198	18,154	25,961	20,485	14,216
1941	15,442	15,971	45,988	104,834	130,626	100,410	81,228	50,689	27,161	25,415	18,539	17,621
1942	16,937	15,509	66,947	85,694	147,162	32,874	56,973	44,030	33,770	20,945	19,376	18,251
1943	18,750	17,764	34,378	92,945	66,768	94,736	36,602	27,684	18,471	22,123	19,847	15,591
1944	13,933	13,621	15,222	16,794	30,686	26,242	16,279	16,924	18,034	19,988	17,544	14,055
1945	13,408	18,776	19,929	15,001	56,040	32,296	20,036	20,584	21,583	24,073	19,182	14,199
1946	13,884	19,056	72,627	54,176	32,433	24,494	19,883	20,545	20,475	24,292	20,025	14,034
1947	16,228	16,499	19,275	13,670	22,751	23,627	16,757	12,977	15,806	19,741	13,786	12,970
1948	11,971	13,114	10,896	16,598	16,351	17,749	32,584	32,226	23,833	24,302	19,045	14,937
1949	18,055	13,288	16,251	13,588	16,428	48,546	17,410	17,674	17,911	19,358	14,321	12,543
1950	11,207	12,296	11,859	23,210	40,175	24,426	24,435	21,235	21,503	23,041	21,068	13,855
1951	13,983	53,472	103,051	78,937	78,659	37,057	21,345	24,953	16,372	24,656	20,219	14,919
1952	15,807	17,749	45,701	91,812	85,323	74,826	74,549	77,621	53,034	24,929	19,110	22,103
1953	22,883	15,113	48,598	107,929	30,594	26,856	21,521	28,797	27,146	25,358	18,008	19,238
1954	16,292	19,501	13,897	35,968	65,700	55,011	46,790	28,645	16,239	25,190	17,602	16,891
1955	16,160	17,059	24,224	21,244	18,953	13,503	16,871	16,095	17,287	17,415	10,732	11,985
1956	11,620	14,230	98,276	171,999	93,372	45,867	25,944	46,221	28,756	19,415	19,044	19,672
1957	18,819	14,197	13,741	16,991	38,068	52,122	25,500	21,770	20,886	23,153	18,701	14,627
1958	19,520	16,497	25,719	40,761	183,210	103,267	104,645	59,984	41,995	25,056	19,181	21,931
1959	20,417	14,025	15,701	38,790	59,217	26,313	14,574	14,770	17,206	24,274	19,595	12,908
1960	14,005	10,954	12,081	14,501	33,986	24,498	13,981	15,332	14,447	21,249	12,982	10,110

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Appendix C-3 CALSIM II Modeling

Year	Base Future Base Total Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	10,906	14,938	18,278	13,592	32,163	18,459	14,978	13,822	16,451	21,848	14,854	12,398
1962	11,364	13,551	17,275	12,157	50,890	30,862	17,833	17,648	17,100	24,529	19,923	15,118
1963	35,912	17,148	28,287	19,934	83,407	35,541	94,802	36,818	22,553	24,040	19,289	16,815
1964	16,442	27,615	15,452	26,040	17,574	13,944	18,934	14,100	15,396	21,616	18,533	12,635
1965	11,440	18,118	80,521	125,573	41,239	28,345	52,533	29,091	20,733	21,820	19,563	15,620
1966	13,466	23,866	21,056	35,994	31,754	31,361	18,381	17,735	15,779	22,426	18,914	14,431
1967	15,169	17,681	40,619	51,269	63,262	66,533	60,384	62,346	55,235	25,350	19,440	23,952
1968	24,606	15,942	19,437	33,026	68,157	41,488	19,973	14,256	16,682	20,317	17,717	13,892
1969	15,704	15,199	26,798	124,178	140,791	71,393	65,268	73,760	48,020	24,748	14,468	20,269
1970	23,626	16,012	61,920	213,574	92,560	46,174	21,435	18,844	14,736	24,091	20,395	18,492
1971	15,161	21,251	63,679	54,171	31,199	51,322	27,745	31,343	23,003	28,464	19,178	18,404
1972	16,775	15,778	19,964	19,043	25,921	37,860	15,706	14,496	22,685	22,435	17,401	12,732
1973	14,055	23,151	24,521	84,036	97,973	66,214	24,490	23,840	21,408	24,478	18,016	14,658
1974	15,102	62,152	72,425	136,400	47,912	116,982	77,340	30,948	25,025	23,889	20,111	22,976
1975	17,250	14,594	19,338	18,081	72,627	96,850	31,770	35,259	30,783	24,443	19,536	22,150
1976	21,358	16,406	15,783	14,654	16,198	17,260	12,029	9,343	12,380	15,902	13,820	12,932
1977	11,408	11,940	9,662	9,149	10,682	8,796	10,614	7,475	10,872	14,559	12,919	8,695
1978	9,385	8,716	17,489	69,417	50,730	73,331	50,601	32,235	26,434	25,933	15,517	16,593
1979	15,021	13,138	15,777	27,364	60,831	42,298	23,813	22,074	21,014	22,178	16,485	13,400
1980	14,842	17,065	22,819	106,862	139,565	65,790	26,474	23,935	20,049	25,272	14,930	17,357
1981	15,033	11,685	16,986	24,367	29,699	34,493	20,840	14,950	16,242	22,141	17,903	14,536
1982	14,021	34,141	93,574	82,951	109,008	94,908	144,567	59,721	33,578	25,083	18,680	20,249
1983	29,359	47,604	91,657	107,571	179,821	254,011	93,119	83,711	93,813	42,951	24,541	34,364
1984	32,116	84,974	158,518	74,233	46,636	43,130	24,174	19,327	18,703	24,169	20,264	14,979
1985	16,137	33,993	24,253	16,760	20,302	18,796	15,765	16,347	14,939	22,633	20,136	15,624
1986	15,330	13,261	19,813	25,557	210,850	157,628	32,155	22,293	20,102	23,093	15,552	14,887
1987	13,913	11,846	12,890	16,139	22,150	27,020	16,818	11,835	14,034	17,668	14,314	12,089
1988	12,528	11,396	19,403	30,883	16,869	10,537	11,737	10,179	12,210	14,345	9,297	8,547
1989	9,411	11,588	11,608	15,039	11,238	50,756	23,466	15,179	15,429	20,224	14,405	14,487
1990	14,754	12,207	14,307	21,201	18,853	14,094	13,000	9,535	9,738	11,039	13,113	9,279
1991	9,114	8,692	8,046	7,459	9,575	34,723	16,527	10,823	9,546	10,801	11,981	9,263
1992	9,093	8,620	8,915	11,626	35,785	21,968	15,300	9,977	12,686	12,676	9,688	9,570
1993	9,448	8,782	15,642	68,847	63,179	51,223	44,561	36,945	31,658	25,490	17,607	14,979
1994	15,290	12,740	15,738	15,173	26,000	19,113	13,591	11,515	13,561	22,316	19,700	14,636
Mean	15,110	17,937	30,238	44,387	55,921	47,793	33,577	26,107	22,234	21,442	16,638	14,821
Max	35,912	84,974	158,518	213,574	210,850	254,011	144,567	83,711	93,813	42,951	24,541	34,364
Min	9,086	8,584	8,046	7,459	9,575	8,796	9,244	7,475	9,546	10,801	8,999	8,547

Appendix C-3 CALSIM II Modeling

Year	Future Alt 1 & 2 minus Future Base Total Delta Inflow (CFS)												Difference		
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep			
1922	195	134	0	0	0	0	0	0	0	0	0	0	0	78	
1923	104	85	0	0	-159	0	0	0	0	0	0	0	0	110	168
1924	75	-83	200	0	-61	20	0	5	-149	-45	0	-72	0	0	
1925	-123	0	0	0	0	2	0	0	0	0	0	0	0	121	
1926	70	42	0	0	0	0	0	0	0	-142	-200	-200	20	0	
1927	68	0	0	0	0	0	0	0	3	0	0	0	0	191	
1928	85	52	0	0	0	0	0	0	0	0	0	0	0	161	
1929	71	54	0	0	-60	-64	0	0	-200	-152	192	121	0	0	
1930	23	-143	0	0	-200	0	0	0	-200	-93	176	211	0	0	
1931	-127	0	0	0	0	0	0	0	0	0	0	0	0	0	
1932	0	0	0	0	0	0	0	0	0	0	0	0	0	229	
1933	112	26	0	0	0	0	0	0	-200	0	115	135	0	0	
1934	-140	-136	0	0	0	-35	-113	0	0	0	0	0	0	0	
1935	0	0	0	0	0	7	0	0	95	0	0	95	189	0	
1936	90	-1	-82	0	0	0	0	0	0	0	-111	0	154	0	
1937	84	44	139	0	0	0	0	0	0	0	-102	0	117	0	
1938	80	0	0	0	0	0	0	0	0	0	0	0	32	0	
1939	0	-145	0	0	18	-66	0	0	0	0	72	175	111	0	
1940	48	24	169	0	0	0	0	0	-16	-186	51	170	0	0	
1941	4	-92	0	0	0	0	0	0	0	0	0	0	75	0	
1942	99	63	0	0	0	0	0	0	0	0	0	0	168	0	
1943	147	77	0	0	0	0	0	0	0	0	0	0	163	0	
1944	64	28	0	0	0	-117	0	0	0	-155	186	174	0	0	
1945	61	51	0	0	0	0	0	0	0	-183	38	175	0	0	
1946	76	-63	0	0	-197	-103	0	0	0	0	0	191	111	0	
1947	-51	-51	0	0	56	-120	0	0	-200	0	182	183	0	0	
1948	61	43	-62	0	-74	-77	0	0	0	0	0	241	166	0	
1949	-30	-55	0	0	0	0	0	0	0	0	-152	145	164	0	
1950	58	-11	0	0	0	-77	0	0	0	0	0	2	117	0	
1951	95	0	0	0	0	0	0	0	0	0	0	0	134	0	
1952	76	41	0	0	0	0	0	0	0	0	0	0	0	0	
1953	0	0	0	0	0	0	0	0	0	0	0	0	174	0	
1954	71	63	0	0	0	0	0	0	0	0	0	0	175	0	
1955	77	59	0	0	-199	-99	0	0	0	0	0	44	148	0	
1956	58	35	0	0	0	0	0	0	0	0	0	0	166	0	
1957	166	104	-21	0	0	0	0	0	0	-19	-101	0	157	0	
1958	77	25	0	0	0	0	0	0	0	0	0	0	0	0	
1959	0	42	0	0	0	0	0	0	0	0	0	105	130	0	
1960	19	-103	163	0	0	0	0	0	0	-43	-133	166	31	0	

Appendix C-3 CALSIM II Modeling

Year	Difference Future Alt 1 & 2 minus Future Base Total Delta Inflow (CFS)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1961	62	48	0	0	0	0	0	0	0	0	224	149	0
1962	-130	-105	0	0	0	0	0	0	0	-134	215	30	0
1963	0	0	0	0	0	0	0	0	0	0	0	0	148
1964	101	0	0	0	-57	0	0	0	0	0	0	196	155
1965	62	71	0	0	0	-122	0	-8	-33	-186	-114	175	0
1966	80	0	0	0	100	-112	0	0	0	0	160	127	0
1967	-17	-37	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	93	96	0
1969	21	-60	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0	169
1971	75	0	0	0	-199	0	0	0	0	0	0	0	171
1972	90	62	0	0	29	0	-19	0	0	-184	132	140	0
1973	-125	0	0	0	0	0	0	0	0	0	0	0	169
1974	71	0	0	0	0	0	0	0	0	0	0	0	0
1975	66	66	0	0	0	0	0	0	0	0	0	0	0
1976	0	46	0	0	27	-60	0	0	25	103	0	-33	0
1977	-144	-62	143	0	-123	-113	-17	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	59	93	0
1979	157	106	-59	0	0	0	0	0	0	0	-50	0	169
1980	73	50	0	0	0	0	0	0	0	0	0	0	0
1981	158	102	0	0	-244	-79	0	0	0	134	163	183	0
1982	71	0	0	0	0	0	0	0	0	-28	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0	156
1985	74	0	0	0	0	-77	0	0	0	100	148	119	0
1986	68	42	0	0	0	0	0	0	0	-186	-73	0	0
1987	84	48	0	0	23	0	0	0	-41	-200	192	132	0
1988	44	39	0	0	0	-120	0	0	-200	-200	172	117	0
1989	-57	-104	0	0	0	0	0	0	0	0	209	16	0
1990	-138	-68	100	0	-43	-111	113	0	-92	76	0	0	0
1991	0	0	0	0	17	0	1	0	0	17	-11	0	0
1992	0	0	0	0	0	0	-6	0	-48	0	27	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	150	0
1994	120	72	0	0	-76	-14	0	0	0	215	164	-77	0
Mean	37	7	9	0	-20	-20	-1	1	-21	-25	53	98	0
Max	195	134	200	0	100	20	113	95	25	224	241	229	0
Min	-144	-145	-82	0	-244	-122	-113	-8	-200	-200	-200	-77	0

Appendix C-3 CALSIM II Modeling

Year	Alt Future Alt 1 & 2 Sacramento River (no Yolo Bypass) Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	12,057	11,776	18,010	15,806	35,832	30,675	28,449	46,934	35,723	22,588	9,622	13,919
1923	12,259	15,836	29,554	28,407	16,049	15,687	23,501	15,104	15,039	21,007	17,793	12,955
1924	12,362	10,549	11,356	12,783	15,276	10,057	7,169	6,920	9,358	10,080	9,770	6,829
1925	7,754	8,221	13,982	13,042	62,894	25,558	20,375	14,403	14,755	14,100	8,034	8,992
1926	9,118	8,756	9,490	17,952	40,696	13,671	19,398	11,472	11,322	16,663	13,436	9,034
1927	9,037	23,315	18,257	31,842	74,883	43,513	44,605	25,129	17,816	21,572	16,362	13,603
1928	12,466	18,616	15,153	22,425	25,568	74,279	26,120	18,253	15,463	18,341	13,381	12,156
1929	10,390	12,919	12,764	12,847	15,633	11,785	8,068	7,821	10,047	11,143	8,365	6,284
1930	7,640	7,252	17,866	21,693	18,623	30,506	12,579	11,433	10,879	17,099	15,426	11,088
1931	9,020	8,494	8,109	12,899	11,465	7,768	8,636	7,064	9,687	12,590	11,123	6,999
1932	7,831	7,125	19,156	21,366	15,711	12,667	10,809	11,599	17,089	16,423	10,618	10,198
1933	9,253	8,382	9,556	14,029	11,281	13,093	10,727	6,520	9,872	11,911	8,302	6,985
1934	7,702	7,163	14,338	18,606	14,390	12,192	11,341	7,832	10,874	11,269	8,194	7,031
1935	7,825	11,429	10,024	28,737	13,985	25,709	46,527	23,286	18,175	18,817	16,901	13,961
1936	12,115	9,987	12,327	38,555	60,951	29,727	21,086	14,741	16,847	19,150	18,318	11,296
1937	9,729	9,762	12,648	13,629	33,136	39,442	21,987	15,236	16,770	14,668	13,791	11,014
1938	10,342	25,552	55,774	31,651	74,405	74,763	60,413	54,938	34,079	20,961	14,362	13,567
1939	14,513	11,946	14,446	13,703	14,339	13,307	10,765	9,714	11,897	17,475	13,896	12,081
1940	11,071	9,240	9,369	32,141	55,469	73,938	65,038	17,076	14,524	23,222	18,081	11,958
1941	12,706	13,711	39,662	73,073	73,936	70,422	61,418	38,778	19,145	22,260	15,621	14,944
1942	13,117	13,204	59,003	69,023	74,536	23,284	43,641	33,462	25,730	17,284	16,241	15,396
1943	13,630	14,408	29,024	71,907	51,633	67,347	25,864	18,107	14,140	18,937	16,991	12,930
1944	11,221	11,305	12,747	14,248	25,919	20,933	10,255	11,385	15,515	17,554	15,507	12,220
1945	11,113	16,234	17,351	12,686	45,641	22,673	11,406	13,435	17,731	20,971	16,394	11,734
1946	10,584	16,097	60,879	46,929	26,249	18,478	12,341	14,006	16,949	21,700	17,709	11,763
1947	13,561	13,996	16,580	11,257	19,462	20,489	13,513	10,270	13,838	18,086	12,634	11,747
1948	10,057	11,441	9,209	14,915	14,489	15,067	26,961	27,187	20,850	22,350	17,444	13,254
1949	15,899	11,511	14,451	11,480	14,072	43,189	12,493	13,437	15,711	17,362	12,684	10,918
1950	9,284	11,275	10,191	20,082	35,105	20,814	18,823	16,453	18,745	20,886	18,957	11,757
1951	11,857	42,962	74,540	61,685	64,071	28,438	14,490	18,363	13,065	22,504	18,194	12,897
1952	13,153	15,516	40,285	73,373	72,311	55,541	58,894	59,099	37,358	15,842	18,478	0
1953	14,989	12,947	43,742	73,094	23,712	22,777	15,706	23,191	23,791	23,002	15,785	17,277
1954	13,879	17,594	11,867	33,199	62,021	49,361	39,616	23,686	13,888	23,140	15,632	15,185
1955	13,924	15,307	21,589	18,241	15,999	10,893	13,636	12,855	13,354	15,689	9,494	10,655
1956	9,887	12,524	73,765	75,316	69,208	34,689	18,604	37,381	20,980	16,113	16,134	16,708
1957	14,755	12,296	11,580	14,790	34,288	45,624	20,090	16,137	17,885	20,972	16,738	12,840
1958	17,074	14,492	23,541	38,035	75,288	73,407	73,709	43,308	29,875	21,398	15,957	18,666
1959	13,833	11,548	12,929	36,096	53,225	22,152	9,833	11,291	15,416	22,551	18,024	11,375
1960	11,914	9,267	10,670	12,800	30,321	21,414	10,790	12,535	12,757	19,722	12,212	8,844

Appendix C-3 CALSIM II Modeling

Alt Future Alt 1 & 2 Sacramento River (no Yolo Bypass) Delta Inflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	9,150	13,391	16,577	12,094	30,214	16,346	13,074	12,220	14,906	21,042	14,081	11,120
1962	9,682	12,069	15,753	10,799	43,138	24,093	11,873	13,019	14,900	22,704	18,511	13,430
1963	32,258	15,463	26,220	16,996	72,417	31,132	72,330	28,890	18,185	21,138	16,760	14,425
1964	14,235	24,805	13,234	22,782	15,242	11,682	15,815	11,211	13,782	20,180	17,740	11,371
1965	9,763	16,182	66,633	74,345	31,027	22,301	42,045	21,409	15,989	18,688	16,764	13,064
1966	10,177	20,167	14,535	29,354	25,491	26,372	13,428	13,116	13,796	20,514	16,929	12,581
1967	12,781	15,332	35,712	40,613	56,282	53,261	37,830	43,229	36,653	15,263	16,200	20,077
1968	17,906	13,608	16,319	29,245	61,344	35,795	14,918	10,620	14,796	18,529	16,080	12,139
1969	13,491	13,043	23,645	74,113	74,044	46,470	41,841	45,253	21,520	19,774	11,338	16,522
1970	15,124	13,749	57,462	76,571	71,045	34,097	14,670	12,577	11,525	21,776	17,701	16,291
1971	12,576	18,217	56,069	47,381	27,032	45,213	21,602	25,634	19,863	26,014	16,833	16,329
1972	14,453	13,852	17,337	16,676	22,839	34,942	12,207	11,250	20,765	20,613	15,580	11,236
1973	11,813	20,705	22,307	73,317	73,061	51,602	16,182	16,938	18,273	21,997	15,236	12,296
1974	12,596	58,598	67,130	74,632	39,769	73,866	65,801	21,925	20,140	20,733	17,230	20,076
1975	14,400	12,404	16,699	15,573	63,813	70,889	21,830	26,813	23,713	21,121	16,541	19,119
1976	17,952	14,176	13,477	12,545	13,699	14,789	9,184	6,859	10,793	14,485	12,336	11,460
1977	7,801	9,546	7,905	7,603	8,863	7,030	8,588	5,743	9,508	13,653	12,129	6,841
1978	7,782	7,224	15,553	62,969	50,185	60,357	34,796	19,087	14,640	23,276	13,537	14,268
1979	10,801	11,435	13,655	21,257	38,618	31,180	15,910	14,659	18,397	20,150	14,597	11,527
1980	12,553	15,101	20,299	74,157	45,365	17,402	15,209	12,644	20,513	12,055	13,861	
1981	10,539	9,687	14,714	21,143	26,153	29,571	15,786	11,030	14,422	20,514	16,315	13,019
1982	11,775	31,073	73,902	68,775	73,820	71,117	74,411	38,979	21,817	20,175	15,368	15,342
1983	16,651	36,738	64,416	71,180	75,043	77,421	62,125	55,737	54,624	23,226	20,645	26,447
1984	19,598	65,062	75,141	50,699	34,356	35,191	17,413	13,034	15,124	21,383	17,580	12,596
1985	12,393	30,511	21,717	14,503	17,177	15,674	11,635	12,397	13,009	20,952	18,573	14,010
1986	13,068	11,250	17,361	22,413	78,447	74,359	18,184	11,928	12,153	19,840	12,651	12,042
1987	11,086	9,830	10,811	14,018	19,434	24,034	14,048	9,379	12,322	15,840	13,133	10,875
1988	10,669	9,871	17,890	28,872	15,215	8,742	9,669	8,395	10,589	13,053	8,663	6,285
1989	7,645	10,025	10,049	13,619	9,536	47,320	20,907	13,256	13,798	18,821	13,702	13,222
1990	13,035	10,533	12,912	19,647	16,945	11,920	10,967	7,900	8,247	9,936	12,275	8,045
1991	7,811	7,281	6,656	6,221	7,962	30,444	13,571	8,581	8,191	9,632	11,083	8,087
1992	7,701	7,268	7,593	10,229	32,153	19,286	12,861	8,378	11,446	11,581	8,784	8,350
1993	7,803	7,286	13,847	47,490	55,746	43,600	37,494	30,629	25,970	22,832	15,124	12,728
1994	12,215	10,923	13,708	13,428	21,882	17,058	10,901	9,107	12,027	21,041	18,809	13,264
Mean	12,031	15,347	24,699	32,734	39,293	34,083	24,594	19,099	17,226	18,809	14,669	12,641
Max	32,258	65,062	75,141	76,571	78,447	77,421	74,411	59,099	54,624	26,014	20,645	26,447
Min	7,640	7,125	6,656	6,221	7,962	7,030	7,169	5,743	8,191	9,632	8,034	6,284

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Appendix C-3 CALSIM II Modeling

Base Future Base Sacramento River (no Yolo Bypass) Delta Inflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	12,092	11,642	18,010	15,806	35,832	30,675	22,849	46,934	35,723	22,588	9,622	13,842
1923	11,955	15,751	29,554	28,407	16,208	15,687	23,501	15,104	15,039	21,007	17,684	12,787
1924	12,287	10,632	11,156	12,783	15,336	10,038	7,169	6,915	9,507	10,125	9,770	6,902
1925	7,878	8,221	13,982	13,042	62,894	25,556	20,375	14,403	14,755	14,100	8,034	9,770
1926	9,049	8,714	9,490	17,952	40,696	13,671	19,398	11,472	11,464	16,863	13,636	9,013
1927	8,970	23,315	18,257	31,842	74,883	43,513	44,605	25,129	17,813	21,572	16,362	13,412
1928	12,381	18,564	15,153	22,425	25,568	74,279	26,120	18,253	15,433	18,341	13,381	11,995
1929	10,319	12,866	12,764	12,847	15,693	11,849	8,068	7,821	10,247	11,295	8,173	6,164
1930	7,617	7,395	17,866	21,693	18,823	30,506	12,579	11,433	11,079	17,192	15,249	10,876
1931	9,148	8,494	8,109	12,899	11,465	7,768	8,636	7,064	9,687	12,590	11,123	6,999
1932	7,831	7,125	19,156	21,366	15,711	12,667	10,809	11,599	17,089	16,423	10,618	9,969
1933	9,141	8,356	9,556	14,029	11,281	13,093	10,727	7,530	10,072	11,911	8,187	6,851
1934	7,843	7,298	14,338	18,606	14,390	12,227	11,454	7,832	10,874	11,269	8,194	7,031
1935	7,825	11,429	10,024	28,737	13,978	25,709	46,527	23,190	18,175	18,817	16,805	13,772
1936	12,025	9,988	12,409	38,555	60,951	29,727	21,086	14,741	16,847	19,261	18,318	11,142
1937	9,645	9,718	12,509	13,629	33,136	39,442	21,987	15,236	16,770	14,770	13,791	10,898
1938	10,262	25,552	25,774	31,651	74,405	74,763	60,413	54,938	34,079	20,961	14,362	13,534
1939	14,513	12,091	14,446	13,703	14,321	13,374	10,765	9,714	11,897	17,403	13,722	11,970
1940	11,023	9,216	9,201	32,141	55,469	73,938	65,058	17,076	14,540	23,408	18,030	11,789
1941	12,702	13,804	39,662	73,073	73,936	70,422	61,418	38,778	19,145	22,260	15,621	14,869
1942	13,018	13,141	59,003	69,023	74,536	23,284	43,641	33,462	25,730	17,284	16,241	15,228
1943	13,483	14,332	29,024	71,907	51,633	67,347	25,864	18,107	14,140	18,937	16,991	12,767
1944	11,157	11,277	12,747	14,248	25,919	21,050	10,255	11,385	15,515	17,710	15,322	12,046
1945	11,052	16,183	17,351	12,686	45,641	22,673	11,406	13,435	17,731	21,154	16,355	11,559
1946	10,508	16,160	60,879	46,929	26,446	18,581	12,341	14,006	16,949	21,700	17,519	11,652
1947	13,612	14,047	16,580	11,257	19,406	20,609	13,513	10,270	14,038	18,086	12,452	11,564
1948	9,996	11,397	9,271	14,915	14,563	15,144	26,961	27,187	20,850	22,350	17,203	13,089
1949	15,929	11,566	14,451	11,480	14,072	43,189	12,493	13,437	15,711	17,514	12,539	10,755
1950	9,226	11,286	10,191	20,082	35,105	20,892	18,823	16,453	18,745	20,886	18,954	11,640
1951	11,761	42,962	74,540	61,685	64,071	28,438	14,490	18,363	13,065	22,504	18,194	12,763
1952	13,076	15,474	40,285	73,373	72,313	55,541	58,894	59,099	37,558	20,538	15,842	18,478
1953	14,989	12,947	43,742	73,094	23,712	22,777	15,706	23,191	23,791	23,002	15,785	17,103
1954	13,808	17,531	11,867	33,199	62,021	49,361	39,616	23,686	13,888	23,140	15,632	15,010
1955	13,847	15,248	21,589	18,241	16,198	10,992	13,636	12,855	15,354	15,689	9,449	10,507
1956	9,829	12,489	73,765	75,316	69,208	34,689	18,604	37,381	20,980	16,113	16,134	16,542
1957	14,589	12,192	11,601	14,790	34,288	45,624	20,090	16,137	17,904	21,073	16,738	12,683
1958	16,997	14,467	23,541	38,035	75,288	73,407	73,709	43,308	29,875	21,398	15,957	18,666
1959	13,833	11,506	12,929	36,096	53,225	22,152	9,833	11,291	15,416	22,551	17,919	11,246
1960	11,895	9,370	10,506	12,800	30,321	21,414	10,790	12,535	12,799	19,856	12,046	8,813

Contra Costa Water District Alternative Intake Project
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Appendix C-3 CALSIM II Modeling

Year	Base											
	Sacramento River (no Yolo Bypass) Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	9,089	13,343	16,577	12,094	30,214	16,546	13,074	12,220	14,906	20,818	13,931	11,120
1962	9,812	12,175	15,753	10,799	43,138	24,093	11,873	13,019	14,900	22,838	18,296	13,401
1963	32,258	15,463	26,220	16,996	72,417	31,132	72,330	28,890	18,185	21,138	16,760	14,277
1964	14,135	24,805	13,234	22,782	15,299	11,682	15,815	11,211	13,782	20,180	17,544	11,216
1965	9,701	16,111	66,633	74,345	31,027	22,423	42,045	21,416	16,021	18,875	16,878	12,889
1966	10,096	20,167	14,535	29,354	25,391	26,484	13,428	13,116	13,796	20,514	16,769	12,454
1967	12,798	15,368	35,712	40,613	56,282	53,261	37,830	43,229	36,653	15,263	16,200	20,077
1968	17,906	13,608	16,319	29,245	61,344	35,795	14,918	10,620	14,796	18,329	15,986	12,043
1969	13,470	13,103	23,645	74,113	74,046	46,470	41,841	45,253	21,520	19,774	11,338	16,522
1970	15,124	13,749	57,462	76,571	71,045	34,097	14,670	12,577	11,525	21,776	17,701	16,122
1971	12,501	18,217	56,069	47,381	27,232	45,213	21,602	25,634	19,863	26,014	16,833	16,157
1972	14,362	13,791	17,337	16,676	22,810	34,942	12,226	11,250	20,765	20,797	15,448	11,096
1973	11,937	20,705	22,307	73,317	73,061	51,602	16,182	16,938	18,273	21,997	15,236	12,127
1974	12,525	58,598	67,130	74,632	39,769	73,866	65,801	21,925	20,140	20,733	17,230	20,076
1975	14,334	12,338	16,699	15,573	63,813	70,889	21,830	26,813	23,713	21,121	16,541	19,119
1976	17,952	14,130	13,477	12,545	13,672	14,849	9,184	6,859	10,768	14,382	12,336	11,493
1977	7,945	9,608	7,762	7,603	8,986	7,143	8,605	5,743	9,508	13,653	12,129	6,841
1978	7,782	7,224	15,553	62,969	50,185	60,357	34,796	19,087	14,640	23,276	13,478	14,175
1979	10,644	11,329	13,715	21,257	38,618	31,180	15,910	14,659	18,397	20,200	14,597	11,358
1980	12,480	15,051	20,299	74,157	74,317	45,365	17,402	15,209	12,644	20,513	12,055	13,861
1981	10,380	9,585	14,714	21,143	26,397	29,650	15,786	11,030	14,422	20,381	16,152	12,836
1982	11,704	31,073	73,902	68,775	73,820	71,117	74,411	38,979	21,817	20,204	15,368	15,342
1983	16,651	36,738	64,416	71,180	75,043	77,421	62,125	55,737	54,624	23,226	20,645	26,447
1984	19,598	65,062	75,141	50,699	34,356	35,191	17,413	13,034	15,124	21,383	17,580	12,440
1985	12,319	30,511	21,717	14,503	17,254	15,674	11,635	12,397	13,009	20,852	18,425	13,891
1986	13,000	11,209	17,361	22,413	78,447	74,359	18,184	11,928	12,153	20,027	12,724	12,042
1987	11,002	9,781	10,811	14,018	19,410	24,034	14,048	9,379	12,363	16,040	12,941	10,743
1988	10,625	9,833	17,890	28,872	15,215	8,862	9,669	8,395	10,789	13,253	8,491	6,169
1989	7,702	10,129	10,049	13,619	9,536	47,320	20,907	13,256	13,798	18,821	13,493	13,206
1990	13,173	10,601	12,812	19,647	16,988	12,031	10,854	7,900	8,339	9,860	12,275	8,045
1991	7,811	7,281	6,656	6,221	7,945	30,444	13,570	8,581	8,191	9,615	11,094	8,087
1992	7,701	7,268	7,593	10,229	32,153	19,286	12,867	8,378	11,494	11,581	8,757	8,350
1993	7,803	7,286	13,847	57,490	55,746	43,600	37,494	30,629	25,970	22,832	15,124	12,578
1994	12,095	10,851	13,708	13,428	21,957	17,072	10,901	9,107	12,027	20,825	18,645	13,341
Mean	11,994	15,340	24,689	32,734	39,313	34,103	24,595	19,098	17,248	18,835	14,616	12,543
Max	32,258	65,062	75,141	76,571	78,447	77,421	74,411	59,099	54,624	26,014	20,645	26,447
Min	7,617	7,125	6,656	6,221	7,945	7,143	7,169	5,743	8,191	9,615	8,034	6,164

Year	Difference												
	Future Alt 1 & 2 minus Future Base Sacramento River (no Yolo Bypass) Delta Inflow (CFS)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1922	195	134	0	0	0	0	0	0	0	0	0	78	
1923	104	85	0	0	-159	0	0	0	0	0	0	110	168
1924	75	-83	200	0	-61	20	0	5	-149	-45	0	-72	
1925	-123	0	0	0	0	2	0	0	0	0	0	121	
1926	70	42	0	0	0	0	0	0	-142	-200	-200	20	
1927	68	0	0	0	0	0	0	0	3	0	0	191	
1928	85	52	0	0	0	0	0	0	0	0	0	161	
1929	71	54	0	0	-60	-64	0	0	-200	-152	192	121	
1930	23	-143	0	0	-200	0	0	0	-200	-93	176	211	
1931	-127	0	0	0	0	0	0	0	0	0	0	0	
1932	0	0	0	0	0	0	0	0	0	0	0	229	
1933	112	26	0	0	0	0	0	0	-200	0	115	135	
1934	-140	-136	0	0	0	-35	-113	0	0	0	0	0	
1935	0	0	0	0	7	0	0	95	0	0	95	189	
1936	90	-1	-82	0	0	0	0	0	0	-111	0	154	
1937	84	44	139	0	0	0	0	0	0	-102	0	117	
1938	80	0	0	0	0	0	0	0	0	0	0	32	
1939	0	-145	0	0	18	-66	0	0	0	72	175	111	
1940	48	24	169	0	0	0	0	0	-16	-186	51	170	
1941	4	-92	0	0	0	0	0	0	0	0	0	75	
1942	99	63	0	0	0	0	0	0	0	0	0	168	
1943	147	77	0	0	0	0	0	0	0	0	0	163	
1944	64	28	0	0	0	-117	0	0	0	-155	186	174	
1945	61	51	0	0	0	0	0	0	0	-183	38	175	
1946	76	-63	0	0	-197	-103	0	0	0	0	191	111	
1947	-51	-51	0	0	56	-120	0	0	-200	0	182	183	
1948	61	43	-62	0	-74	-77	0	0	0	0	241	166	
1949	-30	-55	0	0	0	0	0	0	0	-152	145	164	
1950	58	-11	0	0	0	-77	0	0	0	0	2	117	
1951	95	0	0	0	0	0	0	0	0	0	0	134	
1952	76	41	0	0	0	0	0	0	0	0	0	0	
1953	0	0	0	0	0	0	0	0	0	0	0	174	
1954	71	63	0	0	0	0	0	0	0	0	0	175	
1955	77	59	0	0	-199	-99	0	0	0	0	44	148	
1956	58	35	0	0	0	0	0	0	0	0	0	166	
1957	166	104	-21	0	0	0	0	0	0	-19	-101	0	157
1958	77	25	0	0	0	0	0	0	0	0	0	0	
1959	0	42	0	0	0	0	0	0	0	0	0	130	
1960	19	-103	163	0	0	0	0	0	0	-43	-133	166	31

Appendix C-3 CALSIM II Modeling

Year	Difference Future Alt 1 & 2 minus Future Base Sacramento River (no Yolo Bypass) Delta Inflow (CFS)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1961	62	48	0	0	0	0	0	0	0	0	224	149	0
1962	-130	-105	0	0	0	0	0	0	0	-134	215	30	0
1963	0	0	0	0	0	0	0	0	0	0	0	0	148
1964	101	0	0	-57	0	0	0	0	0	0	0	196	155
1965	62	71	0	0	-122	0	-8	-33	-186	-114	175	0	0
1966	80	0	0	100	-112	0	0	0	0	160	127	0	0
1967	-17	-37	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	93	96	0
1969	21	-60	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0	169
1971	75	0	0	-199	0	0	0	0	0	0	0	0	171
1972	90	62	0	0	29	0	-19	0	0	-184	132	140	0
1973	-125	0	0	0	0	0	0	0	0	0	0	0	169
1974	71	0	0	0	0	0	0	0	0	0	0	0	0
1975	66	66	0	0	0	0	0	0	0	0	0	0	0
1976	0	46	0	0	27	-60	0	0	25	103	0	-33	0
1977	-144	-62	143	0	-123	-113	-17	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	59	93	0
1979	157	106	-59	0	0	0	0	0	0	-50	0	169	0
1980	73	50	0	0	0	0	0	0	0	0	0	0	0
1981	158	102	0	0	-244	-79	0	0	0	134	163	183	0
1982	71	0	0	0	0	0	0	0	0	-28	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0	156
1985	74	0	0	0	-77	0	0	0	0	100	148	119	0
1986	68	42	0	0	0	0	0	0	0	-186	-73	0	0
1987	84	48	0	0	23	0	0	0	-41	-200	192	132	0
1988	44	39	0	0	0	-120	0	0	-200	-200	172	117	0
1989	-57	-104	0	0	0	0	0	0	0	0	209	16	0
1990	-138	-68	100	0	-43	-111	113	0	-92	76	0	0	0
1991	0	0	0	0	17	0	1	0	0	17	-11	0	0
1992	0	0	0	0	0	0	-6	0	-48	0	27	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	150	0
1994	120	72	0	0	-76	-14	0	0	0	215	164	-77	0
Mean	37	7	9	0	-20	-20	-1	1	-21	-25	53	98	0
Max	195	134	200	0	100	20	113	95	25	224	241	229	0
Min	-144	-145	-82	0	-244	-122	-113	-8	-200	-200	-200	-77	0

Appendix C-3 CALSIM II Modeling

Year	Alt Future Alt 1 & 2 San Joaquin River Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	2,304	1,906	2,967	2,941	8,488	8,235	7,010	5,947	9,684	2,260	2,147	2,093
1923	3,214	1,894	5,563	7,792	6,567	3,023	6,296	5,301	2,724	2,178	2,094	2,029
1924	2,301	1,604	1,708	1,674	1,910	1,697	1,770	1,612	1,274	1,223	847	1,157
1925	1,693	1,552	1,551	1,337	3,144	2,631	4,613	4,076	2,158	1,836	1,715	1,763
1926	2,000	1,487	1,560	1,441	2,196	1,797	3,551	3,067	1,571	1,407	1,044	1,298
1927	1,757	1,901	2,040	1,842	5,359	3,850	5,855	5,490	2,369	1,939	1,783	1,746
1928	1,839	1,986	2,390	2,248	2,594	5,351	5,823	4,675	1,864	1,682	1,613	1,645
1929	1,900	1,489	1,537	1,498	1,899	1,715	2,430	2,234	1,353	1,289	833	1,172
1930	1,667	1,258	1,231	1,341	1,678	1,959	2,457	2,225	1,322	1,257	813	1,153
1931	1,639	1,261	1,229	1,214	1,425	1,300	1,450	1,213	1,141	1,071	769	1,033
1932	1,174	1,300	3,295	3,549	7,686	4,624	4,806	3,952	2,008	1,808	1,703	1,747
1933	2,005	1,499	1,491	1,685	1,994	2,081	2,519	2,289	1,206	1,137	1,117	1,205
1934	1,429	1,281	1,413	1,401	1,989	1,692	1,735	1,531	1,106	1,019	750	1,078
1935	1,179	1,438	1,516	3,792	3,364	3,714	6,553	5,607	3,004	2,137	1,847	1,901
1936	2,057	1,573	1,689	2,011	12,208	5,888	7,148	5,623	2,359	1,994	1,840	1,923
1937	2,148	1,723	1,959	2,525	14,446	12,163	9,321	10,378	2,740	2,169	1,959	2,020
1938	2,521	1,809	5,371	6,702	23,085	29,680	17,972	21,745	20,734	3,639	2,385	2,696
1939	8,675	1,956	2,127	2,066	3,173	3,886	4,593	3,896	1,910	1,829	1,795	1,721
1940	2,085	1,565	1,587	4,239	5,755	9,888	6,875	5,446	2,718	2,199	2,115	2,077
1941	2,514	1,879	3,291	5,596	14,797	12,049	10,248	9,722	6,592	2,555	2,330	2,152
1942	3,710	2,024	5,061	8,740	9,830	6,102	7,154	7,102	5,774	2,923	2,461	2,342
1943	5,032	2,520	3,889	13,310	11,546	19,429	8,304	7,580	3,208	2,689	2,393	2,354
1944	2,531	2,042	2,127	2,061	3,322	3,448	5,289	4,726	2,504	2,225	2,167	1,944
1945	2,242	2,026	2,008	1,905	6,836	8,331	6,983	5,794	2,858	2,436	2,345	2,152
1946	3,154	2,171	5,898	4,954	5,255	4,602	6,033	5,471	2,725	2,295	2,219	2,090
1947	2,358	2,024	2,259	2,012	2,697	2,036	2,569	2,383	1,682	1,607	1,279	1,341
1948	1,838	1,497	1,420	1,291	1,470	1,919	3,940	3,557	2,294	1,869	1,783	1,877
1949	1,963	1,502	1,475	1,358	1,777	2,839	3,641	3,314	1,829	1,790	1,727	1,723
1950	1,786	1,480	1,453	2,152	2,916	2,491	3,637	3,221	1,780	1,645	1,608	1,703
1951	2,007	3,982	9,242	12,246	10,142	5,873	5,608	5,229	2,562	1,964	1,849	1,974
1952	2,473	1,846	3,225	7,612	6,738	13,383	10,250	13,677	13,485	3,342	2,327	2,672
1953	7,672	1,892	2,800	6,770	4,991	3,221	4,805	4,439	2,441	2,028	1,936	1,842
1954	2,222	1,646	1,693	1,753	2,370	2,741	4,832	4,341	2,037	1,997	1,912	1,815
1955	2,118	1,579	1,698	1,998	2,056	1,826	2,555	2,422	1,744	1,672	1,227	1,384
1956	1,646	1,540	12,103	18,001	12,293	6,470	6,099	5,736	5,967	2,583	2,224	2,443
1957	4,011	1,696	1,846	1,823	2,875	4,341	4,623	4,516	2,480	1,949	1,834	1,818
1958	2,315	1,719	1,809	2,083	4,031	9,636	16,575	12,782	9,993	2,819	2,433	2,466
1959	6,346	2,226	2,498	2,122	5,039	3,216	4,200	3,167	1,713	1,670	1,618	1,630
1960	1,892	1,408	1,386	1,445	2,279	1,903	2,553	2,338	1,542	1,340	877	1,231

Appendix C-3 CALSIM II Modeling

Alt Future Alt 1 & 2 San Joaquin River Delta Inflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	1,621	1,357	1,420	1,273	1,449	1,323	1,586	1,373	1,440	976	864	1,221
1962	1,456	1,300	1,306	1,816	4,660	4,780	3,920	1,739	1,637	1,637	1,569	1,652
1963	1,947	1,453	1,422	1,924	3,423	2,837	6,071	5,324	3,003	2,263	1,929	1,936
1964	2,089	1,775	1,791	1,761	1,735	1,727	2,461	2,271	1,446	1,376	924	1,267
1965	1,625	1,713	4,228	10,418	7,009	4,914	7,145	5,674	3,204	2,171	1,933	1,971
1966	3,112	2,883	5,701	4,913	4,922	3,500	4,098	4,234	1,880	1,853	1,787	1,718
1967	2,217	1,727	3,012	3,681	3,451	7,359	13,963	13,933	16,227	8,967	2,247	2,889
1968	6,443	2,033	2,748	2,137	4,173	3,316	4,373	3,241	1,765	1,728	1,668	1,650
1969	2,059	1,637	2,013	15,258	26,735	19,110	18,973	23,955	24,689	4,091	2,291	2,668
1970	8,252	1,926	3,708	18,728	9,638	7,978	5,847	5,370	2,617	2,101	2,032	2,052
1971	2,420	1,924	3,221	2,680	2,481	3,472	4,574	4,362	2,325	2,072	1,985	1,847
1972	2,148	1,618	1,849	1,793	2,312	1,833	2,577	2,639	1,608	1,579	1,540	1,469
1973	1,968	1,640	1,650	2,682	8,440	8,772	6,862	5,467	2,324	2,095	1,998	2,024
1974	2,332	1,738	2,678	6,264	5,526	7,921	9,116	7,059	3,550	2,427	2,206	2,233
1975	2,685	1,934	2,097	2,023	6,815	10,346	7,157	6,092	5,662	5,523	2,220	2,248
1976	3,151	1,870	1,969	1,781	2,129	1,829	2,516	2,313	1,537	1,472	1,430	1,262
1977	3,267	2,163	1,750	1,361	1,471	1,337	1,757	1,632	1,293	858	734	1,064
1978	1,514	1,415	1,587	3,786	7,956	9,609	13,016	12,149	11,395	2,574	1,980	2,337
1979	4,278	1,716	1,952	5,043	10,539	9,500	6,479	5,998	2,274	1,929	1,833	1,977
1980	2,311	1,870	2,000	12,967	22,648	13,842	7,761	6,903	6,001	3,994	2,143	2,753
1981	4,421	1,809	1,944	2,216	2,630	3,799	4,457	3,544	1,751	1,712	1,665	1,641
1982	2,160	1,784	1,916	8,239	15,580	16,882	25,885	16,557	9,976	3,846	3,328	3,914
1983	12,398	8,169	20,147	25,133	33,297	41,014	20,398	20,657	34,727	17,814	2,210	6,258
1984	12,298	13,667	23,098	14,724	9,964	6,270	5,629	5,156	2,731	2,345	2,240	2,096
1985	2,401	1,985	2,033	1,847	2,332	2,314	3,305	3,558	1,826	1,733	1,657	1,651
1986	2,182	1,764	1,837	2,261	19,222	25,143	12,260	8,490	6,832	2,514	2,293	2,305
1987	2,694	1,820	1,851	1,730	2,110	2,070	2,535	2,343	1,595	1,574	1,315	1,285
1988	1,736	1,396	1,346	1,338	1,388	1,321	1,772	1,634	1,313	1,033	740	1,114
1989	1,613	1,347	1,448	1,254	1,437	1,730	1,780	1,487	1,344	1,353	855	1,246
1990	1,434	1,388	1,311	1,265	1,494	1,417	1,625	1,359	1,225	1,119	783	1,169
1991	1,114	1,238	1,188	1,092	1,216	2,619	2,300	1,742	1,169	1,132	832	1,110
1992	1,314	1,268	1,191	1,275	2,438	2,005	1,978	1,369	1,118	1,041	872	1,154
1993	1,605	1,422	1,534	7,874	5,557	5,126	4,872	4,775	4,551	2,173	1,991	1,898
1994	2,973	1,627	1,620	1,423	1,833	1,537	2,381	2,226	1,450	1,441	996	1,235
Mean	2,886	1,994	3,013	4,437	6,320	6,294	6,095	5,570	4,190	2,287	1,696	1,872
Max	12,398	13,667	23,098	25,133	33,297	41,014	25,885	23,955	34,727	17,814	2,461	6,258
Min	1,114	1,238	1,188	1,092	1,216	1,300	1,450	1,213	1,106	858	734	1,033

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Base Future Base San Joaquin River Delta Inflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	2,304	1,906	2,967	2,941	8,488	8,235	7,010	5,947	9,684	2,260	2,147	2,093
1923	3,214	1,894	5,563	7,792	6,567	3,023	6,296	5,301	2,724	2,178	2,094	2,029
1924	2,301	1,604	1,708	1,674	1,910	1,697	1,770	1,612	1,274	1,223	847	1,157
1925	1,693	1,552	1,551	1,337	3,144	2,631	4,613	4,076	2,158	1,836	1,715	1,763
1926	2,000	1,487	1,560	1,441	2,196	1,797	3,551	3,067	1,571	1,407	1,044	1,298
1927	1,757	1,901	2,040	1,842	5,359	3,850	5,855	5,490	2,369	1,939	1,783	1,746
1928	1,839	1,986	2,390	2,248	2,594	5,351	5,823	4,675	1,864	1,682	1,613	1,645
1929	1,900	1,489	1,537	1,498	1,899	1,715	2,430	2,234	1,353	1,289	833	1,172
1930	1,667	1,258	1,231	1,341	1,678	1,959	2,457	2,225	1,322	1,257	813	1,153
1931	1,639	1,261	1,229	1,214	1,425	1,300	1,450	1,213	1,141	1,071	769	1,033
1932	1,174	1,300	3,295	3,549	7,686	4,624	4,806	3,952	2,008	1,808	1,703	1,747
1933	2,005	1,499	1,491	1,685	1,994	2,081	2,519	2,289	1,206	1,137	1,117	1,205
1934	1,429	1,281	1,413	1,401	1,989	1,692	1,735	1,531	1,106	1,019	750	1,078
1935	1,179	1,438	1,516	3,792	3,364	3,714	6,553	5,607	3,004	2,137	1,847	1,901
1936	2,057	1,573	1,689	2,011	12,208	5,888	7,148	5,623	2,359	1,994	1,840	1,923
1937	2,148	1,723	1,959	2,525	14,446	12,163	9,321	10,378	2,740	2,169	1,959	2,020
1938	2,521	1,809	5,371	6,702	23,085	29,680	17,972	21,745	20,734	3,639	2,385	2,696
1939	8,675	1,956	2,127	2,066	3,173	3,886	4,593	3,896	1,910	1,829	1,795	1,721
1940	2,085	1,565	1,587	4,239	5,755	9,888	6,875	5,446	2,718	2,199	2,115	2,077
1941	2,514	1,879	3,291	5,596	14,797	12,049	10,248	9,722	6,592	2,555	2,330	2,152
1942	3,710	2,024	5,061	8,740	9,830	6,102	7,154	7,102	5,774	2,923	2,461	2,342
1943	5,032	2,520	3,889	13,310	11,546	19,429	8,304	7,580	3,208	2,689	2,393	2,354
1944	2,531	2,042	2,127	2,061	3,322	3,448	5,289	4,726	2,304	2,225	2,167	1,944
1945	2,242	2,026	2,008	1,905	6,836	8,331	6,983	5,794	2,858	2,436	2,345	2,152
1946	3,154	2,171	5,898	4,954	5,255	4,602	6,033	5,471	2,725	2,295	2,219	2,090
1947	2,358	2,024	2,259	2,012	2,697	2,036	2,569	2,383	1,682	1,607	1,279	1,341
1948	1,838	1,497	1,420	1,291	1,470	1,919	3,940	3,557	2,294	1,869	1,783	1,877
1949	1,963	1,502	1,475	1,358	1,777	2,839	3,641	3,314	1,829	1,790	1,727	1,723
1950	1,786	1,480	1,453	2,152	2,916	2,491	3,637	3,221	1,780	1,645	1,608	1,703
1951	2,007	3,982	9,242	12,246	10,142	5,873	5,608	5,229	2,562	1,964	1,849	1,974
1952	2,473	1,846	3,225	7,612	6,738	13,383	10,250	13,677	13,485	3,342	2,327	2,672
1953	7,672	1,892	2,800	6,770	4,991	3,221	4,805	4,439	2,441	2,028	1,936	1,842
1954	2,222	1,646	1,693	1,753	2,370	2,741	4,832	4,341	2,037	1,997	1,912	1,815
1955	2,118	1,579	1,698	1,998	2,056	1,826	2,555	2,422	1,744	1,672	1,227	1,384
1956	1,646	1,540	12,103	18,001	12,293	6,470	6,099	5,736	5,967	2,583	2,224	2,443
1957	4,011	1,696	1,846	1,823	2,875	4,341	4,623	4,516	2,480	1,949	1,834	1,818
1958	2,315	1,719	1,809	2,083	4,031	9,636	16,575	12,782	9,993	2,819	2,433	2,466
1959	6,346	2,226	2,498	2,122	5,039	3,216	4,200	3,167	1,713	1,670	1,618	1,630
1960	1,892	1,408	1,386	1,445	2,279	1,903	2,553	2,338	1,542	1,340	877	1,231

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Appendix C-3 CALSIM II Modeling

Base Future Base San Joaquin River Delta Inflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	1,621	1,357	1,420	1,273	1,449	1,323	1,586	1,373	1,440	976	864	1,221
1962	1,456	1,300	1,306	1,581	1,660	4,780	3,920	1,739	1,637	1,569	1,652	1,652
1963	1,947	1,453	1,422	1,924	3,423	2,837	6,071	5,324	3,003	2,263	1,929	1,936
1964	2,089	1,775	1,791	1,761	1,735	1,727	2,461	2,271	1,446	1,376	924	1,267
1965	1,625	1,713	4,228	10,418	7,009	4,914	7,145	5,674	3,204	2,171	1,933	1,971
1966	3,112	2,883	5,701	4,913	4,922	3,500	4,098	4,234	1,880	1,853	1,787	1,718
1967	2,217	1,727	3,012	3,681	3,451	7,359	13,963	13,933	16,227	8,967	2,247	2,889
1968	6,443	2,033	2,748	2,137	4,173	3,316	4,373	3,241	1,765	1,728	1,668	1,650
1969	2,059	1,637	2,013	15,258	26,735	19,110	18,973	23,955	24,689	4,091	2,291	2,668
1970	8,252	1,926	3,708	18,728	9,638	7,978	5,847	5,370	2,617	2,101	2,032	2,052
1971	2,420	1,924	3,221	2,680	2,481	3,472	4,574	4,362	2,325	2,072	1,985	1,847
1972	2,148	1,618	1,849	1,793	2,312	1,833	2,577	2,639	1,608	1,579	1,540	1,469
1973	1,968	1,640	1,650	2,682	8,440	8,772	6,862	5,467	2,324	2,095	1,998	2,024
1974	2,332	1,738	2,678	6,264	5,526	7,921	9,116	7,059	3,550	2,427	2,206	2,233
1975	2,685	1,934	2,097	2,023	6,815	10,346	7,157	6,092	5,662	5,233	2,220	2,248
1976	3,151	1,870	1,969	1,781	2,129	1,829	2,516	2,313	1,537	1,472	1,430	1,262
1977	3,267	2,163	1,750	1,361	1,471	1,337	1,757	1,632	1,293	858	734	1,064
1978	1,514	1,415	1,587	3,786	7,956	9,609	13,016	12,149	11,395	2,574	1,980	2,337
1979	4,278	1,716	1,952	5,043	10,539	9,500	6,479	5,998	2,274	1,929	1,833	1,977
1980	2,311	1,870	2,000	12,967	22,648	13,842	7,761	6,903	6,001	3,994	2,143	2,753
1981	4,421	1,809	1,944	2,216	2,630	3,799	4,457	3,544	1,751	1,712	1,665	1,641
1982	2,160	1,784	1,916	8,239	15,580	16,882	25,885	16,557	9,976	3,846	2,328	3,914
1983	12,398	8,169	20,147	25,133	33,297	41,014	20,398	20,657	34,727	17,814	2,210	6,258
1984	12,298	13,667	23,098	14,724	9,964	6,270	5,629	5,156	2,731	2,345	2,240	2,096
1985	2,401	1,985	2,033	1,847	2,332	2,314	3,305	3,558	1,826	1,733	1,657	1,651
1986	2,182	1,764	1,837	2,261	19,222	25,143	12,260	8,490	6,832	2,514	2,293	2,305
1987	2,694	1,820	1,851	1,730	2,110	2,070	2,535	2,343	1,595	1,574	1,315	1,285
1988	1,736	1,396	1,346	1,338	1,388	1,321	1,772	1,634	1,313	1,033	740	1,114
1989	1,613	1,347	1,448	1,254	1,437	1,730	1,780	1,487	1,344	1,353	855	1,246
1990	1,434	1,388	1,311	1,265	1,494	1,417	1,625	1,359	1,225	1,119	783	1,169
1991	1,114	1,238	1,188	1,092	1,216	2,619	2,300	1,742	1,169	1,132	832	1,110
1992	1,314	1,268	1,191	1,275	2,438	2,005	1,978	1,369	1,118	1,041	872	1,154
1993	1,605	1,422	1,534	7,874	5,557	5,126	4,872	4,775	4,551	2,173	1,991	1,898
1994	2,973	1,627	1,620	1,423	1,833	1,537	2,381	2,226	1,450	1,441	996	1,235
Mean	2,886	1,994	3,013	4,437	6,320	6,294	6,095	5,570	4,190	2,287	1,696	1,872
Max	12,398	13,667	23,098	25,133	33,297	41,014	25,885	23,955	34,727	17,814	2,461	6,258
Min	1,114	1,238	1,188	1,092	1,216	1,300	1,450	1,213	1,106	858	734	1,033

Appendix C-3 CALSIM II Modeling

Alt Future Alt 1 & 2 Delta Outflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	4,000	4,500	8,477	9,213	38,346	27,149	24,116	51,315	32,191	8,000	4,000	3,874
1923	4,254	6,865	28,773	27,554	15,021	11,524	25,834	16,094	8,210	6,500	5,243	3,830
1924	4,000	6,392	4,500	7,458	9,554	10,106	5,897	4,104	5,403	6,287	3,707	3,000
1925	3,579	5,311	7,282	6,994	64,320	27,190	21,058	16,118	8,286	5,000	5,398	3,000
1926	4,000	5,470	5,344	9,936	35,370	9,805	22,030	10,663	5,112	5,024	6,226	3,000
1927	4,000	13,192	7,457	26,455	127,137	39,621	46,029	27,032	9,948	10,399	4,000	3,765
1928	4,057	8,522	6,605	13,882	18,920	93,856	26,486	16,412	6,982	8,000	4,000	3,000
1929	4,620	6,252	5,934	6,804	9,872	9,544	6,941	6,570	6,034	4,000	4,942	3,000
1930	3,611	5,356	8,803	12,537	13,838	23,877	11,102	10,342	5,486	5,158	5,878	3,000
1931	4,000	5,548	5,269	7,387	7,666	6,160	6,820	4,304	5,297	6,075	3,388	3,000
1932	3,849	5,236	14,134	14,042	17,123	11,400	11,197	11,817	10,194	5,000	5,515	3,000
1933	4,000	5,423	4,846	13,095	7,991	9,821	10,037	5,715	6,043	4,000	5,173	3,000
1934	3,191	6,126	6,647	10,797	14,019	11,400	9,995	5,616	6,897	4,000	4,874	3,000
1935	3,441	6,777	4,734	24,512	11,400	25,196	51,976	26,346	10,752	6,500	4,000	3,604
1936	4,782	5,174	5,332	31,781	74,350	27,206	23,996	18,396	9,183	6,500	5,702	3,000
1937	4,000	5,946	5,163	7,728	41,923	47,382	26,552	19,893	9,472	6,500	4,603	3,000
1938	4,000	14,163	55,156	31,130	146,349	166,218	74,125	69,267	41,357	8,000	4,000	3,881
1939	8,950	4,500	5,690	8,019	9,638	11,103	10,021	9,620	5,079	5,313	3,500	3,000
1940	5,918	4,500	4,500	29,754	59,243	103,237	67,781	18,586	7,315	8,000	4,691	3,221
1941	4,000	8,073	34,727	96,038	121,351	87,379	73,515	41,358	13,052	8,000	5,026	4,154
1942	4,705	5,516	54,654	79,737	139,517	21,555	50,477	39,078	17,594	8,322	4,000	4,510
1943	5,151	5,332	21,602	84,402	56,566	85,345	29,535	23,440	8,936	8,765	4,000	3,416
1944	4,000	6,102	4,839	8,130	19,246	15,858	10,767	11,433	7,388	5,000	5,689	3,000
1945	4,340	7,332	7,258	6,837	44,080	22,050	14,090	15,107	9,106	6,500	5,283	3,000
1946	4,000	8,033	60,860	42,023	25,089	15,074	13,140	15,023	8,700	6,500	4,000	3,000
1947	4,914	7,382	6,547	6,858	12,553	14,860	11,196	8,744	6,121	5,000	4,990	3,000
1948	4,750	5,438	4,500	8,041	11,209	10,995	26,411	28,913	11,439	6,500	4,065	3,452
1949	5,965	5,182	6,145	7,077	9,067	35,960	11,938	11,536	7,550	5,000	4,505	3,000
1950	4,522	5,774	4,635	12,088	27,258	15,033	17,989	16,841	9,441	6,500	6,297	3,199
1951	4,000	39,989	94,428	72,481	71,847	26,216	15,680	21,092	6,089	8,987	4,000	3,353
1952	4,351	7,680	34,333	84,332	73,098	62,632	65,754	68,269	38,415	8,000	4,000	6,901
1953	8,106	7,561	43,144	101,712	22,382	16,475	15,665	24,367	13,648	10,474	4,000	4,844
1954	4,278	7,061	5,369	23,833	53,399	41,792	39,027	21,696	6,134	8,000	4,000	4,080
1955	4,893	6,997	11,495	10,828	11,400	7,702	12,724	12,248	6,972	5,000	5,606	3,000
1956	4,377	6,008	88,762	164,109	82,223	34,753	19,866	42,441	14,168	8,000	4,000	5,245
1957	5,232	4,500	5,681	7,733	26,200	38,406	18,849	15,742	8,974	8,151	4,037	3,382
1958	5,859	6,245	12,505	30,896	176,667	92,722	97,808	51,459	26,481	8,000	4,000	6,811
1959	5,672	4,500	6,293	27,615	49,525	20,909	8,887	9,583	6,754	8,386	4,000	3,609
1960	4,316	6,368	4,500	7,495	21,828	14,958	11,400	11,297	5,580	5,311	6,456	3,000

Appendix C-3 CALSIM II Modeling

Year	Alt Future Alt 1 & 2 Delta Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	4,000	7,252	6,518	6,822	18,737	11,527	10,189	9,318	5,778	5,394	6,068	3,000
1962	4,000	6,952	5,855	6,000	42,013	19,292	11,840	12,940	6,772	7,346	4,000	3,455
1963	22,521	4,675	15,460	9,567	72,569	25,676	89,872	33,278	10,633	11,585	4,000	4,148
1964	4,660	13,926	4,989	14,969	11,194	7,926	13,753	8,846	6,114	5,000	5,111	3,000
1965	4,279	7,723	6,9013	115,118	28,329	18,676	45,097	22,985	9,235	9,807	4,000	3,738
1966	4,000	10,146	8,880	24,617	20,804	19,189	12,077	12,536	5,826	7,166	4,000	3,298
1967	5,183	6,803	28,601	44,287	50,630	54,117	52,741	53,012	39,840	8,000	4,000	8,865
1968	9,893	4,500	8,456	26,473	58,034	31,834	13,739	9,279	6,315	6,988	4,000	3,015
1969	5,854	5,384	13,916	116,738	132,312	59,381	56,956	62,751	34,732	8,000	4,000	5,081
1970	9,255	5,524	55,069	210,950	84,481	35,260	15,351	14,169	5,623	12,365	4,000	4,496
1971	4,000	8,230	53,047	42,341	26,041	37,571	20,656	27,091	10,526	11,569	4,000	4,528
1972	4,429	5,485	7,465	7,990	15,895	23,222	10,532	8,836	11,463	6,500	4,534	3,000
1973	4,985	10,884	12,174	78,574	90,623	55,456	17,125	17,767	9,873	8,000	4,000	3,272
1974	4,286	48,937	60,853	125,494	35,210	104,071	70,434	24,335	11,713	8,308	4,217	7,690
1975	4,604	4,500	8,057	7,077	62,297	85,933	24,323	29,543	15,490	8,000	4,000	6,914
1976	7,155	4,581	5,175	7,504	8,371	9,490	7,506	4,168	4,794	7,451	3,000	3,000
1977	4,439	4,440	4,906	5,353	6,893	6,120	7,100	4,381	4,992	6,507	3,232	3,000
1978	3,795	5,422	7,085	62,820	55,227	67,638	42,365	22,924	14,516	8,000	4,715	4,015
1979	4,000	5,612	5,891	17,224	40,117	31,069	16,986	16,391	10,308	6,500	4,171	3,000
1980	4,752	7,039	10,251	97,213	130,951	56,176	20,094	20,051	8,758	8,000	5,263	4,221
1981	4,000	5,019	7,325	12,758	18,737	22,415	14,563	9,097	5,503	5,000	6,077	3,388
1982	4,233	20,830	81,429	75,035	97,289	84,656	134,922	48,177	18,946	8,000	5,788	5,823
1983	15,139	36,465	84,806	107,654	178,470	251,683	87,167	74,985	82,388	25,397	8,294	23,880
1984	24,794	80,261	156,025	67,451	38,109	31,009	16,995	13,317	8,266	10,709	4,000	3,185
1985	4,651	21,309	11,548	7,068	10,836	12,420	10,583	11,609	5,406	5,000	4,901	3,955
1986	4,581	5,899	7,227	14,607	204,691	146,045	24,756	15,167	9,469	8,000	5,475	3,588
1987	4,000	5,404	5,195	8,184	12,470	19,705	11,191	7,476	6,261	5,000	3,648	3,000
1988	5,545	4,500	8,741	19,913	11,187	7,886	7,488	6,576	6,812	4,000	5,169	3,000
1989	3,508	6,181	4,817	8,237	7,824	37,367	16,758	10,512	6,600	5,000	3,568	3,869
1990	5,535	4,768	5,481	9,626	11,400	7,900	9,867	6,527	4,000	4,881	4,570	3,000
1991	3,108	6,185	4,155	5,250	6,938	22,991	11,192	6,854	4,000	4,712	4,785	3,000
1992	3,089	5,813	5,647	5,345	24,694	14,140	10,366	5,774	6,732	4,000	4,496	3,000
1993	3,521	5,463	6,489	62,848	54,602	41,741	36,572	32,733	17,251	8,000	4,000	3,280
1994	4,000	6,454	5,652	7,572	15,291	11,011	8,887	8,059	4,000	6,228	4,016	3,499
Mean	5,335	9,244	20,467	35,891	47,398	38,672	27,490	20,679	11,680	7,233	4,574	4,018
Max	24,794	80,261	156,025	210,950	204,691	251,683	134,922	74,985	82,388	25,397	8,294	23,880
Min	3,089	4,440	4,155	5,250	6,893	6,120	5,897	4,104	4,000	4,000	3,000	3,000

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Year	Base Future Base Delta Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	4,000	4,500	9,417	9,213	38,346	27,149	24,116	51,315	32,191	8,000	5,000	3,874
1923	4,254	6,865	28,659	27,550	15,021	11,524	25,834	16,094	8,210	6,500	4,243	3,830
1924	4,000	6,392	4,500	7,445	9,554	10,106	5,897	4,104	5,403	6,287	3,707	3,000
1925	3,579	5,311	7,338	6,994	64,156	27,190	21,126	16,118	8,286	5,000	5,398	3,000
1926	4,000	5,470	5,363	9,926	35,346	9,805	22,030	10,663	5,112	5,024	6,226	3,000
1927	4,000	13,287	7,457	26,455	127,137	39,761	46,029	27,032	9,948	10,399	4,000	3,765
1928	4,057	8,522	6,572	13,880	18,720	93,759	26,486	16,412	6,982	8,000	4,000	3,000
1929	4,620	6,252	6,098	6,850	9,872	9,544	6,941	6,570	6,034	4,000	4,942	3,000
1930	3,611	5,356	8,797	12,546	13,838	23,877	11,102	10,342	5,486	5,158	5,878	3,000
1931	4,000	5,548	5,269	7,387	7,666	6,160	6,820	4,304	5,297	6,075	3,388	3,000
1932	3,849	5,236	14,134	14,042	17,123	11,400	11,197	11,817	10,194	5,000	5,515	3,000
1933	4,000	5,423	4,974	13,118	7,843	9,821	10,037	5,715	6,043	4,000	5,173	3,000
1934	3,191	6,126	6,647	10,797	14,021	11,400	9,995	5,616	6,897	4,000	4,874	3,000
1935	3,441	6,777	4,734	24,512	11,400	24,996	51,976	26,346	10,752	6,500	4,000	3,604
1936	4,782	5,174	5,332	31,781	74,350	27,129	23,996	18,396	9,183	6,500	5,702	3,000
1937	4,000	5,946	5,163	7,785	41,717	47,200	26,552	19,893	9,472	6,500	4,603	3,000
1938	4,000	14,246	55,088	30,927	146,346	166,218	74,125	69,267	41,357	8,000	4,000	3,881
1939	9,059	4,500	5,690	8,074	9,638	11,103	10,021	9,620	5,079	5,313	3,500	3,000
1940	5,918	4,500	4,500	29,764	59,243	103,135	67,562	18,586	7,315	8,000	4,691	3,221
1941	4,000	8,073	34,727	96,038	121,144	87,350	73,515	41,358	15,052	8,000	5,026	4,154
1942	4,705	5,516	54,550	79,698	139,417	21,555	50,477	39,078	17,594	8,322	4,000	4,510
1943	5,151	5,332	21,522	84,373	56,362	85,252	29,535	23,440	8,936	8,765	4,000	3,416
1944	4,000	6,102	4,839	8,177	19,302	15,858	10,767	11,433	7,388	5,000	5,689	3,000
1945	4,340	7,332	7,253	6,844	43,925	21,906	14,090	15,107	9,106	6,500	5,283	3,000
1946	4,000	8,033	60,859	42,022	25,089	15,074	13,140	15,023	8,700	6,500	4,000	3,000
1947	4,914	7,382	6,547	6,929	12,553	14,860	11,196	8,744	6,121	5,000	4,990	3,000
1948	4,750	5,438	4,500	8,116	11,209	10,995	26,109	28,830	11,439	6,500	4,065	3,452
1949	5,965	5,182	6,308	7,115	9,067	35,936	11,938	11,536	7,550	5,000	4,505	3,000
1950	4,522	5,774	4,618	12,075	27,058	15,033	17,720	16,841	9,441	6,500	6,297	3,199
1951	4,000	40,098	94,216	72,301	71,847	26,216	15,680	21,092	6,089	8,997	4,000	3,353
1952	4,351	7,680	34,333	84,332	72,918	62,553	65,754	68,269	38,415	8,000	4,000	6,972
1953	8,037	7,561	43,144	101,712	22,382	16,475	15,665	24,367	13,648	10,474	4,000	4,844
1954	4,278	7,061	5,366	23,831	53,199	41,677	39,027	21,696	6,134	8,000	4,000	4,080
1955	4,893	6,097	11,473	10,825	11,400	7,702	12,724	12,248	6,972	5,000	5,606	3,000
1956	4,377	6,008	88,762	164,109	82,035	34,646	19,866	42,441	14,168	8,000	4,000	5,245
1957	5,232	4,500	5,681	7,791	25,997	38,247	18,849	15,742	8,974	8,151	4,037	3,382
1958	5,859	6,245	12,505	30,896	176,457	92,657	97,807	51,459	26,481	8,000	4,000	6,940
1959	5,700	6,240	6,247	27,609	49,367	20,909	8,887	9,583	6,754	8,386	4,000	3,609
1960	4,316	6,368	4,500	7,532	21,789	14,958	11,400	11,297	5,580	5,311	6,456	3,000

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Year	Base Future Base Delta Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	4,000	7,252	6,447	6,936	18,813	11,527	10,189	9,318	5,778	5,394	6,068	3,000
1962	4,000	6,952	5,655	6,000	41,879	19,292	11,760	12,932	6,772	7,346	4,000	3,455
1963	22,363	4,675	15,356	9,549	72,484	25,676	89,872	33,278	10,633	11,585	4,000	4,148
1964	4,660	13,960	4,973	14,763	11,194	7,926	13,753	8,846	6,114	5,000	5,111	3,000
1965	4,279	7,723	69,013	115,118	28,323	18,676	45,095	22,985	9,235	9,807	4,000	3,738
1966	4,000	10,336	8,670	24,413	20,804	19,189	12,077	12,536	5,826	7,166	4,000	3,298
1967	5,183	6,803	28,601	44,287	50,434	54,064	52,741	53,012	39,840	8,000	4,000	8,899
1968	9,861	4,500	8,456	26,473	58,034	31,834	13,739	9,279	6,315	6,988	4,000	3,015
1969	5,854	5,384	13,916	116,738	132,195	59,338	56,956	62,751	34,732	8,000	4,000	5,081
1970	9,313	5,464	55,069	210,950	84,481	35,260	15,351	14,169	5,623	12,365	4,000	4,496
1971	4,000	8,294	52,987	42,336	26,041	37,515	20,656	27,091	10,526	11,569	4,000	4,528
1972	4,429	5,485	7,545	8,057	15,895	23,066	10,532	8,829	11,463	6,500	4,534	3,000
1973	4,985	10,825	12,174	78,431	90,560	55,456	17,125	17,767	9,873	8,000	4,000	3,272
1974	4,286	48,996	60,813	125,288	35,158	104,071	70,434	24,335	11,713	8,308	4,217	7,846
1975	4,604	4,500	8,016	7,122	62,091	85,832	24,323	29,543	15,490	8,000	4,000	7,089
1976	7,234	4,581	5,173	7,559	8,371	9,490	7,506	4,172	4,794	7,451	3,000	3,000
1977	4,439	4,440	4,906	5,269	6,893	6,120	7,100	4,381	4,992	6,507	3,232	3,000
1978	3,795	5,422	7,085	62,820	55,159	67,488	42,304	23,124	14,516	8,000	4,715	4,015
1979	4,000	5,612	5,891	17,260	39,990	30,908	16,986	16,391	10,308	6,500	4,171	3,000
1980	4,752	7,039	10,250	97,192	130,708	56,138	20,094	20,051	8,758	8,000	5,263	4,221
1981	4,000	5,019	7,327	12,798	18,737	22,415	14,563	9,097	5,503	5,000	6,077	3,388
1982	4,233	20,876	81,429	74,868	97,082	84,488	134,922	48,177	18,905	8,000	5,788	5,823
1983	15,139	36,465	84,806	107,654	178,470	251,683	87,167	74,985	82,388	25,397	8,294	23,880
1984	24,794	80,261	156,025	67,451	38,109	31,009	16,995	13,317	8,266	10,709	4,000	3,185
1985	4,651	21,351	11,548	6,872	10,836	12,420	10,583	11,609	5,406	5,000	4,901	3,955
1986	4,581	5,899	7,351	14,667	204,937	145,849	24,414	15,110	9,438	8,000	5,475	3,588
1987	4,000	5,404	5,313	8,243	12,470	19,584	11,191	7,476	6,261	5,000	3,648	3,000
1988	5,545	4,500	8,767	19,913	11,187	7,886	7,488	6,576	6,812	4,000	5,169	3,000
1989	3,508	6,181	4,819	8,234	7,824	37,367	16,758	10,512	6,600	5,000	3,568	3,869
1990	5,535	4,768	5,481	9,547	11,400	7,900	9,867	6,524	4,000	4,881	4,570	3,000
1991	3,108	6,185	4,155	5,250	6,938	22,991	11,192	6,854	4,000	4,712	4,785	3,000
1992	3,089	5,813	5,647	5,345	24,694	14,140	10,366	5,774	6,732	4,000	4,496	3,000
1993	3,521	5,463	6,489	62,848	54,602	41,741	36,591	32,733	17,251	8,000	4,000	3,280
1994	4,000	6,454	5,587	7,637	15,291	11,011	8,887	8,059	4,000	6,228	4,016	3,499
Mean	5,335	9,303	20,458	35,880	47,344	38,637	27,474	20,679	11,679	7,233	4,574	4,026
Max	24,794	80,261	156,025	210,950	204,937	251,683	134,922	74,985	82,388	25,397	8,294	23,880
Min	3,089	4,440	4,155	5,250	6,893	6,120	5,897	4,104	4,000	4,000	3,000	3,000

Appendix C-3 CALSIM II Modeling

Year	Future Alt 1 & 2 minus Future Base Delta Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	0
1923	0	0	114	5	0	0	0	0	0	0	0	0
1924	0	0	0	13	0	0	0	0	0	0	0	0
1925	0	0	-56	0	164	0	-69	0	0	0	0	0
1926	0	0	-19	10	24	0	0	0	0	0	0	0
1927	0	-95	0	0	0	-140	0	0	0	0	0	0
1928	0	0	33	1	200	97	0	0	0	0	0	0
1929	0	0	-164	-46	0	0	0	0	0	0	0	0
1930	0	0	6	-9	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	-127	-23	148	0	0	0	0	0	0	0
1934	0	0	0	0	-1	0	0	0	0	0	0	0
1935	0	0	0	0	0	200	0	0	0	0	0	0
1936	0	0	0	0	0	76	0	0	0	0	0	0
1937	0	0	0	-57	206	183	0	0	0	0	0	0
1938	0	-83	68	203	3	0	0	0	0	0	0	0
1939	-109	0	0	-55	0	0	0	0	0	0	0	0
1940	0	0	0	-11	0	102	220	0	0	0	0	0
1941	0	0	0	0	207	29	0	0	0	0	0	0
1942	0	0	105	38	100	0	0	0	0	0	0	0
1943	0	0	79	28	203	93	0	0	0	0	0	0
1944	0	0	0	-47	-56	0	0	0	0	0	0	0
1945	0	0	5	-7	156	144	0	0	0	0	0	0
1946	0	0	2	1	0	0	0	0	0	0	0	0
1947	0	0	0	-71	0	0	0	0	0	0	0	0
1948	0	0	0	-75	0	0	301	83	0	0	0	0
1949	0	0	-164	-38	0	24	0	0	0	0	0	0
1950	0	0	17	13	200	0	269	0	0	0	0	0
1951	0	-109	213	181	0	0	0	0	0	0	0	0
1952	0	0	0	0	180	79	0	0	0	0	0	-72
1953	69	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	3	2	200	115	0	0	0	0	0	0
1955	0	0	22	3	0	0	0	0	0	0	0	0
1956	0	0	0	0	187	106	0	0	0	0	0	0
1957	0	0	0	-59	203	159	0	0	0	0	0	0
1958	0	0	0	0	210	65	0	0	0	0	0	-129
1959	-28	0	45	6	158	0	0	0	0	0	0	0
1960	0	0	0	-38	40	0	0	0	0	0	0	0

Appendix C-3 CALSIM II Modeling

Year	Difference Future Alt 1 & 2 minus Future Base Delta Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	0	0	72	-114	-76	0	0	0	0	0	0	0
1962	0	0	200	0	134	0	80	7	0	0	0	0
1963	158	0	104	18	85	0	0	0	0	0	0	0
1964	0	-34	16	207	0	0	0	0	0	0	0	0
1965	0	0	0	0	5	0	2	0	0	0	0	0
1966	0	-190	210	204	0	0	0	0	0	0	0	0
1967	0	0	0	0	195	53	0	0	0	0	0	-33
1968	32	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	118	43	0	0	0	0	0	0
1970	-58	59	0	0	0	0	0	0	0	0	0	0
1971	0	-64	60	5	0	56	0	0	0	0	0	0
1972	0	0	-79	-67	0	155	0	7	0	0	0	0
1973	0	59	0	143	63	0	0	0	0	0	0	0
1974	0	-59	39	206	52	0	0	0	0	0	0	-157
1975	0	0	41	-45	206	101	0	0	0	0	0	-174
1976	-79	0	3	-55	0	0	0	0	-5	0	0	0
1977	0	0	0	83	0	0	0	0	0	0	0	0
1978	0	0	-1	0	68	151	61	-200	0	0	0	0
1979	0	0	0	-36	127	161	0	0	0	0	0	0
1980	0	0	1	21	243	38	0	0	0	0	0	0
1981	0	0	-2	-40	0	0	0	0	0	0	0	0
1982	0	-46	0	167	207	168	0	0	40	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	-42	0	196	0	0	0	0	0	0	0	0
1986	0	0	-125	-61	-245	196	342	57	31	0	0	0
1987	0	0	-118	-60	0	121	0	0	0	0	0	0
1988	0	0	-26	0	0	0	0	0	0	0	0	0
1989	0	0	-3	3	0	0	0	0	0	0	0	0
1990	0	0	0	79	0	0	0	0	4	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	-19	0	0	0	0	0
1994	0	0	65	-65	0	0	0	0	0	0	0	0
Mean	0	-8	9	10	54	35	16	-1	1	0	0	-8
Max	158	59	213	207	243	200	342	83	40	0	0	0
Min	-109	-190	-164	-114	-245	-140	-69	-200	0	0	0	-174

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Appendix C-3 CALSIM II Modeling

Year	Alt Future Alt 1 & 2 SWP (Banks) Delta Export (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	5,335	3,771	7,798	8,050	8,500	8,500	3,393	1,500	8,500	8,266	1,502	6,099
1923	5,862	6,239	8,093	8,093	4,203	3,459	3,008	2,319	3,498	8,498	8,357	5,474
1924	6,559	2,690	5,079	3,574	4,053	300	300	430	300	361	3,545	1,136
1925	2,172	2,316	4,910	4,083	5,586	300	2,813	1,125	3,064	3,066	407	2,755
1926	2,360	1,163	2,357	6,332	8,500	1,143	2,619	800	1,938	7,205	4,365	2,504
1927	2,136	8,500	8,093	7,465	5,204	6,673	3,857	1,500	4,680	4,357	7,039	5,648
1928	6,680	7,323	6,983	8,093	6,215	8,500	3,155	2,491	3,134	3,529	4,639	4,763
1929	3,178	3,484	4,228	4,245	4,127	2,417	1,314	300	1,178	3,226	415	1,087
1930	1,351	1,139	6,290	8,093	3,939	6,964	1,688	800	1,059	7,472	6,128	3,808
1931	2,156	861	800	4,095	1,988	990	300	599	768	1,876	4,648	1,646
1932	1,267	1,278	8,093	8,093	4,934	4,011	1,733	1,125	2,890	6,252	300	2,567
1933	2,216	1,499	4,873	3,821	4,222	3,918	1,344	800	300	3,250	433	1,156
1934	2,367	786	5,504	7,390	4,064	940	300	300	300	3,040	303	1,714
1935	2,190	2,836	3,283	8,093	4,141	5,399	3,857	324	3,259	7,709	6,808	6,766
1936	5,615	2,896	5,894	8,093	8,500	7,050	2,904	800	4,763	7,877	7,035	4,301
1937	2,894	2,011	5,343	5,863	8,500	8,500	4,025	2,776	3,589	3,795	5,241	3,766
1938	3,205	8,500	8,093	8,093	6,909	6,709	5,428	5,409	8,500	8,000	5,536	6,451
1939	8,500	4,260	7,358	6,542	4,263	4,355	1,910	300	2,129	6,905	7,444	5,293
1940	3,698	2,398	4,552	8,093	8,065	8,500	3,857	1,500	2,790	8,461	8,215	4,683
1941	6,499	2,451	8,093	8,093	8,050	8,500	4,388	4,636	4,793	8,000	5,990	6,904
1942	6,422	4,492	8,093	6,148	6,213	6,766	3,857	1,500	8,500	3,211	7,482	7,308
1943	7,585	7,182	8,030	6,470	6,224	6,916	3,391	800	2,656	4,068	8,109	5,648
1944	3,962	2,454	5,379	4,926	8,500	4,583	2,131	1,500	4,127	8,198	7,119	4,844
1945	4,393	6,281	8,073	4,157	8,500	7,943	2,039	2,225	4,563	7,752	6,099	4,634
1946	4,794	5,783	8,093	8,093	2,900	6,091	2,427	1,500	4,175	8,500	8,283	4,792
1947	6,377	3,750	7,619	2,602	5,698	4,140	1,773	300	2,763	7,768	4,431	3,606
1948	3,039	3,097	2,782	4,554	300	3,114	3,062	800	5,350	8,349	7,216	5,396
1949	6,519	3,342	5,048	2,911	3,751	8,500	1,825	1,526	2,619	4,960	3,374	3,766
1950	1,428	2,230	2,299	8,093	8,500	4,276	2,398	800	5,060	8,015	7,028	4,427
1951	5,374	8,500	8,093	7,545	6,261	6,939	2,146	800	2,747	5,456	8,500	5,618
1952	6,031	5,093	8,093	8,093	8,065	8,500	4,401	3,493	7,576	7,647	7,167	8,500
1953	8,500	2,419	3,524	5,596	5,014	6,679	2,359	1,125	6,505	5,244	6,498	7,932
1954	6,019	6,939	3,105	8,093	8,050	8,500	3,657	3,137	2,851	7,770	6,613	6,581
1955	6,144	5,102	8,093	8,093	2,654	2,403	1,520	800	2,891	4,263	343	3,627
1956	1,967	3,019	8,093	8,093	6,793	7,162	2,520	800	7,464	2,917	7,312	8,244
1957	7,818	4,010	3,332	5,174	8,050	8,500	2,685	2,512	4,320	5,558	7,561	5,106
1958	8,107	4,565	8,093	8,093	6,924	7,926	5,054	3,298	8,494	8,000	7,382	8,500
1959	8,500	4,197	4,136	7,016	6,772	1,515	1,793	1,125	2,575	6,405	8,071	5,381
1960	4,517	1,811	5,123	3,730	8,500	4,286	300	800	1,320	7,853	1,373	2,577

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Appendix C-3 CALSIM II Modeling

Year	Alt Future Alt 1 & 2 SWP (Banks) Delta Export (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	2,017	3,099	6,434	3,955	4,682	1,637	300	2,768	7,038	2,250	3,681	
1962	3,564	3,213	6,274	2,014	8,500	6,237	2,059	864	2,559	7,657	8,452	5,790
1963	8,500	6,548	8,093	8,060	7,464	6,777	3,457	800	4,562	3,395	7,551	6,359
1964	6,116	8,500	5,048	8,093	2,300	2,181	1,951	1,641	3,671	8,500	7,474	4,160
1965	2,826	5,514	8,093	8,093	8,050	4,687	3,857	2,015	4,274	2,759	8,063	5,617
1966	3,389	8,500	8,093	8,093	6,575	6,354	2,104	1,125	2,384	6,386	7,253	5,381
1967	4,916	5,896	8,093	8,093	8,050	4,776	3,645	8,500	8,000	7,494	8,500	
1968	8,500	5,805	6,298	5,665	6,677	6,601	2,234	1,125	2,505	3,913	7,149	5,393
1969	4,761	4,450	8,093	8,093	8,050	6,682	4,238	4,292	6,091	7,334	2,390	8,500
1970	8,500	4,923	4,323	5,519	6,225	6,896	2,153	800	2,154	4,180	8,500	7,465
1971	5,633	8,500	8,093	8,093	300	8,500	2,867	1,125	5,079	7,596	7,397	7,395
1972	6,366	4,745	7,745	6,988	5,092	8,500	1,685	1,675	3,475	6,530	5,557	4,125
1973	4,412	8,500	8,093	6,174	6,213	6,936	2,803	1,500	3,836	7,241	6,496	5,108
1974	5,490	8,500	8,093	8,093	8,050	8,500	3,457	3,161	6,289	6,690	8,000	8,500
1975	6,666	4,469	6,256	6,757	7,065	7,409	3,396	1,500	7,851	7,470	8,000	8,500
1976	8,500	6,116	5,252	2,881	3,659	3,428	1,385	800	1,881	2,838	7,271	5,827
1977	2,560	3,229	2,867	2,030	2,282	690	300	388	300	455	3,871	1,769
1978	1,036	1,118	5,989	6,934	3,461	5,366	4,929	3,315	4,208	8,500	2,942	6,154
1979	4,871	2,407	5,945	8,093	8,500	7,373	2,746	1,500	3,173	7,037	5,212	5,010
1980	4,465	4,559	8,093	8,093	8,065	5,684	2,563	800	4,037	8,500	2,063	6,589
1981	5,143	1,777	4,475	8,093	5,832	7,495	2,305	1,898	2,847	7,910	5,508	5,812
1982	4,177	8,500	8,093	8,093	8,050	8,500	6,362	5,371	7,598	8,000	5,210	8,500
1983	8,500	7,579	5,733	3,075	3,097	4,530	3,320	2,573	3,876	8,500	8,500	4,192
1984	3,617	3,142	3,315	5,234	6,096	7,205	2,777	1,500	2,870	4,162	8,500	5,307
1985	6,412	8,500	8,093	5,836	4,592	2,013	1,690	800	2,183	8,500	8,000	6,710
1986	5,810	4,604	7,978	8,093	7,181	8,149	4,282	2,284	3,232	7,624	2,229	5,100
1987	3,882	1,007	3,229	6,815	7,213	5,448	1,777	369	1,607	6,530	6,541	4,054
1988	2,799	2,072	6,019	8,093	1,175	496	1,360	300	300	4,314	301	892
1989	1,337	2,423	2,817	2,927	1,010	8,500	2,319	800	1,990	7,502	5,689	6,187
1990	4,505	2,527	5,460	7,790	2,973	2,444	300	800	300	636	4,581	1,898
1991	1,557	300	1,015	838	1,049	7,572	1,739	800	300	571	3,351	1,114
1992	1,839	586	1,011	2,943	8,500	4,037	1,648	300	831	3,339	1,344	3,197
1993	1,530	1,485	5,307	8,093	7,664	6,238	3,657	1,125	7,827	8,112	5,690	5,136
1994	5,380	1,072	4,858	4,177	7,208	2,887	1,512	800	3,847	6,999	8,000	5,545
Mean	4,703	4,176	5,942	6,321	5,834	5,608	2,619	1,517	3,660	5,997	5,550	5,048
Max	8,500	8,500	8,093	8,093	8,500	8,500	6,362	5,409	8,500	8,500	8,500	8,500
Min	1,036	300	800	838	300	300	300	300	300	300	361	300
892												

Appendix C-3 CALSIM II Modeling

Year	Base Future Base SWP (Banks) Delta Export (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	5,335	6,271	7,798	8,093	8,050	8,500	3,393	1,500	8,500	8,266	1,502	6,099
1923	5,862	3,729	8,093	8,093	4,203	3,459	3,008	2,319	3,498	8,498	8,357	5,474
1924	6,559	2,690	5,079	3,574	4,053	300	300	430	300	361	3,545	1,136
1925	2,172	2,316	4,910	4,083	5,586	300	2,813	1,125	3,064	3,066	407	2,755
1926	2,360	1,163	2,357	6,332	8,500	1,143	2,619	800	1,938	7,205	4,365	2,504
1927	2,136	8,500	8,093	7,465	5,204	6,673	3,857	1,500	4,680	4,357	7,039	5,648
1928	6,680	7,323	6,983	8,093	6,215	8,500	3,155	2,491	3,134	3,529	4,639	4,763
1929	3,178	3,484	4,228	4,245	4,127	2,417	1,314	300	1,178	3,226	415	1,087
1930	1,351	1,139	6,290	8,093	9,939	6,964	1,688	800	1,059	7,472	6,128	3,808
1931	2,156	861	800	4,095	1,988	990	300	599	768	1,876	4,648	1,646
1932	1,267	1,278	8,093	8,093	4,934	4,011	1,733	1,125	2,890	6,252	300	2,567
1933	2,216	1,499	4,873	3,821	4,222	3,918	1,344	800	300	3,250	433	1,156
1934	2,367	786	5,504	7,390	4,064	940	300	300	300	3,040	303	1,714
1935	2,190	2,836	3,283	8,093	4,141	5,399	3,857	324	3,259	7,709	6,808	6,766
1936	5,615	2,896	5,894	8,093	8,500	7,050	2,904	800	4,763	7,877	7,035	4,301
1937	2,894	2,011	5,343	5,863	8,500	8,500	4,025	2,776	3,589	3,795	5,241	3,766
1938	3,205	8,500	8,093	8,093	6,909	6,709	5,428	5,409	8,500	8,000	5,536	6,451
1939	8,500	4,260	7,358	6,542	4,263	4,355	1,910	300	2,129	6,905	7,444	5,293
1940	3,698	2,398	4,552	8,093	8,065	8,500	3,857	1,500	2,790	8,461	8,215	4,683
1941	6,499	2,451	8,093	8,093	8,050	4,388	4,636	4,793	8,000	5,990	6,904	
1942	6,422	4,492	8,093	6,148	6,213	6,766	3,857	1,500	8,500	3,211	7,482	7,308
1943	7,585	7,182	8,030	6,470	6,224	6,916	3,391	800	2,656	4,068	8,109	5,648
1944	3,962	2,454	5,379	4,926	8,500	4,583	2,131	1,500	4,127	8,198	7,119	4,844
1945	4,393	6,281	8,073	4,157	8,500	7,943	2,039	2,225	4,563	7,752	6,099	4,634
1946	4,794	5,783	8,093	8,093	2,900	6,091	2,427	1,500	4,175	8,500	8,283	4,792
1947	6,377	3,750	7,619	2,602	5,698	4,140	1,773	300	2,763	7,768	4,431	3,606
1948	3,039	3,097	2,782	4,554	300	3,114	3,062	800	5,350	8,349	7,216	5,396
1949	6,519	3,342	5,048	2,911	3,751	8,500	1,825	1,526	2,619	4,960	3,374	3,766
1950	1,428	2,230	2,299	8,093	8,500	4,276	2,398	800	5,060	8,015	7,028	4,427
1951	5,374	8,500	8,093	7,545	6,261	6,939	2,146	800	2,747	5,456	8,500	5,618
1952	6,031	5,093	8,093	8,093	8,065	8,500	4,401	3,493	7,576	7,647	7,167	8,500
1953	8,500	2,419	3,524	5,596	5,014	6,679	2,359	1,125	6,505	5,244	6,498	7,932
1954	6,019	6,939	3,105	8,093	8,050	8,500	3,657	3,137	2,851	7,770	6,613	6,581
1955	6,144	5,102	8,093	8,093	2,654	2,403	1,520	800	2,891	4,263	343	3,627
1956	1,967	3,019	8,093	8,093	6,793	7,162	2,520	800	7,464	2,917	7,312	8,244
1957	7,818	4,010	3,332	5,174	8,050	8,500	2,685	2,512	4,320	5,558	7,561	5,106
1958	8,107	4,565	8,093	6,924	7,926	5,054	3,298	8,494	8,000	7,382	5,800	8,500
1959	8,500	4,197	4,136	7,016	6,722	1,515	1,793	1,125	2,575	6,405	8,071	5,381
1960	4,517	1,811	5,123	3,730	8,500	4,286	300	800	1,320	7,853	1,373	2,577

Appendix C-3 CALSIM II Modeling

Year	Base Future Base SWP (Banks) Delta Export (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	2,017	3,099	6,434	3,955	4,682	4,682	1,637	300	2,768	7,038	2,250	3,681
1962	3,564	3,213	6,274	2,014	8,500	6,237	2,059	864	2,559	7,657	8,452	5,790
1963	8,500	6,548	8,093	8,060	7,464	6,777	3,457	800	4,562	3,395	7,551	6,359
1964	6,116	8,500	5,048	8,093	2,300	2,181	1,951	1,641	3,671	8,500	7,474	4,160
1965	2,826	5,514	8,093	8,093	8,050	4,687	3,857	2,015	4,274	2,759	8,063	5,617
1966	3,389	8,500	8,093	8,093	6,575	6,354	2,104	1,125	2,384	6,386	7,253	5,381
1967	4,916	5,896	8,093	8,093	8,050	8,500	4,776	3,645	8,500	8,000	7,494	8,500
1968	8,500	5,805	6,298	5,665	6,677	6,601	2,234	1,125	2,505	3,913	7,149	5,393
1969	4,761	4,450	8,093	8,093	8,050	6,682	4,238	4,292	6,091	7,334	2,390	8,500
1970	8,500	4,923	4,323	5,519	6,225	6,896	2,153	800	2,154	4,180	8,500	7,465
1971	5,633	8,500	8,093	8,093	300	8,500	2,867	1,125	5,079	7,596	7,397	7,395
1972	6,366	4,745	7,745	6,988	5,092	8,500	1,685	1,675	3,475	6,530	5,557	4,125
1973	4,412	8,500	8,093	6,174	6,213	6,936	2,803	1,500	3,836	7,241	6,496	5,108
1974	5,490	8,500	8,093	8,093	8,050	8,500	3,457	3,161	6,289	6,690	8,000	8,500
1975	6,666	4,469	6,256	6,757	7,065	7,409	3,396	1,500	7,851	7,470	8,000	8,500
1976	8,500	6,116	5,252	2,881	3,659	3,428	1,385	800	1,881	2,838	7,271	5,827
1977	2,560	3,229	2,867	2,030	2,282	690	300	388	300	455	3,871	1,769
1978	1,036	1,118	5,989	6,934	3,461	5,366	4,929	3,315	4,208	8,500	2,942	6,154
1979	4,871	2,407	5,945	8,093	8,500	7,373	2,746	1,500	3,173	7,037	5,212	5,010
1980	4,465	4,559	8,093	8,093	8,065	5,684	2,563	800	4,037	8,500	2,063	6,589
1981	5,143	1,777	4,475	8,093	5,832	7,495	2,305	1,898	2,847	7,910	5,508	5,812
1982	4,177	8,500	8,093	8,093	8,050	8,500	6,362	5,371	7,598	8,000	5,210	8,500
1983	8,500	7,579	5,733	3,075	3,097	4,530	3,320	2,573	3,876	8,500	8,500	4,192
1984	3,617	3,142	3,315	5,234	6,096	7,205	2,777	1,500	2,870	4,162	8,500	5,307
1985	6,412	8,500	8,093	5,836	4,592	2,013	1,690	800	2,183	8,500	8,000	6,710
1986	5,810	4,604	7,978	8,093	7,181	8,149	4,282	2,284	3,232	7,624	2,229	5,100
1987	3,882	1,007	3,229	6,815	7,213	5,448	1,777	369	1,607	6,530	6,541	4,054
1988	2,799	2,072	6,019	8,093	1,175	496	1,360	300	300	4,314	301	892
1989	1,337	2,423	2,817	2,927	1,010	8,500	2,319	800	1,990	7,502	5,689	6,187
1990	4,505	2,527	5,460	7,790	2,973	2,444	300	800	300	636	4,581	1,898
1991	1,557	300	1,015	838	1,049	7,572	1,739	800	300	571	3,351	1,114
1992	1,839	586	1,011	2,943	8,500	4,037	1,648	300	831	3,339	1,344	3,197
1993	1,530	1,485	5,307	8,093	7,664	6,238	3,657	1,125	7,827	8,112	5,690	5,136
1994	5,380	1,072	4,858	4,177	7,208	2,887	1,512	800	3,847	6,999	8,000	5,545
Mean	4,703	4,176	5,942	6,321	5,834	5,608	2,619	1,517	3,660	5,997	5,550	5,048
Max	8,500	8,500	8,093	8,093	8,500	8,500	6,362	5,409	8,500	8,500	8,500	8,500
Min	1,036	300	800	838	300	300	300	300	300	300	361	300
892												

Appendix C-3 CALSIM II Modeling

Year	Alt Future Alt 1 & 2 CVP (Tracy) Delta Export (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	3,862	4,600	4,193	4,193	4,150	4,600	2,798	1,500	3,000	4,600	4,019	4,600
1923	4,143	4,600	4,193	4,193	4,203	3,459	2,547	800	3,000	4,153	3,782	4,402
1924	3,033	2,293	2,510	3,818	4,053	800	1,119	1,147	800	600	600	2,864
1925	2,908	1,494	4,176	4,193	3,941	800	2,747	1,125	2,049	3,561	1,293	4,528
1926	3,717	3,044	2,700	4,193	4,600	3,657	2,074	800	800	800	800	2,967
1927	3,600	4,600	4,193	1,624	4,82	2,744	2,947	1,500	3,000	4,600	4,600	4,600
1928	2,754	4,600	4,193	4,193	4,165	4,600	2,547	1,911	3,000	3,924	3,176	4,077
1929	3,306	4,522	4,193	3,975	4,210	1,176	1,314	800	830	800	800	2,821
1930	3,144	1,139	4,193	4,193	3,939	3,458	1,688	800	1,575	1,507	1,525	3,927
1931	3,436	2,551	2,274	3,811	3,540	1,213	800	800	800	600	600	2,261
1932	2,490	1,187	4,193	4,193	4,600	1,568	1,942	1,125	1,763	2,185	3,132	4,186
1933	3,722	2,166	682	597	877	1,247	600	800	800	800	600	2,903
1934	2,418	716	4,193	2,996	641	779	800	800	800	600	600	2,217
1935	2,080	2,890	3,520	4,193	2,162	1,593	1,774	800	2,650	1,892	4,462	3,516
1936	2,754	2,753	2,248	4,193	3,185	2,317	2,360	800	2,475	2,334	4,486	4,375
1937	3,780	2,689	3,692	4,193	3,254	1,753	1,342	1,969	2,948	2,127	2,845	4,600
1938	4,501	4,600	1,864	800	800	2,519	2,695	3,894	3,000	4,600	4,600	4,600
1939	4,600	4,377	2,852	1,819	3,892	1,946	1,910	1,125	1,740	2,278	1,518	3,672
1940	2,396	2,973	878	4,193	4,165	4,600	2,947	1,500	3,000	4,600	4,320	4,600
1941	3,546	4,336	4,193	4,193	4,150	4,600	3,478	2,595	2,906	4,600	4,600	4,600
1942	4,600	4,600	4,193	2,850	2,089	4,028	2,947	1,500	3,000	4,600	4,600	4,600
1943	4,600	4,600	4,193	4,600	4,175	2,979	2,547	800	2,475	4,600	4,566	4,600
1944	4,600	4,061	3,872	3,982	4,600	4,600	2,131	1,500	2,195	1,950	1,537	4,177
1945	3,461	4,600	4,193	4,193	4,600	2,784	2,039	800	3,000	4,575	4,533	4,600
1946	4,171	4,251	4,193	4,193	3,911	2,449	2,427	1,500	3,000	4,600	4,591	4,365
1947	3,467	4,600	4,193	4,193	4,600	4,140	1,773	800	2,406	2,112	1,501	4,355
1948	3,293	3,660	2,436	3,812	4,272	3,114	2,547	800	3,000	4,563	4,600	4,343
1949	4,254	3,592	4,193	3,819	3,751	4,600	1,825	1,911	3,000	4,561	3,623	4,057
1950	3,893	4,028	3,960	4,193	4,600	4,276	2,398	800	2,475	3,477	4,454	4,550
1951	3,592	4,600	2,366	800	992	3,242	2,146	800	3,000	4,600	4,600	4,124
1952	4,271	4,253	4,193	4,193	4,165	4,600	3,491	3,239	3,000	4,600	4,600	4,600
1953	4,600	4,265	2,714	1,821	2,543	2,739	2,359	1,125	3,000	4,600	4,572	4,600
1954	4,600	4,600	4,193	4,193	4,193	4,600	2,747	1,125	2,850	4,600	4,029	4,436
1955	3,667	4,600	4,193	4,193	4,600	2,307	1,781	800	3,000	3,698	1,537	3,597
1956	3,947	4,369	4,193	4,193	4,194	2,835	2,520	800	2,475	3,913	4,600	4,600
1957	4,600	4,600	3,561	4,193	4,150	4,600	2,685	2,093	3,000	4,600	3,977	4,482
1958	4,600	4,600	4,193	4,193	4,193	4,600	2,660	3,144	3,000	4,600	4,600	4,600
1959	4,600	4,197	4,193	4,600	4,138	2,696	1,793	1,125	3,000	4,555	4,458	3,026
1960	3,730	1,561	1,380	3,820	4,600	4,286	800	800	2,475	3,126	2,030	2,503

Appendix C-3 CALSIM II Modeling

Year	Alt Future Alt 1 & 2 CVP (Tracy) Delta Export (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	3,508	4,221	4,193	4,089	4,600	1,788	1,637	1,617	3,000	4,600	3,624	3,857
1962	2,210	2,619	4,142	4,193	4,600	4,600	2,059	1,125	3,000	4,600	4,505	4,051
1963	4,600	4,600	4,193	4,443	3,573	2,547	800	3,000	4,600	4,600	4,600	4,600
1964	4,600	4,600	4,193	4,193	3,384	2,724	1,293	800	1,728	3,467	3,128	3,805
1965	3,303	4,234	4,193	4,193	4,150	4,019	2,947	1,500	3,000	4,600	4,600	4,600
1966	4,600	4,600	4,193	4,193	4,600	4,593	2,104	1,125	3,000	4,600	4,572	4,013
1967	3,554	4,600	4,193	4,193	4,150	4,600	3,659	3,312	3,000	4,600	4,600	4,600
1968	4,600	4,600	3,700	1,819	3,630	2,682	2,234	1,125	3,000	4,600	4,304	3,657
1969	3,777	4,552	4,193	4,193	4,150	4,600	2,699	3,901	3,000	4,600	4,569	4,600
1970	4,600	4,509	2,312	1,514	1,802	3,207	2,153	800	2,475	2,685	4,600	4,600
1971	4,242	4,600	4,193	4,193	4,131	4,600	2,747	1,125	3,000	4,600	4,600	4,600
1972	4,600	4,600	4,193	4,193	4,600	4,600	1,685	800	3,000	4,600	4,284	4,165
1973	3,783	4,600	4,193	4,600	4,146	4,002	2,803	1,500	2,728	4,600	4,337	4,482
1974	4,367	4,600	4,193	4,193	4,150	4,600	2,547	800	2,475	4,600	4,600	4,600
1975	4,600	4,600	4,193	4,193	4,600	4,600	2,947	1,500	2,694	4,600	4,600	4,600
1976	4,600	4,600	4,193	4,042	3,659	2,617	1,385	800	1,305	1,101	1,265	2,433
1977	2,850	3,163	800	1,795	800	800	800	800	1,125	2,986	2,840	2,335
1978	3,050	1,297	4,193	4,600	3,640	1,811	2,591	3,153	3,000	4,600	4,515	4,600
1979	4,600	4,395	2,777	4,193	4,600	3,486	2,746	1,500	2,650	4,064	4,072	3,456
1980	4,600	4,580	4,193	4,193	4,165	3,481	2,502	800	3,000	4,600	4,578	4,600
1981	4,390	3,823	4,193	4,193	4,600	4,600	2,305	1,125	2,847	4,568	3,311	3,611
1982	4,600	4,600	4,193	4,193	4,150	4,600	3,237	3,538	3,000	4,600	4,600	4,600
1983	4,600	4,600	1,813	1,512	1,801	2,642	2,687	3,892	3,000	4,600	4,600	4,494
1984	2,160	1,503	1,039	1,513	2,435	3,948	2,777	1,500	3,000	4,600	4,600	4,472
1985	4,105	4,600	4,193	4,193	4,600	4,600	1,690	800	2,475	4,600	4,462	3,452
1986	3,656	2,282	4,193	4,193	4,585	4,600	1,839	2,284	2,833	2,746	4,513	4,600
1987	4,600	4,384	3,338	1,171	2,849	1,785	1,777	800	1,525	1,610	1,170	3,188
1988	2,879	4,024	4,193	4,193	3,795	800	1,360	800	800	800	800	2,820
1989	3,096	2,112	3,221	3,805	2,127	4,600	2,319	800	2,295	2,590	2,237	3,351
1990	3,378	3,873	2,180	4,193	4,600	2,444	800	800	800	800	800	2,347
1991	2,956	1,072	1,887	1,155	1,085	4,600	1,739	800	1,690	800	812	2,996
1992	2,946	1,102	1,250	3,393	4,600	3,650	1,648	800	800	800	600	1,290
1993	3,066	669	4,193	4,193	4,150	3,147	2,747	1,125	2,563	4,598	4,550	4,600
1994	4,600	4,493	4,193	3,822	4,600	3,800	1,512	800	823	4,600	4,600	3,603
Mean	3,787	3,686	3,513	3,623	3,667	3,284	2,172	1,381	2,410	3,489	3,422	3,948
Max	4,600	4,600	4,193	4,600	4,600	4,600	3,659	3,901	3,000	4,600	4,600	4,600
Min	2,080	669	682	597	482	779	600	800	800	600	600	1,290

Appendix C-3 CALSIM II Modeling

Year	Base Future Base CVP (Tracy) Delta Export (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	3,862	4,600	4,193	4,193	4,150	4,600	2,798	1,500	3,000	4,600	4,019	4,600
1923	4,143	4,600	4,193	4,193	4,203	3,459	2,547	800	3,000	4,153	3,782	4,402
1924	3,033	2,293	2,510	3,818	4,053	800	1,119	1,147	800	600	600	2,864
1925	2,908	1,494	4,176	4,193	3,941	800	2,747	1,125	2,049	3,561	1,293	4,528
1926	3,717	3,044	2,700	4,193	4,600	3,657	2,074	800	800	800	800	2,967
1927	3,600	4,600	4,193	1,624	4,82	2,744	2,947	1,500	3,000	4,600	4,600	4,600
1928	2,754	4,600	4,193	4,193	4,165	4,600	2,547	1,911	3,000	3,924	3,176	4,077
1929	3,306	4,522	4,193	3,975	4,210	1,176	1,314	800	830	800	800	2,821
1930	3,144	1,139	4,193	4,193	3,939	3,458	1,688	800	1,575	1,507	1,525	3,927
1931	3,436	2,551	2,274	3,811	3,540	1,213	800	800	800	600	600	2,261
1932	2,490	1,187	4,193	4,193	4,600	1,568	1,942	1,125	1,763	2,185	3,132	4,186
1933	3,722	2,166	682	597	877	1,247	600	800	800	800	600	2,903
1934	2,418	716	4,193	2,996	641	779	800	800	800	600	600	2,217
1935	2,080	2,890	3,520	4,193	2,162	1,593	1,774	800	2,650	1,892	4,462	3,516
1936	2,754	2,753	2,248	4,193	3,185	2,317	2,360	800	2,475	2,334	4,486	4,375
1937	3,780	2,689	3,692	4,193	3,254	1,753	1,342	1,969	2,948	2,127	2,845	4,600
1938	4,501	4,600	1,864	800	800	2,519	2,695	3,894	3,000	4,600	4,600	4,600
1939	4,600	4,377	2,852	1,819	3,892	1,946	1,910	1,125	1,740	2,278	1,518	3,672
1940	2,396	2,973	878	4,193	4,165	4,600	2,947	1,500	3,000	4,600	4,320	4,600
1941	3,546	4,336	4,193	4,193	4,150	4,600	3,478	2,595	2,906	4,600	4,600	4,600
1942	4,600	4,600	4,193	2,850	2,089	4,028	2,947	1,500	3,000	4,600	4,600	4,600
1943	4,600	4,600	4,193	4,600	4,175	2,979	2,547	800	2,475	4,600	4,566	4,600
1944	4,600	4,061	3,872	3,982	4,600	4,600	2,131	1,500	2,195	1,950	1,537	4,177
1945	3,461	4,600	4,193	4,193	4,600	2,784	2,039	800	3,000	4,575	4,533	4,600
1946	4,171	4,251	4,193	4,193	3,911	2,449	2,427	1,500	3,000	4,600	4,591	4,365
1947	3,467	4,600	4,193	4,193	4,600	4,400	1,773	800	2,406	2,112	1,501	4,355
1948	3,293	3,660	2,436	3,812	4,272	3,114	2,547	800	3,000	4,563	4,600	4,343
1949	4,254	3,592	4,193	3,819	3,751	4,600	1,825	1,911	3,000	4,561	3,623	4,057
1950	3,893	4,028	3,960	4,193	4,600	4,276	2,398	800	2,475	3,477	4,454	4,550
1951	3,592	4,600	2,366	800	992	3,242	2,146	800	3,000	4,600	4,600	4,124
1952	4,271	4,253	4,193	4,193	4,165	4,600	3,491	3,239	3,000	4,600	4,600	4,600
1953	4,600	4,265	2,714	1,821	2,543	2,739	2,359	1,125	3,000	4,600	4,572	4,600
1954	4,600	4,600	4,193	4,193	4,150	4,600	2,747	1,125	2,850	4,600	4,029	4,436
1955	3,667	4,600	4,193	4,193	4,600	2,307	1,781	800	3,000	3,698	1,537	3,597
1956	3,947	4,369	4,193	4,193	4,194	2,835	2,520	800	2,475	3,913	4,600	4,600
1957	4,600	4,600	3,561	4,193	4,150	4,600	2,685	2,093	3,000	4,600	3,977	4,482
1958	4,600	4,600	4,193	4,193	4,600	4,600	2,660	3,144	3,000	4,600	4,600	4,600
1959	4,600	4,197	4,193	4,600	4,138	2,696	1,793	1,125	3,000	4,555	4,458	3,026
1960	3,730	1,561	1,380	3,820	4,600	4,286	800	800	2,475	3,126	2,030	2,503

Appendix C-3 CALSIM II Modeling

Base Future Base CVP (Tracy) Delta Export (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	3,508	4,221	4,193	4,089	4,600	1,788	1,637	1,617	3,000	4,600	4,600	3,857
1962	2,210	2,619	4,142	4,193	4,600	4,600	2,059	1,125	3,000	4,600	4,505	4,051
1963	4,600	4,600	4,193	4,193	4,443	3,573	2,547	800	3,000	4,600	4,600	4,600
1964	4,600	4,600	4,193	4,193	3,384	2,724	1,293	800	1,728	3,467	3,128	3,805
1965	3,303	4,234	4,193	4,193	4,150	4,019	2,947	1,500	3,000	4,600	4,600	4,600
1966	4,600	4,600	4,193	4,193	4,600	4,593	2,104	1,125	3,000	4,600	4,572	4,013
1967	3,554	4,600	4,193	4,193	4,150	4,600	3,659	3,312	3,000	4,600	4,600	4,600
1968	4,600	4,600	3,700	1,819	3,630	2,682	2,234	1,125	3,000	4,600	4,304	3,657
1969	3,777	4,552	4,193	4,193	4,150	4,600	2,699	3,901	3,000	4,600	4,569	4,600
1970	4,600	4,509	2,312	1,514	1,802	3,207	2,153	800	2,475	2,685	4,600	4,600
1971	4,242	4,600	4,193	4,193	4,131	4,600	2,747	1,125	3,000	4,600	4,600	4,600
1972	4,600	4,600	4,193	4,193	4,600	4,600	1,685	800	3,000	4,600	4,284	4,165
1973	3,783	4,600	4,193	4,600	4,146	4,002	2,803	1,500	2,728	4,600	4,337	4,482
1974	4,367	4,600	4,193	4,193	4,150	4,600	2,547	800	2,475	4,600	4,600	4,600
1975	4,600	4,600	4,193	4,193	4,600	4,600	2,947	1,500	2,694	4,600	4,600	4,600
1976	4,600	4,600	4,193	4,042	3,659	2,617	1,385	800	1,305	1,101	1,265	2,433
1977	2,850	3,163	800	1,795	800	800	800	800	1,125	2,986	2,840	2,335
1978	3,050	1,297	4,193	4,600	3,640	1,811	2,591	3,153	3,000	4,600	4,515	4,600
1979	4,600	4,395	2,777	4,193	4,600	3,486	2,746	1,500	2,650	4,064	4,072	3,456
1980	4,600	4,580	4,193	4,193	4,165	3,481	2,502	800	3,000	4,600	4,578	4,600
1981	4,390	3,823	4,193	4,193	4,600	4,600	2,305	1,125	2,847	4,568	3,311	3,611
1982	4,600	4,600	4,193	4,193	4,150	4,600	3,237	3,538	3,000	4,600	4,600	4,600
1983	4,600	4,600	1,813	1,512	1,801	2,642	2,687	3,892	3,000	4,600	4,600	4,494
1984	2,160	1,503	1,039	1,513	2,435	3,948	2,777	1,500	3,000	4,600	4,600	4,472
1985	4,105	4,600	4,193	4,193	4,600	4,600	1,690	800	2,475	4,600	4,462	3,452
1986	3,656	2,282	4,193	4,193	4,585	4,600	1,839	2,284	2,833	2,746	4,513	4,600
1987	4,600	4,384	3,338	1,171	2,849	1,785	1,777	800	1,525	1,610	1,170	3,188
1988	2,879	4,024	4,193	4,193	3,795	800	1,360	800	800	800	800	2,820
1989	3,096	2,112	3,221	3,805	2,127	4,600	2,319	800	2,295	2,590	2,237	3,351
1990	3,378	3,873	2,180	4,193	4,600	2,444	800	800	800	800	800	2,347
1991	2,956	1,072	1,887	1,155	1,085	4,600	1,739	800	1,690	800	812	2,996
1992	2,946	1,102	1,250	3,393	4,600	3,650	1,648	800	800	800	600	1,290
1993	3,066	669	4,193	4,193	4,150	3,147	2,747	1,125	2,563	4,598	4,550	4,600
1994	4,600	4,493	4,193	3,822	4,600	3,800	1,512	800	823	4,600	4,600	3,603
Mean	3,787	3,686	3,513	3,623	3,667	3,284	2,172	1,381	2,410	3,489	3,422	3,948
Max	4,600	4,600	4,193	4,600	4,600	4,600	3,659	3,901	3,000	4,600	4,600	4,600
Min	2,080	669	682	597	482	779	600	800	800	600	600	1,290

Appendix C-3 CALSIM II Modeling

Alt Future Alt 1 & 2 X2 Position (KM)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	75	83	85	80	78	67	66	66	61	63	74	83
1923	86	86	83	71	67	70	74	68	70	76	80	83
1924	86	87	83	85	82	79	77	81	85	84	83	86
1925	89	89	86	82	81	64	65	67	70	76	82	83
1926	88	87	85	84	79	68	74	70	74	81	83	83
1927	88	87	78	79	70	55	59	59	63	72	75	83
1928	86	87	81	81	76	72	58	63	68	77	78	84
1929	88	87	84	83	82	78	78	80	81	82	86	85
1930	89	88	85	81	76	74	69	73	75	81	83	83
1931	88	87	85	84	82	80	82	81	85	84	83	87
1932	89	88	85	77	74	72	74	75	75	76	82	83
1933	88	87	85	85	77	79	78	77	81	82	86	85
1934	89	89	85	82	78	75	75	76	81	81	85	85
1935	89	89	84	85	73	74	69	62	64	72	79	84
1936	87	86	85	84	70	59	63	66	68	75	79	82
1937	88	87	84	84	81	67	62	64	67	74	79	84
1938	88	88	78	64	64	52	47	52	54	58	72	82
1939	86	81	84	84	81	78	76	77	77	82	83	87
1940	89	85	86	86	71	61	54	55	65	75	78	83
1941	87	87	82	69	57	51	52	53	58	68	75	82
1942	85	85	84	66	57	50	62	60	61	67	75	83
1943	85	85	84	73	59	58	54	61	65	74	77	84
1944	87	87	84	85	81	73	72	75	75	79	83	83
1945	88	87	82	81	81	67	67	71	72	76	80	83
1946	88	87	82	65	62	65	70	72	72	76	80	85
1947	89	86	82	82	81	77	74	75	77	81	83	84
1948	88	86	85	85	81	77	76	69	66	72	79	84
1949	87	84	84	83	81	79	68	72	74	78	83	85
1950	89	87	84	85	78	69	71	70	71	75	80	81
1951	87	87	70	57	55	55	62	69	68	78	77	84
1952	87	87	82	69	58	55	56	55	55	59	73	82
1953	81	80	80	67	56	64	69	71	68	71	75	83
1954	84	86	82	83	72	62	61	61	66	77	79	84
1955	86	85	83	78	76	76	78	75	75	79	83	83
1956	88	87	84	62	51	52	59	66	62	69	76	84
1957	84	84	85	84	81	71	64	68	70	75	78	84
1958	87	84	83	77	68	52	52	51	56	62	74	83
1959	82	83	85	83	71	63	66	74	76	80	79	85
1960	87	87	83	85	82	72	72	74	75	81	83	82

Appendix C-3 CALSIM II Modeling

Alt Future Alt 1 & 2 X2 Position (KM)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	88	87	83	82	81	73	75	76	77	77	81	83
1962	88	87	83	83	83	68	69	73	74	79	80	85
1963	88	74	82	75	77	61	65	56	61	71	74	83
1964	85	85	77	82	75	75	78	75	77	81	83	84
1965	88	87	82	64	54	61	67	62	66	74	76	84
1966	87	87	80	79	71	69	69	73	74	80	80	85
1967	88	85	83	71	63	60	58	58	58	60	73	83
1968	80	78	83	80	70	61	63	70	75	80	80	85
1969	89	85	84	77	58	51	55	56	56	60	73	83
1970	84	80	82	65	50	52	59	68	71	79	76	84
1971	85	87	81	66	62	65	63	67	66	73	74	83
1972	85	86	84	81	80	74	69	74	77	76	80	84
1973	88	86	79	76	61	55	56	66	69	74	78	84
1974	88	87	68	60	52	59	53	54	62	71	76	83
1975	81	84	85	81	81	64	56	63	64	69	76	84
1976	82	81	84	84	81	80	78	79	84	85	82	88
1977	90	87	86	85	84	82	82	81	85	85	83	87
1978	89	88	85	82	64	60	56	59	65	70	76	82
1979	86	87	84	83	75	65	64	69	70	74	79	84
1980	88	86	83	78	60	52	55	64	67	75	78	82
1981	85	87	85	82	77	72	69	71	76	81	83	83
1982	87	87	74	60	56	52	52	49	56	65	75	80
1983	82	75	66	57	52	47	42	49	52	53	62	73
1984	69	67	58	49	53	59	62	68	72	77	76	84
1985	88	86	74	75	79	77	75	76	75	81	83	84
1986	86	86	84	82	75	53	48	61	68	74	78	82
1987	86	87	85	84	81	76	71	74	78	81	83	87
1988	89	85	86	81	73	75	78	79	81	81	85	85
1989	89	89	84	85	81	80	68	70	74	79	83	87
1990	87	85	85	84	79	77	79	77	80	85	85	85
1991	89	90	85	86	85	82	72	74	79	84	85	85
1992	89	90	85	84	84	72	73	75	80	81	85	86
1993	89	89	85	83	65	60	60	61	63	68	76	83
1994	87	87	84	83	81	75	75	75	77	79	84	86
Mean	86	86	82	78	72	67	66	68	70	75	79	84
Max	90	90	86	86	85	82	82	81	85	85	86	88
Min	69	67	58	49	50	47	42	49	52	53	62	73

Appendix C-3 CALSIM II Modeling

Base Future Base X2 Position (KM)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	75	83	85	80	78	67	66	66	61	63	74	83
1923	86	86	83	71	67	70	74	68	70	76	80	83
1924	86	87	83	85	82	79	77	81	85	84	83	86
1925	89	89	86	82	81	64	65	67	70	76	82	83
1926	88	87	85	84	79	68	74	70	74	81	83	83
1927	88	87	78	79	70	55	59	59	63	72	75	83
1928	86	87	81	81	76	72	58	63	68	77	78	84
1929	88	87	84	83	82	78	78	80	81	82	86	85
1930	89	88	85	81	76	74	69	73	75	81	83	83
1931	88	87	85	84	82	80	82	81	85	84	83	87
1932	89	88	85	77	74	72	74	75	75	76	82	83
1933	88	87	85	85	77	79	78	77	81	82	86	85
1934	89	89	85	82	78	75	75	76	81	81	85	85
1935	89	89	84	85	73	74	69	62	64	72	79	84
1936	87	86	85	84	70	59	63	66	68	75	79	82
1937	88	87	84	84	81	67	62	64	67	74	79	84
1938	88	88	78	64	64	52	47	52	54	58	72	82
1939	86	81	84	84	81	78	76	77	77	82	83	87
1940	89	85	86	86	71	61	54	55	65	75	78	83
1941	87	87	82	69	57	51	52	53	58	68	75	83
1942	85	85	84	66	57	50	62	60	61	67	75	83
1943	85	85	84	73	59	58	54	61	65	74	77	84
1944	87	87	84	85	81	73	72	75	75	79	83	83
1945	88	87	82	81	81	67	67	71	72	76	80	83
1946	88	87	82	65	62	65	70	72	72	76	80	85
1947	89	86	82	82	81	77	74	75	77	81	83	84
1948	88	86	85	85	81	77	76	69	66	72	79	84
1949	87	84	84	83	81	79	68	72	74	78	83	85
1950	89	87	84	85	78	69	71	70	71	75	80	81
1951	87	87	70	57	55	55	62	69	68	78	77	84
1952	87	87	82	69	58	55	56	55	55	59	73	82
1953	81	80	80	67	56	64	69	71	68	71	75	83
1954	84	86	82	83	72	62	61	61	66	77	79	84
1955	86	85	83	78	76	76	78	75	75	79	83	83
1956	88	87	84	62	51	52	59	66	62	69	76	84
1957	84	84	85	84	81	71	64	68	70	75	78	84
1958	87	84	83	77	68	52	52	51	56	62	74	83
1959	82	83	85	83	71	63	66	74	76	80	79	85
1960	87	87	83	85	82	72	72	74	75	81	83	82

Appendix C-3 CALSIM II Modeling

Base Future Base X2 Position (KM)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	88	87	83	82	81	73	75	76	77	81	83	83
1962	88	87	83	83	83	68	69	73	74	79	80	85
1963	88	74	82	75	77	61	65	56	61	71	74	83
1964	85	85	77	82	75	75	78	75	77	81	83	84
1965	88	87	82	64	54	61	67	62	66	74	76	84
1966	87	87	80	79	71	69	69	73	74	80	80	85
1967	88	85	83	71	63	60	58	58	58	60	73	83
1968	80	78	83	80	70	61	63	70	75	80	80	85
1969	89	85	84	77	58	51	55	56	56	60	73	83
1970	84	80	82	65	50	52	59	68	71	79	76	84
1971	85	87	81	66	62	65	63	67	66	73	74	83
1972	85	86	84	81	80	74	69	74	77	76	80	84
1973	88	86	79	76	61	55	56	66	69	74	78	84
1974	88	87	68	60	52	59	53	54	62	71	76	83
1975	81	84	85	81	81	64	56	63	64	69	76	84
1976	82	81	84	84	81	80	78	79	84	85	82	88
1977	80	87	86	85	84	82	82	81	85	85	83	87
1978	89	88	85	82	64	60	56	59	65	70	76	82
1979	86	87	84	83	75	65	64	69	70	74	79	84
1980	88	86	83	78	60	52	55	64	67	75	78	82
1981	85	87	85	82	77	72	69	71	76	81	83	83
1982	87	87	74	60	56	52	52	49	56	65	75	80
1983	82	75	66	57	52	47	42	49	52	53	62	73
1984	69	67	58	49	53	59	62	68	72	77	76	84
1985	88	86	74	75	79	77	75	76	75	81	83	84
1986	86	86	84	82	75	53	48	61	68	74	78	82
1987	86	87	85	84	81	76	71	74	78	81	83	87
1988	89	85	86	81	73	75	78	79	81	81	85	85
1989	89	89	84	85	81	80	68	70	74	79	83	87
1990	87	85	85	84	79	77	79	77	80	85	85	85
1991	89	90	85	86	85	82	72	74	79	84	85	85
1992	89	90	85	84	84	72	73	75	80	81	85	86
1993	89	89	85	83	65	60	60	61	63	68	76	83
1994	87	87	84	83	81	75	75	77	79	84	83	86
Mean	86	86	82	78	72	67	66	68	70	75	79	84
Max	90	90	86	86	85	82	82	81	85	85	86	88
Min	69	67	58	49	50	47	42	49	52	53	62	73

Appendix C-3 CALSIM II Modeling

Alt Future Alt 1 & 2 QWEST (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	-2,224	-3,476	-3,689	-3,163	6,034	1,112	5,550	12,122	3,278	-4,540	70	-3,323
1923	-1,798	-3,476	-1,641	2,915	1,997	-924	6,374	4,503	228	-4,986	-4,455	-2,776
1924	-2,277	420	-2,606	-1,686	-3,049	2,408	977	-264	1,701	2,386	-391	-10
1925	465	939	-2,709	-2,515	6,943	6,093	4,070	4,692	540	-1,678	2,492	-1,525
1926	-34	736	-353	-3,850	-2,461	-830	2,933	2,280	252	-3,198	-321	-796
1927	101	-3,814	-5,271	-1,084	15,001	1,827	7,874	6,765	88	-1,387	-4,629	-3,250
1928	-2,355	-3,821	-4,022	-3,663	-3,042	6,415	5,169	2,187	-1,054	-1,541	-2,475	-2,964
1929	-236	-1,849	-2,829	-2,456	-3,057	404	1,198	1,363	1,601	-547	1,933	-60
1930	653	1,845	-4,334	-4,421	-2,097	-2,792	1,408	1,841	679	-3,631	-2,198	-2,360
1931	82	1,037	755	-2,383	-1,486	516	734	-282	1,276	725	-1,501	-97
1932	749	1,640	-1,590	-2,336	3,717	1,541	3,061	3,258	946	-3,207	967	-1,574
1933	-76	1,033	-1,057	2,133	-857	-591	2,060	1,434	1,965	-900	2,269	-72
1934	210	2,687	-3,694	-3,455	1,517	1,986	1,607	420	2,029	-554	2,034	-89
1935	366	-245	-1,813	-1,828	24	2,257	10,900	7,708	855	-3,326	-4,900	-3,597
1936	-1,283	-382	-2,600	-2,301	18,496	2,374	6,605	7,147	8	-3,494	-4,183	-2,329
1937	-345	584	-3,299	-2,593	11,644	12,259	8,716	8,309	417	-386	-2,093	-2,143
1938	-813	-7,343	5,143	4,103	33,630	37,608	22,421	23,219	13,694	-3,342	-3,137	-3,066
1939	1,185	-2,599	-3,907	-1,989	-1,926	436	2,088	2,821	-293	-3,561	-3,309	-2,908
1940	594	-475	-1,062	195	6,953	12,069	10,741	5,383	88	-4,945	-5,064	-2,616
1941	-2,436	-310	-1,579	7,550	17,472	11,177	13,230	8,872	4,283	-4,239	-3,115	-3,762
1942	-2,058	-2,565	2,175	14,940	15,630	-126	8,971	11,231	-2,559	-401	-4,466	-3,738
1943	-1,944	-3,812	-3,073	18,083	11,448	25,638	7,804	9,329	1,792	-1,171	-5,040	-3,056
1944	-1,421	-457	-3,441	-2,313	-3,620	-1,896	3,068	3,104	-799	-3,975	-2,233	-2,942
1945	-1,020	-3,175	-5,020	-2,284	3,590	2,788	5,391	4,995	-503	-4,752	-3,283	-2,610
1946	-1,044	-2,215	5,588	1,296	3,266	147	3,823	4,421	-445	-5,390	-5,493	-2,653
1947	-2,163	-1,384	-4,815	-1,028	-3,570	-2,074	907	1,544	-801	-4,363	-1,008	-2,623
1948	66	-1,267	-929	-2,859	-418	-1,227	4,009	6,669	-709	-5,846	-5,258	-3,295
1949	-2,789	-1,517	-3,627	-1,514	-2,456	-1,995	2,476	1,448	-677	-3,865	-1,578	-2,141
1950	425	-826	-1,623	-3,556	-3,304	-1,972	2,988	4,195	-1,038	-4,765	-4,099	-2,545
1951	-1,927	3,006	17,756	17,672	15,214	1,823	4,353	6,648	-237	-2,552	-5,902	-3,118
1952	-2,464	-2,208	-782	12,731	8,239	12,279	15,851	18,618	7,984	-3,064	-4,168	-3,495
1953	43	-353	4,130	11,927	2,417	-2,261	3,255	5,719	-642	-2,222	-4,253	-4,724
1954	-3,026	-4,323	-2,097	-4,704	15	-1,775	4,930	2,779	-830	-4,860	-4,136	-4,021
1955	-2,428	-3,103	-4,406	-3,428	-1,757	-729	1,970	2,528	-1,105	-2,763	1,869	-1,998
1956	-158	-1,575	17,362	25,869	13,378	2,248	4,885	11,476	2,124	34	-4,440	-3,991
1957	-2,713	-2,782	-1,530	-3,041	-2,865	-656	2,625	2,984	-857	-3,209	-4,839	-3,091
1958	-3,767	-2,720	-4,302	-2,057	9,652	12,533	25,737	15,362	2,549	-3,741	-4,293	-3,741
1959	-1,575	-2,220	-2,020	-3,107	3,786	2,617	1,781	1,448	-1,194	-1,448	-4,039	-2,774
1960	-1,670	1,379	-2,101	-1,863	-4,464	-2,790	3,304	1,919	-398	-5,168	807	-633

Appendix C-3 CALSIM II Modeling

Alt Future Alt 1 & 2 QWEST (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	-34	-1,257	-4,805	-2,180	122	393	-1,850	-6,001	-960	-2,289		
1962	-359	-381	-4,843	-1,876	2,939	3,250	-927	-5,238	-6,109	-3,412		
1963	-5,810	-5,035	-6,611	-4,102	7,179	-1,369	13,806	9,627	542	31	-4,877	-3,451
1964	-2,938	-3,197	-3,600	-3,434	-1,022	-1,078	1,389	721	-958	-5,858	-4,497	-2,533
1965	-169	-2,738	8,575	15,220	1,043	221	8,432	5,980	671	-29	-5,002	-2,930
1966	-680	-3,553	-1,350	-1,362	-1,256	-3,061	1,868	2,831	-1,027	-4,012	-5,244	-3,170
1967	-1,335	-3,493	-2,779	2,759	657	5,172	15,236	17,056	9,993	688	-4,419	-2,694
1968	-243	-3,841	-2,552	520	4,125	340	2,165	1,669	-1,184	-2,627	-4,649	-3,054
1969	-1,202	-2,806	-3,801	22,992	31,616	16,494	21,784	25,156	22,157	-2,481	-931	-4,150
1970	982	-2,957	6,120	32,550	14,119	4,466	3,979	4,979	418	482	-5,951	-4,449
1971	-2,386	-4,241	-2,911	3,260	-1,729	3,007	6,274	-783	-8,785	-4,920	-4,399	
1972	-3,292	-3,026	-4,623	-4,352	-2,969	-5,847	1,268	805	-427	-4,658	-3,874	-2,518
1973	-1,062	-4,040	-3,998	8,471	13,802	7,721	4,447	4,802	-112	-4,112	-4,185	-2,890
1974	-2,207	-1,048	2,635	8,885	-36	8,650	14,534	6,924	252	-3,009	-4,948	-3,811
1975	-3,058	-2,884	-3,505	-4,252	6,606	11,268	5,331	7,910	1,486	-3,572	-4,788	-3,925
1976	-3,085	-4,140	-3,518	-1,281	-2,527	-2,196	846	60	154	624	-3,029	-2,673
1977	1,418	-802	494	415	177	1,020	1,006	688	1,209	217	-2,491	-1,25
1978	713	1,801	-3,741	6,565	10,465	13,963	12,394	7,982	7,098	-5,007	-1,846	-3,452
1979	-1,083	-1,171	-2,946	26	6,030	4,992	4,455	5,277	196	-4,347	-3,220	-2,478
1980	-1,656	-2,464	-4,526	16,608	27,666	13,240	6,266	8,345	2,645	-3,213	-335	-2,969
1981	-929	-292	-2,456	-3,885	-3,226	-2,468	2,228	1,161	-1,670	-6,036	-2,496	-3,214
1982	-1,637	-5,648	2,871	12,473	20,275	20,889	34,648	15,983	6,106	-2,879	-2,127	-2,549
1983	5,803	4,476	26,541	37,746	47,484	57,089	27,547	27,304	36,955	12,362	-3,331	2,285
1984	13,461	22,391	36,775	18,138	8,851	1,458	3,186	3,708	462	-948	-5,451	-3,016
1985	-2,858	-5,173	-3,924	-3,505	-3,175	-461	1,888	2,580	-790	-6,398	-5,305	-3,401
1986	-2,164	-844	-5,056	-2,760	33,680	29,903	9,687	6,372	3,807	-2,638	-484	-2,415
1987	-1,350	-31	-1,503	-1,984	-3,859	-667	448	1,061	482	-2,873	-2,681	-2,047
1988	512	-1,059	-3,739	-5,061	-1,060	1,416	345	779	2,152	-1,727	1,974	-48
1989	547	435	-1,446	-1,550	402	-2,842	80	712	-269	-4,780	-3,148	-3,071
1990	-1,185	-1,252	-2,795	-5,199	-2,562	-1,284	1,688	798	1,180	1,293	-1,183	-95
1991	10	2,642	606	1,489	693	-3,592	704	861	918	1,321	-164	-88
1992	14	2,275	1,365	-1,767	-3,586	-1,826	507	178	1,511	-821	1,257	-286
1993	456	1,934	-1,133	10,463	5,867	4,692	5,127	7,552	-3,320	-4,711	-3,687	-3,048
1994	-2,113	71	-3,456	-2,193	-4,938	-2,585	734	1,434	-1,498	-5,203	-6,268	-3,242
Mean	-822	-1,087	-386	2,638	5,206	4,190	6,026	5,636	1,642	-2,704	-2,863	-2,485
Max	13,461	22,391	36,775	37,746	47,484	57,089	34,648	27,304	36,955	12,362	2,492	2,285
Min	-5,810	-7,343	-6,611	-5,199	-6,802	-5,847	80	-282	-3,320	-8,785	-6,268	-4,724

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Base Future Base QWEST (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	-1,027	-2,398	-3,689	-3,163	6,034	1,112	5,550	12,122	3,278	-4,540	70	-3,269
1923	-1,725	-3,412	1,527	2,910	1,859	-924	6,374	4,503	228	-4,986	-3,777	-2,657
1924	-2,224	357	-2,449	-1,700	-3,101	2,425	977	-260	1,593	2,354	-391	-61
1925	378	939	-2,653	-2,515	6,778	6,095	4,138	4,692	540	-1,678	2,492	-1,439
1926	15	768	-334	-3,859	-2,484	-830	2,933	2,280	149	-3,339	-463	-782
1927	149	-3,718	-5,271	-1,084	15,001	1,966	7,874	6,765	90	-1,387	-4,629	-3,115
1928	-2,295	-3,782	-4,055	-3,665	-3,243	6,318	5,169	2,187	-1,054	-1,541	-2,475	-2,851
1929	-186	-1,809	-2,665	-2,410	-3,108	348	1,198	1,363	1,455	-655	2,069	26
1930	669	1,737	-4,341	-4,412	-2,270	-2,792	1,408	1,841	534	-3,697	-2,074	-2,211
1931	-8	1,037	755	-2,383	-1,486	516	734	-282	1,276	725	-1,501	-97
1932	749	1,640	-1,590	-2,336	3,717	1,541	3,061	3,258	946	-3,207	967	-1,413
1933	3	1,052	-929	2,156	-1,005	-591	2,060	1,434	1,819	-900	2,350	23
1934	111	2,584	-3,694	-3,455	1,519	1,955	1,509	420	2,029	-554	2,034	-89
1935	366	-245	-1,813	-1,828	29	2,057	10,900	7,791	855	-3,326	-4,832	-3,464
1936	-1,220	-383	-2,665	-2,301	18,496	2,298	6,605	7,147	8	-3,572	-4,183	-2,220
1937	-286	617	-3,189	-2,537	11,438	12,076	8,716	8,309	417	-458	-2,093	-2,061
1938	-756	-7,261	5,075	3,900	33,627	37,608	22,421	23,219	13,694	-3,342	-3,137	-3,043
1939	1,295	-2,709	-3,907	-1,934	-1,910	378	2,088	2,821	-293	-3,510	-3,185	-2,829
1940	628	-457	-929	206	6,953	11,967	10,521	5,383	76	-5,077	-5,028	-2,496
1941	-2,433	-380	-1,579	7,550	17,265	11,147	13,230	8,872	4,283	-4,239	-3,115	-3,709
1942	-1,988	-2,518	2,071	14,902	15,530	-126	8,971	11,231	-2,559	-401	-4,466	-3,620
1943	-1,841	-3,753	-3,153	18,055	11,244	25,545	7,804	9,329	1,792	-1,171	-5,040	-2,941
1944	-1,376	-436	-3,441	-2,266	-3,564	-1,997	3,068	3,104	-799	-4,085	-2,102	-2,818
1945	-977	-3,136	-5,025	-2,277	3,434	2,644	5,391	4,995	-503	-4,881	-3,256	-2,486
1946	-990	-2,262	5,586	1,295	3,095	58	3,823	4,421	-445	-5,390	-5,359	-2,574
1947	-2,200	-1,423	-4,815	-957	-3,521	-2,178	907	1,544	-947	-4,363	-880	-2,494
1948	109	-1,234	-977	-2,784	-483	-1,294	3,708	6,586	-709	-5,846	-5,087	-3,178
1949	-2,811	-1,559	-3,464	-1,476	-2,456	-2,019	2,476	1,448	-677	-3,973	-1,475	-2,025
1950	466	-834	-1,640	-3,569	-3,504	-2,039	2,719	4,195	-1,038	-4,765	-4,097	-2,462
1951	-1,860	3,115	17,544	17,492	15,214	1,823	4,353	6,648	-237	-2,552	-5,902	-3,023
1952	-2,410	-2,177	-782	12,731	8,059	12,200	15,851	18,618	7,984	-3,064	-4,168	-3,424
1953	-26	-353	4,130	11,927	2,417	-2,261	3,255	5,719	-642	-2,222	-2,453	-4,601
1954	-2,975	-4,274	-2,100	-4,706	-185	-1,890	4,930	2,779	-830	-4,860	-4,136	-3,897
1955	-2,374	-3,058	-4,428	-3,432	-1,929	-814	1,970	2,528	-1,105	-2,763	1,900	-1,894
1956	-116	-1,548	17,362	25,869	13,191	2,142	4,885	11,476	2,124	34	-4,440	-3,874
1957	-2,595	-2,703	-1,547	-2,982	-3,068	-815	2,625	2,984	-871	-3,281	-4,839	-2,980
1958	-3,713	-2,701	-4,302	-2,057	9,443	12,468	25,737	15,362	2,549	-3,741	-4,293	-3,612
1959	-1,547	-2,188	-2,066	-3,112	3,629	2,617	1,781	1,448	-1,194	-4,039	-5,700	-1,950
1960	-1,656	1,301	-1,973	-1,826	-4,504	-2,790	3,304	1,919	-429	-5,262	924	-611

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Appendix C-3 CALSIM II Modeling

Base Future Base QWEST (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	9	-1,220	-4,877	-2,072	-6,726	-1,805	1,805	3,927	3,927	-5,843	-855	-2,889
1962	451	-461	-5,043	-1,547	3,292	-1,876	2,859	3,243	-927	-5,333	-5,957	-3,391
1963	-5,968	-5,035	-6,714	-4,120	7,095	-1,369	13,806	9,627	542	31	-4,877	-3,347
1964	-2,867	-3,163	-3,616	-3,640	-1,072	-1,078	1,389	721	-958	-5,858	-4,358	-2,423
1965	-126	-2,684	8,575	15,220	1,038	115	8,430	5,973	647	-161	-5,082	-2,806
1966	-623	-3,362	-1,560	-1,566	-1,169	-3,157	1,868	2,831	-1,027	-4,012	-5,131	-3,080
1967	-1,347	-3,521	-2,779	2,759	461	5,119	15,236	17,056	9,993	688	-4,419	-2,660
1968	-275	-3,841	-2,552	520	4,125	340	2,165	1,669	-1,184	-2,627	-4,583	-2,986
1969	-1,187	-2,852	-3,801	22,992	31,498	16,451	21,784	25,156	22,157	-2,481	-931	-4,150
1970	1,040	-3,016	6,120	32,550	14,119	4,466	3,979	4,979	418	482	-5,951	-4,329
1971	-2,333	-4,177	2,131	-296	3,087	-1,785	3,007	6,274	-783	-8,785	-4,920	-4,278
1972	-3,228	-2,979	-4,544	-4,285	-2,944	-6,002	1,252	798	-427	-4,789	-3,781	-2,419
1973	-1,150	-4,099	-3,998	8,328	13,739	7,721	4,447	4,802	-112	-4,112	-4,185	-2,771
1974	-2,156	-989	2,595	8,679	-89	8,650	14,534	6,924	252	-3,009	-4,948	-3,654
1975	-3,011	-2,833	-3,546	-4,207	6,400	11,167	5,331	7,910	1,486	-3,572	-4,788	-3,751
1976	-3,006	-4,105	-3,520	-1,226	-2,503	-2,249	846	65	172	697	-3,029	-2,696
1977	1,316	-849	607	332	70	922	991	688	1,209	217	-2,491	-1,25
1978	713	1,801	-3,740	6,565	10,397	13,812	12,333	8,182	7,098	-5,007	-1,804	-3,386
1979	-972	-1,090	-2,993	58	5,903	4,830	4,455	5,277	196	-4,382	-3,220	-2,359
1980	-1,604	-2,426	-4,527	16,587	27,423	13,202	6,266	8,345	2,645	-3,213	-335	-2,969
1981	-817	-215	-2,455	-3,845	-3,438	-2,536	2,228	1,161	-1,670	-5,942	-2,381	-3,085
1982	-1,586	-5,602	2,871	12,306	20,068	20,721	34,648	15,983	6,065	-2,899	-2,127	-2,549
1983	5,803	4,476	26,541	37,746	47,484	57,089	27,547	27,304	36,955	12,362	-3,331	2,285
1984	13,461	22,391	36,775	18,138	8,851	1,458	3,186	3,708	462	-948	-5,451	-2,906
1985	-2,806	-5,131	-3,924	-3,701	-3,242	-461	1,888	2,580	-790	-6,327	-5,200	-3,316
1986	-2,116	-813	-4,931	-2,699	33,925	29,707	9,345	6,315	3,776	-2,769	-536	-2,415
1987	-1,290	6	-1,385	-1,924	-3,839	-788	448	1,061	452	-3,015	-2,546	-1,953
1988	543	-1,030	-3,713	-5,061	-1,060	1,312	345	779	2,006	-1,868	2,096	34
1989	507	356	-1,443	-1,552	402	-2,842	80	712	-2,69	-4,780	-3,000	-3,059
1990	-1,282	-1,304	-2,717	-5,278	-2,599	-1,380	1,786	794	1,113	1,347	-1,183	-95
1991	10	2,642	606	1,489	708	-3,592	704	861	918	1,333	-172	-88
1992	14	2,275	1,365	-1,767	-3,586	-1,826	501	178	1,477	-821	1,277	-286
1993	456	1,934	-3,133	10,463	5,867	4,692	5,146	7,552	-3,320	-4,711	-3,687	-2,942
1994	-2,028	126	-3,522	-2,128	-5,003	-2,598	734	1,434	-1,498	-5,050	-6,152	-3,297
Mean	-796	-1,073	-387	2,627	5,135	4,137	6,010	5,637	1,625	-2,722	-2,825	-2,408
Max	13,461	22,391	36,775	37,746	47,484	57,089	34,648	27,304	36,955	12,362	2,492	2,285
Min	-5,968	-7,261	-6,714	-5,278	-6,726	-6,002	80	-282	-3,320	-8,785	-6,152	-4,601

Appendix C-3 CALSIM II Modeling

Difference Future Alt 1 & 2 minus Future Base QWEST (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	-138	-102	0	0	0	0	0	0	0	0	0	-55
1923	-74	-64	114	5	138	0	0	0	0	0	0	-118
1924	-53	63	-157	13	53	-17	0	-4	108	32	0	51
1925	87	0	-56	0	164	-1	-69	0	0	0	0	-86
1926	-49	-32	-19	10	24	0	0	0	103	141	141	-14
1927	-48	-95	0	0	0	-140	0	0	-2	0	0	-135
1928	-60	-39	33	1	200	97	0	0	0	0	0	-114
1929	-50	-41	-164	-46	52	55	0	0	146	108	-136	-85
1930	-16	108	6	-9	173	0	0	0	146	66	-125	-149
1931	90	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	-162
1933	-79	-20	-127	-23	148	0	0	0	146	0	-81	-95
1934	99	103	0	0	-1	30	98	0	0	0	0	0
1935	0	0	0	0	0	-6	200	0	-83	0	0	-133
1936	-64	1	65	0	0	76	0	0	0	78	0	-109
1937	-59	-33	-109	-57	206	183	0	0	0	72	0	-82
1938	-57	-83	68	203	3	0	0	0	0	0	0	-23
1939	-109	110	0	-55	-16	58	0	0	0	-51	-123	-79
1940	-34	-18	-132	-11	0	102	220	0	12	132	-36	-120
1941	-3	70	0	0	207	29	0	0	0	0	0	-53
1942	-70	-48	105	38	100	0	0	0	0	0	0	-119
1943	-104	-58	79	28	203	93	0	0	0	0	0	-115
1944	-45	-21	0	-47	-56	101	0	0	0	110	-131	-123
1945	-43	-39	5	-7	156	144	0	0	0	130	-27	-124
1946	-54	48	2	1	171	89	0	0	0	0	-135	-79
1947	36	39	0	-71	-49	104	0	0	146	0	-128	-129
1948	-43	-33	48	-75	64	67	301	83	0	0	-171	-117
1949	21	42	-164	-38	0	24	0	0	0	108	-102	-116
1950	-41	8	17	13	200	67	269	0	0	0	-2	-83
1951	-67	-109	213	181	0	0	0	0	0	0	0	-95
1952	-54	-31	0	0	180	79	0	0	0	0	0	-72
1953	69	0	0	0	0	0	0	0	0	0	0	-123
1954	-51	-48	3	2	200	115	0	0	0	0	0	-124
1955	-55	-45	22	3	172	85	0	0	0	0	-31	-105
1956	-41	-27	0	0	187	106	0	0	0	0	0	-117
1957	-118	-79	17	-59	203	159	0	0	14	72	0	-111
1958	-54	-19	0	0	210	65	0	0	0	0	0	-129
1959	-28	-32	45	6	158	0	0	0	0	0	0	-92
1960	-14	78	-128	-38	40	0	0	0	31	94	-117	-22

Appendix C-3 CALSIM II Modeling

Year	Difference Future Alt 1 & 2 minus Future Base QWEST (CFS)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1961	-44	-37	72	-114	-76	0	0	0	0	0	-158	-106	0
1962	92	80	200	0	134	0	80	7	0	0	95	-152	-21
1963	158	0	104	18	85	0	0	0	0	0	0	0	-104
1964	-71	-34	16	207	50	0	0	0	0	0	0	-139	-110
1965	-44	-54	0	0	5	106	2	7	24	132	81	-124	0
1966	-57	-190	210	204	-87	97	0	0	0	0	-113	-89	0
1967	12	28	0	0	195	53	0	0	0	0	0	0	-33
1968	32	0	0	0	0	0	0	0	0	0	0	-66	-68
1969	-15	46	0	0	118	43	0	0	0	0	0	0	0
1970	-58	59	0	0	0	0	0	0	0	0	0	0	-120
1971	-53	-64	60	5	173	56	0	0	0	0	0	0	-121
1972	-64	-47	-79	-67	-25	155	17	7	0	130	-93	-99	0
1973	88	59	0	143	63	0	0	0	0	0	0	-119	0
1974	-50	-59	39	206	52	0	0	0	0	0	0	0	-157
1975	-47	-50	41	-45	206	101	0	0	0	0	0	0	-174
1976	-79	-35	3	-55	-23	52	0	-5	-18	-73	0	24	0
1977	102	47	-112	83	107	98	15	0	0	0	0	0	0
1978	0	0	-1	0	68	151	61	-200	0	0	-42	-66	0
1979	-111	-81	47	-36	127	161	0	0	0	35	0	-120	0
1980	-51	-38	1	21	243	38	0	0	0	0	0	0	0
1981	-112	-77	-2	-40	212	68	0	0	0	-94	-115	-129	0
1982	-50	-46	0	167	207	168	0	0	40	20	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0	-110
1985	-52	-42	0	196	67	0	0	0	0	-71	-105	-84	0
1986	-48	-32	-125	-61	-245	196	342	57	31	132	52	0	0
1987	-60	-37	-118	-60	-20	121	0	0	30	141	-136	-93	0
1988	-31	-29	-26	0	104	0	0	0	146	141	-122	-83	0
1989	40	79	-3	3	0	0	0	0	0	0	-148	-11	0
1990	98	52	-78	79	37	97	-98	4	67	-53	0	0	0
1991	0	0	0	0	-15	0	-1	0	0	-12	8	0	0
1992	0	0	0	0	0	0	5	0	35	0	-19	0	0
1993	0	0	0	0	0	0	-19	0	0	0	0	-106	0
1994	-85	-55	65	-65	66	12	0	0	0	-152	-116	-55	0
Mean	-26	-14	1	10	71	53	17	-2	16	18	-38	-77	0
Max	158	110	213	207	243	200	342	83	146	141	141	55	0
Min	-138	-190	-164	-114	-245	-140	-98	-200	-18	-158	-171	-174	0

Appendix C-3 CALSIM II Modeling

Year	Alt Future Alt 1 & 2 E/I Ratio												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1922	0.62	0.60	0.56	0.32	0.61	0.26	0.32	0.19	0.05	0.24	0.51	0.40	0.64
1923	0.65	0.59	0.32	0.32	0.35	0.35	0.17	0.14	0.35	0.54	0.60	0.64	0.64
1924	0.64	0.40	0.57	0.50	0.45	0.09	0.15	0.18	0.10	0.08	0.39	0.46	0.61
1925	0.53	0.38	0.56	0.56	0.13	0.04	0.21	0.11	0.29	0.41	0.17	0.61	0.61
1926	0.53	0.40	0.44	0.52	0.28	0.30	0.17	0.11	0.21	0.44	0.35	0.52	0.64
1927	0.52	0.49	0.59	0.26	0.04	0.19	0.13	0.09	0.35	0.37	0.62	0.64	0.64
1928	0.65	0.56	0.61	0.48	0.35	0.12	0.17	0.19	0.35	0.37	0.52	0.64	0.64
1929	0.51	0.53	0.56	0.56	0.45	0.26	0.23	0.10	0.17	0.32	0.13	0.45	0.45
1930	0.47	0.26	0.52	0.52	0.37	0.30	0.21	0.11	0.21	0.49	0.47	0.63	0.63
1931	0.52	0.34	0.32	0.53	0.42	0.23	0.11	0.17	0.14	0.18	0.44	0.44	0.44
1932	0.41	0.29	0.50	0.48	0.38	0.31	0.22	0.14	0.24	0.46	0.28	0.56	0.56
1933	0.52	0.36	0.49	0.27	0.38	0.33	0.14	0.17	0.10	0.31	0.11	0.44	0.44
1934	0.51	0.17	0.57	0.49	0.27	0.12	0.08	0.11	0.09	0.29	0.10	0.44	0.44
1935	0.46	0.43	0.56	0.35	0.35	0.22	0.10	0.04	0.27	0.46	0.60	0.64	0.64
1936	0.58	0.48	0.57	0.29	0.14	0.25	0.17	0.07	0.35	0.47	0.56	0.63	0.63
1937	0.55	0.40	0.60	0.60	0.23	0.19	0.16	0.17	0.32	0.34	0.50	0.62	0.62
1938	0.59	0.47	0.15	0.23	0.05	0.05	0.10	0.11	0.20	0.50	0.58	0.65	0.65
1939	0.56	0.61	0.60	0.51	0.45	0.35	0.24	0.10	0.28	0.47	0.57	0.65	0.65
1940	0.46	0.49	0.49	0.31	0.18	0.11	0.09	0.12	0.32	0.51	0.61	0.64	0.64
1941	0.65	0.43	0.27	0.12	0.09	0.13	0.10	0.14	0.28	0.50	0.57	0.65	0.65
1942	0.65	0.58	0.18	0.10	0.06	0.33	0.12	0.07	0.34	0.37	0.62	0.65	0.65
1943	0.64	0.66	0.35	0.12	0.16	0.10	0.16	0.06	0.28	0.39	0.64	0.65	0.65
1944	0.61	0.48	0.61	0.53	0.43	0.35	0.26	0.18	0.35	0.51	0.49	0.63	0.63
1945	0.58	0.58	0.61	0.56	0.23	0.33	0.20	0.15	0.35	0.52	0.55	0.64	0.64
1946	0.64	0.53	0.17	0.23	0.21	0.35	0.24	0.15	0.35	0.54	0.64	0.65	0.65
1947	0.61	0.51	0.61	0.50	0.45	0.35	0.21	0.08	0.33	0.50	0.42	0.60	0.60
1948	0.53	0.51	0.48	0.50	0.28	0.35	0.17	0.05	0.35	0.53	0.61	0.64	0.64
1949	0.60	0.52	0.56	0.49	0.46	0.27	0.21	0.19	0.31	0.50	0.48	0.61	0.61
1950	0.47	0.48	0.53	0.53	0.33	0.33	0.20	0.08	0.35	0.50	0.54	0.64	0.64
1951	0.64	0.24	0.10	0.11	0.09	0.27	0.20	0.06	0.35	0.41	0.65	0.65	0.65
1952	0.65	0.52	0.27	0.13	0.14	0.17	0.11	0.09	0.20	0.49	0.62	0.59	0.59
1953	0.57	0.44	0.13	0.07	0.25	0.35	0.22	0.08	0.35	0.39	0.61	0.64	0.64
1954	0.65	0.59	0.52	0.34	0.19	0.24	0.14	0.15	0.35	0.49	0.60	0.64	0.64
1955	0.60	0.57	0.50	0.58	0.39	0.35	0.20	0.10	0.34	0.46	0.17	0.59	0.59
1956	0.50	0.52	0.12	0.07	0.12	0.22	0.19	0.03	0.35	0.35	0.62	0.65	0.65
1957	0.65	0.60	0.50	0.55	0.32	0.25	0.21	0.21	0.35	0.44	0.62	0.65	0.65
1958	0.65	0.55	0.48	0.30	0.06	0.12	0.07	0.11	0.27	0.50	0.62	0.60	0.60
1959	0.64	0.60	0.53	0.30	0.18	0.16	0.25	0.15	0.32	0.45	0.64	0.64	0.64
1960	0.59	0.31	0.53	0.52	0.38	0.35	0.08	0.10	0.26	0.52	0.26	0.50	0.50

Appendix C-3 CALSIM II Modeling

Year	Alt Future Alt 1 & 2 E/I Ratio											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	0.50	0.48	0.58	0.59	0.41	0.35	0.22	0.14	0.35	0.53	0.39	0.61
1962	0.51	0.43	0.60	0.51	0.26	0.35	0.23	0.11	0.32	0.50	0.64	0.65
1963	0.36	0.65	0.43	0.61	0.14	0.29	0.06	0.04	0.34	0.33	0.63	0.64
1964	0.65	0.47	0.60	0.47	0.32	0.35	0.17	0.17	0.35	0.55	0.57	0.62
1965	0.53	0.53	0.15	0.10	0.30	0.31	0.13	0.12	0.35	0.34	0.65	0.65
1966	0.59	0.55	0.58	0.34	0.35	0.35	0.23	0.13	0.34	0.49	0.62	0.64
1967	0.56	0.59	0.30	0.24	0.19	0.20	0.14	0.11	0.21	0.50	0.62	0.55
1968	0.53	0.65	0.51	0.23	0.15	0.22	0.22	0.16	0.33	0.42	0.64	0.65
1969	0.54	0.59	0.46	0.10	0.09	0.16	0.11	0.11	0.19	0.48	0.48	0.65
1970	0.55	0.59	0.11	0.03	0.09	0.22	0.20	0.08	0.31	0.28	0.64	0.65
1971	0.65	0.61	0.19	0.23	0.14	0.26	0.20	0.07	0.35	0.43	0.63	0.64
1972	0.65	0.59	0.59	0.59	0.37	0.35	0.21	0.17	0.29	0.50	0.56	0.64
1973	0.58	0.56	0.50	0.13	0.11	0.16	0.23	0.13	0.31	0.48	0.60	0.65
1974	0.65	0.21	0.17	0.09	0.25	0.11	0.08	0.13	0.35	0.47	0.63	0.57
1975	0.65	0.62	0.54	0.61	0.16	0.12	0.20	0.09	0.34	0.49	0.64	0.59
1976	0.61	0.65	0.60	0.47	0.45	0.35	0.23	0.17	0.26	0.25	0.62	0.64
1977	0.48	0.54	0.37	0.42	0.29	0.17	0.10	0.16	0.13	0.24	0.52	0.47
1978	0.43	0.28	0.58	0.17	0.12	0.10	0.15	0.20	0.27	0.50	0.48	0.64
1979	0.62	0.51	0.55	0.45	0.26	0.26	0.23	0.14	0.28	0.50	0.56	0.62
1980	0.61	0.53	0.54	0.11	0.09	0.14	0.19	0.07	0.35	0.52	0.44	0.64
1981	0.63	0.48	0.51	0.50	0.35	0.35	0.22	0.20	0.35	0.56	0.49	0.64
1982	0.62	0.38	0.13	0.15	0.11	0.14	0.07	0.15	0.32	0.50	0.52	0.65
1983	0.45	0.25	0.08	0.04	0.03	0.03	0.06	0.08	0.07	0.30	0.53	0.25
1984	0.18	0.05	0.03	0.09	0.18	0.26	0.23	0.15	0.31	0.36	0.65	0.64
1985	0.65	0.38	0.51	0.60	0.45	0.35	0.21	0.10	0.31	0.58	0.61	0.64
1986	0.61	0.51	0.61	0.48	0.06	0.08	0.19	0.20	0.30	0.45	0.44	0.65
1987	0.60	0.45	0.51	0.49	0.45	0.27	0.21	0.10	0.22	0.47	0.53	0.59
1988	0.45	0.53	0.52	0.40	0.29	0.12	0.23	0.11	0.09	0.36	0.12	0.43
1989	0.47	0.39	0.52	0.45	0.28	0.26	0.20	0.11	0.28	0.50	0.54	0.66
1990	0.54	0.53	0.53	0.56	0.40	0.35	0.08	0.17	0.11	0.13	0.41	0.46
1991	0.49	0.16	0.36	0.27	0.22	0.35	0.21	0.15	0.21	0.13	0.35	0.44
1992	0.52	0.20	0.25	0.54	0.36	0.35	0.22	0.11	0.13	0.33	0.20	0.47
1993	0.48	0.25	0.60	0.18	0.19	0.18	0.14	0.06	0.33	0.50	0.58	0.64
1994	0.65	0.43	0.57	0.52	0.45	0.35	0.22	0.14	0.34	0.51	0.63	0.63
Mean	0.56	0.47	0.44	0.37	0.26	0.24	0.17	0.12	0.28	0.43	0.51	0.60
Max	0.65	0.66	0.61	0.61	0.46	0.35	0.26	0.21	0.35	0.58	0.65	0.66
Min	0.18	0.05	0.03	0.03	0.03	0.03	0.06	0.03	0.07	0.08	0.10	0.25

Appendix C-3 CALSIM II Modeling

Year	Base Future Base E/I Ratio											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0.63	0.60	0.56	0.32	0.61	0.26	0.32	0.19	0.05	0.24	0.51	0.65
1923	0.65	0.59	0.32	0.32	0.35	0.35	0.35	0.17	0.14	0.35	0.54	0.60
1924	0.64	0.40	0.58	0.50	0.45	0.09	0.15	0.18	0.10	0.08	0.39	0.45
1925	0.52	0.38	0.56	0.56	0.13	0.04	0.21	0.11	0.29	0.41	0.17	0.62
1926	0.54	0.40	0.44	0.52	0.28	0.30	0.17	0.11	0.21	0.44	0.35	0.53
1927	0.53	0.49	0.59	0.26	0.04	0.19	0.13	0.09	0.35	0.37	0.62	0.65
1928	0.65	0.56	0.61	0.48	0.35	0.12	0.17	0.19	0.35	0.37	0.52	0.64
1929	0.52	0.54	0.56	0.56	0.45	0.25	0.23	0.10	0.17	0.32	0.13	0.45
1930	0.47	0.26	0.52	0.52	0.37	0.30	0.21	0.11	0.21	0.48	0.47	0.64
1931	0.51	0.34	0.32	0.32	0.53	0.42	0.23	0.11	0.17	0.14	0.18	0.44
1932	0.41	0.29	0.50	0.48	0.38	0.31	0.22	0.14	0.24	0.46	0.28	0.57
1933	0.52	0.36	0.49	0.27	0.38	0.33	0.14	0.17	0.09	0.31	0.11	0.46
1934	0.51	0.17	0.57	0.49	0.27	0.12	0.08	0.11	0.09	0.29	0.10	0.44
1935	0.46	0.43	0.56	0.35	0.35	0.22	0.10	0.04	0.27	0.46	0.60	0.65
1936	0.58	0.48	0.56	0.29	0.14	0.25	0.17	0.07	0.35	0.47	0.56	0.64
1937	0.55	0.40	0.60	0.60	0.23	0.19	0.16	0.17	0.32	0.34	0.50	0.63
1938	0.59	0.47	0.15	0.23	0.05	0.05	0.10	0.11	0.20	0.50	0.58	0.65
1939	0.56	0.60	0.60	0.51	0.45	0.35	0.24	0.10	0.28	0.48	0.57	0.65
1940	0.46	0.49	0.49	0.31	0.18	0.11	0.09	0.12	0.32	0.50	0.61	0.65
1941	0.65	0.42	0.27	0.12	0.09	0.13	0.10	0.14	0.28	0.50	0.57	0.65
1942	0.65	0.58	0.18	0.10	0.06	0.33	0.12	0.07	0.34	0.37	0.62	0.65
1943	0.65	0.66	0.35	0.12	0.16	0.10	0.16	0.06	0.28	0.39	0.64	0.66
1944	0.61	0.48	0.61	0.53	0.43	0.35	0.26	0.18	0.35	0.51	0.49	0.64
1945	0.58	0.58	0.61	0.56	0.23	0.33	0.20	0.15	0.35	0.51	0.55	0.65
1946	0.64	0.53	0.17	0.23	0.21	0.35	0.24	0.15	0.35	0.54	0.64	0.65
1947	0.61	0.50	0.61	0.50	0.45	0.35	0.21	0.08	0.33	0.50	0.43	0.61
1948	0.53	0.51	0.48	0.50	0.28	0.35	0.17	0.05	0.35	0.53	0.62	0.65
1949	0.60	0.52	0.56	0.49	0.46	0.27	0.21	0.19	0.31	0.49	0.49	0.62
1950	0.47	0.48	0.53	0.53	0.33	0.33	0.20	0.08	0.35	0.50	0.54	0.65
1951	0.64	0.24	0.10	0.10	0.11	0.09	0.27	0.20	0.06	0.35	0.41	0.65
1952	0.65	0.52	0.27	0.13	0.14	0.14	0.17	0.11	0.09	0.20	0.49	0.62
1953	0.57	0.44	0.13	0.07	0.25	0.35	0.22	0.08	0.35	0.39	0.61	0.65
1954	0.65	0.59	0.52	0.34	0.19	0.24	0.14	0.15	0.35	0.49	0.60	0.65
1955	0.61	0.57	0.50	0.58	0.38	0.35	0.20	0.10	0.34	0.46	0.17	0.60
1956	0.51	0.52	0.12	0.07	0.12	0.22	0.19	0.03	0.35	0.35	0.62	0.65
1957	0.66	0.61	0.50	0.55	0.32	0.25	0.21	0.21	0.35	0.44	0.62	0.65
1958	0.65	0.66	0.48	0.30	0.06	0.12	0.07	0.11	0.27	0.50	0.62	0.60
1959	0.64	0.50	0.60	0.53	0.30	0.18	0.16	0.25	0.15	0.32	0.45	0.64
1960	0.59	0.31	0.54	0.52	0.38	0.35	0.08	0.10	0.26	0.52	0.26	0.50

Appendix C-3 CALSIM II Modeling

Year	Base Future Base E/I Ratio											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	0.50	0.48	0.58	0.59	0.41	0.35	0.22	0.14	0.35	0.53	0.39	0.61
1962	0.51	0.43	0.60	0.51	0.26	0.35	0.23	0.11	0.32	0.50	0.65	0.65
1963	0.36	0.65	0.43	0.61	0.14	0.29	0.06	0.04	0.34	0.33	0.63	0.65
1964	0.65	0.47	0.60	0.47	0.32	0.35	0.17	0.17	0.35	0.55	0.57	0.63
1965	0.53	0.54	0.15	0.10	0.30	0.31	0.13	0.12	0.35	0.34	0.65	0.65
1966	0.59	0.55	0.58	0.34	0.35	0.35	0.23	0.13	0.34	0.49	0.62	0.65
1967	0.56	0.59	0.30	0.24	0.19	0.20	0.14	0.11	0.21	0.50	0.62	0.55
1968	0.53	0.65	0.51	0.23	0.15	0.22	0.22	0.16	0.33	0.42	0.65	0.65
1969	0.54	0.59	0.46	0.10	0.09	0.16	0.11	0.11	0.19	0.48	0.48	0.65
1970	0.55	0.59	0.11	0.03	0.09	0.22	0.20	0.08	0.31	0.28	0.64	0.65
1971	0.65	0.61	0.19	0.23	0.14	0.26	0.20	0.07	0.35	0.43	0.63	0.65
1972	0.65	0.59	0.59	0.59	0.37	0.35	0.21	0.17	0.29	0.50	0.57	0.65
1973	0.58	0.56	0.50	0.13	0.11	0.16	0.23	0.13	0.31	0.48	0.60	0.65
1974	0.65	0.21	0.17	0.09	0.25	0.11	0.08	0.13	0.35	0.47	0.63	0.57
1975	0.65	0.62	0.54	0.61	0.16	0.12	0.20	0.09	0.34	0.49	0.64	0.59
1976	0.61	0.65	0.60	0.47	0.45	0.35	0.23	0.17	0.26	0.25	0.62	0.64
1977	0.47	0.54	0.38	0.42	0.29	0.17	0.10	0.16	0.13	0.24	0.52	0.47
1978	0.43	0.28	0.58	0.17	0.12	0.10	0.15	0.20	0.27	0.50	0.48	0.65
1979	0.63	0.51	0.55	0.45	0.26	0.26	0.23	0.14	0.28	0.50	0.56	0.63
1980	0.61	0.53	0.54	0.11	0.09	0.14	0.19	0.07	0.35	0.52	0.44	0.64
1981	0.63	0.48	0.51	0.50	0.35	0.35	0.22	0.20	0.35	0.56	0.49	0.65
1982	0.63	0.38	0.13	0.15	0.11	0.14	0.07	0.15	0.32	0.50	0.52	0.65
1983	0.45	0.25	0.08	0.04	0.03	0.03	0.06	0.08	0.07	0.30	0.53	0.25
1984	0.18	0.05	0.03	0.09	0.18	0.26	0.23	0.15	0.31	0.36	0.65	0.65
1985	0.65	0.38	0.51	0.60	0.45	0.35	0.21	0.10	0.31	0.58	0.62	0.65
1986	0.62	0.52	0.61	0.48	0.06	0.08	0.19	0.20	0.30	0.45	0.43	0.65
1987	0.61	0.46	0.51	0.49	0.45	0.27	0.21	0.10	0.22	0.46	0.54	0.60
1988	0.45	0.53	0.52	0.40	0.29	0.12	0.23	0.11	0.09	0.36	0.12	0.43
1989	0.47	0.39	0.52	0.45	0.28	0.26	0.20	0.11	0.28	0.50	0.55	0.66
1990	0.53	0.52	0.53	0.56	0.40	0.35	0.08	0.17	0.11	0.13	0.41	0.46
1991	0.49	0.16	0.36	0.27	0.22	0.35	0.21	0.15	0.21	0.13	0.35	0.44
1992	0.52	0.20	0.25	0.54	0.36	0.35	0.22	0.11	0.13	0.33	0.20	0.47
1993	0.48	0.25	0.60	0.18	0.19	0.18	0.14	0.06	0.33	0.50	0.58	0.65
1994	0.65	0.43	0.57	0.52	0.45	0.35	0.22	0.14	0.34	0.52	0.64	0.62
Mean	0.56	0.47	0.44	0.37	0.26	0.24	0.17	0.12	0.28	0.43	0.51	0.60
Max	0.66	0.66	0.61	0.61	0.46	0.35	0.26	0.21	0.35	0.58	0.65	0.66
Min	0.18	0.05	0.03	0.03	0.03	0.03	0.06	0.03	0.07	0.08	0.10	0.25

Appendix C-3 CALSIM II Modeling

Year	Difference Future Alt 1 & 2 minus Future Base E/I Ratio											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1923	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1924	0.00	0.00	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1925	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
1926	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1927	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1928	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1929	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1930	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1931	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
1932	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1933	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1934	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
1935	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1936	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1937	0.00	0.00	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1938	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1939	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
1940	0.00	0.00	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1941	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1942	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1943	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1944	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1945	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1946	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1947	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1948	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1949	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1950	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1951	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1952	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1953	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1954	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1955	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1956	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1957	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
1958	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1959	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1960	0.00	0.00	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix C-3 CALSIM II Modeling

Year	Difference Future Alt 1 & 2 minus Future Base E/I Ratio											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1962	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
1963	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1964	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1965	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1966	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1967	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1968	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1969	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1970	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1971	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1972	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1973	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
1974	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1975	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1976	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1977	0.01	0.00	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
1978	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1979	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00
1980	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1981	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00
1982	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1983	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1984	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1985	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1986	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1987	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
1988	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
1989	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1990	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
1991	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1992	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1993	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1994	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00
Mean	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
Min	-0.01	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01

Appendix C-3 CALSIM II Modeling

Year	Alt Future Alt 1 & 2 Delta Surplus Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	3,285	1,459	20,183	3,408	10,887	42,082	9,735	0	0	0
1923	0	0	19,974	19,551	0	0	16,063	905	0	0	0	0
1924	0	0	0	1,790	0	0	0	0	0	0	0	0
1925	0	0	1,200	994	50,115	0	9,526	6,610	0	0	0	0
1926	0	0	844	3,338	17,522	0	11,284	0	0	0	0	0
1927	0	3,796	1,966	4,355	113,724	19,495	28,904	5,786	0	0	0	0
1928	0	0	1,284	6,925	2,353	69,087	4,401	0	0	0	0	0
1929	0	0	902	2,138	0	0	0	0	0	0	0	0
1930	0	0	1,244	4,840	0	4,698	907	1,911	0	0	0	0
1931	0	0	769	2,647	0	0	0	2,688	0	0	0	0
1932	0	0	5,608	6,499	0	0	0	2,748	0	0	0	0
1933	0	0	346	3,472	971	703	0	0	0	0	0	0
1934	0	0	1,170	3,423	2,619	0	0	0	0	0	0	0
1935	0	0	1,234	8,397	0	11,721	41,529	0	424	0	0	0
1936	0	0	0	10,033	48,488	3,821	8,797	9,466	0	0	0	0
1937	0	0	0	1,189	24,771	25,754	9,152	3,391	0	0	0	0
1938	0	4,759	50,069	25,130	123,084	147,273	59,480	51,813	22,776	0	0	0
1939	3,257	0	1,190	2,997	0	0	0	0	0	0	0	0
1940	0	0	0	7,514	32,075	77,159	49,122	1,626	0	0	0	0
1941	0	0	26,977	86,147	95,815	63,199	57,348	25,210	0	0	0	0
1942	0	0	47,917	71,945	117,509	2,125	37,585	18,681	912	0	0	0
1943	0	0	14,357	76,009	32,127	66,293	11,441	4,294	2,148	0	0	0
1944	0	0	0	1,472	1,662	0	615	4,493	0	0	0	0
1945	0	0	1,016	837	26,242	1,942	5,050	2,691	0	0	0	0
1946	0	0	53,811	35,509	0	0	3,088	3,824	0	0	0	0
1947	0	0	1,043	858	0	0	0	1,083	0	0	0	0
1948	0	0	0	1,702	0	0	15,099	18,526	0	0	0	0
1949	0	0	980	2,577	0	11,195	2,211	537	0	0	0	0
1950	0	0	135	4,318	2,802	0	6,865	5,814	0	0	0	0
1951	0	31,837	87,287	66,405	52,202	8,041	1,501	12,457	0	0	0	0
1952	0	0	26,903	73,256	50,524	37,554	49,998	47,888	18,373	0	0	1,983
1953	2,774	3,061	38,644	95,712	1,422	0	6,201	13,703	0	0	0	0
1954	0	0	869	17,111	6,890	17,719	20,071	0	0	0	0	0
1955	0	0	5,337	2,592	0	0	0	4,574	0	0	0	0
1956	0	0	79,287	153,373	61,933	17,483	4,378	33,601	402	0	0	0
1957	0	0	0	2,343	11,009	14,831	0	8,601	0	0	0	0
1958	0	0	6,845	21,924	150,421	67,620	81,758	34,478	7,594	0	0	1,813
1959	311	0	1,078	21,118	28,145	0	340	2,151	0	0	0	0
1960	0	0	0	2,053	5,104	0	0	3,817	0	0	0	0

Appendix C-3 CALSIM II Modeling

Year	Alt Future Base Delta Surplus Outflow (CFS)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1961	0	0	922	822	3,088	0	0	0	0	0	0	0	0
1962	0	0	875	0	7,437	0	1,998	1,540	221	0	0	0	0
1963	14,711	0	9,515	1,268	7,679	0	72,330	12,891	0	0	0	0	0
1964	0	6,574	489	7,500	0	0	0	0	0	0	0	0	0
1965	0	0	61,696	106,931	6,407	0	33,112	0	0	0	0	0	0
1966	0	3,176	2,392	17,145	0	1,849	1,535	0	0	0	0	0	0
1967	0	0	21,721	32,635	23,662	29,236	33,967	38,265	21,903	0	0	3,852	0
1968	4,499	0	3,956	3,030	38,796	7,695	0	3,811	0	0	0	0	0
1969	0	0	6,393	105,544	106,189	39,308	42,558	42,163	14,379	0	0	0	147
1970	3,450	1,024	50,569	202,943	67,866	17,366	0	10,280	100	0	0	0	0
1971	0	955	44,932	35,539	0	13,966	0	17,952	0	0	0	0	0
1972	0	0	930	1,990	0	585	0	1,370	0	0	0	0	0
1973	0	2,650	5,644	67,656	65,301	35,077	2,380	9,113	0	0	0	0	0
1974	0	7,100	53,582	117,564	13,117	79,628	52,404	6,623	0	0	0	2,877	0
1975	0	0	1,214	1,077	7,091	62,701	5,165	19,925	699	0	0	2,048	0
1976	1,201	0	675	2,225	0	0	155	168	0	0	0	0	0
1977	0	0	853	0	0	0	0	0	0	0	0	0	0
1978	0	0	1,141	3,205	26,767	45,566	22,461	3,984	4,169	0	0	0	0
1979	0	0	6,579	14,649	11,414	905	8,524	0	0	0	0	0	0
1980	0	0	4,029	88,280	104,945	38,834	4,549	8,554	0	0	0	0	0
1981	0	0	1,260	5,848	0	0	4,448	2,976	0	0	0	0	0
1982	0	11,882	74,695	64,406	74,246	57,725	117,276	32,161	3,351	0	0	111	0
1983	9,198	29,013	80,115	100,610	160,812	233,884	75,141	60,723	65,282	17,397	4,294	20,880	0
1984	20,794	75,761	151,525	61,451	20,857	11,287	0	6,532	0	0	0	0	0
1985	0	5,484	5,396	1,068	0	0	1,989	0	0	0	0	0	0
1986	0	0	1,012	6,855	177,290	121,404	9,479	3,565	2,085	0	0	0	0
1987	0	0	695	3,203	0	6,172	0	0	0	0	0	0	0
1988	0	0	1,272	8,079	0	0	729	150	0	0	0	0	0
1989	0	0	1,240	3,349	0	13,230	7,033	0	0	0	0	0	0
1990	0	0	0	1,166	0	0	0	1,137	0	0	0	0	0
1991	0	0	655	750	0	0	0	267	0	0	0	0	0
1992	0	0	1,098	845	6,769	0	0	0	0	0	0	0	0
1993	0	0	1,104	49,942	26,880	20,091	12,279	12,710	1,963	0	0	0	0
1994	0	0	985	2,812	0	0	0	0	0	0	0	0	0
Mean	825	2,563	14,730	26,947	27,939	20,771	14,463	9,314	2,418	238	59	462	0
Max	20,794	75,761	151,525	202,943	177,290	233,884	117,276	60,723	65,282	17,397	4,294	20,880	0
Min	0	0	0	0	0	0	0	0	0	0	0	0	0

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Year	Base Future Base Delta Surplus Outflow (CFS)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1922	0	0	3,285	1,459	20,183	3,408	10,887	42,082	9,735	0	0	0	0
1923	0	0	19,860	19,546	0	0	16,063	905	0	0	0	0	0
1924	0	0	0	1,776	0	0	0	0	0	0	0	0	0
1925	0	0	1,256	994	49,950	0	9,594	6,610	0	0	0	0	0
1926	0	0	863	3,328	17,499	0	11,284	0	0	0	0	0	0
1927	0	3,891	1,966	4,355	113,724	19,635	28,904	5,786	0	0	0	0	0
1928	0	0	1,251	6,923	2,153	68,990	4,401	0	0	0	0	0	0
1929	0	0	1,066	2,183	0	0	0	0	0	0	0	0	0
1930	0	0	1,237	4,849	0	4,698	907	1,911	0	0	0	0	0
1931	0	0	769	2,647	0	0	0	268	0	0	0	0	0
1932	0	0	5,608	6,499	0	0	0	2,748	0	0	0	0	0
1933	0	0	474	3,494	823	703	0	0	0	0	0	0	0
1934	0	0	1,170	3,423	2,621	0	0	0	0	0	0	0	0
1935	0	0	1,234	8,397	0	11,521	41,529	0	424	0	0	0	0
1936	0	0	0	10,033	48,488	3,745	8,797	9,466	0	0	0	0	0
1937	0	0	0	1,246	24,566	25,571	9,152	3,391	0	0	0	0	0
1938	0	4,841	50,001	24,927	123,081	147,273	59,480	51,813	22,776	0	0	0	0
1939	3,367	0	1,190	3,052	0	0	0	0	0	0	0	0	0
1940	0	0	0	7,524	32,075	77,057	48,903	1,626	0	0	0	0	0
1941	0	0	26,977	86,147	95,608	63,170	57,348	25,210	0	0	0	0	0
1942	0	0	47,813	71,907	117,409	2,125	37,585	18,681	912	0	0	0	0
1943	0	0	14,278	75,980	31,924	66,200	11,441	4,294	2,148	0	0	0	0
1944	0	0	0	1,519	1,718	0	615	4,493	0	0	0	0	0
1945	0	0	1,011	844	26,087	1,798	5,050	2,691	0	0	0	0	0
1946	0	0	53,809	35,508	0	0	3,088	3,824	0	0	0	0	0
1947	0	0	1,043	929	0	0	0	1,083	0	0	0	0	0
1948	0	0	0	1,778	0	0	14,797	18,443	0	0	0	0	0
1949	0	0	1,144	2,615	0	11,171	2,211	537	0	0	0	0	0
1950	0	0	118	4,305	2,602	0	6,596	5,814	0	0	0	0	0
1951	0	31,946	87,075	66,224	52,202	8,041	1,501	12,457	0	0	0	0	0
1952	0	0	26,903	73,256	50,344	37,475	49,998	47,888	18,373	0	0	2,055	0
1953	2,705	3,061	38,644	95,712	1,422	0	6,201	13,703	0	0	0	0	0
1954	0	0	866	17,110	6,690	17,604	20,071	0	0	0	0	0	0
1955	0	0	5,314	2,589	0	0	0	4,574	0	0	0	0	0
1956	0	0	79,287	153,373	61,746	17,377	4,378	33,601	402	0	0	0	0
1957	0	0	0	2,402	10,806	14,672	0	8,601	0	0	0	0	0
1958	0	0	6,845	21,924	150,212	67,555	81,758	34,478	7,594	0	0	1,942	0
1959	338	0	1,032	21,112	27,988	0	340	2,151	0	0	0	0	0
1960	0	0	0	2,090	5,064	0	0	3,817	0	0	0	0	0

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Appendix C-3 CALSIM II Modeling

Year	Base Future Base Delta Surplus Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	0	0	850	936	3,164	0	0	0	0	0	0	0
1962	0	0	675	0	7,303	0	1,918	1,532	221	0	0	0
1963	14,553	0	9,411	1,250	7,594	0	72,330	12,891	0	0	0	0
1964	0	6,608	473	7,293	0	0	0	0	0	0	0	0
1965	0	0	61,696	106,931	6,402	0	33,110	0	0	0	0	0
1966	0	3,366	2,182	16,941	0	0	1,849	1,535	0	0	0	0
1967	0	0	21,721	32,635	23,467	29,183	33,967	38,265	21,903	0	0	3,886
1968	4,467	0	3,956	3,030	38,796	7,695	0	3,811	0	0	0	0
1969	0	0	6,393	105,544	106,072	39,265	42,558	42,163	14,379	0	0	147
1970	3,507	964	50,569	202,943	67,866	17,366	0	10,280	100	0	0	0
1971	0	1,019	44,871	35,534	0	13,910	0	17,952	0	0	0	0
1972	0	0	1,009	2,057	0	430	0	1,363	0	0	0	0
1973	0	2,591	5,644	67,514	65,238	35,077	2,380	9,113	0	0	0	0
1974	0	7,159	53,543	117,358	13,065	79,628	52,404	6,623	0	0	0	3,034
1975	0	0	1,174	1,122	6,885	62,601	5,165	19,925	699	0	0	2,222
1976	1,280	0	673	2,280	0	0	155	172	0	0	0	0
1977	0	0	0	769	0	0	0	0	0	0	0	0
1978	0	0	1,141	3,205	26,699	45,415	22,400	4,184	4,169	0	0	0
1979	0	0	0	6,615	14,522	11,253	905	8,524	0	0	0	0
1980	0	0	4,028	88,259	104,702	38,796	4,549	8,554	0	0	0	0
1981	0	0	1,262	5,887	0	0	4,448	2,976	0	0	0	0
1982	0	11,928	74,695	64,239	74,040	57,557	117,276	32,161	3,310	0	0	111
1983	9,198	29,013	80,115	100,610	160,812	233,884	75,141	60,723	65,282	17,397	4,294	20,880
1984	20,794	75,761	151,525	61,451	20,857	11,287	0	6,532	0	0	0	0
1985	0	5,526	5,396	872	0	0	1,989	0	0	0	0	0
1986	0	0	1,137	6,916	177,535	121,208	9,137	3,508	2,054	0	0	0
1987	0	0	813	3,262	0	6,051	0	0	0	0	0	0
1988	0	0	1,298	8,079	0	0	729	150	0	0	0	0
1989	0	0	1,242	3,347	0	13,230	7,033	0	0	0	0	0
1990	0	0	0	1,087	0	0	0	1,134	0	0	0	0
1991	0	0	655	750	0	0	0	267	0	0	0	0
1992	0	0	1,098	845	6,769	0	0	0	0	0	0	0
1993	0	0	1,104	49,942	26,880	20,091	12,298	12,710	1,963	0	0	0
1994	0	0	920	2,877	0	0	0	0	0	0	0	0
Mean	825	2,571	14,721	26,936	27,886	20,736	14,447	9,315	2,417	238	59	470
Max	20,794	75,761	151,525	202,943	177,535	233,884	117,276	60,723	65,282	17,397	4,294	20,880
Min	0	0	0	0	0	0	0	0	0	0	0	0

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Year	Difference Future Alt 1 & 2 minus Future Base Delta Surplus Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	0
1923	0	0	114	5	0	0	0	0	0	0	0	0
1924	0	0	0	13	0	0	0	0	0	0	0	0
1925	0	0	-56	0	164	0	-69	0	0	0	0	0
1926	0	0	-19	10	24	0	0	0	0	0	0	0
1927	0	-95	0	0	0	-140	0	0	0	0	0	0
1928	0	0	33	1	200	97	0	0	0	0	0	0
1929	0	0	-164	-46	0	0	0	0	0	0	0	0
1930	0	0	6	-9	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	-127	-23	148	0	0	0	0	0	0	0
1934	0	0	0	0	-1	0	0	0	0	0	0	0
1935	0	0	0	0	0	200	0	0	0	0	0	0
1936	0	0	0	0	0	76	0	0	0	0	0	0
1937	0	0	0	-57	206	183	0	0	0	0	0	0
1938	0	-83	68	203	3	0	0	0	0	0	0	0
1939	-109	0	0	-55	0	0	0	0	0	0	0	0
1940	0	0	0	-11	0	102	220	0	0	0	0	0
1941	0	0	0	0	207	29	0	0	0	0	0	0
1942	0	0	105	38	100	0	0	0	0	0	0	0
1943	0	0	79	28	203	93	0	0	0	0	0	0
1944	0	0	0	-47	-56	0	0	0	0	0	0	0
1945	0	0	5	-7	156	144	0	0	0	0	0	0
1946	0	0	2	1	0	0	0	0	0	0	0	0
1947	0	0	0	-71	0	0	0	0	0	0	0	0
1948	0	0	0	-75	0	0	301	83	0	0	0	0
1949	0	0	-164	-38	0	24	0	0	0	0	0	0
1950	0	0	17	13	200	0	269	0	0	0	0	0
1951	0	-109	213	181	0	0	0	0	0	0	0	0
1952	0	0	0	0	180	79	0	0	0	0	0	-72
1953	69	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	3	2	200	115	0	0	0	0	0	0
1955	0	0	22	3	0	0	0	0	0	0	0	0
1956	0	0	0	0	187	106	0	0	0	0	0	0
1957	0	0	0	-59	203	159	0	0	0	0	0	0
1958	0	0	0	4	210	65	0	0	0	0	0	-129
1959	-28	0	45	6	158	0	0	0	0	0	0	0
1960	0	0	0	-38	40	0	0	0	0	0	0	0

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Appendix C-3 CALSIM II Modeling

Year	Difference Future Alt 1 & 2 minus Future Base Delta Surplus Outflow (GFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	0	0	72	-114	-76	0	0	0	0	0	0	0
1962	0	0	200	0	134	0	80	7	0	0	0	0
1963	158	0	104	18	85	0	0	0	0	0	0	0
1964	0	-34	16	207	0	0	0	0	0	0	0	0
1965	0	0	0	0	5	0	2	0	0	0	0	0
1966	0	-190	210	204	0	0	0	0	0	0	0	0
1967	0	0	0	0	195	53	0	0	0	0	0	-33
1968	32	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	118	43	0	0	0	0	0	0
1970	-58	59	0	0	0	0	0	0	0	0	0	0
1971	0	-64	60	5	0	56	0	0	0	0	0	0
1972	0	0	-79	-67	0	155	0	7	0	0	0	0
1973	0	59	0	143	63	0	0	0	0	0	0	0
1974	0	-59	39	206	52	0	0	0	0	0	0	-157
1975	0	0	41	-45	206	101	0	0	0	0	0	-174
1976	-79	0	3	-55	0	0	0	0	-5	0	0	0
1977	0	0	0	83	0	0	0	0	0	0	0	0
1978	0	0	-1	0	68	151	61	-200	0	0	0	0
1979	0	0	0	-36	127	161	0	0	0	0	0	0
1980	0	0	1	21	243	38	0	0	0	0	0	0
1981	0	0	-2	-40	0	0	0	0	0	0	0	0
1982	0	-46	0	167	207	168	0	0	40	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	-42	0	196	0	0	0	0	0	0	0	0
1986	0	0	-125	-61	-245	196	342	57	31	0	0	0
1987	0	0	-118	-60	0	121	0	0	0	0	0	0
1988	0	0	-26	0	0	0	0	0	0	0	0	0
1989	0	0	-3	3	0	0	0	0	0	0	0	0
1990	0	0	0	79	0	0	0	0	4	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	-19	0	0	0	0
1994	0	0	65	-65	0	0	0	0	0	0	0	0
Mean	0	-8	9	10	54	35	16	-1	1	0	0	-8
Max	158	59	213	207	243	200	342	83	40	0	0	0
Min	-109	-190	-164	-114	-245	-140	-69	-200	0	0	0	-174

Appendix C-3 CALSIM II Modeling

Year	Alt Future Alt 1 & 2 Shasta Reservoir Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	2,806	2,826	2,839	2,990	2,995	3,294	4,078	4,236	3,930	3,446	3,024	2,836
1923	2,831	2,859	2,928	3,136	3,201	3,248	3,558	3,320	3,063	2,655	2,280	2,185
1924	2,149	2,108	2,092	2,150	2,311	2,247	2,032	1,717	1,313	869	630	585
1925	590	696	785	1,032	2,270	2,451	3,114	3,173	2,933	2,429	2,062	1,911
1926	1,849	1,849	1,897	1,940	2,655	2,847	3,142	3,011	2,654	2,215	1,880	1,777
1927	1,718	2,193	2,699	3,173	3,462	4,035	4,552	4,552	4,243	3,641	3,204	3,034
1928	3,004	3,191	3,280	3,556	3,950	3,965	4,463	4,268	3,897	3,256	2,880	2,722
1929	2,626	2,617	2,625	2,728	2,918	3,090	3,088	2,959	2,722	2,331	1,967	1,817
1930	1,771	1,768	2,288	2,485	2,856	3,293	3,443	3,342	2,992	2,568	2,186	2,059
1931	1,995	1,981	1,967	2,041	2,120	2,282	2,000	1,717	1,422	958	663	625
1932	606	597	772	914	1,038	1,448	1,612	1,803	1,609	1,346	1,072	927
1933	847	831	819	843	882	1,467	1,652	1,718	1,585	1,202	836	669
1934	637	644	759	1,054	1,370	1,652	1,760	1,608	1,227	782	605	574
1935	563	648	685	970	1,299	1,687	2,683	2,897	2,595	2,233	1,795	1,602
1936	1,576	1,545	1,561	2,184	3,069	3,350	3,572	3,466	3,256	2,817	2,390	2,208
1937	2,093	2,000	1,930	1,909	2,001	2,645	3,286	3,446	3,282	2,935	2,549	2,378
1938	2,327	2,845	3,310	3,641	3,560	3,416	4,058	4,552	4,466	4,049	3,592	3,400
1939	3,250	3,204	3,314	3,509	3,588	3,988	3,774	3,492	3,057	2,514	2,170	2,091
1940	2,015	1,934	2,068	2,945	3,252	3,435	4,143	4,079	3,699	3,127	2,707	2,601
1941	2,591	2,607	3,293	3,317	3,423	3,940	4,456	4,552	4,485	4,150	3,641	3,400
1942	3,250	3,179	3,316	3,389	3,516	3,894	4,531	4,552	4,459	3,999	3,625	3,400
1943	3,250	3,252	3,356	3,541	3,848	4,118	4,552	4,521	4,250	3,653	3,231	3,080
1944	3,051	3,059	3,054	3,148	3,383	3,624	3,625	3,530	3,242	2,871	2,523	2,377
1945	2,385	2,532	2,822	3,022	3,728	3,961	4,141	4,158	3,906	3,353	2,918	2,725
1946	2,743	2,972	3,265	3,622	3,619	4,016	4,225	4,149	3,777	3,285	2,904	2,746
1947	2,675	2,695	2,734	2,746	2,963	3,446	3,609	3,291	3,085	2,605	2,293	2,206
1948	2,299	2,316	2,344	2,908	2,746	3,076	3,976	4,330	4,346	3,966	3,549	3,400
1949	3,179	3,152	3,140	3,134	3,254	4,071	4,392	4,341	3,947	3,294	2,870	2,698
1950	2,595	2,534	2,467	2,720	3,082	3,460	3,798	3,752	3,465	3,086	2,742	2,646
1951	2,924	3,252	3,322	3,624	3,794	4,181	4,268	4,286	3,918	3,267	2,853	2,727
1952	2,728	2,882	3,306	3,604	3,739	4,022	4,290	4,552	4,401	4,150	3,700	3,400
1953	3,250	3,217	3,345	3,366	3,714	4,116	4,452	4,552	4,500	3,918	3,597	3,400
1954	3,250	3,174	3,317	3,552	3,661	4,106	4,546	4,308	4,100	3,496	3,142	3,073
1955	3,010	3,124	3,360	3,461	3,498	3,673	3,747	3,816	3,405	2,916	2,588	2,505
1956	2,476	2,536	3,252	3,252	3,288	3,944	4,457	4,552	4,376	4,026	3,695	3,400
1957	3,250	3,175	3,198	3,306	3,675	4,129	4,159	4,411	4,130	3,532	3,153	3,180
1958	3,250	3,237	3,338	3,531	3,252	3,416	4,173	4,552	4,500	4,150	3,700	3,400
1959	3,250	3,173	3,209	3,648	3,777	4,041	4,096	3,873	3,257	2,682	2,158	2,312
1960	2,189	2,122	2,109	2,313	3,030	3,662	3,858	3,857	3,507	2,957	2,524	2,444

Appendix C-3 CALSIM II Modeling

Year	Shasta Reservoir Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	2,390	2,479	2,921	3,131	3,774	4,280	4,333	4,249	3,818	3,140	2,498	2,387
1962	2,348	2,335	2,642	3,695	3,675	4,120	4,396	4,285	3,930	3,141	2,849	2,730
1963	3,142	3,186	3,349	3,459	3,944	4,071	4,137	4,422	4,200	3,614	3,277	3,229
1964	3,250	3,252	3,276	3,649	3,835	3,934	3,714	3,499	3,263	2,818	2,457	2,344
1965	2,350	2,446	3,252	3,368	3,803	3,953	4,500	4,457	4,134	3,541	3,250	3,163
1966	3,137	3,252	3,326	3,725	4,037	4,229	4,552	4,409	3,851	3,298	2,834	2,760
1967	2,657	2,966	3,335	3,551	3,920	4,033	4,479	4,552	4,500	4,150	3,700	3,400
1968	3,250	3,210	3,295	3,577	3,654	4,191	4,177	4,037	3,548	2,981	2,634	2,545
1969	2,555	2,621	2,950	3,358	3,480	4,030	4,434	4,552	4,383	4,020	3,638	3,400
1970	3,250	3,247	3,317	3,252	3,431	4,061	4,007	3,865	3,576	3,027	2,634	2,461
1971	2,488	2,945	3,319	3,515	3,706	3,873	4,369	4,552	4,492	3,919	3,577	3,400
1972	3,250	3,175	3,301	3,645	3,954	4,249	4,456	4,328	3,809	3,179	2,761	2,726
1973	2,829	3,062	3,340	3,552	3,636	4,162	4,421	4,394	3,975	3,361	3,090	3,031
1974	3,118	3,252	3,267	3,252	3,694	3,416	4,289	4,480	4,329	4,099	3,700	3,400
1975	3,250	3,196	3,315	3,478	3,936	3,756	4,343	4,552	4,416	4,150	3,700	3,400
1976	2,248	2,731	2,712	2,741	2,726	2,721	2,416	2,274	1,743	1,139	651	598
1977	3,181	3,115	3,073	3,210	3,492	3,922	4,098	4,149	3,656	3,151	2,832	2,711
1978	2,756	2,865	2,981	3,528	3,292	3,938	4,223	4,166	3,843	3,401	3,058	3,002
1981	2,973	2,959	3,052	3,349	3,770	4,256	4,397	4,149	3,518	2,872	2,371	2,262
1982	2,331	3,252	3,276	3,616	3,530	3,953	4,094	4,304	4,140	3,851	3,473	3,400
1983	3,250	3,252	3,328	3,371	3,252	3,417	4,074	4,552	4,500	4,150	3,700	3,400
1984	3,250	3,252	3,285	3,650	3,995	4,246	4,336	4,285	4,030	3,428	3,159	3,128
1985	3,170	3,252	3,360	3,456	3,593	3,735	3,848	3,486	3,068	2,540	2,110	2,113
1986	2,073	2,098	2,267	2,825	3,252	3,534	3,903	3,870	3,486	3,150	2,835	2,870
1987	2,893	2,884	2,896	3,034	3,564	4,091	3,852	3,556	3,039	2,532	2,234	2,124
1988	2,055	2,032	2,537	2,937	2,851	2,919	2,959	2,946	2,543	2,051	1,742	1,598
1989	1,522	1,736	1,835	1,940	2,049	2,431	3,815	3,598	3,236	2,700	2,331	2,348
1990	2,470	2,468	2,443	2,675	2,572	2,845	2,692	2,848	2,639	2,126	1,851	1,760
1991	1,717	1,714	1,685	1,688	1,714	2,119	2,273	2,202	1,923	1,597	1,297	1,194
1992	1,179	1,138	1,134	1,180	1,837	2,283	2,512	2,232	1,844	1,386	993	881
1993	818	815	1,046	1,694	2,424	3,892	4,514	4,552	4,500	3,909	3,637	3,400
1994	3,250	3,186	3,258	3,391	3,620	3,652	3,506	3,211	2,783	2,194	1,618	1,452
Mean	2,487	2,544	2,698	2,936	3,193	3,538	3,808	3,790	3,496	3,015	2,637	2,509
Max	3,250	3,252	3,360	3,725	4,037	4,280	4,552	4,552	4,500	4,150	3,700	3,400
Min	563	586	685	843	882	1,448	1,612	1,608	1,227	782	605	574

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Year	Shasta Reservoir Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	2,806	2,822	2,897	2,991	3,290	4,074	4,232	3,927	3,442	3,020	2,835	
1923	2,836	2,849	2,938	3,146	3,204	3,251	3,561	3,323	3,066	2,658	2,290	2,203
1924	2,173	2,127	2,124	2,182	2,339	2,276	2,061	1,746	1,334	887	648	599
1925	596	702	791	1,038	2,276	2,457	3,120	3,179	2,939	2,435	2,068	1,924
1926	1,866	1,868	1,916	1,959	2,674	2,866	3,161	3,030	2,665	2,213	1,866	1,764
1927	1,709	2,184	2,690	3,164	3,462	4,035	4,552	4,552	4,243	3,642	3,204	3,045
1928	3,020	3,211	3,300	3,576	3,970	3,965	4,463	4,268	3,897	3,256	2,880	2,732
1929	2,639	2,634	2,642	2,745	2,932	3,099	3,098	2,968	2,720	2,317	1,965	1,823
1930	1,780	1,768	2,288	2,485	2,845	3,282	3,432	3,331	2,969	2,539	2,168	2,054
1931	1,982	1,968	1,954	2,028	2,107	2,269	1,987	1,704	1,409	945	650	612
1932	593	584	760	902	1,025	1,435	1,599	1,790	1,596	1,333	1,059	927
1933	855	840	828	852	892	1,476	1,661	1,727	1,583	1,200	840	681
1934	641	639	755	1,050	1,365	1,646	1,747	1,595	1,214	769	592	561
1935	550	635	672	957	1,286	1,675	2,670	2,890	2,588	2,226	1,794	1,612
1936	1,591	1,560	1,568	2,192	3,076	3,358	3,579	3,474	3,263	2,817	2,391	2,218
1937	2,108	2,018	1,956	1,935	2,027	2,671	3,312	3,472	3,308	2,955	2,569	2,404
1938	2,359	2,877	3,310	3,641	3,560	3,416	4,058	4,552	4,466	4,049	3,592	3,400
1939	3,250	3,195	3,305	3,500	3,580	3,977	3,762	3,480	3,045	2,506	2,173	2,101
1940	2,028	1,948	2,092	2,970	3,252	3,435	4,143	4,079	3,698	3,115	2,697	2,602
1941	2,592	2,602	3,293	3,317	3,423	3,940	4,456	4,552	4,485	4,150	3,641	3,400
1942	3,250	3,183	3,316	3,389	3,516	3,894	4,531	4,552	4,459	3,999	3,625	3,400
1943	3,250	3,252	3,356	3,541	3,848	4,118	4,552	4,521	4,250	3,653	3,231	3,090
1944	3,065	3,074	3,069	3,163	3,398	3,632	3,633	3,538	3,250	2,869	2,533	2,397
1945	2,409	2,559	2,849	3,049	3,755	3,988	4,168	4,185	3,933	3,369	2,936	2,754
1946	2,777	3,002	3,265	3,622	3,608	3,998	4,208	4,132	3,760	3,268	2,898	2,747
1947	2,673	2,690	2,729	2,741	2,961	3,437	3,599	3,281	3,064	2,583	2,283	2,207
1948	2,303	2,323	2,347	2,911	2,745	3,070	3,970	4,325	4,341	3,960	3,558	3,400
1949	3,177	3,147	3,134	3,128	3,249	4,071	4,392	4,341	3,947	3,285	2,870	2,707
1950	2,608	2,546	2,479	2,732	3,094	3,467	3,805	3,759	3,472	3,094	2,749	2,661
1951	2,944	3,252	3,322	3,624	3,794	4,181	4,268	4,286	3,918	3,267	2,853	2,735
1952	2,741	2,897	3,306	3,604	3,739	4,022	4,290	4,552	4,401	4,150	3,700	3,400
1953	3,250	3,217	3,345	3,366	3,714	4,116	4,452	4,552	4,500	3,918	3,597	3,400
1954	3,250	3,178	3,321	3,552	3,661	4,106	4,546	4,308	4,100	3,496	3,142	3,083
1955	3,025	3,143	3,360	3,461	3,487	3,656	3,730	3,799	3,388	2,899	2,574	2,499
1956	2,474	2,536	3,252	3,252	3,288	3,944	4,457	4,552	4,376	4,026	3,695	3,400
1957	3,250	3,181	3,203	3,311	3,675	4,129	4,159	4,411	4,129	3,524	3,146	3,182
1958	3,250	3,238	3,338	3,531	3,252	3,416	4,173	4,552	4,500	4,150	3,700	3,400
1959	3,250	3,175	3,211	3,648	3,777	4,041	4,096	3,873	3,257	2,682	2,165	2,326
1960	2,204	2,131	2,129	2,332	3,049	3,682	3,877	3,876	3,523	2,965	2,543	2,464

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Appendix C-3 CALSIM II Modeling

Year	Base Future Base Shasta Reservoir Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	2,415	2,506	2,948	3,158	3,801	4,280	4,333	4,249	3,818	3,153	2,521	2,410
1962	2,363	2,344	2,650	2,703	3,675	4,120	4,396	4,285	3,930	3,303	2,854	2,737
1963	3,149	3,193	3,349	3,459	3,944	4,071	4,137	4,422	4,200	3,614	3,277	3,238
1964	3,250	3,252	3,276	3,649	3,832	3,931	3,710	3,496	3,259	2,815	2,466	2,362
1965	2,372	2,472	2,522	3,368	3,803	3,946	4,500	4,457	4,131	3,527	3,229	3,153
1966	3,131	3,252	3,326	3,725	4,037	4,229	4,552	4,409	3,851	3,298	2,844	2,777
1967	2,674	2,980	3,335	3,551	3,920	4,033	4,479	4,552	4,500	4,150	3,700	3,400
1968	3,250	3,210	3,295	3,577	3,654	4,191	4,177	4,037	3,548	2,981	2,639	2,557
1969	2,568	2,631	2,959	3,358	3,480	4,030	4,434	4,552	4,383	4,020	3,638	3,400
1970	3,250	3,247	3,317	3,252	3,431	4,061	4,007	3,865	3,576	3,027	2,634	2,471
1971	2,502	2,960	3,319	3,515	3,695	3,873	4,369	4,552	4,492	3,919	3,577	3,400
1972	3,250	3,178	3,304	3,648	3,959	4,249	4,455	4,327	3,808	3,166	2,756	2,730
1973	2,826	3,058	3,336	3,552	3,636	4,162	4,421	4,394	3,975	3,361	3,090	3,041
1974	3,132	3,252	3,267	3,252	3,694	3,416	4,289	4,480	4,329	4,099	3,700	3,400
1975	3,250	3,200	3,319	3,482	3,936	3,756	4,343	4,552	4,416	4,150	3,700	3,400
1976	3,250	3,252	3,318	3,522	3,657	3,887	3,971	3,811	3,292	2,870	2,799	2,732
1977	2,743	2,722	2,712	2,740	2,719	2,707	2,402	2,259	1,728	1,124	637	584
1978	550	572	1,008	2,925	3,567	4,000	4,552	4,552	4,210	3,698	3,337	3,322
1979	3,200	3,140	3,091	3,229	3,510	3,940	4,117	4,167	3,674	3,166	2,848	2,736
1980	2,786	2,898	3,013	3,528	3,292	3,938	4,223	4,166	3,843	3,401	3,058	3,002
1981	2,983	2,975	3,068	3,365	3,773	4,256	4,397	4,149	3,518	2,881	2,389	2,291
1982	2,364	3,252	3,276	3,616	3,530	3,953	4,094	4,304	4,140	3,849	3,471	3,400
1983	3,250	3,252	3,328	3,371	3,252	3,417	4,074	4,552	4,500	4,150	3,700	3,400
1984	3,250	3,252	3,285	3,650	3,995	4,246	4,336	4,285	4,030	3,428	3,159	3,138
1985	3,184	3,252	3,360	3,456	3,588	3,730	3,844	3,482	3,064	2,542	2,121	2,132
1986	2,095	2,123	2,292	2,850	3,252	3,534	3,903	3,870	3,486	3,139	2,819	2,854
1987	2,882	2,876	2,888	3,026	3,358	4,084	3,845	3,549	3,030	2,511	2,225	2,122
1988	2,056	2,035	2,540	2,940	2,855	2,915	2,955	2,942	2,527	2,023	1,724	1,587
1989	1,507	1,716	1,815	1,920	2,029	3,410	3,795	3,578	3,216	2,679	2,323	2,341
1990	2,455	2,449	2,430	2,662	2,557	2,823	2,676	2,832	2,618	2,110	1,835	1,744
1991	1,701	1,698	1,668	1,672	1,699	2,104	2,258	2,187	1,908	1,582	1,282	1,179
1992	1,165	1,123	1,119	1,165	1,822	2,268	2,497	2,217	1,826	1,368	976	865
1993	801	798	1,029	1,678	2,408	3,875	4,497	4,552	4,500	3,909	3,637	3,400
1994	3,250	3,191	3,262	3,395	3,620	3,652	3,505	3,210	2,782	2,207	1,641	1,470
Mean	2,493	2,549	2,701	2,939	3,194	3,537	3,807	3,789	3,494	3,011	2,637	2,514
Max	3,250	3,252	3,360	3,725	4,037	4,280	4,552	4,552	4,500	4,150	3,700	3,400
Min	550	572	672	852	892	1,435	1,599	1,595	1,214	769	592	561

Year	Difference Future Alt 1 & 2 minus Future Base Shasta Reservoir Storage (TAF)													
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep		
1922	0	4	4	4	4	4	4	4	4	4	4	4	0	
1923	-5	-10	-10	-10	-3	-3	-3	-3	-3	-3	-3	-3	-9	-18
1924	-23	-20	-32	-32	-28	-28	-29	-29	-28	-21	-18	-18	-14	-14
1925	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-13
1926	-17	-19	-19	-19	-19	-19	-19	-19	-19	-11	2	14	13	-11
1927	9	9	9	9	9	9	9	9	9	9	9	9	9	0
1928	-17	-20	-20	-20	-20	-20	0	0	0	0	0	0	0	-9
1929	-14	-17	-17	-17	-14	-14	-10	-10	-10	2	14	2	2	-5
1930	-9	0	0	0	0	11	11	11	11	11	23	29	18	5
1931	13	13	13	13	13	13	13	13	13	13	13	13	13	13
1932	13	13	13	13	13	13	13	13	13	13	13	13	13	-1
1933	-8	-9	-9	-9	-9	-9	-9	-9	-9	3	3	3	-4	-12
1934	-4	4	4	4	4	4	6	6	6	13	13	13	13	13
1935	13	13	13	13	13	13	13	13	13	7	7	7	7	-10
1936	-16	-16	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-1	-10
1937	-15	-17	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-20	-27
1938	-32	-32	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	9	9	9	9	8	12	12	12	12	12	7	7	-10
1940	-13	-14	-25	-25	0	0	0	0	0	0	1	12	9	-1
1941	-1	4	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	-4	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0	0	-10
1944	-14	-15	-15	-15	-15	-15	-8	-8	-8	-8	1	-10	-20	-20
1945	-24	-27	-27	-27	-27	-27	-27	-27	-27	-27	-16	-18	-29	-29
1946	-33	-30	0	0	0	11	17	17	17	17	17	17	6	-1
1947	2	5	5	5	5	2	9	9	9	9	21	21	10	-1
1948	-4	-7	-3	-3	1	6	6	6	6	6	6	6	6	0
1949	2	5	5	5	5	5	0	0	0	0	0	0	9	-9
1950	-13	-12	-12	-12	-12	-12	-7	-7	-7	-7	-7	-7	-8	-15
1951	-20	0	0	0	0	0	0	0	0	0	0	0	0	-8
1952	-13	-15	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	-4	-4	-4	0	0	0	0	0	0	0	0	0	-10
1955	-15	-19	0	0	0	11	17	17	17	17	17	17	14	6
1956	2	0	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	-6	-5	-5	0	0	0	0	0	0	1	7	7	-2
1958	0	-1	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	-2	-2	-2	0	0	0	0	0	0	0	0	0	-14
1960	-15	-9	-19	-19	-19	-19	-19	-19	-19	-19	-17	-9	-19	-21

Appendix C-3 CALSIM II Modeling

Year	Difference Future Alt 1 & 2 minus Future Base Shasta Reservoir Storage (TAF)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1961	-24	-27	-27	-9	0	0	0	0	0	0	-14	-23	-23
1962	-15	-9	-9	0	0	0	0	0	0	0	8	-5	-7
1963	-7	0	0	0	0	0	0	0	0	0	0	0	-9
1964	0	0	0	3	3	3	3	3	3	3	3	-9	-18
1965	-22	-26	0	0	0	8	0	0	0	2	14	21	10
1966	5	0	0	0	0	0	0	0	0	0	0	-10	-17
1967	-16	-14	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	-6	-11
1969	-13	-9	-9	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0	-10
1971	-15	-15	0	0	11	0	0	0	0	0	0	0	0
1972	0	-4	-4	4	-5	0	1	1	1	12	4	-4	-4
1973	4	4	4	0	0	0	0	0	0	0	0	0	-10
1974	-14	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	-4	-4	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	-2	2	2	2	2	1	-6	-6	-4
1977	5	9	0	7	14	15	15	15	15	15	15	15	15
1978	15	15	15	15	0	0	0	0	0	0	0	-4	-9
1979	-19	-25	-18	-18	-18	-18	-18	-18	-18	-15	-15	-15	-25
1980	-30	-33	-33	0	0	0	0	0	0	0	0	0	0
1981	-10	-16	-16	-16	-2	0	0	0	0	-8	-18	-29	-29
1982	-33	0	0	0	0	0	0	0	0	2	2	2	0
1983	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0	-9
1985	-14	0	0	0	4	4	4	4	4	-2	-11	-18	-18
1986	-22	-25	-25	0	0	0	0	0	0	11	16	16	16
1987	11	8	8	8	7	7	7	7	7	9	21	9	2
1988	-1	-3	-3	-3	4	4	4	4	4	16	28	18	11
1989	14	20	20	20	20	20	20	20	20	20	20	8	7
1990	15	19	13	13	15	22	15	15	15	21	16	16	16
1991	16	16	16	16	15	15	15	15	15	14	15	15	15
1992	15	15	15	15	15	15	15	15	15	18	18	16	16
1993	16	16	16	16	16	16	16	16	16	0	0	0	0
1994	0	-4	-4	-4	-4	0	1	1	1	-12	-23	-18	-18
Mean	-6	-5	-3	-3	-1	1	1	1	1	2	3	0	-5
Max	16	20	20	20	20	22	20	20	20	23	29	21	16
Min	-33	-33	-33	-32	-28	-29	-29	-28	-27	-20	-23	-29	-29

Appendix C-3 CALSIM II Modeling

Year	Alt Future Alt Desal Total Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	14,621	13,818	12,851	19,628	47,690	40,798	31,717	56,660	48,096	25,459	12,350	16,469
1923	15,355	18,244	38,677	38,201	23,940	19,687	31,916	21,621	18,568	23,565	20,086	15,164
1924	14,818	12,389	13,151	14,785	17,866	12,042	9,244	8,593	10,730	11,311	10,593	8,746
1925	9,657	9,968	16,245	14,750	71,234	28,984	27,076	19,722	17,483	16,120	9,938	11,694
1926	11,289	10,482	11,356	20,018	46,683	16,083	27,108	14,879	13,110	18,318	14,735	10,310
1927	10,856	26,592	20,850	34,864	129,913	49,875	53,622	32,411	21,861	24,059	18,676	15,677
1928	14,412	21,118	18,347	25,512	29,502	106,410	33,715	23,499	17,737	20,076	15,049	13,671
1929	12,465	14,840	14,916	14,708	18,307	14,105	11,159	10,525	11,779	12,573	9,030	8,547
1930	9,437	8,640	20,129	23,722	21,364	34,510	15,751	14,112	12,531	18,496	16,082	12,071
1931	10,806	9,966	9,535	14,665	13,220	9,411	10,375	8,382	10,815	13,624	11,867	8,720
1932	9,029	8,545	24,452	25,425	25,181	18,075	16,395	16,613	19,573	18,291	12,377	11,738
1933	11,321	10,081	11,351	16,412	13,574	15,640	13,831	9,479	11,628	13,101	9,311	8,772
1934	9,209	8,673	16,819	21,059	17,474	14,557	13,499	9,615	12,067	12,336	8,918	8,787
1935	9,111	13,204	11,967	34,793	18,044	31,405	57,607	30,028	21,668	21,014	18,712	15,722
1936	14,300	11,803	14,426	42,680	81,924	37,453	30,649	22,424	20,654	21,704	20,682	13,555
1937	12,016	11,706	14,888	16,761	50,812	54,801	33,350	27,446	20,483	17,234	16,137	13,261
1938	13,000	28,103	65,222	38,929	148,393	173,421	83,404	81,157	57,573	25,348	17,431	16,850
1939	23,415	14,356	16,943	16,242	17,942	17,996	15,990	13,917	13,884	19,200	15,541	13,739
1940	13,303	10,941	10,950	39,319	67,194	115,657	75,884	24,198	18,154	25,961	20,411	14,194
1941	15,378	15,913	45,988	104,834	130,626	100,410	81,228	50,689	27,161	25,415	18,539	17,565
1942	16,921	15,495	66,947	85,694	147,162	32,874	56,973	44,030	33,770	20,945	19,376	18,221
1943	18,729	17,746	34,378	92,945	66,768	94,736	36,602	27,684	18,471	22,123	19,847	15,569
1944	13,920	13,609	15,188	16,794	30,686	26,242	16,279	16,924	18,034	19,918	17,510	14,031
1945	13,399	18,765	19,929	15,001	56,040	32,296	20,036	20,584	21,583	23,901	19,105	14,170
1946	13,873	18,922	72,627	54,176	32,435	24,432	19,883	20,545	20,475	24,292	19,986	14,016
1947	16,100	16,436	19,275	13,670	22,716	23,627	16,757	12,977	15,806	19,741	13,761	12,952
1948	11,961	13,103	10,896	16,598	16,232	17,749	32,584	32,226	23,833	24,302	18,987	14,917
1949	17,933	13,246	16,251	13,588	16,509	48,546	17,410	17,674	17,911	19,358	14,269	12,516
1950	11,194	12,935	11,859	23,210	40,175	24,348	24,435	21,235	21,503	23,041	21,068	13,806
1951	13,961	53,472	103,051	78,937	78,659	37,057	21,345	24,953	16,372	24,656	20,219	14,899
1952	15,791	17,715	45,701	91,812	85,323	74,826	74,549	77,621	53,034	24,929	19,110	22,103
1953	22,883	15,113	48,598	107,929	30,594	26,856	21,521	28,797	27,146	25,358	18,008	19,208
1954	16,278	19,487	13,897	35,968	65,700	55,011	46,790	28,645	16,239	25,190	17,602	16,865
1955	16,143	17,043	24,224	21,244	18,944	13,405	16,871	16,095	17,287	17,415	10,657	11,945
1956	11,607	14,218	98,276	171,999	93,372	45,867	25,944	46,221	28,756	19,415	19,044	19,639
1957	18,799	14,182	13,741	16,991	38,068	52,122	25,500	21,770	20,867	23,051	18,701	14,606
1958	19,506	16,444	25,719	40,761	183,210	103,267	104,645	59,984	41,995	25,056	20,574	21,931
1959	20,417	13,994	15,701	38,790	59,217	26,313	14,574	14,770	17,206	24,274	19,532	12,889
1960	13,952	10,841	12,081	14,501	33,986	24,498	13,981	15,332	14,447	21,249	12,936	10,043

Appendix C-3 CALSIM II Modeling

Year	Future Alt-Desal Total Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	10,890	14,926	18,278	13,592	32,163	18,459	14,978	13,882	16,451	21,768	14,768	15,206
1962	11,291	13,511	17,275	12,517	50,890	30,862	17,833	17,648	17,100	24,529	19,891	12,025
1963	35,912	17,148	28,287	19,934	83,407	35,541	94,802	36,818	22,553	24,040	19,289	16,779
1964	16,430	27,615	15,452	26,040	17,517	13,944	18,934	14,100	15,396	21,616	18,519	12,625
1965	11,435	18,111	80,521	125,573	41,239	28,345	52,533	29,084	20,733	21,740	19,449	15,596
1966	13,450	23,866	21,056	35,994	31,854	31,249	18,381	17,735	15,779	22,426	18,864	14,410
1967	15,086	17,586	40,619	51,269	63,262	66,533	60,384	62,346	55,235	25,350	19,440	23,952
1968	24,606	15,942	19,437	33,026	68,157	41,488	19,973	14,256	16,682	20,317	17,656	13,877
1969	15,663	15,081	26,798	124,178	140,791	71,393	65,268	73,760	48,020	24,748	14,468	20,269
1970	23,626	16,012	61,920	213,574	92,560	46,174	21,435	18,844	14,736	24,091	20,395	18,466
1971	15,146	21,251	63,679	54,171	31,136	51,322	27,745	31,343	23,003	28,464	19,178	18,373
1972	16,756	15,764	19,964	19,043	25,892	37,860	15,687	14,496	22,685	22,415	17,346	12,713
1973	13,873	23,151	24,521	84,036	97,973	66,214	24,490	23,840	21,408	24,478	18,016	14,628
1974	15,092	62,152	72,425	136,400	47,912	116,982	77,340	30,948	25,025	23,889	20,111	22,976
1975	17,207	14,574	19,338	18,081	72,627	96,850	31,770	35,259	30,783	24,443	19,536	22,150
1976	21,358	16,377	15,783	14,654	16,183	17,260	12,029	9,343	12,336	15,842	13,820	12,724
1977	11,293	11,901	9,628	9,149	10,646	8,754	10,614	7,409	10,793	14,473	12,838	8,623
1978	9,328	8,677	17,489	69,417	60,730	73,331	50,601	32,235	26,434	25,933	15,518	16,542
1979	15,004	13,126	15,777	17,862	109,862	53,565	65,790	26,474	23,935	20,049	25,272	14,930
1980	14,829	17,035	22,819	106,862	139,565	65,790	26,474	23,935	20,049	25,272	14,930	17,357
1981	15,011	11,670	16,956	24,367	29,699	34,388	20,840	14,950	16,242	22,075	17,874	14,504
1982	14,007	34,141	93,574	82,951	109,008	94,908	144,567	59,721	33,578	25,054	18,680	20,249
1983	29,359	47,604	91,657	107,571	179,821	254,011	93,119	83,711	93,813	42,951	24,541	34,364
1984	32,116	84,974	158,518	74,233	46,636	43,130	24,174	19,327	18,703	24,169	20,264	14,952
1985	16,123	33,993	24,253	16,760	20,224	18,796	15,765	16,347	14,939	22,561	20,117	15,607
1986	15,317	13,248	19,813	25,557	210,850	157,628	32,155	22,293	20,102	23,093	15,593	14,887
1987	13,896	11,835	12,890	16,139	22,134	27,020	16,818	11,835	14,034	17,583	14,283	12,077
1988	12,520	11,386	19,403	30,883	16,869	10,537	11,737	10,179	12,210	14,345	9,266	8,535
1989	9,298	11,406	11,608	15,039	11,158	50,756	23,466	15,179	15,429	20,224	14,386	14,361
1990	14,688	12,168	14,273	21,201	18,816	14,094	12,999	9,535	9,766	10,925	13,032	9,207
1991	9,057	8,653	8,046	7,459	9,562	34,681	16,502	10,823	9,546	10,717	11,900	9,191
1992	9,036	8,581	8,915	11,626	35,785	21,968	15,300	9,977	12,640	12,676	9,634	9,498
1993	9,391	8,743	15,642	68,847	63,179	51,223	44,561	36,945	31,658	25,490	17,607	14,943
1994	15,279	17,731	15,738	15,173	25,976	19,113	13,591	11,515	13,561	22,295	19,688	14,461
Mean	15,076	17,905	30,257	44,387	55,914	47,785	33,574	26,105	22,229	21,418	16,612	14,782
Max	35,912	84,974	158,518	213,574	210,850	254,011	144,567	83,711	93,813	42,951	24,541	34,364
Min	9,029	8,545	8,046	7,459	9,562	8,754	9,244	7,409	9,546	10,717	8,918	8,535

Appendix C-3 CALSIM II Modeling

Year	Base Future Base Total Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	13,210	18,257	21,851	19,628	47,090	40,798	31,717	56,660	48,096	25,459	12,350	15,524
1923	15,370	18,257	38,677	38,201	24,633	19,687	31,916	21,621	18,568	23,565	20,144	15,186
1924	14,846	12,529	13,154	14,785	17,903	12,072	9,244	8,627	10,848	11,397	10,674	8,818
1925	9,714	10,007	16,245	14,750	71,234	29,017	27,076	19,722	17,483	16,120	9,938	11,731
1926	11,298	10,489	11,356	20,018	46,683	16,083	27,108	14,879	13,110	18,318	14,735	10,377
1927	10,867	26,592	20,850	34,864	129,913	49,875	53,622	32,411	21,861	24,059	18,676	15,698
1928	14,422	21,138	18,347	25,512	29,502	106,410	33,715	23,499	17,737	20,076	15,049	13,705
1929	12,478	14,853	14,916	14,708	18,399	14,105	11,159	10,525	11,779	12,635	9,062	8,562
1930	9,474	8,817	20,129	23,722	21,364	34,510	15,751	14,112	12,531	18,499	16,118	12,091
1931	10,956	10,005	9,535	14,665	13,256	9,453	10,375	8,382	10,894	13,710	11,948	8,792
1932	9,086	8,584	24,452	25,425	24,981	18,075	16,479	16,613	19,573	18,291	12,377	11,782
1933	11,330	10,088	11,351	16,412	13,574	15,640	13,831	9,479	11,628	13,101	9,360	8,818
1934	9,430	8,803	16,819	21,059	17,474	14,480	13,579	9,615	12,067	12,336	9,999	8,859
1935	9,168	13,243	11,967	34,793	18,037	31,405	57,607	30,035	21,668	21,014	18,711	15,739
1936	14,311	11,870	14,426	42,680	81,924	37,453	30,649	22,424	20,654	21,808	20,682	13,594
1937	12,030	11,717	14,888	16,761	50,812	54,801	33,350	27,446	20,483	17,336	16,137	13,311
1938	13,015	28,103	65,222	38,929	148,393	173,421	83,404	81,157	57,573	25,348	17,431	16,917
1939	23,415	14,384	16,943	16,242	17,960	18,028	15,990	13,917	13,884	19,280	15,571	13,754
1940	13,314	10,957	10,960	39,319	67,194	115,657	75,884	24,198	18,154	25,961	20,485	14,216
1941	15,442	15,971	45,988	104,834	130,626	100,410	81,228	50,689	27,161	25,415	18,539	17,621
1942	16,937	15,509	66,947	85,694	147,162	32,874	56,973	44,030	33,770	20,945	19,376	18,251
1943	18,750	17,764	34,378	92,945	66,768	94,736	36,602	27,684	18,471	22,123	19,847	15,591
1944	13,933	13,621	15,222	16,794	30,686	26,242	16,279	16,924	18,034	19,988	17,544	14,055
1945	13,408	18,776	19,929	15,001	56,040	32,296	20,036	20,584	21,583	24,073	19,182	14,199
1946	13,884	19,056	72,627	54,176	32,433	24,494	19,883	20,545	20,475	24,292	20,025	14,034
1947	16,228	16,499	19,275	13,670	22,751	23,627	16,757	12,977	15,806	19,741	13,786	12,970
1948	11,971	13,114	10,896	16,598	16,351	17,749	32,584	32,226	23,833	24,302	19,045	14,937
1949	18,055	13,288	16,251	13,588	16,428	48,546	17,410	17,674	17,911	19,358	14,321	12,543
1950	11,207	12,296	11,859	23,210	40,175	24,426	24,435	21,235	21,503	23,041	21,068	13,855
1951	13,983	53,472	103,051	78,937	78,659	37,057	21,345	24,953	16,372	24,656	20,219	14,919
1952	15,807	17,749	45,701	91,812	85,323	74,826	74,549	77,621	53,034	24,929	19,110	22,103
1953	22,883	15,113	48,598	107,929	30,594	26,856	21,521	28,797	27,146	25,358	18,008	19,238
1954	16,292	19,501	13,897	35,968	65,700	55,011	46,790	28,645	16,239	25,190	17,602	16,891
1955	16,160	17,059	24,224	21,244	18,953	13,503	16,871	16,095	17,287	17,415	10,732	11,985
1956	11,620	14,230	98,276	171,999	93,372	45,867	25,944	46,221	28,756	19,415	19,044	19,672
1957	18,819	14,197	13,741	16,991	38,068	52,122	25,500	21,770	20,886	23,153	18,701	14,627
1958	19,520	16,497	25,719	40,761	183,210	103,267	104,645	59,984	41,995	25,056	19,181	21,931
1959	20,417	14,025	15,710	38,790	59,217	26,313	14,574	14,770	17,206	24,274	19,595	12,908
1960	14,005	10,954	12,081	14,501	33,986	24,498	13,981	15,332	14,447	21,249	12,982	10,110

Appendix C-3 CALSIM II Modeling

Year	Base Future Base Total Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	10,906	14,938	18,278	13,592	32,163	18,459	14,978	13,822	16,451	21,848	14,854	12,398
1962	11,364	13,551	17,275	12,517	50,890	30,862	17,833	17,648	17,100	24,529	19,923	15,118
1963	35,912	17,148	28,287	19,934	83,407	35,541	94,802	36,818	22,553	24,040	19,289	16,815
1964	16,442	27,615	15,452	26,040	17,574	13,944	18,934	14,100	15,396	21,616	18,533	12,635
1965	11,440	18,118	80,521	125,573	41,239	28,345	52,533	29,091	20,733	21,820	19,563	15,620
1966	13,466	23,866	21,056	35,994	31,754	31,361	18,381	17,735	15,779	22,426	18,914	14,431
1967	15,169	17,681	40,619	51,269	63,262	66,533	60,384	62,346	55,235	25,350	19,440	23,952
1968	24,606	15,942	19,437	33,026	68,157	41,488	19,973	14,256	16,682	20,317	17,171	13,892
1969	15,704	15,199	26,798	124,178	140,791	71,393	65,268	73,760	48,020	24,748	14,468	20,269
1970	23,626	16,012	61,920	213,574	92,560	46,174	21,435	18,844	14,736	24,091	20,395	18,492
1971	15,161	21,251	63,679	54,171	31,199	51,322	27,745	31,343	23,003	28,464	19,178	18,404
1972	16,775	15,778	19,964	19,043	25,921	37,860	15,706	14,496	22,685	22,435	17,401	12,732
1973	14,055	23,151	24,521	84,036	97,973	66,214	24,490	23,840	21,408	24,478	18,016	14,658
1974	15,102	62,152	72,425	136,400	47,912	116,982	77,340	30,948	25,025	23,889	20,111	22,976
1975	17,250	14,594	19,338	18,081	72,627	96,850	31,770	35,259	30,783	24,443	19,536	22,150
1976	21,358	16,406	15,783	14,654	16,198	17,260	12,029	9,343	12,380	15,902	13,820	12,932
1977	11,408	11,940	9,662	9,149	10,682	8,796	10,614	7,475	10,872	14,559	12,919	8,695
1978	9,385	8,716	17,489	69,417	60,730	73,331	50,601	32,235	26,434	25,933	15,517	16,593
1979	15,021	13,138	15,777	27,364	50,831	42,298	23,813	22,074	21,014	22,178	16,485	13,400
1980	14,842	17,065	22,819	106,862	139,565	65,790	26,474	23,935	20,049	25,272	14,930	17,357
1981	15,033	11,685	16,956	24,367	29,699	34,493	20,840	14,950	16,242	22,141	17,903	14,536
1982	14,021	34,141	93,574	82,951	109,008	94,908	144,567	59,721	33,578	25,083	18,680	20,249
1983	29,359	47,604	91,657	107,571	179,821	254,011	93,119	83,711	93,813	42,951	24,541	34,364
1984	32,116	84,974	158,518	74,233	46,636	43,130	24,174	19,327	18,703	24,169	20,264	14,979
1985	16,137	33,993	24,253	16,760	20,302	18,796	15,765	16,347	14,939	22,633	20,136	15,624
1986	15,330	13,261	19,813	25,557	210,850	157,628	32,155	22,293	20,102	23,093	15,552	14,887
1987	13,913	11,846	12,890	16,139	22,150	27,020	16,818	11,835	14,034	17,668	14,314	12,089
1988	12,528	11,396	19,403	30,883	16,869	10,537	11,737	10,179	12,210	14,345	9,297	8,547
1989	9,411	11,588	11,608	15,039	11,238	50,756	23,466	15,179	15,429	20,224	14,405	14,487
1990	14,754	12,207	14,307	21,201	18,853	14,094	13,000	9,535	9,738	11,039	13,113	9,279
1991	9,114	8,692	8,046	7,459	9,575	34,723	16,527	10,823	9,546	10,801	11,981	9,263
1992	9,093	8,620	8,915	11,626	35,785	21,968	15,300	9,977	12,686	12,676	9,688	9,570
1993	9,448	8,782	15,642	68,847	63,179	51,223	44,561	36,945	31,658	25,490	17,607	14,979
1994	15,290	12,740	15,738	15,173	26,000	19,113	13,591	11,515	13,561	22,316	19,700	14,636
Mean	15,110	17,937	30,258	44,387	55,921	47,793	33,577	26,107	22,234	21,442	16,638	14,821
Max	35,912	84,974	158,518	213,574	210,850	254,011	144,567	83,711	93,813	42,951	24,541	34,364
Min	9,086	8,584	8,046	7,459	9,575	8,796	9,244	7,475	9,546	10,801	8,999	8,547

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Year	Future Alt Desal minus Future Base Total Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	0
1923	-15	-14	0	0	-93	0	0	0	0	0	-58	-22
1924	-29	-140	-3	0	-36	-30	0	-34	-118	-86	-81	-72
1925	-57	-39	0	0	0	-33	0	0	0	0	0	-37
1926	-10	-8	0	0	0	0	0	0	0	0	0	-67
1927	-11	0	0	0	0	0	0	0	0	0	0	-21
1928	-10	-21	0	0	0	0	0	0	0	0	0	-35
1929	-13	-12	0	0	-92	0	0	0	0	-62	-32	-15
1930	-37	-178	0	0	0	0	0	0	0	-2	-36	-19
1931	-150	-39	0	0	-36	-42	0	0	-79	-86	-81	-72
1932	-57	-39	0	0	200	0	-85	0	0	0	0	-44
1933	-9	-7	0	0	0	0	0	0	0	0	-48	-46
1934	-221	-129	0	0	0	78	-80	0	0	0	-81	-72
1935	-57	-39	0	0	7	0	0	-7	0	0	1	-17
1936	-11	-67	0	0	0	0	0	0	0	-103	0	-38
1937	-14	-12	0	0	0	0	0	0	0	-102	0	-50
1938	-15	0	0	0	0	0	0	0	0	0	0	-67
1939	0	-28	0	0	-18	-32	0	0	0	-80	-31	-15
1940	-11	-16	-10	0	0	0	0	0	0	0	-74	-23
1941	-64	-58	0	0	0	0	0	0	0	0	0	-55
1942	-16	-14	0	0	0	0	0	0	0	0	0	-30
1943	-22	-18	0	0	0	0	0	0	0	0	0	-22
1944	-14	-12	-34	0	0	0	0	0	0	-70	-34	-24
1945	-9	-11	0	0	0	0	0	0	0	-172	-77	-29
1946	-11	-134	0	0	2	-62	0	0	0	0	-39	-17
1947	-128	-63	0	0	-35	0	0	0	0	0	-25	-19
1948	-9	-11	0	0	-120	0	0	0	0	0	0	-20
1949	-122	-40	0	0	81	0	0	0	0	0	-52	-27
1950	-13	-62	0	0	-77	0	0	0	0	0	-1	-49
1951	-22	0	0	0	0	0	0	0	0	0	0	-21
1952	-16	-33	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	-30
1954	-14	-14	0	0	0	0	0	0	0	0	0	-25
1955	-17	-16	0	0	-9	-99	0	0	0	0	-75	-40
1956	-12	-12	0	0	0	0	0	0	0	0	0	-33
1957	-19	-15	0	0	0	0	0	0	-19	-101	0	-21
1958	-14	-53	0	0	0	0	0	0	0	0	0	0
1959	0	-31	0	0	0	0	0	0	0	0	0	-18
1960	-52	-113	0	0	0	0	0	0	0	0	0	-66

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Year	Future Alt Desal minus Future Base Total Delta Inflow (CFS)												Sep
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug		
1961	-16	-12	0	0	0	0	0	0	0	-80	-86	-92	
1962	-73	-40	0	0	0	0	0	0	0	0	-32	-93	
1963	0	0	0	0	0	0	0	0	0	0	0	-36	
1964	-12	0	0	-57	0	0	0	0	0	0	-14	-10	
1965	-6	-7	0	0	0	0	-8	0	0	-80	-114	-25	
1966	-16	0	0	100	-112	0	0	0	0	0	-49	-21	
1967	-83	-95	0	0	0	0	0	0	0	0	0	0	
1968	0	0	0	0	0	0	0	0	0	0	-62	-14	
1969	-41	-118	0	0	0	0	0	0	0	0	0	0	
1970	0	0	0	0	0	0	0	0	0	0	0	-25	
1971	-15	0	0	-63	0	0	0	0	0	0	0	-31	
1972	-19	-14	0	-29	0	-19	0	0	0	-20	-55	-19	
1973	-183	0	0	0	0	0	0	0	0	0	0	-30	
1974	-10	0	0	0	0	0	0	0	0	0	0	0	
1975	-43	-20	0	0	0	0	0	0	0	0	0	0	
1976	0	-29	0	-15	0	0	0	0	-44	-59	0	-209	
1977	-116	-39	-34	0	-36	-42	0	-66	-79	-86	-81	-72	
1978	-57	-39	0	0	0	0	0	0	0	0	0	-51	
1979	-16	-12	0	0	0	0	0	0	0	-50	-81	-25	
1980	-13	-30	0	0	0	0	0	0	0	0	0	0	
1981	-22	-14	0	0	0	-105	0	0	0	-66	-29	-32	
1982	-14	0	0	0	0	0	0	0	0	-28	0	0	
1983	0	0	0	0	0	0	0	0	0	0	0	0	
1984	0	0	0	0	0	0	0	0	0	0	0	0	
1985	-14	0	0	0	-77	0	0	0	0	-72	-20	-16	
1986	-13	-13	0	0	0	0	0	0	0	0	41	0	
1987	-17	-11	0	0	-16	0	0	0	0	-84	-31	-12	
1988	-8	-10	0	0	0	0	0	0	0	0	0	-31	
1989	-113	-182	0	0	-80	0	0	0	0	0	-19	-125	
1990	-65	-39	-34	0	-37	0	-1	0	28	-113	-81	-72	
1991	-57	-39	0	0	-13	-42	-25	0	0	-83	-81	-72	
1992	-57	-39	0	0	0	0	0	0	-46	0	-54	-72	
1993	-57	-39	0	0	0	0	0	0	0	0	0	-36	
1994	-11	-9	0	0	-23	0	0	0	0	-22	-12	-175	
Mean	-34	-32	-2	0	-7	-8	-3	-2	-5	-23	-26	-39	
Max	0	0	0	0	200	78	0	0	28	0	41	0	
Min	-221	-182	-34	0	-120	-112	-85	-66	-118	-172	-114	-209	

Year	Alt Future Alt Desal Sacramento River (no Yolo Bypass) Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	12,092	11,642	18,010	15,806	35,832	22,849	46,934	35,723	22,888	9,622	13,787	17,626
1923	11,941	15,738	29,554	28,407	16,114	15,687	23,501	15,104	15,039	21,007	17,626	12,765
1924	12,258	10,492	11,154	12,783	15,300	10,008	7,169	6,881	9,388	10,039	9,689	6,830
1925	7,821	8,182	13,982	13,042	62,894	25,523	20,375	14,403	14,755	14,100	8,034	9,733
1926	9,039	8,707	9,490	17,952	40,696	13,671	19,398	11,472	11,464	16,863	13,636	8,947
1927	8,958	23,315	18,257	31,842	74,883	43,513	44,605	25,129	17,813	21,572	16,362	13,392
1928	12,370	18,544	15,153	22,425	25,568	74,279	26,120	18,253	15,463	18,341	13,381	11,960
1929	10,306	12,853	12,764	12,847	15,601	11,849	8,068	7,821	10,247	11,233	8,141	6,148
1930	7,580	7,217	17,866	21,693	18,823	30,506	12,579	11,433	11,079	17,190	15,213	10,857
1931	8,997	8,455	8,109	12,899	11,429	7,726	8,636	7,064	9,608	12,504	11,042	6,927
1932	7,774	7,086	19,156	21,366	15,911	12,667	10,724	11,599	17,089	16,423	10,618	9,925
1933	9,131	8,349	9,556	14,029	11,281	13,093	10,727	6,520	10,072	11,911	8,139	6,805
1934	7,621	7,169	14,338	18,606	14,390	12,304	11,375	7,832	10,874	11,269	8,113	6,959
1935	7,768	11,390	10,024	28,737	13,985	25,709	46,527	23,184	18,175	18,817	16,806	13,755
1936	12,014	9,921	12,409	38,555	60,951	29,727	21,086	14,741	16,847	19,158	18,318	11,104
1937	9,631	9,706	12,509	13,629	33,136	39,442	21,987	15,236	16,770	14,668	13,791	10,848
1938	10,247	25,552	55,774	31,651	74,405	74,763	60,413	54,938	34,079	20,961	14,362	13,467
1939	14,513	12,063	14,446	13,703	14,303	13,342	10,765	9,714	11,897	17,323	13,691	11,955
1940	11,012	9,200	9,191	32,141	55,469	73,938	65,038	17,076	14,540	23,408	17,956	11,766
1941	12,638	13,745	39,662	73,073	73,936	70,422	61,418	38,778	19,145	22,260	15,621	14,814
1942	13,002	13,127	59,003	69,023	74,536	23,284	43,641	33,462	25,730	17,284	16,241	15,199
1943	13,462	14,313	29,024	71,907	51,633	67,347	25,864	18,107	14,140	18,937	16,991	12,746
1944	11,144	11,265	12,713	14,248	25,919	21,050	10,255	11,385	15,515	17,640	15,287	12,022
1945	11,043	16,173	17,351	12,686	45,641	22,673	11,406	13,435	17,731	20,982	16,278	11,530
1946	10,497	16,025	60,879	46,929	26,448	18,520	12,341	14,006	16,949	21,700	17,479	11,634
1947	13,485	13,984	16,580	11,257	19,371	20,609	13,513	10,270	14,038	18,086	12,427	11,545
1948	9,987	11,387	9,271	14,915	14,443	15,144	26,961	27,187	20,850	22,350	17,146	13,069
1949	15,808	11,526	14,451	11,480	14,153	43,189	12,493	13,437	15,711	17,514	12,487	10,728
1950	9,212	11,223	10,191	20,082	35,105	20,814	18,823	16,453	18,745	20,886	18,954	11,591
1951	11,740	42,962	74,540	61,685	64,071	28,438	14,490	18,363	13,065	22,504	18,194	12,742
1952	13,061	15,441	40,285	73,373	72,311	55,541	58,894	59,099	37,358	20,538	15,842	18,478
1953	14,989	12,947	43,742	73,094	23,712	22,777	15,706	23,191	23,791	23,002	15,785	17,073
1954	13,793	17,516	11,867	33,199	62,021	49,361	39,616	23,686	13,888	23,140	15,632	14,985
1955	13,829	15,232	21,589	18,241	16,189	10,893	13,636	12,855	13,354	15,689	9,374	10,467
1956	9,817	12,477	73,765	75,316	69,208	34,689	18,604	37,381	20,980	16,113	16,134	16,509
1957	14,569	12,177	11,601	14,790	34,288	45,624	20,090	16,137	17,885	20,972	16,738	12,662
1958	16,983	14,414	23,541	38,035	75,288	73,407	73,709	43,308	29,875	21,398	15,957	18,666
1959	13,833	11,476	12,929	36,096	53,225	22,152	9,833	11,291	15,416	22,551	17,855	11,228
1960	11,843	9,257	10,506	12,800	30,321	21,414	10,790	12,535	12,799	19,856	12,000	8,747

Appendix C-3 CALSIM II Modeling

Alt Future Base Sacramento River (no Yolo Bypass) Delta Inflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	9,073	13,331	16,577	12,094	30,214	16,346	13,074	12,220	14,906	20,738	13,845	10,928
1962	9,739	12,135	15,753	10,799	43,138	24,093	11,873	13,019	14,990	22,838	18,264	13,308
1963	32,258	15,463	26,220	16,996	72,417	31,132	72,330	28,890	18,185	21,138	16,760	14,241
1964	14,123	24,805	13,234	22,782	15,242	11,682	15,815	11,211	13,782	20,180	17,530	11,206
1965	9,695	16,104	66,633	74,345	31,027	22,423	42,045	21,409	16,021	18,795	16,764	12,864
1966	10,080	20,167	14,535	29,354	25,491	26,372	13,428	13,116	13,796	20,514	16,719	12,433
1967	12,715	15,273	35,712	40,613	56,282	53,261	37,830	43,229	36,653	15,263	16,200	20,077
1968	17,906	13,608	16,319	29,245	61,344	35,795	14,918	10,620	14,796	18,529	15,925	12,028
1969	13,429	12,985	23,645	74,113	74,044	46,470	41,841	45,253	21,520	19,774	11,338	16,522
1970	15,124	13,749	57,462	76,571	71,045	34,097	14,670	12,577	11,525	21,776	17,701	16,096
1971	12,487	18,217	56,069	47,381	27,169	45,213	21,602	25,634	19,863	26,014	16,833	16,126
1972	14,344	13,777	17,337	16,676	22,781	34,942	12,207	11,250	20,765	20,777	15,393	11,077
1973	11,755	20,705	22,307	73,317	73,061	51,602	16,182	16,938	18,273	21,997	15,236	12,097
1974	12,515	58,598	67,130	74,632	39,769	73,866	65,801	21,925	20,140	20,733	17,230	20,076
1975	14,291	12,317	16,699	15,573	63,813	70,889	21,830	26,813	23,713	21,121	16,541	19,119
1976	17,952	14,101	13,477	12,545	13,657	14,849	9,184	6,859	10,724	14,323	12,336	11,284
1977	7,829	9,569	7,728	7,603	8,950	7,101	8,605	5,677	9,429	13,567	12,048	6,769
1978	7,725	7,185	15,553	62,969	50,185	60,357	34,796	19,087	14,640	23,276	13,479	14,124
1979	10,628	11,316	13,715	21,257	38,618	31,180	15,910	14,659	18,397	20,150	14,516	11,333
1980	12,467	15,021	20,299	74,157	74,317	45,365	17,402	15,209	12,644	20,513	12,055	13,861
1981	10,358	9,571	14,714	21,143	26,397	29,545	15,786	11,030	14,422	20,315	16,124	12,804
1982	11,690	31,073	73,902	68,775	73,820	71,117	74,411	38,979	21,817	20,175	15,368	15,342
1983	16,651	36,738	64,416	71,180	75,043	77,421	62,125	55,737	54,624	23,226	20,645	26,447
1984	19,598	65,062	75,141	50,699	34,356	35,191	17,413	13,034	15,124	21,383	17,580	12,414
1985	12,306	30,511	21,717	14,503	17,177	15,674	11,635	12,397	13,009	20,780	18,405	13,875
1986	12,987	11,196	17,361	22,413	78,447	74,359	18,184	11,928	12,153	20,027	12,765	12,042
1987	10,985	9,770	10,811	14,018	19,395	24,034	14,048	9,379	12,563	15,956	12,910	10,731
1988	10,617	9,822	17,890	28,872	15,215	8,862	9,669	8,395	10,789	13,253	8,460	6,156
1989	7,589	9,947	10,049	13,619	9,456	47,320	20,907	13,256	13,798	18,821	13,474	13,081
1990	13,107	10,562	12,778	19,647	16,951	12,031	10,852	7,900	8,368	9,747	12,194	7,973
1991	7,754	7,242	6,656	6,221	7,932	30,402	13,545	8,581	8,191	9,532	11,013	8,015
1992	7,644	7,229	7,593	10,229	32,153	19,286	12,867	8,378	11,448	11,581	8,703	8,278
1993	7,746	7,247	13,847	57,490	55,746	43,600	37,494	30,629	25,970	22,832	15,124	12,542
1994	12,084	10,842	13,708	13,428	21,934	17,072	10,901	9,107	12,027	20,803	18,634	13,166
Mean	11,960	15,308	24,688	32,734	39,307	34,095	24,592	19,096	17,243	18,811	14,590	12,504
Max	32,258	65,062	75,141	76,571	78,447	77,421	74,411	59,099	54,624	26,014	20,645	26,447
Min	7,580	7,086	6,656	6,221	7,932	7,101	7,169	5,677	8,191	9,532	8,034	6,148

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Base Future Base Sacramento River (no Yolo Bypass) Delta Inflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	12,092	11,642	18,010	15,806	35,832	30,675	22,849	46,934	35,723	22,588	9,622	13,842
1923	11,955	15,751	29,554	20,540	16,208	15,687	23,501	15,104	15,039	21,007	17,684	12,787
1924	12,287	10,632	11,156	12,783	15,336	10,038	7,169	6,915	9,507	10,125	9,770	6,902
1925	7,878	8,221	13,982	13,042	62,894	25,556	20,375	14,403	14,755	14,100	8,034	9,770
1926	9,049	8,714	9,490	17,952	40,696	13,671	19,398	11,472	11,464	16,863	13,636	9,013
1927	8,970	23,315	18,257	31,842	74,883	43,513	44,605	25,129	17,813	21,572	16,362	13,412
1928	12,381	18,564	15,153	22,425	25,568	74,279	26,120	18,253	15,433	18,341	13,381	11,995
1929	10,319	12,866	12,764	12,847	15,693	11,849	8,068	7,821	10,247	11,295	8,173	6,164
1930	7,617	7,395	17,866	21,693	18,823	30,506	12,579	11,433	11,079	17,192	15,249	10,876
1931	9,148	8,494	8,109	12,899	11,465	7,768	8,636	7,064	9,687	12,590	11,123	6,999
1932	7,831	7,125	19,156	21,366	15,711	12,667	10,809	11,599	17,089	16,423	10,618	9,969
1933	9,141	8,356	9,556	14,029	11,281	13,093	10,727	6,520	10,072	11,911	8,187	6,851
1934	7,843	7,298	14,338	18,606	14,390	12,227	11,454	7,832	10,874	11,269	8,194	7,031
1935	7,825	11,429	10,024	28,737	13,978	25,709	46,527	23,190	18,175	18,817	16,805	13,772
1936	12,025	9,988	12,409	38,555	60,951	29,727	21,086	14,741	16,847	19,261	18,318	11,142
1937	9,645	9,718	12,509	13,629	33,136	39,442	21,987	15,236	16,770	14,770	13,791	10,898
1938	10,262	25,552	55,774	31,651	74,405	74,763	60,413	54,938	34,079	20,961	14,362	13,534
1939	14,513	12,091	14,446	13,703	14,321	13,374	10,765	9,714	11,897	17,403	13,722	11,970
1940	11,023	9,216	9,201	32,141	55,469	73,938	65,058	17,076	14,540	23,408	18,030	11,789
1941	12,702	13,804	39,662	73,073	73,936	70,422	61,418	38,778	19,145	22,260	15,621	14,869
1942	13,018	13,141	59,003	69,023	74,536	23,284	43,641	33,462	25,730	17,284	16,241	15,228
1943	13,483	14,332	29,024	71,907	51,633	67,347	25,864	18,107	14,140	18,937	16,991	12,767
1944	11,157	11,277	12,747	14,248	25,919	21,050	10,255	11,385	15,515	17,710	15,322	12,046
1945	11,052	16,183	17,351	12,686	45,641	22,673	11,406	13,435	17,731	21,154	16,355	11,559
1946	10,508	16,160	60,879	46,929	26,446	18,581	12,341	14,006	16,949	21,700	17,519	11,652
1947	13,612	14,047	16,580	11,257	19,406	20,609	13,513	10,270	14,038	18,086	12,452	11,564
1948	9,996	11,397	9,271	14,915	14,563	15,144	26,961	27,187	20,850	22,350	17,203	13,089
1949	15,929	11,566	14,451	11,480	14,072	43,189	12,493	13,437	15,711	17,514	12,539	10,755
1950	9,226	11,286	10,191	20,082	35,105	20,892	18,823	16,453	18,745	20,886	18,954	11,640
1951	11,761	42,962	74,540	61,685	64,071	28,438	14,490	18,363	13,065	22,504	18,194	12,763
1952	13,076	15,474	40,285	73,373	72,313	55,541	58,894	59,099	37,558	20,538	15,842	18,478
1953	14,989	12,947	43,742	73,094	23,712	22,777	15,706	23,191	23,791	23,002	15,785	17,103
1954	13,808	17,531	11,867	33,199	62,021	49,361	39,616	23,686	13,888	23,140	15,632	15,010
1955	13,847	15,248	15,589	18,241	16,198	10,992	13,636	12,855	15,354	15,689	9,449	10,507
1956	9,829	12,489	73,765	75,316	69,208	34,689	18,604	37,381	20,980	16,113	16,134	16,542
1957	14,589	12,192	11,601	14,790	34,288	45,624	20,090	16,137	17,904	21,073	16,738	12,683
1958	16,997	14,467	23,541	38,035	75,288	73,407	73,709	43,308	29,875	21,398	15,957	18,666
1959	13,833	11,506	12,929	36,096	53,225	22,152	9,833	11,291	15,416	22,551	17,919	11,246
1960	11,895	9,370	10,506	12,800	30,321	21,414	10,790	12,535	12,799	19,856	12,046	8,813

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Appendix C-3 CALSIM II Modeling

Year	Base											
	Sacramento River (no Yolo Bypass) Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	9,089	13,343	16,577	12,094	30,214	16,546	13,074	12,220	14,906	20,818	13,931	11,120
1962	9,812	12,175	15,753	10,799	43,138	24,093	11,873	13,019	14,990	22,838	18,296	13,401
1963	32,258	15,463	26,220	16,996	72,417	31,132	72,330	28,890	18,185	21,138	16,760	14,277
1964	14,135	24,805	13,234	22,782	15,299	11,682	15,815	11,211	13,782	20,180	17,544	11,216
1965	9,701	16,111	66,633	74,345	31,027	22,423	42,045	21,416	16,021	18,875	16,878	12,889
1966	10,096	20,167	14,535	29,354	25,391	26,484	13,428	13,116	13,796	20,514	16,769	12,454
1967	12,798	15,368	35,712	40,613	56,282	53,261	37,830	43,229	36,653	15,263	16,200	20,077
1968	17,906	13,608	16,319	29,245	61,344	35,795	14,918	10,620	14,796	18,329	15,986	12,043
1969	13,470	13,103	23,645	74,113	74,046	46,470	41,841	45,253	21,520	19,774	11,338	16,522
1970	15,124	13,749	57,462	76,571	71,045	34,097	14,670	12,577	11,525	21,776	17,701	16,122
1971	12,501	18,217	56,069	47,381	27,232	45,213	21,602	25,634	19,863	26,014	16,833	16,157
1972	14,362	13,791	17,337	16,676	22,810	34,942	12,226	11,250	20,765	20,797	15,448	11,096
1973	11,937	20,705	22,307	73,317	73,061	51,602	16,182	16,938	18,273	21,997	15,236	12,127
1974	12,525	58,598	67,130	74,632	39,769	73,866	65,801	21,925	20,140	20,733	17,230	20,076
1975	14,334	12,338	16,699	15,573	63,813	70,889	21,830	26,813	23,713	21,121	16,541	19,119
1976	17,952	14,130	13,477	12,545	13,672	14,849	9,184	6,859	10,768	14,382	12,336	11,493
1977	7,945	9,608	7,762	7,603	8,986	7,143	8,605	5,743	9,508	13,653	12,129	6,841
1978	7,782	7,224	15,553	62,969	50,185	60,357	34,796	19,087	14,640	23,276	13,478	14,175
1979	10,644	11,329	13,715	21,257	38,618	31,180	15,910	14,659	18,397	20,200	14,597	11,358
1980	12,480	15,051	20,299	74,157	74,317	45,365	17,402	15,209	12,644	20,513	12,055	13,861
1981	10,380	9,585	14,714	21,143	26,397	29,650	15,786	11,030	14,422	20,381	16,152	12,836
1982	11,704	31,073	73,902	68,775	73,820	71,117	74,411	38,979	21,817	20,204	15,368	15,342
1983	16,651	36,738	64,416	71,180	75,043	77,421	62,125	55,737	54,624	23,226	20,645	26,447
1984	19,598	65,062	75,141	50,699	34,356	35,191	17,413	13,034	15,124	21,383	17,580	12,440
1985	12,319	30,511	21,717	14,503	17,254	15,674	11,635	12,397	13,009	20,852	18,425	13,891
1986	13,000	11,209	17,361	22,413	78,447	74,359	18,184	11,928	12,153	20,027	12,724	12,042
1987	11,002	9,781	10,811	14,018	19,410	24,034	14,048	9,379	12,363	16,040	12,941	10,743
1988	10,625	9,833	17,890	28,872	15,215	8,862	9,669	8,395	10,789	13,253	8,491	6,169
1989	7,702	10,129	10,049	13,619	9,536	47,320	20,907	13,256	13,798	18,821	13,493	13,206
1990	13,173	10,601	12,812	19,647	16,988	12,031	10,854	7,900	8,339	9,860	12,275	8,045
1991	7,811	7,281	6,656	6,221	7,945	30,444	13,570	8,581	8,191	9,615	11,094	8,087
1992	7,701	7,268	7,593	10,229	32,153	19,286	12,867	8,378	11,494	11,581	8,757	8,350
1993	7,803	7,286	13,847	57,490	55,746	43,600	37,494	30,629	25,970	22,832	15,124	12,578
1994	12,095	10,851	13,708	13,428	21,957	17,072	10,901	9,107	12,027	20,825	18,645	13,341
Mean	11,994	15,340	24,689	32,734	39,313	34,103	24,595	19,098	17,248	18,835	14,616	12,543
Max	32,258	65,062	75,141	76,571	78,447	77,421	74,411	59,099	54,624	26,014	20,645	26,447
Min	7,617	7,125	6,656	6,221	7,945	7,143	7,169	5,743	8,191	9,615	8,034	6,164

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Year	Difference											
	Future Alt Desal minus Future Base Sacramento River (no Yolo Bypass) Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	0
1923	-15	-14	0	0	-93	0	0	0	0	0	-58	-22
1924	-29	-140	-3	0	-36	-30	0	-34	-118	-86	-81	-72
1925	-57	-39	0	0	-33	0	0	0	0	0	0	-37
1926	-10	-8	0	0	0	0	0	0	0	0	0	-67
1927	-11	0	0	0	0	0	0	0	0	0	0	-21
1928	-10	-21	0	0	0	0	0	0	0	0	0	-35
1929	-13	-12	0	0	-92	0	0	0	0	-62	-32	-15
1930	-37	-178	0	0	0	0	0	0	0	-2	-36	-19
1931	-150	-39	0	0	-36	-42	0	0	-79	-86	-81	-72
1932	-57	-39	0	0	200	0	-85	0	0	0	0	-44
1933	-9	-7	0	0	0	0	0	0	0	0	-48	-46
1934	-221	-129	0	0	78	-80	0	0	0	0	-81	-72
1935	-57	-39	0	0	7	0	0	-7	0	0	0	-17
1936	-11	-67	0	0	0	0	0	0	0	-103	0	-38
1937	-14	-12	0	0	0	0	0	0	0	-102	0	-50
1938	-15	0	0	0	0	0	0	0	0	0	0	-67
1939	0	-28	0	0	-18	-32	0	0	0	0	-31	-15
1940	-11	-16	-10	0	0	0	0	0	0	0	-74	-23
1941	-64	-58	0	0	0	0	0	0	0	0	0	-55
1942	-16	-14	0	0	0	0	0	0	0	0	0	-30
1943	-22	-18	0	0	0	0	0	0	0	0	0	-22
1944	-14	-12	-34	0	0	0	0	0	0	-70	-34	-24
1945	-9	-11	0	0	0	0	0	0	0	-172	-77	-29
1946	-11	-134	0	0	2	-62	0	0	0	0	-39	-17
1947	-128	-63	0	0	-35	0	0	0	0	0	-25	-19
1948	-9	-11	0	0	-120	0	0	0	0	0	0	-57
1949	-122	-40	0	0	81	0	0	0	0	0	0	-27
1950	-13	-62	0	0	-77	0	0	0	0	0	0	-49
1951	-22	0	0	0	0	0	0	0	0	0	0	-21
1952	-16	-33	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	-30
1954	-14	-14	0	0	0	0	0	0	0	0	0	-25
1955	-17	-16	0	0	-9	-99	0	0	0	0	0	-40
1956	-12	-12	0	0	0	0	0	0	0	0	0	-33
1957	-19	-15	0	0	0	0	0	0	0	-19	-101	0
1958	-14	-53	0	0	0	0	0	0	0	0	0	0
1959	0	-31	0	0	0	0	0	0	0	0	0	-18
1960	-52	-113	0	0	0	0	0	0	0	0	0	-66

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Appendix C-3 CALSIM II Modeling

Year	Difference Future Alt Desal minus Future Base Sacramento River (no Yolo Bypass) Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	-16	-12	0	0	0	0	0	0	0	-80	-86	-192
1962	-73	-40	0	0	0	0	0	0	0	0	-32	-93
1963	0	0	0	0	0	0	0	0	0	0	0	-36
1964	-12	0	0	-57	0	0	0	0	0	0	-14	-10
1965	-6	-7	0	0	0	0	0	-8	0	-80	-114	-25
1966	-16	0	0	100	-112	0	0	0	0	0	-49	-21
1967	-83	-95	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	-62	-14
1969	-41	-118	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	-25
1971	-15	0	0	-63	0	0	0	0	0	0	0	-31
1972	-19	-14	0	-29	0	0	-19	0	0	-20	-55	-19
1973	-183	0	0	0	0	0	0	0	0	0	0	-30
1974	-10	0	0	0	0	0	0	0	0	0	0	0
1975	-43	-20	0	0	0	0	0	0	0	0	0	0
1976	0	-29	0	0	-15	0	0	0	-44	-59	0	-209
1977	-116	-39	-34	0	-36	-42	0	-66	-79	-86	-81	-72
1978	-57	-39	0	0	0	0	0	0	0	0	0	-51
1979	-16	-12	0	0	0	0	0	0	0	-50	-81	-25
1980	-13	-30	0	0	0	0	0	0	0	0	0	0
1981	-22	-14	0	0	0	-105	0	0	0	-66	-29	-32
1982	-14	0	0	0	0	0	0	0	0	-28	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	-14	0	0	0	-77	0	0	0	0	-72	-20	-16
1986	-13	-13	0	0	0	0	0	0	0	0	41	0
1987	-17	-11	0	0	-16	0	0	0	0	-84	-31	-12
1988	-8	-10	0	0	0	0	0	0	0	0	-31	-12
1989	-113	-182	0	0	-80	0	0	0	0	0	-19	-125
1990	-65	-39	-34	0	-37	0	-1	0	28	-113	-81	-72
1991	-57	-39	0	0	-13	-42	-25	0	0	-83	-81	-72
1992	-57	-39	0	0	0	0	0	0	-46	0	-54	-72
1993	-57	-39	0	0	0	0	0	0	0	0	0	-36
1994	-11	-9	0	0	-23	0	0	0	0	-22	-12	-175
Mean	-34	-32	-2	0	-7	-8	-3	-2	-5	-23	-26	-39
Max	0	0	0	0	200	78	0	0	28	0	41	0
Min	-221	-182	-34	0	-120	-112	-85	-66	-118	-172	-114	-209

Appendix C-3 CALSIM II Modeling

Year	Alt Future Alt Desal San Joaquin River Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	2,304	1,906	2,967	2,941	8,488	8,235	7,010	5,947	9,684	2,260	2,147	2,093
1923	3,214	1,894	5,563	7,792	6,567	3,023	6,296	5,301	2,724	2,178	2,094	2,029
1924	2,301	1,604	1,708	1,674	1,910	1,697	1,770	1,612	1,274	1,223	847	1,157
1925	1,693	1,552	1,551	1,337	3,144	2,631	4,076	4,076	2,158	1,836	1,715	1,763
1926	2,000	1,487	1,560	1,441	2,196	1,797	3,551	3,067	1,571	1,407	1,044	1,298
1927	1,757	1,901	2,040	1,842	5,359	3,850	5,855	5,490	2,369	1,939	1,783	1,746
1928	1,839	1,986	2,390	2,248	2,594	5,351	5,823	4,675	1,864	1,682	1,613	1,645
1929	1,900	1,489	1,537	1,498	1,899	1,715	2,430	2,234	1,353	1,289	833	1,172
1930	1,667	1,258	1,231	1,341	1,678	1,959	2,457	2,225	1,322	1,257	813	1,153
1931	1,639	1,261	1,229	1,214	1,425	1,300	1,450	1,213	1,141	1,071	769	1,033
1932	1,174	1,300	3,295	3,549	7,686	4,624	4,806	3,952	2,008	1,808	1,703	1,747
1933	2,005	1,499	1,491	1,685	1,994	2,081	2,519	2,289	1,206	1,137	1,117	1,205
1934	1,429	1,281	1,413	1,401	1,989	1,692	1,735	1,531	1,106	1,019	750	1,078
1935	1,179	1,438	1,516	3,792	3,364	3,714	6,553	5,607	3,004	2,137	1,847	1,901
1936	2,057	1,573	1,689	2,011	12,208	5,888	7,148	5,623	2,359	1,994	1,840	1,923
1937	2,148	1,723	1,959	2,525	14,446	12,163	9,321	10,378	2,740	2,169	1,959	2,020
1938	2,521	1,809	5,371	6,702	23,085	29,680	17,972	21,745	20,734	3,639	2,385	2,696
1939	8,675	1,956	2,127	2,066	3,173	3,886	4,593	3,896	1,910	1,829	1,795	1,721
1940	2,085	1,565	1,587	4,239	5,755	9,888	6,875	5,446	2,718	2,199	2,115	2,077
1941	2,514	1,879	3,291	5,596	14,797	12,049	10,248	9,722	6,592	2,555	2,330	2,152
1942	3,710	2,024	5,061	8,740	9,830	6,102	7,154	7,102	5,774	2,923	2,461	2,342
1943	5,032	2,520	3,889	13,310	11,546	19,429	8,304	7,580	3,208	2,689	2,393	2,354
1944	2,531	2,042	2,127	2,061	3,322	3,448	5,289	4,726	2,504	2,225	2,167	1,944
1945	2,242	2,026	2,008	1,905	6,836	8,331	6,983	5,794	2,858	2,436	2,345	2,152
1946	3,154	2,171	5,898	4,954	5,255	4,602	6,033	5,471	2,725	2,295	2,219	2,090
1947	2,358	2,024	2,259	2,012	2,697	2,036	2,569	2,383	1,682	1,607	1,279	1,341
1948	1,838	1,497	1,420	1,291	1,470	1,919	3,940	3,557	2,294	1,869	1,783	1,877
1949	1,963	1,502	1,475	1,358	1,777	2,839	3,641	3,314	1,829	1,790	1,727	1,723
1950	1,786	1,480	1,453	2,152	2,916	2,491	3,637	3,221	1,780	1,645	1,608	1,703
1951	2,007	3,982	9,242	12,246	10,142	5,873	5,608	5,229	2,562	1,964	1,849	1,974
1952	2,473	1,846	3,225	7,612	6,738	13,383	10,250	13,677	13,485	3,342	2,327	2,672
1953	7,672	1,892	2,800	6,770	4,991	3,221	4,805	4,439	2,441	2,028	1,936	1,842
1954	2,222	1,646	1,693	1,753	2,370	2,741	4,832	4,341	2,037	1,997	1,912	1,815
1955	2,118	1,579	1,698	1,998	2,056	1,826	2,555	2,422	1,744	1,672	1,227	1,384
1956	1,646	1,540	12,103	18,001	12,293	6,470	6,099	5,736	5,967	2,583	2,224	2,443
1957	4,011	1,696	1,846	1,823	2,875	4,341	4,623	4,516	2,480	1,949	1,834	1,818
1958	2,315	1,719	1,809	2,083	4,031	9,636	16,575	12,782	9,993	2,819	2,433	2,466
1959	6,346	2,226	2,498	2,122	5,039	3,216	4,200	3,167	1,713	1,670	1,618	1,630
1960	1,892	1,408	1,386	1,445	2,279	1,903	2,553	2,338	1,542	1,340	877	1,231

Appendix C-3 CALSIM II Modeling

Year	Alt Future Alt Desal San Joaquin River Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	1,621	1,357	1,420	1,273	1,449	1,323	1,586	1,373	1,440	976	864	1,221
1962	1,456	1,300	1,306	1,581	1,460	1,660	4,780	3,920	1,739	1,637	1,569	1,652
1963	1,947	1,453	1,422	1,924	3,423	2,837	6,071	5,324	3,003	2,263	1,929	1,936
1964	2,089	1,775	1,791	1,761	1,735	1,727	2,461	2,271	1,446	1,376	924	1,267
1965	1,625	1,713	4,228	10,418	7,009	4,914	7,145	5,674	3,204	2,171	1,933	1,971
1966	3,112	2,883	5,701	4,913	4,922	3,500	4,098	4,234	1,880	1,853	1,787	1,718
1967	2,217	1,727	3,012	3,681	3,451	7,359	13,963	13,933	16,227	8,967	2,247	2,889
1968	6,443	2,033	2,748	2,137	4,173	3,316	4,373	3,241	1,765	1,728	1,668	1,650
1969	2,059	1,637	2,013	15,258	26,735	19,110	18,973	23,955	24,689	4,091	2,291	2,668
1970	8,252	1,926	3,708	18,728	9,638	7,978	5,847	5,370	2,617	2,101	2,032	2,052
1971	2,420	1,924	3,221	2,680	2,481	3,472	4,574	4,362	2,325	2,072	1,985	1,847
1972	2,148	1,618	1,849	1,793	2,312	1,833	2,577	2,639	1,608	1,579	1,540	1,469
1973	1,968	1,640	1,650	2,682	8,440	8,772	6,862	5,467	2,324	2,095	1,998	2,024
1974	2,332	1,738	2,678	6,264	5,526	7,921	9,116	7,059	3,550	2,427	2,206	2,233
1975	2,685	1,934	2,097	2,023	6,815	10,346	7,157	6,092	5,662	5,232	2,220	2,248
1976	3,151	1,870	1,969	1,781	2,129	1,829	2,516	2,313	1,537	1,472	1,430	1,262
1977	3,267	2,163	1,750	1,361	1,471	1,337	1,757	1,632	1,293	858	734	1,064
1978	1,514	1,415	1,587	3,786	7,956	9,609	13,016	12,149	11,395	2,574	1,980	2,337
1979	4,278	1,716	1,952	5,043	10,539	9,500	6,479	5,998	2,274	1,929	1,833	1,977
1980	2,311	1,870	2,000	12,967	22,648	13,842	7,761	6,903	6,001	3,994	2,143	2,753
1981	4,421	1,809	1,944	2,216	2,630	3,799	4,457	3,544	1,751	1,712	1,665	1,641
1982	2,160	1,784	1,916	8,239	15,580	16,882	25,885	16,557	9,976	3,846	3,328	3,914
1983	12,398	8,169	20,147	25,133	33,297	41,014	20,398	20,657	34,727	17,814	2,210	6,258
1984	12,298	13,667	23,098	14,724	9,964	6,270	5,629	5,156	2,731	2,345	2,240	2,096
1985	2,401	1,985	2,033	1,847	2,332	2,314	3,305	3,558	1,826	1,733	1,657	1,651
1986	2,182	1,764	1,837	2,261	19,222	25,143	12,260	8,490	6,832	2,514	2,293	2,305
1987	2,694	1,820	1,851	1,730	2,110	2,070	2,535	2,343	1,595	1,574	1,315	1,285
1988	1,736	1,396	1,346	1,338	1,388	1,321	1,772	1,634	1,313	1,033	740	1,114
1989	1,613	1,347	1,448	1,254	1,437	1,730	1,780	1,487	1,344	1,353	855	1,246
1990	1,434	1,388	1,311	1,265	1,494	1,417	1,625	1,359	1,225	1,119	783	1,169
1991	1,114	1,238	1,188	1,092	1,216	2,619	2,300	1,742	1,169	1,132	832	1,110
1992	1,314	1,268	1,191	1,275	2,438	2,005	1,978	1,369	1,118	1,041	872	1,154
1993	1,605	1,422	1,534	7,874	5,557	5,126	4,872	4,775	4,551	2,173	1,991	1,898
1994	2,973	1,627	1,620	1,423	1,833	1,537	2,381	2,226	1,450	1,441	996	1,235
Mean	2,886	1,994	3,013	4,437	6,320	6,294	6,095	5,570	4,190	2,287	1,696	1,872
Max	12,398	13,667	23,098	25,133	33,297	41,014	25,885	23,955	34,727	17,814	2,461	6,258
Min	1,114	1,238	1,188	1,092	1,216	1,300	1,450	1,213	1,106	858	734	1,033

Year	Base Future Base San Joaquin River Delta Inflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	2,304	1,906	2,967	2,941	8,488	8,235	7,010	5,947	9,684	2,260	2,147	2,093
1923	3,214	1,894	5,563	7,792	6,567	3,023	6,296	5,301	2,724	2,178	2,094	2,029
1924	2,301	1,604	1,708	1,674	1,910	1,697	1,770	1,612	1,274	1,223	847	1,157
1925	1,693	1,552	1,551	1,337	3,144	2,631	4,613	4,076	2,158	1,836	1,715	1,763
1926	2,000	1,487	1,560	1,441	2,196	1,797	3,551	3,067	1,571	1,407	1,044	1,298
1927	1,757	1,901	2,040	1,842	5,359	3,850	5,855	5,490	2,369	1,939	1,783	1,746
1928	1,839	1,986	2,390	2,248	2,594	5,351	5,823	4,675	1,864	1,682	1,613	1,645
1929	1,900	1,489	1,537	1,498	1,899	1,715	2,430	2,234	1,353	1,289	833	1,172
1930	1,667	1,258	1,231	1,341	1,678	1,959	2,457	2,225	1,322	1,257	813	1,153
1931	1,639	1,261	1,229	1,214	1,425	1,300	1,450	1,213	1,141	1,071	769	1,033
1932	1,174	1,300	3,295	3,549	7,686	4,624	4,806	3,952	2,008	1,808	1,703	1,747
1933	2,005	1,499	1,491	1,685	1,994	2,081	2,519	2,289	1,206	1,137	1,117	1,205
1934	1,429	1,281	1,413	1,401	1,989	1,692	1,735	1,531	1,106	1,019	750	1,078
1935	1,179	1,438	1,516	3,792	3,364	3,714	6,553	5,607	3,004	2,137	1,847	1,901
1936	2,057	1,573	1,689	2,011	12,208	5,888	7,148	5,623	2,359	1,994	1,840	1,923
1937	2,148	1,723	1,959	2,525	14,446	12,163	9,321	10,378	2,740	2,169	1,959	2,020
1938	2,521	1,809	5,371	6,702	23,085	29,680	17,972	21,745	20,734	3,639	2,385	2,696
1939	8,675	1,956	2,127	2,066	3,173	3,886	4,593	3,896	1,910	1,829	1,795	1,721
1940	2,085	1,565	1,587	4,239	5,755	9,888	6,875	5,446	2,718	2,199	2,115	2,077
1941	2,514	1,879	3,291	5,596	14,797	12,049	10,248	9,722	6,592	2,555	2,330	2,152
1942	3,710	2,024	5,061	8,740	9,830	6,102	7,154	7,102	5,774	2,923	2,461	2,342
1943	5,032	2,520	3,889	13,310	11,546	19,429	8,304	7,580	3,208	2,689	2,393	2,354
1944	2,531	2,042	2,127	2,061	3,322	3,448	5,289	4,726	2,304	2,225	2,167	1,944
1945	2,242	2,026	2,008	1,905	6,836	8,331	6,983	5,794	2,858	2,436	2,345	2,152
1946	3,154	2,171	5,898	4,954	5,255	4,602	6,033	5,471	2,725	2,295	2,219	2,090
1947	2,358	2,024	2,259	2,012	2,697	2,036	2,569	2,383	1,682	1,607	1,279	1,341
1948	1,838	1,497	1,420	1,291	1,470	1,919	3,940	3,557	2,294	1,869	1,783	1,877
1949	1,963	1,502	1,475	1,358	1,777	2,839	3,641	3,314	1,829	1,790	1,727	1,723
1950	1,786	1,480	1,453	2,152	2,916	2,491	3,637	3,221	1,780	1,645	1,608	1,703
1951	2,007	3,982	9,242	12,246	10,142	5,873	5,608	5,229	2,562	1,964	1,849	1,974
1952	2,473	1,846	3,225	7,612	6,738	13,383	10,250	13,677	13,485	3,342	2,327	2,672
1953	7,672	1,892	2,800	6,770	4,991	3,221	4,805	4,439	2,441	2,028	1,936	1,842
1954	2,222	1,646	1,693	1,753	2,370	2,741	4,832	4,341	2,037	1,997	1,912	1,815
1955	2,118	1,579	1,698	1,998	2,056	1,826	2,555	2,422	1,744	1,672	1,227	1,384
1956	1,646	1,540	12,103	18,001	12,293	6,470	6,099	5,736	5,967	2,583	2,224	2,443
1957	4,011	1,696	1,846	1,823	2,875	4,341	4,623	4,516	2,480	1,949	1,834	1,818
1958	2,315	1,719	1,809	2,083	4,031	9,636	16,575	12,782	9,993	2,819	2,433	2,466
1959	6,346	2,226	2,498	2,122	5,039	3,216	4,200	3,167	1,713	1,670	1,618	1,630
1960	1,892	1,408	1,386	1,445	2,279	1,903	2,553	2,338	1,542	1,340	877	1,231

Appendix C-3 CALSIM II Modeling

Base Future Base San Joaquin River Delta Inflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	1,621	1,357	1,420	1,273	1,449	1,323	1,586	1,373	1,440	976	864	1,221
1962	1,456	1,300	1,306	1,581	1,660	4,780	3,920	1,739	1,637	1,569	1,652	1,652
1963	1,947	1,453	1,422	1,924	3,423	2,837	6,071	5,324	3,003	2,263	1,929	1,936
1964	2,089	1,775	1,791	1,761	1,735	1,727	2,461	2,271	1,446	1,376	924	1,267
1965	1,625	1,713	4,228	10,418	7,009	4,914	7,145	5,674	3,204	2,171	1,933	1,971
1966	3,112	2,883	5,701	4,913	4,922	3,500	4,098	4,234	1,880	1,853	1,787	1,718
1967	2,217	1,727	3,012	3,681	3,451	7,359	13,963	13,933	16,227	8,967	2,247	2,889
1968	6,443	2,033	2,748	2,137	4,173	3,316	4,373	3,241	1,765	1,728	1,668	1,650
1969	2,059	1,637	2,013	15,258	26,735	19,110	18,973	23,955	24,689	4,091	2,291	2,668
1970	8,252	1,926	3,708	18,728	9,638	7,978	5,847	5,370	2,617	2,101	2,032	2,052
1971	2,420	1,924	3,221	2,680	2,481	3,472	4,574	4,362	2,325	2,072	1,985	1,847
1972	2,148	1,618	1,849	1,793	2,312	1,833	2,577	2,639	1,608	1,579	1,540	1,469
1973	1,968	1,640	1,650	2,682	8,440	8,772	6,862	5,467	2,324	2,095	1,998	2,024
1974	2,332	1,738	2,678	6,264	5,526	7,921	9,116	7,059	3,550	2,427	2,206	2,233
1975	2,685	1,934	2,097	2,023	6,815	10,346	7,157	6,092	5,662	5,523	2,220	2,248
1976	3,151	1,870	1,969	1,781	2,129	1,829	2,516	2,313	1,537	1,472	1,430	1,262
1977	3,267	2,163	1,750	1,361	1,471	1,337	1,757	1,632	1,293	858	734	1,064
1978	1,514	1,415	1,587	3,786	7,956	9,609	13,016	12,149	11,395	2,574	1,980	2,337
1979	4,278	1,716	1,952	5,043	10,539	9,500	6,479	5,998	2,274	1,929	1,833	1,977
1980	2,311	1,870	2,000	12,967	22,648	13,842	7,761	6,903	6,001	3,994	2,143	2,753
1981	4,421	1,809	1,944	2,216	2,630	3,799	4,457	3,544	1,751	1,712	1,665	1,641
1982	2,160	1,784	1,916	8,239	15,580	16,882	25,885	16,557	9,976	3,846	3,328	3,914
1983	12,398	8,169	20,147	25,133	33,297	41,014	20,398	20,657	34,727	17,814	2,210	6,258
1984	12,298	13,667	23,098	14,724	9,964	6,270	5,629	5,156	2,731	2,345	2,240	2,096
1985	2,401	1,985	2,033	1,847	2,332	2,314	3,305	3,558	1,826	1,733	1,657	1,651
1986	2,182	1,764	1,837	2,261	19,222	25,143	12,260	8,490	6,832	2,514	2,293	2,305
1987	2,694	1,820	1,851	1,730	2,110	2,070	2,535	2,343	1,595	1,574	1,315	1,285
1988	1,736	1,396	1,346	1,338	1,388	1,321	1,772	1,634	1,313	1,033	740	1,114
1989	1,613	1,347	1,448	1,254	1,437	1,730	1,780	1,487	1,344	1,353	855	1,246
1990	1,434	1,388	1,311	1,265	1,494	1,417	1,625	1,359	1,225	1,119	783	1,169
1991	1,114	1,238	1,188	1,092	1,216	2,619	2,300	1,742	1,169	1,132	832	1,110
1992	1,314	1,268	1,191	1,275	2,438	2,005	1,978	1,369	1,118	1,041	872	1,154
1993	1,605	1,422	1,534	7,874	5,557	5,126	4,872	4,775	4,551	2,173	1,991	1,898
1994	2,973	1,627	1,620	1,423	1,833	1,537	2,381	2,226	1,450	1,441	996	1,235
Mean	2,886	1,994	3,013	4,437	6,320	6,294	6,095	5,570	4,190	2,287	1,696	1,872
Max	12,398	13,667	23,098	25,133	33,297	41,014	25,885	23,955	34,727	17,814	2,461	6,258
Min	1,114	1,238	1,188	1,092	1,216	1,300	1,450	1,213	1,106	858	734	1,033

Appendix C-3 CALSIM II Modeling

Alt Future Alt Desal Delta Outflow (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	4,000	4,500	9,417	9,213	38,346	27,149	24,116	51,315	32,191	8,000	4,000	3,874
1923	4,254	6,865	28,659	27,550	15,021	11,524	25,834	16,094	8,210	6,500	5,243	3,830
1924	4,000	6,392	4,500	7,512	9,554	10,106	5,897	4,104	5,403	6,287	3,707	3,000
1925	3,579	5,311	7,372	7,029	64,156	27,190	21,141	16,118	8,286	5,000	5,398	3,000
1926	4,000	5,470	5,368	10,026	35,346	9,805	22,030	10,663	5,112	5,024	6,226	3,000
1927	4,000	13,298	7,457	26,455	127,284	39,779	46,029	27,032	9,948	10,399	4,000	3,765
1928	4,057	8,522	6,572	13,880	18,738	93,856	26,486	16,412	6,982	8,000	4,000	3,000
1929	4,620	6,252	6,098	6,898	9,872	9,544	6,941	6,570	6,034	4,000	4,942	3,000
1930	3,611	5,356	8,825	12,588	13,838	23,877	11,102	10,342	5,486	5,158	5,878	3,000
1931	4,000	5,548	5,303	7,422	7,666	6,160	6,820	4,370	5,297	6,075	3,388	3,000
1932	3,849	5,236	14,168	14,042	17,123	11,400	11,197	11,823	10,194	5,000	5,515	3,000
1933	4,000	5,423	4,974	13,183	7,843	9,821	10,037	5,715	6,043	4,000	5,173	3,000
1934	3,191	6,126	6,684	10,832	14,057	11,400	9,995	5,616	6,897	4,000	4,874	3,000
1935	3,441	6,777	4,768	24,547	11,400	24,996	51,976	26,346	10,752	6,500	4,000	3,604
1936	4,782	5,174	5,332	31,781	74,350	27,129	23,996	18,396	9,183	6,500	5,702	3,000
1937	4,000	5,946	5,163	7,804	41,717	47,248	26,552	19,893	9,472	6,500	4,603	3,000
1938	4,000	14,266	55,088	31,007	146,349	166,218	74,125	69,267	41,357	8,000	4,000	3,881
1939	9,094	4,500	5,724	8,089	9,638	11,103	10,021	9,620	5,079	5,313	3,500	3,000
1940	5,918	4,500	4,500	29,806	59,243	103,175	67,766	18,578	7,315	8,000	4,691	3,221
1941	4,000	8,073	34,727	96,038	121,144	87,351	73,515	41,358	13,052	8,000	5,026	4,154
1942	4,705	5,516	54,550	79,698	139,508	21,555	50,477	39,078	17,594	8,322	4,000	4,510
1943	5,151	5,332	21,522	84,373	56,404	85,345	29,535	23,440	8,936	8,765	4,000	3,416
1944	4,000	6,102	4,839	8,194	19,331	15,858	10,767	11,433	7,388	5,000	5,689	3,000
1945	4,340	7,332	7,287	6,878	43,925	21,906	14,090	15,107	9,106	6,500	5,283	3,000
1946	4,000	8,033	60,859	42,022	25,089	15,074	13,140	15,023	8,700	6,500	4,000	3,000
1947	4,914	7,382	6,581	6,946	12,553	14,860	11,196	8,744	6,121	5,000	4,990	3,000
1948	4,750	5,438	4,500	8,158	11,209	10,995	26,177	28,918	11,439	6,500	4,065	3,452
1949	5,965	5,182	6,308	7,174	9,067	35,936	11,938	11,536	7,550	5,000	4,505	3,000
1950	4,522	5,774	4,618	12,174	27,058	15,033	17,867	16,834	9,441	6,500	6,297	3,199
1951	4,000	40,131	94,216	72,329	71,847	26,216	15,680	21,092	6,089	9,897	4,000	3,353
1952	4,351	7,680	34,333	84,332	72,937	62,632	65,754	68,269	38,415	8,000	4,000	7,029
1953	8,052	7,561	43,144	101,712	22,382	16,475	15,665	24,367	13,648	10,474	4,000	4,844
1954	4,278	7,061	5,366	23,831	53,228	41,792	39,027	21,696	6,134	8,000	4,000	4,080
1955	4,893	6,997	11,473	10,825	11,400	7,702	12,724	12,248	6,972	5,000	5,606	3,000
1956	4,377	6,008	88,762	164,109	82,038	34,753	19,866	42,441	14,168	8,000	4,000	5,245
1957	5,232	4,500	5,681	7,808	25,997	38,276	18,849	15,742	8,974	8,151	4,037	3,382
1958	5,859	6,245	12,505	30,896	176,472	92,722	97,808	51,459	26,481	8,000	4,000	6,984
1959	5,753	6,500	6,247	27,609	49,449	20,909	8,887	9,583	6,754	8,386	4,000	3,000
1960	4,316	6,368	4,500	7,587	21,841	14,958	11,400	11,297	5,580	5,311	6,456	3,000

Appendix C-3 CALSIM II Modeling

Year	Alt Future Alt/Desal Delta Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	4.000	7.252	6.481	6.949	18.832	11.527	10.189	9.318	5.778	5.394	6.068	3.000
1962	4.000	6.952	5.655	6.000	41.879	19.292	11.767	12.932	6.722	7.346	4.000	3.455
1963	22.448	4.675	15.356	9.549	72.484	25.676	89.872	33.278	10.633	11.585	4.000	4.148
1964	4.660	13.966	4.973	14.821	11.194	7.926	13.753	8.846	6.114	5.000	5.111	3.000
1965	4.279	7.723	6.901	115.118	28.323	18.676	45.097	22.985	9.235	9.807	4.000	3.738
1966	4.000	10.361	8.670	24.493	20.804	19.189	12.077	12.536	5.826	7.166	4.000	3.298
1967	5.183	6.803	28.635	44.287	50.434	54.064	52.741	53.012	39.840	8.000	4.000	8.965
1968	9.866	4.500	8.456	26.473	58.034	31.834	13.739	9.279	6.315	6.988	4.000	3.015
1969	5.854	5.384	13.916	116.738	132.195	59.352	56.956	62.751	34.732	8.000	4.000	5.081
1970	9.357	5.477	55.069	210.950	84.481	35.260	15.351	14.169	5.623	12.365	4.000	4.496
1971	4.000	8.307	52.987	42.336	26.041	37.571	20.656	27.091	10.526	11.569	4.000	4.528
1972	4.429	5.485	7.545	8.070	15.895	23.066	10.532	8.836	11.463	6.500	4.534	3.000
1973	4.985	10.931	12.208	78.431	90.560	55.456	17.125	17.767	9.873	8.000	4.000	3.272
1974	4.286	49.012	60.813	125.351	35.210	104.071	70.434	24.335	11.713	8.308	4.217	7.881
1975	4.604	4.500	8.016	7.143	62.109	85.933	24.323	29.543	15.490	8.000	4.000	7.119
1976	7.273	4.581	5.192	7.571	8.371	9.490	7.506	4.224	4.794	7.451	3.000	3.000
1977	4.439	4.440	4.906	5.304	6.893	6.120	7.100	4.381	4.992	6.507	3.232	3.000
1978	3.795	5.422	7.119	62.820	55.159	67.488	42.307	23.124	14.516	8.000	4.715	4.015
1979	4.000	5.612	5.891	17.285	39.990	30.988	16.986	16.391	10.308	6.500	4.171	3.000
1980	4.752	7.039	10.250	97.192	130.774	56.176	20.094	20.051	8.758	8.000	5.263	4.221
1981	4.000	5.019	7.327	12.821	18.737	22.415	14.563	9.097	5.503	5.000	6.077	3.388
1982	4.233	20.887	81.429	74.868	97.082	84.600	134.922	48.177	18.946	8.000	5.788	5.823
1983	15.139	36.465	84.806	107.654	178.470	251.683	87.167	74.985	82.388	25.397	8.294	23.880
1984	24.794	80.261	156.025	67.451	38.109	31.009	16.995	13.317	8.266	10.709	4.000	3.185
1985	4.651	21.362	11.548	6.917	10.836	12.420	10.583	11.609	5.406	5.000	4.901	3.955
1986	4.581	5.899	7.351	14.690	20.496	145.852	24.665	15.160	9.438	8.000	5.475	3.588
1987	4.000	5.404	5.313	8.258	12.470	19.584	11.191	7.476	6.261	5.000	3.648	3.000
1988	5.545	4.500	8.767	19.913	11.187	7.886	7.488	6.576	6.812	4.000	5.169	3.000
1989	3.508	6.181	4.875	8.379	7.824	37.367	16.759	10.512	6.600	5.000	3.568	3.869
1990	5.535	4.768	5.481	9.582	11.400	7.900	9.867	6.524	4.000	4.881	4.570	3.000
1991	3.108	6.185	4.189	5.285	6.938	22.991	11.192	6.854	4.000	4.712	4.785	3.000
1992	3.089	5.813	5.681	5.380	24.730	14.140	10.366	5.774	6.732	4.000	4.496	3.000
1993	3.521	5.463	6.523	62.848	54.602	41.741	36.574	32.733	17.251	8.000	4.000	3.280
1994	4.000	6.454	5.621	7.653	15.291	11.011	8.887	8.059	4.000	6.228	4.016	3.499
Mean	5.339	9.306	20.467	35.903	47.355	38.652	27.483	20.683	11.680	7.233	4.574	4.029
Max	24.794	80.261	156.025	210.950	204.963	251.683	134.922	74.985	82.388	25.397	8.294	23.880
Min	3.089	4.440	4.189	5.285	6.893	6.120	5.897	4.104	4.000	4.000	3.000	3.000

Contra Costa Water District Alternative Intake Project
Draft Environmental Impact Report/Environmental Impact Statement

Appendix C-3 CALSIM II Modeling

Year	Base Future Base Delta Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	4.000	4.500	4.677	9.213	38.346	27.149	24.116	51.315	32.191	8.000	5.243	3.874
1923	4.254	6.865	28.659	27.550	15.021	11.524	25.834	16.094	8.210	6.500	4.000	3.830
1924	4.000	6.392	4.500	7.445	9.554	10.106	5.897	4.104	5.403	6.287	3.707	3.000
1925	3.579	5.311	7.338	6.994	64.156	27.190	21.126	16.118	8.286	5.000	5.398	3.000
1926	4.000	5.470	5.363	9.926	35.346	9.805	22.030	10.663	5.112	5.024	6.226	3.000
1927	4.000	13.287	7.457	26.455	127.137	39.761	46.029	27.032	9.948	10.399	4.000	3.765
1928	4.057	8.522	6.572	13.880	18.720	93.759	26.486	16.412	6.982	8.000	4.000	3.000
1929	4.620	6.252	6.098	6.850	9.872	9.544	6.941	6.570	6.034	4.000	4.942	3.000
1930	3.611	5.356	8.797	12.546	13.838	23.877	11.102	10.342	5.486	5.158	5.878	3.000
1931	4.000	5.548	5.269	7.387	7.666	6.160	6.820	4.304	5.297	6.075	3.388	3.000
1932	3.849	5.236	14.134	14.042	17.123	11.400	11.197	11.817	10.194	5.000	5.515	3.000
1933	4.000	5.423	4.974	13.118	7.843	9.821	10.037	5.715	6.043	4.000	5.173	3.000
1934	3.191	6.126	6.647	10.797	14.021	11.400	9.995	5.616	6.897	4.000	4.874	3.000
1935	3.441	6.777	4.734	24.512	11.400	24.996	51.976	26.346	10.752	6.500	4.000	3.604
1936	4.782	5.174	5.332	31.781	74.350	27.129	23.996	18.396	9.183	6.500	5.702	3.000
1937	4.000	5.946	5.163	7.785	41.717	47.200	26.552	19.893	9.472	6.500	4.603	3.000
1938	4.000	14.246	55.088	30.927	146.346	166.218	74.125	69.267	41.357	8.000	4.000	3.881
1939	9.059	4.500	5.690	8.074	9.638	11.103	10.021	9.620	5.079	5.313	3.500	3.000
1940	5.918	4.500	4.500	29.764	59.243	103.135	67.562	18.586	7.315	8.000	4.691	3.221
1941	4.000	8.073	34.727	96.038	121.144	87.350	73.515	41.358	15.052	8.000	5.026	4.154
1942	4.705	5.516	54.550	79.698	139.417	21.555	50.477	39.078	17.594	8.322	4.000	4.510
1943	5.151	5.332	21.522	84.373	56.362	85.252	29.535	23.440	8.936	8.765	4.000	3.416
1944	4.000	6.102	4.839	8.177	19.302	15.858	10.767	11.433	7.388	5.000	5.689	3.000
1945	4.340	7.332	7.253	6.844	43.925	21.906	14.090	15.107	9.106	6.500	5.283	3.000
1946	4.000	8.033	60.859	42.022	25.089	15.074	13.140	15.023	8.700	6.500	4.000	3.000
1947	4.914	7.382	6.547	6.929	12.553	14.860	11.196	8.744	6.121	5.000	4.990	3.000
1948	4.750	5.438	4.500	8.116	11.209	10.995	26.109	28.830	11.439	6.500	4.065	3.452
1949	5.965	5.182	6.308	7.115	9.067	35.936	11.938	11.536	7.550	5.000	4.505	3.000
1950	4.522	5.774	4.618	12.075	27.058	15.033	17.720	16.841	9.441	6.500	6.297	3.199
1951	4.000	40.098	94.216	72.301	71.847	26.216	15.680	21.092	6.089	8.997	4.000	3.353
1952	4.351	7.680	34.333	84.332	72.918	62.553	65.754	68.269	38.415	8.000	4.000	6.972
1953	8.037	7.561	43.144	101.712	22.382	16.475	15.665	24.367	13.648	10.474	4.000	4.844
1954	4.278	7.061	5.366	23.831	53.199	41.677	39.027	21.696	6.134	8.000	4.000	4.080
1955	4.893	6.597	11.473	10.825	11.400	7.702	12.724	12.248	6.972	5.000	5.606	3.000
1956	4.377	6.008	88.762	164.109	82.035	34.646	19.866	42.441	14.168	8.000	4.000	5.245
1957	5.232	4.500	5.681	7.791	25.997	38.247	18.849	15.742	8.974	8.151	4.037	3.382
1958	5.859	6.245	12.505	30.896	176.457	92.657	97.808	51.459	26.481	8.000	4.000	6.940
1959	5.700	6.240	6.247	27.609	49.367	20.909	8.887	9.583	6.754	8.386	4.000	3.609
1960	4.316	6.368	4.500	7.532	21.789	14.958	11.400	11.297	5.580	5.311	6.456	3.000

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Year	Base Future Base Delta Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	4,000	7,252	6,447	6,936	18,813	11,527	10,189	9,318	5,778	5,394	6,068	3,000
1962	4,000	6,952	5,655	6,000	41,879	19,292	11,760	12,932	6,722	7,346	4,000	3,455
1963	22,363	4,675	15,356	9,549	72,484	25,676	89,872	33,278	10,633	11,585	4,000	4,148
1964	4,660	13,960	4,973	14,763	11,194	7,926	13,753	8,846	6,114	5,000	5,111	3,000
1965	4,279	7,723	69,013	115,118	28,323	18,676	45,095	22,985	9,235	9,807	4,000	3,738
1966	4,000	10,336	8,670	24,413	20,804	19,189	12,077	12,536	5,826	7,166	4,000	3,298
1967	5,183	6,803	28,601	44,287	50,434	54,064	52,741	53,012	39,840	8,000	4,000	8,899
1968	9,861	4,500	8,456	26,473	58,034	31,834	13,739	9,279	6,315	6,988	4,000	3,015
1969	5,854	5,384	13,916	116,738	132,195	59,338	56,956	62,751	34,732	8,000	4,000	5,081
1970	9,313	5,464	55,069	210,950	84,481	35,260	15,351	14,169	5,623	12,365	4,000	4,496
1971	4,000	8,294	52,987	42,336	26,041	37,515	20,656	27,091	10,526	11,569	4,000	4,528
1972	4,429	5,485	7,545	8,057	15,895	23,066	10,532	8,829	11,463	6,500	4,534	3,000
1973	4,985	10,825	12,174	78,431	90,560	55,456	17,125	17,767	9,873	8,000	4,000	3,272
1974	4,286	48,996	60,813	125,288	35,158	104,071	70,434	24,335	11,713	8,308	4,217	7,846
1975	4,604	4,500	8,016	7,122	62,091	85,832	24,323	29,543	15,490	8,000	4,000	7,089
1976	7,234	4,581	5,173	7,559	8,371	9,490	7,506	4,172	4,794	7,451	3,000	3,000
1977	4,439	4,440	4,906	5,269	6,893	6,120	7,100	4,381	4,992	6,507	3,232	3,000
1978	3,795	5,422	7,085	62,820	55,159	67,488	42,304	23,124	14,516	8,000	4,715	4,015
1979	4,000	5,612	5,891	17,260	39,990	30,908	16,986	16,391	10,308	6,500	4,171	3,000
1980	4,752	7,039	10,250	97,192	130,708	56,138	20,094	20,051	8,758	8,000	5,263	4,221
1981	4,000	5,019	7,327	12,798	18,737	22,415	14,563	9,097	5,503	5,000	6,077	3,388
1982	4,233	20,876	81,429	74,868	97,082	84,488	134,922	48,177	18,905	8,000	5,788	5,823
1983	15,139	36,465	84,806	107,654	178,470	251,683	87,167	74,985	82,388	25,397	8,294	23,880
1984	24,794	80,261	156,025	67,451	38,109	31,009	16,995	13,317	8,266	10,709	4,000	3,185
1985	4,651	21,351	11,548	6,872	10,836	12,420	10,583	11,609	5,406	5,000	4,901	3,955
1986	4,581	5,899	7,351	14,667	204,937	145,849	24,414	15,110	9,438	8,000	5,475	3,588
1987	4,000	5,404	5,313	8,243	12,470	19,584	11,191	7,476	6,261	5,000	3,648	3,000
1988	5,545	4,500	8,767	19,913	11,187	7,886	7,488	6,576	6,812	4,000	5,169	3,000
1989	3,508	6,181	4,819	8,234	7,824	37,367	16,758	10,512	6,600	5,000	3,568	3,869
1990	5,535	4,768	5,481	9,547	11,400	7,900	9,867	6,524	4,000	4,881	4,570	3,000
1991	3,108	6,185	4,155	5,250	6,938	22,991	11,192	6,854	4,000	4,712	4,785	3,000
1992	3,089	5,813	5,647	5,345	24,694	14,140	10,366	5,774	6,732	4,000	4,496	3,000
1993	3,521	5,463	6,489	62,848	54,602	41,741	36,591	32,733	17,251	8,000	4,000	3,280
1994	4,000	6,454	5,587	7,637	15,291	11,011	8,887	8,059	4,000	6,228	4,016	3,499
Mean	5,335	9,303	20,458	35,880	47,344	38,637	27,474	20,679	11,679	7,233	4,574	4,026
Max	24,794	80,261	156,025	210,950	204,937	251,683	134,922	74,985	82,388	25,397	8,294	23,880
Min	3,089	4,440	4,155	5,250	6,893	6,120	5,897	4,104	4,000	4,000	3,000	3,000

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Year	Difference Future Alt Desal minus Future Base Delta Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	0
1923	0	0	0	0	0	0	0	0	0	0	0	0
1924	0	0	0	67	0	0	0	0	0	0	0	0
1925	0	0	34	35	0	0	15	0	0	0	0	0
1926	0	0	5	100	0	0	0	0	0	0	0	0
1927	0	11	0	0	148	18	0	0	0	0	0	0
1928	0	0	0	0	18	97	0	0	0	0	0	0
1929	0	0	0	48	0	0	0	0	0	0	0	0
1930	0	0	28	43	0	0	0	0	0	0	0	0
1931	0	0	34	35	0	0	0	66	0	0	0	0
1932	0	0	34	0	0	0	0	5	0	0	0	0
1933	0	0	0	65	0	0	0	0	0	0	0	0
1934	0	0	36	36	37	0	0	0	0	0	0	0
1935	0	0	34	35	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	19	0	48	0	0	0	0	0	0
1938	0	20	0	79	3	0	0	0	0	0	0	0
1939	35	0	34	15	0	0	0	0	0	0	0	0
1940	0	0	0	42	0	40	204	-7	0	0	0	0
1941	0	0	0	0	0	0	1	0	0	0	0	0
1942	0	0	0	0	0	91	0	0	0	0	0	0
1943	0	0	0	0	0	41	93	0	0	0	0	0
1944	0	0	0	16	29	0	0	0	0	0	0	0
1945	0	0	34	33	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	34	18	0	0	0	0	0	0	0	0
1948	0	0	0	42	0	0	0	67	89	0	0	0
1949	0	0	0	59	0	0	0	0	0	0	0	0
1950	0	0	0	98	0	0	147	-7	0	0	0	0
1951	0	33	0	28	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	20	79	0	0	0	0	57
1953	15	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	29	115	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	2	106	0	0	0	0	0
1957	0	0	0	16	0	29	0	0	0	0	0	0
1958	0	0	0	0	0	15	65	0	0	0	0	44
1959	53	0	0	0	0	82	0	0	0	0	0	0
1960	0	0	0	55	53	0	0	0	0	0	0	0

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Appendix C-3 CALSIM II Modeling

Year	Future Alt Desal minus Future Base Delta Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	0	0	34	13	19	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	7	0	0	0	0	0
1963	85	0	0	0	0	0	0	0	0	0	0	0
1964	0	6	0	59	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	2	0	0	0	0	0
1966	0	24	0	80	0	0	0	0	0	0	0	0
1967	0	0	34	0	0	0	0	0	0	0	0	66
1968	5	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	14	0	0	0	0	0	0
1970	44	13	0	0	0	0	0	0	0	0	0	0
1971	0	13	0	0	0	56	0	0	0	0	0	0
1972	0	0	0	14	0	0	0	7	0	0	0	0
1973	0	106	34	0	0	0	0	0	0	0	0	0
1974	0	16	0	63	52	0	0	0	0	0	0	34
1975	0	0	0	21	18	101	0	0	0	0	0	30
1976	40	0	19	12	0	0	0	52	0	0	0	0
1977	0	0	0	35	0	0	0	0	0	0	0	0
1978	0	0	34	0	0	0	3	0	0	0	0	0
1979	0	0	0	25	0	80	0	0	0	0	0	0
1980	0	0	0	0	66	38	0	0	0	0	0	0
1981	0	0	0	23	0	0	0	0	0	0	0	0
1982	0	11	0	0	0	113	0	0	40	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	11	0	45	0	0	0	0	0	0	0	0
1986	0	0	0	22	27	3	251	50	0	0	0	0
1987	0	0	0	15	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	56	145	0	0	1	0	0	0	0	0
1990	0	0	0	35	0	0	0	0	0	0	0	0
1991	0	0	34	35	0	0	0	0	0	0	0	0
1992	0	0	34	35	36	0	0	0	0	0	0	0
1993	0	0	34	0	0	0	-17	0	0	0	0	0
1994	0	0	34	16	0	0	0	0	0	0	0	0
Mean	4	4	9	23	11	15	9	3	1	0	0	3
Max	85	106	56	145	148	115	251	89	40	0	0	66
Min	0	0	0	0	0	0	-17	-7	0	0	0	0

Appendix C-3 CALSIM II Modeling

Year	Alt Future Alt Desal SWP (Banks) Delta Export (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	5,335	3,771	7,798	8,093	8,093	8,050	3,393	1,500	8,500	8,266	1,502	6,099
1923	5,862	6,239	8,093	8,093	4,203	3,459	3,008	2,319	3,498	8,498	8,357	5,474
1924	6,559	2,690	5,079	3,574	4,053	300	300	430	300	361	3,545	1,136
1925	2,172	2,316	4,910	4,083	5,586	300	2,813	1,125	3,064	3,066	407	2,755
1926	2,360	1,163	2,357	6,332	8,500	1,143	2,619	800	1,938	7,205	4,365	2,504
1927	2,136	8,500	8,093	7,465	5,204	6,673	3,857	1,500	4,680	4,357	7,039	5,648
1928	6,680	7,323	6,983	8,093	6,215	8,500	3,155	2,491	3,134	3,529	4,639	4,763
1929	3,178	3,484	4,228	4,245	4,127	2,417	1,314	300	1,178	3,226	415	1,087
1930	1,351	1,139	6,290	8,093	3,939	6,964	1,688	800	1,059	7,472	6,128	3,808
1931	2,156	861	800	4,095	1,988	990	300	599	768	1,876	4,648	1,646
1932	1,267	1,278	8,093	8,093	4,934	4,011	1,733	1,125	2,890	6,252	300	2,567
1933	2,216	1,499	4,873	3,821	4,222	3,918	1,344	800	300	3,250	433	1,156
1934	2,367	786	5,504	7,390	4,064	940	300	300	300	3,040	303	1,714
1935	2,190	2,836	3,283	8,093	4,141	5,399	3,857	324	3,259	7,709	6,808	6,766
1936	5,615	2,896	5,894	8,093	8,500	7,050	2,904	800	4,763	7,877	7,035	4,301
1937	2,894	2,011	5,343	5,863	8,500	8,500	4,025	2,776	3,589	3,795	5,241	3,766
1938	3,205	8,500	8,093	8,093	6,900	6,709	5,428	5,409	8,500	8,000	5,536	6,451
1939	8,500	4,260	7,358	6,542	4,263	4,355	1,910	300	2,129	6,905	7,444	5,293
1940	3,698	2,398	4,552	8,093	8,065	8,500	3,857	1,500	2,790	8,461	8,215	4,683
1941	6,499	2,451	8,093	8,093	8,050	8,500	4,388	4,636	4,793	8,000	5,990	6,904
1942	6,422	4,492	8,093	6,148	6,213	6,766	3,857	1,500	8,500	3,211	7,482	7,308
1943	7,585	7,182	8,030	6,470	6,224	6,916	3,391	800	2,656	4,068	8,109	5,648
1944	3,962	2,454	5,379	4,926	8,500	4,583	2,131	1,500	4,127	8,198	7,119	4,844
1945	4,393	6,281	8,073	4,157	8,500	7,943	2,039	2,225	4,563	7,752	6,099	4,634
1946	4,794	5,783	8,093	8,093	2,900	6,091	2,427	1,500	4,175	8,500	8,283	4,792
1947	6,377	3,750	7,619	2,602	5,698	4,140	1,773	300	2,763	7,768	4,431	3,606
1948	3,039	3,097	2,782	4,554	300	3,114	3,062	800	5,350	8,349	7,216	5,396
1949	6,519	3,342	5,048	2,911	3,751	8,500	1,825	1,526	2,619	4,960	3,374	3,766
1950	1,428	2,230	2,299	8,093	8,500	4,276	2,398	800	5,060	8,015	7,028	4,427
1951	5,374	8,500	8,093	7,545	6,261	6,939	2,146	800	2,747	5,456	8,500	5,618
1952	6,031	5,093	8,093	8,093	8,065	8,500	4,401	3,493	7,576	7,647	7,167	8,500
1953	8,500	2,419	3,524	5,596	5,014	6,679	2,359	1,125	6,505	5,244	6,498	7,932
1954	6,019	6,939	3,105	8,093	8,050	8,500	3,657	3,137	2,851	7,770	6,613	6,581
1955	6,144	5,102	8,093	8,093	2,654	2,403	1,520	800	2,891	4,263	343	3,627
1956	1,967	3,019	8,093	8,093	6,793	7,162	2,520	800	7,464	2,917	7,312	8,244
1957	7,818	4,010	3,332	5,174	8,050	8,500	2,685	2,512	4,320	5,558	7,561	5,106
1958	8,107	4,565	8,093	8,093	6,924	7,926	5,054	3,298	8,494	8,000	7,382	8,500
1959	8,500	4,197	4,136	7,016	6,772	1,515	1,793	1,125	2,575	6,405	8,071	5,381
1960	4,517	1,811	5,123	3,730	8,500	4,286	300	800	1,320	7,853	1,373	2,577

Appendix C-3 CALSIM II Modeling

Year	Alt Future Delta Export (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	2,017	3,099	4,434	3,955	4,682	1,637	300	2,768	7,038	2,250	3,681	
1962	3,564	3,213	6,274	2,014	8,500	6,237	2,059	864	2,559	7,657	8,452	5,790
1963	8,500	6,548	8,093	8,060	7,464	6,777	3,457	800	4,562	3,395	7,551	6,359
1964	6,116	8,500	5,048	8,093	2,300	2,181	1,951	1,641	3,671	8,500	7,474	4,160
1965	2,826	5,514	8,093	8,093	8,050	4,687	3,857	2,015	4,274	2,759	8,063	5,617
1966	3,389	8,500	8,093	8,093	6,575	6,354	2,104	1,125	2,384	6,386	7,253	5,381
1967	4,916	5,896	8,093	8,093	8,050	4,776	3,645	8,500	8,000	8,000	7,494	8,500
1968	8,500	5,805	6,298	5,665	6,677	6,601	2,234	1,125	2,505	3,913	7,149	5,393
1969	4,761	4,450	8,093	8,093	8,050	6,682	4,238	4,292	6,091	7,334	2,390	8,500
1970	8,500	4,923	4,323	5,519	6,225	6,896	2,153	800	2,154	4,180	8,500	7,465
1971	5,633	8,500	8,093	8,093	300	8,500	2,867	1,125	5,079	7,596	7,397	7,395
1972	6,366	4,745	7,745	6,988	5,092	8,500	1,685	1,675	3,475	6,530	5,557	4,125
1973	4,412	8,500	8,093	6,174	6,213	6,936	2,803	1,500	3,836	7,241	6,496	5,108
1974	5,490	8,500	8,093	8,093	8,050	8,500	3,457	3,161	6,289	6,690	8,000	8,500
1975	6,666	4,469	6,256	6,757	7,065	7,409	3,396	1,500	7,851	7,470	8,000	8,500
1976	8,500	6,116	5,252	2,881	3,659	3,428	1,385	800	1,881	2,838	7,271	5,827
1977	2,560	3,229	2,867	2,030	2,282	690	300	388	300	455	3,871	1,769
1978	1,036	1,118	5,989	6,934	3,461	5,366	4,929	3,315	4,208	8,500	2,942	6,154
1979	4,871	2,407	5,945	8,093	8,500	7,373	2,746	1,500	3,173	7,037	5,212	5,010
1980	4,465	4,559	8,093	8,093	8,065	5,684	2,563	800	4,037	8,500	2,063	6,589
1981	5,143	1,777	4,475	8,093	5,832	7,495	2,305	1,898	2,847	7,910	5,508	5,812
1982	4,177	8,500	8,093	8,093	8,050	6,362	5,371	7,598	8,000	5,210	8,500	
1983	8,500	7,579	5,733	3,075	3,097	4,530	3,320	2,573	3,876	8,500	8,500	4,192
1984	3,617	3,142	3,315	5,234	6,096	7,205	2,777	1,500	2,870	4,162	8,500	5,307
1985	6,412	8,500	8,093	5,836	4,592	2,013	1,690	800	2,183	8,500	8,000	6,710
1986	5,810	4,604	7,978	8,093	7,181	8,149	4,282	2,284	3,232	7,624	2,229	5,100
1987	3,882	1,007	3,229	6,815	7,213	5,448	1,777	369	1,607	6,530	6,541	4,054
1988	2,799	2,072	6,019	8,093	1,175	496	1,360	300	300	4,314	301	892
1989	1,337	2,423	2,817	2,927	1,010	8,500	2,319	800	1,990	7,502	5,689	6,187
1990	4,505	2,527	5,460	7,790	2,973	2,444	300	800	300	636	4,581	1,898
1991	1,557	300	1,015	838	1,049	7,572	1,739	800	300	571	3,351	1,114
1992	1,839	586	1,011	2,943	8,500	4,037	1,648	300	831	3,339	1,344	3,197
1993	1,530	1,485	5,307	8,093	7,664	6,238	3,657	1,125	7,827	8,112	5,690	5,136
1994	5,380	1,072	4,858	4,177	7,208	2,887	1,512	800	3,847	6,999	8,000	5,545
Mean	4,703	4,176	5,942	6,321	5,834	5,608	2,619	1,517	3,660	5,997	5,550	5,048
Max	8,500	8,500	8,093	8,093	8,500	8,500	6,362	5,409	8,500	8,500	8,500	8,500
Min	1,036	300	800	838	300	300	300	300	300	300	361	300
892												

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Year	Base Future Base SWP (Banks) Delta Export (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	5,335	6,271	7,798	8,050	8,500	3,393	1,500	8,500	8,266	1,502	6,099	
1923	5,862	3,729	8,093	8,093	4,203	3,459	3,008	2,319	3,498	8,498	8,357	5,474
1924	6,559	2,690	5,079	3,574	4,053	300	300	430	300	361	3,545	1,136
1925	2,172	2,316	4,910	4,083	5,586	300	2,813	1,125	3,064	3,066	407	2,755
1926	2,360	1,163	2,357	6,332	8,500	1,143	2,619	800	1,938	7,205	4,365	2,504
1927	2,136	8,500	8,093	7,465	5,204	6,673	3,857	1,500	4,680	4,357	7,039	5,648
1928	6,680	7,323	6,983	8,093	6,215	8,500	3,155	2,491	3,134	3,529	4,639	4,763
1929	3,178	3,484	4,228	4,245	4,127	2,417	1,314	300	1,178	3,226	415	1,087
1930	1,351	1,139	6,290	8,093	9,939	6,964	1,688	800	1,059	7,472	6,128	3,808
1931	2,156	861	800	4,095	1,988	990	300	599	768	1,876	4,648	1,646
1932	1,267	1,278	8,093	8,093	4,934	4,011	1,733	1,125	2,890	6,252	300	2,567
1933	2,216	1,499	4,873	3,821	4,222	3,918	1,344	800	300	3,250	433	1,156
1934	2,367	786	5,504	7,390	4,064	940	300	300	300	3,040	303	1,714
1935	2,190	2,836	3,283	8,093	4,141	5,399	3,857	324	3,259	7,709	6,808	6,766
1936	5,615	2,896	5,894	8,093	8,500	7,050	2,904	800	4,763	7,877	7,035	4,301
1937	2,894	2,011	5,343	5,863	8,500	8,500	4,025	2,776	3,589	3,795	5,241	3,766
1938	3,205	8,500	8,093	8,093	6,909	6,709	5,428	5,409	8,500	8,000	5,536	6,451
1939	8,500	4,260	7,358	6,542	4,263	4,355	1,910	300	2,129	6,905	7,444	5,293
1940	3,698	2,398	4,552	8,093	8,065	8,500	3,857	1,500	2,790	8,461	8,215	4,683
1941	6,499	2,451	8,093	8,093	8,050	4,388	4,636	4,793	8,000	5,990	6,904	
1942	6,422	4,492	8,093	6,148	6,213	6,766	3,857	1,500	8,500	3,211	7,482	7,308
1943	7,585	7,182	8,030	6,470	6,224	6,916	3,391	800	2,656	4,068	8,109	5,648
1944	3,962	2,454	5,379	4,926	8,500	4,583	2,131	1,500	4,127	8,198	7,119	4,844
1945	4,393	6,281	8,073	4,157	8,500	7,943	2,039	2,225	4,563	7,752	6,099	4,634
1946	4,794	5,783	8,093	8,093	2,900	6,091	2,427	1,500	4,175	8,500	8,283	4,792
1947	6,377	3,750	7,619	2,602	5,698	4,140	1,773	300	2,763	7,768	4,431	3,606
1948	3,039	3,097	2,782	4,554	300	3,114	3,062	800	5,350	8,349	7,216	5,396
1949	6,519	3,342	5,048	2,911	3,751	8,500	1,825	1,526	2,619	4,960	3,374	3,766
1950	1,428	2,230	2,299	8,093	8,500	4,276	2,398	800	5,060	8,015	7,028	4,427
1951	5,374	8,500	8,093	7,545	6,261	6,939	2,146	800	2,747	5,456	8,500	5,618
1952	6,031	5,093	8,093	8,093	8,065	8,500	4,401	3,493	7,576	7,647	7,167	8,500
1953	8,500	2,419	3,524	5,596	5,014	6,679	2,359	1,125	6,505	5,244	6,498	7,932
1954	6,019	6,939	3,105	8,093	8,050	8,500	3,657	3,137	2,851	7,770	6,613	6,581
1955	6,144	5,102	8,093	8,093	2,654	2,403	1,520	800	2,891	4,263	343	3,627
1956	1,967	3,019	8,093	8,093	6,793	7,162	2,520	800	7,464	2,917	7,312	8,244
1957	7,818	4,010	3,332	5,174	8,050	8,500	2,685	2,512	4,320	5,558	7,561	5,106
1958	8,107	4,565	8,093	8,093	6,924	7,926	5,054	3,298	8,494	8,000	7,382	5,381
1959	8,500	4,197	4,136	7,016	6,722	1,515	1,793	1,125	2,575	6,405	8,071	8,500
1960	4,517	1,811	5,123	3,730	8,500	4,286	300	800	1,320	7,853	1,373	2,577

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Appendix C-3 CALSIM II Modeling

Year	Base Future Base SWP (Banks) Delta Export (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	2,017	3,099	4,434	3,955	4,682	4,682	1,637	300	2,768	7,038	2,250	3,681
1962	3,564	3,213	6,274	2,014	8,500	6,237	2,059	864	2,559	7,657	8,452	5,790
1963	8,500	6,548	8,093	8,060	7,464	6,777	3,457	800	4,562	3,395	7,551	6,359
1964	6,116	8,500	5,048	8,093	2,300	2,181	1,951	1,641	3,671	8,500	7,474	4,160
1965	2,826	5,514	8,093	8,093	8,050	4,687	3,857	2,015	4,274	2,759	8,063	5,617
1966	3,389	8,500	8,093	8,093	6,575	6,354	2,104	1,125	2,384	6,386	7,253	5,381
1967	4,916	5,896	8,093	8,093	8,050	8,500	4,776	3,645	8,500	8,000	7,494	8,500
1968	8,500	5,805	6,298	5,665	6,677	6,601	2,234	1,125	2,505	3,913	7,149	5,393
1969	4,761	4,450	8,093	8,093	8,050	6,682	4,238	4,292	6,091	7,334	2,390	8,500
1970	8,500	4,923	4,323	5,519	6,225	6,896	2,153	800	2,154	4,180	8,500	7,465
1971	5,633	8,500	8,093	8,093	300	8,500	2,867	1,125	5,079	7,596	7,397	7,395
1972	6,366	4,745	7,745	6,988	5,092	5,092	1,685	1,675	3,475	6,530	5,557	4,125
1973	4,412	8,500	8,093	6,174	6,213	6,936	2,803	1,500	3,836	7,241	6,496	5,108
1974	5,490	8,500	8,093	8,093	8,050	8,500	3,457	3,161	6,289	6,690	8,000	8,500
1975	6,666	4,469	6,256	6,757	7,065	7,409	3,396	1,500	7,851	7,470	8,000	8,500
1976	8,500	6,116	5,252	2,881	3,659	3,428	1,385	800	1,881	2,838	7,271	5,827
1977	2,560	3,229	2,867	2,030	2,282	690	300	388	300	455	3,871	1,769
1978	1,036	1,118	5,989	6,934	3,461	5,366	4,929	3,315	4,208	8,500	2,942	6,154
1979	4,871	2,407	5,945	8,093	8,500	7,373	2,746	1,500	3,173	7,037	5,212	5,010
1980	4,465	4,559	8,093	8,093	8,065	5,684	2,563	800	4,037	8,500	2,063	6,589
1981	5,143	1,777	4,475	8,093	5,832	7,495	2,305	1,898	2,847	7,910	5,508	5,812
1982	4,177	8,500	8,093	8,093	8,050	8,500	6,362	5,371	7,598	8,000	5,210	8,500
1983	8,500	7,579	5,733	3,075	3,097	4,530	3,320	2,573	3,876	8,500	8,500	4,192
1984	3,617	3,142	3,315	5,234	6,096	7,205	2,777	1,500	2,870	4,162	8,500	5,307
1985	6,412	8,500	8,093	5,836	4,592	2,013	1,690	800	2,183	8,500	8,000	6,710
1986	5,810	4,604	7,978	8,093	7,181	8,149	4,282	2,284	3,232	7,624	2,229	5,100
1987	3,882	1,007	3,229	6,815	7,213	5,448	1,777	369	1,607	6,530	6,541	4,054
1988	2,799	2,072	6,019	8,093	1,175	496	1,360	300	300	4,314	301	892
1989	1,337	2,423	2,817	2,927	1,010	8,500	2,319	800	1,990	7,502	5,689	6,187
1990	4,505	2,527	5,460	7,790	2,973	2,444	300	800	300	636	4,581	1,898
1991	1,557	300	1,015	838	1,049	7,572	1,739	800	300	571	3,351	1,114
1992	1,839	586	1,011	2,943	8,500	4,037	1,648	300	831	3,339	1,344	3,197
1993	1,530	1,485	5,307	8,093	7,664	6,238	3,657	1,125	7,827	8,112	5,690	5,136
1994	5,380	1,072	4,858	4,177	7,208	2,887	1,512	800	3,847	6,999	8,000	5,545
Mean	4,703	4,176	5,942	6,321	5,834	5,608	2,619	1,517	3,660	5,997	5,550	5,048
Max	8,500	8,500	8,093	8,093	8,500	8,500	6,362	5,409	8,500	8,500	8,500	8,500
Min	1,036	300	800	838	300	300	300	300	300	300	361	300
892												

Year	Alt Future Alt Desal CVP (Tracy) Delta Export (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	3,862	4,600	4,193	4,193	4,150	4,600	2,798	1,500	3,000	4,600	4,019	4,600
1923	4,143	4,600	4,193	4,193	4,203	3,459	2,547	800	3,000	4,153	3,782	4,402
1924	3,033	2,293	2,510	3,818	4,053	800	1,119	1,147	800	600	600	2,864
1925	2,908	1,494	4,176	4,193	3,941	800	2,747	1,125	2,049	3,561	1,293	4,528
1926	3,717	3,044	2,700	4,193	4,600	3,657	2,074	800	800	800	800	2,967
1927	3,600	4,600	4,193	1,624	4,82	2,744	2,947	1,500	3,000	4,600	4,600	4,600
1928	2,754	4,600	4,193	4,193	4,165	4,600	2,547	1,911	3,000	3,924	3,176	4,077
1929	3,306	4,522	4,193	3,975	4,210	1,176	1,314	800	830	800	800	2,821
1930	3,144	1,139	4,193	4,193	3,939	3,458	1,688	800	1,575	1,507	1,525	3,927
1931	3,436	2,551	2,274	3,811	3,540	1,213	800	800	800	600	600	2,261
1932	2,490	1,187	4,193	4,193	4,600	1,568	1,942	1,125	1,763	2,185	3,132	4,186
1933	3,722	2,166	682	597	877	1,247	600	800	800	800	600	2,903
1934	2,418	716	4,193	2,996	641	779	800	800	800	600	600	2,217
1935	2,080	2,890	3,520	4,193	2,162	1,593	1,774	800	2,650	1,892	4,462	3,516
1936	2,754	2,753	2,248	4,193	3,185	2,317	2,360	800	2,475	2,334	4,486	4,375
1937	3,780	2,689	3,692	4,193	3,254	1,753	1,342	1,969	2,948	2,127	2,845	4,600
1938	4,501	4,600	1,864	800	800	2,519	2,695	3,894	3,000	4,600	4,600	4,600
1939	4,600	4,377	2,852	1,819	3,892	1,946	1,910	1,125	1,740	2,278	1,518	3,672
1940	2,396	2,973	878	4,193	4,165	4,600	2,947	1,500	3,000	4,600	4,320	4,600
1941	3,436	4,336	4,193	4,193	4,150	4,600	3,478	2,595	2,906	4,600	4,600	4,600
1942	4,600	4,600	4,193	2,850	2,089	4,028	2,947	1,500	3,000	4,600	4,600	4,600
1943	4,600	4,600	4,193	4,600	4,175	2,979	2,547	800	2,475	4,600	4,566	4,600
1944	4,600	4,061	3,872	3,982	4,600	4,600	2,131	1,500	2,195	1,950	1,537	4,177
1945	3,461	4,600	4,193	4,193	4,600	2,784	2,039	800	3,000	4,575	4,533	4,600
1946	4,171	4,251	4,193	4,193	3,911	2,449	2,427	1,500	3,000	4,600	4,591	4,365
1947	3,467	4,600	4,193	4,193	4,600	4,140	1,773	800	2,406	2,112	1,501	4,355
1948	3,293	3,660	2,436	3,812	4,272	3,114	2,547	800	3,000	4,563	4,600	4,343
1949	4,254	3,592	4,193	3,819	3,751	4,600	1,825	1,911	3,000	4,561	3,623	4,057
1950	3,893	4,028	3,960	4,193	4,600	4,276	2,398	800	2,475	3,477	4,454	4,550
1951	3,592	4,600	2,366	800	992	3,242	2,146	800	3,000	4,600	4,600	4,124
1952	4,271	4,253	4,193	4,193	4,165	4,600	3,491	3,239	3,000	4,600	4,600	4,600
1953	4,600	4,265	2,714	1,821	2,543	2,739	2,359	1,125	3,000	4,600	4,572	4,600
1954	4,600	4,600	4,193	4,193	4,150	4,600	2,747	1,125	2,850	4,600	4,029	4,436
1955	3,667	4,600	4,193	4,193	4,600	2,307	1,781	800	3,000	3,698	1,537	3,597
1956	3,947	4,369	4,193	4,193	4,194	2,835	2,520	800	2,475	3,913	4,600	4,600
1957	4,600	4,600	3,561	4,193	4,150	4,600	2,685	2,093	3,000	4,600	3,977	4,482
1958	4,600	4,600	4,193	4,193	4,193	4,600	2,660	3,144	3,000	4,600	4,600	4,600
1959	4,600	4,197	4,193	4,600	4,138	2,696	1,793	1,125	3,000	4,555	4,458	3,026
1960	3,730	1,561	1,380	3,820	4,600	4,286	800	800	2,475	3,126	2,030	2,503

Appendix C-3 CALSIM II Modeling

Year	Alt Future Alt Desal CVP (Tracy) Delta Export (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	3,508	4,221	4,193	4,089	4,600	1,788	1,637	1,617	3,000	4,600	3,624	3,857
1962	2,210	2,619	4,142	4,193	4,600	4,600	2,059	1,125	3,000	4,600	4,505	4,051
1963	4,600	4,600	4,193	4,443	3,573	2,547	800	3,000	4,600	4,600	4,600	4,600
1964	4,600	4,600	4,193	4,193	3,384	2,724	1,293	800	1,728	3,467	3,128	3,805
1965	3,303	4,234	4,193	4,193	4,150	4,019	2,947	1,500	3,000	4,600	4,600	4,600
1966	4,600	4,600	4,193	4,193	4,600	4,593	2,104	1,125	3,000	4,600	4,572	4,013
1967	3,554	4,600	4,193	4,193	4,150	4,600	3,659	3,312	3,000	4,600	4,600	4,600
1968	4,600	4,600	3,700	1,819	3,630	2,682	2,234	1,125	3,000	4,600	4,304	3,657
1969	3,777	4,552	4,193	4,193	4,150	4,600	2,699	3,901	3,000	4,600	4,569	4,600
1970	4,600	4,509	2,312	1,514	1,802	3,207	2,153	800	2,475	2,685	4,600	4,600
1971	4,242	4,600	4,193	4,193	4,131	4,600	2,747	1,125	3,000	4,600	4,600	4,600
1972	4,600	4,600	4,193	4,193	4,600	4,600	1,685	800	3,000	4,600	4,284	4,165
1973	3,783	4,600	4,193	4,600	4,146	4,002	2,803	1,500	2,728	4,600	4,337	4,482
1974	4,367	4,600	4,193	4,193	4,150	4,600	2,547	800	2,475	4,600	4,600	4,600
1975	4,600	4,600	4,193	4,193	4,600	4,600	2,947	1,500	2,694	4,600	4,600	4,600
1976	4,600	4,600	4,193	4,042	3,659	2,617	1,385	800	1,305	1,101	1,265	2,433
1977	2,850	3,163	800	1,795	800	800	800	1,125	2,986	2,840	2,335	
1978	3,050	1,297	4,193	4,600	3,640	1,811	2,591	3,153	3,000	4,600	4,515	4,600
1979	4,600	4,395	2,777	4,193	4,600	3,486	2,746	1,500	2,650	4,064	4,072	3,456
1980	4,600	4,580	4,193	4,193	4,165	3,481	2,502	800	3,000	4,600	4,578	4,600
1981	4,390	3,823	4,193	4,193	4,600	4,600	2,305	1,125	2,847	4,568	3,311	3,611
1982	4,600	4,600	4,193	4,193	4,150	4,600	3,237	3,538	3,000	4,600	4,600	4,600
1983	4,600	4,600	1,813	1,512	1,801	2,642	2,687	3,892	3,000	4,600	4,600	4,494
1984	2,160	1,503	1,039	1,513	2,435	3,948	2,777	1,500	3,000	4,600	4,600	4,472
1985	4,105	4,600	4,193	4,193	4,600	4,600	1,690	800	2,475	4,600	4,462	3,452
1986	3,656	2,282	4,193	4,193	4,585	4,600	1,839	2,284	2,833	2,746	4,513	4,600
1987	4,600	4,384	3,338	1,171	2,849	1,785	1,777	800	1,525	1,610	1,170	3,188
1988	2,879	4,024	4,193	4,193	3,795	800	1,360	800	800	800	800	2,820
1989	3,096	2,112	3,221	3,805	2,127	4,600	2,319	800	2,295	2,590	2,237	3,351
1990	3,378	3,873	2,180	4,193	4,600	2,444	800	800	800	800	800	2,347
1991	2,956	1,072	1,887	1,155	1,085	4,600	1,739	800	1,690	800	812	2,996
1992	2,946	1,102	1,250	3,393	4,600	3,650	1,648	800	800	800	600	1,290
1993	3,066	669	4,193	4,193	4,150	3,147	2,747	1,125	2,563	4,598	4,550	4,600
1994	4,600	4,493	1,933	3,822	4,600	3,800	1,512	800	823	4,600	4,600	3,603
Mean	3,787	3,686	3,513	3,623	3,667	3,284	2,172	1,381	2,410	3,489	3,422	3,948
Max	4,600	4,600	4,193	4,600	4,600	4,600	3,659	3,901	3,000	4,600	4,600	4,600
Min	2,080	669	682	597	482	779	600	800	800	600	600	1,290

Appendix C-3 CALSIM II Modeling

Year	Base Future Base CVP (Tracy) Delta Export (CFS)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1922	3,862	4,600	4,193	4,193	4,150	4,600	2,798	1,500	3,000	4,600	4,019	4,600	
1923	4,143	4,600	4,193	4,193	4,203	3,459	2,547	800	3,000	4,153	3,782	4,402	
1924	3,033	2,293	2,510	3,818	4,053	800	1,119	1,147	800	600	600	2,864	
1925	2,908	1,494	4,176	4,193	3,941	800	2,747	1,125	2,049	3,561	1,293	4,528	
1926	3,717	3,044	2,700	4,193	4,600	3,657	2,074	800	800	800	800	2,967	
1927	3,600	4,600	4,193	1,624	4,82	2,744	2,947	1,500	3,000	4,600	4,600	4,600	
1928	2,754	4,600	4,193	4,193	4,165	4,600	2,547	1,911	3,000	3,924	3,176	4,077	
1929	3,306	4,522	4,193	3,975	4,210	1,176	1,314	800	830	800	800	2,821	
1930	3,144	1,139	4,193	4,193	3,939	3,458	1,688	800	1,575	1,507	1,525	3,927	
1931	3,436	2,551	2,274	3,811	3,540	1,213	800	800	800	600	600	2,261	
1932	2,490	1,187	4,193	4,193	4,600	1,568	1,942	1,125	1,763	2,185	3,132	4,186	
1933	3,722	2,166	682	597	877	1,247	600	800	800	800	600	2,903	
1934	2,418	716	4,193	2,996	641	779	800	800	800	600	600	2,217	
1935	2,080	2,890	3,520	4,193	2,162	1,593	1,774	800	2,650	1,892	4,462	3,516	
1936	2,754	2,753	2,248	4,193	3,185	2,317	2,360	800	2,475	2,334	4,486	4,375	
1937	3,780	2,689	3,692	4,193	3,254	1,753	1,342	1,969	2,948	2,127	2,845	4,600	
1938	4,501	4,600	1,864	800	800	2,519	2,695	3,894	3,000	4,600	4,600	4,600	
1939	4,600	4,377	2,852	1,819	3,892	1,946	1,910	1,125	1,740	2,278	1,518	3,672	
1940	2,396	2,973	878	4,193	4,165	4,600	2,947	1,500	3,000	4,600	4,320	4,600	
1941	3,546	4,336	4,193	4,193	4,150	4,600	3,478	2,595	2,906	4,600	4,600	4,600	
1942	4,600	4,600	4,193	2,850	2,089	4,028	2,947	1,500	3,000	4,600	4,600	4,600	
1943	4,600	4,600	4,193	4,600	4,175	2,979	2,547	800	2,475	4,600	4,566	4,600	
1944	4,600	4,061	3,872	3,982	4,600	4,600	2,131	1,500	2,195	1,950	1,537	4,177	
1945	3,461	4,600	4,193	4,193	4,600	2,784	2,039	800	3,000	4,575	4,533	4,600	
1946	4,171	4,251	4,193	4,193	3,911	2,449	2,427	1,500	3,000	4,600	4,591	4,365	
1947	3,467	4,600	4,193	4,193	4,193	4,600	4,140	1,773	800	2,406	2,112	1,501	4,355
1948	3,293	3,660	2,436	3,812	4,272	3,114	2,547	800	3,000	4,563	4,600	4,343	
1949	4,254	3,592	4,193	3,819	3,751	4,600	1,825	1,911	3,000	4,561	3,623	4,057	
1950	3,893	4,028	3,960	4,193	4,600	4,276	2,398	800	2,475	3,477	4,454	4,550	
1951	3,592	4,600	2,366	800	992	3,242	2,146	800	3,000	4,600	4,600	4,124	
1952	4,271	4,253	4,193	4,193	4,165	4,600	3,491	3,239	3,000	4,600	4,600	4,600	
1953	4,600	4,265	2,714	1,821	2,543	2,739	2,359	1,125	3,000	4,600	4,572	4,600	
1954	4,600	4,600	4,193	4,193	4,150	4,600	2,747	1,125	2,850	4,600	4,029	4,436	
1955	3,667	4,600	4,193	4,193	4,600	2,307	1,781	800	3,000	3,698	1,537	3,597	
1956	3,947	4,369	4,193	4,193	4,194	2,835	2,520	800	2,475	3,913	4,600	4,600	
1957	4,600	4,600	3,561	4,193	4,150	4,600	2,685	2,093	3,000	4,600	3,977	4,482	
1958	4,600	4,600	4,193	4,193	4,193	4,600	2,660	3,144	3,000	4,600	4,600	4,600	
1959	4,600	4,197	4,193	4,600	4,138	2,696	1,793	1,125	3,000	4,555	4,458	3,026	
1960	3,730	1,561	1,380	3,820	4,600	4,286	800	800	2,475	3,126	2,030	2,503	

Appendix C-3 CALSIM II Modeling

Year	Base Future Base CVP (Tracy) Delta Export (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	3,508	4,221	4,193	4,089	4,600	1,788	1,637	1,617	3,000	4,600	4,600	3,857
1962	2,210	2,619	4,142	4,193	4,600	4,600	2,059	1,125	3,000	4,600	4,600	4,051
1963	4,600	4,600	4,193	4,193	4,443	3,573	2,547	800	3,000	4,600	4,600	4,600
1964	4,600	4,600	4,193	4,193	3,384	2,724	1,293	800	1,728	3,467	3,128	3,805
1965	3,303	4,234	4,193	4,193	4,150	4,019	2,947	1,500	3,000	4,600	4,600	4,600
1966	4,600	4,600	4,193	4,193	4,600	4,593	2,104	1,125	3,000	4,600	4,572	4,013
1967	3,554	4,600	4,193	4,193	4,150	4,600	3,659	3,312	3,000	4,600	4,600	4,600
1968	4,600	4,600	3,700	1,819	3,630	2,682	2,234	1,125	3,000	4,600	4,304	3,657
1969	3,777	4,552	4,193	4,193	4,150	4,600	2,699	3,901	3,000	4,600	4,569	4,600
1970	4,600	4,509	2,312	1,514	1,802	3,207	2,153	800	2,475	2,685	4,600	4,600
1971	4,242	4,600	4,193	4,193	4,131	4,600	2,747	1,125	3,000	4,600	4,600	4,600
1972	4,600	4,600	4,193	4,193	4,600	4,600	1,685	800	3,000	4,600	4,284	4,165
1973	3,783	4,600	4,193	4,600	4,146	4,002	2,803	1,500	2,728	4,600	4,337	4,482
1974	4,367	4,600	4,193	4,193	4,150	4,600	2,547	800	2,475	4,600	4,600	4,600
1975	4,600	4,600	4,193	4,193	4,600	4,600	2,947	1,500	2,694	4,600	4,600	4,600
1976	4,600	4,600	4,193	4,042	3,659	2,617	1,385	800	1,305	1,101	1,265	2,433
1977	2,850	3,163	800	1,795	800	800	800	800	1,125	2,986	2,840	2,335
1978	3,050	1,297	4,193	4,600	3,640	1,811	2,591	3,153	3,000	4,600	4,515	4,600
1979	4,600	4,395	2,777	4,193	4,600	3,486	2,746	1,500	2,650	4,064	4,072	3,456
1980	4,600	4,580	4,193	4,193	4,165	3,481	2,502	800	3,000	4,600	4,578	4,600
1981	4,390	3,823	4,193	4,193	4,600	4,600	2,305	1,125	2,847	4,568	3,311	3,611
1982	4,600	4,600	4,193	4,193	4,150	4,600	3,237	3,538	3,000	4,600	4,600	4,600
1983	4,600	4,600	1,813	1,512	1,801	2,642	2,687	3,892	3,000	4,600	4,600	4,494
1984	2,160	1,503	1,039	1,513	2,435	3,948	2,777	1,500	3,000	4,600	4,600	4,472
1985	4,105	4,600	4,193	4,193	4,600	4,600	1,690	800	2,475	4,600	4,462	3,452
1986	3,656	2,282	4,193	4,193	4,585	4,600	1,839	2,284	2,833	2,746	4,513	4,600
1987	4,600	4,384	3,338	1,171	2,849	1,785	1,777	800	1,525	1,610	1,170	3,188
1988	2,879	4,024	4,193	4,193	3,795	800	1,360	800	800	800	800	2,820
1989	3,096	2,112	3,221	3,805	2,127	4,600	2,319	800	2,295	2,590	2,237	3,351
1990	3,378	3,873	2,180	4,193	4,600	2,444	800	800	800	800	800	2,347
1991	2,956	1,072	1,887	1,155	1,085	4,600	1,739	800	1,690	800	812	2,996
1992	2,946	1,102	1,250	3,393	4,600	3,650	1,648	800	800	800	600	1,290
1993	3,066	669	4,193	4,193	4,150	3,147	2,747	1,125	2,563	4,598	4,550	4,600
1994	4,600	4,493	4,193	3,822	4,600	3,800	1,512	800	823	4,600	4,600	3,603
Mean	3,787	3,686	3,513	3,623	3,667	3,284	2,172	1,381	2,410	3,489	3,422	3,948
Max	4,600	4,600	4,193	4,600	4,600	4,600	3,659	3,901	3,000	4,600	4,600	4,600
Min	2,080	669	682	597	482	779	600	800	800	600	600	1,290

Appendix C-3 CALSIM II Modeling

Year	Alt Future Alt Desal X2 Position (KM)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	75	83	85	80	78	67	66	66	61	63	74	83
1923	86	86	83	71	67	70	74	68	70	76	80	83
1924	86	87	83	85	82	79	77	81	85	84	83	86
1925	89	89	86	82	81	64	65	67	70	76	82	83
1926	88	87	85	84	79	68	74	70	74	81	83	83
1927	88	87	78	79	70	55	59	59	63	72	75	83
1928	86	87	81	81	76	72	58	63	68	77	78	84
1929	88	87	84	83	82	78	78	80	81	82	86	85
1930	89	88	85	81	76	74	69	73	75	81	83	83
1931	88	87	85	84	82	80	82	81	85	84	83	87
1932	89	88	85	77	74	72	74	75	75	76	82	83
1933	88	87	85	85	77	79	78	77	81	82	86	85
1934	89	89	85	82	78	75	75	76	81	81	85	85
1935	89	89	84	85	72	74	69	62	64	72	79	84
1936	87	86	85	84	70	59	63	66	68	75	79	82
1937	88	87	84	84	81	67	62	64	67	74	79	84
1938	88	88	78	64	64	52	47	52	54	58	72	82
1939	86	80	84	83	81	78	76	77	77	82	83	87
1940	89	85	86	86	71	61	54	55	65	75	78	83
1941	87	87	82	69	57	51	52	53	58	68	75	82
1942	85	85	84	66	57	50	62	60	61	67	75	83
1943	85	85	84	73	59	58	54	61	65	74	77	84
1944	87	87	84	85	81	73	72	75	75	79	83	83
1945	88	87	82	81	81	67	67	71	72	76	80	83
1946	88	87	82	65	62	65	70	72	72	76	80	85
1947	89	86	82	82	81	76	74	75	77	81	83	84
1948	88	86	85	85	81	77	76	69	66	72	79	84
1949	87	84	84	83	81	79	68	72	74	78	83	85
1950	89	87	84	85	78	70	71	71	71	75	80	81
1951	87	87	70	57	55	55	62	69	68	78	77	84
1952	87	87	82	69	58	55	56	55	55	59	73	82
1953	81	80	80	67	56	64	69	71	68	71	75	83
1954	84	86	82	83	72	62	61	61	66	77	79	84
1955	86	85	83	78	76	76	78	75	75	79	83	83
1956	88	87	84	62	51	52	59	66	62	69	76	84
1957	84	84	85	84	81	71	65	68	70	75	78	84
1958	87	84	83	77	68	52	52	51	56	62	74	83
1959	81	83	85	83	71	63	66	74	76	80	79	85
1960	87	87	83	85	82	72	72	74	75	81	83	82

Appendix C-3 CALSIM II Modeling

Year	Alt Future Alt Desal X2 Position (KM)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1961	88	87	83	82	81	73	75	76	77	77	81	83	83
1962	88	87	83	83	83	68	69	73	74	79	80	80	85
1963	88	74	82	75	77	62	65	56	61	71	74	83	86
1964	85	85	77	82	76	75	78	75	77	81	83	84	83
1965	88	87	82	64	54	61	67	62	66	74	76	84	85
1966	87	87	80	79	71	69	69	73	74	80	80	80	85
1967	88	85	83	71	63	60	58	58	58	60	73	83	83
1968	79	78	83	80	70	61	63	70	75	80	80	80	85
1969	89	85	84	77	58	51	55	56	56	60	73	83	83
1970	84	80	82	66	50	52	59	68	71	79	76	84	84
1971	85	87	81	65	62	65	63	67	66	73	74	83	83
1972	85	86	84	81	80	74	70	74	77	76	80	84	84
1973	88	86	79	76	61	55	56	66	69	74	78	84	84
1974	88	87	68	60	52	59	53	54	62	71	76	83	83
1975	81	84	85	81	81	81	64	56	63	64	69	76	84
1976	82	81	84	84	81	80	78	79	84	85	82	88	88
1977	90	87	86	85	84	82	82	81	85	85	83	87	87
1978	89	88	85	82	64	60	57	59	65	70	76	82	82
1979	86	87	84	83	75	65	64	69	70	74	79	84	84
1980	88	86	83	78	60	52	55	64	67	75	78	82	82
1981	85	87	85	82	77	72	69	71	76	81	83	83	83
1982	87	87	74	60	56	52	52	49	56	65	75	80	80
1983	82	75	66	57	52	47	42	49	52	53	62	73	73
1984	69	67	58	49	53	59	62	68	72	77	76	84	84
1985	88	86	74	75	79	77	75	76	75	81	83	84	84
1986	86	86	84	81	75	53	48	61	68	74	78	82	82
1987	86	87	85	84	81	76	71	74	78	81	83	87	87
1988	89	85	86	81	73	75	78	79	81	81	85	85	85
1989	89	89	84	85	81	80	68	70	74	79	83	87	87
1990	87	85	85	84	84	79	77	79	77	80	85	85	85
1991	89	90	85	86	85	82	72	74	79	84	85	85	85
1992	89	90	85	84	84	72	73	75	80	81	85	86	86
1993	89	89	85	83	65	60	60	61	63	68	76	83	83
1994	87	87	84	83	81	75	75	75	77	79	84	83	86
Mean	86	86	82	78	72	67	66	68	70	75	79	84	84
Max	90	90	86	86	85	82	82	81	85	85	86	88	88
Min	69	67	58	49	50	47	42	49	52	53	62	73	73

Appendix C-3 CALSIM II Modeling

Year	Base Future Base X2 Position (KM)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1922	75	83	85	80	78	67	66	66	61	63	74	83	83
1923	86	86	83	71	67	70	74	68	70	76	80	83	83
1924	86	87	83	85	82	79	77	81	85	84	83	86	86
1925	89	89	86	82	81	64	65	67	70	76	82	83	83
1926	88	87	85	84	79	68	74	70	74	81	83	83	83
1927	88	87	78	79	70	55	59	59	63	72	75	83	83
1928	86	87	81	81	76	72	58	63	68	77	78	84	84
1929	88	87	84	83	82	78	78	80	81	82	86	85	85
1930	89	88	85	81	76	74	69	73	75	81	83	83	83
1931	88	87	85	84	82	80	82	81	85	84	83	87	87
1932	89	88	85	77	74	72	74	75	75	76	82	83	83
1933	88	87	85	85	77	79	78	77	81	82	86	85	85
1934	89	89	85	82	78	75	75	76	81	81	85	85	85
1935	89	89	84	85	72	74	69	62	64	72	79	84	84
1936	87	86	85	84	70	59	63	66	68	75	79	82	82
1937	88	87	84	84	81	67	62	64	67	74	79	84	84
1938	88	88	78	64	64	52	47	52	54	58	72	82	82
1939	86	80	84	83	81	78	76	77	77	82	83	87	87
1940	89	85	86	86	71	61	54	55	65	75	78	83	83
1941	87	87	82	69	57	51	52	53	58	68	75	82	82
1942	85	85	84	66	57	50	62	60	61	67	75	83	83
1943	85	85	84	73	59	58	54	61	65	74	77	84	84
1944	87	87	84	85	81	73	72	75	75	79	83	83	83
1945	88	87	82	81	81	67	67	71	72	76	80	83	83
1946	88	87	82	65	62	65	70	72	72	76	80	85	85
1947	89	86	82	82	81	76	74	75	77	81	83	84	84
1948	88	86	85	85	81	77	76	69	66	72	79	84	84
1949	87	84	84	83	81	79	68	72	74	78	83	85	85
1950	89	87	84	85	78	70	71	71	71	75	80	81	81
1951	87	87	70	57	55	55	62	69	68	78	77	84	84
1952	87	87	82	69	58	55	56	55	55	59	73	82	82
1953	81	80	80	67	56	64	69	71	68	71	75	83	83
1954	84	86	82	83	72	62	61	61	66	77	79	84	84
1955	86	85	83	78	76	76	78	75	75	79	83	83	83
1956	88	87	84	62	51	52	59	66	62	69	76	84	84
1957	84	84	85	84	81	71	65	68	70	75	78	84	84
1958	87	84	83	77	68	52	51	56	62	74	83	83	83
1959	81	83	85	83	71	63	66	74	76	80	79	85	85
1960	87	87	83	85	82	72	72	74	75	81	83	82	82

Appendix C-3 CALSIM II Modeling

Year	Future Base X2 Position (KM)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	88	87	83	82	81	73	75	76	77	81	83	83
1962	88	87	83	83	83	68	69	73	74	79	80	85
1963	88	74	82	75	77	62	65	56	61	71	74	83
1964	85	85	77	82	76	75	78	75	77	81	83	84
1965	88	87	82	64	54	61	67	62	66	74	76	84
1966	87	87	80	79	71	69	69	73	74	80	80	85
1967	88	85	83	71	63	60	58	58	58	60	73	83
1968	79	78	83	80	70	61	63	70	75	80	80	85
1969	89	85	84	77	58	51	55	56	56	60	73	83
1970	84	80	82	66	50	52	59	68	71	79	76	84
1971	85	87	81	65	62	65	63	67	66	73	74	83
1972	85	86	84	81	80	74	70	74	77	76	80	84
1973	88	86	79	76	61	55	56	66	69	74	78	84
1974	88	87	68	60	52	59	53	54	62	71	76	83
1975	81	84	85	81	81	64	56	63	64	69	76	84
1976	82	81	84	84	81	80	78	79	84	85	82	88
1977	90	87	86	85	84	82	82	81	85	85	83	87
1978	89	88	85	82	64	60	57	59	65	70	76	82
1979	86	87	84	83	75	65	64	69	70	74	79	84
1980	88	86	83	78	60	52	55	64	67	75	78	82
1981	85	87	85	82	77	72	69	71	76	81	83	83
1982	87	87	74	60	56	52	52	49	56	65	75	80
1983	82	75	66	57	52	47	42	49	52	53	62	73
1984	69	67	58	49	53	59	62	68	72	77	76	84
1985	88	86	74	75	79	77	75	76	75	81	83	84
1986	86	86	84	81	75	53	48	61	68	74	78	82
1987	86	87	85	84	81	76	71	74	78	81	83	87
1988	89	85	86	81	73	75	78	79	81	81	85	85
1989	89	89	84	85	81	80	68	70	74	79	83	87
1990	87	85	85	84	79	77	79	77	80	85	85	85
1991	89	90	85	86	85	82	72	74	79	84	85	85
1992	89	90	85	84	84	72	73	75	80	81	85	86
1993	89	89	85	83	65	60	60	61	63	68	76	83
1994	87	87	84	83	81	75	75	75	77	79	84	86
Mean	86	86	82	78	72	67	66	68	70	75	79	84
Max	90	90	86	86	85	82	82	81	85	85	86	88
Min	69	67	58	49	50	47	42	49	52	53	62	73

Appendix C-3 CALSIM II Modeling

Year	Alt Future Alt Desal QWEST (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	-2,087	-2,398	-3,689	-3,163	6,034	1,112	5,550	12,122	3,278	-4,540	70	-3,230
1923	-1,715	-3,401	1,527	2,910	1,940	-924	6,374	4,503	228	-4,986	-4,336	-2,642
1924	-2,203	463	-2,447	-1,632	-3,070	2,451	977	-230	1,679	2,415	-334	-10
1925	418	969	-2,619	-2,480	6,778	6,123	4,154	4,692	540	-1,678	2,492	-1,413
1926	22	774	-329	-3,759	-2,484	-830	2,933	2,280	149	-3,339	-463	-735
1927	157	-3,707	-5,271	-1,084	15,149	1,985	7,874	6,765	90	-1,387	-4,629	-3,101
1928	-2,287	-3,766	-4,055	-3,665	-3,225	6,415	5,169	2,187	-1,054	-1,541	-2,475	-2,826
1929	-177	-1,799	-2,665	-2,362	-3,029	348	1,198	1,363	1,455	-611	2,092	37
1930	695	1,872	-4,313	-4,369	-2,270	-2,792	1,408	1,841	534	-3,695	-2,048	-2,197
1931	98	1,066	789	-2,348	-1,455	552	734	-216	1,333	785	-1,444	-46
1932	790	1,670	-1,556	-2,336	3,544	1,541	3,135	3,264	946	-3,207	967	-1,381
1933	10	1,057	-929	2,221	-1,005	-591	2,060	1,434	1,819	-900	2,384	56
1934	267	2,682	-3,657	-3,420	1,555	1,888	1,578	420	2,029	-554	2,091	-38
1935	406	-215	-1,779	-1,793	24	2,057	10,900	7,797	855	-3,326	-4,833	-3,452
1936	-1,212	-332	-2,665	-2,301	18,496	2,298	6,605	7,147	8	-3,499	-4,183	-2,193
1937	-276	626	-3,189	-2,518	11,438	12,124	8,716	8,309	417	-386	-2,093	-2,025
1938	-745	-7,240	5,075	3,980	33,630	37,608	22,421	23,219	13,694	-3,342	-3,137	-2,996
1939	1,329	-2,688	-3,873	-1,919	-1,895	406	2,088	2,821	-293	-3,453	-3,163	-2,819
1940	636	-445	-921	248	6,953	12,007	10,725	5,376	76	-5,077	-4,976	-2,480
1941	-2,387	-336	-1,579	7,550	17,265	11,148	13,230	8,872	4,283	-4,239	-3,115	-3,670
1942	-1,977	-2,507	2,071	14,902	15,620	-126	8,971	11,231	-2,559	-401	-4,466	-3,599
1943	-1,825	-3,739	-3,153	18,055	11,286	25,638	7,804	9,329	1,792	-1,171	-5,040	-2,926
1944	-1,366	-426	-3,415	-2,250	-3,535	-1,997	3,068	3,104	-799	-4,036	-2,078	-2,802
1945	-970	-3,128	-4,991	-2,243	3,434	2,644	5,391	4,995	-503	-4,759	-3,201	-2,466
1946	-982	-2,160	5,586	1,295	3,094	111	3,823	4,421	-445	-5,390	-5,331	-2,562
1947	-2,109	-1,375	-4,781	-940	-3,491	-2,178	907	1,544	-947	-4,363	-862	-2,481
1948	115	-1,226	-977	-2,742	-379	-1,294	3,775	6,675	-709	-5,846	-5,047	-3,164
1949	-2,724	-1,528	-3,464	-1,416	-2,526	-2,019	2,476	1,448	-677	-3,973	-1,439	-2,006
1950	476	-787	-1,640	-3,471	-3,504	-1,972	2,866	4,188	-1,038	-4,765	-4,096	-2,427
1951	-1,845	3,148	17,544	17,520	15,214	1,823	4,353	6,648	-237	-2,552	-5,902	-3,008
1952	-2,399	-2,151	-782	12,731	8,078	12,279	15,851	18,618	7,984	-3,064	-4,168	-3,367
1953	-11	-353	4,130	11,927	2,417	-2,261	3,255	5,719	-642	-2,222	-4,253	-4,580
1954	-2,965	-4,264	-2,100	-4,706	-1,55	-1,775	4,930	2,779	-830	-4,860	-4,136	-3,879
1955	-2,362	-3,046	-4,428	-3,432	-1,921	-729	1,970	2,528	-1,105	-2,763	1,953	-1,866
1956	-108	-1,539	17,362	25,869	13,193	2,248	4,885	11,476	2,124	34	-4,440	-3,850
1957	-2,582	-2,691	-1,547	-2,966	-3,068	-786	2,625	2,984	-857	-3,209	-4,839	-2,965
1958	-3,703	-2,661	-4,302	-2,057	9,458	12,533	25,737	15,362	2,549	-3,741	-4,293	-3,569
1959	-1,495	-2,164	-2,066	-3,112	3,710	2,617	1,781	1,448	-1,194	-4,039	-5,655	-1,937
1960	-1,619	1,387	-1,973	-1,770	-4,451	-2,790	3,304	1,919	-429	-5,262	956	-564

Appendix C-3 CALSIM II Modeling

Year	Alt Future Alt/Desal QWEST (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	20	-1,211	-4,843	-6,707	-2,180	122	393	-1,805	-5,786	-9,924	-2,153	
1962	400	-431	-5,043	-1,547	3,292	-1,876	2,866	3,243	-927	-5,333	-5,934	-3,325
1963	-5,883	-5,035	-6,714	-4,120	7,095	-1,369	13,806	9,627	542	31	-4,877	-3,321
1964	-2,858	-3,157	-3,616	-3,582	-1,022	-1,078	1,389	721	-958	-5,858	-4,348	-2,416
1965	-122	-2,678	8,575	15,220	1,038	115	8,432	5,980	647	-105	-5,002	-2,789
1966	-612	-3,338	-1,560	-1,486	-1,256	-3,061	1,868	2,831	-1,027	-4,012	-5,096	-3,065
1967	-1,288	-3,448	-2,745	2,759	461	5,119	15,236	17,056	9,993	688	-4,419	-2,594
1968	-269	-3,841	-2,552	520	4,125	340	2,165	1,669	-1,184	-2,627	-4,539	-2,976
1969	-1,158	-2,762	-3,801	22,992	31,498	16,465	21,784	25,156	22,157	-2,481	-931	-4,150
1970	1,085	-3,003	6,120	32,550	14,119	4,466	3,979	4,979	418	482	-5,951	-4,311
1971	-2,323	-4,164	2,131	-296	3,142	-1,729	3,007	6,274	-783	-8,785	-4,920	-4,256
1972	-3,215	-2,969	-4,544	-4,271	-2,919	-6,002	1,268	805	-427	-4,774	-3,742	-2,405
1973	-1,021	-3,994	-3,964	8,328	13,739	7,721	4,447	4,802	-112	-4,112	-4,185	-2,750
1974	-2,149	-973	2,595	8,742	-36	8,650	14,534	6,924	252	-3,009	-4,948	-3,620
1975	-2,981	-2,818	-3,546	-4,186	6,418	11,268	5,331	7,910	1,486	-3,572	-4,788	-3,721
1976	-2,966	-4,083	-3,501	-1,214	-2,490	-2,249	846	117	204	739	-3,029	-2,549
1977	1,398	-820	633	367	102	959	991	745	1,267	278	-2,434	-74
1978	753	1,831	-3,706	6,565	10,397	13,812	12,336	8,182	7,098	-5,007	-1,804	-3,351
1979	-960	-1,081	-2,993	83	5,903	4,910	4,455	5,277	196	-4,347	-3,163	-3,341
1980	-1,595	-2,404	-4,527	16,587	27,489	13,240	6,266	8,345	2,645	-3,213	-335	-2,969
1981	-802	-204	-2,455	-3,822	-3,438	-2,445	2,228	1,161	-1,670	-5,895	-2,361	-3,062
1982	-1,576	-5,591	2,871	12,306	20,068	20,834	34,648	15,983	6,106	-2,879	-2,127	-2,549
1983	5,803	4,476	26,541	37,746	47,484	57,089	27,547	27,304	36,955	12,362	-3,331	2,285
1984	13,461	22,391	36,775	18,138	8,851	1,458	3,186	3,708	462	-948	-5,451	-2,887
1985	-2,796	-5,120	-3,924	-3,656	-3,175	-461	1,888	2,580	-790	-6,276	-5,186	-3,305
1986	-2,107	-803	-4,931	-2,677	33,952	29,710	9,596	6,364	3,776	-2,769	-5,565	-2,415
1987	1,278	15	-1,385	-1,909	-3,825	-788	448	1,061	452	-2,955	-2,524	-1,945
1988	548	-1,022	-3,713	-5,061	-1,060	1,312	345	779	2,006	-1,868	2,118	43
1989	587	494	-1,387	-1,408	472	-2,842	80	712	-2,69	-4,780	-2,987	-2,971
1990	-1,236	-1,274	-2,690	-5,243	-2,568	-1,380	1,787	794	1,092	1,427	-1,126	-44
1991	51	2,672	640	1,524	719	-3,556	726	861	918	1,392	-114	-37
1992	55	2,305	1,399	-1,732	-3,550	-1,826	501	178	1,510	-821	1,315	-235
1993	497	1,964	-3,099	10,463	5,867	4,692	5,129	7,552	-3,320	-4,711	-3,687	-2,917
1994	-2,020	133	-3,488	-2,112	-4,983	-2,598	734	1,434	-1,498	-5,035	-6,144	-3,173
Mean	-768	-1,045	-377	2,650	5,151	4,159	6,022	5,642	1,630	-2,705	-2,807	-2,377
Max	13,461	22,391	36,775	37,746	47,484	57,089	34,648	27,304	36,955	12,362	2,492	2,285
Min	-5,883	-7,240	-6,714	-5,243	-6,707	-6,002	80	-230	-3,320	-8,785	-6,144	-4,580

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Year	Base Future Base QWEST (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	-1,725	-3,412	-3,689	-3,163	6,034	1,112	5,550	12,122	3,278	-4,540	70	-3,269
1923	-1,082	-2,422	-2,449	-1,700	-3,101	2,425	977	-260	1,593	2,354	-391	-61
1924	378	939	-2,653	-2,515	6,778	6,095	4,138	4,692	540	-1,678	2,492	-1,439
1925	15	768	-334	-3,859	-2,484	-830	2,933	2,280	149	-3,339	-463	-782
1926	149	-3,718	-5,271	-1,084	15,001	1,966	7,874	6,765	90	-1,387	-4,629	-3,115
1927	-2,295	-3,782	-4,055	-3,665	-3,243	6,318	5,169	2,187	-1,054	-1,541	-2,475	-2,851
1928	-186	-1,809	-2,665	-2,410	-3,108	348	1,198	1,363	1,455	-655	-2,069	26
1929	669	1,737	-4,341	-4,412	-2,270	-2,792	1,408	1,841	534	-3,697	-2,074	-2,211
1930	-8	1,037	755	-2,383	-1,486	516	734	-282	1,276	725	-1,501	-97
1931	749	1,640	-1,590	-2,336	3,717	1,541	3,061	3,258	946	-3,207	967	-1,413
1932	3	1,052	-929	2,156	-1,005	-591	2,060	1,434	1,819	-900	2,350	23
1933	111	2,584	-3,694	-3,455	1,519	1,955	1,509	420	2,029	-554	2,034	-89
1934	366	-245	-1,813	-1,828	29	2,057	10,900	7,791	855	-3,326	-4,832	-3,464
1935	-1,220	-383	-2,665	-2,301	18,496	2,298	6,605	7,147	8	-3,572	-4,183	-2,220
1936	617	-3,189	-2,537	11,438	12,076	8,716	8,309	417	-458	-2,093	-2,061	
1937	-756	-7,261	5,075	3,900	33,627	37,608	22,421	23,219	13,694	-3,342	-3,137	-3,043
1938	1,295	-2,709	-3,907	-1,934	-1,910	378	2,088	2,821	-293	-3,510	-3,185	-2,829
1939	628	-457	-929	206	6,953	11,967	10,521	5,383	76	-5,077	-5,028	-2,496
1940	-2,433	-380	-1,579	7,550	17,265	11,147	13,230	8,872	4,283	-4,239	-3,115	-3,709
1941	-1,988	-2,518	2,071	14,902	15,530	-126	8,971	11,231	-2,559	-401	-4,466	-3,620
1942	-1,841	-3,753	-3,153	18,055	11,244	25,545	7,804	9,329	1,792	-1,171	-5,040	-2,941
1943	-1,376	-436	-3,441	-2,266	-3,564	-1,997	3,068	3,104	-799	-4,085	-2,102	-2,818
1944	-977	-3,136	-5,025	-2,277	3,434	2,644	5,391	4,995	-503	-4,881	-3,256	-2,486
1945	-990	-2,262	5,586	1,295	3,095	58	3,823	4,421	-445	-5,390	-5,359	-2,574
1946	-2,200	-1,423	-4,815	-957	-3,521	-2,178	907	1,544	-947	-4,363	-880	-2,494
1947	109	-1,234	-977	-2,784	-483	-1,294	3,708	6,586	-709	-5,846	-5,087	-3,178
1948	-2,811	-1,559	-3,464	-1,476	-2,456	-2,019	2,476	1,448	-677	-3,973	-1,475	-2,025
1949	466	-834	-1,640	-3,569	-3,504	-2,039	2,719	4,195	-1,038	-4,765	-4,097	-2,462
1950	-1,860	3,115	17,544	17,492	15,214	1,823	4,353	6,648	-237	-2,552	-5,902	-3,023
1951	-2,410	-2,177	-782	12,731	8,059	12,200	15,851	18,618	7,984	-3,064	-4,168	-3,424
1952	-26	-353	4,130	11,927	2,417	-2,261	3,255	5,719	-642	-2,222	-2,253	-4,601
1953	-2,975	-4,274	-2,100	-4,706	-185	-1,890	4,930	2,779	-830	-4,860	-4,136	-3,897
1954	-2,374	-3,058	-4,428	-3,432	-1,929	-814	1,970	2,528	-1,105	-2,763	1,900	-1,894
1955	-116	-1,548	17,362	25,869	13,191	2,142	4,885	11,476	2,124	34	-4,440	-3,874
1956	-2,595	-2,703	-1,547	-2,982	-3,068	-815	2,625	2,984	-871	-3,281	-4,839	-2,980
1957	-3,717	-2,701	-4,302	-2,057	9,443	12,468	25,737	15,362	2,549	-3,741	-4,293	-3,610
1958	-1,547	-2,188	-2,066	-3,112	3,629	2,617	1,781	1,448	-1,194	-1,448	-5,700	-1,950
1959	-1,656	1,301	-1,973	-1,826	-4,504	-2,790	3,304	1,919	-429	-5,262	924	-611

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Year	Base Future Base QWEST (CFS)												Year	Difference Future Alt Desal minus Future Base QWEST (CFS)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1961	9	-1,220	-4,877	-2,072	-6,726	-2,180	122	393	-1,805	-5,843	-855	-2,289	1922	0	0	0	0	0	0	0	0	0	0	0	39	
1962	-451	-461	-5,043	-1,547	3,292	-1,876	2,859	3,243	-927	-5,333	-5,957	-3,391	1923	10	10	0	0	81	0	0	0	0	0	0	41	15
1963	-5,968	-5,035	-6,714	-4,120	7,095	-1,369	13,806	9,627	542	31	-4,877	-3,347	1924	20	107	2	67	31	26	0	30	86	61	57	51	
1964	-2,867	-3,163	-3,616	-3,640	-1,072	-1,078	1,389	721	-958	-5,858	-4,358	-2,423	1925	40	30	34	35	0	28	15	0	0	0	0	26	
1965	-126	-2,684	8,575	15,220	1,038	115	8,430	5,973	647	-161	-5,082	-2,806	1926	7	6	5	100	0	0	0	0	0	0	0	47	
1966	-623	-3,362	-1,560	-1,566	-1,169	-3,157	1,868	2,831	-1,027	-4,012	-5,131	-3,080	1927	8	11	0	0	148	18	0	0	0	0	0	14	
1967	-1,347	-3,521	-2,779	2,759	461	5,119	15,236	17,056	9,993	688	-4,419	-2,660	1928	7	16	0	0	18	97	0	0	0	0	0	25	
1968	-275	-3,841	-2,552	520	4,125	340	2,165	1,669	-1,184	-2,627	-4,583	-2,986	1929	9	9	0	48	79	0	0	0	0	44	23	11	
1969	-1,187	-2,852	-3,801	22,992	31,498	16,451	21,784	25,156	22,157	-2,481	-931	-4,150	1930	26	135	28	43	0	0	0	0	0	2	26	14	
1970	1,040	-3,016	6,120	32,550	14,119	4,466	3,979	4,979	418	482	-5,951	-4,329	1931	106	30	34	35	31	36	0	66	58	61	57	51	
1971	-2,333	-4,177	2,131	-296	3,087	-1,785	3,007	6,274	-783	-8,785	-4,920	-4,278	1932	40	30	34	0	-173	0	73	5	0	0	0	31	
1972	-3,228	-2,979	-4,544	-4,285	-2,944	-6,002	1,252	798	-427	-4,789	-3,781	-2,419	1933	7	5	0	65	0	0	0	0	0	0	34	32	
1973	-1,150	-4,099	-3,998	8,328	13,739	7,721	4,447	4,802	-112	-4,112	-4,185	-2,771	1934	156	98	36	36	37	-67	69	0	0	0	57	51	
1974	-2,156	-989	2,595	8,679	-89	8,650	14,534	6,924	252	-3,009	-4,948	-3,654	1935	40	30	34	35	-6	0	0	6	0	0	-1	12	
1975	-3,011	-2,833	-3,546	-4,207	6,400	11,167	5,331	7,910	1,486	-3,572	-4,788	-3,751	1936	8	51	0	0	0	0	0	0	0	0	73	0	27
1976	-3,006	-4,105	-3,520	-1,226	-2,503	-2,249	846	65	172	697	-3,029	-2,696	1937	10	9	0	19	0	48	0	0	0	0	72	0	36
1977	1,316	-849	607	332	70	922	991	688	1,209	217	-2,491	-1,25	1938	10	20	0	79	3	0	0	0	0	0	0	48	
1978	713	1,801	-3,740	6,565	10,397	13,812	12,333	8,182	7,098	-5,007	-1,804	-3,386	1939	35	21	34	15	15	28	0	0	0	57	22	10	
1979	-972	-1,090	-2,993	58	5,903	4,830	4,455	5,277	196	-4,382	-3,220	-2,359	1940	8	12	8	42	0	40	204	-7	0	0	52	16	
1980	-1,604	-2,426	-4,527	16,587	27,423	13,202	6,266	8,345	2,645	-3,213	-335	-2,969	1941	46	44	0	0	0	1	0	0	0	0	0	39	
1981	-817	-215	-2,455	-3,845	-3,438	-2,536	2,228	1,161	-1,670	-5,942	-2,381	-3,085	1942	11	11	0	0	91	0	0	0	0	0	0	21	
1982	-1,586	-5,602	2,871	12,306	20,068	20,721	34,648	15,983	6,065	-2,899	-2,127	-2,549	1943	15	14	0	0	41	93	0	0	0	0	0	15	
1983	5,803	4,476	26,541	37,746	47,484	57,089	27,547	27,304	36,955	12,362	-3,331	2,285	1944	10	9	27	16	29	0	0	0	0	49	24	17	
1984	13,461	22,391	36,775	18,138	8,851	1,458	3,186	3,708	462	-948	-5,451	-2,906	1945	6	8	34	33	0	0	0	0	0	122	54	21	
1985	-2,806	-5,131	-3,924	-3,701	-3,242	-461	1,888	2,580	-790	-6,327	-5,200	-3,316	1946	8	102	0	0	-2	53	0	0	0	0	28	12	
1986	-2,116	-813	-4,931	-2,699	33,925	29,707	9,345	6,315	3,776	-2,769	-536	-2,415	1947	90	48	34	18	30	0	0	0	0	0	18	13	
1987	-1,290	6	-1,385	-1,924	-3,839	-788	448	1,061	452	-3,015	-2,546	-1,953	1948	6	8	0	42	104	0	67	89	0	0	40	14	
1988	543	-1,030	-3,713	-5,061	-1,060	1,312	345	779	2,006	-1,868	2,096	34	1949	86	31	0	59	-70	0	0	0	0	0	37	19	
1989	507	356	-1,443	-1,552	402	-2,842	80	712	-2,69	-4,780	-3,000	-3,059	1950	10	48	0	98	0	67	147	-7	0	0	34		
1990	-1,282	-1,304	-2,717	-5,278	-2,599	-1,380	1,786	794	1,113	1,347	-1,183	-95	1951	15	33	0	28	0	0	0	0	0	0	0	15	
1991	10	2,642	606	1,489	708	-3,592	704	861	918	1,333	-172	-88	1952	11	25	0	0	20	79	0	0	0	0	0	57	
1992	14	2,275	1,365	-1,767	-3,586	-1,826	501	178	1,477	-821	1,277	-286	1953	15	0	0	0	0	0	0	0	0	0	0	21	
1993	456	1,934	-3,133	10,463	5,867	4,692	5,146	7,552	-3,320	-4,711	-3,687	-2,942	1954	10	11	0	0	29	115	0	0	0	0	0	18	
1994	-2,028	126	-3,522	-2,128	-5,003	-2,598	734	1,434	-1,498	-5,050	-6,152	-3,297	1955	12	12	0	0	8	85	0	0	0	0	53	28	
Mean	-796	-1,073	-387	2,627	5,135	4,137	6,010	5,637	1,625	-2,722	-2,825	-2,408	1956	9	9	0	0	2	106	0	0	0	0	0	23	
Max	13,461	22,391	36,775	37,746	47,484	57,089	34,648	27,304	36,955	12,362	2,492	2,285	1957	14	12	0	16	0	29	0	0	14	72	0	15	
Min	-5,968	-7,261	-6,714	-5,278	-6,726	-6,002	80	-282	-3,320	-8,785	-6,152	-4,601	1958	10	40	0	0	15	65	0	0	0	0	0	44	
													1959	53	23	0	0	82	0	0	0	0	0	0	45	13
													1960	37	86	0	55	53	0	0	0	0	0	0	32	47

Year	Future Alt Desal minus Future Base QWEST (CFS)												Year	Difference Future Alt Desal minus Future Base QWEST (CFS)													
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep		
1922	0	0	0	0	0	0	0	0	0	0	0	0	1922	0	0	0	0	0	0	0	0	0	0	0	39		
1923	10	10	0	0	0	81	0	0	0	0	0	0	1923	10	10	0	0	81	0	0	0	0	0	0	41	15	
1924	20	107	2	67	31	26	0	0	0	0	0	0	1924	20	107	2	67	31	26	0	30	86	61	57	51		
1925	40	30	34	35	0	28	15	0	0	0	0	0	1925	40	30	34	35	0	28	15	0	0	0	0	26		
1926	7	6	5	100	0	0	0	0	0	0	0	0	1926	7	6	5	100	0	0	0	0	0	0	0	47		
1927	8	11	0	0	148	18	0	0	0	0	0	0	1927	8	11	0	0	148	18	0	0	0	0	0	14		
1928	7	16	0	0	18	97	0	0	0	0	0	0	1928	7	16	0	0	18	97	0	0	0	0	0	25		
1929	9	9	0	48	79	0	0	0	0	0	0	0	1929	9	9	0	48	79	0	0	0	0	0	44	23	11	
1930	26	135	28	43	0	0	0	0	0	0	0	0	1930	26	135	28	43	0	0	0	0	0	0	2	26	14	
1931	106	30	34	35	31	36	0	66	58	61	57	51	1931	106	30	34	35	31	36	0	66	58	61	57	51		
1932	40	30	34	0	-173	0	73	5	0	0	0	0	1932	40	30	34	0	-173	0	73	5	0	0	0	31		
1933	7	5	0	65	0	0	0	0	0	0	0	0	1933	7	5	0	65	0	0	0	0	0	0	0	34	32	
1934	156	98	36	36	37	-67	69	0	0	0	0	57	1934	156	98	36	36	37	-67	69	0	0	0	0	57	51	
1935	40	30	34	35	-6	0	0	0	0	0	0	-1	1935	40	30	34	35	-6	0	0	0	0	0	0	-1	12	
1936	8	51	0	0	0	0	0	0	0	0	0	73	1936	8	51	0	0	0	0	0	0	0	0	0	73	0	27
1937	10	9	0	19	0	48	0	0	0	0	0	72	1937	10	9	0	19	0	48	0	0	0	0	0	72	0	36
1938	10	20	0	79	3	0	0	0	0	0	0	0	1938	10	20	0	79	3	0	0	0	0	0	0	0	48	
1939	35	21	34	15	15	28	0	0	0	0	0	57	1939	35	21	34	15	15	28	0	0	0	0	0	57	22	10
1940	8	12	8	42	0	40	204	-7	0	0	0	52	1940	8													

Appendix C-3 CALSIM II Modeling

Year	Future Alt Desal minus Future Base QWEST (CFS)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1961	11	9	34	13	19	0	0	0	0	0	57	61	136
1962	52	30	0	0	0	0	7	0	0	0	0	23	66
1963	85	0	0	0	0	0	0	0	0	0	0	0	26
1964	8	6	0	59	50	0	0	0	0	0	0	10	7
1965	4	6	0	0	0	0	2	7	0	0	56	81	17
1966	12	24	0	80	-87	97	0	0	0	0	35	15	15
1967	59	72	34	0	0	0	0	0	0	0	0	0	66
1968	5	0	0	0	0	0	0	0	0	0	44	10	0
1969	29	90	0	0	0	14	0	0	0	0	0	0	0
1970	44	13	0	0	0	0	0	0	0	0	0	0	18
1971	10	13	0	0	55	56	0	0	0	0	0	0	22
1972	13	10	0	14	25	0	17	7	0	0	14	39	14
1973	129	106	34	0	0	0	0	0	0	0	0	0	21
1974	7	16	0	63	52	0	0	0	0	0	0	0	34
1975	30	15	0	21	18	101	0	0	0	0	0	0	30
1976	40	22	19	12	13	0	0	52	32	42	0	0	148
1977	82	30	27	35	31	36	0	57	58	61	57	51	51
1978	40	30	34	0	0	0	0	3	0	0	0	0	36
1979	12	9	0	25	0	80	0	0	0	0	35	57	18
1980	9	23	0	0	66	38	0	0	0	0	0	0	0
1981	16	11	0	23	0	91	0	0	0	0	47	20	23
1982	10	11	0	0	0	113	0	0	40	20	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0	19
1985	10	11	0	45	67	0	0	0	0	0	51	14	12
1986	9	10	0	22	27	3	251	50	0	0	-29	0	0
1987	12	9	0	15	14	0	0	0	0	0	60	22	8
1988	6	8	0	0	0	0	0	0	0	0	0	22	9
1989	80	138	56	145	69	0	1	0	0	0	0	13	89
1990	46	30	27	35	32	0	1	0	-21	80	57	51	51
1991	40	30	34	35	11	36	21	0	0	59	57	51	51
1992	40	30	34	35	36	0	0	0	33	0	38	51	51
1993	40	30	34	0	0	0	-17	0	0	0	0	0	25
1994	8	7	34	16	20	0	0	0	0	15	8	124	0
Mean	28	28	10	23	17	22	12	5	4	17	18	31	31
Max	156	138	56	145	148	115	251	89	86	122	81	148	148
Min	0	0	0	0	-173	-67	-17	-7	-21	0	-29	0	0

Appendix C-3 CALSIM II Modeling

Year	Alt Future Alt Desal E/I Ratio											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0.63	0.60	0.32	0.36	0.61	0.32	0.19	0.05	0.24	0.51	0.45	0.65
1923	0.65	0.59	0.32	0.32	0.35	0.35	0.17	0.14	0.35	0.54	0.60	0.65
1924	0.65	0.40	0.58	0.50	0.45	0.09	0.15	0.18	0.10	0.08	0.39	0.46
1925	0.53	0.38	0.56	0.56	0.13	0.04	0.21	0.11	0.29	0.41	0.17	0.62
1926	0.54	0.40	0.44	0.52	0.28	0.30	0.17	0.11	0.21	0.44	0.35	0.53
1927	0.53	0.49	0.59	0.26	0.04	0.19	0.13	0.09	0.35	0.37	0.62	0.65
1928	0.65	0.56	0.61	0.48	0.35	0.12	0.17	0.19	0.35	0.37	0.52	0.65
1929	0.52	0.54	0.56	0.56	0.45	0.25	0.23	0.10	0.17	0.32	0.13	0.46
1930	0.47	0.26	0.52	0.52	0.37	0.30	0.21	0.11	0.21	0.49	0.48	0.64
1931	0.52	0.34	0.32	0.53	0.42	0.23	0.11	0.17	0.14	0.18	0.44	0.45
1932	0.41	0.29	0.50	0.48	0.38	0.31	0.22	0.14	0.24	0.46	0.28	0.57
1933	0.52	0.36	0.49	0.27	0.38	0.33	0.14	0.17	0.09	0.31	0.11	0.46
1934	0.52	0.17	0.57	0.49	0.27	0.12	0.08	0.11	0.09	0.29	0.10	0.45
1935	0.47	0.43	0.56	0.35	0.35	0.22	0.10	0.04	0.27	0.46	0.60	0.65
1936	0.58	0.48	0.56	0.29	0.14	0.25	0.17	0.07	0.35	0.47	0.56	0.64
1937	0.56	0.40	0.60	0.60	0.23	0.19	0.16	0.17	0.32	0.34	0.50	0.63
1938	0.59	0.47	0.15	0.23	0.05	0.05	0.10	0.11	0.20	0.50	0.58	0.65
1939	0.56	0.60	0.60	0.51	0.45	0.35	0.24	0.10	0.28	0.48	0.58	0.65
1940	0.46	0.49	0.49	0.31	0.18	0.11	0.09	0.12	0.32	0.50	0.61	0.65
1941	0.65	0.43	0.27	0.12	0.09	0.13	0.10	0.14	0.28	0.50	0.57	0.65
1942	0.65	0.59	0.18	0.10	0.06	0.33	0.12	0.07	0.34	0.37	0.62	0.65
1943	0.65	0.66	0.35	0.12	0.16	0.10	0.16	0.06	0.28	0.39	0.64	0.66
1944	0.61	0.48	0.61	0.53	0.43	0.35	0.26	0.18	0.35	0.51	0.49	0.64
1945	0.58	0.58	0.61	0.56	0.23	0.33	0.20	0.15	0.35	0.52	0.56	0.65
1946	0.64	0.53	0.17	0.23	0.21	0.35	0.24	0.15	0.35	0.54	0.64	0.65
1947	0.61	0.51	0.61	0.50	0.45	0.35	0.21	0.08	0.33	0.50	0.43	0.61
1948	0.53	0.51	0.48	0.50	0.28	0.35	0.17	0.05	0.35	0.53	0.62	0.65
1949	0.60	0.52	0.56	0.49	0.45	0.27	0.21	0.19	0.31	0.49	0.49	0.62
1950	0.47	0.48	0.53	0.53	0.33	0.35	0.20	0.08	0.35	0.50	0.54	0.65
1951	0.64	0.24	0.10	0.10	0.11	0.09	0.27	0.20	0.06	0.35	0.41	0.65
1952	0.65	0.53	0.27	0.13	0.14	0.17	0.11	0.09	0.20	0.49	0.62	0.59
1953	0.57	0.44	0.13	0.07	0.25	0.35	0.22	0.08	0.35	0.39	0.61	0.65
1954	0.65	0.59	0.52	0.34	0.19	0.24	0.14	0.15	0.35	0.49	0.60	0.65
1955	0.61	0.57	0.50	0.58	0.38	0.35	0.20	0.10	0.34	0.46	0.18	0.60
1956	0.51	0.52	0.12	0.07	0.12	0.22	0.19	0.03	0.35	0.35	0.62	0.65
1957	0.66	0.61	0.50	0.55	0.32	0.25	0.21	0.21	0.35	0.44	0.62	0.65
1958	0.65	0.56	0.48	0.30	0.06	0.12	0.07	0.11	0.27	0.50	0.62	0.60
1959	0.64	0.60	0.53	0.30	0.18	0.16	0.25	0.15	0.32	0.45	0.64	0.65
1960	0.59	0.31	0.54	0.52	0.38	0.35	0.08	0.10	0.26	0.52	0.26	0.50

Appendix C-3 CALSIM II Modeling

Year	Alt Future Alt Desal E/I Ratio											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	0.51	0.48	0.58	0.59	0.41	0.35	0.22	0.14	0.35	0.53	0.40	0.62
1962	0.51	0.43	0.60	0.51	0.26	0.35	0.23	0.11	0.32	0.50	0.65	0.65
1963	0.36	0.65	0.43	0.61	0.14	0.29	0.06	0.04	0.34	0.33	0.63	0.65
1964	0.65	0.47	0.60	0.47	0.32	0.35	0.17	0.17	0.35	0.55	0.57	0.63
1965	0.54	0.54	0.15	0.10	0.30	0.31	0.13	0.12	0.35	0.34	0.65	0.65
1966	0.59	0.55	0.58	0.34	0.35	0.35	0.23	0.13	0.34	0.49	0.63	0.65
1967	0.56	0.59	0.30	0.24	0.19	0.20	0.14	0.11	0.21	0.50	0.62	0.55
1968	0.53	0.65	0.51	0.23	0.15	0.22	0.22	0.16	0.33	0.42	0.65	0.65
1969	0.54	0.59	0.46	0.10	0.09	0.16	0.11	0.11	0.19	0.48	0.48	0.65
1970	0.55	0.59	0.11	0.03	0.09	0.22	0.20	0.08	0.31	0.28	0.64	0.65
1971	0.65	0.61	0.19	0.23	0.14	0.26	0.20	0.07	0.35	0.43	0.63	0.65
1972	0.65	0.59	0.59	0.59	0.37	0.35	0.21	0.17	0.29	0.50	0.57	0.65
1973	0.59	0.56	0.50	0.13	0.11	0.16	0.23	0.13	0.31	0.48	0.60	0.65
1974	0.65	0.21	0.17	0.09	0.25	0.11	0.08	0.13	0.35	0.47	0.63	0.57
1975	0.65	0.62	0.54	0.61	0.16	0.12	0.20	0.09	0.34	0.49	0.64	0.59
1976	0.61	0.65	0.60	0.47	0.45	0.35	0.23	0.17	0.26	0.25	0.62	0.65
1977	0.48	0.54	0.38	0.42	0.29	0.17	0.10	0.16	0.13	0.24	0.52	0.47
1978	0.44	0.28	0.58	0.17	0.12	0.10	0.15	0.20	0.27	0.50	0.48	0.65
1979	0.63	0.51	0.55	0.45	0.26	0.26	0.23	0.14	0.28	0.50	0.57	0.63
1980	0.61	0.54	0.54	0.11	0.09	0.14	0.19	0.07	0.35	0.52	0.44	0.64
1981	0.63	0.48	0.51	0.50	0.35	0.35	0.22	0.20	0.35	0.56	0.49	0.65
1982	0.63	0.38	0.13	0.15	0.11	0.14	0.07	0.15	0.32	0.50	0.52	0.65
1983	0.45	0.25	0.08	0.04	0.03	0.03	0.06	0.08	0.07	0.30	0.53	0.25
1984	0.18	0.05	0.03	0.09	0.18	0.26	0.23	0.15	0.31	0.36	0.65	0.65
1985	0.65	0.38	0.51	0.60	0.45	0.35	0.21	0.10	0.31	0.58	0.62	0.65
1986	0.62	0.52	0.61	0.48	0.06	0.08	0.19	0.20	0.30	0.45	0.43	0.65
1987	0.61	0.46	0.51	0.49	0.45	0.27	0.21	0.10	0.22	0.46	0.54	0.60
1988	0.45	0.53	0.52	0.40	0.29	0.12	0.23	0.11	0.09	0.36	0.12	0.43
1989	0.47	0.40	0.52	0.45	0.28	0.26	0.20	0.11	0.28	0.50	0.55	0.66
1990	0.54	0.52	0.53	0.56	0.40	0.35	0.08	0.17	0.11	0.13	0.41	0.46
1991	0.50	0.16	0.36	0.27	0.22	0.35	0.21	0.15	0.21	0.13	0.35	0.45
1992	0.53	0.20	0.25	0.54	0.36	0.35	0.22	0.11	0.13	0.33	0.20	0.47
1993	0.49	0.25	0.60	0.18	0.19	0.18	0.14	0.06	0.33	0.50	0.58	0.65
1994	0.65	0.43	0.57	0.52	0.45	0.35	0.22	0.14	0.34	0.52	0.64	0.63
Mean	0.56	0.47	0.44	0.37	0.26	0.24	0.17	0.12	0.28	0.43	0.51	0.60
Max	0.66	0.66	0.61	0.61	0.45	0.35	0.26	0.21	0.35	0.58	0.65	0.66
Min	0.18	0.05	0.03	0.03	0.03	0.03	0.06	0.03	0.07	0.08	0.10	0.25

Year	Base Future Base E/I Ratio											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0.63	0.60	0.56	0.32	0.61	0.26	0.32	0.19	0.05	0.24	0.51	0.65
1923	0.65	0.59	0.32	0.32	0.35	0.35	0.17	0.14	0.35	0.54	0.40	0.65
1924	0.64	0.40	0.58	0.50	0.45	0.09	0.15	0.18	0.10	0.08	0.39	0.45
1925	0.52	0.38	0.56	0.56	0.13	0.04	0.21	0.11	0.29	0.41	0.17	0.62
1926	0.54	0.40	0.44	0.52	0.28	0.30	0.17	0.11	0.21	0.44	0.35	0.53
1927	0.53	0.49	0.59	0.26	0.04	0.19	0.13	0.09	0.35	0.37	0.62	0.65
1928	0.65	0.56	0.61	0.48	0.35	0.12	0.17	0.19	0.35	0.37	0.52	0.64
1929	0.52	0.54	0.56	0.56	0.45	0.25	0.23	0.10	0.17	0.32	0.13	0.45
1930	0.47	0.26	0.52	0.52	0.37	0.30	0.21	0.11	0.21	0.48	0.47	0.64
1931	0.51	0.34	0.32	0.53	0.42	0.23	0.11	0.17	0.14	0.18	0.44	0.44
1932	0.41	0.29	0.50	0.48	0.38	0.31	0.22	0.14	0.24	0.46	0.28	0.57
1933	0.52	0.36	0.49	0.27	0.38	0.33	0.14	0.17	0.09	0.31	0.11	0.46
1934	0.51	0.17	0.57	0.49	0.27	0.12	0.08	0.11	0.09	0.29	0.10	0.44
1935	0.46	0.43	0.56	0.35	0.35	0.22	0.10	0.04	0.27	0.46	0.60	0.65
1936	0.58	0.48	0.56	0.29	0.14	0.25	0.17	0.07	0.35	0.47	0.56	0.64
1937	0.55	0.40	0.60	0.60	0.23	0.19	0.16	0.17	0.32	0.34	0.50	0.63
1938	0.59	0.47	0.15	0.23	0.05	0.05	0.10	0.11	0.20	0.50	0.58	0.65
1939	0.56	0.60	0.60	0.51	0.45	0.35	0.24	0.10	0.28	0.48	0.57	0.65
1940	0.46	0.49	0.49	0.31	0.18	0.11	0.09	0.12	0.32	0.50	0.61	0.65
1941	0.65	0.42	0.27	0.12	0.09	0.13	0.10	0.14	0.28	0.50	0.57	0.65
1942	0.65	0.58	0.18	0.10	0.06	0.33	0.12	0.07	0.34	0.37	0.62	0.65
1943	0.65	0.66	0.35	0.12	0.16	0.10	0.16	0.06	0.28	0.39	0.64	0.66
1944	0.61	0.48	0.61	0.53	0.43	0.35	0.26	0.18	0.35	0.51	0.49	0.64
1945	0.58	0.58	0.61	0.56	0.23	0.33	0.20	0.15	0.35	0.51	0.55	0.65
1946	0.64	0.53	0.17	0.23	0.21	0.35	0.24	0.15	0.35	0.54	0.64	0.65
1947	0.61	0.50	0.61	0.50	0.45	0.35	0.21	0.08	0.33	0.50	0.43	0.61
1948	0.53	0.51	0.48	0.50	0.28	0.35	0.17	0.05	0.35	0.53	0.62	0.65
1949	0.60	0.52	0.56	0.49	0.46	0.27	0.21	0.19	0.31	0.49	0.49	0.62
1950	0.47	0.48	0.53	0.53	0.33	0.33	0.20	0.08	0.35	0.50	0.54	0.65
1951	0.64	0.24	0.10	0.10	0.11	0.09	0.27	0.20	0.06	0.35	0.41	0.65
1952	0.65	0.52	0.27	0.13	0.14	0.14	0.17	0.11	0.09	0.20	0.49	0.62
1953	0.57	0.44	0.13	0.07	0.25	0.35	0.22	0.08	0.35	0.39	0.61	0.65
1954	0.65	0.59	0.52	0.34	0.19	0.24	0.14	0.15	0.35	0.49	0.60	0.65
1955	0.61	0.57	0.50	0.58	0.38	0.35	0.20	0.10	0.34	0.46	0.17	0.60
1956	0.51	0.52	0.12	0.07	0.12	0.22	0.19	0.03	0.35	0.35	0.62	0.65
1957	0.66	0.61	0.50	0.55	0.32	0.25	0.21	0.21	0.35	0.44	0.62	0.65
1958	0.65	0.66	0.48	0.30	0.06	0.12	0.07	0.11	0.27	0.50	0.62	0.60
1959	0.64	0.50	0.60	0.53	0.30	0.18	0.16	0.25	0.15	0.32	0.45	0.64
1960	0.59	0.31	0.54	0.52	0.38	0.35	0.08	0.10	0.26	0.52	0.26	0.50

Appendix C-3 CALSIM II Modeling

Year	Base Future Base E/I Ratio											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	0.50	0.48	0.58	0.59	0.41	0.35	0.22	0.14	0.35	0.53	0.39	0.61
1962	0.51	0.43	0.60	0.51	0.26	0.35	0.23	0.11	0.32	0.50	0.65	0.65
1963	0.36	0.65	0.43	0.61	0.14	0.29	0.06	0.04	0.34	0.33	0.63	0.65
1964	0.65	0.47	0.60	0.47	0.32	0.35	0.17	0.17	0.35	0.55	0.57	0.63
1965	0.53	0.54	0.15	0.10	0.30	0.31	0.13	0.12	0.35	0.34	0.65	0.65
1966	0.59	0.55	0.58	0.34	0.35	0.35	0.23	0.13	0.34	0.49	0.62	0.65
1967	0.56	0.59	0.30	0.24	0.19	0.20	0.14	0.11	0.21	0.50	0.62	0.55
1968	0.53	0.65	0.51	0.23	0.15	0.22	0.22	0.16	0.33	0.42	0.65	0.65
1969	0.54	0.59	0.46	0.10	0.09	0.16	0.11	0.11	0.19	0.48	0.48	0.65
1970	0.55	0.59	0.11	0.03	0.09	0.22	0.20	0.08	0.31	0.28	0.64	0.65
1971	0.65	0.61	0.19	0.23	0.14	0.26	0.20	0.07	0.35	0.43	0.63	0.65
1972	0.65	0.59	0.59	0.59	0.37	0.35	0.21	0.17	0.29	0.50	0.57	0.65
1973	0.58	0.56	0.50	0.13	0.11	0.16	0.23	0.13	0.31	0.48	0.60	0.65
1974	0.65	0.21	0.17	0.09	0.25	0.11	0.08	0.13	0.35	0.47	0.63	0.57
1975	0.65	0.62	0.54	0.61	0.16	0.12	0.20	0.09	0.34	0.49	0.64	0.59
1976	0.61	0.65	0.60	0.47	0.45	0.35	0.23	0.17	0.26	0.25	0.62	0.64
1977	0.47	0.54	0.38	0.42	0.29	0.17	0.10	0.16	0.13	0.24	0.52	0.47
1978	0.43	0.28	0.58	0.17	0.12	0.10	0.15	0.20	0.27	0.50	0.48	0.65
1979	0.63	0.51	0.55	0.45	0.26	0.26	0.23	0.14	0.28	0.50	0.56	0.63
1980	0.61	0.53	0.54	0.11	0.09	0.14	0.19	0.07	0.35	0.52	0.44	0.64
1981	0.63	0.48	0.51	0.50	0.35	0.35	0.22	0.20	0.35	0.56	0.49	0.65
1982	0.63	0.38	0.13	0.15	0.11	0.14	0.07	0.15	0.32	0.50	0.52	0.65
1983	0.45	0.25	0.08	0.04	0.03	0.03	0.06	0.08	0.07	0.30	0.53	0.25
1984	0.18	0.05	0.03	0.09	0.18	0.26	0.23	0.15	0.31	0.36	0.65	0.65
1985	0.65	0.38	0.51	0.60	0.45	0.35	0.21	0.10	0.31	0.58	0.62	0.65
1986	0.62	0.52	0.61	0.48	0.06	0.08	0.19	0.20	0.30	0.45	0.43	0.65
1987	0.61	0.46	0.51	0.49	0.45	0.27	0.21	0.10	0.22	0.46	0.54	0.60
1988	0.45	0.53	0.52	0.40	0.29	0.12	0.23	0.11	0.09	0.36	0.12	0.43
1989	0.47	0.39	0.52	0.45	0.28	0.26	0.20	0.11	0.28	0.50	0.55	0.66
1990	0.53	0.52	0.53	0.56	0.40	0.35	0.08	0.17	0.11	0.13	0.41	0.46
1991	0.49	0.16	0.36	0.27	0.22	0.35	0.21	0.15	0.21	0.13	0.35	0.44
1992	0.52	0.20	0.25	0.54	0.36	0.35	0.22	0.11	0.13	0.33	0.20	0.47
1993	0.48	0.25	0.60	0.18	0.19	0.18	0.14	0.06	0.33	0.50	0.58	0.65
1994	0.65	0.43	0.57	0.52	0.45	0.35	0.22	0.14	0.34	0.52	0.64	0.62
Mean	0.56	0.47	0.44	0.37	0.26	0.24	0.17	0.12	0.28	0.43	0.51	0.60
Max	0.66	0.66	0.61	0.61	0.46	0.35	0.26	0.21	0.35	0.58	0.65	0.66
Min	0.18	0.05	0.03	0.03	0.03	0.03	0.06	0.03	0.07	0.08	0.10	0.25

Year	Difference Future Alt Desal minus Future Base E/I Ratio											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1923	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1924	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1925	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1926	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1927	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1928	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1929	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1930	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1931	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1932	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1933	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1934	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1935	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1936	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1937	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1938	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1939	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1940	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1941	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1942	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1943	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1944	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1945	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1946	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1947	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1948	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1949	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1950	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1951	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1952	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1953	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1954	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1955	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1956	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1957	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1958	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1959	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1960	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix C-3 CALSIM II Modeling

Year	Difference Future Alt Desal minus Future Base E/I Ratio											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
1962	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1963	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1964	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1965	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1966	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1967	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1968	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1969	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1970	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1971	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1972	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1973	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1974	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1975	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1976	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
1977	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1978	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1979	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1980	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1981	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1982	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1983	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1984	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1985	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1986	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1987	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1988	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1989	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
1990	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1991	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1992	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1993	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1994	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Mean	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix C-3 CALSIM II Modeling

Year	Alt Future Alt Desal Delta Surplus Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	3,285	1,459	20,183	3,408	10,887	42,082	9,735	0	0	0
1923	0	0	19,860	19,546	0	0	16,063	905	0	0	0	0
1924	0	0	0	1,844	0	0	0	0	0	0	0	0
1925	0	0	1,290	1,029	49,950	0	9,609	6,610	0	0	0	0
1926	0	0	868	3,428	17,499	0	11,284	0	0	0	0	0
1927	0	3,902	1,966	4,355	113,871	19,653	28,904	5,786	0	0	0	0
1928	0	0	1,251	6,923	2,171	69,087	4,401	0	0	0	0	0
1929	0	0	1,066	2,232	0	0	0	0	0	0	0	0
1930	0	0	1,265	4,891	0	4,698	907	1,911	0	0	0	0
1931	0	0	803	2,682	0	0	0	334	0	0	0	0
1932	0	0	5,642	6,499	0	0	0	2,753	0	0	0	0
1933	0	0	474	3,559	823	703	0	0	0	0	0	0
1934	0	0	1,206	3,459	2,657	0	0	0	0	0	0	0
1935	0	0	1,268	8,432	0	11,521	41,529	0	424	0	0	0
1936	0	0	0	10,033	48,488	3,745	8,797	9,466	0	0	0	0
1937	0	0	0	1,265	24,566	25,620	9,152	3,391	0	0	0	0
1938	0	4,862	50,001	25,007	123,084	147,273	59,480	51,813	22,776	0	0	0
1939	3,401	0	1,224	3,067	0	0	0	0	0	0	0	0
1940	0	0	0	7,566	32,075	77,097	49,107	1,618	0	0	0	0
1941	0	0	26,977	86,147	95,608	63,171	57,348	25,210	0	0	0	0
1942	0	0	47,813	71,907	117,500	2,125	37,585	18,681	912	0	0	0
1943	0	0	14,278	75,980	31,965	66,293	11,441	4,294	2,148	0	0	0
1944	0	0	0	1,536	1,747	0	615	4,493	0	0	0	0
1945	0	0	1,045	878	26,087	1,798	5,050	2,691	0	0	0	0
1946	0	0	53,809	35,508	0	0	3,088	3,824	0	0	0	0
1947	0	0	1,077	946	0	0	0	1,083	0	0	0	0
1948	0	0	0	1,819	0	0	14,864	18,532	0	0	0	0
1949	0	0	1,144	2,674	0	11,171	2,211	537	0	0	0	0
1950	0	0	118	4,404	2,602	0	6,743	5,807	0	0	0	0
1951	0	31,979	87,075	66,253	52,202	8,041	1,501	12,457	0	0	0	0
1952	0	0	26,903	73,256	50,363	37,554	49,998	47,888	18,373	0	0	2,111
1953	2,720	3,061	38,644	95,712	1,422	0	6,201	13,703	0	0	0	0
1954	0	0	866	17,110	6,720	17,719	20,071	0	0	0	0	0
1955	0	0	5,314	2,589	0	0	0	4,574	0	0	0	0
1956	0	0	79,287	153,373	61,748	17,483	4,378	33,601	402	0	0	0
1957	0	0	2,418	10,806	14,701	0	8,601	0	0	0	0	0
1958	0	0	6,845	21,924	150,227	67,620	81,758	34,478	7,594	0	0	1,985
1959	391	0	1,032	21,112	28,070	0	340	2,151	0	0	0	0
1960	0	0	0	2,145	5,117	0	0	3,817	0	0	0	0

Appendix C-3 CALSIM II Modeling

Year	Alt Future Alt Desal Delta Surplus Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	0	0	884	949	3,183	0	0	0	0	0	0	0
1962	0	0	675	0	7,303	0	1,925	1,532	221	0	0	0
1963	14,638	0	9,411	1,250	7,594	0	72,330	12,891	0	0	0	0
1964	0	6,614	473	7,352	0	0	0	0	0	0	0	0
1965	0	0	61,696	106,931	6,402	0	33,112	0	0	0	0	0
1966	0	3,391	2,182	17,021	0	0	1,849	1,535	0	0	0	0
1967	0	0	21,755	32,635	23,467	29,183	33,967	38,265	21,903	0	0	3,952
1968	4,472	0	3,956	3,030	38,796	7,695	0	3,811	0	0	0	0
1969	0	0	6,393	105,544	106,072	39,279	42,558	42,163	14,379	0	0	147
1970	3,552	977	50,569	202,943	67,866	17,366	0	10,280	100	0	0	0
1971	0	1,032	44,871	35,534	0	13,966	0	17,952	0	0	0	0
1972	0	0	1,009	2,070	0	430	0	1,370	0	0	0	0
1973	0	2,697	5,678	67,514	65,238	35,077	2,380	9,113	0	0	0	0
1974	0	7,175	53,543	117,420	13,117	79,628	52,404	6,623	0	0	0	3,068
1975	0	0	1,174	1,143	6,903	62,701	5,165	19,925	699	0	0	2,252
1976	1,319	0	692	2,293	0	0	155	224	0	0	0	0
1977	0	0	0	804	0	0	0	0	0	0	0	0
1978	0	0	1,175	3,205	26,699	45,415	22,403	4,184	4,169	0	0	0
1979	0	0	0	6,640	14,522	11,333	905	8,524	0	0	0	0
1980	0	0	4,028	88,259	104,768	38,834	4,549	8,554	0	0	0	0
1981	0	0	1,262	5,911	0	0	4,448	2,976	0	0	0	0
1982	0	11,939	74,695	64,239	74,040	57,670	117,276	32,161	3,351	0	0	111
1983	9,198	29,013	80,115	100,610	160,812	233,884	75,141	60,723	65,282	17,397	4,294	20,880
1984	20,794	75,761	151,525	61,451	20,857	11,287	0	6,532	0	0	0	0
1985	0	5,537	5,396	917	0	0	1,989	0	0	0	0	0
1986	0	0	1,137	6,938	177,562	121,211	9,388	3,557	2,054	0	0	0
1987	0	0	813	3,277	0	6,051	0	0	0	0	0	0
1988	0	0	1,298	8,079	0	0	729	150	0	0	0	0
1989	0	0	1,298	3,492	0	13,230	7,034	0	0	0	0	0
1990	0	0	0	1,122	0	0	0	1,134	0	0	0	0
1991	0	0	689	785	0	0	0	267	0	0	0	0
1992	0	0	1,132	880	6,805	0	0	0	0	0	0	0
1993	0	0	1,138	49,942	26,880	20,091	12,281	12,710	1,963	0	0	0
1994	0	0	954	2,893	0	0	0	0	0	0	0	0
Mean	829	2,575	14,730	26,959	27,896	20,751	14,456	9,318	2,418	238	59	473
Max	20,794	75,761	151,525	202,943	177,562	233,884	117,276	60,723	65,282	17,397	4,294	20,880
Min	0	0	0	0	0	0	0	0	0	0	0	0

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Year	Base Future Base Delta Surplus Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	3,285	1,459	20,183	3,408	10,887	42,082	9,735	0	0	0
1923	0	0	19,860	19,546	0	0	16,063	905	0	0	0	0
1924	0	0	0	1,776	0	0	0	0	0	0	0	0
1925	0	0	1,256	994	49,950	0	9,594	6,610	0	0	0	0
1926	0	0	863	3,328	17,499	0	11,284	0	0	0	0	0
1927	0	3,891	1,966	4,355	113,724	19,635	28,904	5,786	0	0	0	0
1928	0	0	1,251	6,923	2,153	68,990	4,401	0	0	0	0	0
1929	0	0	1,066	2,183	0	0	0	0	0	0	0	0
1930	0	0	1,237	4,849	0	4,698	907	1,911	0	0	0	0
1931	0	0	769	2,647	0	0	0	268	0	0	0	0
1932	0	0	5,608	6,499	0	0	0	2,748	0	0	0	0
1933	0	0	474	3,494	823	703	0	0	0	0	0	0
1934	0	0	1,170	3,423	2,621	0	0	0	0	0	0	0
1935	0	0	1,234	8,397	0	11,521	41,529	0	424	0	0	0
1936	0	0	0	10,033	48,488	3,745	8,797	9,466	0	0	0	0
1937	0	0	0	1,246	24,566	25,571	9,152	3,391	0	0	0	0
1938	0	4,841	50,001	24,927	123,081	147,273	59,480	51,813	22,776	0	0	0
1939	3,367	0	1,190	3,052	0	0	0	0	0	0	0	0
1940	0	0	7,524	32,075	77,057	48,903	1,626	0	0	0	0	0
1941	0	0	26,977	86,147	95,608	63,170	57,348	25,210	0	0	0	0
1942	0	0	47,813	71,907	117,409	2,125	37,585	18,681	912	0	0	0
1943	0	0	14,278	75,980	31,924	66,200	11,441	4,294	2,148	0	0	0
1944	0	0	0	1,519	1,718	0	615	4,493	0	0	0	0
1945	0	0	1,011	844	26,087	1,798	5,050	2,691	0	0	0	0
1946	0	0	53,809	35,508	0	0	3,088	3,824	0	0	0	0
1947	0	0	1,043	929	0	0	0	1,083	0	0	0	0
1948	0	0	0	1,778	0	0	14,797	18,443	0	0	0	0
1949	0	0	1,144	2,615	0	11,171	2,211	537	0	0	0	0
1950	0	0	118	4,305	2,602	0	6,596	5,814	0	0	0	0
1951	0	31,946	87,075	66,224	52,202	8,041	1,501	12,457	0	0	0	0
1952	0	0	26,903	73,256	50,344	37,475	49,998	47,888	18,373	0	0	2,055
1953	2,705	3,061	38,644	95,712	1,422	0	6,201	13,703	0	0	0	0
1954	0	0	866	17,110	6,690	17,604	20,071	0	0	0	0	0
1955	0	0	5,314	2,589	0	0	0	4,574	0	0	0	0
1956	0	0	79,287	153,373	61,746	17,377	4,378	33,601	402	0	0	0
1957	0	0	0	2,402	10,806	14,672	0	8,601	0	0	0	0
1958	0	0	6,845	21,924	150,212	67,555	81,758	34,478	7,594	0	0	1,942
1959	338	0	1,032	21,112	27,988	0	340	2,151	0	0	0	0
1960	0	0	0	2,090	5,064	0	0	3,817	0	0	0	0

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Appendix C-3 CALSIM II Modeling

Year	Base Future Base Delta Surplus Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	0	0	850	936	3,164	0	0	0	0	0	0	0
1962	0	0	675	0	7,303	0	1,918	1,532	221	0	0	0
1963	14,553	0	9,411	1,250	7,594	0	72,330	12,891	0	0	0	0
1964	0	6,608	473	7,293	0	0	0	0	0	0	0	0
1965	0	0	61,696	106,931	6,402	0	33,110	0	0	0	0	0
1966	0	3,366	2,182	16,941	0	0	1,849	1,535	0	0	0	0
1967	0	0	21,721	32,635	23,467	29,183	33,967	38,265	21,903	0	0	3,886
1968	4,467	0	3,956	3,030	38,796	7,695	0	3,811	0	0	0	0
1969	0	0	6,393	105,544	106,072	39,265	42,558	42,163	14,379	0	0	147
1970	3,507	964	50,569	202,943	67,866	17,366	0	10,280	100	0	0	0
1971	0	1,019	44,871	35,534	0	13,910	0	17,952	0	0	0	0
1972	0	0	1,009	2,057	0	430	0	1,363	0	0	0	0
1973	0	2,591	5,644	67,514	65,238	35,077	2,380	9,113	0	0	0	0
1974	0	7,159	53,543	117,358	13,065	79,628	52,404	6,623	0	0	0	3,034
1975	0	0	1,174	1,122	6,885	62,601	5,165	19,925	699	0	0	2,222
1976	1,280	0	673	2,280	0	0	155	172	0	0	0	0
1977	0	0	0	769	0	0	0	0	0	0	0	0
1978	0	0	1,141	3,205	26,699	45,415	22,400	4,184	4,169	0	0	0
1979	0	0	0	6,615	14,522	11,253	905	8,524	0	0	0	0
1980	0	0	4,028	88,259	104,702	38,796	4,549	8,554	0	0	0	0
1981	0	0	1,262	5,887	0	0	4,448	2,976	0	0	0	0
1982	0	11,928	74,695	64,239	74,040	57,557	117,276	32,161	3,310	0	0	111
1983	9,198	29,013	80,115	100,610	160,812	233,884	75,141	60,723	65,282	17,397	4,294	20,880
1984	20,794	75,761	151,525	61,451	20,857	11,287	0	6,532	0	0	0	0
1985	0	5,526	5,396	872	0	0	1,989	0	0	0	0	0
1986	0	0	1,137	6,916	177,535	121,208	9,137	3,508	2,054	0	0	0
1987	0	0	813	3,262	0	6,051	0	0	0	0	0	0
1988	0	0	1,298	8,079	0	0	729	150	0	0	0	0
1989	0	0	1,242	3,347	0	13,230	7,033	0	0	0	0	0
1990	0	0	0	1,087	0	0	0	1,134	0	0	0	0
1991	0	0	655	750	0	0	0	267	0	0	0	0
1992	0	0	1,098	845	6,769	0	0	0	0	0	0	0
1993	0	0	1,104	49,942	26,880	20,091	12,298	12,710	1,963	0	0	0
1994	0	0	920	2,877	0	0	0	0	0	0	0	0
Mean	825	2,571	14,721	26,936	27,886	20,736	14,447	9,315	2,417	238	59	470
Max	20,794	75,761	151,525	202,943	177,535	233,884	117,276	60,723	65,282	17,397	4,294	20,880
Min	0	0	0	0	0	0	0	0	0	0	0	0

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Year	Difference Future Alt Desal minus Future Base Delta Surplus Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	0
1923	0	0	0	0	0	0	0	0	0	0	0	0
1924	0	0	0	67	0	0	0	0	0	0	0	0
1925	0	0	34	35	0	0	15	0	0	0	0	0
1926	0	0	5	100	0	0	0	0	0	0	0	0
1927	0	11	0	0	148	18	0	0	0	0	0	0
1928	0	0	0	0	18	97	0	0	0	0	0	0
1929	0	0	0	48	0	0	0	0	0	0	0	0
1930	0	0	28	43	0	0	0	0	0	0	0	0
1931	0	0	34	35	0	0	0	66	0	0	0	0
1932	0	0	34	0	0	0	0	5	0	0	0	0
1933	0	0	0	65	0	0	0	0	0	0	0	0
1934	0	0	36	36	37	0	0	0	0	0	0	0
1935	0	0	34	35	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	19	0	48	0	0	0	0	0	0
1938	0	20	0	79	3	0	0	0	0	0	0	0
1939	35	0	34	15	0	0	0	0	0	0	0	0
1940	0	0	0	42	0	40	204	-7	0	0	0	0
1941	0	0	0	0	0	0	1	0	0	0	0	0
1942	0	0	0	0	0	91	0	0	0	0	0	0
1943	0	0	0	0	41	93	0	0	0	0	0	0
1944	0	0	16	29	0	0	0	0	0	0	0	0
1945	0	0	34	33	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	34	18	0	0	0	0	0	0	0	0
1948	0	0	0	42	0	0	0	67	89	0	0	0
1949	0	0	0	59	0	0	0	0	0	0	0	0
1950	0	0	0	98	0	0	147	-7	0	0	0	0
1951	0	33	0	28	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	20	79	0	0	0	0	57
1953	15	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	29	115	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	2	106	0	0	0	0	0	0
1957	0	0	16	0	29	0	0	0	0	0	0	0
1958	0	0	0	0	15	65	0	0	0	0	0	44
1959	53	0	0	0	82	0	0	0	0	0	0	0
1960	0	0	0	55	53	0	0	0	0	0	0	0

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Appendix C-3 CALSIM II Modeling

Year	Difference Future Alt Desal minus Future Base Delta Surplus Outflow (GFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	0	0	34	13	19	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	7	0	0	0	0	0
1963	85	0	0	0	0	0	0	0	0	0	0	0
1964	0	6	0	59	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	2	0	0	0	0	0
1966	0	24	0	80	0	0	0	0	0	0	0	0
1967	0	0	34	0	0	0	0	0	0	0	0	66
1968	5	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	14	0	0	0	0	0	0
1970	44	13	0	0	0	0	0	0	0	0	0	0
1971	0	13	0	0	0	56	0	0	0	0	0	0
1972	0	0	0	14	0	0	0	7	0	0	0	0
1973	0	106	34	0	0	0	0	0	0	0	0	0
1974	0	16	0	63	52	0	0	0	0	0	0	34
1975	0	0	21	18	101	0	0	0	0	0	0	30
1976	40	0	19	12	0	0	0	52	0	0	0	0
1977	0	0	35	0	0	0	0	0	0	0	0	0
1978	0	0	34	0	0	0	3	0	0	0	0	0
1979	0	0	0	25	0	80	0	0	0	0	0	0
1980	0	0	0	0	66	38	0	0	0	0	0	0
1981	0	0	0	23	0	0	0	0	0	0	0	0
1982	0	11	0	0	0	113	0	0	40	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	11	0	45	0	0	0	0	0	0	0	0
1986	0	0	0	22	27	3	251	50	0	0	0	0
1987	0	0	0	15	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	56	145	0	0	1	0	0	0	0	0
1990	0	0	0	35	0	0	0	0	0	0	0	0
1991	0	0	34	35	0	0	0	0	0	0	0	0
1992	0	0	34	35	36	0	0	0	0	0	0	0
1993	0	0	34	0	0	0	-17	0	0	0	0	0
1994	0	0	34	16	0	0	0	0	0	0	0	0
Mean	4	4	9	23	11	15	9	3	1	0	0	3
Max	85	106	56	145	148	115	251	89	40	0	0	66
Min	0	0	0	0	0	0	-17	-7	0	0	0	0

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Appendix C-3 CALSIM II Modeling

Year	Alt Future Alt Desal Shasta Reservoir Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	2,818	2,846	2,920	3,015	3,314	3,619	4,097	4,256	3,950	3,466	3,044	2,863
1923	2,866	2,880	2,969	3,177	3,238	3,285	3,595	3,357	3,100	2,692	2,328	2,244
1924	2,214	2,176	2,173	2,231	2,390	2,330	2,115	1,803	1,396	955	721	676
1925	677	785	874	1,121	2,359	2,542	3,205	3,265	3,024	2,520	2,153	2,012
1926	1,955	1,958	2,005	2,048	2,764	2,955	3,250	3,119	2,754	2,302	1,955	1,857
1927	1,803	2,278	2,785	3,258	3,462	4,035	4,552	4,552	4,243	3,642	3,204	3,047
1928	3,022	3,214	3,303	3,579	3,973	3,965	4,463	4,268	3,897	3,256	2,880	2,734
1929	2,642	2,638	2,646	2,749	2,941	3,108	3,106	2,977	2,729	2,332	1,982	1,840
1930	1,798	1,796	2,317	2,514	2,874	3,311	3,460	3,360	2,997	2,568	2,199	2,086
1931	2,023	2,012	1,998	2,071	2,153	2,317	2,035	1,752	1,462	1,004	713	679
1932	664	658	833	975	1,087	1,497	1,666	1,857	1,662	1,400	1,126	997
1933	925	910	899	922	962	1,547	1,732	1,797	1,653	1,270	914	757
1934	730	737	852	1,147	1,463	1,738	1,845	1,693	1,311	866	694	668
1935	660	747	784	1,069	1,398	1,787	2,782	3,002	2,701	2,339	1,906	1,726
1936	1,705	1,678	1,687	2,310	3,194	3,476	3,697	3,592	3,381	2,942	2,515	2,345
1937	2,236	2,146	2,084	2,063	2,156	2,800	3,440	3,600	3,436	3,089	2,704	2,542
1938	2,497	3,015	3,310	3,641	3,560	3,416	4,058	4,552	4,466	4,049	3,592	3,400
1939	3,250	3,197	3,307	3,502	3,583	3,981	3,767	3,484	3,049	2,516	2,185	2,113
1940	2,041	1,962	2,107	2,984	3,252	3,435	4,143	4,079	3,698	3,115	2,702	2,608
1941	2,602	2,615	3,293	3,317	3,423	3,940	4,456	4,552	4,485	4,150	3,641	3,400
1942	3,250	3,183	3,316	3,389	3,516	3,894	4,531	4,552	4,459	3,999	3,625	3,400
1943	3,250	3,252	3,356	3,541	3,848	4,118	4,552	4,521	4,250	3,653	3,231	3,091
1944	3,067	3,077	3,074	3,168	3,403	3,637	3,638	3,543	3,255	2,879	2,544	2,410
1945	2,423	2,573	2,863	3,063	3,769	4,002	4,182	4,199	3,947	3,393	2,965	2,785
1946	2,808	3,042	3,265	3,622	3,608	4,002	4,211	4,136	3,763	3,271	2,904	2,755
1947	2,688	2,708	2,748	2,760	2,981	3,457	3,620	3,302	3,084	2,604	2,305	2,230
1948	3,257	3,348	2,372	2,936	2,776	3,101	4,002	4,356	4,372	3,992	3,593	3,400
1949	3,185	3,157	3,144	3,138	3,255	4,071	4,392	4,341	3,947	3,285	2,873	2,712
1950	2,613	2,556	2,489	2,741	3,103	3,481	3,819	3,773	3,486	3,108	2,764	2,678
1951	2,963	3,252	3,322	3,624	3,794	4,181	4,268	4,286	3,918	3,267	2,853	2,737
1952	2,743	2,901	3,306	3,604	3,739	4,022	4,290	4,552	4,401	4,150	3,700	3,400
1953	3,250	3,217	3,345	3,366	3,714	4,116	4,452	4,552	4,500	3,918	3,597	3,400
1954	3,250	3,178	3,322	3,552	3,661	4,106	4,546	4,308	4,100	3,496	3,142	3,085
1955	3,028	3,146	3,360	3,461	3,488	3,662	3,736	3,806	3,394	2,906	2,585	2,512
1956	2,488	2,551	3,252	3,252	3,288	3,944	4,457	4,552	4,376	4,026	3,695	3,400
1957	3,250	3,182	3,204	3,312	3,675	4,129	4,159	4,411	4,130	3,532	3,153	3,191
1958	3,250	3,241	3,338	3,531	3,252	3,416	4,173	4,552	4,500	4,150	3,700	3,400
1959	3,250	3,177	3,213	3,648	3,777	4,041	4,096	3,873	3,257	2,682	2,169	2,331
1960	2,212	2,146	2,144	2,347	3,064	3,696	3,892	3,891	3,538	2,980	2,561	2,486

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Appendix C-3 CALSIM II Modeling

Year	Shasta Reservoir Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	2,437	2,530	2,971	3,182	3,825	4,280	4,333	4,249	3,818	3,158	2,851	2,432
1962	2,389	2,373	2,679	2,732	3,675	4,120	4,396	4,285	3,930	3,303	2,856	2,744
1963	3,157	3,201	3,349	3,459	3,944	4,071	4,137	4,422	4,200	3,614	3,277	3,240
1964	3,250	3,252	3,276	3,649	3,835	3,934	3,714	3,499	3,263	2,818	2,470	2,366
1965	2,377	2,478	2,522	3,368	3,803	3,946	4,500	4,457	4,132	3,532	3,242	3,167
1966	3,146	3,252	3,326	3,725	4,037	4,229	4,552	4,409	3,851	3,298	2,847	2,781
1967	2,683	2,995	3,335	3,551	3,920	4,033	4,479	4,552	4,500	4,150	3,700	3,400
1968	3,250	3,210	3,295	3,577	3,654	4,191	4,177	4,037	3,548	2,981	2,643	2,561
1969	2,575	2,645	2,973	3,358	3,480	4,030	4,434	4,552	4,383	4,020	3,638	3,400
1970	3,250	3,247	3,317	3,252	3,431	4,061	4,007	3,865	3,576	3,027	2,634	2,473
1971	2,505	2,963	3,319	3,515	3,698	3,873	4,369	4,552	4,492	3,919	3,577	3,400
1972	3,250	3,179	3,305	3,649	3,961	4,249	4,456	4,328	3,809	3,169	2,762	2,737
1973	2,844	3,076	3,354	3,552	3,636	4,162	4,421	4,394	3,975	3,361	3,090	3,043
1974	3,135	3,252	3,267	3,252	3,694	3,416	4,289	4,480	4,329	4,099	3,700	3,400
1975	3,250	3,201	3,320	3,483	3,936	3,756	4,343	4,552	4,416	4,150	3,700	3,400
1976	3,250	3,252	3,318	3,522	3,658	3,887	3,972	3,812	3,295	2,877	2,806	2,752
1977	2,769	2,751	2,743	2,772	2,752	2,743	2,437	2,299	1,773	1,174	691	643
1978	612	636	1,073	2,990	3,567	4,000	4,552	4,552	4,210	3,698	3,337	3,325
1979	3,204	3,145	3,096	3,234	3,515	3,945	4,121	4,172	3,679	3,174	2,860	2,750
1980	2,801	2,915	3,030	3,528	3,292	3,938	4,223	4,166	3,843	3,401	3,058	3,002
1981	2,984	2,977	3,070	3,367	3,775	4,256	4,397	4,149	3,518	2,885	2,395	2,299
1982	2,373	3,252	3,276	3,616	3,530	3,953	4,094	4,304	4,140	3,851	3,473	3,400
1983	3,250	3,252	3,328	3,371	3,252	3,417	4,074	4,552	4,500	4,150	3,700	3,400
1984	3,250	3,252	3,285	3,650	3,995	4,246	4,336	4,285	4,030	3,428	3,159	3,139
1985	3,186	3,252	3,360	3,456	3,593	3,735	3,848	3,486	3,068	2,551	2,131	2,142
1986	2,107	2,136	2,304	2,863	3,252	3,534	3,903	3,870	3,486	3,139	2,816	2,852
1987	2,880	2,875	2,887	3,025	3,358	4,085	3,845	3,549	3,030	2,516	2,232	2,130
1988	2,065	2,044	2,549	2,949	2,864	2,924	2,964	2,951	2,536	2,032	1,735	1,599
1989	1,526	1,745	1,844	1,949	2,063	3,444	3,829	3,612	3,250	2,713	2,358	2,384
1990	2,502	2,498	2,481	2,713	2,610	2,876	2,729	2,885	2,670	2,168	1,898	1,811
1991	1,772	1,771	1,742	1,745	1,773	2,180	2,336	2,265	1,986	1,666	1,371	1,272
1992	1,261	1,222	1,217	1,263	1,921	2,366	2,595	2,315	1,927	1,469	1,081	973
1993	914	913	1,144	1,792	2,522	3,990	4,612	4,552	4,500	3,909	3,637	3,400
1994	3,250	3,191	3,263	3,396	3,622	3,653	3,507	3,212	2,784	2,210	1,645	1,484
Mean	2,519	2,576	2,725	2,962	3,215	3,557	3,828	3,809	3,514	3,033	2,660	2,538
Max	3,250	3,252	3,360	3,725	4,037	4,280	4,612	4,552	4,500	4,150	3,700	3,400
Min	612	636	784	922	962	1,497	1,666	1,693	1,311	866	691	643

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Year	Shasta Reservoir Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	2,806	2,822	2,897	2,991	3,290	4,074	4,232	3,927	3,442	3,020	2,835	
1923	2,836	2,849	2,938	3,146	3,204	3,251	3,561	3,323	3,066	2,658	2,290	2,203
1924	2,173	2,127	2,124	2,182	2,339	2,276	2,061	1,746	1,334	887	648	599
1925	596	702	791	1,038	2,276	2,457	3,120	3,179	2,939	2,435	2,068	1,924
1926	1,866	1,868	1,916	1,959	2,674	2,866	3,161	3,030	2,665	2,213	1,866	1,764
1927	1,709	2,184	2,690	3,164	3,462	4,035	4,552	4,552	4,243	3,642	3,204	3,045
1928	3,020	3,211	3,300	3,576	3,970	3,965	4,463	4,268	3,897	3,256	2,880	2,732
1929	2,639	2,634	2,642	2,745	2,932	3,099	3,098	2,968	2,720	2,317	1,965	1,823
1930	1,780	1,768	2,288	2,485	2,845	3,282	3,432	3,331	2,969	2,539	2,168	2,054
1931	1,982	1,968	1,954	2,028	2,107	2,269	1,987	1,704	1,409	945	650	612
1932	593	584	760	902	1,025	1,435	1,599	1,790	1,596	1,333	1,059	927
1933	855	840	828	852	892	1,476	1,661	1,727	1,583	1,200	840	681
1934	641	639	755	1,050	1,365	1,646	1,747	1,595	1,214	769	592	561
1935	550	635	672	957	1,286	1,675	2,670	2,890	2,588	2,226	1,794	1,612
1936	1,591	1,560	1,568	2,192	3,076	3,358	3,579	3,474	3,263	2,817	2,391	2,218
1937	2,108	2,018	1,956	1,935	2,027	2,671	3,312	3,472	3,308	2,955	2,569	2,404
1938	2,359	2,877	3,310	3,641	3,560	3,416	4,058	4,552	4,466	4,049	3,592	3,400
1939	3,250	3,195	3,305	3,500	3,580	3,977	3,762	3,480	3,045	2,506	2,173	2,101
1940	2,028	1,948	2,092	2,970	3,252	3,435	4,143	4,079	3,698	3,115	2,697	2,602
1941	2,592	2,602	3,293	3,317	3,423	3,940	4,456	4,552	4,485	4,150	3,641	3,400
1942	3,250	3,183	3,316	3,389	3,516	3,894	4,531	4,552	4,459	3,999	3,625	3,400
1943	3,250	3,252	3,356	3,541	3,848	4,118	4,552	4,521	4,250	3,653	3,231	3,090
1944	3,065	3,074	3,069	3,163	3,398	3,632	3,633	3,538	3,250	2,869	2,533	2,397
1945	2,409	2,559	2,849	3,049	3,755	3,988	4,168	4,185	3,933	3,369	2,936	2,754
1946	2,777	3,002	3,265	3,622	3,608	3,998	4,208	4,132	3,760	3,268	2,898	2,747
1947	2,673	2,690	2,729	2,741	2,961	3,437	3,599	3,281	3,064	2,583	2,283	2,207
1948	2,303	2,323	2,347	2,911	2,745	3,070	3,970	4,325	4,341	3,960	3,558	3,400
1949	3,177	3,147	3,134	3,128	3,249	4,071	4,392	4,341	3,947	3,285	2,870	2,707
1950	2,608	2,546	2,479	2,732	3,094	3,467	3,805	3,759	3,472	3,094	2,749	2,661
1951	2,944	3,252	3,322	3,624	3,794	4,181	4,268	4,286	3,918	3,267	2,853	2,735
1952	2,741	2,897	3,306	3,604	3,739	4,022	4,290	4,552	4,401	4,150	3,700	3,400
1953	3,250	3,217	3,345	3,366	3,714	4,116	4,452	4,552	4,500	3,918	3,597	3,400
1954	3,250	3,178	3,321	3,552	3,661	4,106	4,546	4,308	4,100	3,496	3,142	3,083
1955	3,025	3,143	3,360	3,461	3,487	3,656	3,730	3,799	3,388	2,899	2,574	2,499
1956	2,474	2,536	3,252	3,252	3,288	3,944	4,457	4,552	4,376	4,026	3,695	3,400
1957	3,250	3,181	3,203	3,311	3,675	4,129	4,159	4,411	4,129	3,524	3,146	3,182
1958	3,250	3,238	3,338	3,531	3,252	3,416	4,173	4,552	4,500	4,150	3,700	3,400
1959	3,250	3,175	3,211	3,648	3,777	4,041	4,096	3,873	3,257	2,682	2,165	2,326
1960	2,204	2,131	2,129	2,332	3,049	3,682	3,877	3,876	3,523	2,965	2,543	2,464

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Year	Base Future Base Shasta Reservoir Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1961	2,415	2,506	2,948	3,158	3,801	4,280	4,333	4,249	3,818	3,153	2,521	2,410
1962	2,363	2,344	2,650	2,703	3,675	4,120	4,396	4,285	3,930	3,303	2,854	2,737
1963	3,149	3,193	3,349	3,459	3,944	4,071	4,137	4,422	4,200	3,614	3,277	3,238
1964	3,250	3,252	3,276	3,649	3,832	3,931	3,710	3,496	3,259	2,815	2,466	2,362
1965	2,372	2,472	2,522	3,368	3,803	3,946	4,500	4,457	4,131	3,527	3,229	3,153
1966	3,131	3,252	3,326	3,725	4,037	4,229	4,552	4,409	3,851	3,298	2,844	2,777
1967	2,674	2,980	3,335	3,551	3,920	4,033	4,479	4,552	4,500	4,150	3,700	3,400
1968	3,250	3,210	3,295	3,577	3,654	4,191	4,177	4,037	3,548	2,981	2,639	2,577
1969	2,568	2,631	2,959	3,358	3,480	4,030	4,434	4,552	4,383	4,020	3,638	3,400
1970	3,250	3,247	3,317	3,252	3,431	4,061	4,007	3,865	3,576	3,027	2,634	2,471
1971	2,502	2,960	3,319	3,515	3,695	3,873	4,369	4,552	4,492	3,919	3,577	3,400
1972	3,250	3,178	3,304	3,648	3,959	4,249	4,455	4,327	3,808	3,166	2,756	2,730
1973	2,826	3,058	3,336	3,552	3,636	4,162	4,421	4,394	3,975	3,361	3,090	3,041
1974	3,132	3,252	3,267	3,252	3,694	3,416	4,289	4,480	4,329	4,099	3,700	3,400
1975	3,250	3,200	3,319	3,482	3,936	3,756	4,343	4,552	4,416	4,150	3,700	3,400
1976	2,250	3,252	3,318	3,522	3,657	3,887	3,971	3,811	3,292	2,870	2,799	2,732
1977	2,743	2,722	2,712	2,740	2,719	2,707	2,402	2,259	1,728	1,124	637	584
1978	550	572	1,008	2,925	3,567	4,000	4,552	4,552	4,210	3,698	3,337	3,322
1979	3,200	3,140	3,091	3,229	3,510	3,940	4,117	4,167	3,674	3,166	2,848	2,736
1980	2,786	2,898	3,013	3,228	3,292	3,938	4,223	4,166	3,843	3,401	3,058	3,002
1981	2,983	2,975	3,068	3,365	3,773	4,256	4,397	4,149	3,518	2,881	2,389	2,291
1982	2,364	3,252	3,276	3,616	3,530	3,953	4,094	4,304	4,140	3,849	3,471	3,400
1983	3,250	3,252	3,328	3,371	3,252	3,417	4,074	4,552	4,500	4,150	3,700	3,400
1984	3,250	3,252	3,285	3,650	3,995	4,246	4,336	4,285	4,030	3,428	3,159	3,138
1985	3,184	3,252	3,360	3,456	3,588	3,730	3,844	3,482	3,064	2,542	2,121	2,132
1986	2,095	2,123	2,292	2,850	3,252	3,534	3,903	3,870	3,486	3,139	2,819	2,854
1987	2,882	2,876	2,888	3,026	3,358	4,084	3,845	3,549	3,030	2,511	2,225	2,122
1988	2,056	2,035	2,540	2,940	2,855	2,915	2,955	2,942	2,527	2,023	1,724	1,587
1989	1,507	1,716	1,815	1,920	2,029	3,410	3,795	3,578	3,216	2,679	2,323	2,341
1990	2,455	2,449	2,430	2,662	2,557	2,823	2,676	2,832	2,618	2,110	1,835	1,744
1991	1,701	1,698	1,668	1,672	1,699	2,104	2,258	2,187	1,908	1,582	1,282	1,179
1992	1,165	1,123	1,119	1,165	1,822	2,268	2,497	2,217	1,826	1,368	976	865
1993	801	798	1,029	1,678	2,408	3,875	4,497	4,552	4,500	3,909	3,637	3,400
1994	3,250	3,191	3,262	3,395	3,620	3,652	3,505	3,210	2,782	2,207	1,641	1,470
Mean	2,493	2,549	2,701	2,939	3,194	3,537	3,807	3,789	3,494	3,011	2,637	2,514
Max	3,250	3,252	3,360	3,725	4,037	4,280	4,552	4,552	4,500	4,150	3,700	3,400
Min	550	572	672	852	892	1,435	1,599	1,595	1,214	769	592	561

Year	Difference Future Alt Desal minus Future Base Shasta Reservoir Storage (TAF)														
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep			
1922	12	24	24	24	24	24	24	24	24	24	24	24	28		
1923	30	31	31	31	31	34	34	34	34	34	34	34	41		
1924	42	49	49	49	49	51	54	54	57	63	68	73	77		
1925	81	83	83	83	83	83	85	85	85	85	85	85	88		
1926	89	89	89	89	89	89	89	89	89	89	89	89	93		
1927	94	94	94	94	94	0	0	0	0	0	0	0	1		
1928	2	3	3	3	3	3	0	0	0	0	0	0	2		
1929	3	4	4	4	4	4	9	9	9	9	15	17	18		
1930	18	28	28	28	28	28	28	28	28	28	29	31	32		
1931	41	44	44	44	44	46	48	48	48	48	53	58	63	67	
1932	71	73	73	73	73	62	62	62	67	67	67	67	67	69	
1933	70	70	70	70	70	70	70	70	70	70	70	70	73	76	
1934	90	97	97	97	97	97	97	97	97	97	97	97	102	107	
1935	110	112	112	112	112	112	112	112	112	112	112	112	112	113	
1936	114	118	118	118	118	118	118	118	118	118	118	124	124	127	
1937	128	128	128	128	128	128	128	128	128	128	128	135	135	138	
1938	139	139	0	0	0	0	0	0	0	0	0	0	0	0	
1939	0	2	2	2	2	3	5	5	5	5	5	10	11	12	
1940	13	14	15	15	15	0	0	0	0	0	0	0	5	6	
1941	10	13	0	0	0	0	0	0	0	0	0	0	0	0	
1942	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
1943	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
1944	2	3	5	5	5	5	5	5	5	5	5	9	11	13	
1945	13	14	14	14	14	14	14	14	14	14	14	25	29	31	
1946	32	40	0	0	0	0	4	4	4	4	4	4	6	7	
1947	15	19	19	19	19	19	21	21	21	21	21	21	22	23	
1948	24	25	25	25	25	31	31	31	31	31	31	31	31	35	0
1949	7	10	10	10	10	5	0	0	0	0	0	0	0	3	5
1950	6	9	9	9	9	9	14	14	14	14	14	14	14	14	17
1951	18	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1952	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	1	1	1	1	0	0	0	0	0	0	0	0	0	2
1955	3	4	0	0	0	1	7	7	7	7	7	7	11	14	
1956	14	15	0	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	1	1	1	1	0	0	0	0	0	0	1	7	9	
1958	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	2	2	2	2	0	0	0	0	0	0	0	0	4	5
1960	8	15	15	15	15	15	15	15	15	15	15	15	15	18	22

Appendix C-3 CALSIM II Modeling

Year	Difference Future Alt Desal minus Future Base Shasta Reservoir Storage (TAF)													
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep		
1961	23	23	23	23	23	0	0	0	0	0	5	10	22	
1962	26	29	29	29	0	0	0	0	0	0	0	0	2	8
1963	8	8	0	0	0	0	0	0	0	0	0	0	0	2
1964	0	0	0	0	3	3	3	3	3	3	3	4	5	5
1965	5	6	0	0	0	0	0	0	0	0	5	12	14	4
1966	15	0	0	0	0	0	0	0	0	0	0	3	4	0
1967	9	15	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	4	5	0
1969	7	14	14	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1971	2	2	0	0	3	0	0	0	0	0	0	0	0	0
1972	0	1	1	1	2	0	1	1	1	2	6	7	7	0
1973	18	18	18	0	0	0	0	0	0	0	0	0	2	2
1974	2	0	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	1	1	1	1	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	1	1	1	1	1	3	7	7	20	0
1977	27	29	31	31	33	36	36	40	44	50	55	55	59	0
1978	62	65	65	65	65	65	65	65	65	65	65	65	65	3
1979	4	5	5	5	5	5	5	5	5	8	13	14	14	0
1980	15	17	17	0	0	0	0	0	0	0	0	0	0	0
1981	1	2	2	2	2	2	0	0	0	0	4	6	8	0
1982	9	0	0	0	0	0	0	0	0	0	2	2	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1985	2	0	0	0	4	4	4	4	4	4	9	10	11	0
1986	12	12	12	12	12	0	0	0	0	0	0	-3	-3	0
1987	-1	-1	-1	-1	0	0	0	0	0	0	5	7	8	0
1988	8	9	9	9	9	9	9	9	9	9	9	11	12	0
1989	19	29	29	29	34	34	34	34	34	34	34	35	42	0
1990	46	49	51	51	53	53	53	53	53	51	58	63	68	0
1991	71	73	73	73	74	77	78	78	78	78	83	88	93	0
1992	96	98	98	98	98	98	98	98	101	101	104	104	109	0
1993	112	115	115	115	115	115	115	115	115	115	115	115	115	0
1994	0	1	1	1	1	2	2	2	2	2	3	4	14	0
Mean	26	27	24	23	21	21	21	19	20	21	23	24	24	0
Max	139	139	128	128	128	128	128	128	128	135	135	135	138	0
Min	-1	-1	-1	-1	-1	0	0	0	0	0	-3	-3	-3	0

Water Year	CVP Contract Water Use Analysis for Existing Alt 1 & 2 vs. Existing Base										Water Year Flood Control Flag (TAF)
	CCWD Div. Base (TAF)	CCWD Div. Op. Alt (TAF)	Annual Diversion Differences (TAF)	Accumulated EOS Storage Differences (TAF)	Base EOS Shasta Storage (TAF)	Water Year Flood Control Flag (TAF)					
1922	84.4	80.2	-4.2	4.2	2,927	-					
1923	84.0	94.6	10.6	-6.4	2,153	-					
1924	85.6	90.0	4.4	-10.8	592	-					
1925	113.8	123.0	9.2	-19.9	1,929	-					
1926	108.8	127.9	19.1	-39.0	1,754	-					
1927	65.0	70.9	5.9	-2.6	3,208	Flood Control					
1928	72.5	84.0	11.6	-7.9	2,733	Flood Control					
1929	105.8	101.5	-4.4	-3.5	1,905	-					
1930	87.4	92.6	5.1	-8.7	2,116	-					
1931	107.4	84.0	-23.4	14.7	643	-					
1932	135.2	153.0	17.8	-3.1	1,045	-					
1933	80.2	89.6	9.4	-12.5	812	-					
1934	105.5	92.8	-12.7	0.2	603	-					
1935	98.0	106.6	8.6	-8.3	1,785	-					
1936	55.2	68.0	12.8	-21.1	2,357	-					
1937	92.8	96.6	3.8	-24.9	2,424	-					
1938	34.7	39.3	4.7	0.0	3,400	Flood Control					
1939	80.2	98.7	18.4	-18.4	2,101	Flood Control					
1940	85.3	83.5	-1.8	7.6	2,733	Flood Control					
1941	37.3	41.3	4.0	0.0	3,400	Flood Control					
1942	36.6	39.9	3.4	0.0	3,400	Flood Control					
1943	36.9	45.4	8.5	-8.5	3,156	Flood Control					
1944	84.4	99.6	15.2	-23.7	2,448	-					
1945	81.8	76.5	-5.3	-18.4	2,880	-					
1946	93.6	90.8	-2.8	4.0	2,752	Flood Control					
1947	92.8	91.2	-1.6	5.6	2,241	-					
1948	80.9	91.6	10.6	0.0	3,400	Flood Control					
1949	82.3	86.4	4.1	-4.8	2,731	Flood Control					
1950	70.3	65.0	-5.3	0.4	2,723	-					
1951	62.1	74.9	12.8	-8.2	2,804	Flood Control					
1952	38.1	45.4	7.3	0.0	3,400	Flood Control					
1953	39.9	39.9	0.0	0.0	3,400	Flood Control					
1954	74.5	89.1	14.6	-9.6	3,170	Flood Control					
1955	92.5	98.6	6.1	0.7	2,579	Flood Control					
1956	37.6	41.7	4.1	0.0	3,400	Flood Control					
1957	65.7	74.2	8.5	-8.5	3,284	Flood Control					
1958	23.8	30.9	7.1	0.0	3,400	Flood Control					
1959	71.0	80.7	9.7	-9.7	2,480	Flood Control					
1960	75.3	114.1	38.9	-48.6	2,559	-					

Appendix C-3 CALSIM II Modeling

CVP Contract Water Use Analysis for Existing Alt 1 & 2 vs. Existing Base							
Water Year	CCWD Div. Base (TAF)	CCWD Div. Op. Alt (TAF)	Annual Diversion Differences (TAF)	Accumulated EOS Storage Differences (TAF)	Base EOS Shasta Storage (TAF)	Water Year Flood Control Flag (TAF)	
1961	102.5	98.4	-4.1	-0.9	2,693	Flood Control	
1962	110.2	93.7	-16.4	5.4	2,909	Flood Control	
1963	63.2	69.7	6.5	-6.5	3,368	Flood Control	
1964	62.8	84.2	21.3	-16.6	2,358	Flood Control	
1965	88.5	84.3	-4.3	1.1	3,214	Flood Control	
1966	67.2	84.0	16.7	-13.3	2,844	Flood Control	
1967	3.4	6.1	2.7	0.0	3,400	Flood Control	
1968	60.5	71.5	11.0	-11.0	2,698	Flood Control	
1969	40.5	44.7	4.2	0.0	3,400	Flood Control	
1970	57.5	65.5	8.0	-8.0	2,667	Flood Control	
1971	59.5	63.0	3.5	0.0	3,400	Flood Control	
1972	83.5	87.2	3.7	-12.0	2,901	Flood Control	
1973	61.3	72.6	11.2	-8.7	3,144	Flood Control	
1974	34.0	37.6	3.7	0.0	3,400	Flood Control	
1975	39.9	39.9	0.0	0.0	3,400	Flood Control	
1976	52.8	66.9	14.1	-14.1	2,829	Flood Control	
1977	122.7	108.9	-13.9	-0.2	674	-	
1978	77.7	86.8	9.1	-9.1	3,310	Flood Control	
1979	68.6	85.1	16.5	-25.6	2,819	-	
1980	45.5	59.6	14.1	-7.3	3,111	Flood Control	
1981	71.4	91.9	20.5	-18.1	2,571	Flood Control	
1982	34.4	37.2	2.8	0.0	3,400	Flood Control	
1983	0.0	0.0	0.0	0.0	3,400	Flood Control	
1984	57.0	65.5	8.5	-8.5	3,245	Flood Control	
1985	73.5	95.7	22.2	-18.4	2,311	Flood Control	
1986	89.3	78.1	-11.2	17.3	2,825	Flood Control	
1987	83.4	97.3	13.9	3.4	2,153	-	
1988	108.4	95.4	-13.0	16.4	1,589	-	
1989	85.8	105.8	20.1	-3.7	2,463	-	
1990	119.9	99.1	-20.9	17.2	1,903	-	
1991	103.6	94.3	-9.4	26.6	1,341	-	
1992	118.3	118.6	0.3	26.3	841	-	
1993	78.4	86.8	8.4	0.0	3,400	Flood Control	
1994	62.3	92.1	29.9	-22.0	1,536	Flood Control	

Appendix C-3 CALSIM II Modeling

CVP Contract Water Use Analysis for Existing Alt 3 vs. Existing Base									
Water Year	CCWD Div. Base (TAF)	CCWD Div. Op. Alt (TAF)	Annual Diversion Differences (TAF)	Accumulated EOS Storage Differences (TAF)	Base EOS Shasta Storage (TAF)	Water Year Flood Control Flag (TAF)			
1922	84.4	79.2	-5.2	5.2	2,927	-			
1923	84.0	94.4	10.4	-5.2	2,153	-			
1924	85.6	89.3	3.8	-8.9	592	-			
1925	113.8	123.5	9.7	-18.6	1,929	-			
1926	108.8	131.7	22.9	-41.5	1,754	-			
1927	65.0	70.9	5.9	-2.6	3,208	Flood Control			
1928	72.5	84.0	11.5	-7.9	2,733	Flood Control			
1929	105.8	100.2	-5.7	-2.2	1,905	-			
1930	87.4	90.6	3.2	-5.4	2,116	-			
1931	107.4	85.0	-22.3	16.9	643	-			
1932	135.2	158.2	23.0	-6.1	1,045	-			
1933	80.2	85.3	5.1	-11.2	812	-			
1934	105.5	92.8	-12.7	1.5	603	-			
1935	98.0	112.0	13.9	-12.5	1,785	-			
1936	55.2	60.1	4.9	-17.3	2,357	-			
1937	92.8	99.2	6.4	-23.7	2,424	-			
1938	34.7	39.3	4.7	0.0	3,400	Flood Control			
1939	80.2	98.6	18.4	-18.4	2,101	Flood Control			
1940	85.3	81.4	-3.9	9.7	2,733	Flood Control			
1941	37.3	41.2	3.9	0.0	3,400	Flood Control			
1942	36.6	39.9	3.4	0.0	3,400	Flood Control			
1943	36.9	45.4	8.5	-8.5	3,156	Flood Control			
1944	84.4	99.6	15.2	-23.7	2,448	-			
1945	81.8	76.4	-5.4	-18.3	2,880	-			
1946	93.6	90.7	-3.0	4.0	2,752	Flood Control			
1947	92.8	77.5	-15.3	19.3	2,241	-			
1948	80.9	102.2	21.3	0.0	3,400	Flood Control			
1949	82.3	85.3	3.0	-4.4	2,731	Flood Control			
1950	70.3	65.6	-4.6	0.2	2,723	-			
1951	62.1	74.7	12.6	-8.2	2,804	Flood Control			
1952	38.1	45.2	7.1	0.0	3,400	Flood Control			
1953	39.9	39.9	0.0	0.0	3,400	Flood Control			
1954	74.5	89.1	14.6	-9.6	3,170	Flood Control			
1955	92.5	97.1	4.7	2.0	2,579	Flood Control			
1956	37.6	41.5	3.9	0.0	3,400	Flood Control			
1957	65.7	74.1	8.4	-8.4	3,284	Flood Control			
1958	23.8	31.1	7.2	0.0	3,400	Flood Control			
1959	71.0	80.7	9.7	-9.7	2,480	Flood Control			
1960	75.3	114.3	39.0	-48.7	2,559	-			

Appendix C-3 CALSIM II Modeling

CVP Contract Water Use Analysis for Existing Alt 3 vs. Existing Base							
Water Year	CCWD Div. Base (TAF)	CCWD Div. Op. Alt (TAF)	Annual Diversion Differences (TAF)	Accumulated EOS Storage Differences (TAF)	Base EOS Shasta Storage (TAF)	Water Year Flood Control Flag (TAF)	
1961	102.5	87.9	-14.7	11.3	2,693	Flood Control	
1962	110.2	105.7	-4.5	-6.8	2,909	Flood Control	
1963	63.2	69.7	6.5	-6.5	3,368	Flood Control	
1964	62.8	84.3	21.5	-16.7	2,358	Flood Control	
1965	88.5	84.3	-4.2	1.1	3,214	Flood Control	
1966	67.2	84.0	16.8	-13.3	2,844	Flood Control	
1967	3.4	6.1	2.7	0.0	3,400	Flood Control	
1968	60.5	71.5	11.0	-11.0	2,698	Flood Control	
1969	40.5	44.7	4.2	0.0	3,400	Flood Control	
1970	57.5	65.5	8.0	-8.0	2,667	Flood Control	
1971	59.5	63.0	3.4	0.0	3,400	Flood Control	
1972	83.5	87.1	3.6	-11.9	2,901	Flood Control	
1973	61.3	72.5	11.2	-8.7	3,144	Flood Control	
1974	34.0	37.6	3.6	0.0	3,400	Flood Control	
1975	39.9	39.9	0.0	0.0	3,400	Flood Control	
1976	52.8	66.8	14.0	-14.0	2,829	Flood Control	
1977	122.7	109.0	-13.7	-0.3	674	-	
1978	77.7	86.8	9.1	-9.1	3,310	Flood Control	
1979	68.6	87.0	18.4	-2.819	2,819	-	
1980	45.5	59.5	14.0	-27.5	3,111	Flood Control	
1981	71.4	91.9	20.4	-18.0	2,571	Flood Control	
1982	34.4	37.2	2.8	0.0	3,400	Flood Control	
1983	0.0	0.0	0.0	0.0	3,400	Flood Control	
1984	57.0	65.5	8.5	-8.5	3,245	Flood Control	
1985	73.5	95.6	22.1	-18.3	2,311	Flood Control	
1986	89.3	78.0	-11.2	17.3	2,825	Flood Control	
1987	83.4	97.1	13.7	3.6	2,153	-	
1988	108.4	99.7	-8.7	12.4	1,589	-	
1989	85.8	106.4	20.6	-8.2	2,463	-	
1990	119.9	93.9	-26.1	17.8	1,903	-	
1991	103.6	97.2	-6.4	24.2	1,341	-	
1992	118.3	118.6	0.3	23.9	841	-	
1993	78.4	86.8	8.4	0.0	3,400	Flood Control	
1994	62.3	92.1	29.8	-21.9	1,536	Flood Control	

Appendix C-3 CALSIM II Modeling

CVP Contract Water Use Analysis for Existing Alt Desal vs. Existing Base							
Water Year	CCWD Div. Base (TAF)	CCWD Div. Op. Alt (TAF)	Annual Diversion Differences (TAF)	Accumulated EOS Storage Differences (TAF)	Base EOS Shasta Storage (TAF)	Water Year Flood Control Flag (TAF)	
1922	84.4	57.5	-26.9	26.9	2,927	-	
1923	84.0	75.3	-8.7	35.6	2,153	-	
1924	85.6	51.0	-34.6	70.2	592	-	
1925	113.8	105.1	-8.7	78.9	1,929	-	
1926	108.8	105.3	-3.5	82.3	1,754	-	
1927	65.0	56.1	-8.9	8.2	3,208	Flood Control	
1928	72.5	69.3	-3.1	2.1	2,733	Flood Control	
1929	105.8	95.9	-10.0	12.1	1,905	-	
1930	87.4	83.3	-4.2	16.2	2,116	-	
1931	107.4	58.5	-48.8	65.1	643	-	
1932	135.2	132.5	-2.7	67.8	1,045	-	
1933	80.2	73.3	-6.9	74.6	812	-	
1934	105.5	78.5	-27.0	101.6	603	-	
1935	98.0	91.2	-6.8	108.5	1,785	-	
1936	55.2	43.7	-11.6	120.0	2,357	-	
1937	92.8	82.8	-10.0	130.0	2,424	-	
1938	34.7	33.8	-0.9	0.0	3,400	Flood Control	
1939	80.2	72.8	-7.5	7.5	2,101	Flood Control	
1940	85.3	78.4	-7.0	4.3	2,733	Flood Control	
1941	37.3	35.2	-2.1	0.0	3,400	Flood Control	
1942	36.6	34.5	-2.1	0.0	3,400	Flood Control	
1943	36.9	35.2	-1.7	1.7	3,156	Flood Control	
1944	84.4	78.7	-5.7	7.4	2,448	-	
1945	81.8	61.6	-20.1	27.5	2,880	-	
1946	93.6	74.2	-19.4	11.7	2,752	Flood Control	
1947	92.8	86.5	-6.3	18.0	2,241	-	
1948	80.9	65.7	-15.2	0.0	3,400	Flood Control	
1949	82.3	72.0	-10.3	4.6	2,731	Flood Control	
1950	70.3	61.9	-8.3	12.9	2,723	-	
1951	62.1	59.4	-2.7	1.5	2,804	Flood Control	
1952	38.1	36.1	-2.0	0.0	3,400	Flood Control	
1953	39.9	39.9	0.0	0.0	3,400	Flood Control	
1954	74.5	70.9	-3.6	1.5	3,170	Flood Control	
1955	92.5	78.1	-14.4	12.3	2,579	Flood Control	
1956	37.6	36.0	-1.6	0.0	3,400	Flood Control	
1957	65.7	64.6	-1.1	1.1	3,284	Flood Control	
1958	23.8	21.6	-2.2	0.0	3,400	Flood Control	
1959	71.0	65.4	-5.6	5.6	2,480	Flood Control	
1960	75.3	61.8	-13.5	19.1	2,559	-	

Appendix C-3 CALSIM II Modeling

CVP Contract Water Use Analysis for Existing Alt Desal vs. Existing Base							
Water Year	CCWD Div. Base (TAF)	CCWD Div. Op. Alt (TAF)	Annual Diversion Differences (TAF)	Accumulated EOS Storage Differences (TAF)	Base EOS Shasta Storage (TAF)	Water Year Flood Control Flag (TAF)	
1961	102.5	84.3	-18.3	10.7	2,693	Flood Control	
1962	110.2	99.8	-10.3	3.4	2,909	Flood Control	
1963	63.2	60.9	-2.3	2.3	3,368	Flood Control	
1964	62.8	55.3	-7.6	6.8	2,358	Flood Control	
1965	88.5	74.3	-14.2	11.5	3,214	Flood Control	
1966	67.2	61.5	-5.8	4.7	2,844	Flood Control	
1967	3.4	2.3	-1.1	0.0	3,400	Flood Control	
1968	60.5	56.2	-4.3	4.3	2,698	Flood Control	
1969	40.5	36.8	-3.7	0.0	3,400	Flood Control	
1970	57.5	55.6	-1.9	1.9	2,667	Flood Control	
1971	59.5	58.7	-0.8	0.0	3,400	Flood Control	
1972	83.5	74.0	-9.5	4.7	2,901	Flood Control	
1973	61.3	59.0	-2.3	1.7	3,144	Flood Control	
1974	34.0	33.3	-0.7	0.0	3,400	Flood Control	
1975	39.9	39.9	0.0	0.0	3,400	Flood Control	
1976	52.8	41.0	-11.8	11.8	2,829	Flood Control	
1977	122.7	81.6	-41.1	52.9	674	-	
1978	77.7	70.3	-7.4	1.6	3,310	Flood Control	
1979	68.6	54.0	-14.6	16.1	2,819	-	
1980	45.5	41.1	-4.4	2.2	3,111	Flood Control	
1981	71.4	61.3	-10.1	7.9	2,571	Flood Control	
1982	34.4	33.6	-0.8	0.0	3,400	Flood Control	
1983	0.0	0.0	0.0	0.0	3,400	Flood Control	
1984	57.0	55.3	-1.7	1.7	3,245	Flood Control	
1985	73.5	65.6	-7.9	7.0	2,311	Flood Control	
1986	89.3	84.2	-5.0	3.3	2,825	Flood Control	
1987	83.4	76.1	-7.3	10.6	2,153	-	
1988	108.4	102.9	-5.5	16.1	1,589	-	
1989	85.8	75.7	-10.1	26.2	2,463	-	
1990	119.9	78.7	-41.2	67.4	1,903	-	
1991	103.6	80.9	-22.7	90.1	1,341	-	
1992	118.3	103.2	-15.1	105.2	841	-	
1993	78.4	70.8	-7.6	0.0	3,400	Flood Control	
1994	62.3	51.9	-10.4	9.6	1,536	Flood Control	

Appendix C-3 CALSIM II Modeling

CVP Contract Water Use Analysis for Future Alt 1 & 2 vs. Future Base							
Water Year	CCWD Div. Base (TAF)	CCWD Div. Op. Alt (TAF)	Annual Diversion Differences (TAF)	Accumulated EOS Storage Differences (TAF)	Base EOS Shasta Storage (TAF)	Water Year Flood Control Flag (TAF)	
1922	102.6	102.5	-0.2	0.2	2,835	-	
1923	98.4	116.8	18.4	-18.3	2,203	-	
1924	121.6	117.0	-4.6	-13.7	599	-	
1925	137.7	136.7	-1.0	-12.7	1,924	-	
1926	146.3	120.7	-25.6	12.9	1,764	-	
1927	72.9	88.3	15.5	-11.5	3,045	Flood Control	
1928	92.7	110.6	17.9	-9.5	2,732	Flood Control	
1929	120.3	116.1	-4.2	-5.3	1,823	-	
1930	104.0	93.7	-10.3	5.1	2,054	-	
1931	135.5	127.7	-7.8	12.9	612	-	
1932	163.8	177.4	13.6	-0.7	927	-	
1933	92.3	103.9	11.6	-12.4	681	-	
1934	144.0	118.4	-25.6	13.2	561	-	
1935	117.9	141.2	23.3	-10.1	1,612	-	
1936	103.0	102.6	-0.5	-9.7	2,218	-	
1937	104.8	121.8	17.0	-26.6	2,404	-	
1938	57.3	64.2	6.8	0.0	3,400	Flood Control	
1939	110.2	120.2	10.1	-10.1	2,101	Flood Control	
1940	96.6	112.1	15.5	-0.8	2,602	Flood Control	
1941	91.7	91.0	-0.8	0.0	3,400	Flood Control	
1942	53.3	73.2	19.8	0.0	3,400	Flood Control	
1943	54.4	77.7	23.3	-9.7	3,090	Flood Control	
1944	118.0	128.6	10.6	-20.3	2,397	-	
1945	90.6	98.9	8.3	-28.6	2,754	-	
1946	106.1	108.0	2.0	-1.0	2,747	Flood Control	
1947	115.5	115.2	-0.3	-0.7	2,207	-	
1948	125.4	143.6	18.2	0.0	3,400	Flood Control	
1949	99.4	103.6	4.2	-9.3	2,707	Flood Control	
1950	119.9	125.2	5.3	-14.5	2,661	-	
1951	76.5	90.3	13.9	-8.0	2,735	Flood Control	
1952	47.6	54.8	7.2	0.0	3,400	Flood Control	
1953	78.1	88.4	10.3	0.0	3,400	Flood Control	
1954	91.1	109.7	18.6	-10.4	3,083	Flood Control	
1955	118.8	121.4	2.7	5.6	2,499	Flood Control	
1956	52.5	68.0	15.6	0.0	3,400	Flood Control	
1957	94.4	111.5	17.1	-2.0	3,182	Flood Control	
1958	48.1	54.3	6.2	0.0	3,400	Flood Control	
1959	80.9	97.5	16.7	-14.2	2,326	Flood Control	
1960	126.2	132.6	6.4	-20.6	2,464	-	

Appendix C-3 CALSIM II Modeling

CVP Contract Water Use Analysis for Future Alt 1 & 2 vs. Future Base							
Water Year	CCWD Div. Base (TAF)	CCWD Div. Op. Alt (TAF)	Annual Diversion Differences (TAF)	Accumulated EOS Storage Differences (TAF)	Base EOS Shasta Storage (TAF)	Water Year Flood Control Flag (TAF)	
1961	113.1	142.8	29.6	-23.0	2,410	Flood Control	
1962	98.3	90.7	-7.5	-6.7	2,737	Flood Control	
1963	101.2	110.0	8.8	-8.8	3,238	Flood Control	
1964	95.8	120.0	24.2	-18.0	2,362	Flood Control	
1965	121.0	111.1	-9.9	10.4	3,153	Flood Control	
1966	82.8	103.8	21.0	-17.4	2,777	Flood Control	
1967	57.8	54.6	-3.2	0.0	3,400	Flood Control	
1968	75.9	87.3	11.5	-11.5	2,557	Flood Control	
1969	55.1	52.8	-2.3	0.0	3,400	Flood Control	
1970	45.1	55.1	10.1	-10.1	2,471	Flood Control	
1971	92.8	96.6	3.7	0.0	3,400	Flood Control	
1972	90.3	105.1	14.9	-4.0	2,730	Flood Control	
1973	87.2	89.6	2.4	-10.1	3,041	Flood Control	
1974	67.3	71.7	4.4	0.0	3,400	Flood Control	
1975	54.6	62.6	8.0	0.0	3,400	Flood Control	
1976	85.7	92.1	6.4	-3.7	2,732	Flood Control	
1977	165.9	147.4	-18.5	14.8	584	-	
1978	95.6	104.7	9.2	-9.2	3,322	Flood Control	
1979	94.3	110.4	16.1	-25.3	2,736	-	
1980	92.3	99.7	7.4	0.0	3,002	Flood Control	
1981	99.3	125.8	26.5	-29.1	2,291	Flood Control	
1982	44.5	47.2	2.6	0.0	3,400	Flood Control	
1983	0.0	0.0	0.0	0.0	3,400	Flood Control	
1984	70.6	79.9	9.3	-9.3	3,138	Flood Control	
1985	93.2	115.8	22.6	-18.1	2,132	Flood Control	
1986	79.9	70.6	-9.3	15.9	2,854	Flood Control	
1987	98.3	112.6	14.3	1.6	2,122	-	
1988	120.7	111.7	-9.1	10.7	1,587	-	
1989	123.0	127.2	4.1	6.6	2,341	-	
1990	147.9	138.1	-9.7	16.3	1,744	-	
1991	139.9	141.2	1.3	14.9	1,179	-	
1992	146.1	144.6	-1.5	16.5	865	-	
1993	93.9	102.8	8.9	0.0	3,400	Flood Control	
1994	95.6	120.9	25.3	-17.9	1,470	Flood Control	

Appendix C-3 CALSIM II Modeling

CVP Contract Water Use Analysis for Future Alt Desal vs. Future Base							
Water Year	CCWD Div. Base (TAF)	CCWD Div. Op. Alt (TAF)	Annual Diversion Differences (TAF)	Accumulated EOS Storage Differences (TAF)	Base EOS Shasta Storage (TAF)	Water Year Flood Control Flag (TAF)	
1922	102.6	74.7	-27.9	27.9	2,835	-	
1923	98.4	85.8	-12.6	40.6	2,203	-	
1924	121.6	85.0	-36.6	77.2	599	-	
1925	137.7	127.0	-10.7	87.9	1,924	-	
1926	146.3	140.7	-5.6	93.4	1,764	-	
1927	72.9	70.7	-2.2	1.3	3,045	Flood Control	
1928	92.7	88.8	-3.9	2.1	2,732	Flood Control	
1929	120.3	104.7	-15.6	17.7	1,823	-	
1930	104.0	89.7	-14.3	32.0	2,054	-	
1931	135.5	100.1	-35.4	67.4	612	-	
1932	163.8	161.8	-2.0	69.4	927	-	
1933	92.3	85.6	-6.7	76.0	681	-	
1934	144.0	113.4	-30.5	106.6	561	-	
1935	117.9	111.0	-6.8	113.4	1,612	-	
1936	103.0	89.7	-13.3	126.8	2,218	-	
1937	104.8	94.0	-10.9	137.6	2,404	-	
1938	57.3	52.4	-4.9	0.0	3,400	Flood Control	
1939	110.2	97.9	-12.3	12.3	2,101	Flood Control	
1940	96.6	88.5	-8.1	5.9	2,602	Flood Control	
1941	91.7	81.0	-10.7	0.0	3,400	Flood Control	
1942	53.3	49.8	-3.6	0.0	3,400	Flood Control	
1943	54.4	50.7	-3.7	1.3	3,090	Flood Control	
1944	118.0	106.5	-11.5	12.8	2,397	-	
1945	90.6	72.4	-18.2	31.0	2,754	-	
1946	106.1	90.2	-15.8	7.1	2,747	Flood Control	
1947	115.5	99.3	-16.2	23.3	2,207	-	
1948	125.4	112.6	-12.8	0.0	3,400	Flood Control	
1949	99.4	89.3	-10.2	4.8	2,707	Flood Control	
1950	119.9	107.7	-12.2	17.0	2,661	-	
1951	76.5	73.9	-2.6	1.2	2,735	Flood Control	
1952	47.6	44.7	-2.9	0.0	3,400	Flood Control	
1953	78.1	76.3	-1.8	0.0	3,400	Flood Control	
1954	91.1	87.9	-3.2	1.5	3,083	Flood Control	
1955	118.8	103.2	-15.6	13.6	2,499	Flood Control	
1956	52.5	49.0	-3.4	0.0	3,400	Flood Control	
1957	94.4	83.7	-10.7	8.6	3,182	Flood Control	
1958	48.1	44.0	-4.0	0.0	3,400	Flood Control	
1959	80.9	74.1	-6.8	5.0	2,326	Flood Control	
1960	126.2	109.5	-16.7	21.7	2,464	-	

Appendix C-3 CALSIM II Modeling

CVP Contract Water Use Analysis for Future Alt Desal vs. Future Base									
Water Year	CCWD Div. Base (TAF)	CCWD Div. Op. Alt (TAF)	Annual Diversion Differences (TAF)	Accumulated EOS Storage Differences (TAF)	Shasta Storage (TAF)	Base EOS Shasta Storage (TAF)	Water Year Flood Control Flag (TAF)		
1961	113.1	89.8	-23.4	21.7	2,410	2,410	Flood Control		
1962	98.3	83.9	-14.4	7.5	2,737	2,737	Flood Control		
1963	101.2	99.1	-2.2	2.2	3,238	3,238	Flood Control		
1964	95.8	90.4	-5.5	4.8	2,362	2,362	Flood Control		
1965	121.0	106.3	-14.6	13.8	3,153	3,153	Flood Control		
1966	82.8	76.2	-6.6	4.3	2,777	2,777	Flood Control		
1967	57.8	47.1	-10.8	0.0	3,400	3,400	Flood Control		
1968	75.9	71.2	-4.7	4.7	2,557	2,557	Flood Control		
1969	55.1	45.5	-9.5	0.0	3,400	3,400	Flood Control		
1970	45.1	43.6	-1.5	1.5	2,471	2,471	Flood Control		
1971	92.8	86.6	-6.2	0.0	3,400	3,400	Flood Control		
1972	90.3	79.7	-10.5	6.9	2,730	2,730	Flood Control		
1973	87.2	74.2	-13.0	1.8	3,041	3,041	Flood Control		
1974	67.3	66.7	-0.6	0.0	3,400	3,400	Flood Control		
1975	54.6	50.8	-3.8	0.0	3,400	3,400	Flood Control		
1976	85.7	64.4	-21.3	19.6	2,732	2,732	Flood Control		
1977	165.9	126.5	-39.4	59.0	584	584	-		
1978	95.6	86.8	-8.8	3.0	3,322	3,322	Flood Control		
1979	94.3	83.0	-11.3	14.3	2,736	2,736	-		
1980	92.3	89.7	-2.6	0.0	3,002	3,002	Flood Control		
1981	99.3	82.9	-16.4	7.7	2,291	2,291	Flood Control		
1982	44.5	41.9	-2.6	0.0	3,400	3,400	Flood Control		
1983	0.0	0.0	0.0	0.0	3,400	3,400	Flood Control		
1984	70.6	69.1	-1.6	1.6	3,138	3,138	Flood Control		
1985	93.2	81.4	-11.7	10.9	2,132	2,132	Flood Control		
1986	79.9	80.8	0.9	-2.5	2,854	2,854	Flood Control		
1987	98.3	87.9	-10.4	7.9	2,122	2,122	-		
1988	120.7	117.0	-3.7	11.6	1,587	1,587	-		
1989	123.0	92.2	-30.9	42.5	2,341	2,341	-		
1990	147.9	122.8	-25.1	67.6	1,744	1,744	-		
1991	139.9	114.9	-25.0	92.5	1,179	1,179	-		
1992	146.1	130.0	-16.2	108.7	865	865	-		
1993	93.9	85.9	-8.0	0.0	3,400	3,400	Flood Control		
1994	95.6	80.6	-15.0	14.3	1,470	1,470	Flood Control		

Appendix C-3 CALSIM II Modeling

Existing Alt 1 & 2 CVP Contract Water Use Analysis										
Year	Month	CVP Delivery Reductions					Shasta Storage Changes			
		Delta Condition	CCWD Div. Base (TAF)	CCWD Div. Alt (TAF)	Div. Op. (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	
1922	Oct	Balanced	24.2	24.2	0.0	2,806	3,250	0.0		
	Nov	Balanced	20.5	9.6	-10.9	2,832	3,252	10.9		
	Dec	Surplus			0.0	2,917	3,368	10.9		
	Jan	Surplus			0.0	3,021	3,828	10.9		
	Feb	Surplus			0.0	3,312	4,042	10.9		
	Mar	Surplus			0.0	3,617	4,330	10.9		
	Apr	Surplus			0.0	4,095	4,552	10.9		
	May	Surplus			0.0	4,252	4,552	10.9		
	Jun	Surplus			0.0	3,959	4,500	10.9		
	Jul	Balanced	15.8	15.8	0.0	3,494	4,150	10.9		
	Aug	Balanced	16.5	16.5	0.0	3,094	3,700	10.9		
	Sep	Balanced	7.3	14.0	6.7	2,927	3,400	4.2		
1923	Oct	Balanced	3.4	8.6	5.2	2,927	3,250	-1.0		
	Nov	Balanced	3.5	8.4	5.0	2,940	3,252	-6.0		
	Dec	Surplus			0.0	3,028	3,369	-6.0		
	Jan	Surplus			0.0	3,227	3,814	-6.0		
	Feb	Balanced	11.9	5.0	-6.9	3,286	4,242	0.9		
	Mar	Balanced	6.0	6.0	0.0	3,338	4,552	0.9		
	Apr	Surplus			0.0	3,641	4,552	0.9		
	May	Surplus			0.0	3,381	4,552	0.9		
	Jun	Balanced	22.8	22.8	0.0	3,095	4,500	0.9		
	Jul	Balanced	16.3	16.3	0.0	2,655	4,150	0.9		
	Aug	Balanced	16.5	16.5	0.0	2,267	3,700	0.9		
	Sep	Balanced	3.7	10.9	7.3	2,153	3,400	-6.4		
1924	Oct	Balanced	2.6	6.2	3.7	2,090	3,250	-10.0		
	Nov	Balanced	2.3	5.1	2.8	2,014	3,252	-12.8		
	Dec	Balanced	5.1	8.1	3.0	1,980	3,370	-15.9		
	Jan	Surplus			0.0	2,069	3,828	-15.9		
	Feb	Balanced	5.6	3.0	-2.6	2,226	4,256	-13.2		
	Mar	Balanced	6.7	6.9	0.2	2,215	4,552	-13.4		
	Apr	Surplus			0.0	2,000	4,552	-13.4		
	May	Balanced	9.2	9.2	0.0	1,688	4,552	-13.4		
	Jun	Balanced	8.6	9.0	0.4	1,291	4,500	-13.8		
	Jul	Balanced	15.8	14.0	-1.8	858	4,150	-12.0		
	Aug	Balanced	15.8	15.8	0.0	640	3,700	-12.0		
	Sep	Balanced	14.0	12.7	-1.3	592	3,400	-10.8		

Appendix C-3 CALSIM II Modeling

Existing Alt 1 & 2 CVP Contract Water Use Analysis										
Shasta Storage Changes										
Year	Month	CVP Delivery Reductions					Shasta Storage Changes			
		Delta Condition	CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)		
1925	Oct	Balanced	12.1	4.1	-8.1	589	3,250	-2.7		
	Nov	Balanced	9.8	8.6	-1.2	695	3,252	-1.5		
	Dec	Surplus			0.0	784	3,370	-1.5		
	Jan	Surplus			0.0	1,020	3,819	-1.5		
	Feb	Surplus			0.0	2,258	3,705	-1.5		
	Mar	Balanced	12.2	12.2	0.0	2,443	4,433	-1.5		
	Apr	Surplus			0.0	3,108	4,552	-1.5		
	May	Surplus			0.0	3,168	4,552	-1.5		
	Jun	Balanced	25.7	25.7	0.0	2,894	4,500	-1.5		
	Jul	Balanced	28.5	28.5	0.0	2,406	4,150	-1.5		
	Aug	Balanced	17.3	24.2	7.0	2,060	3,700	-8.5		
	Sep	Balanced	8.2	19.7	11.4	1,929	3,400	-19.9		
1926	Oct	Balanced	2.5	6.2	3.7	1,874	3,250	-23.7		
	Nov	Balanced	2.1	4.0	1.9	1,872	3,252	-25.6		
	Dec	Surplus			0.0	1,920	3,370	-25.6		
	Jan	Surplus			0.0	1,963	3,828	-25.6		
	Feb	Surplus			0.0	2,679	3,982	-25.6		
	Mar	Balanced	12.2	12.2	0.0	2,869	4,552	-25.6		
	Apr	Surplus			0.0	3,164	4,552	-25.6		
	May	Balanced	12.2	12.2	0.0	3,016	4,552	-25.6		
	Jun	Balanced	25.7	25.7	0.0	2,618	4,500	-25.6		
	Jul	Balanced	28.5	28.5	0.0	2,170	4,150	-25.6		
	Aug	Balanced	20.0	24.5	4.5	1,864	3,700	-30.1		
	Sep	Balanced	5.5	14.4	8.9	1,754	3,400	-39.0		
1927	Oct	Balanced	2.2	5.6	3.3	1,754	3,250	-42.3		
	Nov	Surplus			0.0	2,229	3,252	-42.3		
	Dec	Surplus			0.0	2,735	3,347	-42.3		
	Jan	Surplus			0.0	3,204	3,668	-42.3		
	Feb	Surplus			0.0	3,462	3,462	0.0		
	Mar	Surplus			0.0	4,035	4,142	0.0		
	Apr	Surplus			0.0	4,552	4,552	0.0		
	May	Surplus			0.0	4,552	4,552	0.0		
	Jun	Balanced	23.6	20.0	-3.6	4,264	4,500	3.6		
	Jul	Balanced	18.5	15.5	-3.0	3,758	4,150	6.6		
	Aug	Balanced	16.3	16.3	0.0	3,351	3,700	6.6		
	Sep	Balanced	4.4	13.5	9.2	3,208	3,400	-2.6		

Appendix C-3 CALSIM II Modeling

Existing Alt 1 & 2 CVP Contract Water Use Analysis										
Shasta Storage Changes										
Year	Month	CVP Delivery Reductions					Shasta Storage Changes			
		Delta Condition	CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)		
1928	Oct	Balanced	2.9	6.6	3.7	3,181	3,250	-6.2		
	Nov	Surplus			0.0	3,252	3,252	0.0		
	Dec	Surplus			0.0	3,313	3,363	0.0		
	Jan	Surplus			0.0	3,512	3,761	0.0		
	Feb	Surplus			0.0	3,906	4,099	0.0		
	Mar	Surplus			0.0	3,965	3,965	0.0		
	Apr	Surplus			0.0	4,463	4,552	0.0		
	May	Balanced	9.2	9.2	0.0	4,280	4,552	0.0		
	Jun	Balanced	21.9	21.9	0.0	3,882	4,500	0.0		
	Jul	Balanced	15.8	15.8	0.0	3,241	4,150	0.0		
	Aug	Balanced	16.5	16.5	0.0	2,899	3,700	0.0		
	Sep	Balanced	6.1	14.0	7.9	2,733	3,400	-7.9		
1929	Oct	Balanced	3.3	7.0	3.7	2,643	3,250	-11.6		
	Nov	Balanced	3.3	6.5	3.3	2,641	3,252	-14.9		
	Dec	Surplus			0.0	2,652	3,370	-14.9		
	Jan	Surplus			0.0	2,754	3,828	-14.9		
	Feb	Balanced	4.6	2.6	-2.0	2,941	4,256	-12.9		
	Mar	Balanced	12.5	11.5	-1.0	3,109	4,552	-11.9		
	Apr	Balanced	0.0	0.0	0.0	3,178	4,552	-11.9		
	May	Balanced	13.6	13.6	0.0	3,056	4,552	-11.9		
	Jun	Balanced	27.0	17.4	-9.6	2,742	4,500	-2.3		
	Jul	Balanced	28.5	16.2	-12.3	2,356	4,150	10.0		
	Aug	Balanced	9.0	15.8	6.8	2,025	3,700	3.1		
	Sep	Balanced	4.1	10.8	6.7	1,905	3,400	-3.5		
1930	Oct	Balanced	1.7	4.3	2.6	1,847	3,250	-6.1		
	Nov	Balanced	1.5	3.0	1.6	1,799	3,252	-7.7		
	Dec	Surplus			0.0	2,320	3,348	-7.7		
	Jan	Surplus			0.0	2,524	3,782	-7.7		
	Feb	Balanced	20.0	8.9	-11.1	2,879	4,054	3.4		
	Mar	Surplus			0.0	3,312	4,450	3.4		
	Apr	Surplus			0.0	3,459	4,552	3.4		
	May	Surplus			0.0	3,357	4,552	3.4		
	Jun	Balanced	25.7	13.8	-11.9	2,993	4,500	15.3		
	Jul	Balanced	28.5	28.5	0.0	2,590	4,150	15.3		
	Aug	Balanced	7.1	20.1	12.9	2,228	3,700	2.4		
	Sep	Balanced	2.8	13.9	11.0	2,116	3,400	-8.7		

Appendix C-3 CALSIM II Modeling

Existing Alt 1 & 2 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			Difference (TAF)	Accumulated Difference (TAF)	
			CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	CCWD Div. Div. Op. Alt (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Shasta Storage (TAF)			
1931	Oct	Balanced	1.3	3.9	2.6	2,069	3,250	-11.3			
	Nov	Balanced	9.3	4.0	-5.3	2,055	3,252	-6.0			
	Dec	Balanced	8.8	6.5	-2.3	2,041	3,370	-3.6			
	Jan	Surplus			0.0	2,114	3,828	-3.6			
	Feb	Balanced	7.3	2.8	-4.6	2,199	4,256	0.9			
	Mar	Balanced	8.8	2.9	-5.9	2,361	4,552	6.9			
	Apr	Balanced	10.7	2.8	-7.8	2,099	4,552	14.7			
	May	Surplus			0.0	1,820	4,552	14.7			
	Jun	Balanced	15.1	15.1	0.0	1,522	4,500	14.7			
	Jul	Balanced	16.2	16.2	0.0	1,064	4,150	14.7			
	Aug	Balanced	15.8	15.8	0.0	742	3,700	14.7			
	Sep	Balanced	14.0	14.0	0.0	643	3,400	14.7			
1932	Oct	Balanced	12.1	12.1	0.0	629	3,250	14.7			
	Nov	Balanced	9.8	9.8	0.0	626	3,252	14.7			
	Dec	Surplus			0.0	817	3,359	14.7			
	Jan	Surplus			0.0	1,002	3,818	14.7			
	Feb	Balanced	8.9	18.0	9.1	1,117	4,251	5.6			
	Mar	Balanced	12.2	12.2	0.0	1,528	4,439	5.6			
	Apr	Balanced	4.3	0.0	-4.3	1,679	4,552	9.9			
	May	Surplus			0.0	1,867	4,552	9.9			
	Jun	Balanced	25.7	25.7	0.0	1,700	4,500	9.9			
	Jul	Balanced	28.5	28.5	0.0	1,431	4,150	9.9			
	Aug	Balanced	28.1	28.1	0.0	1,174	3,700	9.9			
	Sep	Balanced	5.6	18.5	12.9	1,045	3,400	-3.1			
1933	Oct	Balanced	2.1	6.9	4.8	972	3,250	-7.8			
	Nov	Balanced	1.9	2.6	0.7	957	3,252	-8.6			
	Dec	Surplus			0.0	945	3,370	-8.6			
	Jan	Surplus			0.0	969	3,828	-8.6			
	Feb	Surplus			0.0	1,008	4,256	-8.6			
	Mar	Surplus			0.0	1,593	4,310	-8.6			
	Apr	Balanced	0.0	0.0	0.0	1,722	4,552	-8.6			
	May	Balanced	13.6	13.6	0.0	1,785	4,552	-8.6			
	Jun	Balanced	27.0	20.4	-6.5	1,658	4,500	-2.0			
	Jul	Balanced	16.2	16.2	0.0	1,351	4,150	-2.0			
	Aug	Balanced	12.7	15.8	3.1	962	3,700	-5.1			
	Sep	Balanced	6.6	14.0	7.4	812	3,400	-12.5			

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Appendix C-3 CALSIM II Modeling

Existing Alt 1 & 2 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			Difference (TAF)	Accumulated Difference (TAF)	
			CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	CCWD Div. Div. Op. Alt (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Shasta Storage (TAF)			
1934	Oct	Balanced	10.3	5.9	-4.4	726	3,250	-8.1			
	Nov	Balanced	9.8	3.3	-6.5	677	3,252	-1.6			
	Dec	Surplus			0.0	800	3,368	-1.6			
	Jan	Surplus			0.0	1,095	3,814	-1.6			
	Feb	Surplus			0.0	1,420	4,091	-1.6			
	Mar	Balanced	14.1	8.8	-5.3	1,716	4,552	3.7			
	Apr	Balanced	0.0	0.0	0.0	1,808	4,552	3.7			
	May	Balanced	13.6	13.6	0.0	1,653	4,552	3.7			
	Jun	Balanced	17.3	15.1	-2.3	1,293	4,500	5.9			
	Jul	Balanced	16.2	16.2	0.0	891	4,150	5.9			
	Aug	Balanced	10.8	15.8	4.9	607	3,700	1.0			
	Sep	Balanced	13.3	14.0	0.7	603	3,400	0.2			
1935	Oct	Balanced	12.1	12.1	-0.1	587	3,250	0.3			
	Nov	Balanced	9.8	9.7	-0.1	688	3,252	0.4			
	Dec	Surplus			0.0	725	3,370	0.4			
	Jan	Surplus			0.0	1,010	3,788	0.4			
	Feb	Balanced	8.9	8.9	0.0	1,339	4,123	0.4			
	Mar	Surplus			0.0	1,727	4,482	0.4			
	Apr	Surplus			0.0	2,723	4,491	0.4			
	May	Balanced	12.8	12.5	-0.3	2,946	4,552	0.7			
	Jun	Surplus			0.0	2,650	4,500	0.7			
	Jul	Balanced	27.8	27.8	0.0	2,300	4,150	0.7			
	Aug	Balanced	23.5	23.5	0.0	1,955	3,700	0.7			
	Sep	Balanced	3.1	12.1	9.0	1,785	3,400	-8.3			
1936	Oct	Balanced	2.1	6.6	4.6	1,759	3,250	-12.9			
	Nov	Balanced	1.9	4.7	2.8	1,728	3,252	-15.7			
	Dec	Balanced	6.4	9.9	3.5	1,736	3,370	-19.2			
	Jan	Surplus			0.0	2,359	3,698	-19.2			
	Feb	Surplus			0.0	3,238	3,588	-19.2			
	Mar	Surplus			0.0	3,518	4,410	-19.2			
	Apr	Surplus			0.0	3,739	4,552	-19.2			
	May	Surplus			0.0	3,627	4,552	-19.2			
	Jun	Surplus			0.0	3,413	4,500	-19.2			
	Jul	Balanced	24.8	16.3	-8.5	2,941	4,150	-10.7			
	Aug	Balanced	16.5	16.5	0.0	2,519	3,700	-10.7			
	Sep	Balanced	3.5	13.9	10.4	2,357	3,400	-21.1			

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Appendix C-3 CALSIM II Modeling

Existing Alt 1 & 2 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			Difference (TAF)	Accumulated Difference (TAF)	
			CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	CCWD Div. Base (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)				
1937	Oct	Balanced	2.1	6.2	4.1	2,249	3,250	-25.2			
	Nov	Balanced	2.2	4.9	2.7	2,158	3,252	-27.8			
	Dec	Balanced	5.8	15.9	10.1	2,117	3,370	-38.0			
	Jan	Surplus			0.0	2,096	3,828	-38.0			
	Feb	Surplus			0.0	2,188	4,256	-38.0			
	Mar	Surplus			0.0	2,832	4,279	-38.0			
	Apr	Surplus			0.0	3,470	4,552	-38.0			
	May	Surplus			0.0	3,618	4,552	-38.0			
	Jun	Balanced	25.1	22.9	-2.2	3,423	4,500	-35.7			
	Jul	Balanced	27.8	16.3	-11.5	3,034	4,150	-24.3			
	Aug	Balanced	23.3	16.5	-6.8	2,610	3,700	-17.5			
	Sep	Balanced	6.6	14.0	7.4	2,424	3,400	-24.9			
1938	Oct	Balanced	2.8	7.5	4.7	2,378	3,250	-29.6			
	Nov	Surplus			0.0	2,896	3,252	-29.6			
	Dec	Surplus			0.0	3,310	3,310	0.0			
	Jan	Surplus			0.0	3,641	3,668	0.0			
	Feb	Surplus			0.0	3,560	3,560	0.0			
	Mar	Surplus			0.0	3,416	3,416	0.0			
	Apr	Surplus			0.0	4,058	4,058	0.0			
	May	Surplus			0.0	4,552	4,552	0.0			
	Jun	Surplus			0.0	4,466	4,500	0.0			
	Jul	Balanced	15.5	15.5	0.0	4,064	4,150	0.0			
	Aug	Balanced	16.3	16.3	0.0	3,638	3,700	0.0			
	Sep	Surplus			0.0	3,400	3,400	0.0			
1939	Oct	Surplus			0.0	3,250	3,250	0.0			
	Nov	Balanced	8.2	8.2	0.0	3,200	3,252	0.0			
	Dec	Surplus			0.0	3,310	3,370	0.0			
	Jan	Surplus			0.0	3,504	3,828	0.0			
	Feb	Balanced	5.1	5.1	0.0	3,634	4,256	0.0			
	Mar	Balanced	6.8	6.8	0.0	4,031	4,495	0.0			
	Apr	Balanced	0.0	0.0	0.0	3,831	4,552	0.0			
	May	Balanced	12.2	12.2	0.0	3,533	4,552	0.0			
	Jun	Balanced	25.1	25.1	0.0	3,073	4,500	0.0			
	Jul	Balanced	14.5	17.1	2.5	2,517	4,150	-2.5			
	Aug	Balanced	5.3	15.8	10.5	2,179	3,700	-13.0			
	Sep	Balanced	3.0	8.4	5.4	2,101	3,400	-18.4			

Existing Alt 1 & 2 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			Difference (TAF)	Accumulated Difference (TAF)	
			CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	CCWD Div. Base (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)				
1940	Oct	Balanced	2.5	4.7	2.3	1,995	3,250	-20.7			
	Nov	Balanced	3.8	5.1	1.3	1,913	3,252	-22.0			
	Dec	Balanced	3.9	6.2	2.3	2,044	3,370	-24.3			
	Jan	Surplus			0.0	2,921	3,629	-24.3			
	Feb	Surplus			0.0	3,252	3,252	0.0			
	Mar	Surplus			0.0	3,435	3,435	0.0			
	Apr	Surplus			0.0	4,143	4,534	0.0			
	May	Surplus			0.0	4,074	4,552	0.0			
	Jun	Balanced	24.9	23.9	-1.0	3,754	4,500	1.0			
	Jul	Balanced	27.3	15.8	-11.5	3,233	4,150	12.5			
	Aug	Balanced	19.4	16.5	-2.8	2,842	3,700	15.3			
	Sep	Balanced	3.5	11.2	7.7	2,733	3,400	7.6			
1941	Oct	Balanced	2.2	5.1	3.0	2,718	3,250	4.7			
	Nov	Balanced	3.3	4.4	1.0	2,727	3,252	3.6			
	Dec	Surplus			0.0	3,293	3,293	0.0			
	Jan	Surplus			0.0	3,317	3,317	0.0			
	Feb	Surplus			0.0	3,423	3,423	0.0			
	Mar	Surplus			0.0	3,940	3,940	0.0			
	Apr	Surplus			0.0	4,456	4,456	0.0			
	May	Surplus			0.0	4,552	4,552	0.0			
	Jun	Surplus			0.0	4,485	4,500	0.0			
	Jul	Balanced	15.5	15.5	0.0	4,150	4,150	0.0			
	Aug	Balanced	16.3	16.3	0.0	3,651	3,700	0.0			
	Sep	Surplus			0.0	3,400	3,400	0.0			
1942	Oct	Surplus			0.0	3,250	3,250	0.0			
	Nov	Balanced	3.7	8.1	4.4	3,222	3,252	-4.4			
	Dec	Surplus			0.0	3,316	3,316	0.0			
	Jan	Surplus			0.0	3,389	3,389	0.0			
	Feb	Surplus			0.0	3,516	3,516	0.0			
	Mar	Surplus			0.0	3,894	4,360	0.0			
	Apr	Surplus			0.0	4,531	4,552	0.0			
	May	Surplus			0.0	4,552	4,552	0.0			
	Jun	Surplus			0.0	4,457	4,500	0.0			
	Jul	Balanced	16.5	15.5	-1.0	4,065	4,150	1.0			
	Aug	Balanced	16.3	16.3	0.0	3,700	3,700	0.0			
	Sep	Surplus			0.0	3,400	3,400	0.0			

Appendix C-3 CALSIM II Modeling

Existing Alt 1 & 2 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CCWD Div.			Shasta Storage Changes			Shasta Storage Changes		
			Base (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)
1943	Oct	Surplus	3.3	7.2	3.8	3,135	3,250	-12.3	3,250	3,250	0.0
	Nov	Surplus	2.8	4.9	2.1	3,144	3,252	-14.4	3,252	3,252	0.0
	Dec	Surplus	3.6	4.8	1.1	3,111	3,370	-15.5	3,370	3,370	0.0
	Jan	Surplus			0.0	3,178	3,828	-15.5	3,828	3,828	0.0
	Feb	Surplus	12.2	12.2	0.0	3,412	4,197	-15.5	4,197	4,197	0.0
	Mar	Balanced			0.0	3,646	4,552	-15.5	4,552	4,552	0.0
	Apr	Surplus			0.0	3,633	4,552	-15.5	4,552	4,552	0.0
	May	Surplus			0.0	3,536	4,552	-15.5	4,552	4,552	0.0
	Jun	Balanced	25.7	25.7	0.0	3,279	4,500	-15.5	4,500	4,500	0.0
	Jul	Balanced	28.5	21.2	-7.3	2,905	4,150	-8.2	4,150	4,150	0.0
	Aug	Balanced	5.8	16.5	10.8	2,577	3,700	-19.0	3,700	3,700	0.0
	Sep	Balanced	2.4	7.1	4.7	2,448	3,400	-23.7	3,400	3,400	0.0
1944	Oct	Balanced	2.3	4.4	2.2	2,442	3,250	-25.9	3,250	3,250	0.0
	Nov	Surplus			0.0	2,611	3,252	-25.9	3,252	3,252	0.0
	Dec	Surplus			0.0	2,895	3,352	-25.9	3,352	3,352	0.0
	Jan	Surplus			0.0	3,096	3,791	-25.9	3,791	3,791	0.0
	Feb	Surplus			0.0	3,802	3,948	-25.9	3,948	3,948	0.0
	Mar	Balanced	11.3	5.7	-5.7	4,035	4,454	-20.2	4,454	4,454	0.0
	Apr	Surplus			0.0	4,213	4,552	-20.2	4,552	4,552	0.0
	May	Surplus			0.0	4,226	4,552	-20.2	4,552	4,552	0.0
	Jun	Balanced	25.1	23.0	-2.1	3,993	4,500	-18.1	4,500	4,500	0.0
	Jul	Balanced	27.8	16.3	-11.5	3,451	4,150	-6.7	4,150	4,150	0.0
	Aug	Balanced	11.8	16.5	4.7	3,045	3,700	-11.4	3,700	3,700	0.0
	Sep	Balanced	3.5	10.5	7.0	2,880	3,400	-18.4	3,400	3,400	0.0

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Appendix C-3 CALSIM II Modeling

Existing Alt 1 & 2 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CCWD Div.			Shasta Storage Changes			Shasta Storage Changes		
			Base (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)
1946	Oct	Balanced	2.3	6.1	3.8	2,903	3,250	-22.2	3,250	3,250	0.0
	Nov	Balanced	8.9	6.3	-2.6	3,127	3,252	-19.6	3,252	3,252	0.0
	Dec	Surplus			0.0	3,265	3,265	0.0	3,265	3,265	0.0
	Jan	Surplus			0.0	3,622	3,622	0.0	3,622	3,622	0.0
	Feb	Balanced	7.6	5.7	-2.0	3,551	4,073	2.0	4,073	4,073	2.0
	Mar	Balanced	11.3	5.8	-5.5	3,942	4,453	7.5	4,453	4,453	7.5
	Apr	Surplus			0.0	4,142	4,552	7.5	4,552	4,552	7.5
	May	Surplus			0.0	4,070	4,552	7.5	4,552	4,552	7.5
	Jun	Balanced	25.1	23.0	-2.1	3,706	4,500	9.6	4,500	4,500	9.6
	Jul	Balanced	23.8	16.3	-7.5	3,254	4,150	17.1	4,150	4,150	17.1
	Aug	Balanced	10.7	16.5	5.9	2,891	3,700	11.2	3,700	3,700	11.2
	Sep	Balanced	3.9	11.1	7.2	2,752	3,400	4.0	3,400	3,400	4.0
1947	Oct	Balanced	2.9	6.4	3.5	2,677	3,250	0.4	3,250	3,250	0.4
	Nov	Balanced	4.4	6.6	2.2	2,732	3,252	-1.8	3,252	3,252	-1.8
	Dec	Surplus			0.0	2,798	3,370	-1.8	3,370	3,370	-1.8
	Jan	Surplus			0.0	2,810	3,828	-1.8	3,828	3,828	-1.8
	Feb	Balanced	14.5	6.8	-7.7	3,022	4,188	5.9	4,188	4,188	5.9
	Mar	Balanced	12.2	6.8	-5.4	3,490	4,438	11.3	4,438	4,438	11.3
	Apr	Balanced	0.0	0.0	0.0	3,652	4,552	11.3	4,552	4,552	11.3
	May	Surplus			0.0	3,305	4,552	11.3	4,552	4,552	11.3
	Jun	Balanced	25.7	14.3	-11.4	3,089	4,500	22.7	4,500	4,500	22.7
	Jul	Balanced	27.3	27.8	0.5	2,649	4,150	22.2	4,150	4,150	22.2
	Aug	Balanced	4.0	15.8	11.8	2,329	3,700	10.3	3,700	3,700	10.3
	Sep	Balanced	1.9	6.7	4.8	2,241	3,400	5.6	3,400	3,400	5.6
1948	Oct	Balanced	1.8	4.1	2.3	2,329	3,250	3.2	3,250	3,250	3.2
	Nov	Balanced	4.2	6.3	2.1	2,342	3,252	1.2	3,252	3,252	1.2
	Dec	Balanced	4.9	8.6	3.7	2,362	3,370	-2.5	3,370	3,370	-2.5
	Jan	Surplus			0.0	2,923	3,752	-2.5	3,752	3,752	-2.5
	Feb	Balanced	6.8	3.9	-2.9	2,701	4,254	0.4	4,254	4,254	0.4
	Mar	Balanced	18.0	5.7	-12.3	2,996	4,479	12.7	4,479	4,479	12.7
	Apr	Surplus			0.0	3,897	4,422	12.7	4,422	4,422	12.7
	May	Surplus			0.0	4,250	4,552	12.7	4,552	4,552	12.7
	Jun	Surplus			0.0	4,265	4,500	12.7	4,500	4,500	12.7
	Jul	Balanced	27.8	27.8	0.0	3,909	4,150	12.7	4,150	4,150	12.7
	Aug	Balanced	13.9	23.5	9.6	3,534	3,700	3.0	3,700	3,700	3.0
	Sep	Balanced	3.7	11.8	8.1	3,400	3,400	0.0	3,400	3,400	0.0

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Appendix C-3 CALSIM II Modeling

Existing Alt 1 & 2 CVP Contract Water Use Analysis										
CVP Delivery Reductions										
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			Accumulated Difference (TAF)	
			CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)			
1949	Oct	Balanced	3.0	6.9	3.8	3,246	3,250	-3.8		
	Nov	Balanced	8.3	6.0	-2.3	3,216	3,252	-1.5		
	Dec	Surplus			0.0	3,203	3,370	-1.5		
	Jan	Surplus			0.0	3,197	3,828	-1.5		
	Feb	Balanced	2.6	0.4	-2.3	3,318	4,194	0.8		
	Mar	Surplus			0.0	4,071	4,071	0.0		
	Apr	Surplus			0.0	4,392	4,552	0.0		
	May	Surplus			0.0	4,340	4,552	0.0		
	Jun	Balanced	25.7	25.1	-0.6	3,951	4,500	0.6		
	Jul	Balanced	28.5	17.1	-11.5	3,289	4,150	12.0		
	Aug	Balanced	8.3	16.5	8.3	2,882	3,700	3.8		
	Sep	Balanced	5.8	14.4	8.6	2,731	3,400	-4.8		
1950	Oct	Balanced	2.8	6.4	3.6	2,632	3,250	-8.4		
	Nov	Balanced	2.9	5.0	2.1	2,571	3,252	-10.5		
	Dec	Surplus			0.0	2,523	3,370	-10.5		
	Jan	Surplus			0.0	2,769	3,763	-10.5		
	Feb	Surplus			0.0	3,126	4,054	-10.5		
	Mar	Balanced	16.2	6.8	-9.3	3,498	4,366	-1.2		
	Apr	Surplus			0.0	3,836	4,552	-1.2		
	May	Surplus			0.0	3,792	4,552	-1.2		
	Jun	Surplus			0.0	3,510	4,500	-1.2		
	Jul	Balanced	27.8	16.3	-11.5	3,141	4,150	10.3		
	Aug	Balanced	15.6	16.5	1.0	2,806	3,700	9.3		
	Sep	Balanced	5.0	13.9	8.9	2,723	3,400	0.4		
1951	Oct	Balanced	3.6	8.1	4.6	3,007	3,250	-4.1		
	Nov	Surplus			0.0	3,252	3,252	0.0		
	Dec	Surplus			0.0	3,322	3,322	0.0		
	Jan	Surplus			0.0	3,624	3,624	0.0		
	Feb	Surplus			0.0	3,794	3,794	0.0		
	Mar	Surplus			0.0	4,181	4,352	0.0		
	Apr	Surplus			0.0	4,265	4,552	0.0		
	May	Surplus			0.0	4,283	4,552	0.0		
	Jun	Balanced	21.9	21.9	0.0	3,938	4,500	0.0		
	Jul	Balanced	15.8	15.8	0.0	3,292	4,150	0.0		
	Aug	Balanced	16.5	16.5	0.0	2,905	3,700	0.0		
	Sep	Balanced	4.3	12.5	8.2	2,804	3,400	-8.2		

Appendix C-3 CALSIM II Modeling

Existing Alt 1 & 2 CVP Contract Water Use Analysis										
CVP Delivery Reductions										
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			Accumulated Difference (TAF)	
			CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)			
1952	Oct	Balanced	3.2	7.1	3.9	2,810	3,250	-12.1		
	Nov	Balanced	3.1	6.5	3.4	2,966	3,252	-15.5		
	Dec	Surplus			0.0	3,306	3,306	0.0		
	Jan	Surplus			0.0	3,604	3,604	0.0		
	Feb	Surplus			0.0	3,739	3,739	0.0		
	Mar	Surplus			0.0	4,022	4,022	0.0		
	Apr	Surplus			0.0	4,290	4,290	0.0		
	May	Surplus			0.0	4,552	4,552	0.0		
	Jun	Surplus			0.0	4,401	4,500	0.0		
	Jul	Balanced	15.5	15.5	0.0	4,150	4,150	0.0		
	Aug	Balanced	16.3	16.3	0.0	3,700	3,700	0.0		
	Sep	Surplus			0.0	3,400	3,400	0.0		
1953	Oct	Surplus			0.0	3,250	3,250	0.0		
	Nov	Balanced	8.0	8.0	0.0	3,217	3,252	0.0		
	Dec	Surplus			0.0	3,345	3,345	0.0		
	Jan	Surplus			0.0	3,366	3,366	0.0		
	Feb	Surplus			0.0	3,714	3,960	0.0		
	Mar	Surplus			0.0	4,116	4,324	0.0		
	Apr	Surplus			0.0	4,452	4,552	0.0		
	May	Surplus			0.0	4,552	4,552	0.0		
	Jun	Surplus			0.0	4,500	4,500	0.0		
	Jul	Balanced	15.5	15.5	0.0	4,053	4,150	0.0		
	Aug	Balanced	16.3	16.3	0.0	3,700	3,700	0.0		
	Sep	Surplus			0.0	3,400	3,400	0.0		
1954	Oct	Balanced	6.7	11.7	5.0	3,250	3,250	0.0		
	Nov	Surplus			0.0	3,252	3,252	0.0		
	Dec	Surplus			0.0	3,364	3,364	0.0		
	Jan	Surplus			0.0	3,552	3,552	0.0		
	Feb	Surplus			0.0	3,661	3,661	0.0		
	Mar	Surplus			0.0	4,106	4,106	0.0		
	Apr	Surplus			0.0	4,546	4,546	0.0		
	May	Balanced	9.2	9.2	0.0	4,311	4,552	0.0		
	Jun	Balanced	21.8	21.8	0.0	4,124	4,500	0.0		
	Jul	Balanced	15.8	15.8	0.0	3,520	4,150	0.0		
	Aug	Balanced	16.5	16.5	0.0	3,199	3,700	0.0		
	Sep	Balanced	4.5	14.0	9.6	3,170	3,400	-9.6		

Appendix C-3 CALSIM II Modeling

Existing Alt 1 & 2 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			Difference (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)
			CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	CCWD Div. Div. Op. Alt (TAF)	Original Shasta Storage (TAF)	Shasta Storage (TAF)				
1955	Oct	Balanced	3.2	6.7	3.5	3,094	3,250	3,250	-13.0		
	Nov	Balanced	3.6	7.0	3.4	3,212	3,252	3,252	-16.4		
	Dec	Surplus			0.0	3,360	3,360	3,360	0.0		
	Jan	Surplus			0.0	3,427	3,813	3,813	0.0		
	Feb	Balanced	16.1	5.0	-11.0	3,507	4,234	4,234	11.0		
	Mar	Balanced	9.5	6.9	-2.6	3,661	4,552	4,552	13.6		
	Apr	Balanced	0.0	0.0	0.0	3,684	4,552	4,552	13.6		
	May	Surplus			0.0	3,766	4,552	4,552	13.6		
	Jun	Balanced	24.9	24.9	0.0	3,451	4,500	4,500	13.6		
	Jul	Balanced	17.1	17.1	0.0	2,951	4,150	4,150	13.6		
	Aug	Balanced	12.4	16.5	4.1	2,650	3,700	3,700	9.5		
	Sep	Balanced	5.6	14.4	8.8	2,579	3,400	3,400	0.7		
1956	Oct	Balanced	2.5	5.0	2.5	2,554	3,250	3,250	-1.7		
	Nov	Balanced	3.3	4.9	1.7	2,616	3,252	3,252	-3.4		
	Dec	Surplus			0.0	3,252	3,252	3,252	0.0		
	Jan	Surplus			0.0	3,252	3,252	3,252	0.0		
	Feb	Surplus			0.0	3,288	3,288	3,288	0.0		
	Mar	Surplus			0.0	3,946	4,014	4,014	0.0		
	Apr	Surplus			0.0	4,459	4,552	4,552	0.0		
	May	Surplus			0.0	4,552	4,552	4,552	0.0		
	Jun	Surplus			0.0	4,376	4,500	4,500	0.0		
	Jul	Balanced	15.5	15.5	0.0	4,046	4,150	4,150	0.0		
	Aug	Balanced	16.3	16.3	0.0	3,700	3,700	3,700	0.0		
	Sep	Surplus			0.0	3,400	3,400	3,400	0.0		
1957	Oct	Surplus			0.0	3,250	3,250	3,250	0.0		
	Nov	Balanced	8.2	8.2	0.0	3,187	3,252	3,252	0.0		
	Dec	Surplus			0.0	3,208	3,370	3,370	0.0		
	Jan	Surplus			0.0	3,317	3,828	3,828	0.0		
	Feb	Surplus			0.0	3,675	3,675	3,675	0.0		
	Mar	Surplus			0.0	4,129	4,129	4,129	0.0		
	Apr	Balanced	0.0	0.0	0.0	4,139	4,552	4,552	0.0		
	May	Surplus			0.0	4,392	4,552	4,552	0.0		
	Jun	Balanced	21.6	21.6	0.0	4,221	4,500	4,500	0.0		
	Jul	Balanced	15.8	15.8	0.0	3,615	4,150	4,150	0.0		
	Aug	Balanced	16.5	16.5	0.0	3,255	3,700	3,700	0.0		
	Sep	Balanced	3.5	12.0	8.5	3,284	3,400	3,400	-8.5		

Appendix C-3 CALSIM II Modeling

Existing Alt 1 & 2 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			Difference (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)
			CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	CCWD Div. Div. Op. Alt (TAF)	Original Shasta Storage (TAF)	Shasta Storage (TAF)				
1958	Oct	Surplus			0.0	3,250	3,250	3,250	0.0		
	Nov	Balanced	8.3	15.4	7.1	3,236	3,252	3,252	-7.1		
	Dec	Surplus			0.0	3,338	3,338	3,338	0.0		
	Jan	Surplus			0.0	3,531	3,531	3,531	0.0		
	Feb	Surplus			0.0	3,252	3,252	3,252	0.0		
	Mar	Surplus			0.0	3,416	3,416	3,416	0.0		
	Apr	Surplus			0.0	4,173	4,173	4,173	0.0		
	May	Surplus			0.0	4,552	4,552	4,552	0.0		
	Jun	Surplus			0.0	4,500	4,500	4,500	0.0		
	Jul	Balanced	15.5	15.5	0.0	4,150	4,150	4,150	0.0		
	Aug	Surplus			0.0	3,700	3,700	3,700	0.0		
	Sep	Surplus			0.0	3,400	3,400	3,400	0.0		
1959	Oct	Surplus			0.0	3,250	3,250	3,250	0.0		
	Nov	Balanced	8.2	8.2	0.0	3,196	3,252	3,252	0.0		
	Dec	Surplus			0.0	3,233	3,370	3,370	0.0		
	Jan	Surplus			0.0	3,648	3,648	3,648	0.0		
	Feb	Surplus			0.0	3,777	3,777	3,777	0.0		
	Mar	Balanced	5.8	5.8	0.0	3,987	4,378	4,378	0.0		
	Apr	Surplus			0.0	4,036	4,552	4,552	0.0		
	May	Surplus			0.0	3,829	4,552	4,552	0.0		
	Jun	Balanced	23.0	23.0	0.0	3,334	4,500	4,500	0.0		
	Jul	Balanced	16.3	16.3	0.0	2,764	4,150	4,150	0.0		
	Aug	Balanced	14.6	16.5	2.0	2,345	3,700	3,700	-2.0		
	Sep	Balanced	3.1	10.9	7.7	2,480	3,400	3,400	-9.7		
1960	Oct	Balanced	2.0	5.1	3.2	2,399	3,250	3,250	-12.9		
	Nov	Balanced	2.2	4.1	1.9	2,318	3,252	3,252	-14.8		
	Dec	Balanced	8.2	8.1	-0.1	2,310	3,370	3,370	-14.7		
	Jan	Surplus			0.0	2,509	3,783	3,783	-14.7		
	Feb	Surplus			0.0	3,219	3,994	3,994	-14.7		
	Mar	Balanced	12.2	12.2	0.0	3,830	4,273	4,273	-14.7		
	Apr	Balanced	0.0	0.0	0.0	3,951	4,552	4,552	-14.7		
	May	Surplus			0.0	3,945	4,552	4,552	-14.7		
	Jun	Balanced	25.7	25.7	0.0	3,610	4,500	4,500	-14.7		
	Jul	Balanced	14.9	27.9	13.0	3,010	4,150	4,150	-27.7		
	Aug	Balanced	5.8	16.3	10.5	2,643	3,700	3,700	-38.2		
	Sep	Balanced	4.4	14.7	10.3	2,559	3,400	3,400	-48.6		

Appendix C-3 CALSIM II Modeling

Existing Alt 1 & 2 CVP Contract Water Use Analysis									
CVP Delivery Reductions					Shasta Storage Changes				
Year	Month	Delta Condition	CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	
1961	Oct	Balanced	2.5	5.3	2.8	2,497	3,250	-51.4	
	Nov	Balanced	9.5	7.1	-2.5	2,573	3,252	-48.9	
	Dec	Surplus			0.0	3,000	3,350	-48.9	
	Jan	Surplus			0.0	3,210	3,751	-48.9	
	Feb	Surplus			0.0	3,914	3,914	0.0	
	Mar	Balanced	12.2	6.8	-5.3	4,280	4,280	0.0	
	Apr	Balanced	4.4	-4.4	4.336	4,336	4,552	4.4	
	May	Balanced	12.6	-0.3	4,308	4,552	4,552	4.7	
	Jun	Balanced	25.7	18.8	-6.9	3,912	4,500	11.6	
	Jul	Balanced	23.0	23.3	0.3	3,275	4,150	11.3	
	Aug	Balanced	4.4	15.8	11.4	2,793	3,700	-0.1	
	Sep	Balanced	8.3	9.1	0.8	2,693	3,400	6.7	
1962	Oct	Balanced	12.2	4.6	-7.6	2,498	3,250	-6.9	
	Nov	Balanced	9.6	6.2	-3.4	2,443	3,252	10.1	
	Dec	Surplus			0.0	2,743	3,356	10.1	
	Jan	Balanced	8.5	8.5	0.0	2,844	3,819	10.1	
	Feb	Surplus			0.0	3,675	3,675	0.0	
	Mar	Balanced	16.4	10.4	-6.0	4,120	4,292	6.0	
	Apr	Surplus			0.0	4,393	4,552	6.0	
	May	Surplus			0.0	4,299	4,552	6.0	
	Jun	Balanced	25.1	23.0	-2.1	3,964	4,500	8.1	
	Jul	Balanced	27.8	16.3	-11.5	3,395	4,150	19.5	
	Aug	Balanced	7.9	16.5	8.6	3,010	3,700	10.9	
	Sep	Balanced	2.6	8.2	5.6	2,909	3,400	5.4	
1963	Oct	Surplus			0.0	3,250	3,250	0.0	
	Nov	Surplus			0.0	3,252	3,252	0.0	
	Dec	Surplus			0.0	3,349	3,349	0.0	
	Jan	Surplus			0.0	3,459	3,764	0.0	
	Feb	Surplus			0.0	3,944	3,944	0.0	
	Mar	Balanced	5.0	5.0	0.0	4,036	4,226	0.0	
	Apr	Surplus			0.0	4,137	4,137	0.0	
	May	Surplus			0.0	4,422	4,552	0.0	
	Jun	Balanced	19.4	19.4	0.0	4,214	4,500	0.0	
	Jul	Balanced	15.5	15.5	0.0	3,697	4,150	0.0	
	Aug	Balanced	16.3	16.3	0.0	3,390	3,700	0.0	
	Sep	Balanced	7.1	13.5	6.5	3,368	3,400	-6.5	

Appendix C-3 CALSIM II Modeling

Existing Alt 1 & 2 CVP Contract Water Use Analysis									
CVP Delivery Reductions					Shasta Storage Changes				
Year	Month	Delta Condition	CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	
1964	Oct	Balanced	2.5	7.3	4.7	3,250	3,250	0.0	
	Nov	Surplus			0.0	3,252	3,252	0.0	
	Dec	Surplus			0.0	3,321	3,366	0.0	
	Jan	Surplus			0.0	3,687	3,705	0.0	
	Feb	Balanced	5.2	5.2	0.0	3,850	4,194	0.0	
	Mar	Balanced	6.9	6.9	0.0	4,000	4,552	0.0	
	Apr	Balanced	0.0	0.0	0.0	3,676	4,552	0.0	
	May	Surplus			0.0	3,456	4,552	0.0	
	Jun	Balanced	25.1	25.1	0.0	3,223	4,500	0.0	
	Jul	Balanced	16.5	17.1	0.6	2,757	4,150	-0.6	
	Aug	Balanced	4.0	14.4	10.4	2,448	3,700	-11.0	
	Sep	Balanced	2.6	8.2	5.6	2,358	3,400	-16.6	
1965	Oct	Balanced	2.0	4.5	2.5	2,361	3,250	-19.1	
	Nov	Surplus			0.0	2,466	3,252	-19.1	
	Dec	Surplus			0.0	3,252	3,252	0.0	
	Jan	Surplus			0.0	3,368	3,368	0.0	
	Feb	Surplus			0.0	3,803	3,913	0.0	
	Mar	Balanced	10.9	5.2	-5.7	3,898	4,547	5.7	
	Apr	Surplus			0.0	4,500	4,500	0.0	
	May	Balanced	9.2	9.2	0.0	4,434	4,552	0.0	
	Jun	Balanced	23.6	19.9	-3.6	4,132	4,500	3.6	
	Jul	Balanced	21.7	15.5	-6.2	3,528	4,150	9.8	
	Aug	Balanced	16.3	16.3	0.0	3,271	3,700	9.8	
	Sep	Balanced	4.8	13.5	8.7	3,214	3,400	1.1	
1966	Oct	Balanced	3.0	6.4	3.4	3,200	3,250	-2.3	
	Nov	Surplus			0.0	3,252	3,252	0.0	
	Dec	Surplus			0.0	3,326	3,359	0.0	
	Jan	Surplus			0.0	3,725	3,725	0.0	
	Feb	Balanced	4.4	5.0	0.6	4,037	4,037	0.0	
	Mar	Balanced	6.6	5.9	-0.6	4,229	4,229	0.0	
	Apr	Surplus			0.0	4,552	4,552	0.0	
	May	Surplus			0.0	4,417	4,552	0.0	
	Jun	Balanced	23.0	23.0	0.0	3,935	4,500	0.0	
	Jul	Balanced	16.3	16.3	0.0	3,305	4,150	0.0	
	Aug	Balanced	10.2	16.5	6.3	2,920	3,700	-6.3	
	Sep	Balanced	3.8	10.8	7.0	2,844	3,400	-13.3	

Appendix C-3 CALSIM II Modeling

Existing Alt 1 & 2 CVP Contract Water Use Analysis											
		CVP Delivery Reductions					Shasta Storage Changes				
Year	Month	Delta Condition	CCWD Div. Base (TAF)	CCWD Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control	Accumulated Difference (TAF)	Original Shasta Storage (TAF)	Flood Control	Accumulated Difference (TAF)
1967	Oct	Balanced	3.4	6.1	2.7	2,737	3,250	-16.0	3,250	3,250	0.0
	Nov	Surplus			0.0	3,063	3,252	-16.0	3,252	3,252	0.0
	Dec	Surplus			0.0	3,335	3,335	0.0	3,317	3,317	0.0
	Jan	Surplus			0.0	3,551	3,551	0.0	3,252	3,252	0.0
	Feb	Surplus			0.0	3,920	3,920	0.0	3,431	3,431	0.0
	Mar	Surplus			0.0	4,033	4,033	0.0	4,061	4,172	0.0
	Apr	Surplus			0.0	4,479	4,479	0.0	3,978	4,552	0.0
	May	Surplus			0.0	4,552	4,552	0.0	3,839	4,552	0.0
	Jun	Surplus			0.0	4,500	4,500	0.0	3,551	4,500	0.0
	Jul	Surplus			0.0	4,150	4,150	0.0	3,009	4,150	0.0
	Aug	Surplus			0.0	3,700	3,700	0.0	2,703	3,700	0.0
	Sep	Surplus			0.0	3,400	3,400	0.0	2,667	3,400	-8.0
1968	Oct	Surplus			0.0	3,250	3,250	0.0	2,696	3,250	-11.5
	Nov	Balanced	8.1	8.1	0.0	3,222	3,252	0.0	3,141	3,252	-11.5
	Dec	Surplus			0.0	3,305	3,370	0.0	3,319	3,319	0.0
	Jan	Surplus			0.0	3,545	3,792	0.0	3,515	3,515	0.0
	Feb	Surplus			0.0	3,654	3,654	0.0	3,673	3,966	0.0
	Mar	Surplus			0.0	4,191	4,248	0.0	3,873	3,873	0.0
	Apr	Balanced	0.0	0.0	0.0	4,162	4,552	0.0	4,375	4,552	0.0
	May	Surplus			0.0	4,039	4,552	0.0	4,552	4,552	0.0
	Jun	Balanced	23.0	23.0	0.0	3,665	4,500	0.0	4,500	4,500	0.0
	Jul	Balanced	16.3	16.3	0.0	3,074	4,150	0.0	4,000	4,150	0.0
	Aug	Balanced	10.4	16.4	6.0	2,767	3,700	-6.0	3,682	3,700	0.0
	Sep	Balanced	2.7	7.7	5.0	2,698	3,400	-11.0	3,400	3,400	0.0
1969	Oct	Balanced	2.7	5.5	2.7	2,616	3,250	-13.8	3,250	3,250	0.0
	Nov	Balanced	5.9	7.4	1.5	2,660	3,252	-15.2	3,200	3,252	-4.4
	Dec	Surplus			0.0	2,971	3,354	-15.2	3,327	3,365	-4.4
	Jan	Surplus			0.0	3,358	3,358	0.0	3,670	3,714	-4.4
	Feb	Surplus			0.0	3,480	3,480	0.0	3,979	3,979	0.0
	Mar	Surplus			0.0	4,030	4,030	0.0	4,249	4,249	0.0
	Apr	Surplus			0.0	4,434	4,434	0.0	4,424	4,552	0.0
	May	Surplus			0.0	4,552	4,552	0.0	4,304	4,552	0.0
	Jun	Surplus			0.0	4,399	4,500	0.0	3,830	4,500	0.0
	Jul	Balanced	15.5	15.5	0.0	4,052	4,150	0.0	3,216	4,150	0.0
	Aug	Balanced	16.3	16.3	0.0	3,684	3,700	0.0	2,917	3,700	-5.2
	Sep	Surplus			0.0	3,400	3,400	0.0	2,901	3,400	-12.0

Appendix C-3 CALSIM II Modeling

Existing Alt 1 & 2 CVP Contract Water Use Analysis											
		CVP Delivery Reductions					Shasta Storage Changes				
Year	Month	Delta Condition	CCWD Div. Base (TAF)	CCWD Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control	Accumulated Difference (TAF)	Original Shasta Storage (TAF)	Flood Control	Accumulated Difference (TAF)
1970	Oct	Surplus			0.0	3,250	3,250	0.0	3,250	3,250	0.0
	Nov	Surplus			0.0	3,247	3,252	0.0	3,247	3,252	0.0
	Dec	Surplus			0.0	3,317	3,317	0.0	3,317	3,317	0.0
	Jan	Surplus			0.0	3,252	3,252	0.0	3,252	3,252	0.0
	Feb	Surplus			0.0	3,431	3,431	0.0	3,431	3,431	0.0
	Mar	Surplus			0.0	4,061	4,172	0.0	4,061	4,172	0.0
	Apr	Balanced	0.0	0.0	0.0	3,978	4,552	0.0	3,978	4,552	0.0
	May	Surplus			0.0	3,839	4,552	0.0	3,839	4,552	0.0
	Jun	Balanced	20.2	20.2	0.0	3,551	4,500	0.0	3,551	4,500	0.0
	Jul	Balanced	15.5	15.5	0.0	3,009	4,150	0.0	3,009	4,150	0.0
	Aug	Balanced	16.3	16.3	0.0	2,703	3,700	0.0	2,703	3,700	0.0
	Sep	Balanced	5.5	13.5	8.0	2,667	3,400	-8.0	2,667	3,400	-8.0
1971	Oct	Balanced	2.5	6.0	3.5	2,696	3,250	-11.5	2,696	3,250	-11.5
	Nov	Surplus			0.0	3,141	3,252	-11.5	3,141	3,252	-11.5
	Dec	Surplus			0.0	3,319	3,319	0.0	3,319	3,319	0.0
	Jan	Surplus			0.0	3,515	3,515	0.0	3,515	3,515	0.0
	Feb	Balanced	5.1	5.1	0.0	3,673	3,966	0.0	3,673	3,966	0.0
	Mar	Surplus			0.0	3,873	3,873	0.0	3,873	3,873	0.0
	Apr	Balanced	0.0	0.0	0.0	4,375	4,552	0.0	4,375	4,552	0.0
	May	Surplus			0.0	4,552	4,552	0.0	4,552	4,552	0.0
	Jun	Balanced	20.1	20.1	0.0	4,500	4,500	0.0	4,500	4,500	0.0
	Jul	Balanced	15.5	15.5	0.0	4,000	4,150	0.0	4,000	4,150	0.0
	Aug	Balanced	16.3	16.3	0.0	3,682	3,700	0.0	3,682	3,700	0.0
	Sep	Surplus			0.0	3,400	3,400	0.0	3,400	3,400	0.0
1972	Oct	Balanced	11.3	11.7	0.5	3,250	3,250	0.0	3,250	3,250	0.0
	Nov	Balanced	3.8	8.1	4.4	3,200	3,252	-4.4	3,200	3,252	-4.4
	Dec	Surplus			0.0	3,327	3,365	-4.4	3,327	3,365	-4.4
	Jan	Surplus			0.0	3,670	3,714	-4.4	3,670	3,714	-4.4
	Feb	Balanced	14.9	1.7	-13.1	3,979	3,979	0.0	3,979	3,979	0.0
	Mar	Surplus			0.0	4,249	4,249	0.0	4,249	4,249	0.0
	Apr	Balanced	0.0	0.0	0.0	4,424	4,552	0.0	4,424	4,552	0.0
	May	Surplus			0.0	4,304	4,552	0.0	4,304	4,552	0.0
	Jun	Balanced	23.0	23.0	0.0	3,830	4,500	0.0	3,830	4,500	0.0
	Jul	Balanced	16.3	16.3	0.0	3,216	4,150	0.0	3,216	4,150	0.0
	Aug	Balanced	11.3	16.5	5.2	2,917	3,700	-5.2	2,917	3,700	-5.2
	Sep	Balanced	3.0	9.8	6.7	2,901	3,400	-12.0	2,901	3,400	-12.0

Appendix C-3 CALSIM II Modeling

Existing Alt 1 & 2 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	CVP Delivery Reductions				Shasta Storage Changes				Accumulated Difference (TAF)	
		Delta Condition	CCWD Div. Base (TAF)	CCWD Div. Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Shasta Storage Changes			
1973	Oct	Balanced	1.8	4.3	2.5	2,996	3,250	3,250	0.0	-14.4	
	Nov	Surplus			0.0	3,228	3,252	3,252	0.0	-14.4	
	Dec	Surplus			0.0	3,346	3,346	3,346	0.0	0.0	
	Jan	Surplus			0.0	3,552	3,552	3,552	0.0	0.0	
	Feb	Surplus			0.0	3,636	3,636	3,636	0.0	0.0	
	Mar	Surplus			0.0	4,162	4,162	4,162	0.0	0.0	
	Apr	Surplus			0.0	4,447	4,552	4,552	0.0	0.0	
	May	Surplus			0.0	4,424	4,552	4,552	0.0	0.0	
	Jun	Balanced	21.9	21.9	0.0	4,028	4,500	4,500	0.0	0.0	
	Jul	Balanced	15.8	15.8	0.0	3,436	4,150	4,150	0.0	0.0	
	Aug	Balanced	16.5	16.5	0.0	3,180	3,700	3,700	0.0	0.0	
	Sep	Balanced	5.3	14.0	8.7	3,144	3,400	3,400	0.0	-8.7	
1974	Oct	Balanced	2.2	5.8	3.7	3,235	3,250	3,250	0.0	-12.4	
	Nov	Surplus			0.0	3,252	3,252	3,252	0.0	0.0	
	Dec	Surplus			0.0	3,267	3,267	3,267	0.0	0.0	
	Jan	Surplus			0.0	3,252	3,252	3,252	0.0	0.0	
	Feb	Surplus			0.0	3,694	3,694	3,694	0.0	0.0	
	Mar	Surplus			0.0	3,416	3,416	3,416	0.0	0.0	
	Apr	Surplus			0.0	4,289	4,289	4,289	0.0	0.0	
	May	Surplus			0.0	4,480	4,552	4,552	0.0	0.0	
	Jun	Surplus			0.0	4,348	4,500	4,500	0.0	0.0	
	Jul	Balanced	15.5	15.5	0.0	4,116	4,150	4,150	0.0	0.0	
	Aug	Balanced	16.3	16.3	0.0	3,700	3,700	3,700	0.0	0.0	
	Sep	Surplus			0.0	3,400	3,400	3,400	0.0	0.0	
1975	Oct	Surplus			0.0	3,250	3,250	3,250	0.0	0.0	
	Nov	Balanced	8.2	8.2	0.0	3,207	3,252	3,252	0.0	0.0	
	Dec	Surplus			0.0	3,324	3,372	3,372	0.0	0.0	
	Jan	Surplus			0.0	3,487	3,835	3,835	0.0	0.0	
	Feb	Surplus			0.0	3,936	3,936	3,936	0.0	0.0	
	Mar	Surplus			0.0	3,756	3,756	3,756	0.0	0.0	
	Apr	Surplus			0.0	4,343	4,532	4,532	0.0	0.0	
	May	Surplus			0.0	4,552	4,552	4,552	0.0	0.0	
	Jun	Surplus			0.0	4,440	4,500	4,500	0.0	0.0	
	Jul	Balanced	15.5	15.5	0.0	4,150	4,150	4,150	0.0	0.0	
	Aug	Balanced	16.3	16.3	0.0	3,700	3,700	3,700	0.0	0.0	
	Sep	Surplus			0.0	3,400	3,400	3,400	0.0	0.0	

Appendix C-3 CALSIM II Modeling

Existing Alt 1 & 2 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	CVP Delivery Reductions				Shasta Storage Changes				Accumulated Difference (TAF)	
		Delta Condition	CCWD Div. Base (TAF)	CCWD Div. Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Shasta Storage Changes			
1976	Oct	Surplus			0.0	3,250	3,250	3,250	0.0	0.0	
	Nov	Surplus			0.0	3,252	3,252	3,252	0.0	0.0	
	Dec	Surplus			0.0	3,318	3,372	3,372	0.0	0.0	
	Jan	Surplus			0.0	3,529	3,835	3,835	0.0	0.0	
	Feb	Balanced	1.4	2.3	0.8	3,647	4,146	4,146	-0.8	-0.8	
	Mar	Balanced	8.3	8.5	0.2	3,877	4,552	4,552	-1.0	-1.0	
	Apr	Surplus			0.0	3,956	4,552	4,552	-1.0	-1.0	
	May	Surplus			0.0	3,798	4,552	4,552	-1.0	-1.0	
	Jun	Balanced	9.7	11.6	1.9	3,276	4,500	4,500	-3.0	-3.0	
	Jul	Balanced	13.4	16.2	2.8	2,907	4,150	4,150	-5.8	-5.8	
	Aug	Balanced	15.8	15.8	0.0	2,859	3,700	3,700	-5.8	-5.8	
	Sep	Balanced	4.2	12.5	8.3	2,829	3,400	3,400	-14.1	-14.1	
1977	Oct	Balanced	2.5	5.4	3.0	2,820	3,250	3,250	-17.0	-17.0	
	Nov	Balanced	7.7	8.2	0.4	2,789	3,252	3,252	-17.5	-17.5	
	Dec	Balanced	9.3	6.6	-2.7	2,770	3,372	3,372	-14.7	-14.7	
	Jan	Surplus			0.0	2,798	3,835	3,835	-14.7	-14.7	
	Feb	Balanced	8.9	3.9	-5.1	2,750	4,253	4,253	-9.7	-9.7	
	Mar	Balanced	8.8	3.4	-5.5	2,729	4,552	4,552	-4.2	-4.2	
	Apr	Balanced	10.7	6.8	-3.9	2,441	4,552	4,552	-0.2	-0.2	
	May	Balanced	13.6	13.6	0.0	2,271	4,552	4,552	-0.2	-0.2	
	Jun	Balanced	15.1	15.1	0.0	1,747	4,500	4,500	-0.2	-0.2	
	Jul	Balanced	16.2	16.2	0.0	1,149	4,150	4,150	-0.2	-0.2	
	Aug	Balanced	15.8	15.8	0.0	744	3,700	3,700	-0.2	-0.2	
	Sep	Balanced	14.0	14.0	0.0	674	3,400	3,400	-0.2	-0.2	
1978	Oct	Balanced	12.1	12.1	0.0	550	3,250	3,250	-0.2	-0.2	
	Nov	Balanced	9.8	9.8	0.0	575	3,252	3,252	-0.2	-0.2	
	Dec	Surplus			0.0	1,112	3,350	3,350	-0.2	-0.2	
	Jan	Surplus			0.0	3,025	3,321	3,321	-0.2	-0.2	
	Feb	Surplus			0.0	3,567	3,567	3,567	0.0	0.0	
	Mar	Surplus			0.0	4,000	4,000	4,000	0.0	0.0	
	Apr	Surplus			0.0	4,552	4,552	4,552	0.0	0.0	
	May	Surplus			0.0	4,552	4,552	4,552	0.0	0.0	
	Jun	Surplus			0.0	4,235	4,500	4,500	0.0	0.0	
	Jul	Balanced	27.3	27.3	0.0	3,727	4,150	4,150	0.0	0.0	
	Aug	Balanced	23.5	23.5	0.0	3,329	3,700	3,700	0.0	0.0	
	Sep	Balanced	4.9	14.0	9.1	3,310	3,400	3,400	-9.1	-9.1	

Appendix C-3 CALSIM II Modeling

Existing Alt 1 & 2 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			Difference (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)
			CCWD Base (TAF)	CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	Original Shasta Storage (TAF)	Shasta Control (TAF)				
1979	Oct	Balanced	3.5	12.3	8.8	3,200	3,250	-17.8			
	Nov	Balanced	2.8	6.6	3.8	3,166	3,252	-21.7			
	Dec	Surplus			0.0	3,111	3,368	-21.7			
	Jan	Surplus			0.0	3,193	3,824	-21.7			
	Feb	Surplus			0.0	3,475	4,100	-21.7			
	Mar	Surplus			0.0	3,981	4,360	-21.7			
	Apr	Balanced	0.0	0.0	0.0	4,156	4,552	-21.7			
	May	Surplus			0.0	4,203	4,552	-21.7			
	Jun	Balanced	25.1	22.9	-2.2	3,698	4,500	-19.5			
	Jul	Balanced	21.9	16.3	-5.6	3,193	4,150	-13.9			
	Aug	Balanced	11.9	16.5	4.7	2,907	3,700	-18.6			
	Sep	Balanced	3.5	10.5	7.0	2,819	3,400	-25.6			
1980	Oct	Balanced	2.5	5.9	3.5	2,868	3,250	-29.1			
	Nov	Balanced	4.0	7.3	3.3	2,980	3,252	-32.4			
	Dec	Surplus			0.0	3,096	3,367	-32.4			
	Jan	Surplus			0.0	3,528	3,528	0.0			
	Feb	Surplus			0.0	3,292	3,292	0.0			
	Mar	Surplus			0.0	3,938	4,100	0.0			
	Apr	Surplus			0.0	4,239	4,552	0.0			
	May	Surplus			0.0	4,179	4,552	0.0			
	Jun	Surplus			0.0	3,875	4,500	0.0			
	Jul	Balanced	15.8	15.8	0.0	3,464	4,150	0.0			
	Aug	Balanced	16.5	16.5	0.0	3,150	3,700	0.0			
	Sep	Balanced	6.7	14.0	7.3	3,111	3,400	-7.3			
1981	Oct	Balanced	4.5	12.3	7.7	3,092	3,250	-15.1			
	Nov	Balanced	3.0	8.7	5.7	3,068	3,252	-20.8			
	Dec	Surplus			0.0	3,151	3,370	-20.8			
	Jan	Surplus			0.0	3,449	3,747	-20.8			
	Feb	Balanced	16.1	5.0	-11.1	3,787	4,030	-9.7			
	Mar	Surplus			0.0	4,256	4,256	0.0			
	Apr	Surplus			0.0	4,397	4,552	0.0			
	May	Surplus			0.0	4,159	4,552	0.0			
	Jun	Balanced	25.7	25.1	-0.6	3,603	4,500	0.6			
	Jul	Balanced	14.7	17.1	2.4	2,966	4,150	-1.7			
	Aug	Balanced	4.6	15.4	10.7	2,661	3,700	-12.5			
	Sep	Balanced	2.8	8.4	5.6	2,571	3,400	-18.1			

Appendix C-3 CALSIM II Modeling

Existing Alt 1 & 2 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			Difference (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)
			CCWD Base (TAF)	CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	Original Shasta Storage (TAF)	Shasta Control (TAF)				
1982	Oct	Balanced	2.6	5.4	2.8	2,543	3,250	-20.9			
	Nov	Surplus			0.0	3,252	3,252	0.0			
	Dec	Surplus			0.0	3,276	3,276	0.0			
	Jan	Surplus			0.0	3,616	3,616	0.0			
	Feb	Surplus			0.0	3,530	3,530	0.0			
	Mar	Surplus			0.0	3,953	3,953	0.0			
	Apr	Surplus			0.0	4,094	4,094	0.0			
	May	Surplus			0.0	4,304	4,552	0.0			
	Jun	Surplus			0.0	4,138	4,500	0.0			
	Jul	Balanced	15.5	15.5	0.0	3,855	4,150	0.0			
	Aug	Balanced	16.3	16.3	0.0	3,558	3,700	0.0			
	Sep	Surplus			0.0	3,400	3,400	0.0			
1983	Oct	Surplus			0.0	3,250	3,250	0.0			
	Nov	Surplus			0.0	3,252	3,252	0.0			
	Dec	Surplus			0.0	3,328	3,328	0.0			
	Jan	Surplus			0.0	3,371	3,371	0.0			
	Feb	Surplus			0.0	3,252	3,252	0.0			
	Mar	Surplus			0.0	3,417	3,417	0.0			
	Apr	Surplus			0.0	4,074	4,074	0.0			
	May	Surplus			0.0	4,552	4,552	0.0			
	Jun	Surplus			0.0	4,500	4,500	0.0			
	Jul	Surplus			0.0	4,150	4,150	0.0			
	Aug	Surplus			0.0	3,700	3,700	0.0			
	Sep	Surplus			0.0	3,400	3,400	0.0			
1984	Oct	Surplus			0.0	3,250	3,250	0.0			
	Nov	Surplus			0.0	3,252	3,252	0.0			
	Dec	Surplus			0.0	3,285	3,285	0.0			
	Jan	Surplus			0.0	3,650	3,650	0.0			
	Feb	Surplus			0.0	3,995	4,005	0.0			
	Mar	Surplus			0.0	4,246	4,246	0.0			
	Apr	Balanced	0.0	0.0	0.0	4,347	4,552	0.0			
	May	Surplus			0.0	4,311	4,552	0.0			
	Jun	Balanced	20.2	20.2	0.0	4,069	4,500	0.0			
	Jul	Balanced	15.5	15.5	0.0	3,466	4,150	0.0			
	Aug	Balanced	16.3	16.3	0.0	3,249	3,700	0.0			
	Sep	Balanced	5.0	13.5	8.5	3,245	3,400	-8.5			

Appendix C-3 CALSIM II Modeling

Existing Alt 1 & 2 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			Difference (TAF)	Accumulated Difference (TAF)	
			CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	CCWD Div. Div. Op. Alt (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Shasta Storage (TAF)			
1985	Oct	Balanced	2.7	6.5	3.8	3,250	3,250	3,250	0.0	0.0	
	Nov	Surplus			0.0	3,252	3,252	3,252	0.0	0.0	
	Dec	Surplus			0.0	3,360	3,360	3,360	0.0	0.0	
	Jan	Surplus			0.0	3,484	3,484	3,484	0.0	0.0	
	Feb	Balanced	5.0	5.0	0.0	3,618	4,232	4,232	0.0	0.0	
	Mar	Balanced	6.7	6.7	0.0	3,752	4,552	4,552	0.0	0.0	
	Apr	Balanced	0.0	0.0	0.0	3,857	4,552	4,552	0.0	0.0	
	May	Balanced	12.2	12.2	0.0	3,505	4,552	4,552	0.0	0.0	
	Jun	Balanced	25.1	25.1	0.0	3,094	4,500	4,500	0.0	0.0	
	Jul	Balanced	13.9	17.1	3.1	2,649	4,150	4,150	-3.1	-3.1	
	Aug	Balanced	4.6	14.0	9.4	2,335	3,700	3,700	-12.6	-12.6	
	Sep	Balanced	3.3	9.1	5.8	2,311	3,400	3,400	-18.4	-18.4	
1986	Oct	Balanced	3.1	6.7	3.6	2,205	3,250	3,250	-22.0	-22.0	
	Nov	Balanced	3.5	6.0	2.5	2,220	3,252	3,252	-24.5	-24.5	
	Dec	Surplus			0.0	2,376	3,372	3,372	-24.5	-24.5	
	Jan	Surplus			0.0	2,941	3,658	3,658	-24.5	-24.5	
	Feb	Surplus			0.0	3,252	3,252	3,252	0.0	0.0	
	Mar	Surplus			0.0	3,534	3,534	3,534	0.0	0.0	
	Apr	Surplus			0.0	3,973	4,552	4,552	0.0	0.0	
	May	Surplus			0.0	3,910	4,552	4,552	0.0	0.0	
	Jun	Balanced	23.6	20.0	-3.5	3,502	4,500	4,500	3.5	3.5	
	Jul	Balanced	27.0	15.5	-11.5	3,132	4,150	4,150	15.0	15.0	
	Aug	Balanced	23.3	16.3	-7.0	2,812	3,700	3,700	22.0	22.0	
	Sep	Balanced	8.8	13.5	4.7	2,825	3,400	3,400	17.3	17.3	
1987	Oct	Balanced	4.4	10.4	6.0	2,853	3,250	3,250	11.3	11.3	
	Nov	Balanced	2.7	6.9	4.2	2,836	3,252	3,252	7.1	7.1	
	Dec	Surplus			0.0	2,820	3,372	3,372	7.1	7.1	
	Jan	Surplus			0.0	2,936	3,835	3,835	7.1	7.1	
	Feb	Surplus			0.0	3,277	4,141	4,141	7.1	7.1	
	Mar	Surplus			0.0	4,003	4,298	4,298	7.1	7.1	
	Apr	Balanced	0.0	0.0	0.0	3,816	4,552	4,552	7.1	7.1	
	May	Balanced	12.2	12.2	0.0	3,530	4,552	4,552	7.1	7.1	
	Jun	Balanced	25.7	25.1	-0.6	3,050	4,500	4,500	7.7	7.7	
	Jul	Balanced	28.5	17.1	-11.5	2,568	4,150	4,150	19.1	19.1	
	Aug	Balanced	7.1	16.5	9.4	2,253	3,700	3,700	9.7	9.7	
	Sep	Balanced	2.7	9.0	6.3	2,153	3,400	3,400	3.4	3.4	

Appendix C-3 CALSIM II Modeling

Existing Alt 1 & 2 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			Difference (TAF)	Accumulated Difference (TAF)	
			CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	CCWD Div. Div. Op. Alt (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Shasta Storage (TAF)			
1988	Oct	Balanced	2.1	4.3	2.2	2,079	3,250	3,250	1.2	1.2	
	Nov	Balanced	3.3	5.5	2.2	2,053	3,252	3,252	-1.0	-1.0	
	Dec	Surplus			0.0	2,557	3,358	3,358	-1.0	-1.0	
	Jan	Surplus			0.0	2,991	3,727	3,727	-1.0	-1.0	
	Feb	Balanced	18.8	17.1	-1.7	2,872	4,194	4,194	0.8	0.8	
	Mar	Balanced	14.1	9.1	-5.0	2,928	4,552	4,552	5.7	5.7	
	Apr	Surplus			0.0	2,950	4,552	4,552	5.7	5.7	
	May	Surplus			0.0	2,928	4,552	4,552	5.7	5.7	
	Jun	Balanced	27.0	16.1	-10.9	2,519	4,500	4,500	16.6	16.6	
	Jul	Balanced	28.5	16.2	-12.3	2,016	4,150	4,150	28.9	28.9	
	Aug	Balanced	10.4	15.8	5.4	1,720	3,700	3,700	23.5	23.5	
	Sep	Balanced	4.2	11.3	7.1	1,589	3,400	3,400	16.4	16.4	
1989	Oct	Balanced	1.6	4.1	2.5	1,493	3,250	3,250	13.9	13.9	
	Nov	Balanced	1.3	3.4	2.0	1,702	3,252	3,252	11.9	11.9	
	Dec	Surplus			0.0	1,800	3,370	3,370	11.9	11.9	
	Jan	Surplus			0.0	1,905	3,835	3,835	11.9	11.9	
	Feb	Balanced	8.9	4.4	-4.5	2,015	4,253	4,253	16.4	16.4	
	Mar	Surplus			0.0	3,396	3,841	3,841	16.4	16.4	
	Apr	Surplus			0.0	3,781	4,552	4,552	16.4	16.4	
	May	Balanced	12.6	12.2	-0.3	3,578	4,552	4,552	16.7	16.7	
	Jun	Balanced	25.7	25.7	0.0	3,230	4,500	4,500	16.7	16.7	
	Jul	Balanced	28.5	28.5	0.0	2,776	4,150	4,150	16.7	16.7	
	Aug	Balanced	4.1	17.0	12.9	2,442	3,700	3,700	3.8	3.8	
	Sep	Balanced	3.0	10.5	7.5	2,463	3,400	3,400	-3.7	-3.7	
1990	Oct	Balanced	12.2	6.0	-6.2	2,554	3,250	3,250	2.6	2.6	
	Nov	Balanced	9.6	5.9	-3.8	2,529	3,252	3,252	6.3	6.3	
	Dec	Balanced	8.8	12.6	3.8	2,469	3,372	3,372	2.5	2.5	
	Jan	Surplus			0.0	2,690	3,822	3,822	2.5	2.5	
	Feb	Balanced	7.3	5.2	-2.1	2,671	4,253	4,253	4.6	4.6	
	Mar	Balanced	14.1	10.3	-3.8	2,938	4,552	4,552	8.4	8.4	
	Apr	Balanced	5.9	0.0	-5.9	2,782	4,552	4,552	14.3	14.3	
	May	Surplus			0.0	2,926	4,552	4,552	14.3	14.3	
	Jun	Balanced	23.8	15.1	-8.7	2,738	4,500	4,500	23.0	23.0	
	Jul	Balanced	8.4	14.6	6.3	2,226	4,150	4,150	16.8	16.8	
	Aug	Balanced	15.8	15.8	0.0	1,960	3,700	3,700	16.8	16.8	
	Sep	Balanced	14.0	13.6	-0.4	1,903	3,400	3,400	17.2	17.2	

Appendix C-3 CALSIM II Modeling

Existing Alt 1 & 2 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			Difference (TAF)	Accumulated Difference (TAF)	
			CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	CCWD Div. Div. Op. Alt (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Shasta Storage Changes			
1991	Oct	Balanced	12.1	4.4	-7.7	1,845	3,250	24.9			
	Nov	Balanced	9.8	8.9	-0.9	1,851	3,252	25.8			
	Dec	Surplus			0.0	1,804	3,372	25.8			
	Jan	Surplus			0.0	1,807	3,835	25.8			
	Feb	Balanced	7.6	8.9	1.3	1,820	4,253	24.5			
	Mar	Surplus			0.0	2,225	4,552	24.5			
	Apr	Balanced	13.0	10.9	-2.1	2,367	4,552	26.6			
	May	Surplus			0.0	2,296	4,552	26.6			
	Jun	Balanced	15.1	15.1	0.0	2,019	4,500	26.6			
	Jul	Balanced	16.2	16.2	0.0	1,716	4,150	26.6			
	Aug	Balanced	15.8	15.8	0.0	1,452	3,700	26.6			
	Sep	Balanced	14.0	14.0	0.0	1,341	3,400	26.6			
1992	Oct	Balanced	12.1	12.1	0.0	1,324	3,250	26.6			
	Nov	Balanced	9.8	9.8	0.0	1,249	3,252	26.6			
	Dec	Surplus			0.0	1,244	3,372	26.6			
	Jan	Surplus			0.0	1,290	3,835	26.6			
	Feb	Surplus			0.0	1,948	4,253	26.6			
	Mar	Balanced	14.1	14.1	0.0	2,393	4,552	26.6			
	Apr	Balanced	7.2	7.5	0.3	2,618	4,552	26.3			
	May	Balanced	14.0	14.0	0.0	2,338	4,552	26.3			
	Jun	Balanced	15.1	15.1	0.0	1,924	4,500	26.3			
	Jul	Balanced	16.2	16.2	0.0	1,455	4,150	26.3			
	Aug	Balanced	15.8	15.8	0.0	1,017	3,700	26.3			
	Sep	Balanced	14.0	14.0	0.0	841	3,400	26.3			
1993	Oct	Balanced	12.1	12.1	0.0	765	3,250	26.3			
	Nov	Balanced	9.8	9.8	0.0	737	3,252	26.3			
	Dec	Surplus			0.0	968	3,350	26.3			
	Jan	Surplus			0.0	1,617	3,321	26.3			
	Feb	Surplus			0.0	2,347	3,567	26.3			
	Mar	Surplus			0.0	3,814	4,000	26.3			
	Apr	Surplus			0.0	4,440	4,552	26.3			
	May	Surplus			0.0	4,552	4,552	0.0			
	Jun	Surplus			0.0	4,500	4,500	0.0			
	Jul	Balanced	27.3	27.3	0.0	3,917	4,150	0.0			
	Aug	Balanced	23.5	23.5	0.0	3,644	3,700	0.0			
	Sep	Balanced	5.6	14.0	8.4	3,400	3,400	0.0			

Appendix C-3 CALSIM II Modeling

Existing Alt 1 & 2 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			Difference (TAF)	Accumulated Difference (TAF)	
			CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	CCWD Div. Div. Op. Alt (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Shasta Storage Changes			
1994	Oct	Balanced	2.7	10.6	7.8	3,250	3,250	0.0			
	Nov	Balanced	2.2	7.8	5.5	3,191	3,252	-5.5			
	Dec	Surplus			0.0	3,234	3,372	-5.5			
	Jan	Surplus			0.0	3,346	3,835	-5.5			
	Feb	Surplus			0.0	3,571	4,146	-5.5			
	Mar	Balanced	14.1	9.1	-4.9	3,664	4,552	-0.6			
	Apr	Balanced	0.0	0.0	0.0	3,505	4,552	-0.6			
	May	Surplus			0.0	3,209	4,552	-0.6			
	Jun	Balanced	27.0	27.0	0.0	2,762	4,500	-0.6			
	Jul	Balanced	5.5	17.4	11.9	2,191	4,150	-12.4			
	Aug	Balanced	3.3	14.2	10.9	1,706	3,700	-23.4			
	Sep	Balanced	7.4	6.1	-1.3	1,536	3,400	-22.0			

Appendix C-3 CALSIM II Modeling

Existing Alt 3 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	CVP Delivery Reductions				Shasta Storage Changes				Accumulated Difference (TAF)	
		Delta Condition	CCWD Base (TAF)	CCWD Div. Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Shasta Storage (TAF)			
1922	Oct	Balanced	24.2	24.2	0.0	2,806	3,250	0.0			0.0
	Nov	Balanced	20.5	8.6	-11.9	2,832	3,252	11.9			11.9
	Dec	Surplus			0.0	2,917	3,368	11.9			11.9
	Jan	Surplus			0.0	3,021	3,828	11.9			11.9
	Feb	Surplus			0.0	3,312	4,042	11.9			11.9
	Mar	Surplus			0.0	3,617	4,330	11.9			11.9
	Apr	Surplus			0.0	4,095	4,552	11.9			11.9
	May	Surplus			0.0	4,252	4,552	11.9			11.9
	Jun	Surplus			0.0	3,959	4,500	11.9			11.9
	Jul	Balanced	15.8	15.8	0.0	3,494	4,150	11.9			11.9
	Aug	Balanced	16.5	16.5	0.0	3,094	3,700	11.9			11.9
	Sep	Balanced	7.3	14.0	6.7	2,927	3,400	5.2			5.2
1923	Oct	Balanced	3.4	8.6	5.2	2,927	3,250	0.1			0.1
	Nov	Balanced	3.5	8.4	4.9	2,940	3,252	-4.9			-4.9
	Dec	Surplus			0.0	3,028	3,369	-4.9			-4.9
	Jan	Surplus			0.0	3,227	3,814	-4.9			-4.9
	Feb	Surplus	11.9	5.0	-6.9	3,286	4,242	2.0			2.0
	Mar	Balanced	6.0	6.0	0.0	3,338	4,552	2.0			2.0
	Apr	Surplus			0.0	3,641	4,552	2.0			2.0
	May	Surplus			0.0	3,381	4,552	2.0			2.0
	Jun	Balanced	22.8	22.8	0.0	3,095	4,500	2.0			2.0
	Jul	Balanced	16.3	16.3	0.0	2,655	4,150	2.0			2.0
	Aug	Balanced	16.5	16.5	0.0	2,267	3,700	2.0			2.0
	Sep	Balanced	3.7	10.9	7.2	2,153	3,400	-5.2			-5.2
1924	Oct	Balanced	2.6	6.1	3.6	2,090	3,250	-8.8			-8.8
	Nov	Balanced	2.3	5.0	2.7	2,014	3,252	-11.5			-11.5
	Dec	Balanced	5.1	8.1	3.0	1,980	3,370	-14.5			-14.5
	Jan	Surplus			0.0	2,069	3,828	-14.5			-14.5
	Feb	Balanced	5.6	2.9	-2.7	2,226	4,256	-11.8			-11.8
	Mar	Balanced	6.7	6.8	0.2	2,215	4,552	-11.9			-11.9
	Apr	Surplus			0.0	2,000	4,552	-11.9			-11.9
	May	Balanced	9.2	9.1	-0.1	1,688	4,552	-11.8			-11.8
	Jun	Balanced	8.6	8.8	0.3	1,291	4,500	-12.1			-12.1
	Jul	Balanced	15.8	13.9	-1.9	858	4,150	-10.2			-10.2
	Aug	Balanced	15.8	15.8	0.0	640	3,700	-10.2			-10.2
	Sep	Balanced	14.0	12.7	-1.3	592	3,400	-8.9			-8.9

Appendix C-3 CALSIM II Modeling

Existing Alt 3 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	CVP Delivery Reductions				Shasta Storage Changes				Accumulated Difference (TAF)	
		Delta Condition	CCWD Base (TAF)	CCWD Div. Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Shasta Storage (TAF)			
1925	Oct	Balanced	12.1	4.0	-8.1	589	3,250	-0.8			-0.8
	Nov	Balanced	9.8	9.4	-0.4	695	3,252	-0.4			-0.4
	Dec	Surplus			0.0	784	3,370	-0.4			-0.4
	Jan	Surplus			0.0	1,020	3,819	-0.4			-0.4
	Feb	Surplus			0.0	2,258	3,705	-0.4			-0.4
	Mar	Balanced	12.2	9.6	-2.6	2,443	4,433	2.2			2.2
	Apr	Surplus			0.0	3,108	4,552	2.2			2.2
	May	Surplus			0.0	3,168	4,552	2.2			2.2
	Jun	Balanced	25.7	25.7	0.0	2,894	4,500	2.2			2.2
	Jul	Balanced	28.5	28.5	0.0	2,406	4,150	2.2			2.2
	Aug	Balanced	17.3	27.7	10.4	2,060	3,700	-8.2			-8.2
	Sep	Balanced	8.2	18.6	10.4	1,929	3,400	-18.6			-18.6
1926	Oct	Balanced	2.5	6.2	3.6	1,874	3,250	-22.3			-22.3
	Nov	Balanced	2.1	3.9	1.8	1,872	3,252	-24.1			-24.1
	Dec	Surplus			0.0	1,920	3,370	-24.1			-24.1
	Jan	Surplus			0.0	1,963	3,828	-24.1			-24.1
	Feb	Surplus			0.0	2,679	3,982	-24.1			-24.1
	Mar	Balanced	12.2	15.0	2.9	2,869	4,552	-26.9			-26.9
	Apr	Surplus			0.0	3,164	4,552	-26.9			-26.9
	May	Balanced	12.2	12.2	0.0	3,016	4,552	-26.9			-26.9
	Jun	Balanced	25.7	25.7	0.0	2,618	4,500	-26.9			-26.9
	Jul	Balanced	28.5	28.5	0.0	2,170	4,150	-26.9			-26.9
	Aug	Balanced	20.0	25.7	5.7	1,864	3,700	-32.6			-32.6
	Sep	Balanced	5.5	14.4	8.9	1,754	3,400	-41.5			-41.5
1927	Oct	Balanced	2.2	5.5	3.3	1,754	3,250	-44.8			-44.8
	Nov	Surplus			0.0	2,229	3,252	-44.8			-44.8
	Dec	Surplus			0.0	2,735	3,347	-44.8			-44.8
	Jan	Surplus			0.0	3,204	3,668	-44.8			-44.8
	Feb	Surplus			0.0	3,462	3,462	0.0			0.0
	Mar	Surplus			0.0	4,035	4,142	0.0			0.0
	Apr	Surplus			0.0	4,552	4,552	0.0			0.0
	May	Surplus			0.0	4,552	4,552	0.0			0.0
	Jun	Balanced	23.6	20.0	-3.6	4,264	4,500	3.6			3.6
	Jul	Balanced	18.5	15.5	-3.0	3,758	4,150	6.6			6.6
	Aug	Balanced	16.3	16.3	0.0	3,351	3,700	6.6			6.6
	Sep	Balanced	4.4	13.5	9.2	3,208	3,400	-2.6			-2.6

Appendix C-3 CALSIM II Modeling

Existing Alt 3 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	CVP Delivery Reductions				Shasta Storage Changes					
		Delta Condition	CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)
1928	Oct	Balanced	2.9	6.5	3.6	3,181	3,250	-6.2	3,181	3,250	-6.2
	Nov	Surplus			0.0	3,252	3,252	0.0	3,252	3,252	0.0
	Dec	Surplus			0.0	3,313	3,363	0.0	3,313	3,363	0.0
	Jan	Surplus			0.0	3,512	3,761	0.0	3,512	3,761	0.0
	Feb	Surplus			0.0	3,906	4,099	0.0	3,906	4,099	0.0
	Mar	Surplus			0.0	3,965	3,965	0.0	3,965	3,965	0.0
	Apr	Surplus			0.0	4,463	4,552	0.0	4,463	4,552	0.0
	May	Balanced	9.2	9.2	0.0	4,280	4,552	0.0	4,280	4,552	0.0
	Jun	Balanced	21.9	21.9	0.0	3,882	4,500	0.0	3,882	4,500	0.0
	Jul	Balanced	15.8	15.8	0.0	3,241	4,150	0.0	3,241	4,150	0.0
	Aug	Balanced	16.5	16.5	0.0	2,899	3,700	0.0	2,899	3,700	0.0
	Sep	Balanced	6.1	14.0	7.9	2,733	3,400	-7.9	2,733	3,400	-7.9
1929	Oct	Balanced	3.3	7.0	3.7	2,643	3,250	-11.6	2,643	3,250	-11.6
	Nov	Balanced	3.3	6.5	3.3	2,641	3,252	-14.9	2,641	3,252	-14.9
	Dec	Surplus			0.0	2,652	3,370	-14.9	2,652	3,370	-14.9
	Jan	Surplus			0.0	2,754	3,828	-14.9	2,754	3,828	-14.9
	Feb	Balanced	4.6	2.6	-2.0	2,941	4,256	-12.9	2,941	4,256	-12.9
	Mar	Balanced	12.5	11.5	-1.0	3,109	4,552	-11.8	3,109	4,552	-11.8
	Apr	Balanced	0.0	0.0	0.0	3,178	4,552	-11.8	3,178	4,552	-11.8
	May	Balanced	13.6	13.6	0.0	3,056	4,552	-11.8	3,056	4,552	-11.8
	Jun	Balanced	27.0	16.2	-10.8	2,742	4,500	-1.0	2,742	4,500	-1.0
	Jul	Balanced	28.5	16.2	-12.3	2,356	4,150	11.3	2,356	4,150	11.3
	Aug	Balanced	9.0	15.8	6.8	2,025	3,700	4.4	2,025	3,700	4.4
	Sep	Balanced	4.1	10.8	6.7	1,905	3,400	-2.2	1,905	3,400	-2.2
1930	Oct	Balanced	1.7	4.3	2.6	1,847	3,250	-4.8	1,847	3,250	-4.8
	Nov	Balanced	1.5	3.0	1.6	1,799	3,252	-6.4	1,799	3,252	-6.4
	Dec	Surplus			0.0	2,320	3,348	-6.4	2,320	3,348	-6.4
	Jan	Surplus			0.0	2,524	3,782	-6.4	2,524	3,782	-6.4
	Feb	Balanced	20.0	8.9	-11.1	2,879	4,054	4.7	2,879	4,054	4.7
	Mar	Surplus			0.0	3,312	4,450	4.7	3,312	4,450	4.7
	Apr	Surplus			0.0	3,459	4,552	4.7	3,459	4,552	4.7
	May	Surplus			0.0	3,357	4,552	4.7	3,357	4,552	4.7
	Jun	Balanced	25.7	16.2	-9.5	2,993	4,500	14.2	2,993	4,500	14.2
	Jul	Balanced	28.5	28.5	0.0	2,590	4,150	14.2	2,590	4,150	14.2
	Aug	Balanced	7.1	15.8	8.6	2,228	3,700	5.6	2,228	3,700	5.6
	Sep	Balanced	2.8	13.9	11.0	2,116	3,400	-5.4	2,116	3,400	-5.4

Appendix C-3 CALSIM II Modeling

Existing Alt 3 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	CVP Delivery Reductions				Shasta Storage Changes					
		Delta Condition	CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)
1931	Oct	Balanced	1.3	3.9	2.6	2,069	3,250	-8.0	2,069	3,250	-8.0
	Nov	Balanced	9.3	4.0	-5.3	2,055	3,252	-2.7	2,055	3,252	-2.7
	Dec	Balanced	8.8	6.4	-2.3	2,041	3,370	-0.3	2,041	3,370	-0.3
	Jan	Surplus			0.0	2,114	3,828	-0.3	2,114	3,828	-0.3
	Feb	Balanced	7.3	2.7	-4.6	2,199	4,256	4.2	2,199	4,256	4.2
	Mar	Balanced	8.8	2.9	-5.9	2,361	4,552	10.2	2,361	4,552	10.2
	Apr	Balanced	10.7	4.0	-6.7	2,099	4,552	16.9	2,099	4,552	16.9
	May	Surplus			0.0	1,820	4,552	16.9	1,820	4,552	16.9
	Jun	Balanced	15.1	15.1	0.0	1,522	4,500	16.9	1,522	4,500	16.9
	Jul	Balanced	16.2	16.2	0.0	1,064	4,150	16.9	1,064	4,150	16.9
	Aug	Balanced	15.8	15.8	0.0	742	3,700	16.9	742	3,700	16.9
	Sep	Balanced	14.0	14.0	0.0	643	3,400	16.9	643	3,400	16.9
1932	Oct	Balanced	12.1	12.1	0.0	629	3,250	16.9	629	3,250	16.9
	Nov	Balanced	9.8	9.8	0.0	626	3,252	16.9	626	3,252	16.9
	Dec	Surplus			0.0	817	3,359	16.9	817	3,359	16.9
	Jan	Surplus			0.0	1,002	3,818	16.9	1,002	3,818	16.9
	Feb	Balanced	8.9	20.4	11.5	1,117	4,251	5.4	1,117	4,251	5.4
	Mar	Balanced	12.2	15.0	2.9	1,528	4,439	2.5	1,528	4,439	2.5
	Apr	Balanced	4.3	0.0	-4.3	1,679	4,552	6.8	1,679	4,552	6.8
	May	Surplus			0.0	1,867	4,552	6.8	1,867	4,552	6.8
	Jun	Balanced	25.7	25.7	0.0	1,700	4,500	6.8	1,700	4,500	6.8
	Jul	Balanced	28.5	28.5	0.0	1,431	4,150	6.8	1,431	4,150	6.8
	Aug	Balanced	28.1	28.1	0.0	1,174	3,700	6.8	1,174	3,700	6.8
	Sep	Balanced	5.6	18.5	12.9	1,045	3,400	-6.1	1,045	3,400	-6.1
1933	Oct	Balanced	2.1	6.6	4.5	972	3,250	-10.6	972	3,250	-10.6
	Nov	Balanced	1.9	0.0	-1.9	957	3,252	-8.8	957	3,252	-8.8
	Dec	Surplus			0.0	945	3,370	-8.8	945	3,370	-8.8
	Jan	Surplus			0.0	969	3,828	-8.8	969	3,828	-8.8
	Feb	Surplus			0.0	1,008	4,256	-8.8	1,008	4,256	-8.8
	Mar	Surplus			0.0	1,593	4,310	-8.8	1,593	4,310	-8.8
	Apr	Balanced	0.0	0.0	0.0	1,722	4,552	-8.8	1,722	4,552	-8.8
	May	Balanced	13.6	13.6	0.0	1,785	4,552	-8.8	1,785	4,552	-8.8
	Jun	Balanced	27.0	19.0	-8.0	1,658	4,500	-0.8	1,658	4,500	-0.8
	Jul	Balanced	16.2	16.2	0.0	1,351	4,150	-0.8	1,351	4,150	-0.8
	Aug	Balanced	12.7	15.8	3.1	962	3,700	-3.8	962	3,700	-3.8
	Sep	Balanced	6.6	14.0	7.4	812	3,400	-11.2	812	3,400	-11.2

Appendix C-3 CALSIM II Modeling

Existing Alt 3 CVP Contract Water Use Analysis											
CVP Delivery Reductions						Shasta Storage Changes					
Year	Month	Delta Condition	CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)
1934	Oct	Balanced	10.3	5.9	-4.4	726	3,250	-6.8	726	3,250	-6.8
	Nov	Balanced	9.8	3.3	-6.5	677	3,252	-0.4	677	3,252	-0.4
	Dec	Surplus			0.0	800	3,368	-0.4	800	3,368	-0.4
	Jan	Surplus			0.0	1,095	3,814	-0.4	1,095	3,814	-0.4
	Feb	Surplus			0.0	1,420	4,091	-0.4	1,420	4,091	-0.4
	Mar	Balanced	14.1	8.8	-5.3	1,716	4,552	4.9	1,716	4,552	4.9
	Apr	Balanced	0.0	0.0	0.0	1,808	4,552	4.9	1,808	4,552	4.9
	May	Balanced	13.6	13.6	0.0	1,653	4,552	4.9	1,653	4,552	4.9
	Jun	Balanced	17.3	15.1	-2.3	1,293	4,500	7.2	1,293	4,500	7.2
	Jul	Balanced	16.2	16.2	0.0	891	4,150	7.2	891	4,150	7.2
	Aug	Balanced	10.8	15.8	4.9	607	3,700	2.2	607	3,700	2.2
	Sep	Balanced	13.3	14.0	0.7	603	3,400	1.5	603	3,400	1.5
1935	Oct	Balanced	12.1	9.5	-2.7	587	3,250	4.1	587	3,250	4.1
	Nov	Balanced	9.8	9.7	-0.1	688	3,252	4.2	688	3,252	4.2
	Dec	Surplus			0.0	725	3,370	4.2	725	3,370	4.2
	Jan	Surplus			0.0	1,010	3,788	4.2	1,010	3,788	4.2
	Feb	Balanced	8.9	8.9	0.0	1,339	4,123	4.2	1,339	4,123	4.2
	Mar	Surplus			0.0	1,727	4,482	4.2	1,727	4,482	4.2
	Apr	Surplus			0.0	2,723	4,491	4.2	2,723	4,491	4.2
	May	Balanced	12.8	18.8	6.1	2,946	4,552	-1.9	2,946	4,552	-1.9
	Jun	Surplus			0.0	2,650	4,500	-1.9	2,650	4,500	-1.9
	Jul	Balanced	27.8	27.8	0.0	2,300	4,150	-1.9	2,300	4,150	-1.9
	Aug	Balanced	23.5	25.1	1.6	1,955	3,700	-3.4	1,955	3,700	-3.4
	Sep	Balanced	3.1	12.1	9.0	1,785	3,400	-12.5	1,785	3,400	-12.5
1936	Oct	Balanced	2.1	6.7	4.6	1,759	3,250	-17.0	1,759	3,250	-17.0
	Nov	Balanced	1.9	4.7	2.8	1,728	3,252	-19.8	1,728	3,252	-19.8
	Dec	Balanced	6.4	1.9	-4.5	1,736	3,370	-15.4	1,736	3,370	-15.4
	Jan	Surplus			0.0	2,359	3,698	-15.4	2,359	3,698	-15.4
	Feb	Surplus			0.0	3,238	3,588	-15.4	3,238	3,588	-15.4
	Mar	Surplus			0.0	3,518	4,410	-15.4	3,518	4,410	-15.4
	Apr	Surplus			0.0	3,739	4,552	-15.4	3,739	4,552	-15.4
	May	Surplus			0.0	3,627	4,552	-15.4	3,627	4,552	-15.4
	Jun	Surplus			0.0	3,413	4,500	-15.4	3,413	4,500	-15.4
	Jul	Balanced	24.8	16.3	-8.5	2,941	4,150	-6.9	2,941	4,150	-6.9
	Aug	Balanced	16.5	16.5	0.0	2,519	3,700	-6.9	2,519	3,700	-6.9
	Sep	Balanced	3.5	13.9	10.4	2,357	3,400	-17.3	2,357	3,400	-17.3

Appendix C-3 CALSIM II Modeling

Existing Alt 3 CVP Contract Water Use Analysis											
CVP Delivery Reductions						Shasta Storage Changes					
Year	Month	Delta Condition	CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)
1937	Oct	Balanced	2.1	6.2	4.1	2,249	3,250	-21.4	2,249	3,250	-21.4
	Nov	Balanced	2.2	4.9	2.7	2,158	3,252	-24.1	2,158	3,252	-24.1
	Dec	Balanced	5.8	18.4	12.7	2,117	3,370	-36.8	2,117	3,370	-36.8
	Jan	Surplus			0.0	2,096	3,828	-36.8	2,096	3,828	-36.8
	Feb	Surplus			0.0	2,188	4,256	-36.8	2,188	4,256	-36.8
	Mar	Surplus			0.0	2,832	4,279	-36.8	2,832	4,279	-36.8
	Apr	Surplus			0.0	3,470	4,552	-36.8	3,470	4,552	-36.8
	May	Surplus			0.0	3,618	4,552	-36.8	3,618	4,552	-36.8
	Jun	Balanced	25.1	22.9	-2.2	3,423	4,500	-34.5	3,423	4,500	-34.5
	Jul	Balanced	27.8	16.3	-11.5	3,034	4,150	-23.1	3,034	4,150	-23.1
	Aug	Balanced	23.3	16.5	-6.8	2,610	3,700	-16.3	2,610	3,700	-16.3
	Sep	Balanced	6.6	14.0	7.4	2,424	3,400	-23.7	2,424	3,400	-23.7
1938	Oct	Balanced	2.8	7.5	4.7	2,378	3,250	-28.4	2,378	3,250	-28.4
	Nov	Surplus			0.0	2,896	3,252	-28.4	2,896	3,252	-28.4
	Dec	Surplus			0.0	3,310	3,310	0.0	3,310	3,310	0.0
	Jan	Surplus			0.0	3,641	3,668	0.0	3,641	3,668	0.0
	Feb	Surplus			0.0	3,560	3,560	0.0	3,560	3,560	0.0
	Mar	Surplus			0.0	3,416	3,416	0.0	3,416	3,416	0.0
	Apr	Surplus			0.0	4,058	4,058	0.0	4,058	4,058	0.0
	May	Surplus			0.0	4,552	4,552	0.0	4,552	4,552	0.0
	Jun	Surplus			0.0	4,466	4,500	0.0	4,466	4,500	0.0
	Jul	Balanced	15.5	15.5	0.0	4,064	4,150	0.0	4,064	4,150	0.0
	Aug	Balanced	16.3	16.3	0.0	3,638	3,700	0.0	3,638	3,700	0.0
	Sep	Surplus			0.0	3,400	3,400	0.0	3,400	3,400	0.0
1939	Oct	Surplus			0.0	3,250	3,250	0.0	3,250	3,250	0.0
	Nov	Balanced	8.2	8.2	0.0	3,200	3,252	0.0	3,200	3,252	0.0
	Dec	Surplus			0.0	3,310	3,370	0.0	3,310	3,370	0.0
	Jan	Surplus			0.0	3,504	3,828	0.0	3,504	3,828	0.0
	Feb	Balanced	5.1	5.1	0.0	3,634	4,256	0.0	3,634	4,256	0.0
	Mar	Balanced	6.8	6.8	0.0	4,031	4,495	0.0	4,031	4,495	0.0
	Apr	Balanced	0.0	0.0	0.0	3,831	4,552	0.0	3,831	4,552	0.0
	May	Balanced	12.2	12.2	0.0	3,533	4,552	0.0	3,533	4,552	0.0
	Jun	Balanced	25.1	25.1	0.0	3,073	4,500	0.0	3,073	4,500	0.0
	Jul	Balanced	14.5	17.1	2.5	2,517	4,150	-2.5	2,517	4,150	-2.5
	Aug	Balanced	5.3	15.8	10.5	2,179	3,700	-13.0	2,179	3,700	-13.0
	Sep	Balanced	3.0	8.4	5.4	2,101	3,400	-18.4	2,101	3,400	-18.4

Appendix C-3 CALSIM II Modeling

Existing Alt 3 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions				Shasta Storage Changes				
			CCWD Base (TAF)	CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)		
1940	Oct	Balanced	2.5	4.7	2.2	1,995	3,250	-20.7			
	Nov	Balanced	3.8	5.1	1.3	1,913	3,252	-22.0			
	Dec	Balanced	3.9	6.2	2.3	2,044	3,370	-24.2			
	Jan	Surplus			0.0	2,921	3,629	-24.2			
	Feb	Surplus			0.0	3,252	3,252	0.0			
	Mar	Surplus			0.0	3,435	3,435	0.0			
	Apr	Surplus			0.0	4,143	4,534	0.0			
	May	Surplus			0.0	4,074	4,552	0.0			
	Jun	Balanced	24.9	21.8	-3.1	3,754	4,500	3.1			
	Jul	Balanced	27.3	15.8	-11.5	3,233	4,150	14.5			
	Aug	Balanced	19.4	16.5	-2.8	2,842	3,700	17.4			
	Sep	Balanced	3.5	11.2	7.7	2,733	3,400	9.7			
1941	Oct	Balanced	2.2	5.0	2.9	2,718	3,250	6.9			
	Nov	Balanced	3.3	4.3	1.0	2,727	3,252	5.9			
	Dec	Surplus			0.0	3,293	3,293	0.0			
	Jan	Surplus			0.0	3,317	3,317	0.0			
	Feb	Surplus			0.0	3,423	3,423	0.0			
	Mar	Surplus			0.0	3,940	3,940	0.0			
	Apr	Surplus			0.0	4,456	4,456	0.0			
	May	Surplus			0.0	4,552	4,552	0.0			
	Jun	Surplus			0.0	4,485	4,500	0.0			
	Jul	Balanced	15.5	15.5	0.0	4,150	4,150	0.0			
	Aug	Balanced	16.3	16.3	0.0	3,651	3,700	0.0			
	Sep	Surplus			0.0	3,400	3,400	0.0			
1942	Oct	Surplus			0.0	3,250	3,250	0.0			
	Nov	Balanced	3.7	8.1	4.4	3,222	3,252	-4.4			
	Dec	Surplus			0.0	3,316	3,316	0.0			
	Jan	Surplus			0.0	3,389	3,389	0.0			
	Feb	Surplus			0.0	3,516	3,516	0.0			
	Mar	Surplus			0.0	3,894	4,360	0.0			
	Apr	Surplus			0.0	4,531	4,552	0.0			
	May	Surplus			0.0	4,552	4,552	0.0			
	Jun	Surplus			0.0	4,457	4,500	0.0			
	Jul	Balanced	16.5	15.5	-1.0	4,065	4,150	1.0			
	Aug	Balanced	16.3	16.3	0.0	3,700	3,700	0.0			
	Sep	Surplus			0.0	3,400	3,400	0.0			

Appendix C-3 CALSIM II Modeling

Existing Alt 3 CVP Contract Water Use Analysis												
CVP Delivery Reductions												
Year	Month	Delta Condition	CVP Delivery Reductions				Shasta Storage Changes					
			CCWD Base (TAF)	CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)			
1943	Oct	Surplus			0.0					3,250	3,250	0.0
	Nov	Surplus			0.0					3,252	3,252	0.0
	Dec	Surplus			0.0					3,356	3,356	0.0
	Jan	Surplus			0.0					3,541	3,541	0.0
	Feb	Surplus			0.0					3,848	3,848	0.0
	Mar	Surplus			0.0					4,118	4,118	0.0
	Apr	Surplus			0.0					4,552	4,552	0.0
	May	Surplus			0.0					4,521	4,552	0.0
	Jun	Surplus			0.0					4,272	4,500	0.0
	Jul	Balanced	15.5	15.5	0.0					3,675	4,150	0.0
	Aug	Balanced	16.3	16.3	0.0					3,279	3,700	0.0
	Sep	Balanced	5.1	13.5	8.5					3,156	3,400	-8.5
1944	Oct	Balanced	3.3	7.1	3.8					3,135	3,250	-12.2
	Nov	Balanced	2.8	4.9	2.1					3,144	3,252	-14.3
	Dec	Balanced	3.6	4.7	1.1					3,111	3,370	-15.4
	Jan	Surplus			0.0					3,178	3,828	-15.4
	Feb	Surplus			0.0					3,412	4,197	-15.4
	Mar	Balanced	12.2	15.0	2.9					3,646	4,552	-18.3
	Apr	Surplus			0.0					3,633	4,552	-18.3
	May	Surplus			0.0					3,536	4,552	-18.3
	Jun	Balanced	25.7	25.7	0.0					3,279	4,500	-18.3
	Jul	Balanced	28.5	18.5	-10.0					2,905	4,150	-8.3
	Aug	Balanced	5.8	16.5	10.8					2,577	3,700	-19.1
	Sep	Balanced	2.4	7.1	4.6					2,448	3,400	-23.7
1945	Oct	Balanced	2.3	4.4	2.1					2,442	3,250	-25.8
	Nov	Surplus			0.0					2,611	3,252	-25.8
	Dec	Surplus			0.0					2,895	3,352	-25.8
	Jan	Surplus			0.0					3,096	3,791	-25.8
	Feb	Surplus			0.0					3,802	3,948	-25.8
	Mar	Balanced	11.3	5.7	-5.7					4,035	4,454	-20.2
	Apr	Surplus			0.0					4,213	4,552	-20.2
	May	Surplus			0.0					4,226	4,552	-20.2
	Jun	Balanced	25.1	23.0	-2.1					3,993	4,500	-18.1
	Jul	Balanced	27.8	16.3	-11.5					3,451	4,150	-6.6
	Aug	Balanced	11.8	16.5	4.7					3,045	3,700	-11.3
	Sep	Balanced	3.5	10.5	7.0					2,880	3,400	-18.3

Appendix C-3 CALSIM II Modeling

Existing Alt 3 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			Difference (TAF)	Accumulated Difference (TAF)	
			CCWD Base (TAF)	Div. Op. Alt (TAF)	Div. Op. Alt (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Shasta Storage (TAF)			
1946	Oct	Balanced	2.3	6.0	3.7	2,903	3,250	-22.0			
	Nov	Balanced	8.9	6.3	-2.6	3,127	3,252	-19.4			
	Dec	Surplus			0.0	3,265	3,265	0.0			
	Jan	Surplus			0.0	3,622	3,622	0.0			
	Feb	Balanced	7.6	5.7	-2.0	3,551	4,073	2.0			
	Mar	Balanced	11.3	5.8	-5.5	3,942	4,453	7.5			
	Apr	Surplus			0.0	4,142	4,552	7.5			
	May	Surplus			0.0	4,070	4,552	7.5			
	Jun	Balanced	25.1	23.0	-2.1	3,706	4,500	9.6			
	Jul	Balanced	23.8	16.3	-7.5	3,254	4,150	17.1			
	Aug	Balanced	10.7	16.5	5.9	2,891	3,700	11.2			
	Sep	Balanced	3.9	11.0	7.2	2,752	3,400	4.0			
1947	Oct	Balanced	2.9	6.3	3.4	2,677	3,250	0.6			
	Nov	Balanced	4.4	6.5	2.1	2,732	3,252	-1.5			
	Dec	Surplus			0.0	2,798	3,370	-1.5			
	Jan	Surplus			0.0	2,810	3,828	-1.5			
	Feb	Balanced	14.5	5.6	-8.9	3,022	4,188	7.3			
	Mar	Balanced	12.2	6.7	-5.5	3,490	4,438	12.8			
	Apr	Balanced	0.0	0.0	0.0	3,652	4,552	12.8			
	May	Surplus			0.0	3,305	4,552	12.8			
	Jun	Balanced	25.7	13.8	-11.9	3,089	4,500	24.7			
	Jul	Balanced	27.3	16.2	-11.0	2,649	4,150	35.8			
	Aug	Balanced	4.0	15.8	11.8	2,329	3,700	23.9			
	Sep	Balanced	1.9	6.5	4.6	2,241	3,400	19.3			
1948	Oct	Balanced	1.8	4.0	2.2	2,329	3,250	17.1			
	Nov	Balanced	4.2	6.2	2.0	2,342	3,252	15.2			
	Dec	Balanced	4.9	8.6	3.7	2,362	3,370	11.5			
	Jan	Surplus			0.0	2,923	3,752	11.5			
	Feb	Balanced	6.8	3.8	-3.0	2,701	4,254	14.5			
	Mar	Balanced	18.0	16.7	-1.2	2,996	4,479	15.7			
	Apr	Surplus			0.0	3,897	4,422	15.7			
	May	Surplus			0.0	4,250	4,552	15.7			
	Jun	Surplus			0.0	4,265	4,500	15.7			
	Jul	Balanced	27.8	27.8	0.0	3,909	4,150	15.7			
	Aug	Balanced	13.9	23.5	9.6	3,534	3,700	6.1			
	Sep	Balanced	3.7	11.7	8.0	3,400	3,400	0.0			

Appendix C-3 CALSIM II Modeling

Existing Alt 3 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			Difference (TAF)	Accumulated Difference (TAF)	
			CCWD Base (TAF)	Div. Op. Alt (TAF)	Div. Op. Alt (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Shasta Storage (TAF)			
1949	Oct	Balanced	3.0	6.7	3.6	3,246	3,250	-3.6			
	Nov	Balanced	8.3	5.9	-2.4	3,216	3,252	-1.2			
	Dec	Surplus			0.0	3,203	3,370	-1.2			
	Jan	Surplus			0.0	3,197	3,828	-1.2			
	Feb	Balanced	2.6	0.0	-2.6	3,318	4,194	1.4			
	Mar	Surplus			0.0	4,071	4,071	0.0			
	Apr	Surplus			0.0	4,392	4,552	0.0			
	May	Surplus			0.0	4,340	4,552	0.0			
	Jun	Balanced	25.7	25.1	-0.6	3,951	4,500	0.6			
	Jul	Balanced	28.5	17.1	-11.5	3,289	4,150	12.0			
	Aug	Balanced	8.3	16.5	8.3	2,882	3,700	3.8			
	Sep	Balanced	5.8	14.0	8.2	2,731	3,400	-4.4			
1950	Oct	Balanced	2.8	6.2	3.3	2,632	3,250	-7.8			
	Nov	Balanced	2.9	4.8	1.9	2,571	3,252	-9.7			
	Dec	Surplus			0.0	2,523	3,370	-9.7			
	Jan	Surplus			0.0	2,769	3,763	-9.7			
	Feb	Surplus			0.0	3,126	4,054	-9.7			
	Mar	Balanced	16.2	7.9	-8.3	3,498	4,366	-1.4			
	Apr	Surplus			0.0	3,836	4,552	-1.4			
	May	Surplus			0.0	3,792	4,552	-1.4			
	Jun	Surplus			0.0	3,510	4,500	-1.4			
	Jul	Balanced	27.8	16.3	-11.5	3,141	4,150	10.1			
	Aug	Balanced	15.6	16.5	1.0	2,806	3,700	9.1			
	Sep	Balanced	5.0	13.9	8.9	2,723	3,400	0.2			
1951	Oct	Balanced	3.6	8.0	4.4	3,007	3,250	-4.2			
	Nov	Surplus			0.0	3,252	3,252	0.0			
	Dec	Surplus			0.0	3,322	3,322	0.0			
	Jan	Surplus			0.0	3,624	3,624	0.0			
	Feb	Surplus			0.0	3,794	3,794	0.0			
	Mar	Surplus			0.0	4,181	4,352	0.0			
	Apr	Surplus			0.0	4,265	4,552	0.0			
	May	Surplus			0.0	4,283	4,552	0.0			
	Jun	Balanced	21.9	21.9	0.0	3,938	4,500	0.0			
	Jul	Balanced	15.8	15.8	0.0	3,292	4,150	0.0			
	Aug	Balanced	16.5	16.5	0.0	2,905	3,700	0.0			
	Sep	Balanced	4.3	12.5	8.2	2,804	3,400	-8.2			

Appendix C-3 CALSIM II Modeling

Existing Alt 3 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions				Shasta Storage Changes				
			CCWD Base (TAF)	CCWD Div. (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)		
1952	Oct	Balanced	3.2	6.9	3.7	2,810	3,250	-11.9			
	Nov	Balanced	3.1	6.4	3.3	2,966	3,252	-15.2			
	Dec	Surplus			0.0	3,306	3,306	0.0			
	Jan	Surplus			0.0	3,604	3,604	0.0			
	Feb	Surplus			0.0	3,739	3,739	0.0			
	Mar	Surplus			0.0	4,022	4,022	0.0			
	Apr	Surplus			0.0	4,290	4,290	0.0			
	May	Surplus			0.0	4,552	4,552	0.0			
	Jun	Surplus			0.0	4,401	4,500	0.0			
	Jul	Balanced	15.5	15.5	0.0	4,150	4,150	0.0			
	Aug	Balanced	16.3	16.3	0.0	3,700	3,700	0.0			
	Sep	Surplus			0.0	3,400	3,400	0.0			
1953	Oct	Surplus			0.0	3,250	3,250	0.0			
	Nov	Balanced	8.0	8.0	0.0	3,217	3,252	0.0			
	Dec	Surplus			0.0	3,345	3,345	0.0			
	Jan	Surplus			0.0	3,366	3,366	0.0			
	Feb	Surplus			0.0	3,714	3,960	0.0			
	Mar	Surplus			0.0	4,116	4,324	0.0			
	Apr	Surplus			0.0	4,452	4,552	0.0			
	May	Surplus			0.0	4,552	4,552	0.0			
	Jun	Surplus			0.0	4,500	4,500	0.0			
	Jul	Balanced	15.5	15.5	0.0	4,053	4,150	0.0			
	Aug	Balanced	16.3	16.3	0.0	3,700	3,700	0.0			
	Sep	Surplus			0.0	3,400	3,400	0.0			
1954	Oct	Balanced	6.7	11.7	5.0	3,250	3,250	0.0			
	Nov	Surplus			0.0	3,252	3,252	0.0			
	Dec	Surplus			0.0	3,364	3,364	0.0			
	Jan	Surplus			0.0	3,552	3,552	0.0			
	Feb	Surplus			0.0	3,661	3,661	0.0			
	Mar	Surplus			0.0	4,106	4,106	0.0			
	Apr	Surplus			0.0	4,546	4,546	0.0			
	May	Balanced	9.2	9.2	0.0	4,311	4,552	0.0			
	Jun	Balanced	21.8	21.8	0.0	4,124	4,500	0.0			
	Jul	Balanced	15.8	15.8	0.0	3,520	4,150	0.0			
	Aug	Balanced	16.5	16.5	0.0	3,199	3,700	0.0			
	Sep	Balanced	4.5	14.0	9.6	3,170	3,400	-9.6			

Appendix C-3 CALSIM II Modeling

Existing Alt 3 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions				Shasta Storage Changes				
			CCWD Base (TAF)	CCWD Div. (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)		
1955	Oct	Balanced	3.2	6.6	3.3	3,094	3,250	-12.9			
	Nov	Balanced	3.6	6.9	3.3	3,212	3,252	-16.2			
	Dec	Surplus			0.0	3,360	3,360	0.0			
	Jan	Surplus			0.0	3,427	3,813	0.0			
	Feb	Balanced	16.1	5.0	-11.0	3,507	4,234	11.0			
	Mar	Balanced	9.5	6.9	-2.6	3,661	4,552	13.6			
	Apr	Balanced	0.0	0.0	0.0	3,684	4,552	13.6			
	May	Surplus			0.0	3,766	4,552	13.6			
	Jun	Balanced	24.9	24.9	0.0	3,451	4,500	13.6			
	Jul	Balanced	17.1	17.1	0.0	2,951	4,150	13.6			
	Aug	Balanced	12.4	15.8	3.3	2,650	3,700	10.3			
	Sep	Balanced	5.6	13.9	8.3	2,579	3,400	2.0			
1956	Oct	Balanced	2.5	4.9	2.4	2,554	3,250	-0.4			
	Nov	Balanced	3.3	4.8	1.6	2,616	3,252	-1.9			
	Dec	Surplus			0.0	3,252	3,252	0.0			
	Jan	Surplus			0.0	3,252	3,252	0.0			
	Feb	Surplus			0.0	3,288	3,288	0.0			
	Mar	Surplus			0.0	3,946	4,014	0.0			
	Apr	Surplus			0.0	4,459	4,552	0.0			
	May	Surplus			0.0	4,552	4,552	0.0			
	Jun	Surplus			0.0	4,376	4,500	0.0			
	Jul	Balanced	15.5	15.5	0.0	4,046	4,150	0.0			
	Aug	Balanced	16.3	16.3	0.0	3,700	3,700	0.0			
	Sep	Surplus			0.0	3,400	3,400	0.0			
1957	Oct	Surplus			0.0	3,250	3,250	0.0			
	Nov	Balanced	8.2	8.2	0.0	3,187	3,252	0.0			
	Dec	Surplus			0.0	3,208	3,370	0.0			
	Jan	Surplus			0.0	3,317	3,828	0.0			
	Feb	Surplus			0.0	3,675	3,675	0.0			
	Mar	Surplus			0.0	4,129	4,129	0.0			
	Apr	Balanced	0.0	0.0	0.0	4,139	4,552	0.0			
	May	Surplus			0.0	4,392	4,552	0.0			
	Jun	Balanced	21.6	21.6	0.0	4,221	4,500	0.0			
	Jul	Balanced	15.8	15.8	0.0	3,615	4,150	0.0			
	Aug	Balanced	16.5	16.5	0.0	3,255	3,700	0.0			
	Sep	Balanced	3.5	11.9	8.4	3,284	3,400	-8.4			

Appendix C-3 CALSIM II Modeling

Existing Alt 3 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CCWD Div. (TAF)			Shasta Storage Changes			Difference (TAF)	Accumulated Difference (TAF)	
			Base	Div. Op. Alt	Div. Op. Alt	Original Shasta Storage	Flood Control				
1958	Oct	Surplus	8.3	15.5	7.2	3,250	3,250	3,250	0.0	0.0	
	Nov	Balanced			7.2	3,236	3,252	3,252	-7.2	-7.2	
	Dec	Surplus			0.0	3,338	3,338	3,338	0.0	0.0	
	Jan	Surplus			0.0	3,531	3,531	3,531	0.0	0.0	
	Feb	Surplus			0.0	3,252	3,252	3,252	0.0	0.0	
	Mar	Surplus			0.0	3,416	3,416	3,416	0.0	0.0	
	Apr	Surplus			0.0	4,173	4,173	4,173	0.0	0.0	
	May	Surplus			0.0	4,552	4,552	4,552	0.0	0.0	
	Jun	Surplus			0.0	4,500	4,500	4,500	0.0	0.0	
	Jul	Balanced	15.5	15.5	0.0	4,150	4,150	4,150	0.0	0.0	
	Aug	Surplus			0.0	3,700	3,700	3,700	0.0	0.0	
	Sep	Surplus			0.0	3,400	3,400	3,400	0.0	0.0	
1959	Oct	Surplus			0.0	3,250	3,250	3,250	0.0	0.0	
	Nov	Balanced	8.2	8.2	0.0	3,196	3,252	3,252	0.0	0.0	
	Dec	Surplus			0.0	3,233	3,370	3,370	0.0	0.0	
	Jan	Surplus			0.0	3,648	3,648	3,648	0.0	0.0	
	Feb	Surplus			0.0	3,777	3,777	3,777	0.0	0.0	
	Mar	Balanced	5.8	5.8	0.0	3,987	4,378	4,378	0.0	0.0	
	Apr	Surplus			0.0	4,036	4,552	4,552	0.0	0.0	
	May	Surplus			0.0	3,829	4,552	4,552	0.0	0.0	
	Jun	Balanced	23.0	23.0	0.0	3,334	4,500	4,500	0.0	0.0	
	Jul	Balanced	16.3	16.3	0.0	2,764	4,150	4,150	0.0	0.0	
	Aug	Balanced	14.6	16.5	2.0	2,345	3,700	3,700	-2.0	-2.0	
	Sep	Balanced	3.1	10.8	7.7	2,480	3,400	3,400	-9.7	-9.7	
1960	Oct	Balanced	2.0	5.1	3.1	2,399	3,250	3,250	-12.7	-12.7	
	Nov	Balanced	2.2	4.0	1.9	2,318	3,252	3,252	-14.6	-14.6	
	Dec	Balanced	8.2	8.1	0.0	2,310	3,370	3,370	-14.6	-14.6	
	Jan	Surplus			0.0	2,509	3,783	3,783	-14.6	-14.6	
	Feb	Surplus			0.0	3,219	3,994	3,994	-14.6	-14.6	
	Mar	Balanced	12.2	15.0	2.9	3,830	4,273	4,273	-17.4	-17.4	
	Apr	Balanced	0.0	0.0	0.0	3,951	4,552	4,552	-17.4	-17.4	
	May	Surplus			0.0	3,945	4,552	4,552	-17.4	-17.4	
	Jun	Balanced	25.7	25.7	0.0	3,610	4,500	4,500	-17.4	-17.4	
	Jul	Balanced	14.9	25.3	10.4	3,010	4,150	4,150	-27.8	-27.8	
	Aug	Balanced	5.8	16.5	10.8	2,643	3,700	3,700	-38.6	-38.6	
	Sep	Balanced	4.4	14.4	10.1	2,559	3,400	3,400	-48.7	-48.7	

Appendix C-3 CALSIM II Modeling

Existing Alt 3 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CCWD Div. (TAF)			Shasta Storage Changes			Difference (TAF)	Accumulated Difference (TAF)	
			Base	Div. Op. Alt	Div. Op. Alt	Original Shasta Storage	Flood Control				
1961	Oct	Balanced	2.5	5.2	2.7	2,497	3,250	3,250	-51.3	-51.3	
	Nov	Balanced			-2.6	2,573	3,252	3,252	-48.8	-48.8	
	Dec	Surplus			0.0	3,000	3,350	3,350	-48.8	-48.8	
	Jan	Surplus			0.0	3,210	3,751	3,751	-48.8	-48.8	
	Feb	Surplus			0.0	3,914	3,914	3,914	0.0	0.0	
	Mar	Balanced	12.2	8.6	-3.5	4,280	4,280	4,280	0.0	0.0	
	Apr	Balanced	4.4	0.0	-4.4	4,336	4,552	4,552	4.4	4.4	
	May	Balanced	12.6	12.2	-0.3	4,308	4,552	4,552	4.7	4.7	
	Jun	Balanced	25.7	13.8	-11.9	3,912	4,500	4,500	16.6	16.6	
	Jul	Balanced	23.0	16.2	-6.8	3,275	4,150	4,150	23.4	23.4	
	Aug	Balanced	4.4	15.8	11.4	2,793	3,700	3,700	12.0	12.0	
	Sep	Balanced	8.3	9.0	0.7	2,693	3,400	3,400	11.3	11.3	
1962	Oct	Balanced	12.2	4.5	-7.8	2,498	3,250	3,250	19.1	19.1	
	Nov	Balanced	9.6	6.1	-3.5	2,443	3,252	3,252	22.6	22.6	
	Dec	Surplus			0.0	2,743	3,356	3,356	22.6	22.6	
	Jan	Balanced	8.5	8.5	0.0	2,844	3,819	3,819	22.6	22.6	
	Feb	Surplus			0.0	3,675	3,675	3,675	0.0	0.0	
	Mar	Balanced	16.4	14.1	-2.3	4,120	4,292	4,292	2.3	2.3	
	Apr	Surplus			0.0	4,393	4,552	4,552	2.3	2.3	
	May	Surplus			0.0	4,299	4,552	4,552	2.3	2.3	
	Jun	Balanced	25.1	25.1	0.0	3,964	4,500	4,500	2.3	2.3	
	Jul	Balanced	27.8	22.6	-5.2	3,395	4,150	4,150	7.5	7.5	
	Aug	Balanced	7.9	16.5	8.6	3,010	3,700	3,700	-1.2	-1.2	
	Sep	Balanced	2.6	8.3	5.7	2,909	3,400	3,400	-6.8	-6.8	
1963	Oct	Surplus			0.0	3,250	3,250	3,250	0.0	0.0	
	Nov	Surplus			0.0	3,252	3,252	3,252	0.0	0.0	
	Dec	Surplus			0.0	3,349	3,349	3,349	0.0	0.0	
	Jan	Surplus			0.0	3,459	3,764	3,764	0.0	0.0	
	Feb	Surplus			0.0	3,944	3,944	3,944	0.0	0.0	
	Mar	Balanced	5.0	5.0	0.0	4,036	4,226	4,226	0.0	0.0	
	Apr	Surplus			0.0	4,137	4,137	4,137	0.0	0.0	
	May	Surplus			0.0	4,422	4,552	4,552	0.0	0.0	
	Jun	Balanced	19.4	19.4	0.0	4,214	4,500	4,500	0.0	0.0	
	Jul	Balanced	15.5	15.5	0.0	3,697	4,150	4,150	0.0	0.0	
	Aug	Balanced	16.3	16.3	0.0	3,390	3,700	3,700	0.0	0.0	
	Sep	Balanced	7.1	13.5	6.5	3,368	3,400	3,400	-6.5	-6.5	

Appendix C-3 CALSIM II Modeling

Existing Alt 3 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			Difference (TAF)	Accumulated Difference (TAF)	
			CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	CCWD Div. Div. Op. Alt (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Shasta Storage (TAF)			
1964	Oct	Balanced	2.5	7.3	4.8	3,250	3,250	3,250	0.0	0.0	
	Nov	Surplus			0.0	3,252	3,252	3,252	0.0	0.0	
	Dec	Surplus			0.0	3,321	3,366	3,366	0.0	0.0	
	Jan	Surplus			0.0	3,687	3,705	3,705	0.0	0.0	
	Feb	Balanced	5.2	5.2	0.0	3,850	4,194	4,194	0.0	0.0	
	Mar	Balanced	6.9	6.9	0.0	4,000	4,552	4,552	0.0	0.0	
	Apr	Balanced	0.0	0.0	0.0	3,676	4,552	4,552	0.0	0.0	
	May	Surplus			0.0	3,456	4,552	4,552	0.0	0.0	
	Jun	Balanced	25.1	25.1	0.0	3,223	4,500	4,500	0.0	0.0	
	Jul	Balanced	16.5	17.1	0.6	2,757	4,150	4,150	-0.6	-0.6	
	Aug	Balanced	4.0	14.4	10.4	2,448	3,700	3,700	-11.0	-11.0	
	Sep	Balanced	2.6	8.3	5.7	2,358	3,400	3,400	-16.7	-16.7	
1965	Oct	Balanced	2.0	4.6	2.6	2,361	3,250	3,250	-19.2	-19.2	
	Nov	Surplus			0.0	2,466	3,252	3,252	0.0	0.0	
	Dec	Surplus			0.0	3,252	3,252	3,252	0.0	0.0	
	Jan	Surplus			0.0	3,368	3,368	3,368	0.0	0.0	
	Feb	Surplus			0.0	3,803	3,913	3,913	0.0	0.0	
	Mar	Balanced	10.9	5.2	-5.7	3,898	4,547	4,547	5.7	5.7	
	Apr	Surplus			0.0	4,500	4,500	4,500	0.0	0.0	
	May	Balanced	9.2	9.2	0.0	4,434	4,552	4,552	0.0	0.0	
	Jun	Balanced	23.6	19.9	-3.6	4,132	4,500	4,500	3.6	3.6	
	Jul	Balanced	21.7	15.5	-6.2	3,528	4,150	4,150	9.8	9.8	
	Aug	Balanced	16.3	16.3	0.0	3,271	3,700	3,700	9.8	9.8	
	Sep	Balanced	4.8	13.5	8.7	3,214	3,400	3,400	1.1	1.1	
1966	Oct	Balanced	3.0	6.4	3.4	3,200	3,250	3,250	-2.3	-2.3	
	Nov	Surplus			0.0	3,252	3,252	3,252	0.0	0.0	
	Dec	Surplus			0.0	3,326	3,359	3,359	0.0	0.0	
	Jan	Surplus			0.0	3,725	3,725	3,725	0.0	0.0	
	Feb	Balanced	4.4	5.0	0.6	4,037	4,037	4,037	0.0	0.0	
	Mar	Balanced	6.6	5.9	-0.6	4,229	4,229	4,229	0.0	0.0	
	Apr	Surplus			0.0	4,552	4,552	4,552	0.0	0.0	
	May	Surplus			0.0	4,417	4,552	4,552	0.0	0.0	
	Jun	Balanced	23.0	23.0	0.0	3,935	4,500	4,500	0.0	0.0	
	Jul	Balanced	16.3	16.3	0.0	3,305	4,150	4,150	0.0	0.0	
	Aug	Balanced	10.2	16.5	6.3	2,920	3,700	3,700	-6.3	-6.3	
	Sep	Balanced	3.8	10.8	7.0	2,844	3,400	3,400	-13.3	-13.3	

Appendix C-3 CALSIM II Modeling

Existing Alt 3 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			Difference (TAF)	Accumulated Difference (TAF)	
			CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	CCWD Div. Div. Op. Alt (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Shasta Storage (TAF)			
1967	Oct	Balanced	3.4	6.1	2.7	2,737	3,250	3,250	0.0	-16.1	
	Nov	Surplus			0.0	3,063	3,252	3,252	0.0	-16.1	
	Dec	Surplus			0.0	3,335	3,335	3,335	0.0	0.0	
	Jan	Surplus			0.0	3,551	3,551	3,551	0.0	0.0	
	Feb	Balanced	5.2	5.2	0.0	3,920	3,920	3,920	0.0	0.0	
	Mar	Balanced	6.9	6.9	0.0	4,033	4,033	4,033	0.0	0.0	
	Apr	Balanced	0.0	0.0	0.0	4,479	4,479	4,479	0.0	0.0	
	May	Surplus			0.0	4,552	4,552	4,552	0.0	0.0	
	Jun	Balanced	25.1	25.1	0.0	4,500	4,500	4,500	0.0	0.0	
	Jul	Balanced	16.5	17.1	0.6	4,150	4,150	4,150	0.0	0.0	
	Aug	Balanced	4.0	14.4	10.4	3,700	3,700	3,700	0.0	0.0	
	Sep	Surplus	2.6	8.3	5.7	3,400	3,400	3,400	0.0	0.0	
1968	Oct	Balanced	2.0	4.6	2.6	2,361	3,250	3,250	0.0	0.0	
	Nov	Surplus			0.0	2,466	3,252	3,252	0.0	0.0	
	Dec	Surplus			0.0	3,252	3,252	3,252	0.0	0.0	
	Jan	Surplus			0.0	3,368	3,368	3,368	0.0	0.0	
	Feb	Surplus			0.0	3,803	3,913	3,913	0.0	0.0	
	Mar	Balanced	10.9	5.2	-5.7	3,898	4,547	4,547	5.7	5.7	
	Apr	Surplus			0.0	4,500	4,500	4,500	0.0	0.0	
	May	Balanced	9.2	9.2	0.0	4,434	4,552	4,552	0.0	0.0	
	Jun	Balanced	23.6	19.9	-3.6	4,132	4,500	4,500	3.6	3.6	
	Jul	Balanced	21.7	15.5	-6.2	3,528	4,150	4,150	9.8	9.8	
	Aug	Balanced	16.3	16.3	0.0	3,271	3,700	3,700	9.8	9.8	
	Sep	Balanced	4.8	13.5	8.7	3,214	3,400	3,400	1.1	1.1	
1969	Oct	Balanced	3.0	6.4	3.4	3,200	3,250	3,250	-2.3	-2.3	
	Nov	Surplus			0.0	3,252	3,252	3,252	0.0	0.0	
	Dec	Surplus			0.0	3,326	3,359	3,359	0.0	0.0	
	Jan	Surplus			0.0	3,725	3,725	3,725	0.0	0.0	
	Feb	Balanced	4.4	5.0	0.6	4,037	4,037	4,037	0.0	0.0	
	Mar	Balanced	6.6	5.9	-0.6	4,229	4,229	4,229	0.0	0.0	
	Apr	Surplus			0.0	4,552	4,552	4,552	0.0	0.0	
	May	Surplus			0.0	4,417	4,552	4,552	0.0	0.0	
	Jun	Balanced	23.0	23.0	0.0	3,935	4,500	4,500	0.0	0.0	
	Jul	Balanced	16.3	16.3	0.0	3,305	4,150	4,150	0.0	0.0	
	Aug	Balanced	10.2	16.5	6.3	2,920	3,700	3,700	-6.3	-6.3	
	Sep	Balanced	3.8	10.8	7.0	2,844	3,400	3,400	-13.3	-13.3	

Appendix C-3 CALSIM II Modeling

Existing Alt 3 CVP Contract Water Use Analysis										
CVP Delivery Reductions										
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes				
			CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	Shasta Storage (TAF)	Flood Control (TAF)
1970	Oct	Surplus	3,250	0.0	0.0	3,250	3,250	0.0		
	Nov	Surplus	3,247	0.0	3,252	3,247	3,252	0.0		
	Dec	Surplus	3,317	0.0	3,317	3,317	3,317	0.0		
	Jan	Surplus	3,252	0.0	3,252	3,252	3,252	0.0		
	Feb	Surplus	3,431	0.0	3,431	3,431	3,431	0.0		
	Mar	Surplus	4,061	0.0	4,172	4,061	4,172	0.0		
	Apr	Balanced	0.0	0.0	3,978	3,978	4,552	0.0		
	May	Surplus	3,839	0.0	4,552	3,839	4,552	0.0		
	Jun	Balanced	20.2	20.2	3,551	3,551	4,500	0.0		
	Jul	Balanced	15.5	15.5	3,009	3,009	4,150	0.0		
	Aug	Balanced	16.3	16.3	2,703	2,703	3,700	0.0		
	Sep	Balanced	5.5	13.5	8.0	2,667	3,400	-8.0		
1971	Oct	Balanced	2.5	5.9	3.4	2,696	3,250	-11.5		
	Nov	Surplus	3,141	0.0	3,252	3,141	3,252	-11.5		
	Dec	Surplus	3,319	0.0	3,319	3,319	3,319	0.0		
	Jan	Surplus	3,515	0.0	3,515	3,515	3,515	0.0		
	Feb	Balanced	5.1	5.1	3,673	3,673	3,966	0.0		
	Mar	Surplus	3,873	0.0	3,873	3,873	3,873	0.0		
	Apr	Balanced	0.0	0.0	4,375	4,375	4,552	0.0		
	May	Surplus	4,552	0.0	4,552	4,552	4,552	0.0		
	Jun	Balanced	20.1	20.1	4,500	4,500	4,500	0.0		
	Jul	Balanced	15.5	15.5	4,000	4,000	4,150	0.0		
	Aug	Balanced	16.3	16.3	3,682	3,682	3,700	0.0		
	Sep	Surplus	3,400	0.0	3,400	3,400	3,400	0.0		
1972	Oct	Balanced	11.3	11.7	0.5	3,250	3,250	0.0		
	Nov	Balanced	3.8	8.1	4.4	3,200	3,252	-4.4		
	Dec	Surplus	3,327	0.0	3,365	3,327	3,365	-4.4		
	Jan	Surplus	3,670	0.0	3,714	3,670	3,714	-4.4		
	Feb	Balanced	14.9	1.7	-13.1	3,979	3,979	0.0		
	Mar	Surplus	4,249	0.0	4,249	4,249	4,249	0.0		
	Apr	Balanced	0.0	0.0	4,424	4,424	4,552	0.0		
	May	Surplus	4,304	0.0	4,304	4,304	4,552	0.0		
	Jun	Balanced	23.0	23.0	3,830	3,830	4,500	0.0		
	Jul	Balanced	16.3	16.3	3,216	3,216	4,150	0.0		
	Aug	Balanced	11.3	16.5	5.2	2,917	3,700	-5.2		
	Sep	Balanced	3.0	9.7	6.7	2,901	3,400	-11.9		

Appendix C-3 CALSIM II Modeling

Existing Alt 3 CVP Contract Water Use Analysis										
CVP Delivery Reductions										
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes				
			CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	Shasta Storage (TAF)	Flood Control (TAF)
1973	Oct	Balanced	1.8	4.2	2.4	2,996	3,250	-14.3		
	Nov	Surplus	3,228	0.0	3,228	3,228	3,250	-14.3		
	Dec	Surplus	3,346	0.0	3,346	3,346	3,346	0.0		
	Jan	Surplus	3,252	0.0	3,252	3,252	3,252	0.0		
	Feb	Surplus	3,636	0.0	3,636	3,636	3,636	0.0		
	Mar	Surplus	4,162	0.0	4,162	4,162	4,162	0.0		
	Apr	Surplus	4,447	0.0	4,447	4,447	4,552	0.0		
	May	Surplus	4,424	0.0	4,424	4,424	4,552	0.0		
	Jun	Balanced	21.9	21.9	4,028	4,028	4,500	0.0		
	Jul	Balanced	15.8	15.8	3,436	3,436	4,150	0.0		
	Aug	Balanced	16.5	16.5	3,180	3,180	3,700	0.0		
	Sep	Balanced	5.3	14.0	8.7	3,144	3,400	-8.7		
1974	Oct	Balanced	2.2	5.8	3.6	3,235	3,250	-12.3		
	Nov	Surplus	3,252	0.0	3,252	3,252	3,252	0.0		
	Dec	Surplus	3,267	0.0	3,267	3,267	3,267	0.0		
	Jan	Surplus	3,252	0.0	3,252	3,252	3,252	0.0		
	Feb	Surplus	3,694	0.0	3,694	3,694	3,694	0.0		
	Mar	Surplus	3,416	0.0	3,416	3,416	3,416	0.0		
	Apr	Surplus	4,289	0.0	4,289	4,289	4,289	0.0		
	May	Surplus	4,480	0.0	4,480	4,480	4,552	0.0		
	Jun	Surplus	4,348	0.0	4,348	4,348	4,500	0.0		
	Jul	Balanced	15.5	15.5	4,116	4,116	4,150	0.0		
	Aug	Balanced	16.3	16.3	3,700	3,700	3,700	0.0		
	Sep	Surplus	3,400	0.0	3,400	3,400	3,400	0.0		
1975	Oct	Surplus	8.2	8.2	0.0	3,250	3,250	0.0		
	Nov	Balanced	3,207	0.0	3,207	3,207	3,252	0.0		
	Dec	Surplus	3,324	0.0	3,324	3,324	3,372	0.0		
	Jan	Surplus	3,487	0.0	3,487	3,487	3,835	0.0		
	Feb	Surplus	3,936	0.0	3,936	3,936	3,936	0.0		
	Mar	Surplus	3,756	0.0	3,756	3,756	3,756	0.0		
	Apr	Surplus	4,343	0.0	4,343	4,343	4,552	0.0		
	May	Surplus	4,552	0.0	4,552	4,552	4,552	0.0		
	Jun	Surplus	4,440	0.0	4,440	4,440	4,500	0.0		
	Jul	Balanced	15.5	15.5	4,150	4,150	4,150	0.0		
	Aug	Balanced	16.3	16.3	3,700	3,700	3,700	0.0		
	Sep	Surplus	3,400	0.0	3,400	3,400	3,400	0.0		

Appendix C-3 CALSIM II Modeling

Existing Alt 3 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			Difference (TAF)	Accumulated Difference (TAF)	
			CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	CCWD Div. Base (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)				
1976	Oct	Surplus				3,250	3,250	3,250	0.0	0.0	
	Nov	Surplus				3,252	3,252	3,252	0.0	0.0	
	Dec	Surplus				3,318	3,372	3,372	0.0	0.0	
	Jan	Surplus				3,529	3,835	3,835	0.0	0.0	
	Feb	Balanced	1.4	2.2	0.8	3,647	4,146	4,146	-0.8	-0.8	
	Mar	Balanced	8.3	8.5	0.2	3,877	4,552	4,552	-1.0	-1.0	
	Apr	Surplus				3,956	4,552	4,552	-1.0	-1.0	
	May	Surplus				3,798	4,552	4,552	-1.0	-1.0	
	Jun	Balanced	9.7	11.6	1.9	3,276	4,500	4,500	-2.9	-2.9	
	Jul	Balanced	13.4	16.2	2.8	2,907	4,150	4,150	-5.8	-5.8	
	Aug	Balanced	15.8	15.8	0.0	2,859	3,700	3,700	-5.8	-5.8	
	Sep	Balanced	4.2	12.5	8.3	2,829	3,400	3,400	-14.0	-14.0	
1977	Oct	Balanced	2.5	5.4	2.9	2,820	3,250	3,250	-16.9	-16.9	
	Nov	Balanced	7.7	8.1	0.4	2,789	3,252	3,252	-17.3	-17.3	
	Dec	Balanced	9.3	6.6	-2.8	2,770	3,372	3,372	-14.6	-14.6	
	Jan	Surplus				2,798	3,835	3,835	-14.6	-14.6	
	Feb	Balanced	8.9	3.8	-5.1	2,750	4,253	4,253	-9.5	-9.5	
	Mar	Balanced	8.8	3.3	-5.5	2,729	4,552	4,552	-4.0	-4.0	
	Apr	Balanced	10.7	7.0	-3.7	2,441	4,552	4,552	-0.3	-0.3	
	May	Balanced	13.6	13.6	0.0	2,271	4,552	4,552	-0.3	-0.3	
	Jun	Balanced	15.1	15.1	0.0	1,747	4,500	4,500	-0.3	-0.3	
	Jul	Balanced	16.2	16.2	0.0	1,149	4,150	4,150	-0.3	-0.3	
	Aug	Balanced	15.8	15.8	0.0	744	3,700	3,700	-0.3	-0.3	
	Sep	Balanced	14.0	14.0	0.0	674	3,400	3,400	-0.3	-0.3	
1978	Oct	Balanced	12.1	12.1	0.0	550	3,250	3,250	-0.3	-0.3	
	Nov	Balanced	9.8	9.8	0.0	575	3,252	3,252	-0.3	-0.3	
	Dec	Surplus				1,112	3,350	3,350	-0.3	-0.3	
	Jan	Surplus				3,025	3,321	3,321	-0.3	-0.3	
	Feb	Surplus				3,567	3,567	3,567	0.0	0.0	
	Mar	Surplus				4,000	4,000	4,000	0.0	0.0	
	Apr	Surplus				4,552	4,552	4,552	0.0	0.0	
	May	Surplus				4,552	4,552	4,552	0.0	0.0	
	Jun	Surplus				4,235	4,500	4,500	0.0	0.0	
	Jul	Balanced	27.3	27.3	0.0	3,727	4,150	4,150	0.0	0.0	
	Aug	Balanced	23.5	23.5	0.0	3,329	3,700	3,700	0.0	0.0	
	Sep	Balanced	4.9	14.0	9.1	3,310	3,400	3,400	-9.1	-9.1	

Appendix C-3 CALSIM II Modeling

Existing Alt 3 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			Difference (TAF)	Accumulated Difference (TAF)	
			CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	CCWD Div. Base (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)				
1979	Oct	Balanced	3.5	12.3	8.8	3,200	3,200	3,250	8.8	-17.8	
	Nov	Balanced	2.8	8.5	5.8	3,166	3,166	3,252	5.8	-23.6	
	Dec	Surplus				3,111	3,111	3,368	0.0	-23.6	
	Jan	Surplus				3,193	3,193	3,824	0.0	-23.6	
	Feb	Surplus				3,475	3,475	4,100	0.0	-23.6	
	Mar	Surplus				3,981	3,981	4,360	0.0	-23.6	
	Apr	Balanced	0.0	0.0	0.0	4,156	4,156	4,552	0.0	-23.6	
	May	Surplus				4,203	4,203	4,552	0.0	-23.6	
	Jun	Balanced	25.1	22.9	-2.2	3,698	3,698	4,500	-2.2	-21.4	
	Jul	Balanced	21.9	16.3	-5.6	3,193	3,193	4,150	-5.6	-15.9	
	Aug	Balanced	11.9	16.5	4.7	2,907	2,907	3,700	4.7	-20.5	
	Sep	Balanced	3.5	10.4	7.0	2,819	2,819	3,400	7.0	-27.5	
1980	Oct	Balanced	2.5	5.9	3.4	2,868	2,868	3,250	3.4	-30.9	
	Nov	Balanced	4.0	7.3	3.3	2,980	2,980	3,252	3.3	-34.2	
	Dec	Surplus				3,096	3,096	3,367	0.0	-34.2	
	Jan	Surplus				3,528	3,528	3,528	0.0	0.0	
	Feb	Surplus				3,292	3,292	3,292	0.0	0.0	
	Mar	Surplus				3,938	3,938	4,100	0.0	0.0	
	Apr	Surplus				4,239	4,239	4,552	0.0	0.0	
	May	Surplus				4,179	4,179	4,552	0.0	0.0	
	Jun	Surplus				3,875	3,875	4,500	0.0	0.0	
	Jul	Balanced	15.8	15.8	0.0	3,464	3,464	4,150	0.0	0.0	
	Aug	Balanced	16.5	16.5	0.0	3,150	3,150	3,700	0.0	0.0	
	Sep	Balanced	6.7	14.0	7.3	3,111	3,111	3,400	7.3	-7.3	
1981	Oct	Balanced	4.5	12.3	7.7	3,092	3,092	3,250	7.7	-15.1	
	Nov	Balanced	3.0	8.7	5.7	3,068	3,068	3,252	5.7	-20.8	
	Dec	Surplus				3,151	3,151	3,370	0.0	-20.8	
	Jan	Surplus				3,449	3,449	3,747	0.0	-20.8	
	Feb	Balanced	16.1	5.0	-11.1	3,787	3,787	4,030	-11.1	-9.7	
	Mar	Surplus				4,256	4,256	4,256	0.0	0.0	
	Apr	Surplus				4,397	4,397	4,552	0.0	0.0	
	May	Surplus				4,159	4,159	4,552	0.0	0.0	
	Jun	Balanced	25.7	25.1	-0.6	3,603	3,603	4,500	-0.6	0.6	
	Jul	Balanced	14.7	17.1	2.4	2,966	2,966	4,150	2.4	-1.7	
	Aug	Balanced	4.6	15.4	10.7	2,661	2,661	3,700	10.7	-12.5	
	Sep	Balanced	2.8	8.3	5.6	2,571	2,571	3,400	5.6	-18.0	

Appendix C-3 CALSIM II Modeling

Existing Alt 3 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions				Shasta Storage Changes				
			CCWD Base (TAF)	CCWD Div. (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)		
1982	Oct	Balanced	2.6	5.3	2.8	2,543	3,250	-20.8			
	Nov	Surplus			0.0	3,252	3,252	0.0			
	Dec	Surplus			0.0	3,276	3,276	0.0			
	Jan	Surplus			0.0	3,616	3,616	0.0			
	Feb	Surplus			0.0	3,530	3,530	0.0			
	Mar	Surplus			0.0	3,953	3,953	0.0			
	Apr	Surplus			0.0	4,094	4,094	0.0			
	May	Surplus			0.0	4,304	4,552	0.0			
	Jun	Surplus			0.0	4,138	4,500	0.0			
	Jul	Balanced	15.5	15.5	0.0	3,855	4,150	0.0			
	Aug	Balanced	16.3	16.3	0.0	3,558	3,700	0.0			
	Sep	Surplus			0.0	3,400	3,400	0.0			
1983	Oct	Surplus			0.0	3,250	3,250	0.0			
	Nov	Surplus			0.0	3,252	3,252	0.0			
	Dec	Surplus			0.0	3,328	3,328	0.0			
	Jan	Surplus			0.0	3,371	3,371	0.0			
	Feb	Surplus			0.0	3,252	3,252	0.0			
	Mar	Surplus			0.0	3,417	3,417	0.0			
	Apr	Surplus			0.0	4,074	4,074	0.0			
	May	Surplus			0.0	4,552	4,552	0.0			
	Jun	Surplus			0.0	4,500	4,500	0.0			
	Jul	Surplus			0.0	4,150	4,150	0.0			
	Aug	Surplus			0.0	3,700	3,700	0.0			
	Sep	Surplus			0.0	3,400	3,400	0.0			
1984	Oct	Surplus			0.0	3,250	3,250	0.0			
	Nov	Surplus			0.0	3,252	3,252	0.0			
	Dec	Surplus			0.0	3,285	3,285	0.0			
	Jan	Surplus			0.0	3,650	3,650	0.0			
	Feb	Surplus			0.0	3,995	4,005	0.0			
	Mar	Surplus			0.0	4,246	4,246	0.0			
	Apr	Balanced	0.0	0.0	0.0	4,347	4,552	0.0			
	May	Surplus			0.0	4,311	4,552	0.0			
	Jun	Balanced	20.2	20.2	0.0	4,069	4,500	0.0			
	Jul	Balanced	15.5	15.5	0.0	3,466	4,150	0.0			
	Aug	Balanced	16.3	16.3	0.0	3,249	3,700	0.0			
	Sep	Balanced	5.0	13.5	8.5	3,245	3,400	-8.5			

Appendix C-3 CALSIM II Modeling

Existing Alt 3 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions				Shasta Storage Changes				
			CCWD Base (TAF)	CCWD Div. (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)		
1985	Oct	Balanced	2.7	6.5	3.8	3,250	3,250	0.0			
	Nov	Surplus			0.0	3,252	3,252	0.0			
	Dec	Surplus			0.0	3,360	3,360	0.0			
	Jan	Surplus			0.0	3,484	3,484	0.0			
	Feb	Balanced	5.0	5.0	0.0	3,618	4,232	0.0			
	Mar	Balanced	6.7	6.7	0.0	3,752	4,552	0.0			
	Apr	Balanced	0.0	0.0	0.0	3,857	4,552	0.0			
	May	Balanced	12.2	12.2	0.0	3,505	4,552	0.0			
	Jun	Balanced	25.1	25.1	0.0	3,094	4,500	0.0			
	Jul	Balanced	13.9	17.1	3.1	2,649	4,150	-3.1			
	Aug	Balanced	4.6	14.0	9.4	2,335	3,700	-12.6			
	Sep	Balanced	3.3	9.0	5.8	2,311	3,400	-18.3			
1986	Oct	Balanced	3.1	6.7	3.6	2,205	3,250	-21.9			
	Nov	Balanced	3.5	6.0	2.5	2,220	3,252	-24.4			
	Dec	Surplus			0.0	2,376	3,372	-24.4			
	Jan	Surplus			0.0	2,941	3,658	-24.4			
	Feb	Surplus			0.0	3,252	3,252	0.0			
	Mar	Surplus			0.0	3,534	3,534	0.0			
	Apr	Surplus			0.0	3,973	4,552	0.0			
	May	Surplus			0.0	3,910	4,552	0.0			
	Jun	Balanced	23.6	20.0	-3.5	3,502	4,500	3.5			
	Jul	Balanced	27.0	15.5	-11.5	3,132	4,150	15.0			
	Aug	Balanced	23.3	16.3	-7.0	2,812	3,700	22.0			
	Sep	Balanced	8.8	13.5	4.7	2,825	3,400	17.3			
1987	Oct	Balanced	4.4	10.4	6.0	2,853	3,250	11.4			
	Nov	Balanced	2.7	6.9	4.2	2,836	3,252	7.2			
	Dec	Surplus			0.0	2,820	3,372	7.2			
	Jan	Surplus			0.0	2,936	3,835	7.2			
	Feb	Surplus			0.0	3,277	4,141	7.2			
	Mar	Surplus			0.0	4,003	4,298	7.2			
	Apr	Balanced	0.0	0.0	0.0	3,816	4,552	7.2			
	May	Balanced	12.2	12.2	0.0	3,530	4,552	7.2			
	Jun	Balanced	25.7	25.1	-0.6	3,050	4,500	7.8			
	Jul	Balanced	28.5	17.1	-11.5	2,568	4,150	19.2			
	Aug	Balanced	7.1	16.5	9.4	2,253	3,700	9.8			
	Sep	Balanced	2.7	8.8	6.2	2,153	3,400	3.6			

Appendix C-3 CALSIM II Modeling

Existing Alt 3 CVP Contract Water Use Analysis												
CVP Delivery Reductions										Shasta Storage Changes		
Year	Month	Delta Condition	CCWD Div. Base (TAF)	CCWD Div. Op. Alt (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)
1988	Oct	Balanced	2.1	4.2	2.1	2.1	2,079	3,250	1.5	2,079	3,250	1.5
	Nov	Balanced	3.3	5.4	2.1	2.1	2,053	3,252	-0.5	2,053	3,252	-0.5
	Dec	Surplus			0.0	0.0	2,557	3,358	-0.5	2,557	3,358	-0.5
	Jan	Surplus			0.0	0.0	2,991	3,727	-0.5	2,991	3,727	-0.5
	Feb	Balanced	18.8	18.8	0.0	0.0	2,872	4,194	-0.5	2,872	4,194	-0.5
	Mar	Balanced	14.1	12.5	-1.6	-1.6	2,928	4,552	1.1	2,928	4,552	1.1
	Apr	Surplus			0.0	0.0	2,950	4,552	1.1	2,950	4,552	1.1
	May	Surplus			0.0	0.0	2,928	4,552	1.1	2,928	4,552	1.1
	Jun	Balanced	27.0	15.5	-11.5	-11.5	2,519	4,500	12.6	2,519	4,500	12.6
	Jul	Balanced	28.5	16.2	-12.3	-12.3	2,016	4,150	24.9	2,016	4,150	24.9
	Aug	Balanced	10.4	15.8	5.4	5.4	1,720	3,700	19.5	1,720	3,700	19.5
	Sep	Balanced	4.2	11.3	7.1	7.1	1,589	3,400	12.4	1,589	3,400	12.4
1989	Oct	Balanced	1.6	4.1	2.5	2.5	1,493	3,250	9.9	1,493	3,250	9.9
	Nov	Balanced	1.3	3.4	2.0	2.0	1,702	3,252	7.8	1,702	3,252	7.8
	Dec	Surplus			0.0	0.0	1,800	3,370	7.8	1,800	3,370	7.8
	Jan	Surplus			0.0	0.0	1,905	3,835	7.8	1,905	3,835	7.8
	Feb	Balanced	8.9	4.4	-4.5	-4.5	2,015	4,253	12.3	2,015	4,253	12.3
	Mar	Surplus			0.0	0.0	3,396	3,841	12.3	3,396	3,841	12.3
	Apr	Surplus			0.0	0.0	3,781	4,552	12.3	3,781	4,552	12.3
	May	Balanced	12.6	12.2	-0.3	-0.3	3,578	4,552	12.7	3,578	4,552	12.7
	Jun	Balanced	25.7	25.7	0.0	0.0	3,230	4,500	12.7	3,230	4,500	12.7
	Jul	Balanced	28.5	28.5	0.0	0.0	2,776	4,150	12.7	2,776	4,150	12.7
	Aug	Balanced	4.1	17.6	13.5	13.5	2,442	3,700	-0.9	2,442	3,700	-0.9
	Sep	Balanced	3.0	10.4	7.4	7.4	2,463	3,400	-8.2	2,463	3,400	-8.2
1990	Oct	Balanced	12.2	5.9	-6.4	-6.4	2,554	3,250	-1.9	2,554	3,250	-1.9
	Nov	Balanced	9.6	5.8	-3.9	-3.9	2,529	3,252	2.0	2,529	3,252	2.0
	Dec	Balanced	8.8	8.8	0.0	0.0	2,469	3,372	2.0	2,469	3,372	2.0
	Jan	Surplus			0.0	0.0	2,690	3,822	2.0	2,690	3,822	2.0
	Feb	Balanced	7.3	5.2	-2.1	-2.1	2,671	4,253	4.1	2,671	4,253	4.1
	Mar	Balanced	14.1	8.8	-5.3	-5.3	2,938	4,552	9.3	2,938	4,552	9.3
	Apr	Balanced	5.9	0.0	-5.9	-5.9	2,782	4,552	15.2	2,782	4,552	15.2
	May	Surplus			0.0	0.0	2,926	4,552	15.2	2,926	4,552	15.2
	Jun	Balanced	23.8	15.1	-8.7	-8.7	2,738	4,500	23.9	2,738	4,500	23.9
	Jul	Balanced	8.4	14.6	6.3	6.3	2,226	4,150	17.7	2,226	4,150	17.7
	Aug	Balanced	15.8	15.8	0.0	0.0	1,960	3,700	17.7	1,960	3,700	17.7
	Sep	Balanced	14.0	13.9	-0.1	-0.1	1,903	3,400	17.8	1,903	3,400	17.8

Appendix C-3 CALSIM II Modeling

Existing Alt 3 CVP Contract Water Use Analysis												
CVP Delivery Reductions										Shasta Storage Changes		
Year	Month	Delta Condition	CCWD Div. Base (TAF)	CCWD Div. Op. Alt (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)
1991	Oct	Balanced	12.1	6.5	-5.6	-5.6	1,845	3,250	23.4	1,845	3,250	23.4
	Nov	Balanced	9.8	9.8	0.0	0.0	1,851	3,252	23.4	1,851	3,252	23.4
	Dec	Surplus			0.0	0.0	1,804	3,372	23.4	1,804	3,372	23.4
	Jan	Surplus			0.0	0.0	1,807	3,835	23.4	1,807	3,835	23.4
	Feb	Balanced	7.6	8.9	1.3	1.3	1,820	4,253	22.1	1,820	4,253	22.1
	Mar	Surplus			0.0	0.0	2,225	4,552	22.1	2,225	4,552	22.1
	Apr	Balanced	13.0	10.9	-2.1	-2.1	2,367	4,552	24.2	2,367	4,552	24.2
	May	Surplus			0.0	0.0	2,296	4,552	24.2	2,296	4,552	24.2
	Jun	Balanced	15.1	15.1	0.0	0.0	2,019	4,500	24.2	2,019	4,500	24.2
	Jul	Balanced	16.2	16.2	0.0	0.0	1,716	4,150	24.2	1,716	4,150	24.2
	Aug	Balanced	15.8	15.8	0.0	0.0	1,452	3,700	24.2	1,452	3,700	24.2
	Sep	Balanced	14.0	14.0	0.0	0.0	1,341	3,400	24.2	1,341	3,400	24.2
1992	Oct	Balanced	12.1	12.1	0.0	0.0	1,324	3,250	24.2	1,324	3,250	24.2
	Nov	Balanced	9.8	9.8	0.0	0.0	1,249	3,252	24.2	1,249	3,252	24.2
	Dec	Surplus			0.0	0.0	1,244	3,372	24.2	1,244	3,372	24.2
	Jan	Surplus			0.0	0.0	1,290	3,835	24.2	1,290	3,835	24.2
	Feb	Surplus			0.0	0.0	1,948	4,253	24.2	1,948	4,253	24.2
	Mar	Balanced	14.1	17.2	3.1	3.1	2,393	4,552	21.1	2,393	4,552	21.1
	Apr	Balanced	7.2	4.4	-2.8	-2.8	2,618	4,552	23.9	2,618	4,552	23.9
	May	Balanced	14.0	14.0	0.0	0.0	2,338	4,552	23.9	2,338	4,552	23.9
	Jun	Balanced	15.1	15.1	0.0	0.0	1,924	4,500	23.9	1,924	4,500	23.9
	Jul	Balanced	16.2	16.2	0.0	0.0	1,455	4,150	23.9	1,455	4,150	23.9
	Aug	Balanced	15.8	15.8	0.0	0.0	1,017	3,700	23.9	1,017	3,700	23.9
	Sep	Balanced	14.0	14.0	0.0	0.0	841	3,400	23.9	841	3,400	23.9
1993	Oct	Balanced	12.1	12.1	0.0	0.0	765	3,250	23.9	765	3,250	23.9
	Nov	Balanced	9.8	9.8	0.0	0.0	737	3,252	23.9	737	3,252	23.9
	Dec	Surplus			0.0	0.0	968	3,350	23.9	968	3,350	23.9
	Jan	Surplus			0.0	0.0	1,617	3,321	23.9	1,617	3,321	23.9
	Feb	Surplus			0.0	0.0	2,347	3,567	23.9	2,347	3,567	23.9
	Mar	Surplus			0.0	0.0	3,814	4,000	23.9	3,814	4,000	23.9
	Apr	Surplus			0.0	0.0	4,440	4,552	23.9	4,440	4,552	23.9
	May	Surplus			0.0	0.0	4,552	4,552	0.0	4,552	4,552	0.0
	Jun	Surplus			0.0	0.0	4,500	4,500	0.0	4,500	4,500	0.0
	Jul	Balanced	27.3	27.3	0.0	0.0	3,917	4,150	0.0	3,917	4,150	0.0
	Aug	Balanced	23.5	23.5	0.0	0.0	3,644	3,700	0.0	3,644	3,700	0.0
	Sep	Balanced	5.6	14.0	8.4	8.4	3,400	3,400	0.0	3,400	3,400	0.0

Appendix C-3 CALSIM II Modeling

Existing Alt 3 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	CVP Delivery Reductions					Shasta Storage Changes				
		Delta Condition	CCWD Base (TAF)	CCWD Div. (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)		
1994	Oct	Balanced	2.7	10.5	7.8	3,250	3,250	0.0			
	Nov	Balanced	2.2	7.8	5.5	3,191	3,252	-5.5			
	Dec	Surplus			0.0	3,234	3,372	-5.5			
	Jan	Surplus			0.0	3,346	3,835	-5.5			
	Feb	Surplus			0.0	3,571	4,146	-5.5			
	Mar	Balanced	14.1	9.1	-4.9	3,664	4,552	-0.6			
	Apr	Balanced	0.0	0.0	0.0	3,505	4,552	-0.6			
	May	Surplus			0.0	3,209	4,552	-0.6			
	Jun	Balanced	27.0	27.0	0.0	2,762	4,500	-0.6			
	Jul	Balanced	5.5	17.4	11.9	2,191	4,150	-12.4			
	Aug	Balanced	3.3	14.2	10.9	1,706	3,700	-23.3			
	Sep	Balanced	7.4	6.1	-1.4	1,536	3,400	-21.9			

Appendix C-3 CALSIM II Modeling

Existing Desal CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	CVP Delivery Reductions					Shasta Storage Changes				
		Delta Condition	CCWD Base (TAF)	CCWD Div. (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)		
1922	Oct	Balanced	24.2	12.3	-12.0	2,806	3,250	12.0			
	Nov	Balanced	20.5	8.6	-11.9	2,832	3,252	23.9			
	Dec	Surplus			0.0	2,917	3,368	23.9			
	Jan	Surplus			0.0	3,021	3,828	23.9			
	Feb	Surplus			0.0	3,312	4,042	23.9			
	Mar	Surplus			0.0	3,617	4,330	23.9			
	Apr	Surplus			0.0	4,095	4,552	23.9			
	May	Surplus			0.0	4,252	4,552	23.9			
	Jun	Surplus			0.0	3,959	4,500	23.9			
	Jul	Balanced	15.8	15.8	0.0	3,494	4,150	23.9			
	Aug	Balanced	16.5	16.5	0.0	3,094	3,700	23.9			
	Sep	Balanced	7.3	4.3	-3.0	2,927	3,400	26.9			
1923	Oct	Balanced	3.4	1.9	-1.5	2,927	3,250	28.4			
	Nov	Balanced	3.5	2.1	-1.4	2,940	3,252	29.8			
	Dec	Surplus			0.0	3,028	3,369	29.8			
	Jan	Surplus			0.0	3,227	3,814	29.8			
	Feb	Balanced	11.9	7.7	-4.2	3,286	4,242	34.0			
	Mar	Balanced	6.0	6.0	0.0	3,338	4,552	34.0			
	Apr	Surplus			0.0	3,641	4,552	34.0			
	May	Surplus			0.0	3,381	4,552	34.0			
	Jun	Balanced	22.8	22.8	0.0	3,095	4,500	34.0			
	Jul	Balanced	16.3	16.3	0.0	2,655	4,150	34.0			
	Aug	Balanced	16.5	16.5	0.0	2,267	3,700	34.0			
	Sep	Balanced	3.7	2.1	-1.6	2,153	3,400	35.6			
1924	Oct	Balanced	2.6	1.5	-1.1	2,090	3,250	36.6			
	Nov	Balanced	2.3	1.4	-0.9	2,014	3,252	37.5			
	Dec	Balanced	5.1	2.4	-2.8	1,980	3,370	40.3			
	Jan	Surplus			0.0	2,069	3,828	40.3			
	Feb	Balanced	5.6	1.2	-4.4	2,226	4,256	44.7			
	Mar	Balanced	6.7	4.4	-2.2	2,215	4,552	46.9			
	Apr	Surplus			0.0	2,000	4,552	46.9			
	May	Balanced	9.2	5.9	-3.3	1,688	4,552	50.2			
	Jun	Balanced	8.6	5.2	-3.3	1,291	4,500	53.5			
	Jul	Balanced	15.8	9.1	-6.7	858	4,150	60.2			
	Aug	Balanced	15.8	10.1	-5.7	640	3,700	65.9			
	Sep	Balanced	14.0	9.7	-4.3	592	3,400	70.2			

Appendix C-3 CALSIM II Modeling

Existing Desal CVP Contract Water Use Analysis									
CVP Delivery Reductions					Shasta Storage Changes				
Year	Month	Delta Condition	CCWD Div. Base (TAF)	CCWD Div. Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	
1925	Oct	Balanced	12.1	8.6	-3.5	589	3,250	73.7	
	Nov	Balanced	9.8	7.5	-2.3	695	3,252	76.0	
	Dec	Surplus			0.0	784	3,370	76.0	
	Jan	Surplus			0.0	1,020	3,819	76.0	
	Feb	Surplus			0.0	2,258	3,705	76.0	
	Mar	Balanced	12.2	12.2	0.0	2,443	4,433	76.0	
	Apr	Surplus			0.0	3,108	4,552	76.0	
	May	Surplus			0.0	3,168	4,552	76.0	
	Jun	Balanced	25.7	25.7	0.0	2,894	4,500	76.0	
	Jul	Balanced	28.5	28.5	0.0	2,406	4,150	76.0	
	Aug	Balanced	17.3	17.3	0.0	2,060	3,700	76.0	
	Sep	Balanced	8.2	5.4	-2.9	1,929	3,400	78.9	
1926	Oct	Balanced	2.5	1.6	-0.9	1,874	3,250	79.8	
	Nov	Balanced	2.1	1.4	-0.7	1,872	3,252	80.4	
	Dec	Surplus			0.0	1,920	3,370	80.4	
	Jan	Surplus			0.0	1,963	3,828	80.4	
	Feb	Surplus			0.0	2,679	3,982	80.4	
	Mar	Balanced	12.2	12.2	0.0	2,869	4,552	80.4	
	Apr	Surplus			0.0	3,164	4,552	80.4	
	May	Balanced	12.2	12.2	0.0	3,016	4,552	80.4	
	Jun	Balanced	25.7	25.7	0.0	2,618	4,500	80.4	
	Jul	Balanced	28.5	28.5	0.0	2,170	4,150	80.4	
	Aug	Balanced	20.0	20.0	0.0	1,864	3,700	80.4	
	Sep	Balanced	5.5	3.7	-1.9	1,754	3,400	82.3	
1927	Oct	Balanced	2.2	1.5	-0.7	1,754	3,250	83.0	
	Nov	Surplus			0.0	2,229	3,252	83.0	
	Dec	Surplus			0.0	2,735	3,347	83.0	
	Jan	Surplus			0.0	3,204	3,668	83.0	
	Feb	Surplus			0.0	3,462	3,462	0.0	
	Mar	Surplus			0.0	4,035	4,142	0.0	
	Apr	Surplus			0.0	4,552	4,552	0.0	
	May	Surplus			0.0	4,552	4,552	0.0	
	Jun	Balanced	23.6	20.0	-3.6	4,264	4,500	3.6	
	Jul	Balanced	18.5	15.5	-3.0	3,758	4,150	6.6	
	Aug	Balanced	16.3	16.3	0.0	3,351	3,700	6.6	
	Sep	Balanced	4.4	2.8	-1.6	3,208	3,400	8.2	

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Existing Desal CVP Contract Water Use Analysis									
CVP Delivery Reductions					Shasta Storage Changes				
Year	Month	Delta Condition	CCWD Div. Base (TAF)	CCWD Div. Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	
1928	Oct	Balanced	2.9	1.9	-1.0	3,181	3,250	9.2	
	Nov	Surplus			0.0	3,252	3,252	0.0	
	Dec	Surplus			0.0	3,313	3,363	0.0	
	Jan	Surplus			0.0	3,512	3,761	0.0	
	Feb	Surplus			0.0	3,906	4,099	0.0	
	Mar	Surplus			0.0	3,965	3,965	0.0	
	Apr	Surplus			0.0	4,463	4,552	0.0	
	May	Balanced	9.2	9.2	0.0	4,280	4,552	0.0	
	Jun	Balanced	21.9	21.9	0.0	3,882	4,500	0.0	
	Jul	Balanced	15.8	15.8	0.0	3,241	4,150	0.0	
	Aug	Balanced	16.5	16.5	0.0	2,899	3,700	0.0	
	Sep	Balanced	6.1	4.0	-2.1	2,733	3,400	2.1	
1929	Oct	Balanced	3.3	2.2	-1.1	2,643	3,250	3.2	
	Nov	Balanced	3.3	2.3	-1.0	2,641	3,252	4.2	
	Dec	Surplus			0.0	2,652	3,370	4.2	
	Jan	Surplus			0.0	2,754	3,828	4.2	
	Feb	Balanced	4.6	1.0	-3.6	2,941	4,256	7.8	
	Mar	Balanced	12.5	12.5	0.0	3,109	4,552	7.8	
	Apr	Balanced	0.0	0.0	0.0	3,178	4,552	7.8	
	May	Balanced	13.6	13.6	0.0	3,056	4,552	7.8	
	Jun	Balanced	27.0	27.0	0.0	2,742	4,500	7.8	
	Jul	Balanced	28.5	28.5	0.0	2,356	4,150	7.8	
	Aug	Balanced	9.0	6.0	-2.9	2,025	3,700	10.7	
	Sep	Balanced	4.1	2.8	-1.4	1,905	3,400	12.1	
1930	Oct	Balanced	1.7	1.2	-0.5	1,847	3,250	12.6	
	Nov	Balanced	1.5	1.1	-0.4	1,799	3,252	13.0	
	Dec	Surplus			0.0	2,320	3,348	13.0	
	Jan	Surplus			0.0	2,524	3,782	13.0	
	Feb	Balanced	20.0	20.0	0.0	2,879	4,054	13.0	
	Mar	Surplus			0.0	3,312	4,450	13.0	
	Apr	Surplus			0.0	3,459	4,552	13.0	
	May	Surplus			0.0	3,357	4,552	13.0	
	Jun	Balanced	25.7	25.7	0.0	2,993	4,500	13.0	
	Jul	Balanced	28.5	28.5	0.0	2,590	4,150	13.0	
	Aug	Balanced	7.1	4.8	-2.3	2,228	3,700	15.3	
	Sep	Balanced	2.8	1.9	-0.9	2,116	3,400	16.2	

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Appendix C-3 CALSIM II Modeling

Existing Desal CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CCWD Div. Div. Op. Alt (TAF)			Difference (TAF)	Shasta Storage Changes			Accumulated Difference (TAF)	
			Base (TAF)	Div. Op. Alt (TAF)	Div. Op. Alt (TAF)		Original Shasta Storage (TAF)	Flood Control (TAF)	Shasta Storage (TAF)		
1931	Oct	Balanced	1.3	0.9	-0.4	2,069	3,250	16.6			
	Nov	Balanced	9.3	1.2	-8.1	2,055	3,252	24.8			
	Dec	Balanced	8.8	1.8	-7.0	2,041	3,370	31.7			
	Jan	Surplus			0.0	2,114	3,828	31.7			
	Feb	Balanced	7.3	1.0	-6.3	2,199	4,256	38.1			
	Mar	Balanced	8.8	1.8	-7.1	2,361	4,552	45.2			
	Apr	Balanced	10.7	10.0	-0.7	2,099	4,552	45.8			
	May	Surplus			0.0	1,820	4,552	45.8			
	Jun	Balanced	15.1	10.4	-4.7	1,522	4,500	50.5			
	Jul	Balanced	16.2	10.9	-5.3	1,064	4,150	55.8			
	Aug	Balanced	15.8	10.8	-5.0	742	3,700	60.8			
	Sep	Balanced	14.0	9.7	-4.3	643	3,400	65.1			
1932	Oct	Balanced	12.1	8.6	-3.5	629	3,250	68.6			
	Nov	Balanced	9.8	7.5	-2.3	626	3,252	70.9			
	Dec	Surplus			0.0	817	3,359	70.9			
	Jan	Surplus			0.0	1,002	3,818	70.9			
	Feb	Balanced	8.9	18.0	9.1	1,117	4,251	61.8			
	Mar	Balanced	12.2	12.2	0.0	1,528	4,439	61.8			
	Apr	Balanced	4.3	0.0	-4.3	1,679	4,552	66.0			
	May	Surplus			0.0	1,867	4,552	66.0			
	Jun	Balanced	25.7	25.7	0.0	1,700	4,500	66.0			
	Jul	Balanced	28.5	28.5	0.0	1,431	4,150	66.0			
	Aug	Balanced	28.1	28.1	0.0	1,174	3,700	66.0			
	Sep	Balanced	5.6	3.9	-1.7	1,045	3,400	67.8			
1933	Oct	Balanced	2.1	1.5	-0.6	972	3,250	68.4			
	Nov	Balanced	1.9	1.4	-0.4	957	3,252	68.8			
	Dec	Surplus			0.0	945	3,370	68.8			
	Jan	Surplus			0.0	969	3,828	68.8			
	Feb	Surplus			0.0	1,008	4,256	68.8			
	Mar	Surplus			0.0	1,593	4,310	68.8			
	Apr	Balanced	0.0	0.0	0.0	1,722	4,552	68.8			
	May	Balanced	13.6	13.6	0.0	1,785	4,552	68.8			
	Jun	Balanced	27.0	27.0	0.0	1,658	4,500	68.8			
	Jul	Balanced	16.2	16.2	0.0	1,351	4,150	68.8			
	Aug	Balanced	12.7	8.8	-3.9	962	3,700	72.7			
	Sep	Balanced	6.6	4.7	-1.9	812	3,400	74.6			

Appendix C-3 CALSIM II Modeling

Existing Desal CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CCWD Div. Div. Op. Alt (TAF)			Difference (TAF)	Shasta Storage Changes			Accumulated Difference (TAF)	
			Base (TAF)	Div. Op. Alt (TAF)	Div. Op. Alt (TAF)		Original Shasta Storage (TAF)	Flood Control (TAF)	Shasta Storage (TAF)		
1934	Oct	Balanced	10.3	1.3	-9.0	726	3,250	83.6			
	Nov	Balanced	9.8	1.0	-8.8	677	3,252	92.4			
	Dec	Surplus			0.0	800	3,368	92.4			
	Jan	Surplus			0.0	1,095	3,814	92.4			
	Feb	Surplus			0.0	1,420	4,091	92.4			
	Mar	Balanced	14.1	14.1	0.0	1,716	4,552	92.4			
	Apr	Balanced	0.0	0.0	0.0	1,808	4,552	92.4			
	May	Balanced	13.6	13.6	0.0	1,653	4,552	92.4			
	Jun	Balanced	17.3	19.0	1.6	1,293	4,500	90.8			
	Jul	Balanced	16.2	16.2	0.0	891	4,150	90.8			
	Aug	Balanced	10.8	7.4	-3.4	607	3,700	94.2			
	Sep	Balanced	13.3	5.8	-7.4	603	3,400	101.6			
1935	Oct	Balanced	12.1	8.6	-3.5	587	3,250	105.1			
	Nov	Balanced	9.8	7.5	-2.3	688	3,252	107.5			
	Dec	Surplus			0.0	725	3,370	107.5			
	Jan	Surplus			0.0	1,010	3,788	107.5			
	Feb	Balanced	8.9	8.9	0.0	1,339	4,123	107.5			
	Mar	Surplus			0.0	1,727	4,482	107.5			
	Apr	Surplus			0.0	2,723	4,491	107.5			
	May	Balanced	12.8	12.8	0.0	2,946	4,552	107.5			
	Jun	Surplus			0.0	2,650	4,500	107.5			
	Jul	Balanced	27.8	27.8	0.0	2,300	4,150	107.5			
	Aug	Balanced	23.5	23.5	0.0	1,955	3,700	107.5			
	Sep	Balanced	3.1	2.1	-1.0	1,785	3,400	108.5			
1936	Oct	Balanced	2.1	1.5	-0.6	1,759	3,250	109.1			
	Nov	Balanced	1.9	1.4	-0.5	1,728	3,252	109.6			
	Dec	Balanced	6.4	3.3	-3.1	1,736	3,370	112.6			
	Jan	Surplus			0.0	2,359	3,698	112.6			
	Feb	Surplus			0.0	3,238	3,588	112.6			
	Mar	Surplus			0.0	3,518	4,410	112.6			
	Apr	Surplus			0.0	3,739	4,552	112.6			
	May	Surplus			0.0	3,627	4,552	112.6			
	Jun	Surplus			0.0	3,413	4,500	112.6			
	Jul	Balanced	24.8	18.6	-6.2	2,941	4,150	118.8			
	Aug	Balanced	16.5	16.5	0.0	2,519	3,700	118.8			
	Sep	Balanced	3.5	2.3	-1.2	2,357	3,400	120.0			

Appendix C-3 CALSIM II Modeling

Existing Desal CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			Difference (TAF)	Accumulated Difference (TAF)	
			CCWD Div. Base (TAF)	CCWD Div. Div. Op. Alt (TAF)	CCWD Div. Div. Op. Alt (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Shasta Storage (TAF)			
1937	Oct	Balanced	2.1	1.4	-0.7	2,249	3,250	120.7			
	Nov	Balanced	2.2	1.6	-0.6	2,158	3,252	121.4			
	Dec	Balanced	5.8	4.2	-1.5	2,117	3,370	122.9			
	Jan	Surplus			0.0	2,096	3,828	122.9			
	Feb	Surplus			0.0	2,188	4,256	122.9			
	Mar	Surplus			0.0	2,832	4,279	122.9			
	Apr	Surplus			0.0	3,470	4,552	122.9			
	May	Surplus			0.0	3,618	4,552	122.9			
	Jun	Balanced	25.1	25.1	0.0	3,423	4,500	122.9			
	Jul	Balanced	27.8	27.8	0.0	3,034	4,150	122.9			
	Aug	Balanced	23.3	18.3	-5.0	2,610	3,700	127.9			
	Sep	Balanced	6.6	4.4	-2.2	2,424	3,400	130.0			
1938	Oct	Balanced	2.8	2.0	-0.9	2,378	3,250	130.9			
	Nov	Surplus			0.0	2,896	3,252	130.9			
	Dec	Surplus			0.0	3,310	3,310	0.0			
	Jan	Surplus			0.0	3,641	3,668	0.0			
	Feb	Surplus			0.0	3,560	3,560	0.0			
	Mar	Surplus			0.0	3,416	3,416	0.0			
	Apr	Surplus			0.0	4,058	4,058	0.0			
	May	Surplus			0.0	4,552	4,552	0.0			
	Jun	Surplus			0.0	4,466	4,500	0.0			
	Jul	Balanced	15.5	15.5	0.0	4,064	4,150	0.0			
	Aug	Balanced	16.3	16.3	0.0	3,638	3,700	0.0			
	Sep	Surplus			0.0	3,400	3,400	0.0			
1939	Oct	Surplus			0.0	3,250	3,250	0.0			
	Nov	Balanced	8.2	8.2	0.0	3,200	3,252	0.0			
	Dec	Surplus			0.0	3,310	3,370	0.0			
	Jan	Surplus			0.0	3,504	3,828	0.0			
	Feb	Balanced	5.1	5.1	0.0	3,634	4,256	0.0			
	Mar	Balanced	6.8	6.8	0.0	4,031	4,495	0.0			
	Apr	Balanced	0.0	0.0	0.0	3,831	4,552	0.0			
	May	Balanced	12.2	12.2	0.0	3,533	4,552	0.0			
	Jun	Balanced	25.1	25.1	0.0	3,073	4,500	0.0			
	Jul	Balanced	14.5	9.8	-4.8	2,517	4,150	4.8			
	Aug	Balanced	5.3	3.5	-1.7	2,179	3,700	6.5			
	Sep	Balanced	3.0	2.1	-1.0	2,101	3,400	7.5			

Appendix C-3 CALSIM II Modeling

Existing Desal CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			Difference (TAF)	Accumulated Difference (TAF)	
			CCWD Div. Base (TAF)	CCWD Div. Div. Op. Alt (TAF)	CCWD Div. Div. Op. Alt (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Shasta Storage (TAF)			
1940	Oct	Balanced	2.5	1.7	-0.7	1,995	3,250	8.2			
	Nov	Balanced	3.8	2.9	-1.0	1,913	3,252	9.2			
	Dec	Balanced	3.9	2.9	-1.0	2,044	3,370	10.2			
	Jan	Surplus			0.0	2,921	3,629	10.2			
	Feb	Surplus			0.0	3,252	3,252	0.0			
	Mar	Surplus			0.0	3,435	3,435	0.0			
	Apr	Surplus			0.0	4,143	4,534	0.0			
	May	Surplus			0.0	4,074	4,552	0.0			
	Jun	Balanced	24.9	24.9	0.0	3,754	4,500	0.0			
	Jul	Balanced	27.3	27.0	-0.3	3,233	4,150	0.3			
	Aug	Balanced	19.4	16.5	-2.8	2,842	3,700	3.2			
	Sep	Balanced	3.5	2.4	-1.1	2,733	3,400	4.3			
1941	Oct	Balanced	2.2	1.5	-0.6	2,718	3,250	4.9			
	Nov	Balanced	3.3	1.8	-1.5	2,727	3,252	6.4			
	Dec	Surplus			0.0	3,293	3,293	0.0			
	Jan	Surplus			0.0	3,317	3,317	0.0			
	Feb	Surplus			0.0	3,423	3,423	0.0			
	Mar	Surplus			0.0	3,940	3,940	0.0			
	Apr	Surplus			0.0	4,456	4,456	0.0			
	May	Surplus			0.0	4,552	4,552	0.0			
	Jun	Surplus			0.0	4,485	4,500	0.0			
	Jul	Balanced	15.5	15.5	0.0	4,150	4,150	0.0			
	Aug	Balanced	16.3	16.3	0.0	3,651	3,700	0.0			
	Sep	Surplus			0.0	3,400	3,400	0.0			
1942	Oct	Surplus			0.0	3,250	3,250	0.0			
	Nov	Balanced	3.7	2.7	-1.1	3,222	3,252	1.1			
	Dec	Surplus			0.0	3,316	3,316	0.0			
	Jan	Surplus			0.0	3,389	3,389	0.0			
	Feb	Surplus			0.0	3,516	3,516	0.0			
	Mar	Surplus			0.0	3,894	4,360	0.0			
	Apr	Surplus			0.0	4,531	4,552	0.0			
	May	Surplus			0.0	4,552	4,552	0.0			
	Jun	Surplus			0.0	4,457	4,500	0.0			
	Jul	Balanced	16.5	15.5	-1.0	4,065	4,150	1.0			
	Aug	Balanced	16.3	16.3	0.0	3,700	3,700	0.0			
	Sep	Surplus			0.0	3,400	3,400	0.0			

Appendix C-3 CALSIM II Modeling

Existing Desal CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions				Shasta Storage Changes				
			CCWD Div. Base (TAF)	CCWD Div. Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)			
1943	Oct	Surplus	3.3	2.3	-1.0	3,135	3,250	3,250	0.0		
	Nov	Surplus	2.8	2.0	-0.8	3,144	3,252	3,252	0.0		
	Dec	Surplus	3.6	2.3	-1.3	3,111	3,370	3,370	0.0		
	Jan	Surplus			0.0	3,178	3,828	3,828	0.0		
	Feb	Surplus	12.2	12.2	0.0	3,412	4,197	4,197	0.0		
	Mar	Balanced			0.0	3,646	4,552	4,552	0.0		
	Apr	Surplus			0.0	3,633	4,552	4,552	0.0		
	May	Surplus			0.0	3,536	4,552	4,552	0.0		
	Jun	Balanced	25.7	25.7	0.0	3,279	4,500	4,500	0.0		
1944	Jul	Balanced	28.5	28.5	0.0	2,905	4,150	4,150	0.0		
	Aug	Balanced	5.8	4.0	-1.8	2,577	3,700	3,700	0.0		
	Sep	Balanced	2.4	1.7	-0.7	2,448	3,400	3,400	0.0		
	Oct	Balanced	3.3	2.3	-1.0	3,135	3,250	3,250	2.7		
	Nov	Balanced	2.8	2.0	-0.8	3,144	3,252	3,252	3.5		
	Dec	Balanced	3.6	2.3	-1.3	3,111	3,370	3,370	4.8		
	Jan	Surplus			0.0	3,178	3,828	3,828	4.8		
	Feb	Surplus			0.0	3,412	4,197	4,197	4.8		
	Mar	Balanced	12.2	12.2	0.0	3,646	4,552	4,552	4.8		
1945	Apr	Surplus			0.0	3,633	4,552	4,552	4.8		
	May	Surplus			0.0	3,536	4,552	4,552	4.8		
	Jun	Balanced	25.7	25.7	0.0	3,279	4,500	4,500	4.8		
	Jul	Balanced	28.5	28.5	0.0	2,905	4,150	4,150	4.8		
	Aug	Balanced	5.8	4.0	-1.8	2,577	3,700	3,700	6.6		
	Sep	Balanced	2.4	1.7	-0.7	2,448	3,400	3,400	7.4		
	Oct	Balanced	2.3	1.6	-0.6	2,442	3,250	3,250	8.0		
	Nov	Surplus			0.0	2,611	3,252	3,252	8.0		
	Dec	Surplus			0.0	2,895	3,352	3,352	8.0		
1946	Jan	Surplus			0.0	3,096	3,791	3,791	8.0		
	Feb	Surplus			0.0	3,802	3,948	3,948	8.0		
	Mar	Balanced	11.3	10.4	-0.9	4,035	4,454	4,454	8.9		
	Apr	Surplus			0.0	4,213	4,552	4,552	8.9		
	May	Surplus			0.0	4,226	4,552	4,552	8.9		
	Jun	Balanced	25.1	23.0	-2.1	3,993	4,500	4,500	11.0		
	Jul	Balanced	27.8	16.3	-11.5	3,451	4,150	4,150	22.5		
	Aug	Balanced	11.8	8.0	-3.8	3,045	3,700	3,700	26.3		
	Sep	Balanced	3.5	2.3	-1.2	2,880	3,400	3,400	27.5		

Existing Desal CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions				Shasta Storage Changes				
			CCWD Div. Base (TAF)	CCWD Div. Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)			
1946	Oct	Balanced	2.3	1.6	-0.7	2,903	3,250	3,250	28.3		
	Nov	Balanced	8.9	1.9	-7.0	3,127	3,252	3,252	35.2		
	Dec	Surplus			0.0	3,265	3,265	3,265	0.0		
	Jan	Surplus			0.0	3,622	3,622	3,622	0.0		
	Feb	Balanced	7.6	15.9	8.2	3,551	4,073	4,073	-8.2		
	Mar	Balanced	11.3	5.8	-5.5	3,942	4,453	4,453	-2.7		
	Apr	Surplus			0.0	4,142	4,552	4,552	-2.7		
	May	Surplus			0.0	4,070	4,552	4,552	-2.7		
	Jun	Balanced	25.1	23.0	-2.1	3,706	4,500	4,500	-0.6		
1947	Jul	Balanced	23.8	16.3	-7.5	3,254	4,150	4,150	6.9		
	Aug	Balanced	10.7	7.2	-3.5	2,891	3,700	3,700	10.4		
	Sep	Balanced	3.9	2.5	-1.3	2,752	3,400	3,400	11.7		
	Oct	Balanced	2.9	2.0	-0.9	2,677	3,250	3,250	12.6		
	Nov	Balanced	4.4	2.5	-1.9	2,732	3,252	3,252	14.5		
	Dec	Surplus			0.0	2,798	3,370	3,370	14.5		
	Jan	Surplus			0.0	2,810	3,828	3,828	14.5		
	Feb	Balanced	14.5	14.5	0.0	3,022	4,188	4,188	14.5		
	Mar	Balanced	12.2	12.2	0.0	3,490	4,438	4,438	14.5		
1948	Apr	Balanced	0.0	0.0	0.0	3,652	4,552	4,552	14.5		
	May	Surplus			0.0	3,305	4,552	4,552	14.5		
	Jun	Balanced	25.7	25.7	0.0	3,089	4,500	4,500	14.5		
	Jul	Balanced	27.3	25.7	-1.6	2,649	4,150	4,150	16.1		
	Aug	Balanced	4.0	2.7	-1.3	2,329	3,700	3,700	17.4		
	Sep	Balanced	1.9	1.3	-0.6	2,241	3,400	3,400	18.0		
	Oct	Balanced	1.8	1.2	-0.5	2,329	3,250	3,250	18.5		
	Nov	Balanced	4.2	3.2	-1.0	2,342	3,252	3,252	19.5		
	Dec	Balanced	4.9	3.7	-1.2	2,362	3,370	3,370	20.7		
1949	Jan	Surplus			0.0	2,923	3,752	3,752	20.7		
	Feb	Balanced	6.8	1.8	-5.0	2,701	4,254	4,254	25.7		
	Mar	Balanced	18.0	16.2	-1.8	2,996	4,479	4,479	27.5		
	Apr	Surplus			0.0	3,897	4,422	4,422	27.5		
	May	Surplus			0.0	4,250	4,552	4,552	27.5		
	Jun	Surplus			0.0	4,265	4,500	4,500	27.5		
	Jul	Balanced	27.8	27.8	0.0	3,909	4,150	4,150	27.5		
	Aug	Balanced	13.9	9.5	-4.4	3,534	3,700	3,700	31.9		
	Sep	Balanced	3.7	2.4	-1.3	3,400	3,400	3,400	0.0		

Appendix C-3 CALSIM II Modeling

Existing Desal CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions				Shasta Storage Changes				
			CCWD Div. Base (TAF)	CCWD Div. Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)			
1949	Oct	Balanced	3.0	2.1	-1.0	3,246	3,250	1.0			
	Nov	Balanced	8.3	2.6	-5.7	3,216	3,252	6.7			
	Dec	Surplus			0.0	3,203	3,370	6.7			
	Jan	Surplus			0.0	3,197	3,828	6.7			
	Feb	Balanced	2.6	3.6	1.0	3,318	4,194	5.7			
	Mar	Surplus			0.0	4,071	4,071	0.0			
	Apr	Surplus			0.0	4,392	4,552	0.0			
	May	Surplus			0.0	4,340	4,552	0.0			
	Jun	Balanced	25.7	25.7	0.0	3,951	4,500	0.0			
	Jul	Balanced	28.5	28.5	0.0	3,289	4,150	0.0			
	Aug	Balanced	8.3	5.6	-2.7	2,882	3,700	2.7			
	Sep	Balanced	5.8	4.0	-1.9	2,731	3,400	4.6			
1950	Oct	Balanced	2.8	2.0	-0.9	2,632	3,250	5.4			
	Nov	Balanced	2.9	2.1	-0.7	2,571	3,252	6.2			
	Dec	Surplus			0.0	2,523	3,370	6.2			
	Jan	Surplus			0.0	2,769	3,763	6.2			
	Feb	Surplus			0.0	3,126	4,054	6.2			
	Mar	Balanced	16.2	11.3	-4.9	3,498	4,366	11.0			
	Apr	Surplus			0.0	3,836	4,552	11.0			
	May	Surplus			0.0	3,792	4,552	11.0			
	Jun	Surplus			0.0	3,510	4,500	11.0			
	Jul	Balanced	27.8	27.8	0.0	3,141	4,150	11.0			
	Aug	Balanced	15.6	15.5	-0.1	2,806	3,700	11.1			
	Sep	Balanced	5.0	3.2	-1.8	2,723	3,400	12.9			
1951	Oct	Balanced	3.6	2.4	-1.2	3,007	3,250	14.1			
	Nov	Surplus			0.0	3,252	3,252	0.0			
	Dec	Surplus			0.0	3,322	3,322	0.0			
	Jan	Surplus			0.0	3,624	3,624	0.0			
	Feb	Surplus			0.0	3,794	3,794	0.0			
	Mar	Surplus			0.0	4,181	4,352	0.0			
	Apr	Surplus			0.0	4,265	4,552	0.0			
	May	Surplus			0.0	4,283	4,552	0.0			
	Jun	Balanced	21.9	21.9	0.0	3,938	4,500	0.0			
	Jul	Balanced	15.8	15.8	0.0	3,292	4,150	0.0			
	Aug	Balanced	16.5	16.5	0.0	2,905	3,700	0.0			
	Sep	Balanced	4.3	2.8	-1.5	2,804	3,400	1.5			

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Existing Desal CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions				Shasta Storage Changes				
			CCWD Div. Base (TAF)	CCWD Div. Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)			
1952	Oct	Balanced	3.2	2.1	-1.0	2,810	3,250	2.5			
	Nov	Balanced	3.1	2.2	-0.9	2,966	3,252	3.5			
	Dec	Surplus			0.0	3,306	3,306	0.0			
	Jan	Surplus			0.0	3,604	3,604	0.0			
	Feb	Surplus			0.0	3,739	3,739	0.0			
	Mar	Surplus			0.0	4,022	4,022	0.0			
	Apr	Surplus			0.0	4,290	4,290	0.0			
	May	Surplus			0.0	4,552	4,552	0.0			
	Jun	Surplus			0.0	4,401	4,500	0.0			
	Jul	Balanced	15.5	15.5	0.0	4,150	4,150	0.0			
	Aug	Balanced	16.3	16.3	0.0	3,700	3,700	0.0			
	Sep	Surplus			0.0	3,400	3,400	0.0			
1953	Oct	Surplus			0.0	3,250	3,250	0.0			
	Nov	Balanced	8.0	8.0	0.0	3,217	3,252	0.0			
	Dec	Surplus			0.0	3,345	3,345	0.0			
	Jan	Surplus			0.0	3,366	3,366	0.0			
	Feb	Surplus			0.0	3,714	3,960	0.0			
	Mar	Surplus			0.0	4,116	4,324	0.0			
	Apr	Surplus			0.0	4,452	4,552	0.0			
	May	Surplus			0.0	4,552	4,552	0.0			
	Jun	Surplus			0.0	4,500	4,500	0.0			
	Jul	Balanced	15.5	15.5	0.0	4,053	4,150	0.0			
	Aug	Balanced	16.3	16.3	0.0	3,700	3,700	0.0			
	Sep	Surplus			0.0	3,400	3,400	0.0			
1954	Oct	Balanced	6.7	4.6	-2.1	3,250	3,250	0.0			
	Nov	Surplus			0.0	3,252	3,252	0.0			
	Dec	Surplus			0.0	3,364	3,364	0.0			
	Jan	Surplus			0.0	3,552	3,552	0.0			
	Feb	Surplus			0.0	3,661	3,661	0.0			
	Mar	Surplus			0.0	4,106	4,106	0.0			
	Apr	Surplus			0.0	4,546	4,546	0.0			
	May	Balanced	9.2	9.2	0.0	4,311	4,552	0.0			
	Jun	Balanced	21.8	21.8	0.0	4,124	4,500	0.0			
	Jul	Balanced	15.8	15.8	0.0	3,520	4,150	0.0			
	Aug	Balanced	16.5	16.5	0.0	3,199	3,700	0.0			
	Sep	Balanced	4.5	3.0	-1.5	3,170	3,400	1.5			

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Existing Desal CVP Contract Water Use Analysis										
CVP Delivery Reductions										
Year	Month	Delta Condition	CVP Delivery Reductions				Shasta Storage Changes			
			CCWD Base (TAF)	CCWD Div. (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	
1955	Oct	Balanced	3.2	2.2	-1.0	3,094	3,250	2.5		
	Nov	Balanced	3.6	2.6	-1.0	3,212	3,252	3.6		
	Dec	Surplus			0.0	3,360	3,360	0.0		
	Jan	Surplus			0.0	3,427	3,813	0.0		
	Feb	Balanced	16.1	12.1	-4.0	3,507	4,234	4.0		
	Mar	Balanced	9.5	6.9	-2.6	3,661	4,552	6.6		
	Apr	Balanced	0.0	0.0	0.0	3,684	4,552	6.6		
	May	Surplus			0.0	3,766	4,552	6.6		
	Jun	Balanced	24.9	24.9	0.0	3,451	4,500	6.6		
	Jul	Balanced	17.1	17.1	0.0	2,951	4,150	6.6		
	Aug	Balanced	12.4	8.4	-4.0	2,650	3,700	10.5		
	Sep	Balanced	5.6	3.8	-1.8	2,579	3,400	12.3		
1956	Oct	Balanced	2.5	1.7	-0.8	2,554	3,250	13.1		
	Nov	Balanced	3.3	2.4	-0.8	2,616	3,252	14.0		
	Dec	Surplus			0.0	3,252	3,252	0.0		
	Jan	Surplus			0.0	3,252	3,252	0.0		
	Feb	Surplus			0.0	3,288	3,288	0.0		
	Mar	Surplus			0.0	3,946	4,014	0.0		
	Apr	Surplus			0.0	4,459	4,552	0.0		
	May	Surplus			0.0	4,552	4,552	0.0		
	Jun	Surplus			0.0	4,376	4,500	0.0		
	Jul	Balanced	15.5	15.5	0.0	4,046	4,150	0.0		
	Aug	Balanced	16.3	16.3	0.0	3,700	3,700	0.0		
	Sep	Surplus			0.0	3,400	3,400	0.0		
1957	Oct	Surplus			0.0	3,250	3,250	0.0		
	Nov	Balanced	8.2	8.2	0.0	3,187	3,252	0.0		
	Dec	Surplus			0.0	3,208	3,370	0.0		
	Jan	Surplus			0.0	3,317	3,828	0.0		
	Feb	Surplus			0.0	3,675	3,675	0.0		
	Mar	Surplus			0.0	4,129	4,129	0.0		
	Apr	Balanced	0.0	0.0	0.0	4,139	4,552	0.0		
	May	Surplus			0.0	4,392	4,552	0.0		
	Jun	Balanced	21.6	21.6	0.0	4,221	4,500	0.0		
	Jul	Balanced	15.8	15.8	0.0	3,615	4,150	0.0		
	Aug	Balanced	16.5	16.5	0.0	3,255	3,700	0.0		
	Sep	Balanced	3.5	2.3	-1.1	3,284	3,400	1.1		

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Existing Desal CVP Contract Water Use Analysis										
CVP Delivery Reductions										
Year	Month	Delta Condition	CVP Delivery Reductions				Shasta Storage Changes			
			CCWD Base (TAF)	CCWD Div. (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	
1958	Oct	Surplus			0.0	3,250	3,250	0.0		
	Nov	Balanced	8.3	6.0	-2.2	3,236	3,252	2.2		
	Dec	Surplus			0.0	3,338	3,338	0.0		
	Jan	Surplus			0.0	3,531	3,531	0.0		
	Feb	Surplus			0.0	3,252	3,252	0.0		
	Mar	Surplus			0.0	3,416	3,416	0.0		
	Apr	Surplus			0.0	4,173	4,173	0.0		
	May	Surplus			0.0	4,552	4,552	0.0		
	Jun	Surplus			0.0	4,500	4,500	0.0		
	Jul	Balanced	15.5	15.5	0.0	4,150	4,150	0.0		
	Aug	Surplus			0.0	3,700	3,700	0.0		
	Sep	Surplus			0.0	3,400	3,400	0.0		
1959	Oct	Surplus			0.0	3,250	3,250	0.0		
	Nov	Balanced	8.2	8.2	0.0	3,196	3,252	0.0		
	Dec	Surplus			0.0	3,233	3,370	0.0		
	Jan	Surplus			0.0	3,648	3,648	0.0		
	Feb	Surplus			0.0	3,777	3,777	0.0		
	Mar	Balanced	5.8	5.8	0.0	3,987	4,378	0.0		
	Apr	Surplus			0.0	4,036	4,552	0.0		
	May	Surplus			0.0	3,829	4,552	0.0		
	Jun	Balanced	23.0	23.0	0.0	3,334	4,500	0.0		
	Jul	Balanced	16.3	16.3	0.0	2,764	4,150	0.0		
	Aug	Balanced	14.6	10.0	-4.6	2,345	3,700	4.6		
	Sep	Balanced	3.1	2.1	-1.0	2,480	3,400	5.6		
1960	Oct	Balanced	2.0	1.4	-0.6	2,399	3,250	6.2		
	Nov	Balanced	2.2	1.5	-0.6	2,318	3,252	6.8		
	Dec	Balanced	8.2	4.0	-4.2	2,310	3,370	11.0		
	Jan	Surplus			0.0	2,509	3,783	11.0		
	Feb	Surplus			0.0	3,219	3,994	11.0		
	Mar	Balanced	12.2	12.2	0.0	3,830	4,273	11.0		
	Apr	Balanced	0.0	0.0	0.0	3,951	4,552	11.0		
	May	Surplus			0.0	3,945	4,552	11.0		
	Jun	Balanced	25.7	25.7	0.0	3,610	4,500	11.0		
	Jul	Balanced	14.9	10.0	-4.9	3,010	4,150	15.9		
	Aug	Balanced	5.8	3.9	-1.8	2,643	3,700	17.7		
	Sep	Balanced	4.4	3.0	-1.4	2,559	3,400	19.1		

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Existing Desal CVP Contract Water Use Analysis										
CVP Delivery Reductions										
Year	Month	Delta Condition	CVP Delivery Reductions				Shasta Storage Changes			
			CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)		
1961	Oct	Balanced	2.5	1.7	-0.7	2,497	3,250	19.8		
	Nov	Balanced	9.5	2.8	-6.8	2,573	3,252	26.6		
	Dec	Surplus			0.0	3,000	3,350	26.6		
	Jan	Surplus			0.0	3,210	3,751	26.6		
	Feb	Surplus			0.0	3,914	3,914	0.0		
	Mar	Balanced	12.2	12.2	0.0	4,280	4,280	0.0		
	Apr	Balanced	4.4	1.7	-2.7	4,336	4,552	2.7		
	May	Balanced	12.6	12.6	0.0	4,308	4,552	2.7		
	Jun	Balanced	25.7	25.7	0.0	3,912	4,500	2.7		
	Jul	Balanced	23.0	23.0	0.0	3,275	4,150	2.7		
	Aug	Balanced	4.4	3.0	-1.4	2,793	3,700	4.1		
	Sep	Balanced	8.3	1.7	-6.6	2,693	3,400	10.7		
1962	Oct	Balanced	12.2	7.7	-4.6	2,498	3,250	15.3		
	Nov	Balanced	9.6	7.3	-2.4	2,443	3,252	17.6		
	Dec	Surplus			0.0	2,743	3,356	17.6		
	Jan	Balanced	8.5	8.5	0.0	2,844	3,819	17.6		
	Feb	Surplus			0.0	3,675	3,675	0.0		
	Mar	Balanced	16.4	16.4	0.0	4,120	4,292	0.0		
	Apr	Surplus			0.0	4,393	4,552	0.0		
	May	Surplus			0.0	4,299	4,552	0.0		
	Jun	Balanced	25.1	25.1	0.0	3,964	4,500	0.0		
	Jul	Balanced	27.8	27.8	0.0	3,395	4,150	0.0		
	Aug	Balanced	7.9	5.4	-2.5	3,010	3,700	2.5		
	Sep	Balanced	2.6	1.8	-0.8	2,909	3,400	3.4		
1963	Oct	Surplus			0.0	3,250	3,250	0.0		
	Nov	Surplus			0.0	3,252	3,252	0.0		
	Dec	Surplus			0.0	3,349	3,349	0.0		
	Jan	Surplus			0.0	3,459	3,764	0.0		
	Feb	Surplus			0.0	3,944	3,944	0.0		
	Mar	Balanced	5.0	5.0	0.0	4,036	4,226	0.0		
	Apr	Surplus			0.0	4,137	4,137	0.0		
	May	Surplus			0.0	4,422	4,552	0.0		
	Jun	Balanced	19.4	19.4	0.0	4,214	4,500	0.0		
	Jul	Balanced	15.5	15.5	0.0	3,697	4,150	0.0		
	Aug	Balanced	16.3	16.3	0.0	3,390	3,700	0.0		
	Sep	Balanced	7.1	4.7	-2.3	3,368	3,400	2.3		

Appendix C-3 CALSIM II Modeling

Existing Desal CVP Contract Water Use Analysis										
CVP Delivery Reductions										
Year	Month	Delta Condition	CVP Delivery Reductions				Shasta Storage Changes			
			CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)		
1964	Oct	Balanced	2.5	1.8	-0.8	3,250	3,250	0.0		
	Nov	Surplus			0.0	3,252	3,252	0.0		
	Dec	Surplus			0.0	3,321	3,366	0.0		
	Jan	Surplus			0.0	3,687	3,705	0.0		
	Feb	Balanced	5.2	5.2	0.0	3,850	4,194	0.0		
	Mar	Balanced	6.9	6.9	0.0	4,000	4,552	0.0		
	Apr	Balanced	0.0	0.0	0.0	3,676	4,552	0.0		
	May	Surplus			0.0	3,456	4,552	0.0		
	Jun	Balanced	25.1	25.1	0.0	3,223	4,500	0.0		
	Jul	Balanced	16.5	11.8	-4.7	2,757	4,150	4.7		
	Aug	Balanced	4.0	2.7	-1.2	2,448	3,700	6.0		
	Sep	Balanced	2.6	1.8	-0.8	2,358	3,400	6.8		
1965	Oct	Balanced	2.0	1.5	-0.6	2,361	3,250	7.3		
	Nov	Surplus			0.0	2,466	3,252	7.3		
	Dec	Surplus			0.0	3,252	3,252	0.0		
	Jan	Surplus			0.0	3,368	3,368	0.0		
	Feb	Surplus			0.0	3,803	3,913	0.0		
	Mar	Balanced	10.9	8.8	-2.1	3,898	4,547	2.1		
	Apr	Surplus			0.0	4,500	4,500	0.0		
	May	Balanced	9.2	9.2	0.0	4,434	4,552	0.0		
	Jun	Balanced	23.6	19.9	-3.6	4,132	4,500	3.6		
	Jul	Balanced	21.7	15.5	-6.2	3,528	4,150	9.8		
	Aug	Balanced	16.3	16.3	0.0	3,271	3,700	9.8		
	Sep	Balanced	4.8	3.1	-1.7	3,214	3,400	11.5		
1966	Oct	Balanced	3.0	2.0	-1.0	3,200	3,250	12.6		
	Nov	Surplus			0.0	3,252	3,252	0.0		
	Dec	Surplus			0.0	3,326	3,359	0.0		
	Jan	Surplus			0.0	3,725	3,725	0.0		
	Feb	Balanced	4.4	5.0	0.6	4,037	4,037	0.0		
	Mar	Balanced	6.6	5.9	-0.6	4,229	4,229	0.0		
	Apr	Surplus			0.0	4,552	4,552	0.0		
	May	Surplus			0.0	4,417	4,552	0.0		
	Jun	Balanced	23.0	23.0	0.0	3,935	4,500	0.0		
	Jul	Balanced	16.3	16.3	0.0	3,305	4,150	0.0		
	Aug	Balanced	10.2	6.8	-3.4	2,920	3,700	3.4		
	Sep	Balanced	3.8	2.5	-1.3	2,844	3,400	4.7		

Appendix C-3 CALSIM II Modeling

Existing Desal CVP Contract Water Use Analysis									
CVP Delivery Reductions					Shasta Storage Changes				
Year	Month	Delta Condition	CCWD Div. Base (TAF)	CCWD Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	
1967	Oct	Balanced	3.4	2.3	-1.1	2,737	3,250	5.8	
	Nov	Surplus			0.0	3,063	3,252	5.8	
	Dec	Surplus			0.0	3,335	3,335	0.0	
	Jan	Surplus			0.0	3,551	3,551	0.0	
	Feb	Surplus			0.0	3,920	3,920	0.0	
	Mar	Surplus			0.0	4,033	4,033	0.0	
	Apr	Surplus			0.0	4,479	4,479	0.0	
	May	Surplus			0.0	4,552	4,552	0.0	
	Jun	Surplus			0.0	4,500	4,500	0.0	
	Jul	Surplus			0.0	4,150	4,150	0.0	
	Aug	Surplus			0.0	3,700	3,700	0.0	
	Sep	Surplus			0.0	3,400	3,400	0.0	
1968	Oct	Surplus			0.0	3,250	3,250	0.0	
	Nov	Balanced	8.1	8.1	0.0	3,222	3,252	0.0	
	Dec	Surplus			0.0	3,305	3,370	0.0	
	Jan	Surplus			0.0	3,545	3,792	0.0	
	Feb	Surplus			0.0	3,654	3,654	0.0	
	Mar	Surplus			0.0	4,191	4,248	0.0	
	Apr	Balanced	0.0	0.0	0.0	4,162	4,552	0.0	
	May	Surplus			0.0	4,039	4,552	0.0	
	Jun	Balanced	23.0	23.0	0.0	3,665	4,500	0.0	
	Jul	Balanced	16.3	16.3	0.0	3,074	4,150	0.0	
	Aug	Balanced	10.4	7.1	-3.4	2,767	3,700	3.4	
	Sep	Balanced	2.7	1.8	-0.9	2,698	3,400	4.3	
1969	Oct	Balanced	2.7	1.9	-0.8	2,616	3,250	5.1	
	Nov	Balanced	5.9	3.1	-2.8	2,660	3,252	7.9	
	Dec	Surplus			0.0	2,971	3,354	7.9	
	Jan	Surplus			0.0	3,358	3,358	0.0	
	Feb	Surplus			0.0	3,480	3,480	0.0	
	Mar	Surplus			0.0	4,030	4,030	0.0	
	Apr	Surplus			0.0	4,434	4,434	0.0	
	May	Surplus			0.0	4,552	4,552	0.0	
	Jun	Surplus			0.0	4,399	4,500	0.0	
	Jul	Balanced	15.5	15.5	0.0	4,052	4,150	0.0	
	Aug	Balanced	16.3	16.3	0.0	3,684	3,700	0.0	
	Sep	Surplus			0.0	3,400	3,400	0.0	

Appendix C-3 CALSIM II Modeling

Existing Desal CVP Contract Water Use Analysis									
CVP Delivery Reductions					Shasta Storage Changes				
Year	Month	Delta Condition	CCWD Div. Base (TAF)	CCWD Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	
1970	Oct	Surplus			0.0	3,250	3,250	0.0	
	Nov	Surplus			0.0	3,247	3,252	0.0	
	Dec	Surplus			0.0	3,317	3,317	0.0	
	Jan	Surplus			0.0	3,252	3,252	0.0	
	Feb	Surplus			0.0	3,431	3,431	0.0	
	Mar	Surplus			0.0	4,061	4,172	0.0	
	Apr	Balanced	0.0	0.0	0.0	3,978	4,552	0.0	
	May	Surplus			0.0	3,839	4,552	0.0	
	Jun	Balanced	20.2	20.2	0.0	3,551	4,500	0.0	
	Jul	Balanced	15.5	15.5	0.0	3,009	4,150	0.0	
	Aug	Balanced	16.3	16.3	0.0	2,703	3,700	0.0	
	Sep	Balanced	5.5	3.6	-1.9	2,667	3,400	1.9	
1971	Oct	Balanced	2.5	1.7	-0.8	2,696	3,250	2.7	
	Nov	Surplus			0.0	3,141	3,252	2.7	
	Dec	Surplus			0.0	3,319	3,319	0.0	
	Jan	Surplus			0.0	3,515	3,515	0.0	
	Feb	Balanced	5.1	5.1	0.0	3,673	3,966	0.0	
	Mar	Surplus			0.0	3,873	3,873	0.0	
	Apr	Balanced	0.0	0.0	0.0	4,375	4,552	0.0	
	May	Surplus			0.0	4,552	4,552	0.0	
	Jun	Balanced	20.1	20.1	0.0	4,500	4,500	0.0	
	Jul	Balanced	15.5	15.5	0.0	4,000	4,150	0.0	
	Aug	Balanced	16.3	16.3	0.0	3,682	3,700	0.0	
	Sep	Surplus			0.0	3,400	3,400	0.0	
1972	Oct	Balanced	11.3	7.7	-3.5	3,250	3,250	0.0	
	Nov	Balanced	3.8	2.6	-1.1	3,200	3,252	1.1	
	Dec	Surplus			0.0	3,327	3,365	1.1	
	Jan	Surplus			0.0	3,670	3,714	1.1	
	Feb	Balanced	14.9	14.7	-0.2	3,979	3,979	0.0	
	Mar	Surplus			0.0	4,249	4,249	0.0	
	Apr	Balanced	0.0	0.0	0.0	4,424	4,552	0.0	
	May	Surplus			0.0	4,304	4,552	0.0	
	Jun	Balanced	23.0	23.0	0.0	3,830	4,500	0.0	
	Jul	Balanced	16.3	16.3	0.0	3,216	4,150	0.0	
	Aug	Balanced	11.3	7.7	-3.6	2,917	3,700	3.6	
	Sep	Balanced	3.0	2.0	-1.0	2,901	3,400	4.7	

Appendix C-3 CALSIM II Modeling

Existing Desal CVP Contract Water Use Analysis												
CVP Delivery Reductions												
Year	Month	Delta Condition	CCWD Div.			Shasta Storage Changes			Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)
			Base (TAF)	Div. Op. Alt (TAF)	Div. Op. Alt (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)					
1973	Oct	Balanced	1.8	1.2	-0.6	2,996	3,250	5.3			5.3	
	Nov	Surplus			0.0	3,228	3,252	5.3				
	Dec	Surplus			0.0	3,346	3,346	0.0				
	Jan	Surplus			0.0	3,552	3,552	0.0				
	Feb	Surplus			0.0	3,636	3,636	0.0				
	Mar	Surplus			0.0	4,162	4,162	0.0				
	Apr	Surplus			0.0	4,447	4,552	0.0				
	May	Surplus			0.0	4,424	4,552	0.0				
	Jun	Balanced	21.9	21.9	0.0	4,028	4,500	0.0				
1974	Jul	Balanced	15.8	15.8	0.0	3,436	4,150	0.0				
	Aug	Balanced	16.5	16.5	0.0	3,180	3,700	0.0				
	Sep	Balanced	5.3	3.5	-1.7	3,144	3,400	1.7				
	Oct	Balanced	2.2	1.5	-0.7	3,235	3,250	2.4				
	Nov	Surplus			0.0	3,252	3,252	0.0				
	Dec	Surplus			0.0	3,267	3,267	0.0				
	Jan	Surplus			0.0	3,252	3,252	0.0				
	Feb	Surplus			0.0	3,694	3,694	0.0				
	Mar	Surplus			0.0	3,416	3,416	0.0				
1975	Apr	Surplus			0.0	4,289	4,289	0.0				
	May	Surplus			0.0	4,480	4,552	0.0				
	Jun	Surplus			0.0	4,348	4,500	0.0				
	Jul	Balanced	15.5	15.5	0.0	4,116	4,150	0.0				
	Aug	Balanced	16.3	16.3	0.0	3,700	3,700	0.0				
	Sep	Surplus			0.0	3,400	3,400	0.0				
	Oct	Surplus			0.0	3,250	3,250	0.0				
	Nov	Balanced	8.2	8.2	0.0	3,207	3,252	0.0				
	Dec	Surplus			0.0	3,324	3,372	0.0				
1976	Jan	Surplus			0.0	3,487	3,835	0.0				
	Feb	Surplus			0.0	3,936	3,936	0.0				
	Mar	Surplus			0.0	3,756	3,756	0.0				
	Apr	Surplus			0.0	4,343	4,532	0.0				
	May	Surplus			0.0	4,552	4,552	0.0				
	Jun	Surplus			0.0	4,440	4,500	0.0				
	Jul	Balanced	15.5	15.5	0.0	4,150	4,150	0.0				
	Aug	Balanced	16.3	16.3	0.0	3,700	3,700	0.0				
	Sep	Surplus			0.0	3,400	3,400	0.0				

Appendix C-3 CALSIM II Modeling

Existing Desal CVP Contract Water Use Analysis												
CVP Delivery Reductions												
Year	Month	Delta Condition	CCWD Div.			Shasta Storage Changes			Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)
			Base (TAF)	Div. Op. Alt (TAF)	Div. Op. Alt (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)					
1976	Oct	Surplus			0.0	3,250	3,250	0.0			0.0	
	Nov	Surplus			0.0	3,252	3,252	0.0				
	Dec	Surplus			0.0	3,318	3,372	0.0				
	Jan	Surplus			0.0	3,529	3,835	0.0				
	Feb	Balanced	1.4	0.8	-0.6	3,647	4,146	0.6				
	Mar	Balanced	8.3	5.9	-2.4	3,877	4,552	3.0				
	Apr	Surplus			0.0	3,956	4,552	3.0				
	May	Surplus			0.0	3,798	4,552	3.0				
	Jun	Balanced	9.7	6.6	-3.1	3,276	4,500	6.1				
1977	Jul	Balanced	13.4	9.0	-4.4	2,907	4,150	10.5				
	Aug	Balanced	15.8	15.8	0.0	2,859	3,700	10.5				
	Sep	Balanced	4.2	2.9	-1.3	2,829	3,400	11.8				
	Oct	Balanced	2.5	1.7	-0.7	2,820	3,250	12.5				
	Nov	Balanced	7.7	2.5	-5.3	2,789	3,252	17.8				
	Dec	Balanced	9.3	2.1	-7.2	2,770	3,372	25.0				
	Jan	Surplus			0.0	2,798	3,835	25.0				
	Feb	Balanced	8.9	6.9	-2.0	2,750	4,253	27.0				
	Mar	Balanced	8.8	6.3	-2.6	2,729	4,552	29.6				
1978	Apr	Balanced	10.7	10.7	0.0	2,441	4,552	29.6				
	May	Balanced	13.6	9.6	-4.1	2,271	4,552	33.6				
	Jun	Balanced	15.1	10.4	-4.7	1,747	4,500	38.3				
	Jul	Balanced	16.2	10.9	-5.3	1,149	4,150	43.6				
	Aug	Balanced	15.8	10.8	-5.0	744	3,700	48.6				
	Sep	Balanced	14.0	9.7	-4.3	674	3,400	52.9				
	Oct	Balanced	12.1	8.6	-3.5	550	3,250	56.4				
	Nov	Balanced	9.8	7.5	-2.3	575	3,252	58.7				
	Dec	Surplus			0.0	1,112	3,350	58.7				
1979	Jan	Surplus			0.0	3,025	3,321	58.7				
	Feb	Surplus			0.0	3,567	3,567	0.0				
	Mar	Surplus			0.0	4,000	4,000	0.0				
	Apr	Surplus			0.0	4,552	4,552	0.0				
	May	Surplus			0.0	4,552	4,552	0.0				
	Jun	Surplus			0.0	4,235	4,500	0.0				
	Jul	Balanced	27.3	27.3	0.0	3,727	4,150	0.0				
	Aug	Balanced	23.5	23.5	0.0	3,329	3,700	0.0				
	Sep	Balanced	4.9	3.3	-1.6	3,310	3,400	1.6				

Appendix C-3 CALSIM II Modeling

Existing Desal CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions				Shasta Storage Changes				
			CCWD Div. Base (TAF)	CCWD Div. Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)			
1979	Oct	Balanced	3.5	2.5	-1.0	3,200	3,250	2.6			
	Nov	Balanced	2.8	2.0	-0.8	3,166	3,252	3.4			
	Dec	Surplus			0.0	3,111	3,368	3.4			
	Jan	Surplus			0.0	3,193	3,824	3.4			
	Feb	Surplus			0.0	3,475	4,100	3.4			
	Mar	Surplus			0.0	3,981	4,360	3.4			
	Apr	Balanced	0.0	0.0	0.0	4,156	4,552	3.4			
	May	Surplus			0.0	4,203	4,552	3.4			
	Jun	Balanced	25.1	22.9	-2.2	3,698	4,500	5.6			
	Jul	Balanced	21.9	16.3	-5.6	3,193	4,150	11.1			
	Aug	Balanced	11.9	8.0	-3.8	2,907	3,700	15.0			
	Sep	Balanced	3.5	2.3	-1.2	2,819	3,400	16.1			
1980	Oct	Balanced	2.5	1.7	-0.8	2,868	3,250	16.9			
	Nov	Balanced	4.0	2.5	-1.4	2,980	3,252	18.3			
	Dec	Surplus			0.0	3,096	3,367	18.3			
	Jan	Surplus			0.0	3,528	3,528	0.0			
	Feb	Surplus			0.0	3,292	3,292	0.0			
	Mar	Surplus			0.0	3,938	4,100	0.0			
	Apr	Surplus			0.0	4,239	4,552	0.0			
	May	Surplus			0.0	4,179	4,552	0.0			
	Jun	Surplus			0.0	3,875	4,500	0.0			
	Jul	Balanced	15.8	15.8	0.0	3,464	4,150	0.0			
	Aug	Balanced	16.5	16.5	0.0	3,150	3,700	0.0			
	Sep	Balanced	6.7	4.5	-2.2	3,111	3,400	2.2			
1981	Oct	Balanced	4.5	3.1	-1.4	3,092	3,250	3.6			
	Nov	Balanced	3.0	2.1	-0.9	3,068	3,252	4.4			
	Dec	Surplus			0.0	3,151	3,370	4.4			
	Jan	Surplus			0.0	3,449	3,747	4.4			
	Feb	Balanced	16.1	16.1	0.0	3,787	4,030	4.4			
	Mar	Surplus			0.0	4,256	4,256	0.0			
	Apr	Surplus			0.0	4,397	4,552	0.0			
	May	Surplus			0.0	4,159	4,552	0.0			
	Jun	Balanced	25.7	25.1	-0.6	3,603	4,500	0.6			
	Jul	Balanced	14.7	9.9	-4.8	2,966	4,150	5.5			
	Aug	Balanced	4.6	3.1	-1.5	2,661	3,700	7.0			
	Sep	Balanced	2.8	1.9	-0.9	2,571	3,400	7.9			

Appendix C-3 CALSIM II Modeling

Existing Desal CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions				Shasta Storage Changes				
			CCWD Div. Base (TAF)	CCWD Div. Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)			
1982	Oct	Balanced	2.6	1.8	-0.8	2,543	3,250	8.6			
	Nov	Surplus			0.0	3,252	3,252	0.0			
	Dec	Surplus			0.0	3,276	3,276	0.0			
	Jan	Surplus			0.0	3,616	3,616	0.0			
	Feb	Surplus			0.0	3,530	3,530	0.0			
	Mar	Surplus			0.0	3,953	3,953	0.0			
	Apr	Surplus			0.0	4,094	4,094	0.0			
	May	Surplus			0.0	4,304	4,552	0.0			
	Jun	Surplus			0.0	4,138	4,500	0.0			
	Jul	Balanced	15.5	15.5	0.0	3,855	4,150	0.0			
	Aug	Balanced	16.3	16.3	0.0	3,558	3,700	0.0			
	Sep	Surplus			0.0	3,400	3,400	0.0			
1983	Oct	Surplus			0.0	3,250	3,250	0.0			
	Nov	Surplus			0.0	3,252	3,252	0.0			
	Dec	Surplus			0.0	3,328	3,328	0.0			
	Jan	Surplus			0.0	3,371	3,371	0.0			
	Feb	Surplus			0.0	3,252	3,252	0.0			
	Mar	Surplus			0.0	3,417	3,417	0.0			
	Apr	Surplus			0.0	4,074	4,074	0.0			
	May	Surplus			0.0	4,552	4,552	0.0			
	Jun	Surplus			0.0	4,500	4,500	0.0			
	Jul	Surplus			0.0	4,150	4,150	0.0			
	Aug	Surplus			0.0	3,700	3,700	0.0			
	Sep	Surplus			0.0	3,400	3,400	0.0			
1984	Oct	Surplus			0.0	3,250	3,250	0.0			
	Nov	Surplus			0.0	3,252	3,252	0.0			
	Dec	Surplus			0.0	3,285	3,285	0.0			
	Jan	Surplus			0.0	3,650	3,650	0.0			
	Feb	Surplus			0.0	3,995	4,005	0.0			
	Mar	Surplus			0.0	4,246	4,246	0.0			
	Apr	Balanced	0.0	0.0	0.0	4,347	4,552	0.0			
	May	Surplus			0.0	4,311	4,552	0.0			
	Jun	Balanced	20.2	20.2	0.0	4,069	4,500	0.0			
	Jul	Balanced	15.5	15.5	0.0	3,466	4,150	0.0			
	Aug	Balanced	16.3	16.3	0.0	3,249	3,700	0.0			
	Sep	Balanced	5.0	3.4	-1.7	3,245	3,400	1.7			

Appendix C-3 CALSIM II Modeling

Existing Desal CVP Contract Water Use Analysis									
CVP Delivery Reductions					Shasta Storage Changes				
Year	Month	Delta Condition	CCWD Div. Base (TAF)	CCWD Div. Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	
1985	Oct	Balanced	2.7	1.8	-0.8	3,250	3,250	0.0	
	Nov	Surplus			0.0	3,252	3,252	0.0	
	Dec	Surplus			0.0	3,360	3,360	0.0	
	Jan	Surplus			0.0	3,484	3,833	0.0	
	Feb	Balanced	5.0	5.0	0.0	3,618	4,232	0.0	
	Mar	Balanced	6.7	6.7	0.0	3,752	4,552	0.0	
	Apr	Balanced	0.0	0.0	0.0	3,857	4,552	0.0	
	May	Balanced	12.2	12.2	0.0	3,505	4,552	0.0	
	Jun	Balanced	25.1	25.1	0.0	3,094	4,500	0.0	
	Jul	Balanced	13.9	9.4	-4.6	2,649	4,150	4.6	
	Aug	Balanced	4.6	3.1	-1.5	2,335	3,700	6.0	
	Sep	Balanced	3.3	2.2	-1.0	2,311	3,400	7.0	
1986	Oct	Balanced	3.1	2.2	-0.9	2,205	3,250	8.0	
	Nov	Balanced	3.5	2.6	-0.9	2,220	3,252	8.8	
	Dec	Surplus			0.0	2,376	3,372	8.8	
	Jan	Surplus			0.0	2,941	3,658	8.8	
	Feb	Surplus			0.0	3,252	3,252	0.0	
	Mar	Surplus			0.0	3,534	3,534	0.0	
	Apr	Surplus			0.0	3,973	4,552	0.0	
	May	Surplus			0.0	3,910	4,552	0.0	
	Jun	Balanced	23.6	23.6	0.0	3,502	4,500	0.0	
	Jul	Balanced	27.0	27.0	0.0	3,132	4,150	0.0	
	Aug	Balanced	23.3	23.0	-0.3	2,812	3,700	0.3	
	Sep	Balanced	8.8	5.9	-2.9	2,825	3,400	3.3	
1987	Oct	Balanced	4.4	3.0	-1.4	2,853	3,250	4.7	
	Nov	Balanced	2.7	1.9	-0.8	2,836	3,252	5.5	
	Dec	Surplus			0.0	2,820	3,372	5.5	
	Jan	Surplus			0.0	2,936	3,835	5.5	
	Feb	Surplus			0.0	3,277	4,141	5.5	
	Mar	Surplus			0.0	4,003	4,298	5.5	
	Apr	Balanced	0.0	0.0	0.0	3,816	4,552	5.5	
	May	Balanced	12.2	12.2	0.0	3,530	4,552	5.5	
	Jun	Balanced	25.7	25.7	0.0	3,050	4,500	5.5	
	Jul	Balanced	28.5	26.4	-2.1	2,568	4,150	7.6	
	Aug	Balanced	7.1	4.9	-2.2	2,253	3,700	9.8	
	Sep	Balanced	2.7	1.9	-0.8	2,153	3,400	10.6	

Appendix C-3 CALSIM II Modeling

Existing Desal CVP Contract Water Use Analysis									
CVP Delivery Reductions					Shasta Storage Changes				
Year	Month	Delta Condition	CCWD Div. Base (TAF)	CCWD Div. Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	
1988	Oct	Balanced	2.1	1.5	-0.6	2,079	3,250	11.1	
	Nov	Balanced	3.3	2.6	-0.8	2,053	3,252	11.9	
	Dec	Surplus			0.0	2,557	3,358	11.9	
	Jan	Surplus			0.0	2,991	3,727	11.9	
	Feb	Balanced	18.8	18.8	0.0	2,872	4,194	11.9	
	Mar	Balanced	14.1	14.1	0.0	2,928	4,552	11.9	
	Apr	Surplus			0.0	2,950	4,552	11.9	
	May	Surplus			0.0	2,928	4,552	11.9	
	Jun	Balanced	27.0	27.0	0.0	2,519	4,500	11.9	
	Jul	Balanced	28.5	28.5	0.0	2,016	4,150	11.9	
	Aug	Balanced	10.4	7.3	-3.1	1,720	3,700	15.0	
	Sep	Balanced	4.2	3.1	-1.1	1,589	3,400	16.1	
1989	Oct	Balanced	1.6	1.2	-0.4	1,493	3,250	16.4	
	Nov	Balanced	1.3	1.1	-0.2	1,702	3,252	16.7	
	Dec	Surplus			0.0	1,800	3,370	16.7	
	Jan	Surplus			0.0	1,905	3,835	16.7	
	Feb	Balanced	8.9	2.2	-6.8	2,015	4,253	23.4	
	Mar	Surplus			0.0	3,396	3,841	23.4	
	Apr	Surplus			0.0	3,781	4,552	23.4	
	May	Balanced	12.6	12.2	-0.3	3,578	4,552	23.8	
	Jun	Balanced	25.7	25.7	0.0	3,230	4,500	23.8	
	Jul	Balanced	28.5	28.5	0.0	2,776	4,150	23.8	
	Aug	Balanced	4.1	2.9	-1.2	2,442	3,700	25.0	
	Sep	Balanced	3.0	1.8	-1.2	2,463	3,400	26.2	
1990	Oct	Balanced	12.2	1.4	-10.8	2,554	3,250	37.0	
	Nov	Balanced	9.6	1.8	-7.9	2,529	3,252	44.9	
	Dec	Balanced	8.8	2.6	-6.2	2,469	3,372	51.1	
	Jan	Surplus			0.0	2,690	3,822	51.1	
	Feb	Balanced	7.3	5.3	-2.1	2,671	4,253	53.2	
	Mar	Balanced	14.1	14.1	0.0	2,938	4,552	53.2	
	Apr	Balanced	5.9	5.8	-0.1	2,782	4,552	53.2	
	May	Surplus			0.0	2,926	4,552	53.2	
	Jun	Balanced	23.8	25.1	1.3	2,738	4,500	51.9	
	Jul	Balanced	8.4	4.6	-3.8	2,226	4,150	55.7	
	Aug	Balanced	15.8	8.4	-7.4	1,960	3,700	63.1	
	Sep	Balanced	14.0	9.7	-4.3	1,903	3,400	67.4	

Appendix C-3 CALSIM II Modeling

Existing Desal CVP Contract Water Use Analysis									
CVP Delivery Reductions					Shasta Storage Changes				
Year	Month	Delta Condition	CCWD Div. Base (TAF)	CCWD Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control	Accumulated Difference (TAF)	
1991	Oct	Balanced	12.1	8.6	-3.5	1,845	3,250	70.9	
	Nov	Balanced	9.8	7.5	-2.3	1,851	3,252	73.2	
	Dec	Surplus			0.0	1,804	3,372	73.2	
	Jan	Surplus			0.0	1,807	3,835	73.2	
	Feb	Balanced	7.6	6.9	-0.7	1,820	4,253	73.9	
	Mar	Surplus			0.0	2,225	4,552	73.9	
	Apr	Balanced	13.0	11.3	-1.7	2,367	4,552	75.6	
	May	Surplus			0.0	2,296	4,552	75.6	
	Jun	Balanced	15.1	15.1	0.0	2,019	4,500	75.6	
	Jul	Balanced	16.2	10.9	-5.3	1,716	4,150	80.9	
	Aug	Balanced	15.8	10.8	-5.0	1,452	3,700	85.8	
	Sep	Balanced	14.0	9.7	-4.3	1,341	3,400	90.1	
1992	Oct	Balanced	12.1	8.6	-3.5	1,324	3,250	93.6	
	Nov	Balanced	9.8	7.5	-2.3	1,249	3,252	96.0	
	Dec	Surplus			0.0	1,244	3,372	96.0	
	Jan	Surplus			0.0	1,290	3,835	96.0	
	Feb	Surplus			0.0	1,948	4,253	96.0	
	Mar	Balanced	14.1	14.1	0.0	2,393	4,552	96.0	
	Apr	Balanced	7.2	7.2	0.0	2,618	4,552	96.0	
	May	Balanced	14.0	14.0	0.0	2,338	4,552	96.0	
	Jun	Balanced	15.1	15.1	0.0	1,924	4,500	96.0	
	Jul	Balanced	16.2	16.2	0.0	1,455	4,150	96.0	
	Aug	Balanced	15.8	10.8	-5.0	1,017	3,700	100.9	
	Sep	Balanced	14.0	9.7	-4.3	841	3,400	105.2	
1993	Oct	Balanced	12.1	8.6	-3.5	765	3,250	108.7	
	Nov	Balanced	9.8	7.5	-2.3	737	3,252	111.0	
	Dec	Surplus			0.0	968	3,350	111.0	
	Jan	Surplus			0.0	1,617	3,321	111.0	
	Feb	Surplus			0.0	2,347	3,567	111.0	
	Mar	Surplus			0.0	3,814	4,000	111.0	
	Apr	Surplus			0.0	4,440	4,552	111.0	
	May	Surplus			0.0	4,552	4,552	0.0	
	Jun	Surplus			0.0	4,500	4,500	0.0	
	Jul	Balanced	27.3	27.3	0.0	3,917	4,150	0.0	
	Aug	Balanced	23.5	23.5	0.0	3,644	3,700	0.0	
	Sep	Balanced	5.6	3.8	-1.8	3,400	3,400	0.0	

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Existing Desal CVP Contract Water Use Analysis									
CVP Delivery Reductions					Shasta Storage Changes				
Year	Month	Delta Condition	CCWD Div. Base (TAF)	CCWD Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control	Accumulated Difference (TAF)	
1994	Oct	Balanced	2.7	1.9	-0.8	3,250	3,250	0.0	
	Nov	Balanced	2.2	1.6	-0.6	3,191	3,252	0.6	
	Dec	Surplus			0.0	3,234	3,372	0.6	
	Jan	Surplus			0.0	3,346	3,835	0.6	
	Feb	Surplus			0.0	3,571	4,146	0.6	
	Mar	Balanced	14.1	14.1	0.0	3,664	4,552	0.6	
	Apr	Balanced	0.0	0.0	0.0	3,505	4,552	0.6	
	May	Surplus			0.0	3,209	4,552	0.6	
	Jun	Balanced	27.0	27.0	0.0	2,762	4,500	0.6	
	Jul	Balanced	5.5	3.8	-1.8	2,191	4,150	2.4	
	Aug	Balanced	3.3	2.3	-1.0	1,706	3,700	3.4	
	Sep	Balanced	7.4	1.3	-6.2	1,536	3,400	9.6	

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Appendix C-3 CALSIM II Modeling

Future Alt 1, 2, & 3 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			Difference (TAF)	Accumulated Difference (TAF)	
			CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	CCWD Div. Div. Op. Alt (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Shasta Storage Changes			
1922	Oct	Balanced	27.1	27.1	0.0	2,806	3,250	0.0	0.0		
	Nov	Balanced	22.0	18.1	-3.9	2,822	3,252	3.9	3.9		
	Dec	Surplus			0.0	2,897	3,368	3.9	3.9		
	Jan	Surplus			0.0	2,991	3,828	3.9	3.9		
	Feb	Surplus			0.0	3,290	4,042	3.9	3.9		
	Mar	Surplus			0.0	3,595	4,330	3.9	3.9		
	Apr	Surplus			0.0	4,074	4,552	3.9	3.9		
	May	Surplus			0.0	4,232	4,552	3.9	3.9		
	Jun	Surplus			0.0	3,927	4,500	3.9	3.9		
	Jul	Balanced	19.7	19.7	0.0	3,442	4,150	3.9	3.9		
	Aug	Balanced	20.3	20.3	0.0	3,020	3,700	3.9	3.9		
	Sep	Balanced	13.5	17.3	3.8	2,835	3,400	0.2	0.2		
1923	Oct	Balanced	4.7	10.2	5.5	2,836	3,250	-5.3	-5.3		
	Nov	Balanced	4.2	8.5	4.3	2,849	3,252	-9.7	-9.7		
	Dec	Surplus			0.0	2,938	3,369	-9.7	-9.7		
	Jan	Surplus			0.0	3,146	3,814	-9.7	-9.7		
	Feb	Balanced	12.7	6.4	-6.3	3,204	4,242	-3.3	-3.3		
	Mar	Balanced	7.7	7.7	0.0	3,251	4,552	-3.3	-3.3		
	Apr	Surplus			0.0	3,561	4,552	-3.3	-3.3		
	May	Surplus			0.0	3,323	4,552	-3.3	-3.3		
	Jun	Balanced	28.6	28.6	0.0	3,066	4,500	-3.3	-3.3		
	Jul	Balanced	20.2	20.2	0.0	2,658	4,150	-3.3	-3.3		
	Aug	Balanced	14.4	20.3	5.8	2,290	3,700	-9.1	-9.1		
	Sep	Balanced	5.8	15.0	9.1	2,203	3,400	-18.3	-18.3		
1924	Oct	Balanced	3.4	8.6	5.2	2,173	3,250	-23.5	-23.5		
	Nov	Balanced	9.6	5.7	-3.9	2,127	3,252	-19.6	-19.6		
	Dec	Balanced	9.7	22.1	12.3	2,124	3,370	-31.9	-31.9		
	Jan	Surplus			0.0	2,182	3,828	-31.9	-31.9		
	Feb	Balanced	7.2	3.7	-3.5	2,339	4,256	-28.4	-28.4		
	Mar	Balanced	7.9	8.6	0.7	2,276	4,552	-29.1	-29.1		
	Apr	Balanced	0.0	0.0	0.0	2,061	4,552	-29.1	-29.1		
	May	Balanced	9.3	8.6	-0.7	1,746	4,552	-28.5	-28.5		
	Jun	Balanced	17.6	9.8	-7.7	1,334	4,500	-20.7	-20.7		
	Jul	Balanced	20.1	17.4	-2.8	887	4,150	-18.0	-18.0		
	Aug	Balanced	19.6	19.6	0.0	648	3,700	-18.0	-18.0		
	Sep	Balanced	17.3	12.9	-4.3	599	3,400	-13.7	-13.7		

Appendix C-3 CALSIM II Modeling

Future Alt 1, 2, & 3 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			Difference (TAF)	Accumulated Difference (TAF)	
			CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	CCWD Div. Div. Op. Alt (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Shasta Storage Changes			
1925	Oct	Balanced	15.1	7.5	-7.6	596	3,250	-6.1	-6.1		
	Nov	Balanced	12.0	12.0	0.0	702	3,252	-6.1	-6.1		
	Dec	Surplus			0.0	791	3,370	-6.1	-6.1		
	Jan	Surplus			0.0	1,038	3,819	-6.1	-6.1		
	Feb	Surplus			0.0	2,276	3,705	-6.1	-6.1		
	Mar	Balanced	7.8	7.7	-0.1	2,457	4,433	-6.0	-6.0		
	Apr	Surplus			0.0	3,120	4,552	-6.0	-6.0		
	May	Surplus			0.0	3,179	4,552	-6.0	-6.0		
	Jun	Balanced	29.4	29.4	0.0	2,939	4,500	-6.0	-6.0		
	Jul	Balanced	32.5	32.5	0.0	2,435	4,150	-6.0	-6.0		
	Aug	Balanced	31.9	31.9	0.0	2,068	3,700	-6.0	-6.0		
	Sep	Balanced	9.1	15.8	6.7	1,924	3,400	-12.7	-12.7		
1926	Oct	Balanced	2.7	6.7	4.0	1,866	3,250	-16.7	-16.7		
	Nov	Balanced	2.4	4.7	2.3	1,868	3,252	-19.0	-19.0		
	Dec	Surplus			0.0	1,916	3,370	-19.0	-19.0		
	Jan	Surplus			0.0	1,959	3,828	-19.0	-19.0		
	Feb	Surplus			0.0	2,674	3,982	-19.0	-19.0		
	Mar	Balanced	16.1	16.1	0.0	2,866	4,552	-19.0	-19.0		
	Apr	Surplus			0.0	3,161	4,552	-19.0	-19.0		
	May	Balanced	15.4	15.4	0.0	3,030	4,552	-19.0	-19.0		
	Jun	Balanced	29.4	20.9	-8.4	2,665	4,500	-10.5	-10.5		
	Jul	Balanced	32.5	20.2	-12.3	2,213	4,150	1.8	1.8		
	Aug	Balanced	31.9	19.6	-12.3	1,866	3,700	14.1	14.1		
	Sep	Balanced	16.0	17.2	1.1	1,764	3,400	12.9	12.9		
1927	Oct	Balanced	3.1	7.1	4.0	1,709	3,250	8.9	8.9		
	Nov	Surplus			0.0	2,184	3,252	8.9	8.9		
	Dec	Surplus			0.0	2,690	3,347	8.9	8.9		
	Jan	Surplus			0.0	3,164	3,668	8.9	8.9		
	Feb	Surplus			0.0	3,462	3,462	0.0	0.0		
	Mar	Surplus			0.0	4,035	4,142	0.0	0.0		
	Apr	Surplus			0.0	4,552	4,552	0.0	0.0		
	May	Surplus			0.0	4,552	4,552	0.0	0.0		
	Jun	Balanced	25.3	25.5	0.2	4,243	4,500	-0.2	-0.2		
	Jul	Balanced	19.5	19.5	0.0	3,642	4,150	-0.2	-0.2		
	Aug	Balanced	20.1	20.1	0.0	3,204	3,700	-0.2	-0.2		
	Sep	Balanced	4.9	16.2	11.2	3,045	3,400	-11.5	-11.5		

Appendix C-3 CALSIM II Modeling

Future Alt 1, 2, & 3 CVP Contract Water Use Analysis											
Shasta Storage Changes											
Year	Month	CVP Delivery Reductions						Shasta Storage Changes			
		Delta Condition	CCWD Base (TAF)	CCWD Div. Alt (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)		
1928	Oct	Balanced	2.8	7.9	5.2	3,020	3,250	-16.6			
	Nov	Balanced	2.7	5.9	3.2	3,211	3,252	-19.8			
	Dec	Surplus			0.0	3,300	3,363	-19.8			
	Jan	Surplus			0.0	3,576	3,761	-19.8			
	Feb	Surplus			0.0	3,970	4,099	-19.8			
	Mar	Surplus			0.0	3,965	3,965	0.0			
	Apr	Surplus			0.0	4,463	4,552	0.0			
	May	Balanced	11.8	11.8	0.0	4,268	4,552	0.0			
	Jun	Balanced	27.6	27.6	0.0	3,897	4,500	0.0			
	Jul	Balanced	19.7	19.7	0.0	3,256	4,150	0.0			
	Aug	Balanced	20.3	20.3	0.0	2,880	3,700	0.0			
	Sep	Balanced	7.8	17.3	9.5	2,732	3,400	-9.5			
1929	Oct	Balanced	3.2	7.5	4.3	2,639	3,250	-13.8			
	Nov	Balanced	3.0	6.2	3.2	2,634	3,252	-16.9			
	Dec	Surplus			0.0	2,642	3,370	-16.9			
	Jan	Surplus			0.0	2,745	3,828	-16.9			
	Feb	Balanced	6.4	3.1	-3.3	2,932	4,256	-13.6			
	Mar	Balanced	17.2	13.2	-3.9	3,099	4,552	-9.7			
	Apr	Balanced	0.0	0.0	0.0	3,098	4,552	-9.7			
	May	Balanced	16.8	16.8	0.0	2,968	4,552	-9.7			
	Jun	Balanced	30.6	18.7	-11.9	2,720	4,500	2.2			
	Jul	Balanced	31.7	20.1	-11.5	2,317	4,150	13.7			
	Aug	Balanced	7.8	19.6	11.8	1,965	3,700	1.9			
	Sep	Balanced	3.7	10.9	7.2	1,823	3,400	-5.3			
1930	Oct	Balanced	1.4	4.7	3.3	1,780	3,250	-8.6			
	Nov	Balanced	11.9	3.5	-8.3	1,768	3,252	-0.2			
	Dec	Surplus			0.0	2,288	3,348	-0.2			
	Jan	Surplus			0.0	2,485	3,782	-0.2			
	Feb	Balanced	22.1	11.0	-11.1	2,845	4,054	10.9			
	Mar	Surplus			0.0	3,282	4,450	10.9			
	Apr	Surplus			0.0	3,432	4,552	10.9			
	May	Surplus			0.0	3,331	4,552	10.9			
	Jun	Balanced	29.4	17.5	-11.9	2,969	4,500	22.8			
	Jul	Balanced	25.9	20.2	-5.7	2,539	4,150	28.5			
	Aug	Balanced	8.7	19.6	10.8	2,168	3,700	17.7			
	Sep	Balanced	4.6	17.2	12.6	2,054	3,400	5.1			

Appendix C-3 CALSIM II Modeling

Future Alt 1, 2, & 3 CVP Contract Water Use Analysis											
Shasta Storage Changes											
Year	Month	CVP Delivery Reductions						Shasta Storage Changes			
		Delta Condition	CCWD Base (TAF)	CCWD Div. Alt (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)		
1931	Oct	Balanced	14.8	7.0	-7.8	1,982	3,250	12.9			
	Nov	Balanced	11.8	11.8	0.0	1,968	3,252	12.9			
	Dec	Surplus			0.0	1,954	3,370	12.9			
	Jan	Surplus			0.0	2,028	3,828	12.9			
	Feb	Balanced	9.2	9.2	0.0	2,107	4,256	12.9			
	Mar	Balanced	10.7	10.7	0.0	2,269	4,552	12.9			
	Apr	Balanced	13.3	13.3	0.0	1,987	4,552	12.9			
	May	Surplus			0.0	1,704	4,552	12.9			
	Jun	Balanced	18.7	18.7	0.0	1,409	4,500	12.9			
	Jul	Balanced	20.1	20.1	0.0	945	4,150	12.9			
	Aug	Balanced	19.6	19.6	0.0	650	3,700	12.9			
	Sep	Balanced	17.3	17.3	0.0	612	3,400	12.9			
1932	Oct	Balanced	15.1	15.1	0.0	593	3,250	12.9			
	Nov	Balanced	12.0	12.0	0.0	584	3,252	12.9			
	Dec	Surplus			0.0	760	3,359	12.9			
	Jan	Surplus			0.0	902	3,818	12.9			
	Feb	Balanced	11.0	11.0	0.0	1,025	4,251	12.9			
	Mar	Balanced	16.1	16.1	0.0	1,435	4,439	12.9			
	Apr	Balanced	5.0	5.0	0.0	1,599	4,552	12.9			
	May	Surplus			0.0	1,790	4,552	12.9			
	Jun	Balanced	29.4	29.4	0.0	1,596	4,500	12.9			
	Jul	Balanced	32.5	32.5	0.0	1,333	4,150	12.9			
	Aug	Balanced	31.9	31.9	0.0	1,059	3,700	12.9			
	Sep	Balanced	10.9	24.5	13.6	927	3,400	-0.7			
1933	Oct	Balanced	2.7	9.6	6.9	855	3,250	-7.6			
	Nov	Balanced	2.2	3.7	1.6	840	3,252	-9.2			
	Dec	Surplus			0.0	828	3,370	-9.2			
	Jan	Surplus			0.0	852	3,828	-9.2			
	Feb	Surplus			0.0	892	4,256	-9.2			
	Mar	Surplus			0.0	1,476	4,310	-9.2			
	Apr	Balanced	0.0	0.0	0.0	1,661	4,552	-9.2			
	May	Balanced	16.8	16.8	0.0	1,727	4,552	-9.2			
	Jun	Balanced	30.6	18.7	-11.9	1,583	4,500	2.7			
	Jul	Balanced	20.1	20.1	0.0	1,200	4,150	2.7			
	Aug	Balanced	12.5	19.6	7.1	840	3,700	-4.3			
	Sep	Balanced	7.4	15.4	8.0	681	3,400	-12.4			

Appendix C-3 CALSIM II Modeling

Future Alt 1, 2, & 3 CVP Contract Water Use Analysis												
CVP Delivery Reductions												
Year	Month	Delta Condition	CVP Delivery Reductions				Shasta Storage Changes					
			CCWD Div. Base (TAF)	CCWD Div. Op. Alt (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)
1934	Oct	Balanced	15.1	6.4	-8.6	641	3,250	-3.7		2,108	3,250	-14.8
	Nov	Balanced	12.0	3.9	-8.1	639	3,252	4.3		2,018	3,252	-17.4
	Dec	Surplus			0.0	755	3,368	4.3		1,956	3,370	-26.0
	Jan	Surplus			0.0	1,050	3,814	4.3		1,935	3,828	-26.0
	Feb	Surplus			0.0	1,365	4,091	4.3		2,027	4,256	-26.0
	Mar	Balanced	12.8	10.7	-2.1	1,646	4,552	6.5		2,671	4,279	-26.0
	Apr	Balanced	11.5	4.8	-6.7	1,747	4,552	13.2		3,312	4,552	-26.0
	May	Balanced	16.8	16.8	0.0	1,595	4,552	13.2		3,472	4,552	-26.0
	Jun	Balanced	18.7	18.7	0.0	1,214	4,500	13.2		3,308	4,500	-26.0
	Jul	Balanced	20.1	20.1	0.0	769	4,150	13.2		2,955	4,150	-19.7
	Aug	Balanced	19.6	19.6	0.0	592	3,700	13.2		2,569	3,700	-19.7
	Sep	Balanced	17.3	17.3	0.0	561	3,400	13.2		2,404	3,400	-26.6
1935	Oct	Balanced	15.1	15.1	0.0	550	3,250	13.2		2,359	3,250	-31.6
	Nov	Balanced	12.0	12.0	0.0	635	3,252	13.2		2,877	3,252	-31.6
	Dec	Surplus			0.0	672	3,370	13.2		3,310	3,310	0.0
	Jan	Surplus			0.0	957	3,788	13.2		3,641	3,668	0.0
	Feb	Balanced	10.6	11.0	0.4	1,286	4,123	12.8		3,560	3,560	0.0
	Mar	Surplus			0.0	1,675	4,482	12.8		3,416	3,416	0.0
	Apr	Surplus			0.0	2,670	4,491	12.8		4,058	4,058	0.0
	May	Balanced	19.6	25.5	5.9	2,890	4,552	7.0		4,552	4,552	0.0
	Jun	Surplus			0.0	2,588	4,500	7.0		4,466	4,500	0.0
	Jul	Balanced	31.6	31.6	0.0	2,226	4,150	7.0		4,049	4,150	0.0
	Aug	Balanced	25.0	30.9	5.8	1,794	3,700	1.1		3,592	3,700	0.0
	Sep	Balanced	3.9	15.2	11.2	1,612	3,400	-10.1		3,400	3,400	0.0
1936	Oct	Balanced	2.9	8.4	5.5	1,591	3,250	-15.7		3,250	3,250	0.0
	Nov	Balanced	6.1	6.1	0.0	1,560	3,252	-15.6		3,195	3,252	8.6
	Dec	Balanced	10.0	1.8	-8.3	1,568	3,370	-7.3		3,305	3,370	8.6
	Jan	Surplus			0.0	2,192	3,698	-7.3		3,500	3,828	8.6
	Feb	Surplus			0.0	3,076	3,588	-7.3		3,580	4,256	7.6
	Mar	Surplus			0.0	3,358	4,410	-7.3		3,977	4,495	11.7
	Apr	Surplus			0.0	3,579	4,552	-7.3		3,762	4,552	11.7
	May	Surplus			0.0	3,474	4,552	-7.3		3,480	4,552	11.7
	Jun	Balanced	28.7	28.7	0.0	3,263	4,500	-7.3		3,045	4,500	11.7
	Jul	Balanced	27.0	20.2	-6.8	2,817	4,150	-0.5		2,506	4,150	7.3
	Aug	Balanced	20.3	20.3	0.0	2,391	3,700	-0.5		2,173	3,700	-3.5
	Sep	Balanced	8.0	17.2	9.1	2,218	3,400	-9.7		2,101	3,400	-10.1

Appendix C-3 CALSIM II Modeling

Future Alt 1, 2, & 3 CVP Contract Water Use Analysis												
CVP Delivery Reductions												
Year	Month	Delta Condition	CVP Delivery Reductions				Shasta Storage Changes					
			CCWD Div. Base (TAF)	CCWD Div. Op. Alt (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)
1937	Oct	Balanced	3.2	8.3	5.1	2,108	3,250	-14.8		2,108	3,250	-14.8
	Nov	Balanced	2.7	5.3	2.6	2,018	3,252	-17.4		2,018	3,252	-17.4
	Dec	Balanced	13.2	2.18	8.6	1,956	3,370	-26.0		1,956	3,370	-26.0
	Jan	Surplus			0.0	1,935	3,828	-26.0		1,935	3,828	-26.0
	Feb	Surplus			0.0	2,027	4,256	-26.0		2,027	4,256	-26.0
	Mar	Surplus			0.0	2,671	4,279	-26.0		2,671	4,279	-26.0
	Apr	Surplus			0.0	3,312	4,552	-26.0		3,312	4,552	-26.0
	May	Surplus			0.0	3,472	4,552	-26.0		3,472	4,552	-26.0
	Jun	Balanced	28.7	28.7	0.0	3,308	4,500	-26.0		3,308	4,500	-26.0
	Jul	Balanced	26.5	20.2	-6.3	2,955	4,150	-19.7		2,955	4,150	-19.7
	Aug	Balanced	20.3	20.3	0.0	2,569	3,700	-19.7		2,569	3,700	-19.7
	Sep	Balanced	10.2	17.2	6.9	2,404	3,400	-26.6		2,404	3,400	-26.6
1938	Oct	Balanced	2.9	7.9	4.9	2,359	3,250	-31.6		2,359	3,250	-31.6
	Nov	Surplus			0.0	2,877	3,252	-31.6		2,877	3,252	-31.6
	Dec	Surplus			0.0	3,310	3,310	0.0		3,310	3,310	0.0
	Jan	Surplus			0.0	3,641	3,668	0.0		3,641	3,668	0.0
	Feb	Surplus			0.0	3,560	3,560	0.0		3,560	3,560	0.0
	Mar	Surplus			0.0	3,416	3,416	0.0		3,416	3,416	0.0
	Apr	Surplus			0.0	4,058	4,058	0.0		4,058	4,058	0.0
	May	Surplus			0.0	4,552	4,552	0.0		4,552	4,552	0.0
	Jun	Surplus			0.0	4,466	4,500	0.0		4,466	4,500	0.0
	Jul	Balanced	19.5	19.5	0.0	4,049	4,150	0.0		4,049	4,150	0.0
	Aug	Balanced	20.1	20.1	0.0	3,592	3,700	0.0		3,592	3,700	0.0
	Sep	Balanced	14.9	16.8	1.9	3,400	3,400	0.0		3,400	3,400	0.0
1939	Oct	Surplus			0.0	3,250	3,250	0.0		3,250	3,250	0.0
	Nov	Balanced	18.0	9.4	-8.6	3,195	3,252	8.6		3,195	3,252	8.6
	Dec	Surplus			0.0	3,305	3,370	8.6		3,305	3,370	8.6
	Jan	Surplus			0.0	3,500	3,828	8.6		3,500	3,828	8.6
	Feb	Balanced	3.0	4.0	1.0	3,580	4,256	7.6		3,580	4,256	7.6
	Mar	Balanced	16.1	12.0	-4.1	3,977	4,495	11.7		3,977	4,495	11.7
	Apr	Balanced	0.0	0.0	0.0	3,762	4,552	11.7		3,762	4,552	11.7
	May	Balanced	15.4	15.4	0.0	3,480	4,552	11.7		3,480	4,552	11.7
	Jun	Balanced	29.4	29.4	0.0	3,045	4,500	11.7		3,045	4,500	11.7
	Jul	Balanced	18.6	23.1	4.4	2,506	4,150	7.3		2,506	4,150	7.3
	Aug	Balanced	6.7	17.4	10.7	2,173	3,700	-3.5		2,173	3,700	-3.5
	Sep	Balanced	3.0	9.7	6.6	2,101	3,400	-10.1		2,101	3,400	-10.1

Appendix C-3 CALSIM II Modeling

Future Alt 1, 2, & 3 CVP Contract Water Use Analysis												
		CVP Delivery Reductions					Shasta Storage Changes					
Year	Month	Delta Condition	CCWD Base (TAF)	CCWD Div. Alt (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)			
1940	Oct	Balanced	2.5	5.5	2.9	2.9	2,028	3,250	-13.0			
	Nov	Balanced	4.2	5.6	1.4	1.4	1,948	3,252	-14.4			
	Dec	Balanced	8.2	18.6	10.4	10.4	2,092	3,370	-24.8			
	Jan	Surplus			0.0	0.0	2,970	3,629	-24.8			
	Feb	Surplus			0.0	0.0	3,252	3,252	0.0			
	Mar	Surplus			0.0	0.0	3,435	3,435	0.0			
	Apr	Surplus			0.0	0.0	4,143	4,534	0.0			
	May	Surplus			0.0	0.0	4,079	4,552	0.0			
	Jun	Balanced	28.5	27.5	-1.0	-1.0	3,698	4,500	1.0			
	Jul	Balanced	31.2	19.7	-11.5	-11.5	3,115	4,150	12.4			
	Aug	Balanced	17.2	20.3	3.1	3.1	2,697	3,700	9.3			
	Sep	Balanced	4.9	15.0	10.1	10.1	2,602	3,400	-0.8			
1941	Oct	Balanced	5.8	6.0	0.2	0.2	2,592	3,250	-1.0			
	Nov	Balanced	10.1	4.6	-5.5	-5.5	2,602	3,252	4.5			
	Dec	Surplus			0.0	0.0	3,293	3,293	0.0			
	Jan	Surplus			0.0	0.0	3,317	3,317	0.0			
	Feb	Surplus			0.0	0.0	3,423	3,423	0.0			
	Mar	Surplus			0.0	0.0	3,940	3,940	0.0			
	Apr	Surplus			0.0	0.0	4,456	4,456	0.0			
	May	Surplus			0.0	0.0	4,552	4,552	0.0			
	Jun	Balanced	24.0	24.0	0.0	0.0	4,485	4,500	0.0			
	Jul	Balanced	19.5	19.5	0.0	0.0	4,150	4,150	0.0			
	Aug	Balanced	20.1	20.1	0.0	0.0	3,641	3,700	0.0			
	Sep	Balanced	12.3	16.8	4.5	4.5	3,400	3,400	0.0			
1942	Oct	Balanced	3.8	9.9	6.1	6.1	3,250	3,250	0.0			
	Nov	Balanced	3.2	6.9	3.7	3.7	3,183	3,252	-3.7			
	Dec	Surplus			0.0	0.0	3,316	3,316	0.0			
	Jan	Surplus			0.0	0.0	3,389	3,389	0.0			
	Feb	Surplus			0.0	0.0	3,516	3,516	0.0			
	Mar	Surplus			0.0	0.0	3,894	4,360	0.0			
	Apr	Surplus			0.0	0.0	4,531	4,552	0.0			
	May	Surplus			0.0	0.0	4,552	4,552	0.0			
	Jun	Surplus			0.0	0.0	4,459	4,500	0.0			
	Jul	Balanced	19.5	19.5	0.0	0.0	3,999	4,150	0.0			
	Aug	Balanced	20.1	20.1	0.0	0.0	3,625	3,700	0.0			
	Sep	Balanced	6.8	16.8	10.0	10.0	3,400	3,400	0.0			

Appendix C-3 CALSIM II Modeling

Future Alt 1, 2, & 3 CVP Contract Water Use Analysis												
		CVP Delivery Reductions					Shasta Storage Changes					
Year	Month	Delta Condition	CCWD Base (TAF)	CCWD Div. Alt (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)			
1943	Oct	Balanced	5.5	14.6	9.0	9.0	3,250	3,250	0.0			
	Nov	Balanced	4.5	9.0	4.6	4.6	3,252	3,252	0.0			
	Dec	Surplus			0.0	0.0	3,356	3,356	0.0			
	Jan	Surplus			0.0	0.0	3,541	3,541	0.0			
	Feb	Surplus			0.0	0.0	3,848	3,848	0.0			
	Mar	Surplus			0.0	0.0	4,118	4,118	0.0			
	Apr	Surplus			0.0	0.0	4,552	4,552	0.0			
	May	Surplus			0.0	0.0	4,521	4,552	0.0			
	Jun	Surplus			0.0	0.0	4,250	4,500	0.0			
	Jul	Balanced	19.5	19.5	0.0	0.0	3,653	4,150	0.0			
	Aug	Balanced	20.1	20.1	0.0	0.0	3,231	3,700	0.0			
	Sep	Balanced	4.8	14.5	9.7	9.7	3,090	3,400	-9.7			
1944	Oct	Balanced	3.4	7.3	3.9	3.9	3,065	3,250	-13.6			
	Nov	Balanced	2.9	4.5	1.6	1.6	3,074	3,252	-15.3			
	Dec	Balanced	19.2	19.2	0.0	0.0	3,069	3,370	-15.3			
	Jan	Surplus			0.0	0.0	3,163	3,828	-15.3			
	Feb	Surplus			0.0	0.0	3,398	4,197	-15.3			
	Mar	Balanced	16.1	8.9	-7.2	-7.2	3,632	4,552	-8.1			
	Apr	Surplus			0.0	0.0	3,633	4,552	-8.1			
	May	Surplus			0.0	0.0	3,538	4,552	-8.1			
	Jun	Balanced	29.4	29.4	0.0	0.0	3,250	4,500	-8.1			
	Jul	Balanced	32.5	22.9	-9.6	-9.6	2,869	4,150	1.5			
	Aug	Balanced	8.6	20.0	11.4	11.4	2,533	3,700	-9.9			
	Sep	Balanced	6.1	16.5	10.4	10.4	2,397	3,400	-20.3			
1945	Oct	Balanced	2.6	6.4	3.7	3.7	2,409	3,250	-24.0			
	Nov	Balanced	3.5	6.6	3.0	3.0	2,559	3,252	-27.1			
	Dec	Surplus			0.0	0.0	2,849	3,352	-27.1			
	Jan	Surplus			0.0	0.0	3,049	3,791	-27.1			
	Feb	Surplus			0.0	0.0	3,755	3,948	-27.1			
	Mar	Surplus			0.0	0.0	3,988	4,454	-27.1			
	Apr	Surplus			0.0	0.0	4,168	4,552	-27.1			
	May	Surplus			0.0	0.0	4,185	4,552	-27.1			
	Jun	Balanced	28.7	28.7	0.0	0.0	3,933	4,500	-27.1			
	Jul	Balanced	31.6	20.4	-11.3	-11.3	3,369	4,150	-15.8			
	Aug	Balanced	17.9	20.3	2.4	2.4	2,936	3,700	-18.2			
	Sep	Balanced	6.2	16.6	10.4	10.4	2,754	3,400	-28.6			

Appendix C-3 CALSIM II Modeling

Future Alt 1, 2, & 3 CVP Contract Water Use Analysis											
		CVP Delivery Reductions					Shasta Storage Changes				
Year	Month	Delta Condition	CCWD Div. Base (TAF)	CCWD Div. Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)			
1946	Oct	Balanced	2.7	7.3	4.7	2,777	3,250	-33.2			
	Nov	Balanced	10.1	6.3	-3.7	3,002	3,252	-29.5			
	Dec	Surplus			0.0	3,265	3,265	0.0			
	Jan	Surplus			0.0	3,622	3,622	0.0			
	Feb	Balanced	18.2	7.2	-10.9	3,608	4,073	10.9			
	Mar	Balanced	13.9	7.6	-6.3	3,998	4,453	17.3			
	Apr	Surplus			0.0	4,208	4,552	17.3			
	May	Surplus			0.0	4,132	4,552	17.3			
	Jun	Balanced	28.7	28.7	0.0	3,760	4,500	17.3			
	Jul	Balanced	20.3	20.3	0.0	3,268	4,150	17.3			
	Aug	Balanced	8.6	20.3	11.7	2,898	3,700	5.6			
	Sep	Balanced	3.7	10.3	6.6	2,747	3,400	-1.0			
1947	Oct	Balanced	10.2	7.1	-3.2	2,673	3,250	2.1			
	Nov	Balanced	10.6	7.6	-3.0	2,690	3,252	5.2			
	Dec	Surplus			0.0	2,729	3,370	5.2			
	Jan	Surplus			0.0	2,741	3,828	5.2			
	Feb	Balanced	7.0	10.1	3.1	2,961	4,188	2.0			
	Mar	Balanced	16.1	8.7	-7.4	3,437	4,438	9.4			
	Apr	Balanced	0.0	0.0	0.0	3,599	4,552	9.4			
	May	Surplus			0.0	3,281	4,552	9.4			
	Jun	Balanced	29.4	17.5	-11.9	3,064	4,500	21.3			
	Jul	Balanced	32.5	32.5	0.0	2,583	4,150	21.3			
	Aug	Balanced	5.6	16.7	11.2	2,283	3,700	10.2			
	Sep	Balanced	4.2	15.1	10.9	2,207	3,400	-0.7			
1948	Oct	Balanced	2.2	6.0	3.7	2,303	3,250	-4.5			
	Nov	Balanced	3.0	5.6	2.6	2,323	3,252	-7.0			
	Dec	Balanced	14.5	10.7	-3.8	2,347	3,370	-3.2			
	Jan	Surplus			0.0	2,911	3,752	-3.2			
	Feb	Balanced	9.2	4.9	-4.3	2,745	4,254	1.0			
	Mar	Balanced	19.7	14.9	-4.8	3,070	4,479	5.8			
	Apr	Surplus			0.0	3,970	4,422	5.8			
	May	Surplus			0.0	4,325	4,552	5.8			
	Jun	Balanced	28.7	28.7	0.0	4,341	4,500	5.8			
	Jul	Balanced	31.6	31.6	0.0	3,960	4,150	5.8			
	Aug	Balanced	12.4	27.3	14.8	3,558	3,700	-9.1			
	Sep	Balanced	4.0	13.9	9.9	3,400	3,400	0.0			

Appendix C-3 CALSIM II Modeling

Future Alt 1, 2, & 3 CVP Contract Water Use Analysis											
		CVP Delivery Reductions					Shasta Storage Changes				
Year	Month	Delta Condition	CCWD Div. Base (TAF)	CCWD Div. Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)			
1949	Oct	Balanced	9.9	8.1	-1.9	3,177	3,250	1.9			
	Nov	Balanced	10.7	7.4	-3.3	3,147	3,252	5.1			
	Dec	Surplus			0.0	3,134	3,370	5.1			
	Jan	Surplus			0.0	3,128	3,828	5.1			
	Feb	Balanced	0.0	0.0	0.0	3,249	4,194	5.1			
	Mar	Surplus			0.0	4,071	4,071	0.0			
	Apr	Surplus			0.0	4,392	4,552	0.0			
	May	Surplus			0.0	4,341	4,552	0.0			
	Jun	Balanced	29.4	29.4	0.0	3,947	4,500	0.0			
	Jul	Balanced	32.5	23.1	-9.4	3,285	4,150	9.4			
	Aug	Balanced	11.4	20.3	8.9	2,870	3,700	0.5			
	Sep	Balanced	5.6	15.3	9.7	2,707	3,400	-9.3			
1950	Oct	Balanced	3.0	6.6	3.5	2,608	3,250	-12.8			
	Nov	Balanced	6.3	5.7	-0.7	2,546	3,252	-12.2			
	Dec	Surplus			0.0	2,479	3,370	-12.2			
	Jan	Surplus			0.0	2,732	3,763	-12.2			
	Feb	Surplus			0.0	3,094	4,054	-12.2			
	Mar	Balanced	19.7	14.9	-4.8	3,467	4,366	-7.4			
	Apr	Surplus			0.0	3,805	4,552	-7.4			
	May	Surplus			0.0	3,759	4,552	-7.4			
	Jun	Balanced	28.7	28.7	0.0	3,472	4,500	-7.4			
	Jul	Balanced	31.6	31.6	0.0	3,094	4,150	-7.4			
	Aug	Balanced	20.4	20.5	0.2	2,749	3,700	-7.6			
	Sep	Balanced	10.2	17.2	7.0	2,661	3,400	-14.5			
1951	Oct	Balanced	4.7	10.5	5.9	2,944	3,250	-20.4			
	Nov	Surplus			0.0	3,252	3,252	0.0			
	Dec	Surplus			0.0	3,322	3,322	0.0			
	Jan	Surplus			0.0	3,624	3,624	0.0			
	Feb	Surplus			0.0	3,794	3,794	0.0			
	Mar	Surplus			0.0	4,181	4,352	0.0			
	Apr	Surplus			0.0	4,268	4,552	0.0			
	May	Surplus			0.0	4,286	4,552	0.0			
	Jun	Balanced	27.6	27.6	0.0	3,918	4,500	0.0			
	Jul	Balanced	19.7	19.7	0.0	3,267	4,150	0.0			
	Aug	Balanced	20.3	20.3	0.0	2,853	3,700	0.0			
	Sep	Balanced	4.2	12.2	8.0	2,735	3,400	-8.0			

Appendix C-3 CALSIM II Modeling

Future Alt 1, 2, & 3 CVP Contract Water Use Analysis												
Shasta Storage Changes												
Year	Month	CVP Delivery Reductions					Shasta Storage Changes					
		Delta Condition	CCWD Div. Base (TAF)	CCWD Div. Op. Alt (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)
1952	Oct	Balanced	3.5	8.2	4.7	2,741	3,250	-12.7	2,741	3,250	-12.7	
	Nov	Balanced	4.6	7.0	2.5	2,897	3,252	-15.2	2,897	3,252	-15.2	
	Dec	Surplus			0.0	3,306	3,306	0.0	3,306	3,306	0.0	
	Jan	Surplus			0.0	3,604	3,604	0.0	3,604	3,604	0.0	
	Feb	Surplus			0.0	3,739	3,739	0.0	3,739	3,739	0.0	
	Mar	Surplus			0.0	4,022	4,022	0.0	4,022	4,022	0.0	
	Apr	Surplus			0.0	4,290	4,290	0.0	4,290	4,290	0.0	
	May	Surplus			0.0	4,552	4,552	0.0	4,552	4,552	0.0	
	Jun	Surplus			0.0	4,401	4,500	0.0	4,401	4,500	0.0	
	Jul	Balanced	19.5	19.5	0.0	4,150	4,150	0.0	4,150	4,150	0.0	
	Aug	Balanced	20.1	20.1	0.0	3,700	3,700	0.0	3,700	3,700	0.0	
	Sep	Surplus			0.0	3,400	3,400	0.0	3,400	3,400	0.0	
1953	Oct	Surplus			0.0	3,250	3,250	0.0	3,250	3,250	0.0	
	Nov	Surplus			0.0	3,217	3,252	0.0	3,217	3,252	0.0	
	Dec	Surplus			0.0	3,345	3,345	0.0	3,345	3,345	0.0	
	Jan	Surplus			0.0	3,366	3,366	0.0	3,366	3,366	0.0	
	Feb	Surplus			0.0	3,714	3,960	0.0	3,714	3,960	0.0	
	Mar	Balanced	6.8	6.8	0.0	4,116	4,324	0.0	4,116	4,324	0.0	
	Apr	Surplus			0.0	4,452	4,552	0.0	4,452	4,552	0.0	
	May	Surplus			0.0	4,552	4,552	0.0	4,552	4,552	0.0	
	Jun	Balanced	25.3	25.3	0.0	4,500	4,500	0.0	4,500	4,500	0.0	
	Jul	Balanced	19.5	19.5	0.0	3,918	4,150	0.0	3,918	4,150	0.0	
	Aug	Balanced	20.1	20.1	0.0	3,597	3,700	0.0	3,597	3,700	0.0	
	Sep	Balanced	6.5	16.8	10.3	3,400	3,400	0.0	3,400	3,400	0.0	
1954	Oct	Balanced	3.3	7.7	4.4	3,250	3,250	0.0	3,250	3,250	0.0	
	Nov	Balanced	3.3	7.0	3.8	3,178	3,252	-3.8	3,178	3,252	-3.8	
	Dec	Surplus			0.0	3,321	3,364	-3.8	3,321	3,364	-3.8	
	Jan	Surplus			0.0	3,552	3,552	0.0	3,552	3,552	0.0	
	Feb	Surplus			0.0	3,661	3,661	0.0	3,661	3,661	0.0	
	Mar	Surplus			0.0	4,106	4,106	0.0	4,106	4,106	0.0	
	Apr	Surplus			0.0	4,546	4,546	0.0	4,546	4,546	0.0	
	May	Balanced	11.8	11.8	0.0	4,308	4,552	0.0	4,308	4,552	0.0	
	Jun	Balanced	27.5	27.5	0.0	4,100	4,500	0.0	4,100	4,500	0.0	
	Jul	Balanced	19.7	19.7	0.0	3,496	4,150	0.0	3,496	4,150	0.0	
	Aug	Balanced	20.3	20.3	0.0	3,142	3,700	0.0	3,142	3,700	0.0	
	Sep	Balanced	5.1	15.6	10.4	3,083	3,400	-10.4	3,083	3,400	-10.4	

Appendix C-3 CALSIM II Modeling

Future Alt 1, 2, & 3 CVP Contract Water Use Analysis												
Shasta Storage Changes												
Year	Month	CVP Delivery Reductions					Shasta Storage Changes					
		Delta Condition	CCWD Div. Base (TAF)	CCWD Div. Op. Alt (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)
1955	Oct	Balanced	3.8	8.6	4.7	3,025	3,250	-15.2	3,025	3,250	-15.2	
	Nov	Balanced	3.7	7.2	3.5	3,143	3,252	-18.7	3,143	3,252	-18.7	
	Dec	Surplus			0.0	3,360	3,360	0.0	3,360	3,360	0.0	
	Jan	Surplus			0.0	3,461	3,813	0.0	3,461	3,813	0.0	
	Feb	Balanced	17.5	6.5	-11.0	3,487	4,234	11.0	3,487	4,234	11.0	
	Mar	Balanced	15.0	8.9	-6.1	3,656	4,552	17.1	3,656	4,552	17.1	
	Apr	Balanced	0.0	0.0	0.0	3,730	4,552	17.1	3,730	4,552	17.1	
	May	Surplus			0.0	3,799	4,552	17.1	3,799	4,552	17.1	
	Jun	Balanced	29.4	29.4	0.0	3,388	4,500	17.1	3,388	4,500	17.1	
	Jul	Balanced	22.9	22.9	0.0	2,899	4,150	17.1	2,899	4,150	17.1	
	Aug	Balanced	17.6	20.3	2.7	2,574	3,700	14.4	2,574	3,700	14.4	
	Sep	Balanced	8.9	17.7	8.8	2,499	3,400	5.6	2,499	3,400	5.6	
1956	Oct	Balanced	2.8	6.4	3.6	2,474	3,250	2.0	2,474	3,250	2.0	
	Nov	Balanced	3.2	5.3	2.1	2,536	3,252	-0.1	2,536	3,252	-0.1	
	Dec	Surplus			0.0	3,252	3,252	0.0	3,252	3,252	0.0	
	Jan	Surplus			0.0	3,252	3,252	0.0	3,252	3,252	0.0	
	Feb	Surplus			0.0	3,288	3,288	0.0	3,288	3,288	0.0	
	Mar	Surplus			0.0	3,944	4,014	0.0	3,944	4,014	0.0	
	Apr	Surplus			0.0	4,457	4,552	0.0	4,457	4,552	0.0	
	May	Surplus			0.0	4,552	4,552	0.0	4,552	4,552	0.0	
	Jun	Surplus			0.0	4,376	4,500	0.0	4,376	4,500	0.0	
	Jul	Balanced	19.5	19.5	0.0	4,026	4,150	0.0	4,026	4,150	0.0	
	Aug	Balanced	20.1	20.1	0.0	3,695	3,700	0.0	3,695	3,700	0.0	
	Sep	Balanced	6.9	16.7	9.9	3,400	3,400	0.0	3,400	3,400	0.0	
1957	Oct	Balanced	4.3	14.5	10.2	3,250	3,250	0.0	3,250	3,250	0.0	
	Nov	Balanced	3.2	9.4	6.2	3,181	3,252	-6.2	3,181	3,252	-6.2	
	Dec	Balanced	8.2	6.9	-1.3	3,203	3,370	-4.9	3,203	3,370	-4.9	
	Jan	Surplus			0.0	3,311	3,828	-4.9	3,311	3,828	-4.9	
	Feb	Surplus			0.0	3,675	3,675	0.0	3,675	3,675	0.0	
	Mar	Surplus			0.0	4,129	4,129	0.0	4,129	4,129	0.0	
	Apr	Balanced	0.0	0.0	0.0	4,159	4,552	0.0	4,159	4,552	0.0	
	May	Surplus			0.0	4,411	4,552	0.0	4,411	4,552	0.0	
	Jun	Balanced	28.5	27.4	-1.1	4,129	4,500	1.1	4,129	4,500	1.1	
	Jul	Balanced	26.0	19.7	-6.2	3,524	4,150	7.4	3,524	4,150	7.4	
	Aug	Balanced	20.3	20.3	0.0	3,146	3,700	7.4	3,146	3,700	7.4	
	Sep	Balanced	3.9	13.2	9.3	3,182	3,400	-2.0	3,182	3,400	-2.0	

Appendix C-3 CALSIM II Modeling

Future Alt 1, 2, & 3 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions				Shasta Storage Changes				
			CCWD Div. Base (TAF)	CCWD Div. Alt (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)		
1958	Oct	Balanced	2.8	7.6	4.7	3,250	3,250	3,250	0.0		
	Nov	Balanced	5.7	7.2	1.5	3,238	3,252	3,252	-1.5		
	Dec	Surplus			0.0	3,338	3,338	3,338	0.0		
	Jan	Surplus			0.0	3,531	3,531	3,531	0.0		
	Feb	Surplus			0.0	3,252	3,252	3,252	0.0		
	Mar	Surplus			0.0	3,416	3,416	3,416	0.0		
	Apr	Surplus			0.0	4,173	4,173	4,173	0.0		
	May	Surplus			0.0	4,552	4,552	4,552	0.0		
	Jun	Surplus			0.0	4,500	4,500	4,500	0.0		
	Jul	Balanced	19.5	19.5	0.0	4,150	4,150	4,150	0.0		
	Aug	Balanced	20.1	20.1	0.0	3,700	3,700	3,700	0.0		
	Sep	Surplus			0.0	3,400	3,400	3,400	0.0		
1959	Oct	Surplus			0.0	3,250	3,250	3,250	0.0		
	Nov	Balanced	6.9	9.4	2.5	3,175	3,252	3,252	-2.5		
	Dec	Surplus			0.0	3,211	3,370	3,370	-2.5		
	Jan	Surplus			0.0	3,648	3,648	3,648	0.0		
	Feb	Surplus			0.0	3,777	3,777	3,777	0.0		
	Mar	Balanced	7.6	7.6	0.0	4,041	4,378	4,378	0.0		
	Apr	Surplus			0.0	4,096	4,552	4,552	0.0		
	May	Surplus			0.0	3,873	4,552	4,552	0.0		
	Jun	Balanced	28.7	28.7	0.0	3,257	4,500	4,500	0.0		
	Jul	Balanced	20.4	20.4	0.0	2,682	4,150	4,150	0.0		
	Aug	Balanced	13.8	20.3	6.5	2,165	3,700	3,700	-6.5		
	Sep	Balanced	3.5	11.2	7.7	2,326	3,400	3,400	-14.2		
1960	Oct	Balanced	5.0	6.2	1.2	2,204	3,250	3,250	-15.4		
	Nov	Balanced	10.7	4.6	-6.1	2,131	3,252	3,252	-9.2		
	Dec	Balanced	12.0	22.1	10.0	2,129	3,370	3,370	-19.3		
	Jan	Surplus			0.0	2,332	3,783	3,783	-19.3		
	Feb	Surplus			0.0	3,049	3,994	3,994	-19.3		
	Mar	Balanced	16.1	16.1	0.0	3,682	4,273	4,273	-19.3		
	Apr	Balanced	0.0	0.0	0.0	3,877	4,552	4,552	-19.3		
	May	Surplus			0.0	3,876	4,552	4,552	-19.3		
	Jun	Balanced	29.4	26.8	-2.5	3,523	4,500	4,500	-16.8		
	Jul	Balanced	28.4	20.2	-8.2	2,965	4,150	4,150	-8.5		
	Aug	Balanced	9.4	19.6	10.2	2,543	3,700	3,700	-18.8		
	Sep	Balanced	15.3	17.2	1.8	2,464	3,400	3,400	-20.6		

Appendix C-3 CALSIM II Modeling

Future Alt 1, 2, & 3 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions				Shasta Storage Changes				
			CCWD Div. Base (TAF)	CCWD Div. Alt (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)		
1961	Oct	Balanced	3.4	7.2	3.8	2,415	3,250	3,250	-24.4		
	Nov	Balanced	2.9	5.8	2.9	2,506	3,252	3,252	-27.2		
	Dec	Surplus			0.0	2,948	3,350	3,350	-27.2		
	Jan	Surplus			0.0	3,158	3,751	3,751	-27.2		
	Feb	Surplus			0.0	3,801	3,914	3,914	-27.2		
	Mar	Balanced	16.1	16.1	0.0	4,280	4,280	4,280	0.0		
	Apr	Balanced	0.0	0.0	0.0	4,333	4,552	4,552	0.0		
	May	Balanced	15.4	15.4	0.0	4,249	4,552	4,552	0.0		
	Jun	Balanced	29.4	29.4	0.0	3,818	4,500	4,500	0.0		
	Jul	Balanced	18.5	32.3	13.8	3,153	4,150	4,150	-13.8		
	Aug	Balanced	10.4	19.6	9.2	2,521	3,700	3,700	-23.0		
	Sep	Balanced	17.2	17.2	0.0	2,410	3,400	3,400	-23.0		
1962	Oct	Balanced	15.1	7.1	-8.0	2,363	3,250	3,250	-15.0		
	Nov	Balanced	11.8	5.6	-6.3	2,344	3,252	3,252	-8.7		
	Dec	Surplus			0.0	2,650	3,356	3,356	-8.7		
	Jan	Balanced	10.4	10.4	0.0	2,703	3,819	3,819	-8.7		
	Feb	Surplus			0.0	3,675	3,675	3,675	0.0		
	Mar	Balanced	14.9	14.9	0.0	4,120	4,292	4,292	0.0		
	Apr	Surplus			0.0	4,396	4,552	4,552	0.0		
	May	Surplus			0.0	4,285	4,552	4,552	0.0		
	Jun	Surplus			0.0	3,930	4,500	4,500	0.0		
	Jul	Balanced	31.6	23.4	-8.3	3,303	4,150	4,150	8.3		
	Aug	Balanced	7.1	20.3	13.2	2,854	3,700	3,700	-5.0		
	Sep	Balanced	7.3	9.1	1.8	2,737	3,400	3,400	-6.7		
1963	Oct	Surplus			0.0	3,149	3,250	3,250	-6.7		
	Nov	Balanced	22.6	22.6	0.0	3,193	3,252	3,252	-6.7		
	Dec	Surplus			0.0	3,349	3,349	3,349	0.0		
	Jan	Surplus			0.0	3,459	3,764	3,764	0.0		
	Feb	Surplus			0.0	3,944	3,944	3,944	0.0		
	Mar	Balanced	6.4	6.4	0.0	4,071	4,226	4,226	0.0		
	Apr	Surplus			0.0	4,137	4,137	4,137	0.0		
	May	Surplus			0.0	4,422	4,552	4,552	0.0		
	Jun	Balanced	24.7	24.7	0.0	4,200	4,500	4,500	0.0		
	Jul	Balanced	19.5	19.5	0.0	3,614	4,150	4,150	0.0		
	Aug	Balanced	20.1	20.1	0.0	3,277	3,700	3,700	0.0		
	Sep	Balanced	8.0	16.8	8.8	3,238	3,400	3,400	-8.8		

Appendix C-3 CALSIM II Modeling

Future Alt 1, 2, & 3 CVP Contract Water Use Analysis											
		CVP Delivery Reductions					Shasta Storage Changes				
Year	Month	Delta Condition	CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	Year	Month	Delta Condition
1964	Oct	Balanced	2.8	9.0	6.2	3,250	3,250	0.0	1967	Oct	Balanced
	Nov	Surplus			0.0	3,252	3,252	0.0		Nov	Balanced
	Dec	Surplus			0.0	3,276	3,366	0.0		Dec	Surplus
	Jan	Surplus			0.0	3,649	3,705	0.0		Jan	Surplus
	Feb	Balanced	10.1	6.8	-3.3	3,832	4,194	3.3		Feb	Surplus
	Mar	Balanced	8.9	8.9	0.0	3,931	4,552	3.3		Mar	Surplus
	Apr	Balanced	0.0	0.0	0.0	3,710	4,552	3.3		Apr	Surplus
	May	Balanced	15.4	15.4	0.0	3,496	4,552	3.3		May	Surplus
	Jun	Balanced	29.4	29.4	0.0	3,259	4,500	3.3		Jun	Surplus
	Jul	Balanced	23.0	23.0	0.0	2,815	4,150	3.3		Jul	Balanced
	Aug	Balanced	3.6	15.6	12.1	2,466	3,700	-8.8		Aug	Balanced
	Sep	Balanced	2.7	12.0	9.2	2,362	3,400	-18.0		Sep	Surplus
1965	Oct	Balanced	1.7	5.5	3.8	2,372	3,250	-21.8	1968	Oct	Surplus
	Nov	Balanced	2.6	6.8	4.2	2,472	3,252	-26.0		Nov	Balanced
	Dec	Surplus			0.0	3,252	3,252	0.0		Dec	Surplus
	Jan	Surplus			0.0	3,368	3,368	0.0		Jan	Surplus
	Feb	Surplus			0.0	3,803	3,913	0.0		Feb	Surplus
	Mar	Balanced	14.2	6.7	-7.5	3,946	4,547	7.5		Mar	Surplus
	Apr	Surplus			0.0	4,500	4,500	0.0		Apr	Balanced
	May	Balanced	12.4	11.9	-0.5	4,457	4,552	0.5		May	Surplus
	Jun	Balanced	27.2	25.3	-1.9	4,131	4,500	2.4		Jun	Balanced
	Jul	Balanced	30.9	19.4	-11.5	3,527	4,150	13.9		Jul	Balanced
	Aug	Balanced	27.1	20.0	-7.0	3,229	3,700	20.9		Aug	Balanced
	Sep	Balanced	4.9	15.4	10.4	3,153	3,400	10.4		Sep	Balanced
1966	Oct	Balanced	3.6	8.5	4.9	3,131	3,250	5.5	1969	Oct	Balanced
	Nov	Surplus			0.0	3,252	3,252	0.0		Nov	Balanced
	Dec	Surplus			0.0	3,326	3,359	0.0		Dec	Surplus
	Jan	Surplus			0.0	3,725	3,725	0.0		Jan	Surplus
	Feb	Balanced	1.0	6.6	5.6	4,037	4,037	0.0		Feb	Surplus
	Mar	Balanced	14.5	7.7	-6.9	4,229	4,229	0.0		Mar	Surplus
	Apr	Surplus			0.0	4,552	4,552	0.0		Apr	Surplus
	May	Surplus			0.0	4,409	4,552	0.0		May	Surplus
	Jun	Balanced	28.7	28.7	0.0	3,851	4,500	0.0		Jun	Surplus
	Jul	Balanced	20.3	20.3	0.0	3,298	4,150	0.0		Jul	Balanced
	Aug	Balanced	10.5	20.3	9.8	2,844	3,700	-9.8		Aug	Balanced
	Sep	Balanced	4.2	11.7	7.5	2,777	3,400	-17.4		Sep	Surplus

Appendix C-3 CALSIM II Modeling

Future Alt 1, 2, & 3 CVP Contract Water Use Analysis											
		CVP Delivery Reductions					Shasta Storage Changes				
Year	Month	Delta Condition	CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	Year	Month	Delta Condition
1967	Oct	Balanced	7.8	6.8	-1.0	2,674	3,250	-16.3	1968	Oct	Surplus
	Nov	Balanced	10.5	8.3	-2.2	2,980	3,252	-14.1		Nov	Balanced
	Dec	Surplus			0.0	3,335	3,335	0.0		Dec	Surplus
	Jan	Surplus			0.0	3,551	3,551	0.0		Jan	Surplus
	Feb	Surplus			0.0	3,920	3,920	0.0		Feb	Surplus
	Mar	Surplus			0.0	4,033	4,033	0.0		Mar	Surplus
	Apr	Surplus			0.0	4,479	4,479	0.0		Apr	Surplus
	May	Surplus			0.0	4,552	4,552	0.0		May	Surplus
	Jun	Surplus			0.0	4,500	4,500	0.0		Jun	Surplus
	Jul	Balanced	19.5	19.5	0.0	4,150	4,150	0.0		Jul	Balanced
	Aug	Balanced	20.1	20.1	0.0	3,700	3,700	0.0		Aug	Balanced
	Sep	Surplus			0.0	3,400	3,400	0.0		Sep	Surplus
1968	Oct	Surplus			0.0	3,250	3,250	0.0	1969	Oct	Balanced
	Nov	Balanced	9.3	9.3	0.0	3,210	3,252	0.0		Nov	Balanced
	Dec	Surplus			0.0	3,295	3,370	0.0		Dec	Surplus
	Jan	Surplus			0.0	3,577	3,792	0.0		Jan	Surplus
	Feb	Surplus			0.0	3,654	3,654	0.0		Feb	Surplus
	Mar	Surplus			0.0	4,191	4,248	0.0		Mar	Surplus
	Apr	Balanced	0.0	0.0	0.0	4,177	4,552	0.0		Apr	Balanced
	May	Surplus			0.0	4,037	4,552	0.0		May	Surplus
	Jun	Balanced	28.7	28.7	0.0	3,548	4,500	0.0		Jun	Balanced
	Jul	Balanced	20.3	20.3	0.0	2,981	4,150	0.0		Jul	Balanced
	Aug	Balanced	14.5	20.2	5.7	2,639	3,700	-5.7		Aug	Balanced
	Sep	Balanced	3.1	8.8	5.7	2,557	3,400	-11.5		Sep	Balanced
1969	Oct	Balanced	4.9	6.2	1.3	2,568	3,250	-12.8	1969	Oct	Balanced
	Nov	Balanced	10.6	7.0	-3.6	2,631	3,252	-9.2		Nov	Balanced
	Dec	Surplus			0.0	2,959	3,354	-9.2		Dec	Surplus
	Jan	Surplus			0.0	3,358	3,358	0.0		Jan	Surplus
	Feb	Surplus			0.0	3,480	3,480	0.0		Feb	Surplus
	Mar	Surplus			0.0	4,030	4,030	0.0		Mar	Surplus
	Apr	Surplus			0.0	4,434	4,434	0.0		Apr	Surplus
	May	Surplus			0.0	4,552	4,552	0.0		May	Surplus
	Jun	Surplus			0.0	4,383	4,500	0.0		Jun	Surplus
	Jul	Balanced	19.5	19.5	0.0	4,020	4,150	0.0		Jul	Balanced
	Aug	Balanced	20.1	20.1	0.0	3,638	3,700	0.0		Aug	Balanced
	Sep	Surplus			0.0	3,400	3,400	0.0		Sep	Surplus

Appendix C-3 CALSIM II Modeling

Future Alt 1, 2, & 3 CVP Contract Water Use Analysis											
CVP Delivery Reductions						Shasta Storage Changes					
Year	Month	Delta Condition	CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	Year	Month	Delta Condition
1970	Oct	Surplus			0.0	3,250	3,250	0.0		Oct	Balanced
	Nov	Surplus			0.0	3,247	3,252	0.0		Nov	Surplus
	Dec	Surplus			0.0	3,317	3,317	0.0		Dec	Surplus
	Jan	Surplus			0.0	3,252	3,252	0.0		Jan	Surplus
	Feb	Surplus			0.0	3,431	3,431	0.0		Feb	Surplus
	Mar	Surplus			0.0	4,061	4,172	0.0		Mar	Surplus
	Apr	Balanced	0.0	0.0	0.0	4,007	4,552	0.0		Apr	Balanced
	May	Surplus			0.0	3,865	4,552	0.0		May	Surplus
	Jun	Surplus			0.0	3,576	4,500	0.0		Jun	Surplus
	Jul	Balanced	19.5	19.5	0.0	3,027	4,150	0.0		Jul	Balanced
	Aug	Balanced	20.1	20.1	0.0	2,634	3,700	0.0		Aug	Balanced
	Sep	Balanced	5.5	15.6	10.1	2,471	3,400	-10.1		Sep	Balanced
1971	Oct	Balanced	3.5	8.1	4.6	2,502	3,250	-14.7		Oct	Balanced
	Nov	Surplus			0.0	2,960	3,252	-14.7		Nov	Surplus
	Dec	Surplus			0.0	3,319	3,319	0.0		Dec	Surplus
	Jan	Surplus			0.0	3,515	3,515	0.0		Jan	Surplus
	Feb	Balanced	17.8	6.8	-11.1	3,695	3,966	11.1		Feb	Balanced
	Mar	Surplus			0.0	3,873	3,873	0.0		Mar	Surplus
	Apr	Balanced	0.0	0.0	0.0	4,369	4,552	0.0		Apr	Balanced
	May	Surplus			0.0	4,552	4,552	0.0		May	Surplus
	Jun	Balanced	25.4	25.4	0.0	4,492	4,500	0.0		Jun	Balanced
	Jul	Balanced	19.5	19.5	0.0	3,919	4,150	0.0		Jul	Balanced
	Aug	Balanced	20.1	20.1	0.0	3,577	3,700	0.0		Aug	Balanced
	Sep	Balanced	6.6	16.8	10.2	3,400	3,400	0.0		Sep	Balanced
1972	Oct	Balanced	4.4	10.0	5.6	3,250	3,250	0.0		Oct	Balanced
	Nov	Balanced	3.1	6.7	3.7	3,178	3,252	-3.7		Nov	Balanced
	Dec	Surplus			0.0	3,304	3,365	-3.7		Dec	Surplus
	Jan	Surplus			0.0	3,648	3,714	-3.7		Jan	Surplus
	Feb	Balanced	5.1	6.8	1.6	3,959	3,979	-5.3		Feb	Balanced
	Mar	Surplus			0.0	4,249	4,249	0.0		Mar	Surplus
	Apr	Balanced	1.1	0.0	-1.1	4,455	4,552	1.1		Apr	Balanced
	May	Surplus			0.0	4,327	4,552	1.1		May	Surplus
	Jun	Balanced	28.7	28.7	0.0	3,808	4,500	1.1		Jun	Balanced
	Jul	Balanced	31.6	20.3	-11.3	3,166	4,150	12.4		Jul	Balanced
	Aug	Balanced	12.2	20.3	8.1	2,756	3,700	4.4		Aug	Balanced
	Sep	Balanced	4.1	12.4	8.3	2,730	3,400	-4.0		Sep	Balanced

Appendix C-3 CALSIM II Modeling

Future Alt 1, 2, & 3 CVP Contract Water Use Analysis											
CVP Delivery Reductions						Shasta Storage Changes					
Year	Month	Delta Condition	CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	Year	Month	Delta Condition
1973	Oct	Balanced	13.0	5.3	-7.7	2,826	3,250	3.7		Oct	Balanced
	Nov	Surplus			0.0	3,058	3,252	3.7		Nov	Surplus
	Dec	Surplus			0.0	3,336	3,346	3.7		Dec	Surplus
	Jan	Surplus			0.0	3,552	3,552	0.0		Jan	Surplus
	Feb	Surplus			0.0	3,636	3,636	0.0		Feb	Surplus
	Mar	Surplus			0.0	4,162	4,162	0.0		Mar	Surplus
	Apr	Surplus			0.0	4,421	4,552	0.0		Apr	Surplus
	May	Surplus			0.0	4,394	4,552	0.0		May	Surplus
	Jun	Balanced	27.6	27.6	0.0	3,975	4,500	0.0		Jun	Balanced
	Jul	Balanced	19.7	19.7	0.0	3,361	4,150	0.0		Jul	Balanced
	Aug	Balanced	20.3	20.3	0.0	3,090	3,700	0.0		Aug	Balanced
	Sep	Balanced	6.6	16.7	10.1	3,041	3,400	-10.1		Sep	Balanced
1974	Oct	Balanced	2.5	6.9	4.4	3,132	3,250	-14.4		Oct	Balanced
	Nov	Surplus			0.0	3,252	3,252	0.0		Nov	Surplus
	Dec	Surplus			0.0	3,267	3,267	0.0		Dec	Surplus
	Jan	Surplus			0.0	3,252	3,252	0.0		Jan	Surplus
	Feb	Surplus			0.0	3,694	3,694	0.0		Feb	Surplus
	Mar	Surplus			0.0	3,416	3,416	0.0		Mar	Surplus
	Apr	Surplus			0.0	4,289	4,289	0.0		Apr	Surplus
	May	Surplus			0.0	4,480	4,552	0.0		May	Surplus
	Jun	Balanced	25.3	25.3	0.0	4,329	4,500	0.0		Jun	Balanced
	Jul	Balanced	19.4	19.4	0.0	4,099	4,150	0.0		Jul	Balanced
	Aug	Balanced	20.1	20.1	0.0	3,700	3,700	0.0		Aug	Balanced
	Sep	Surplus			0.0	3,400	3,400	0.0		Sep	Surplus
1975	Oct	Balanced	10.5	14.5	4.1	3,250	3,250	0.0		Oct	Balanced
	Nov	Balanced	4.7	8.6	3.9	3,200	3,252	-3.9		Nov	Balanced
	Dec	Surplus			0.0	3,319	3,372	-3.9		Dec	Surplus
	Jan	Surplus			0.0	3,482	3,835	-3.9		Jan	Surplus
	Feb	Surplus			0.0	3,936	3,936	0.0		Feb	Surplus
	Mar	Surplus			0.0	3,756	3,756	0.0		Mar	Surplus
	Apr	Surplus			0.0	4,343	4,552	0.0		Apr	Surplus
	May	Surplus			0.0	4,552	4,552	0.0		May	Surplus
	Jun	Surplus			0.0	4,416	4,500	0.0		Jun	Surplus
	Jul	Balanced	19.4	19.4	0.0	4,150	4,150	0.0		Jul	Balanced
	Aug	Balanced	20.1	20.1	0.0	3,700	3,700	0.0		Aug	Balanced
	Sep	Surplus			0.0	3,400	3,400	0.0		Sep	Surplus

Appendix C-3 CALSIM II Modeling

Future Alt 1, 2, & 3 CVP Contract Water Use Analysis												
		CVP Delivery Reductions					Shasta Storage Changes					
Year	Month	Delta Condition	CCWD Div. Base (TAF)	CCWD Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	Year	Month	Delta Condition	
1976	Oct	Surplus	6.7	9.4	0.0	3,250	3,250	0.0	1979	Oct	Balanced	
	Nov	Balanced			2.7	3,252	3,252	0.0		Nov	Balanced	
	Dec	Surplus			0.0	3,318	3,372	0.0		Dec	Balanced	
	Jan	Surplus			0.0	3,522	3,835	0.0		Jan	Surplus	
	Feb	Balanced	2.7	4.3	1.5	3,657	4,146	-1.5		Feb	Surplus	
	Mar	Balanced	18.1	14.4	-3.7	3,887	4,552	2.2		Mar	Surplus	
	Apr	Surplus			0.0	3,971	4,552	2.2		Apr	Surplus	
	May	Surplus			0.0	3,811	4,552	2.2		May	Surplus	
	Jun	Balanced	10.2	11.6	1.5	3,292	4,500	0.7		Jun	Balanced	
	Jul	Balanced	13.6	20.0	6.3	2,870	4,150	-5.7		Jul	Balanced	
	Aug	Balanced	19.6	19.6	0.0	2,799	3,700	-5.7		Aug	Balanced	
	Sep	Balanced	14.8	12.9	-2.0	2,732	3,400	-3.7		Sep	Balanced	
1977	Oct	Balanced	15.1	6.2	-8.9	2,743	3,250	5.2		1980	Oct	Balanced
	Nov	Balanced	12.0	8.3	-3.7	2,722	3,252	8.8			Nov	Balanced
	Dec	Balanced	11.4	20.2	8.8	2,712	3,372	0.0			Dec	Surplus
	Jan	Surplus			0.0	2,740	3,835	0.0			Jan	Surplus
	Feb	Balanced	11.0	4.2	-6.8	2,719	4,253	6.9			Feb	Surplus
	Mar	Balanced	10.7	3.8	-6.9	2,707	4,552	13.8			Mar	Surplus
	Apr	Balanced	13.3	12.3	-1.0	2,402	4,552	14.8			Apr	Surplus
	May	Balanced	16.8	16.8	0.0	2,259	4,552	14.8			May	Surplus
	Jun	Balanced	18.7	18.7	0.0	1,728	4,500	14.8			Jun	Balanced
	Jul	Balanced	20.1	20.1	0.0	1,124	4,150	14.8			Jul	Balanced
	Aug	Balanced	19.6	19.6	0.0	637	3,700	14.8			Aug	Balanced
	Sep	Balanced	17.3	17.3	0.0	584	3,400	14.8			Sep	Balanced
1978	Oct	Balanced	15.1	15.1	0.0	550	3,250	14.8		1981	Oct	Balanced
	Nov	Balanced	12.0	12.0	0.0	572	3,252	14.8			Nov	Balanced
	Dec	Surplus			0.0	1,008	3,350	14.8			Dec	Surplus
	Jan	Surplus			0.0	2,925	3,321	14.8			Jan	Surplus
	Feb	Surplus			0.0	3,567	3,567	0.0			Feb	Balanced
	Mar	Surplus			0.0	4,000	4,000	0.0			Mar	Balanced
	Apr	Surplus			0.0	4,552	4,552	0.0			Apr	Surplus
	May	Surplus			0.0	4,552	4,552	0.0			May	Surplus
	Jun	Surplus			0.0	4,210	4,500	0.0			Jun	Balanced
	Jul	Balanced	31.2	31.2	0.0	3,698	4,150	0.0			Jul	Balanced
	Aug	Balanced	25.6	29.2	3.6	3,337	3,700	-3.6			Aug	Balanced
	Sep	Balanced	11.7	17.2	5.6	3,322	3,400	-9.2			Sep	Balanced

Appendix C-3 CALSIM II Modeling

Future Alt 1, 2, & 3 CVP Contract Water Use Analysis												
		CVP Delivery Reductions					Shasta Storage Changes					
Year	Month	Delta Condition	CCWD Div. Base (TAF)	CCWD Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	Year	Month	Delta Condition	
1979	Oct	Balanced	4.2	13.9	9.7	3,200	3,250	-18.8		1980	Oct	Balanced
	Nov	Balanced			6.3	3,140	3,252	-25.2			Nov	Balanced
	Dec	Balanced	9.4	2.5	-6.9	3,091	3,368	-18.3			Dec	Surplus
	Jan	Surplus			0.0	3,229	3,824	-18.3			Jan	Surplus
	Feb	Surplus			0.0	3,510	4,100	-18.3			Feb	Surplus
	Mar	Surplus			0.0	3,940	4,360	-18.3			Mar	Surplus
	Apr	Surplus			0.0	4,117	4,552	-18.3			Apr	Surplus
	May	Surplus			0.0	4,167	4,552	-18.3			May	Surplus
	Jun	Balanced	28.7	28.7	0.0	3,674	4,500	-18.3			Jun	Balanced
	Jul	Balanced	23.4	20.3	-3.1	3,166	4,150	-15.2			Jul	Balanced
	Aug	Balanced	20.3	20.3	0.0	2,848	3,700	-15.2			Aug	Balanced
	Sep	Balanced	5.2	15.3	10.1	2,736	3,400	-25.3			Sep	Balanced
1980	Oct	Balanced	3.0	7.4	4.5	2,786	3,250	-29.8		1981	Oct	Balanced
	Nov	Balanced	4.7	7.6	3.0	2,898	3,252	-32.7			Nov	Balanced
	Dec	Surplus			0.0	3,013	3,367	-32.7			Dec	Surplus
	Jan	Surplus			0.0	3,528	3,528	0.0			Jan	Surplus
	Feb	Surplus			0.0	3,292	3,292	0.0			Feb	Surplus
	Mar	Surplus			0.0	3,938	4,100	0.0			Mar	Surplus
	Apr	Surplus			0.0	4,223	4,552	0.0			Apr	Surplus
	May	Surplus			0.0	4,166	4,552	0.0			May	Surplus
	Jun	Balanced	27.4	27.4	0.0	3,843	4,500	0.0			Jun	Balanced
	Jul	Balanced	19.7	19.7	0.0	3,401	4,150	0.0			Jul	Balanced
	Aug	Balanced	20.3	20.3	0.0	3,058	3,700	0.0			Aug	Balanced
	Sep	Balanced	17.3	17.3	0.0	3,002	3,400	0.0			Sep	Balanced
1981	Oct	Balanced	5.4	15.1	9.7	2,983	3,250	-9.7		1981	Oct	Balanced
	Nov	Balanced	3.4	9.5	6.1	2,975	3,252	-15.8			Nov	Balanced
	Dec	Surplus			0.0	3,068	3,370	-15.8			Dec	Surplus
	Jan	Surplus			0.0	3,365	3,747	-15.8			Jan	Surplus
	Feb	Balanced	17.5	3.9	-13.6	3,773	4,030	-2.3			Feb	Balanced
	Mar	Balanced	15.9	11.1	-4.8	4,256	4,256	0.0			Mar	Balanced
	Apr	Surplus			0.0	4,397	4,552	0.0			Apr	Surplus
	May	Surplus			0.0	4,149	4,552	0.0			May	Surplus
	Jun	Balanced	29.4	29.4	0.0	3,518	4,500	0.0			Jun	Balanced
	Jul	Balanced	14.8	23.0	8.2	2,881	4,150	-8.2			Jul	Balanced
	Aug	Balanced	6.0	16.0	10.0	2,389	3,700	-18.2			Aug	Balanced
	Sep	Balanced	6.9	17.8	10.9	2,291	3,400	-29.1			Sep	Balanced

Appendix C-3 CALSIM II Modeling

Future Alt 1, 2, & 3 CVP Contract Water Use Analysis												
Shasta Storage Changes												
Year	Month	CVP Delivery Reductions						Shasta Storage Changes				
		Delta Condition	CCWD Base (TAF)	CCWD Div. (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)			
1982	Oct	Balanced	3.3	7.6	4.4	3,264	3,250	-33.5				
	Nov	Surplus			0.0	3,252	3,252	0.0				
	Dec	Surplus			0.0	3,276	3,276	0.0				
	Jan	Surplus			0.0	3,616	3,616	0.0				
	Feb	Surplus			0.0	3,530	3,530	0.0				
	Mar	Surplus			0.0	3,953	3,953	0.0				
	Apr	Surplus			0.0	4,094	4,094	0.0				
	May	Surplus			0.0	4,304	4,552	0.0				
	Jun	Surplus			0.0	4,140	4,500	0.0				
	Jul	Balanced	21.2	19.5	-1.7	3,849	4,150	1.7				
	Aug	Balanced	20.1	20.1	0.0	3,471	3,700	1.7				
	Sep	Surplus			0.0	3,400	3,400	0.0				
1983	Oct	Surplus			0.0	3,250	3,250	0.0				
	Nov	Surplus			0.0	3,252	3,252	0.0				
	Dec	Surplus			0.0	3,328	3,328	0.0				
	Jan	Surplus			0.0	3,371	3,371	0.0				
	Feb	Surplus			0.0	3,252	3,252	0.0				
	Mar	Surplus			0.0	3,417	3,417	0.0				
	Apr	Surplus			0.0	4,074	4,074	0.0				
	May	Surplus			0.0	4,552	4,552	0.0				
	Jun	Surplus			0.0	4,500	4,500	0.0				
	Jul	Surplus			0.0	4,150	4,150	0.0				
	Aug	Surplus			0.0	3,700	3,700	0.0				
	Sep	Surplus			0.0	3,400	3,400	0.0				
1984	Oct	Surplus			0.0	3,250	3,250	0.0				
	Nov	Surplus			0.0	3,252	3,252	0.0				
	Dec	Surplus			0.0	3,285	3,285	0.0				
	Jan	Surplus			0.0	3,650	3,650	0.0				
	Feb	Surplus			0.0	3,995	4,005	0.0				
	Mar	Surplus			0.0	4,246	4,246	0.0				
	Apr	Balanced	0.0	0.0	0.0	4,336	4,552	0.0				
	May	Surplus			0.0	4,285	4,552	0.0				
	Jun	Balanced	25.5	25.5	0.0	4,030	4,500	0.0				
	Jul	Balanced	19.5	19.5	0.0	3,428	4,150	0.0				
	Aug	Balanced	20.1	20.1	0.0	3,159	3,700	0.0				
	Sep	Balanced	5.6	14.9	9.3	3,138	3,400	-9.3				

Appendix C-3 CALSIM II Modeling

Future Alt 1, 2, & 3 CVP Contract Water Use Analysis												
Shasta Storage Changes												
Year	Month	CVP Delivery Reductions						Shasta Storage Changes				
		Delta Condition	CCWD Base (TAF)	CCWD Div. (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)			
1985	Oct	Balanced	3.2	7.7	4.6	3,184	3,250	-13.8				
	Nov	Surplus			0.0	3,252	3,252	0.0				
	Dec	Surplus			0.0	3,360	3,360	0.0				
	Jan	Surplus			0.0	3,456	3,833	0.0				
	Feb	Balanced	10.9	6.6	-4.3	3,588	4,232	4.3				
	Mar	Balanced	8.7	8.7	0.0	3,730	4,552	4.3				
	Apr	Surplus			0.0	3,844	4,552	4.3				
	May	Balanced	15.4	15.4	0.0	3,482	4,552	4.3				
	Jun	Balanced	29.4	29.4	0.0	3,064	4,500	4.3				
	Jul	Balanced	16.9	23.1	6.2	2,542	4,150	-1.9				
	Aug	Balanced	4.7	13.9	9.1	2,121	3,700	-11.0				
	Sep	Balanced	4.0	11.1	7.1	2,132	3,400	-18.1				
1986	Oct	Balanced	3.6	7.8	4.2	2,095	3,250	-22.3				
	Nov	Balanced	4.0	6.5	2.5	2,123	3,252	-24.8				
	Dec	Surplus			0.0	2,292	3,372	-24.8				
	Jan	Surplus			0.0	2,850	3,658	-24.8				
	Feb	Surplus			0.0	3,252	3,252	0.0				
	Mar	Surplus			0.0	3,534	3,534	0.0				
	Apr	Surplus			0.0	3,903	4,552	0.0				
	May	Surplus			0.0	3,870	4,552	0.0				
	Jun	Surplus			0.0	3,486	4,500	0.0				
	Jul	Balanced	30.9	19.5	-11.5	3,139	4,150	11.5				
	Aug	Balanced	24.6	20.1	-4.5	2,819	3,700	15.9				
	Sep	Balanced	16.8	16.8	0.0	2,854	3,400	15.9				
1987	Oct	Balanced	4.5	9.7	5.2	2,882	3,250	10.8				
	Nov	Balanced	2.8	5.6	2.9	2,876	3,252	7.9				
	Dec	Surplus			0.0	2,888	3,372	7.9				
	Jan	Surplus			0.0	3,026	3,835	7.9				
	Feb	Balanced	2.9	4.2	1.3	3,358	4,141	6.6				
	Mar	Surplus			0.0	4,084	4,298	6.6				
	Apr	Balanced	0.0	0.0	0.0	3,845	4,552	6.6				
	May	Balanced	15.4	15.4	0.0	3,549	4,552	6.6				
	Jun	Balanced	29.4	26.9	-2.4	3,030	4,500	9.0				
	Jul	Balanced	32.5	20.2	-12.3	2,511	4,150	21.3				
	Aug	Balanced	7.8	19.6	11.8	2,225	3,700	9.5				
	Sep	Balanced	3.1	11.0	7.8	2,122	3,400	1.6				

Appendix C-3 CALSIM II Modeling

Future Alt 1, 2, & 3 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			Difference (TAF)	Accumulated Difference (TAF)	
			CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	CCWD Div. Div. Op. Alt (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Shasta Storage (TAF)			
1988	Oct	Balanced	2.3	5.0	2.7	2,056	3,250	-1.0			
	Nov	Balanced	3.5	5.8	2.3	2,035	3,252	-3.3			
	Dec	Surplus			0.0	2,540	3,358	-3.3			
	Jan	Surplus			0.0	2,940	3,727	-3.3			
	Feb	Balanced	20.7	20.7	0.0	2,855	4,194	-3.3			
	Mar	Balanced	18.1	10.7	-7.4	2,915	4,552	4.1			
	Apr	Surplus			0.0	2,955	4,552	4.1			
	May	Surplus			0.0	2,942	4,552	4.1			
	Jun	Balanced	30.6	18.7	-11.9	2,527	4,500	16.0			
	Jul	Balanced	32.4	20.1	-12.3	2,023	4,150	28.2			
	Aug	Balanced	9.0	19.6	10.6	1,724	3,700	17.7			
	Sep	Balanced	4.0	11.0	7.0	1,587	3,400	10.7			
1989	Oct	Balanced	8.3	4.8	-3.5	1,507	3,250	14.2			
	Nov	Balanced	12.0	5.8	-6.2	1,716	3,252	20.4			
	Dec	Surplus			0.0	1,815	3,370	20.4			
	Jan	Surplus			0.0	1,920	3,835	20.4			
	Feb	Balanced	11.0	11.0	0.0	2,029	4,253	20.4			
	Mar	Surplus			0.0	3,410	3,841	20.4			
	Apr	Surplus			0.0	3,795	4,552	20.4			
	May	Balanced	15.7	15.7	0.0	3,578	4,552	20.4			
	Jun	Balanced	29.4	29.4	0.0	3,216	4,500	20.4			
	Jul	Balanced	32.5	32.5	0.0	2,679	4,150	20.4			
	Aug	Balanced	4.8	17.7	12.9	2,323	3,700	7.5			
	Sep	Balanced	9.3	10.3	1.0	2,341	3,400	6.6			
1990	Oct	Balanced	15.1	6.6	-8.5	2,455	3,250	15.0			
	Nov	Balanced	11.8	7.8	-4.1	2,449	3,252	19.1			
	Dec	Balanced	10.7	16.9	6.1	2,430	3,372	13.0			
	Jan	Surplus			0.0	2,662	3,822	13.0			
	Feb	Balanced	9.2	6.8	-2.4	2,557	4,253	15.3			
	Mar	Balanced	18.1	11.2	-6.9	2,823	4,552	22.2			
	Apr	Balanced	6.4	13.1	6.7	2,676	4,552	15.5			
	May	Surplus			0.0	2,832	4,552	15.5			
	Jun	Balanced	24.2	18.7	-5.5	2,618	4,500	20.9			
	Jul	Balanced	15.5	20.1	4.6	2,110	4,150	16.3			
	Aug	Balanced	19.6	19.6	0.0	1,835	3,700	16.3			
	Sep	Balanced	17.3	17.3	0.0	1,744	3,400	16.3			

Appendix C-3 CALSIM II Modeling

Future Alt 1, 2, & 3 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			Difference (TAF)	Accumulated Difference (TAF)	
			CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	CCWD Div. Div. Op. Alt (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Shasta Storage (TAF)			
1991	Oct	Balanced	15.1	15.1	0.0	1,701	3,250	16.3			
	Nov	Balanced	12.0	12.0	0.0	1,698	3,252	16.3			
	Dec	Surplus			0.0	1,668	3,372	16.3			
	Jan	Surplus			0.0	1,672	3,835	16.3			
	Feb	Balanced	9.7	10.7	0.9	1,699	4,253	15.3			
	Mar	Balanced	10.7	10.7	0.0	2,104	4,552	15.3			
	Apr	Balanced	17.8	17.8	0.0	2,258	4,552	15.3			
	May	Surplus			0.0	2,187	4,552	15.3			
	Jun	Balanced	18.7	18.7	0.0	1,908	4,500	15.3			
	Jul	Balanced	19.1	20.1	1.0	1,582	4,150	14.3			
	Aug	Balanced	19.6	18.9	-0.7	1,282	3,700	14.9			
	Sep	Balanced	17.3	17.3	0.0	1,179	3,400	14.9			
1992	Oct	Balanced	15.1	15.1	0.0	1,165	3,250	14.9			
	Nov	Balanced	12.0	12.0	0.0	1,123	3,252	14.9			
	Dec	Surplus			0.0	1,119	3,372	14.9			
	Jan	Surplus			0.0	1,165	3,835	14.9			
	Feb	Surplus			0.0	1,822	4,253	14.9			
	Mar	Balanced	18.1	18.1	0.0	2,268	4,552	14.9			
	Apr	Balanced	7.0	6.6	-0.4	2,497	4,552	15.3			
	May	Balanced	17.1	17.1	0.0	2,217	4,552	15.3			
	Jun	Balanced	21.5	18.7	-2.8	1,826	4,500	18.1			
	Jul	Balanced	20.1	20.1	0.0	1,368	4,150	18.1			
	Aug	Balanced	17.9	19.6	1.7	976	3,700	16.5			
	Sep	Balanced	17.3	17.3	0.0	865	3,400	16.5			
1993	Oct	Balanced	15.1	15.1	0.0	801	3,250	16.5			
	Nov	Balanced	12.0	12.0	0.0	798	3,252	16.5			
	Dec	Surplus			0.0	1,029	3,350	16.5			
	Jan	Surplus			0.0	1,678	3,321	16.5			
	Feb	Surplus			0.0	2,408	3,567	16.5			
	Mar	Surplus			0.0	3,875	4,000	16.5			
	Apr	Surplus			0.0	4,497	4,552	16.5			
	May	Surplus			0.0	4,552	4,552	0.0			
	Jun	Surplus			0.0	4,500	4,500	0.0			
	Jul	Balanced	31.2	31.2	0.0	3,909	4,150	0.0			
	Aug	Balanced	27.3	27.3	0.0	3,637	3,700	0.0			
	Sep	Balanced	8.3	17.3	8.9	3,400	3,400	0.0			

Appendix C-3 CALSIM II Modeling

Future Alt 1, 2, & 3 CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	CVP Delivery Reductions					Shasta Storage Changes				
		Delta Condition	CCWD Div. Base (TAF)	CCWD Div. Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)
1994	Oct	Balanced	2.9	10.2	7.4	3,250	3,250	0.0	3,250	3,250	0.0
	Nov	Balanced	2.4	6.6	4.3	3,191	3,252	-4.3	3,191	3,252	-4.3
	Dec	Surplus			0.0	3,262	3,372	-4.3	3,262	3,372	-4.3
	Jan	Surplus			0.0	3,395	3,835	-4.3	3,395	3,835	-4.3
	Feb	Balanced	4.2	0.0	-4.2	3,620	4,146	-0.1	3,620	4,146	-0.1
	Mar	Balanced	18.1	17.2	-0.9	3,652	4,552	0.8	3,652	4,552	0.8
	Apr	Balanced	0.0	0.0	0.0	3,505	4,552	0.8	3,505	4,552	0.8
	May	Balanced	16.8	16.8	0.0	3,210	4,552	0.8	3,210	4,552	0.8
	Jun	Balanced	30.6	30.6	0.0	2,782	4,500	0.8	2,782	4,500	0.8
	Jul	Balanced	5.5	18.8	13.2	2,207	4,150	-12.4	2,207	4,150	-12.4
	Aug	Balanced	3.1	13.2	10.1	1,641	3,700	-22.5	1,641	3,700	-22.5
	Sep	Balanced	12.0	7.4	-4.6	1,470	3,400	-17.9	1,470	3,400	-17.9

Appendix C-3 CALSIM II Modeling

Future Desal CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	CVP Delivery Reductions					Shasta Storage Changes				
		Delta Condition	CCWD Div. Base (TAF)	CCWD Div. Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)
1922	Oct	Balanced	27.1	15.1	-12.0	2,806	3,250	12.0	2,806	3,250	12.0
	Nov	Balanced	22.0	10.1	-11.9	2,822	3,252	23.9	2,822	3,252	23.9
	Dec	Surplus			0.0	2,897	3,368	23.9	2,897	3,368	23.9
	Jan	Surplus			0.0	2,991	3,828	23.9	2,991	3,828	23.9
	Feb	Surplus			0.0	3,290	4,042	23.9	3,290	4,042	23.9
	Mar	Surplus			0.0	3,595	4,330	23.9	3,595	4,330	23.9
	Apr	Surplus			0.0	4,074	4,552	23.9	4,074	4,552	23.9
	May	Surplus			0.0	4,232	4,552	23.9	4,232	4,552	23.9
	Jun	Surplus			0.0	3,927	4,500	23.9	3,927	4,500	23.9
	Jul	Balanced	19.7	19.7	0.0	3,442	4,150	23.9	3,442	4,150	23.9
	Aug	Balanced	20.3	20.3	0.0	3,020	3,700	23.9	3,020	3,700	23.9
	Sep	Balanced	13.5	9.4	-4.1	2,835	3,400	23.9	2,835	3,400	23.9
1923	Oct	Balanced	4.7	2.9	-1.8	2,836	3,250	29.8	2,836	3,250	29.8
	Nov	Balanced	4.2	2.7	-1.5	2,849	3,252	31.3	2,849	3,252	31.3
	Dec	Surplus			0.0	2,938	3,369	31.3	2,938	3,369	31.3
	Jan	Surplus			0.0	3,146	3,814	31.3	3,146	3,814	31.3
	Feb	Balanced	12.7	10.0	-2.7	3,204	4,242	34.0	3,204	4,242	34.0
	Mar	Balanced	7.7	7.7	0.0	3,251	4,552	34.0	3,251	4,552	34.0
	Apr	Surplus			0.0	3,561	4,552	34.0	3,561	4,552	34.0
	May	Surplus			0.0	3,323	4,552	34.0	3,323	4,552	34.0
	Jun	Balanced	28.6	28.6	0.0	3,066	4,500	34.0	3,066	4,500	34.0
	Jul	Balanced	20.2	20.2	0.0	2,658	4,150	34.0	2,658	4,150	34.0
	Aug	Balanced	14.4	10.0	-4.5	2,290	3,700	38.4	2,290	3,700	38.4
	Sep	Balanced	5.8	3.7	-2.1	2,203	3,400	40.6	2,203	3,400	40.6
1924	Oct	Balanced	3.4	2.2	-1.2	2,173	3,250	41.8	2,173	3,250	41.8
	Nov	Balanced	9.6	2.3	-7.2	2,127	3,252	49.1	2,127	3,252	49.1
	Dec	Balanced	9.7	9.6	-0.1	2,124	3,370	49.2	2,124	3,370	49.2
	Jan	Surplus			0.0	2,182	3,828	49.2	2,182	3,828	49.2
	Feb	Balanced	7.2	5.1	-2.1	2,339	4,256	51.3	2,339	4,256	51.3
	Mar	Balanced	7.9	5.6	-2.3	2,276	4,552	53.6	2,276	4,552	53.6
	Apr	Balanced	0.0	0.0	0.0	2,061	4,552	53.6	2,061	4,552	53.6
	May	Balanced	9.3	6.2	-3.1	1,746	4,552	56.7	1,746	4,552	56.7
	Jun	Balanced	17.6	11.6	-5.9	1,334	4,500	62.6	1,334	4,500	62.6
	Jul	Balanced	20.1	14.9	-5.3	887	4,150	67.9	887	4,150	67.9
	Aug	Balanced	19.6	14.6	-5.0	648	3,700	72.9	648	3,700	72.9
	Sep	Balanced	17.3	13.0	-4.3	599	3,400	77.2	599	3,400	77.2

Appendix C-3 CALSIM II Modeling

Future Desal CVP Contract Water Use Analysis												
CVP Delivery Reductions												
Year	Month	CVP Delivery Reductions				Shasta Storage Changes						
		Delta Condition	CCWD Base (TAF)	CCWD Div. Alt (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)
1925	Oct	Balanced	15.1	11.6	-3.5	596	3,250	80.7				
	Nov	Balanced	12.0	9.7	-2.3	702	3,252	83.0				
	Dec	Surplus			0.0	791	3,370	83.0				
	Jan	Surplus			0.0	1,038	3,819	83.0				
	Feb	Surplus			0.0	2,276	3,705	83.0				
	Mar	Balanced	7.8	5.6	-2.2	2,457	4,433	85.2				
	Apr	Surplus			0.0	3,120	4,552	85.2				
	May	Surplus			0.0	3,179	4,552	85.2				
	Jun	Balanced	29.4	29.4	0.0	2,939	4,500	85.2				
	Jul	Balanced	32.5	32.5	0.0	2,435	4,150	85.2				
	Aug	Balanced	31.9	31.9	0.0	2,068	3,700	85.2				
	Sep	Balanced	9.1	6.4	-2.7	1,924	3,400	87.9				
1926	Oct	Balanced	2.7	1.9	-0.9	1,866	3,250	88.7				
	Nov	Balanced	2.4	1.7	-0.7	1,868	3,252	89.4				
	Dec	Surplus			0.0	1,916	3,370	89.4				
	Jan	Surplus			0.0	1,959	3,828	89.4				
	Feb	Surplus			0.0	2,674	3,982	89.4				
	Mar	Balanced	16.1	16.1	0.0	2,866	4,552	89.4				
	Apr	Surplus			0.0	3,161	4,552	89.4				
	May	Balanced	15.4	15.4	0.0	3,030	4,552	89.4				
	Jun	Balanced	29.4	29.4	0.0	2,665	4,500	89.4				
	Jul	Balanced	32.5	32.5	0.0	2,213	4,150	89.4				
	Aug	Balanced	31.9	31.9	0.0	1,866	3,700	89.4				
	Sep	Balanced	16.0	12.0	-4.1	1,764	3,400	93.4				
1927	Oct	Balanced	3.1	2.3	-0.8	1,709	3,250	94.3				
	Nov	Surplus			0.0	2,184	3,252	94.3				
	Dec	Surplus			0.0	2,690	3,347	94.3				
	Jan	Surplus			0.0	3,164	3,668	94.3				
	Feb	Surplus			0.0	3,462	3,462	0.0				
	Mar	Surplus			0.0	4,035	4,142	0.0				
	Apr	Surplus			0.0	4,552	4,552	0.0				
	May	Surplus			0.0	4,552	4,552	0.0				
	Jun	Balanced	25.3	25.3	0.0	4,243	4,500	0.0				
	Jul	Balanced	19.5	19.5	0.0	3,642	4,150	0.0				
	Aug	Balanced	20.1	20.1	0.0	3,204	3,700	0.0				
	Sep	Balanced	4.9	3.6	-1.3	3,045	3,400	1.3				

Appendix C-3 CALSIM II Modeling

Future Desal CVP Contract Water Use Analysis												
CVP Delivery Reductions												
Year	Month	CVP Delivery Reductions				Shasta Storage Changes						
		Delta Condition	CCWD Base (TAF)	CCWD Div. Alt (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)
1928	Oct	Balanced	2.8	2.1	-0.7	3,020	3,250	2.0				
	Nov	Balanced	2.7	1.7	-1.1	3,211	3,252	3.1				
	Dec	Surplus			0.0	3,300	3,363	3.1				
	Jan	Surplus			0.0	3,576	3,761	3.1				
	Feb	Surplus			0.0	3,970	4,099	3.1				
	Mar	Surplus			0.0	3,965	3,965	0.0				
	Apr	Surplus			0.0	4,463	4,552	0.0				
	May	Balanced	11.8	11.8	0.0	4,268	4,552	0.0				
	Jun	Balanced	27.6	27.6	0.0	3,897	4,500	0.0				
	Jul	Balanced	19.7	19.7	0.0	3,256	4,150	0.0				
	Aug	Balanced	20.3	20.3	0.0	2,880	3,700	0.0				
	Sep	Balanced	7.8	5.6	-2.1	2,732	3,400	2.1				
1929	Oct	Balanced	3.2	2.3	-0.8	2,639	3,250	3.0				
	Nov	Balanced	3.0	2.3	-0.8	2,634	3,252	3.7				
	Dec	Surplus			0.0	2,642	3,370	3.7				
	Jan	Surplus			0.0	2,745	3,828	3.7				
	Feb	Balanced	6.4	1.3	-5.1	2,932	4,256	8.8				
	Mar	Balanced	17.2	17.2	0.0	3,099	4,552	8.8				
	Apr	Balanced	0.0	0.0	0.0	3,098	4,552	8.8				
	May	Balanced	16.8	16.8	0.0	2,968	4,552	8.8				
	Jun	Balanced	30.6	30.6	0.0	2,720	4,500	8.8				
	Jul	Balanced	31.7	25.7	-6.0	2,317	4,150	14.8				
	Aug	Balanced	7.8	5.8	-2.0	1,965	3,700	16.8				
	Sep	Balanced	3.7	2.8	-0.9	1,823	3,400	17.7				
1930	Oct	Balanced	1.4	1.1	-0.3	1,780	3,250	18.1				
	Nov	Balanced	11.9	1.4	-10.4	1,768	3,252	28.5				
	Dec	Surplus			0.0	2,288	3,348	28.5				
	Jan	Surplus			0.0	2,485	3,782	28.5				
	Feb	Balanced	22.1	22.1	0.0	2,845	4,054	28.5				
	Mar	Surplus			0.0	3,282	4,450	28.5				
	Apr	Surplus			0.0	3,432	4,552	28.5				
	May	Surplus			0.0	3,331	4,552	28.5				
	Jun	Balanced	29.4	29.4	0.0	2,969	4,500	28.5				
	Jul	Balanced	25.9	25.7	-0.2	2,539	4,150	28.7				
	Aug	Balanced	8.7	6.5	-2.2	2,168	3,700	30.9				
	Sep	Balanced	4.6	3.5	-1.1	2,054	3,400	32.0				

Appendix C-3 CALSIM II Modeling

Future Desal CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions				Shasta Storage Changes				
			CCWD Base (TAF)	CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)		
1931	Oct	Balanced	14.8	5.6	-9.2	1,982	3,250	41.2			
	Nov	Balanced	11.8	9.5	-2.3	1,968	3,252	43.5			
	Dec	Surplus			0.0	1,954	3,370	43.5			
	Jan	Surplus			0.0	2,028	3,828	43.5			
	Feb	Balanced	9.2	7.2	-2.0	2,107	4,256	45.5			
	Mar	Balanced	10.7	8.1	-2.6	2,269	4,552	48.1			
	Apr	Balanced	13.3	13.3	0.0	1,987	4,552	48.1			
	May	Surplus			0.0	1,704	4,552	48.1			
	Jun	Balanced	18.7	14.0	-4.7	1,409	4,500	52.8			
	Jul	Balanced	20.1	14.9	-5.3	945	4,150	58.1			
	Aug	Balanced	19.6	14.6	-5.0	650	3,700	63.1			
	Sep	Balanced	17.3	13.0	-4.3	612	3,400	67.4			
1932	Oct	Balanced	15.1	11.6	-3.5	593	3,250	70.9			
	Nov	Balanced	12.0	9.7	-2.3	584	3,252	73.2			
	Dec	Surplus			0.0	760	3,359	73.2			
	Jan	Surplus			0.0	902	3,818	73.2			
	Feb	Balanced	11.0	22.5	11.5	1,025	4,251	61.7			
	Mar	Balanced	16.1	16.1	0.0	1,435	4,439	61.7			
	Apr	Balanced	5.0	0.0	-5.0	1,599	4,552	66.7			
	May	Surplus			0.0	1,790	4,552	66.7			
	Jun	Balanced	29.4	29.4	0.0	1,596	4,500	66.7			
	Jul	Balanced	32.5	32.5	0.0	1,333	4,150	66.7			
	Aug	Balanced	31.9	31.9	0.0	1,059	3,700	66.7			
	Sep	Balanced	10.9	8.2	-2.6	927	3,400	69.4			
1933	Oct	Balanced	2.7	2.1	-0.6	855	3,250	70.0			
	Nov	Balanced	2.2	1.8	-0.4	840	3,252	70.4			
	Dec	Surplus			0.0	828	3,370	70.4			
	Jan	Surplus			0.0	852	3,828	70.4			
	Feb	Surplus			0.0	892	4,256	70.4			
	Mar	Surplus			0.0	1,476	4,310	70.4			
	Apr	Balanced	0.0	0.0	0.0	1,661	4,552	70.4			
	May	Balanced	16.8	16.8	0.0	1,727	4,552	70.4			
	Jun	Balanced	30.6	30.6	0.0	1,583	4,500	70.4			
	Jul	Balanced	20.1	20.1	0.0	1,200	4,150	70.4			
	Aug	Balanced	12.5	9.5	-3.0	840	3,700	73.3			
	Sep	Balanced	7.4	4.6	-2.7	681	3,400	76.0			

Appendix C-3 CALSIM II Modeling

Future Desal CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions				Shasta Storage Changes				
			CCWD Base (TAF)	CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)		
1934	Oct	Balanced	15.1	1.5	-13.6	641	3,250	89.6			
	Nov	Balanced	12.0	4.3	-7.7	639	3,252	97.3			
	Dec	Surplus			0.0	755	3,368	97.3			
	Jan	Surplus			0.0	1,050	3,814	97.3			
	Feb	Surplus			0.0	1,365	4,091	97.3			
	Mar	Balanced	12.8	17.6	4.8	1,646	4,552	92.6			
	Apr	Balanced	11.5	6.8	-4.7	1,747	4,552	97.3			
	May	Balanced	16.8	16.8	0.0	1,595	4,552	97.3			
	Jun	Balanced	18.7	18.7	0.0	1,214	4,500	97.3			
	Jul	Balanced	20.1	20.1	0.0	769	4,150	97.3			
	Aug	Balanced	19.6	14.6	-5.0	592	3,700	102.3			
	Sep	Balanced	17.3	13.0	-4.3	561	3,400	106.1			
1935	Oct	Balanced	15.1	11.6	-3.5	550	3,250	110.1			
	Nov	Balanced	12.0	9.7	-2.3	635	3,252	112.4			
	Dec	Surplus			0.0	672	3,370	112.4			
	Jan	Surplus			0.0	957	3,788	112.4			
	Feb	Balanced	10.6	11.0	0.4	1,286	4,123	112.0			
	Mar	Surplus			0.0	1,675	4,482	112.0			
	Apr	Surplus			0.0	2,670	4,491	112.0			
	May	Balanced	19.6	19.2	-0.4	2,890	4,552	112.4			
	Jun	Surplus			0.0	2,588	4,500	112.4			
	Jul	Balanced	31.6	31.6	0.0	2,226	4,150	112.4			
	Aug	Balanced	25.0	25.1	0.0	1,794	3,700	112.4			
	Sep	Balanced	3.9	2.9	-1.0	1,612	3,400	113.4			
1936	Oct	Balanced	2.9	2.2	-0.7	1,591	3,250	114.1			
	Nov	Balanced	6.1	2.1	-4.0	1,560	3,252	118.1			
	Dec	Balanced	10.0	10.0	0.0	1,568	3,370	118.1			
	Jan	Surplus			0.0	2,192	3,698	118.1			
	Feb	Surplus			0.0	3,076	3,588	118.1			
	Mar	Surplus			0.0	3,358	4,410	118.1			
	Apr	Surplus			0.0	3,579	4,552	118.1			
	May	Surplus			0.0	3,474	4,552	118.1			
	Jun	Balanced	28.7	28.7	0.0	3,263	4,500	118.1			
	Jul	Balanced	27.0	20.6	-6.3	2,817	4,150	124.5			
	Aug	Balanced	20.3	20.3	0.0	2,391	3,700	124.5			
	Sep	Balanced	8.0	5.7	-2.3	2,218	3,400	126.8			

Appendix C-3 CALSIM II Modeling

Future Desal CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions				Shasta Storage Changes				
			CCWD Base (TAF)	CCWD Div. (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)		
1937	Oct	Balanced	3.2	2.3	-0.9	2,108	3,250	127.6			
	Nov	Balanced	2.7	2.0	-0.7	2,018	3,252	128.3			
	Dec	Balanced	13.2	13.2	0.0	1,956	3,370	128.3			
	Jan	Surplus			0.0	1,935	3,828	128.3			
	Feb	Surplus			0.0	2,027	4,256	128.3			
	Mar	Surplus			0.0	2,671	4,279	128.3			
	Apr	Surplus			0.0	3,312	4,552	128.3			
	May	Surplus			0.0	3,472	4,552	128.3			
	Jun	Balanced	28.7	28.7	0.0	3,308	4,500	128.3			
	Jul	Balanced	26.5	20.2	-6.3	2,955	4,150	134.6			
	Aug	Balanced	20.3	20.3	0.0	2,569	3,700	134.6			
	Sep	Balanced	10.2	7.3	-3.0	2,404	3,400	137.6			
1938	Oct	Balanced	2.9	2.0	-0.9	2,359	3,250	138.5			
	Nov	Surplus			0.0	2,877	3,252	138.5			
	Dec	Surplus			0.0	3,310	3,310	0.0			
	Jan	Surplus			0.0	3,641	3,668	0.0			
	Feb	Surplus			0.0	3,560	3,560	0.0			
	Mar	Surplus			0.0	3,416	3,416	0.0			
	Apr	Surplus			0.0	4,058	4,058	0.0			
	May	Surplus			0.0	4,552	4,552	0.0			
	Jun	Surplus			0.0	4,466	4,500	0.0			
	Jul	Balanced	19.5	19.5	0.0	4,049	4,150	0.0			
	Aug	Balanced	20.1	20.1	0.0	3,592	3,700	0.0			
	Sep	Balanced	14.9	10.9	-4.0	3,400	3,400	0.0			
1939	Oct	Surplus			0.0	3,250	3,250	0.0			
	Nov	Balanced	18.0	16.4	-1.6	3,195	3,252	1.6			
	Dec	Surplus			0.0	3,305	3,370	1.6			
	Jan	Surplus			0.0	3,500	3,828	1.6			
	Feb	Balanced	3.0	2.0	-1.0	3,580	4,256	2.6			
	Mar	Balanced	16.1	14.1	-2.0	3,977	4,495	4.6			
	Apr	Balanced	0.0	0.0	0.0	3,762	4,552	4.6			
	May	Balanced	15.4	15.4	0.0	3,480	4,552	4.6			
	Jun	Balanced	29.4	29.4	0.0	3,045	4,500	4.6			
	Jul	Balanced	18.6	13.7	-4.9	2,506	4,150	9.5			
	Aug	Balanced	6.7	4.8	-1.9	2,173	3,700	11.4			
	Sep	Balanced	3.0	2.2	-0.9	2,101	3,400	12.3			

Future Desal CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions				Shasta Storage Changes				
			CCWD Base (TAF)	CCWD Div. (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)		
1940	Oct	Balanced	2.5	1.8	-0.7	2,028	3,250	13.0			
	Nov	Balanced	4.2	3.2	-0.9	1,948	3,252	13.9			
	Dec	Balanced	8.2	7.6	-0.6	2,092	3,370	14.5			
	Jan	Surplus			0.0	2,970	3,629	14.5			
	Feb	Surplus			0.0	3,252	3,252	0.0			
	Mar	Surplus			0.0	3,435	3,435	0.0			
	Apr	Surplus			0.0	4,143	4,534	0.0			
	May	Surplus			0.0	4,079	4,552	0.0			
	Jun	Balanced	28.5	28.5	0.0	3,698	4,500	0.0			
	Jul	Balanced	31.2	31.2	0.0	3,115	4,150	0.0			
	Aug	Balanced	17.2	12.6	-4.5	2,697	3,700	4.5			
	Sep	Balanced	4.9	3.5	-1.4	2,602	3,400	5.9			
1941	Oct	Balanced	5.8	1.8	-4.0	2,592	3,250	9.9			
	Nov	Balanced	10.1	6.7	-3.5	2,602	3,252	13.3			
	Dec	Surplus			0.0	3,293	3,293	0.0			
	Jan	Surplus			0.0	3,317	3,317	0.0			
	Feb	Surplus			0.0	3,423	3,423	0.0			
	Mar	Surplus			0.0	3,940	3,940	0.0			
	Apr	Surplus			0.0	4,456	4,456	0.0			
	May	Surplus			0.0	4,552	4,552	0.0			
	Jun	Balanced	24.0	24.0	0.0	4,485	4,500	0.0			
	Jul	Balanced	19.5	19.5	0.0	4,150	4,150	0.0			
	Aug	Balanced	20.1	20.1	0.0	3,641	3,700	0.0			
	Sep	Balanced	12.3	9.0	-3.3	3,400	3,400	0.0			
1942	Oct	Balanced	3.8	2.8	-1.0	3,250	3,250	0.0			
	Nov	Balanced	3.2	2.4	-0.8	3,183	3,252	0.8			
	Dec	Surplus			0.0	3,316	3,316	0.0			
	Jan	Surplus			0.0	3,389	3,389	0.0			
	Feb	Surplus			0.0	3,516	3,516	0.0			
	Mar	Surplus			0.0	3,894	4,360	0.0			
	Apr	Surplus			0.0	4,531	4,552	0.0			
	May	Surplus			0.0	4,552	4,552	0.0			
	Jun	Surplus			0.0	4,459	4,500	0.0			
	Jul	Balanced	19.5	19.5	0.0	3,999	4,150	0.0			
	Aug	Balanced	20.1	20.1	0.0	3,625	3,700	0.0			
	Sep	Balanced	6.8	5.0	-1.8	3,400	3,400	0.0			

Appendix C-3 CALSIM II Modeling

Future Desal CVP Contract Water Use Analysis									
CVP Delivery Reductions									
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			
			CCWD Div. Base (TAF)	CCWD Div. Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	
1943	Oct	Balanced	5.5	4.2	-1.3	3,250	3,250	3,250	0.0
	Nov	Balanced	4.5	3.4	-1.1	3,252	3,252	3,252	0.0
	Dec	Surplus			0.0	3,356	3,356	3,356	0.0
	Jan	Surplus			0.0	3,541	3,541	3,541	0.0
	Feb	Surplus			0.0	3,848	3,848	3,848	0.0
	Mar	Surplus			0.0	4,118	4,118	4,118	0.0
	Apr	Surplus			0.0	4,552	4,552	4,552	0.0
	May	Surplus			0.0	4,521	4,521	4,521	0.0
	Jun	Surplus			0.0	4,250	4,500	4,500	0.0
1944	Jul	Balanced	19.5	19.5	0.0	3,653	4,150	4,150	0.0
	Aug	Balanced	20.1	20.1	0.0	3,231	3,700	3,700	0.0
	Sep	Balanced	4.8	3.6	-1.3	3,090	3,400	3,400	1.3
	Oct	Balanced	3.4	2.6	-0.8	3,065	3,250	3,250	2.1
	Nov	Balanced	2.9	2.2	-0.7	3,074	3,252	3,252	2.8
	Dec	Balanced	19.2	17.1	-2.1	3,069	3,370	3,370	4.9
	Jan	Surplus			0.0	3,163	3,828	3,828	4.9
	Feb	Surplus			0.0	3,398	4,197	4,197	4.9
	Mar	Balanced	16.1	16.1	0.0	3,632	4,552	4,552	4.9
1945	Apr	Surplus			0.0	3,633	4,552	4,552	4.9
	May	Surplus			0.0	3,538	4,552	4,552	4.9
	Jun	Balanced	29.4	29.4	0.0	3,250	4,500	4,500	4.9
	Jul	Balanced	32.5	28.2	-4.3	2,869	4,150	4,150	9.2
	Aug	Balanced	8.6	6.5	-2.1	2,533	3,700	3,700	11.3
	Sep	Balanced	6.1	4.7	-1.4	2,397	3,400	3,400	12.8
	Oct	Balanced	2.6	2.1	-0.6	2,409	3,250	3,250	13.3
	Nov	Balanced	3.5	2.9	-0.6	2,559	3,252	3,252	14.0
	Dec	Surplus			0.0	2,849	3,352	3,352	14.0
1946	Jan	Surplus			0.0	3,049	3,791	3,791	14.0
	Feb	Surplus			0.0	3,755	3,948	3,948	14.0
	Mar	Surplus			0.0	3,988	4,454	4,454	14.0
	Apr	Surplus			0.0	4,168	4,552	4,552	14.0
	May	Surplus			0.0	4,185	4,552	4,552	14.0
	Jun	Balanced	28.7	28.7	0.0	3,933	4,500	4,500	14.0
	Jul	Balanced	31.6	21.0	-10.6	3,369	4,150	4,150	24.5
	Aug	Balanced	17.9	13.2	-4.7	2,936	3,700	3,700	29.3
	Sep	Balanced	6.2	4.5	-1.7	2,754	3,400	3,400	31.0

Appendix C-3 CALSIM II Modeling

Future Desal CVP Contract Water Use Analysis									
CVP Delivery Reductions									
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			
			CCWD Div. Base (TAF)	CCWD Div. Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	
1946	Oct	Balanced	2.7	2.0	-0.7	2,777	3,250	3,250	31.7
	Nov	Balanced	10.1	2.1	-8.0	3,002	3,252	3,252	39.7
	Dec	Surplus			0.0	3,265	3,265	3,265	0.0
	Jan	Surplus			0.0	3,622	3,622	3,622	0.0
	Feb	Balanced	18.2	18.3	0.1	3,608	4,073	4,073	-0.1
	Mar	Balanced	13.9	10.2	-3.8	3,998	4,453	4,453	3.7
	Apr	Surplus			0.0	4,208	4,552	4,552	3.7
	May	Surplus			0.0	4,132	4,552	4,552	3.7
	Jun	Balanced	28.7	28.7	0.0	3,760	4,500	4,500	3.7
1947	Jul	Balanced	20.3	20.3	0.0	3,268	4,150	4,150	3.7
	Aug	Balanced	8.6	6.1	-2.4	2,898	3,700	3,700	6.1
	Sep	Balanced	3.7	2.6	-1.0	2,747	3,400	3,400	7.1
	Oct	Balanced	10.2	2.4	-7.9	2,673	3,250	3,250	15.0
	Nov	Balanced	10.6	6.9	-3.7	2,690	3,252	3,252	18.7
	Dec	Surplus			0.0	2,729	3,370	3,370	18.7
	Jan	Surplus			0.0	2,741	3,828	3,828	18.7
	Feb	Balanced	7.0	5.1	-2.0	2,961	4,188	4,188	20.7
	Mar	Balanced	16.1	16.1	0.0	3,437	4,438	4,438	20.7
1948	Apr	Balanced	0.0	0.0	0.0	3,599	4,552	4,552	20.7
	May	Surplus			0.0	3,281	4,552	4,552	20.7
	Jun	Balanced	29.4	29.4	0.0	3,064	4,500	4,500	20.7
	Jul	Balanced	32.5	32.5	0.0	2,583	4,150	4,150	20.7
	Aug	Balanced	5.6	4.0	-1.5	2,283	3,700	3,700	22.2
	Sep	Balanced	4.2	3.1	-1.1	2,207	3,400	3,400	23.3
	Oct	Balanced	2.2	1.7	-0.6	2,303	3,250	3,250	23.9
	Nov	Balanced	3.0	2.4	-0.6	2,323	3,252	3,252	24.5
	Dec	Balanced	14.5	14.5	0.0	2,347	3,370	3,370	24.5
1949	Jan	Surplus			0.0	2,911	3,752	3,752	24.5
	Feb	Balanced	9.2	2.3	-6.9	2,745	4,254	4,254	31.4
	Mar	Balanced	19.7	19.7	0.0	3,070	4,479	4,479	31.4
	Apr	Surplus			0.0	3,970	4,422	4,422	31.4
	May	Surplus			0.0	4,325	4,552	4,552	31.4
	Jun	Balanced	28.7	28.7	0.0	4,341	4,500	4,500	31.4
	Jul	Balanced	31.6	31.6	0.0	3,960	4,150	4,150	31.4
	Aug	Balanced	12.4	8.9	-3.5	3,558	3,700	3,700	34.9
	Sep	Balanced	4.0	2.8	-1.2	3,400	3,400	3,400	0.0

Appendix C-3 CALSIM II Modeling

Future Desal CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions				Shasta Storage Changes				
			CCWD Base (TAF)	CCWD Div. Alt (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)		
1949	Oct	Balanced	9.9	2.4	-7.5	3,177	3,250	7.5			
	Nov	Balanced	10.7	8.3	-2.4	3,147	3,252	9.9			
	Dec	Surplus			0.0	3,134	3,370	9.9			
	Jan	Surplus			0.0	3,128	3,828	9.9			
	Feb	Balanced	0.0	4.5	4.5	3,249	4,194	5.4			
	Mar	Surplus			0.0	4,071	4,071	0.0			
	Apr	Surplus			0.0	4,392	4,552	0.0			
	May	Surplus			0.0	4,341	4,552	0.0			
	Jun	Balanced	29.4	29.4	0.0	3,947	4,500	0.0			
	Jul	Balanced	32.5	32.5	0.0	3,285	4,150	0.0			
	Aug	Balanced	11.4	8.2	-3.2	2,870	3,700	3.2			
	Sep	Balanced	5.6	4.0	-1.6	2,707	3,400	4.8			
1950	Oct	Balanced	3.0	2.2	-0.8	2,608	3,250	5.6			
	Nov	Balanced	6.3	2.6	-3.7	2,546	3,252	9.3			
	Dec	Surplus			0.0	2,479	3,370	9.3			
	Jan	Surplus			0.0	2,732	3,763	9.3			
	Feb	Surplus			0.0	3,094	4,054	9.3			
	Mar	Balanced	19.7	14.9	-4.8	3,467	4,366	14.1			
	Apr	Surplus			0.0	3,805	4,552	14.1			
	May	Surplus			0.0	3,759	4,552	14.1			
	Jun	Balanced	28.7	28.7	0.0	3,472	4,500	14.1			
	Jul	Balanced	31.6	31.6	0.0	3,094	4,150	14.1			
	Aug	Balanced	20.4	20.3	0.0	2,749	3,700	14.1			
	Sep	Balanced	10.2	7.3	-2.9	2,661	3,400	17.0			
1951	Oct	Balanced	4.7	3.3	-1.3	2,944	3,250	18.4			
	Nov	Surplus			0.0	3,252	3,252	0.0			
	Dec	Surplus			0.0	3,322	3,322	0.0			
	Jan	Surplus			0.0	3,624	3,624	0.0			
	Feb	Surplus			0.0	3,794	3,794	0.0			
	Mar	Surplus			0.0	4,181	4,352	0.0			
	Apr	Surplus			0.0	4,268	4,552	0.0			
	May	Surplus			0.0	4,286	4,552	0.0			
	Jun	Balanced	27.6	27.6	0.0	3,918	4,500	0.0			
	Jul	Balanced	19.7	19.7	0.0	3,267	4,150	0.0			
	Aug	Balanced	20.3	20.3	0.0	2,853	3,700	0.0			
	Sep	Balanced	4.2	3.0	-1.2	2,735	3,400	1.2			

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Future Desal CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions				Shasta Storage Changes				
			CCWD Base (TAF)	CCWD Div. Alt (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)		
1952	Oct	Balanced	3.5	2.6	-1.0	2,741	3,250	2.2			
	Nov	Balanced	4.6	2.6	-2.0	2,897	3,252	4.2			
	Dec	Surplus			0.0	3,306	3,306	0.0			
	Jan	Surplus			0.0	3,604	3,604	0.0			
	Feb	Surplus			0.0	3,739	3,739	0.0			
	Mar	Surplus			0.0	4,022	4,022	0.0			
	Apr	Surplus			0.0	4,290	4,290	0.0			
	May	Surplus			0.0	4,552	4,552	0.0			
	Jun	Surplus			0.0	4,401	4,500	0.0			
	Jul	Balanced	19.5	19.5	0.0	4,150	4,150	0.0			
	Aug	Balanced	20.1	20.1	0.0	3,700	3,700	0.0			
	Sep	Surplus			0.0	3,400	3,400	0.0			
1953	Oct	Surplus			0.0	3,250	3,250	0.0			
	Nov	Surplus			0.0	3,217	3,252	0.0			
	Dec	Surplus			0.0	3,345	3,345	0.0			
	Jan	Surplus			0.0	3,366	3,366	0.0			
	Feb	Surplus			0.0	3,714	3,960	0.0			
	Mar	Balanced	6.8	6.8	0.0	4,116	4,324	0.0			
	Apr	Surplus			0.0	4,452	4,552	0.0			
	May	Surplus			0.0	4,552	4,552	0.0			
	Jun	Balanced	25.3	25.3	0.0	4,500	4,500	0.0			
	Jul	Balanced	19.5	19.5	0.0	3,918	4,150	0.0			
	Aug	Balanced	20.1	20.1	0.0	3,597	3,700	0.0			
	Sep	Balanced	6.5	4.7	-1.8	3,400	3,400	0.0			
1954	Oct	Balanced	3.3	2.5	-0.9	3,250	3,250	0.0			
	Nov	Balanced	3.3	2.4	-0.9	3,178	3,252	0.9			
	Dec	Surplus			0.0	3,321	3,364	0.9			
	Jan	Surplus			0.0	3,552	3,552	0.0			
	Feb	Surplus			0.0	3,661	3,661	0.0			
	Mar	Surplus			0.0	4,106	4,106	0.0			
	Apr	Surplus			0.0	4,546	4,546	0.0			
	May	Balanced	11.8	11.8	0.0	4,308	4,552	0.0			
	Jun	Balanced	27.5	27.5	0.0	4,100	4,500	0.0			
	Jul	Balanced	19.7	19.7	0.0	3,496	4,150	0.0			
	Aug	Balanced	20.3	20.3	0.0	3,142	3,700	0.0			
	Sep	Balanced	5.1	3.6	-1.5	3,083	3,400	1.5			

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Appendix C-3 CALSIM II Modeling

Future Desal CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			Difference (TAF)	Accumulated Difference (TAF)	
			CCWD Base (TAF)	Div. Op. Alt (TAF)	CCWD Div. Base (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Shasta Storage (TAF)			
1955	Oct	Balanced	3.8	2.8	-1.1	3,025	3,250	2.6			
	Nov	Balanced	3.7	2.8	-1.0	3,143	3,252	3.5			
	Dec	Surplus			0.0	3,360	3,360	0.0			
	Jan	Surplus			0.0	3,461	3,813	0.0			
	Feb	Balanced	17.5	17.0	-0.5	3,487	4,234	0.5			
	Mar	Balanced	15.0	8.9	-6.1	3,656	4,552	6.6			
	Apr	Balanced	0.0	0.0	0.0	3,730	4,552	6.6			
	May	Surplus			0.0	3,799	4,552	6.6			
	Jun	Balanced	29.4	29.4	0.0	3,388	4,500	6.6			
	Jul	Balanced	22.9	22.9	0.0	2,899	4,150	6.6			
	Aug	Balanced	17.6	13.0	-4.6	2,574	3,700	11.2			
	Sep	Balanced	8.9	6.5	-2.4	2,499	3,400	13.6			
1956	Oct	Balanced	2.8	2.1	-0.7	2,474	3,250	14.3			
	Nov	Balanced	3.2	2.5	-0.7	2,536	3,252	15.0			
	Dec	Surplus			0.0	3,252	3,252	0.0			
	Jan	Surplus			0.0	3,252	3,252	0.0			
	Feb	Surplus			0.0	3,288	3,288	0.0			
	Mar	Surplus			0.0	3,944	4,014	0.0			
	Apr	Surplus			0.0	4,457	4,552	0.0			
	May	Surplus			0.0	4,552	4,552	0.0			
	Jun	Surplus			0.0	4,376	4,500	0.0			
	Jul	Balanced	19.5	19.5	0.0	4,026	4,150	0.0			
	Aug	Balanced	20.1	20.1	0.0	3,695	3,700	0.0			
	Sep	Balanced	6.9	4.9	-2.0	3,400	3,400	0.0			
1957	Oct	Balanced	4.3	3.1	-1.2	3,250	3,250	0.0			
	Nov	Balanced	3.2	2.3	-0.9	3,181	3,252	0.9			
	Dec	Balanced	8.2	8.2	0.0	3,203	3,370	0.9			
	Jan	Surplus			0.0	3,311	3,828	0.9			
	Feb	Surplus			0.0	3,675	3,675	0.0			
	Mar	Surplus			0.0	4,129	4,129	0.0			
	Apr	Balanced	0.0	0.0	0.0	4,159	4,552	0.0			
	May	Surplus			0.0	4,411	4,552	0.0			
	Jun	Balanced	28.5	27.4	-1.1	4,129	4,500	1.1			
	Jul	Balanced	26.0	19.7	-6.2	3,524	4,150	7.4			
	Aug	Balanced	20.3	20.3	0.0	3,146	3,700	7.4			
	Sep	Balanced	3.9	2.6	-1.3	3,182	3,400	8.6			

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Future Desal CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes			Difference (TAF)	Accumulated Difference (TAF)	
			CCWD Base (TAF)	Div. Op. Alt (TAF)	CCWD Div. Base (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Shasta Storage (TAF)			
1958	Oct	Balanced	2.8	2.0	-0.9	3,250	3,250	0.0			
	Nov	Balanced	5.7	2.5	-3.2	3,238	3,252	3.2			
	Dec	Surplus			0.0	3,338	3,338	0.0			
	Jan	Surplus			0.0	3,531	3,531	0.0			
	Feb	Surplus			0.0	3,252	3,252	0.0			
	Mar	Surplus			0.0	3,416	3,416	0.0			
	Apr	Surplus			0.0	4,173	4,173	0.0			
	May	Surplus			0.0	4,552	4,552	0.0			
	Jun	Surplus			0.0	4,500	4,500	0.0			
	Jul	Balanced	19.5	19.5	0.0	4,150	4,150	0.0			
	Aug	Balanced	20.1	20.1	0.0	3,700	3,700	0.0			
	Sep	Surplus			0.0	3,400	3,400	0.0			
1959	Oct	Surplus			0.0	3,250	3,250	0.0			
	Nov	Balanced	6.9	5.1	-1.8	3,175	3,252	1.8			
	Dec	Surplus			0.0	3,211	3,370	1.8			
	Jan	Surplus			0.0	3,648	3,648	0.0			
	Feb	Surplus			0.0	3,777	3,777	0.0			
	Mar	Balanced	7.6	7.6	0.0	4,041	4,378	0.0			
	Apr	Surplus			0.0	4,096	4,552	0.0			
	May	Surplus			0.0	3,873	4,552	0.0			
	Jun	Balanced	28.7	28.7	0.0	3,257	4,500	0.0			
	Jul	Balanced	20.4	20.4	0.0	2,682	4,150	0.0			
	Aug	Balanced	13.8	9.9	-3.9	2,165	3,700	3.9			
	Sep	Balanced	3.5	2.4	-1.1	2,326	3,400	5.0			
1960	Oct	Balanced	5.0	1.8	-3.2	2,204	3,250	8.2			
	Nov	Balanced	10.7	3.9	-6.7	2,131	3,252	15.0			
	Dec	Balanced	12.0	12.0	0.0	2,129	3,370	15.0			
	Jan	Surplus			0.0	2,332	3,783	15.0			
	Feb	Surplus			0.0	3,049	3,994	15.0			
	Mar	Balanced	16.1	16.1	0.0	3,682	4,273	15.0			
	Apr	Balanced	0.0	0.0	0.0	3,877	4,552	15.0			
	May	Surplus			0.0	3,876	4,552	15.0			
	Jun	Balanced	29.4	29.4	0.0	3,523	4,500	15.0			
	Jul	Balanced	28.4	28.4	0.0	2,965	4,150	15.0			
	Aug	Balanced	9.4	6.6	-2.8	2,543	3,700	17.8			
	Sep	Balanced	15.3	11.4	-4.0	2,464	3,400	21.7			

Appendix C-3 CALSIM II Modeling

Future Desal CVP Contract Water Use Analysis										
CVP Delivery Reductions										
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes				
			CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)		
1961	Oct	Balanced	3.4	2.4	-1.0	2,415	3,250	22.7		
	Nov	Balanced	2.9	2.1	-0.7	2,506	3,252	23.4		
	Dec	Surplus			0.0	2,948	3,350	23.4		
	Jan	Surplus			0.0	3,158	3,751	23.4		
	Feb	Surplus			0.0	3,801	3,914	23.4		
	Mar	Balanced	16.1	16.1	0.0	4,280	4,280	0.0		
	Apr	Balanced	0.0	0.0	0.0	4,333	4,552	0.0		
	May	Balanced	15.4	15.4	0.0	4,249	4,552	0.0		
	Jun	Balanced	29.4	29.4	0.0	3,818	4,500	0.0		
	Jul	Balanced	18.5	13.6	-4.9	3,153	4,150	4.9		
	Aug	Balanced	10.4	5.1	-5.3	2,521	3,700	10.2		
	Sep	Balanced	17.2	5.8	-11.4	2,410	3,400	21.7		
1962	Oct	Balanced	15.1	10.6	-4.5	2,363	3,250	26.1		
	Nov	Balanced	11.8	9.5	-2.4	2,344	3,252	28.5		
	Dec	Surplus			0.0	2,650	3,356	28.5		
	Jan	Balanced	10.4	10.4	0.0	2,703	3,819	28.5		
	Feb	Surplus			0.0	3,675	3,675	0.0		
	Mar	Balanced	14.9	14.9	0.0	4,120	4,292	0.0		
	Apr	Surplus			0.0	4,396	4,552	0.0		
	May	Surplus			0.0	4,285	4,552	0.0		
	Jun	Surplus			0.0	3,930	4,500	0.0		
	Jul	Balanced	31.6	31.6	0.0	3,303	4,150	0.0		
	Aug	Balanced	7.1	5.1	-2.0	2,854	3,700	2.0		
	Sep	Balanced	7.3	1.8	-5.6	2,737	3,400	7.5		
1963	Oct	Surplus			0.0	3,149	3,250	7.5		
	Nov	Balanced	22.6	22.6	0.0	3,193	3,252	7.5		
	Dec	Surplus			0.0	3,349	3,349	0.0		
	Jan	Surplus			0.0	3,459	3,764	0.0		
	Feb	Surplus			0.0	3,944	3,944	0.0		
	Mar	Balanced	6.4	6.4	0.0	4,071	4,226	0.0		
	Apr	Surplus			0.0	4,137	4,137	0.0		
	May	Surplus			0.0	4,422	4,552	0.0		
	Jun	Balanced	24.7	24.7	0.0	4,200	4,500	0.0		
	Jul	Balanced	19.5	19.5	0.0	3,614	4,150	0.0		
	Aug	Balanced	20.1	20.1	0.0	3,277	3,700	0.0		
	Sep	Balanced	8.0	5.8	-2.2	3,238	3,400	2.2		

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Future Desal CVP Contract Water Use Analysis										
CVP Delivery Reductions										
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes				
			CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)		
1964	Oct	Balanced	2.8	2.1	-0.7	3,250	3,250	0.0		
	Nov	Surplus			0.0	3,252	3,252	0.0		
	Dec	Surplus			0.0	3,276	3,366	0.0		
	Jan	Surplus			0.0	3,649	3,705	0.0		
	Feb	Balanced	10.1	6.8	-3.3	3,832	4,194	3.3		
	Mar	Balanced	8.9	8.9	0.0	3,931	4,552	3.3		
	Apr	Balanced	0.0	0.0	0.0	3,710	4,552	3.3		
	May	Balanced	15.4	15.4	0.0	3,496	4,552	3.3		
	Jun	Balanced	29.4	29.4	0.0	3,259	4,500	3.3		
	Jul	Balanced	23.0	23.0	0.0	2,815	4,150	3.3		
	Aug	Balanced	3.6	2.7	-0.9	2,466	3,700	4.2		
	Sep	Balanced	2.7	2.1	-0.6	2,362	3,400	4.8		
1965	Oct	Balanced	1.7	1.4	-0.4	2,372	3,250	5.1		
	Nov	Balanced	2.6	2.2	-0.4	2,472	3,252	5.6		
	Dec	Surplus			0.0	3,252	3,252	0.0		
	Jan	Surplus			0.0	3,368	3,368	0.0		
	Feb	Surplus			0.0	3,803	3,913	0.0		
	Mar	Balanced	14.2	14.2	0.0	3,946	4,547	0.0		
	Apr	Surplus			0.0	4,500	4,500	0.0		
	May	Balanced	12.4	11.9	-0.5	4,457	4,552	0.5		
	Jun	Balanced	27.2	27.2	0.0	4,131	4,500	0.5		
	Jul	Balanced	30.9	26.0	-4.9	3,527	4,150	5.4		
	Aug	Balanced	27.1	20.0	-7.0	3,229	3,700	12.4		
	Sep	Balanced	4.9	3.5	-1.5	3,153	3,400	13.8		
1966	Oct	Balanced	3.6	2.6	-1.0	3,131	3,250	14.9		
	Nov	Surplus			0.0	3,252	3,252	0.0		
	Dec	Surplus			0.0	3,326	3,359	0.0		
	Jan	Surplus			0.0	3,725	3,725	0.0		
	Feb	Balanced	1.0	6.6	5.6	4,037	4,037	0.0		
	Mar	Balanced	14.5	7.7	-6.9	4,229	4,229	0.0		
	Apr	Surplus			0.0	4,552	4,552	0.0		
	May	Surplus			0.0	4,409	4,552	0.0		
	Jun	Balanced	28.7	28.7	0.0	3,851	4,500	0.0		
	Jul	Balanced	20.3	20.3	0.0	3,298	4,150	0.0		
	Aug	Balanced	10.5	7.4	-3.0	2,844	3,700	3.0		
	Sep	Balanced	4.2	3.0	-1.3	2,777	3,400	4.3		

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Future Desal CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CCWD Div. (TAF)				Shasta Storage Changes			Accumulated Difference (TAF)	
			Base	Div. Op. Alt	Diff. (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)				
1967	Oct	Balanced	7.8	2.7	-5.1	2,674	3,250	9.4			
	Nov	Balanced	10.5	4.8	-5.7	2,980	3,252	15.1			
	Dec	Surplus			0.0	3,335	3,335	0.0			
	Jan	Surplus			0.0	3,551	3,551	0.0			
	Feb	Surplus			0.0	3,920	3,920	0.0			
	Mar	Surplus			0.0	4,033	4,033	0.0			
	Apr	Surplus			0.0	4,479	4,479	0.0			
	May	Surplus			0.0	4,552	4,552	0.0			
	Jun	Surplus			0.0	4,500	4,500	0.0			
	Jul	Balanced	19.5	19.5	0.0	4,150	4,150	0.0			
	Aug	Balanced	20.1	20.1	0.0	3,700	3,700	0.0			
	Sep	Surplus			0.0	3,400	3,400	0.0			
1968	Oct	Surplus	9.3	9.3	0.0	3,250	3,250	0.0			
	Nov	Balanced			0.0	3,210	3,252	0.0			
	Dec	Surplus			0.0	3,295	3,370	0.0			
	Jan	Surplus			0.0	3,577	3,792	0.0			
	Feb	Surplus			0.0	3,654	3,654	0.0			
	Mar	Surplus			0.0	4,191	4,248	0.0			
	Apr	Balanced	0.0	0.0	0.0	4,177	4,552	0.0			
	May	Surplus			0.0	4,037	4,552	0.0			
	Jun	Balanced	28.7	28.7	0.0	3,548	4,500	0.0			
	Jul	Balanced	20.3	20.3	0.0	2,981	4,150	0.0			
	Aug	Balanced	14.5	10.7	-3.8	2,639	3,700	3.8			
	Sep	Balanced	3.1	2.2	-0.9	2,557	3,400	4.7			
1969	Oct	Balanced	4.9	2.4	-2.5	2,568	3,250	7.2			
	Nov	Balanced	10.6	3.6	-7.0	2,631	3,252	14.2			
	Dec	Surplus			0.0	2,959	3,354	14.2			
	Jan	Surplus			0.0	3,358	3,358	0.0			
	Feb	Surplus			0.0	3,480	3,480	0.0			
	Mar	Surplus			0.0	4,030	4,030	0.0			
	Apr	Surplus			0.0	4,434	4,434	0.0			
	May	Surplus			0.0	4,552	4,552	0.0			
	Jun	Surplus			0.0	4,383	4,500	0.0			
	Jul	Balanced	19.5	19.5	0.0	4,020	4,150	0.0			
	Aug	Balanced	20.1	20.1	0.0	3,638	3,700	0.0			
	Sep	Surplus			0.0	3,400	3,400	0.0			

Appendix C-3 CALSIM II Modeling

Future Desal CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	Delta Condition	CCWD Div. (TAF)				Shasta Storage Changes			Accumulated Difference (TAF)	
			Base	Div. Op. Alt	Diff. (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)				
1970	Oct	Surplus			0.0	3,250	3,250	0.0			
	Nov	Surplus			0.0	3,247	3,252	0.0			
	Dec	Surplus			0.0	3,317	3,317	0.0			
	Jan	Surplus			0.0	3,252	3,252	0.0			
	Feb	Surplus			0.0	3,431	3,431	0.0			
	Mar	Surplus			0.0	4,061	4,172	0.0			
	Apr	Balanced	0.0	0.0	0.0	4,007	4,552	0.0			
	May	Surplus			0.0	3,865	4,552	0.0			
	Jun	Surplus			0.0	3,576	4,500	0.0			
	Jul	Balanced	19.5	19.5	0.0	3,027	4,150	0.0			
	Aug	Balanced	20.1	20.1	0.0	2,634	3,700	0.0			
	Sep	Balanced	5.5	4.0	-1.5	2,471	3,400	1.5			
1971	Oct	Balanced	3.5	2.6	-0.9	2,502	3,250	2.4			
	Nov	Surplus			0.0	2,960	3,252	2.4			
	Dec	Surplus			0.0	3,319	3,319	0.0			
	Jan	Surplus			0.0	3,515	3,515	0.0			
	Feb	Balanced	17.8	14.3	-3.5	3,695	3,966	3.5			
	Mar	Surplus			0.0	3,873	3,873	0.0			
	Apr	Balanced	0.0	0.0	0.0	4,369	4,552	0.0			
	May	Surplus			0.0	4,552	4,552	0.0			
	Jun	Balanced	25.4	25.4	0.0	4,492	4,500	0.0			
	Jul	Balanced	19.5	19.5	0.0	3,919	4,150	0.0			
	Aug	Balanced	20.1	20.1	0.0	3,577	3,700	0.0			
	Sep	Balanced	6.6	4.8	-1.8	3,400	3,400	0.0			
1972	Oct	Balanced	4.4	3.3	-1.2	3,250	3,250	0.0			
	Nov	Balanced	3.1	2.2	-0.8	3,178	3,252	0.8			
	Dec	Surplus			0.0	3,304	3,365	0.8			
	Jan	Surplus			0.0	3,648	3,714	0.8			
	Feb	Balanced	5.1	3.5	-1.7	3,959	3,979	2.5			
	Mar	Surplus			0.0	4,249	4,249	0.0			
	Apr	Balanced	1.1	0.0	-1.1	4,455	4,552	1.1			
	May	Surplus			0.0	4,327	4,552	1.1			
	Jun	Balanced	28.7	28.7	0.0	3,808	4,500	1.1			
	Jul	Balanced	31.6	30.4	-1.2	3,166	4,150	2.4			
	Aug	Balanced	12.2	8.8	-3.4	2,756	3,700	5.7			
	Sep	Balanced	4.1	2.9	-1.2	2,730	3,400	6.9			

Appendix C-3 CALSIM II Modeling

Future Desal CVP Contract Water Use Analysis												
CVP Delivery Reductions												
Year	Month	CVP Delivery Reductions				Shasta Storage Changes				Accumulated Difference (TAF)		
		Delta Condition	CCWD Base (TAF)	CCWD Div. Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Shasta Storage (TAF)	Shasta Storage (TAF)			
1973	Oct	Balanced	13.0	1.8	-11.2	2,826	3,250	18.1			18.1	
	Nov	Surplus			0.0	3,058	3,252	18.1			0.0	
	Dec	Surplus			0.0	3,336	3,346	18.1			0.0	
	Jan	Surplus			0.0	3,552	3,552	0.0			0.0	
	Feb	Surplus			0.0	3,636	3,636	0.0			0.0	
	Mar	Surplus			0.0	4,162	4,162	0.0			0.0	
	Apr	Surplus			0.0	4,421	4,552	0.0			0.0	
	May	Surplus			0.0	4,394	4,552	0.0			0.0	
	Jun	Balanced	27.6	27.6	0.0	3,975	4,500	0.0			0.0	
	Jul	Balanced	19.7	19.7	0.0	3,361	4,150	0.0			0.0	
	Aug	Balanced	20.3	20.3	0.0	3,090	3,700	0.0			0.0	
	Sep	Balanced	6.6	4.8	-1.8	3,041	3,400	1.8			1.8	
1974	Oct	Balanced	2.5	1.9	-0.6	3,132	3,250	2.4			2.4	
	Nov	Surplus			0.0	3,252	3,252	0.0			0.0	
	Dec	Surplus			0.0	3,267	3,267	0.0			0.0	
	Jan	Surplus			0.0	3,252	3,252	0.0			0.0	
	Feb	Surplus			0.0	3,694	3,694	0.0			0.0	
	Mar	Surplus			0.0	3,416	3,416	0.0			0.0	
	Apr	Surplus			0.0	4,289	4,289	0.0			0.0	
	May	Surplus			0.0	4,480	4,552	0.0			0.0	
	Jun	Balanced	25.3	25.3	0.0	4,329	4,500	0.0			0.0	
	Jul	Balanced	19.4	19.4	0.0	4,099	4,150	0.0			0.0	
	Aug	Balanced	20.1	20.1	0.0	3,700	3,700	0.0			0.0	
	Sep	Surplus			0.0	3,400	3,400	0.0			0.0	
1975	Oct	Balanced	10.5	7.8	-2.6	3,250	3,250	0.0			0.0	
	Nov	Balanced	4.7	3.4	-1.2	3,200	3,252	1.2			1.2	
	Dec	Surplus			0.0	3,319	3,372	1.2			1.2	
	Jan	Surplus			0.0	3,482	3,835	1.2			1.2	
	Feb	Surplus			0.0	3,936	3,936	0.0			0.0	
	Mar	Surplus			0.0	3,756	3,756	0.0			0.0	
	Apr	Surplus			0.0	4,343	4,532	0.0			0.0	
	May	Surplus			0.0	4,552	4,552	0.0			0.0	
	Jun	Surplus			0.0	4,416	4,500	0.0			0.0	
	Jul	Balanced	19.4	19.4	0.0	4,150	4,150	0.0			0.0	
	Aug	Balanced	20.1	20.1	0.0	3,700	3,700	0.0			0.0	
	Sep	Surplus			0.0	3,400	3,400	0.0			0.0	

Appendix C-3 CALSIM II Modeling

Future Desal CVP Contract Water Use Analysis												
CVP Delivery Reductions												
Year	Month	CVP Delivery Reductions				Shasta Storage Changes				Accumulated Difference (TAF)		
		Delta Condition	CCWD Base (TAF)	CCWD Div. Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Shasta Storage (TAF)	Shasta Storage (TAF)			
1976	Oct	Surplus			0.0	3,250	3,250	0.0			0.0	
	Nov	Balanced	6.7	5.0	-1.7	3,252	3,252	0.0			0.0	
	Dec	Surplus			0.0	3,318	3,372	0.0			0.0	
	Jan	Surplus			0.0	3,522	3,835	0.0			0.0	
	Feb	Balanced	2.7	1.9	-0.9	3,657	4,146	0.9			0.9	
	Mar	Balanced	18.1	18.1	0.0	3,887	4,552	0.9			0.9	
	Apr	Surplus			0.0	3,971	4,552	0.9			0.9	
	May	Surplus			0.0	3,811	4,552	0.9			0.9	
	Jun	Balanced	10.2	7.5	-2.6	3,292	4,500	3.5			3.5	
	Jul	Balanced	13.6	10.0	-3.6	2,870	4,150	7.1			7.1	
	Aug	Balanced	19.6	19.6	0.0	2,799	3,700	7.1			7.1	
	Sep	Balanced	14.8	2.4	-12.4	2,732	3,400	19.6			19.6	
1977	Oct	Balanced	15.1	8.0	-7.1	2,743	3,250	26.7			26.7	
	Nov	Balanced	12.0	9.7	-2.3	2,722	3,252	29.0			29.0	
	Dec	Balanced	11.4	9.3	-2.1	2,712	3,372	31.1			31.1	
	Jan	Surplus			0.0	2,740	3,835	31.1			31.1	
	Feb	Balanced	11.0	9.0	-2.0	2,719	4,253	33.1			33.1	
	Mar	Balanced	10.7	8.1	-2.6	2,707	4,552	35.7			35.7	
	Apr	Balanced	13.3	13.3	0.0	2,402	4,552	35.7			35.7	
	May	Balanced	16.8	12.8	-4.1	2,259	4,552	39.7			39.7	
	Jun	Balanced	18.7	14.0	-4.7	1,728	4,500	44.4			44.4	
	Jul	Balanced	20.1	14.9	-5.3	1,124	4,150	49.7			49.7	
	Aug	Balanced	19.6	14.6	-5.0	637	3,700	54.7			54.7	
	Sep	Balanced	17.3	13.0	-4.3	584	3,400	59.0			59.0	
1978	Oct	Balanced	15.1	11.6	-3.5	550	3,250	62.5			62.5	
	Nov	Balanced	12.0	9.7	-2.3	572	3,252	64.8			64.8	
	Dec	Surplus			0.0	1,008	3,350	64.8			64.8	
	Jan	Surplus			0.0	2,925	3,321	64.8			64.8	
	Feb	Surplus			0.0	3,567	3,567	0.0			0.0	
	Mar	Surplus			0.0	4,000	4,000	0.0			0.0	
	Apr	Surplus			0.0	4,552	4,552	0.0			0.0	
	May	Surplus			0.0	4,552	4,552	0.0			0.0	
	Jun	Surplus			0.0	4,210	4,500	0.0			0.0	
	Jul	Balanced	31.2	31.2	0.0	3,698	4,150	0.0			0.0	
	Aug	Balanced	25.6	25.7	0.0	3,337	3,700	0.0			0.0	
	Sep	Balanced	11.7	8.7	-3.0	3,322	3,400	3.0			3.0	

Appendix C-3 CALSIM II Modeling

Future Desal CVP Contract Water Use Analysis										
CVP Delivery Reductions										
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes				
			CCWD Base (TAF)	CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	
1979	Oct	Balanced	4.2	3.2	-1.0	3,200	3,250	4.0		
	Nov	Balanced	3.2	2.4	-0.7	3,140	3,252	4.7		
	Dec	Balanced	9.4	9.4	0.0	3,091	3,368	4.7		
	Jan	Surplus			0.0	3,229	3,824	4.7		
	Feb	Surplus			0.0	3,510	4,100	4.7		
	Mar	Surplus			0.0	3,940	4,360	4.7		
	Apr	Surplus			0.0	4,117	4,552	4.7		
	May	Surplus			0.0	4,167	4,552	4.7		
	Jun	Balanced	28.7	28.7	0.0	3,674	4,500	4.7		
	Jul	Balanced	23.4	20.3	-3.1	3,166	4,150	7.8		
	Aug	Balanced	20.3	15.3	-5.0	2,848	3,700	12.8		
	Sep	Balanced	5.2	3.7	-1.5	2,736	3,400	14.3		
1980	Oct	Balanced	3.0	2.2	-0.8	2,786	3,250	15.1		
	Nov	Balanced	4.7	2.9	-1.8	2,898	3,252	16.8		
	Dec	Surplus			0.0	3,013	3,367	16.8		
	Jan	Surplus			0.0	3,528	3,528	0.0		
	Feb	Surplus			0.0	3,292	3,292	0.0		
	Mar	Surplus			0.0	3,938	4,100	0.0		
	Apr	Surplus			0.0	4,223	4,552	0.0		
	May	Surplus			0.0	4,166	4,552	0.0		
	Jun	Balanced	27.4	27.4	0.0	3,843	4,500	0.0		
	Jul	Balanced	19.7	19.7	0.0	3,401	4,150	0.0		
	Aug	Balanced	20.3	20.3	0.0	3,058	3,700	0.0		
	Sep	Balanced	17.3	17.3	0.0	3,002	3,400	0.0		
1981	Oct	Balanced	5.4	4.0	-1.4	2,983	3,250	1.4		
	Nov	Balanced	3.4	2.6	-0.8	2,975	3,252	2.2		
	Dec	Surplus			0.0	3,068	3,370	2.2		
	Jan	Surplus			0.0	3,365	3,747	2.2		
	Feb	Balanced	17.5	17.5	0.0	3,773	4,030	2.2		
	Mar	Balanced	15.9	9.5	-6.5	4,256	4,256	0.0		
	Apr	Surplus			0.0	4,397	4,552	0.0		
	May	Surplus			0.0	4,149	4,552	0.0		
	Jun	Balanced	29.4	29.4	0.0	3,518	4,500	0.0		
	Jul	Balanced	14.8	10.8	-4.1	2,881	4,150	4.1		
	Aug	Balanced	6.0	4.2	-1.8	2,389	3,700	5.8		
	Sep	Balanced	6.9	5.0	-1.9	2,291	3,400	7.7		

Appendix C-3 CALSIM II Modeling

Future Desal CVP Contract Water Use Analysis										
CVP Delivery Reductions										
Year	Month	Delta Condition	CVP Delivery Reductions			Shasta Storage Changes				
			CCWD Base (TAF)	CCWD Div. Base (TAF)	Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	
1982	Oct	Balanced	3.3	2.4	-0.9	2,364	3,250	8.6		
	Nov	Surplus			0.0	3,252	3,252	0.0		
	Dec	Surplus			0.0	3,276	3,276	0.0		
	Jan	Surplus			0.0	3,616	3,616	0.0		
	Feb	Surplus			0.0	3,530	3,530	0.0		
	Mar	Surplus			0.0	3,953	3,953	0.0		
	Apr	Surplus			0.0	4,094	4,094	0.0		
	May	Surplus			0.0	4,304	4,552	0.0		
	Jun	Surplus			0.0	4,140	4,500	0.0		
	Jul	Balanced	21.2	19.5	-1.7	3,849	4,150	1.7		
	Aug	Balanced	20.1	20.1	0.0	3,471	3,700	1.7		
	Sep	Surplus			0.0	3,400	3,400	0.0		
1983	Oct	Surplus			0.0	3,250	3,250	0.0		
	Nov	Surplus			0.0	3,252	3,252	0.0		
	Dec	Surplus			0.0	3,328	3,328	0.0		
	Jan	Surplus			0.0	3,371	3,371	0.0		
	Feb	Surplus			0.0	3,252	3,252	0.0		
	Mar	Surplus			0.0	3,417	3,417	0.0		
	Apr	Surplus			0.0	4,074	4,074	0.0		
	May	Surplus			0.0	4,552	4,552	0.0		
	Jun	Surplus			0.0	4,500	4,500	0.0		
	Jul	Surplus			0.0	4,150	4,150	0.0		
	Aug	Surplus			0.0	3,700	3,700	0.0		
	Sep	Surplus			0.0	3,400	3,400	0.0		
1984	Oct	Surplus			0.0	3,250	3,250	0.0		
	Nov	Surplus			0.0	3,252	3,252	0.0		
	Dec	Surplus			0.0	3,285	3,285	0.0		
	Jan	Surplus			0.0	3,650	3,650	0.0		
	Feb	Surplus			0.0	3,995	4,005	0.0		
	Mar	Surplus			0.0	4,246	4,246	0.0		
	Apr	Balanced	0.0	0.0	0.0	4,336	4,552	0.0		
	May	Surplus			0.0	4,285	4,552	0.0		
	Jun	Balanced	25.5	25.5	0.0	4,030	4,500	0.0		
	Jul	Balanced	19.5	19.5	0.0	3,428	4,150	0.0		
	Aug	Balanced	20.1	20.1	0.0	3,159	3,700	0.0		
	Sep	Balanced	5.6	4.1	-1.6	3,138	3,400	1.6		

Appendix C-3 CALSIM II Modeling

Future Desal CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	CVP Delivery Reductions				Shasta Storage Changes					
		Delta Condition	CCWD Base (TAF)	CCWD Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)
1985	Oct	Balanced	3.2	2.3	-0.8	3,184	3,250	2.4	3,184	3,250	2.4
	Nov	Surplus			0.0	3,252	3,252	0.0	3,252	3,252	0.0
	Dec	Surplus			0.0	3,360	3,360	0.0	3,360	3,360	0.0
	Jan	Surplus			0.0	3,456	3,833	0.0	3,456	3,833	0.0
	Feb	Balanced	10.9	6.6	-4.3	3,588	4,232	4.3	3,588	4,232	4.3
	Mar	Balanced	8.7	8.7	0.0	3,730	4,552	4.3	3,730	4,552	4.3
	Apr	Surplus			0.0	3,844	4,552	4.3	3,844	4,552	4.3
	May	Balanced	15.4	15.4	0.0	3,482	4,552	4.3	3,482	4,552	4.3
	Jun	Balanced	29.4	29.4	0.0	3,064	4,500	4.3	3,064	4,500	4.3
	Jul	Balanced	16.9	12.5	-4.4	2,542	4,150	8.7	2,542	4,150	8.7
	Aug	Balanced	4.7	3.5	-1.2	2,121	3,700	9.9	2,121	3,700	9.9
	Sep	Balanced	4.0	3.0	-1.0	2,132	3,400	10.9	2,132	3,400	10.9
1986	Oct	Balanced	3.6	2.8	-0.8	2,095	3,250	11.7	2,095	3,250	11.7
	Nov	Balanced	4.0	3.3	-0.8	2,123	3,252	12.5	2,123	3,252	12.5
	Dec	Surplus			0.0	2,292	3,372	12.5	2,292	3,372	12.5
	Jan	Surplus			0.0	2,850	3,658	12.5	2,850	3,658	12.5
	Feb	Surplus			0.0	3,252	3,252	0.0	3,252	3,252	0.0
	Mar	Surplus			0.0	3,534	3,534	0.0	3,534	3,534	0.0
	Apr	Surplus			0.0	3,903	4,552	0.0	3,903	4,552	0.0
	May	Surplus			0.0	3,870	4,552	0.0	3,870	4,552	0.0
	Jun	Surplus			0.0	3,486	4,500	0.0	3,486	4,500	0.0
	Jul	Balanced	30.9	30.9	0.0	3,139	4,150	0.0	3,139	4,150	0.0
	Aug	Balanced	24.6	27.1	2.5	2,819	3,700	-2.5	2,819	3,700	-2.5
	Sep	Balanced	16.8	16.8	0.0	2,854	3,400	-2.5	2,854	3,400	-2.5
1987	Oct	Balanced	4.5	3.4	-1.1	2,882	3,250	-1.5	2,882	3,250	-1.5
	Nov	Balanced	2.8	2.1	-0.7	2,876	3,252	-0.8	2,876	3,252	-0.8
	Dec	Surplus			0.0	2,888	3,372	-0.8	2,888	3,372	-0.8
	Jan	Surplus			0.0	3,026	3,835	-0.8	3,026	3,835	-0.8
	Feb	Balanced	2.9	2.0	-0.9	3,358	4,141	0.1	3,358	4,141	0.1
	Mar	Surplus			0.0	4,084	4,298	0.1	4,084	4,298	0.1
	Apr	Balanced	0.0	0.0	0.0	3,845	4,552	0.1	3,845	4,552	0.1
	May	Balanced	15.4	15.4	0.0	3,549	4,552	0.1	3,549	4,552	0.1
	Jun	Balanced	29.4	29.4	0.0	3,030	4,500	0.1	3,030	4,500	0.1
	Jul	Balanced	32.5	27.3	-5.2	2,511	4,150	5.3	2,511	4,150	5.3
	Aug	Balanced	7.8	5.9	-1.9	2,225	3,700	7.2	2,225	3,700	7.2
	Sep	Balanced	3.1	2.4	-0.7	2,122	3,400	7.9	2,122	3,400	7.9

Appendix C-3 CALSIM II Modeling

Future Desal CVP Contract Water Use Analysis											
CVP Delivery Reductions											
Year	Month	CVP Delivery Reductions				Shasta Storage Changes					
		Delta Condition	CCWD Base (TAF)	CCWD Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)	Original Shasta Storage (TAF)	Flood Control (TAF)	Accumulated Difference (TAF)
1988	Oct	Balanced	2.3	1.9	-0.5	2,056	3,250	8.4	2,056	3,250	8.4
	Nov	Balanced	3.5	2.9	-0.6	2,035	3,252	9.0	2,035	3,252	9.0
	Dec	Surplus			0.0	2,540	3,358	9.0	2,540	3,358	9.0
	Jan	Surplus			0.0	2,940	3,727	9.0	2,940	3,727	9.0
	Feb	Balanced	20.7	20.7	0.0	2,855	4,194	9.0	2,855	4,194	9.0
	Mar	Balanced	18.1	18.1	0.0	2,915	4,552	9.0	2,915	4,552	9.0
	Apr	Surplus			0.0	2,955	4,552	9.0	2,955	4,552	9.0
	May	Surplus			0.0	2,942	4,552	9.0	2,942	4,552	9.0
	Jun	Balanced	30.6	30.6	0.0	2,527	4,500	9.0	2,527	4,500	9.0
	Jul	Balanced	32.4	32.4	0.0	2,023	4,150	9.0	2,023	4,150	9.0
	Aug	Balanced	9.0	7.1	-1.9	1,724	3,700	10.9	1,724	3,700	10.9
	Sep	Balanced	4.0	3.3	-0.7	1,587	3,400	11.6	1,587	3,400	11.6
1989	Oct	Balanced	8.3	1.3	-7.0	1,507	3,250	18.6	1,507	3,250	18.6
	Nov	Balanced	12.0	1.2	-10.8	1,716	3,252	29.4	1,716	3,252	29.4
	Dec	Surplus			0.0	1,815	3,370	29.4	1,815	3,370	29.4
	Jan	Surplus			0.0	1,920	3,835	29.4	1,920	3,835	29.4
	Feb	Balanced	11.0	6.6	-4.4	2,029	4,253	33.9	2,029	4,253	33.9
	Mar	Surplus			0.0	3,410	3,841	33.9	3,410	3,841	33.9
	Apr	Surplus			0.0	3,795	4,552	33.9	3,795	4,552	33.9
	May	Balanced	15.7	15.7	0.0	3,578	4,552	33.9	3,578	4,552	33.9
	Jun	Balanced	29.4	29.4	0.0	3,216	4,500	33.9	3,216	4,500	33.9
	Jul	Balanced	32.5	32.5	0.0	2,679	4,150	33.9	2,679	4,150	33.9
	Aug	Balanced	4.8	3.7	-1.1	2,323	3,700	35.0	2,323	3,700	35.0
	Sep	Balanced	9.3	1.9	-7.5	2,341	3,400	42.5	2,341	3,400	42.5
1990	Oct	Balanced	15.1	11.1	-4.0	2,455	3,250	46.5	2,455	3,250	46.5
	Nov	Balanced	11.8	9.5	-2.3	2,449	3,252	48.8	2,449	3,252	48.8
	Dec	Balanced	10.7	8.6	-2.1	2,430	3,372	50.9	2,430	3,372	50.9
	Jan	Surplus			0.0	2,662	3,822	50.9	2,662	3,822	50.9
	Feb	Balanced	9.2	7.2	-2.0	2,557	4,253	52.9	2,557	4,253	52.9
	Mar	Balanced	18.1	18.1	0.0	2,823	4,552	52.9	2,823	4,552	52.9
	Apr	Balanced	6.4	6.3	-0.1	2,676	4,552	53.0	2,676	4,552	53.0
	May	Surplus			0.0	2,832	4,552	53.0	2,832	4,552	53.0
	Jun	Balanced	24.2	25.9	1.7	2,618	4,500	51.3	2,618	4,500	51.3
	Jul	Balanced	15.5	8.5	-7.0	2,110	4,150	58.3	2,110	4,150	58.3
	Aug	Balanced	19.6	14.6	-5.0	1,835	3,700	63.3	1,835	3,700	63.3
	Sep	Balanced	17.3	13.0	-4.3	1,744	3,400	67.6	1,744	3,400	67.6

Appendix C-3 CALSIM II Modeling

Future Desal CVP Contract Water Use Analysis									
CVP Delivery Reductions									
Year	Month	CVP Delivery Reductions				Shasta Storage Changes			
		Delta Condition	CCWD Div. Base (TAF)	CCWD Div. Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control	Accumulated Difference	
1991	Oct	Balanced	15.1	11.6	-3.5	1,701	3,250	71.1	
	Nov	Balanced	12.0	9.7	-2.3	1,698	3,252	73.4	
	Dec	Surplus			0.0	1,668	3,372	73.4	
	Jan	Surplus			0.0	1,672	3,835	73.4	
	Feb	Balanced	9.7	9.0	-0.7	1,699	4,253	74.1	
	Mar	Balanced	10.7	8.1	-2.6	2,104	4,552	76.7	
	Apr	Balanced	17.8	16.3	-1.5	2,258	4,552	78.1	
	May	Surplus			0.0	2,187	4,552	78.1	
	Jun	Balanced	18.7	18.7	0.0	1,908	4,500	78.1	
1992	Jul	Balanced	19.1	14.0	-5.1	1,582	4,150	83.3	
	Aug	Balanced	19.6	14.6	-5.0	1,282	3,700	88.2	
	Sep	Balanced	17.3	13.0	-4.3	1,179	3,400	92.5	
	Oct	Balanced	15.1	11.6	-3.5	1,165	3,250	96.0	
	Nov	Balanced	12.0	9.7	-2.3	1,123	3,252	98.4	
	Dec	Surplus			0.0	1,119	3,372	98.4	
	Jan	Surplus			0.0	1,165	3,835	98.4	
	Feb	Surplus			0.0	1,822	4,253	98.4	
	Mar	Balanced	18.1	18.1	0.0	2,268	4,552	98.4	
1993	Apr	Balanced	7.0	7.0	0.0	2,497	4,552	98.4	
	May	Balanced	17.1	17.1	0.0	2,217	4,552	98.4	
	Jun	Balanced	21.5	18.8	-2.7	1,826	4,500	101.1	
	Jul	Balanced	20.1	20.1	0.0	1,368	4,150	101.1	
	Aug	Balanced	17.9	14.6	-3.3	976	3,700	104.4	
	Sep	Balanced	17.3	13.0	-4.3	865	3,400	108.7	
	Oct	Balanced	15.1	11.6	-3.5	801	3,250	112.2	
	Nov	Balanced	12.0	9.7	-2.3	798	3,252	114.5	
	Dec	Surplus			0.0	1,029	3,350	114.5	
1994	Jan	Surplus			0.0	1,678	3,321	114.5	
	Feb	Surplus			0.0	2,408	3,567	114.5	
	Mar	Surplus			0.0	3,875	4,000	114.5	
	Apr	Surplus			0.0	4,497	4,552	114.5	
	May	Surplus			0.0	4,552	4,552	0.0	
	Jun	Surplus			0.0	4,500	4,500	0.0	
	Jul	Balanced	31.2	31.2	0.0	3,909	4,150	0.0	
	Aug	Balanced	27.3	27.3	0.0	3,637	3,700	0.0	
	Sep	Balanced	8.3	6.2	-2.1	3,400	3,400	0.0	

Appendix C-3 CALSIM II Modeling

Future Desal CVP Contract Water Use Analysis									
CVP Delivery Reductions									
Year	Month	CVP Delivery Reductions				Shasta Storage Changes			
		Delta Condition	CCWD Div. Base (TAF)	CCWD Div. Div. Op. Alt (TAF)	Difference (TAF)	Original Shasta Storage (TAF)	Flood Control	Accumulated Difference	
1994	Oct	Balanced	2.9	2.2	-0.7	3,250	3,250	0.0	
	Nov	Balanced	2.4	1.8	-0.5	3,191	3,252	0.5	
	Dec	Surplus			0.0	3,262	3,372	0.5	
	Jan	Surplus			0.0	3,395	3,835	0.5	
	Feb	Balanced	4.2	2.9	-1.3	3,620	4,146	1.8	
	Mar	Balanced	18.1	18.1	0.0	3,652	4,552	1.8	
	Apr	Balanced	0.0	0.0	0.0	3,505	4,552	1.8	
	May	Balanced	16.8	16.8	0.0	3,210	4,552	1.8	
	Jun	Balanced	30.6	30.6	0.0	2,782	4,500	1.8	
1995	Jul	Balanced	5.5	4.2	-1.3	2,207	4,150	3.2	
	Aug	Balanced	3.1	2.4	-0.7	1,641	3,700	3.9	
	Sep	Balanced	12.0	1.6	-10.4	1,470	3,400	14.3	

Appendix C-3 CALSIM II Modeling

Summary Results of CALSIM II Re-run (Alternatives 1&2 minus Base)														
These results are not used for AIP impacts analysis because they were not found to be representative of realistic Delta operations														
Water Year	[Sacramento River Index]	Change in SWP	Orville Storage [TAF]	Change in SWP San Luis Storage [TAF]	Change in CVP Shasta Storage [TAF]	Change in CVP Folsom Storage [TAF]	Change in CVP San Luis Storage [TAF]	Change in Total SWP Deliveries [TAF]	Change in Total CVP SOD [TAF]	Deliveries [TAF]	Change in CCWD	Diversions [TAF]	Water Year Type	
1922	AN	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-7.3			
1923	BN	0.0	-2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5			
1924	C	-3.0	-3.2	-6.6	-5.3	5.9	0.0	0.0	0.0	0.0	3.4			
1925	D	43.6	-51.1	-8.7	2.4	5.3	0.0	0.0	0.0	0.0	9.0			
1926	D	281.1	-91.0	-8.4	-2.8	-16.0	0.0	0.0	0.0	0.0	15.6			
1927	W	79.4	6.1	-1.3	-4.6	-1.0	0.0	0.0	0.0	0.0	-24.6			
1928	AN	0.3	0.0	0.4	-0.2	-2.2	0.0	0.0	0.0	0.0	-1.3			
1929	C	-4.3	-12.7	1.3	-0.5	-7.3	0.0	0.0	0.0	0.0	10.3			
1930	D	-15.7	1.8	17.0	-4.6	-21.4	0.0	0.0	0.0	0.0	8.7			
1931	C	-11.9	3.4	6.9	-17.2	2.3	0.0	0.0	0.0	0.0	-25.4			
1932	D	1.9	-2.6	-2.7	-2.9	13.8	0.0	0.0	0.0	0.0	17.1			
1933	C	5.0	-1.7	-3.0	-1.9	0.3	0.0	0.0	0.0	0.0	8.2			
1934	C	7.1	-0.7	-3.3	-0.6	4.0	0.0	0.0	0.0	0.0	-24.9			
1935	BN	4.5	1.1	-0.6	-0.6	0.8	0.0	0.0	0.0	0.0	8.8			
1936	BN	-0.5	1.0	1.6	-3.9	-2.0	0.0	0.0	0.0	0.0	1.6			
1937	BN	-5.6	-3.2	7.9	-2.8	6.1	0.0	0.0	0.0	0.0	-2.7			
1938	W	-5.4	1.1	1.3	0.2	2.9	0.0	0.0	0.0	0.0	-6.6			
1939	D	-0.2	0.0	-2.2	-1.0	0.0	0.0	0.0	0.0	0.0	17.6			
1940	AN	1.1	-0.6	-0.9	-1.3	-4.8	0.0	0.0	0.0	0.0	-6.1			
1941	W	0.3	-1.0	1.9	0.0	-2.1	0.0	0.0	0.0	0.0	-6.9			
1942	W	-1.2	1.4	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	-0.8			
1943	W	-0.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2			
1944	D	-1.6	-8.4	0.4	-3.2	-6.5	0.0	0.0	0.0	0.0	19.1			
1945	BN	-18.6	-1.1	3.9	-2.1	0.3	0.0	0.0	0.0	0.0	-9.9			
1946	BN	-6.2	-8.1	2.9	0.1	-0.2	0.0	0.0	0.0	0.0	-3.2			
1947	D	-15.7	1.1	7.5	-1.0	-9.9	0.0	1.8	8.5					
1948	BN	-20.4	-3.7	-6.7	0.1	-6.0	0.0	-0.3	-3.1					
1949	D	-18.5	-24.3	-8.6	-2.1	9.2	0.0	10.4	12.5					
1950	BN	-13.8	-31.6	-0.1	-0.3	2.0	0.0	3.2	-11.9					
1951	AN	-1.8	-6.1	0.0	-0.2	1.7	0.0	0.0	0.0	0.0	-8.7			
1952	W	-0.5	-3.2	0.0	0.0	-0.3	0.0	0.0	0.0	0.0	-8.0			
1953	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1			
1954	AN	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	2.5			
1955	D	0.1	10.7	1.2	-0.4	-2.2	0.0	0.0	0.0	0.0	3.3			

Appendix C-3 CALSIM II Modeling

Summary Results of CALSIM II Re-run (Alternatives 1&2 minus Base)														
These results are not used for AIP impacts analysis because they were not found to be representative of realistic Delta operations														
Water Year	[Sacramento River Index]	Change in SWP	Orville Storage [TAF]	Change in SWP San Luis Storage [TAF]	Change in CVP Shasta Storage [TAF]	Change in CVP Folsom Storage [TAF]	Change in CVP San Luis Storage [TAF]	Change in Total SWP Deliveries [TAF]	Change in Total CVP SOD [TAF]	Deliveries [TAF]	Change in CCWD	Diversions [TAF]	Water Year Type	
1956	W	0.0	2.3	1.1	-2.4	-0.6	0.0	0.0	0.0	0.0	-10.8			
1957	AN	0.0	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6			
1958	W	0.0	-0.5	-0.7	0.0	2.8	0.0	0.0	0.7	-8.5				
1959	BN	0.6	0.0	-1.0	0.0	0.0	0.0	0.0	0.0	9.7				
1960	D	2.1	-0.1	-11.8	-1.0	-4.2	0.0	0.0	0.0	37.1				
1961	D	3.4	4.4	-14.8	-6.1	-13.7	0.0	-17.7	5.5					
1962	BN	8.8	2.6	-0.4	-6.1	3.0	0.0	-2.9	-28.2					
1963	W	3.0	0.0	0.6	0.1	5.6	0.0	0.3	-14.6					
1964	D	-0.2	1.2	0.5	-1.6	0.8	0.0	-0.3	10.1					
1965	W	-0.4	0.5	0.7	-1.0	-0.5	0.0	0.0	-7.6					
1966	BN	0.2	0.8	-0.5	-0.4	0.2	0.0	0.4	4.6					
1967	W	-2.2	0.0	-1.7	-0.4	0.0	0.0	0.1	-13.4					
1968	BN	0.0	0.0	-0.9	-0.1	0.0	0.0	0.0	11.0					
1969	W	-1.3	1.5	-1.2	-0.3	-2.6	0.0	-0.5	-11.1					
1970	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0					
1971	W	-1.4	0.0	0.0	0.0	0.0	0.0	0.0	-3.7					
1972	BN	-0.4	0.1	-0.8	-0.6	-2.6	0.0	-5.0	8.0					
1973	AN	-1.0	-0.2	-1.0	-1.0	0.1	0.0	-1.4	-3.3					
1974	W	0.0	0.2	0.0	0.0	-0.1	0.0	0.0	-4.5					
1975	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.9					
1976	C	0.1	0.0	-3.0	-0.6	-2.1	0.0	0.0	14.8					
1977	C	-1.1	0.3	-5.5	-3.9	0.1	0.0	0.0	-17.4					
1978	AN	-0.2	0.2	-0.2	-0.4	0.2	0.0	0.0	8.7					
1979	BN	-0.4	-2.1	1.9	-0.3	-2.8	0.0	0.0	2.7					
1980	AN	-1.2	-1.4	1.5	-0.1	-1.8	0.0	-0.4	-3.9					
1981	D	-0.1	-0.6	-2.2	-0.5	-5.2	0.0	-1.0	16.3					
1982	W	-0.8	-0.1	-0.7	-0.1	-2.9	0.0	-1.0	-23.6					
1983	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
1984	W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5					
1985	D	0.0	0.7	-7.0	-0.3	0.0	0.0	0.0	9.9					
1986	W	-0.2	-0.2	-12.0	0.4	2.6	0.0	0.0	-13.3					
1987	D	1.9	-2.1	-8.0	-1.1	1.6	0.0	0.0	17.7					
1988	C	3.2	-157.3	-52.5	-5.0	-106.0	0.0	0.0	-0.9					
1989	D	-17.3	-140.4	-149.9	-6.9	4.1	0.0	0.0	16.1					

Appendix C-3 CALSIM II Modeling

Summary Results of CALSIM II Re-run (Alternatives 1&2 minus Base)													
These results are not used for AIP impacts analysis because they were not found to be representative of realistic Delta operations													
Water Year	Water Year Type	[Sacramento River Index]	Change in SWP Oroville Storage [TAF]	Change in SWP San Luis Storage [TAF]	Change in CVP Shasta Storage [TAF]	Change in CVP Folsom Storage [TAF]	Change in CVP San Luis Storage [TAF]	Change in Total SWP Deliveries [TAF]	Change in Total CVP SOD Deliveries [TAF]	Change in CCWD Diversions [TAF]	Change in CVP SOD Deliveries [TAF]	Change in Total SWP Deliveries [TAF]	Change in Total CVP SOD Deliveries [TAF]
1990	C	89.9	-96.0	-121.8	-1.0	-229.5	-87.5	0.0	-158.4	0.0	-25.4	0.0	-9.8
1991	C	81.1	-7.4	-209.8	-16.0	-47.1	41.0	0.0	0.0	0.0	0.3	0.0	0.3
1992	C	63.9	-59.3	-199.0	-37.3	-23.2	-52.3	0.0	0.0	0.0	8.4	0.0	8.4
1993	AN	-30.5	21.3	-37.3	-25.5	-8.0	-22.6	0.0	0.0	0.0	37.9	0.0	37.9
1994	C	0.9	-12.3	-25.5	-8.0	-22.6	0.0	0.0	0.0	0.0	37.9	0.0	37.9

Notes:
 Water year types presented above are determined using the DWR Sacramento River Index (40-30-30) based on the historical reconstruction of unimpaired runoff used by the CALSIM II model.
 The large apparent changes in reservoir storage beginning in 1988 are the result of an extremely inefficient operational decision in the with-project CALSIM II run. The apparent change in SWP deliveries in 1980 is caused by this same operational decision in the with-project run. These results are considered unrealistic, as explained in detail in Section X-X.
 The apparent changes in CVP south of Delta deliveries are caused by similarly unrealistic operational decisions in the with-project CALSIM II run, as described in Section X-X.

Appendix C-4
DSM2 Delta Modeling

Appendix C-4

DSM2 DELTA MODELING

for the

Alternative Intake Project EIR/EIS

Prepared By:

Contra Costa Water District

With Technical Assistance From:

EDAW

Carollo Engineers

SWRI, Inc.

Flow Science, Inc.

January 2006

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 City of Stockton Proposed Intake Location (Empire Tract)..... C4-128

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Appendix C-4 DSM2 Delta Modeling

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Introduction

This section contains tables and graphics derived from the DSM2 modeling for the Alternative Intake Project described in Section 4.2, “Delta Water Resources,” and in Appendix C-2, “Water Resources Modeling Methodology Report.” Water quality results are reported as salinity (EC) at the following key locations throughout the Delta:

- ▶ water quality compliance locations at Rock Slough (reported as Old River at Rock Slough data), Jersey Point, Emmaton, Collinsville, Chipps Island, Old River at Tracy Road Bridge, Old River at Middle River, and San Joaquin River at Brandt Bridge;
- ▶ locations near the intakes of Delta water users at Tracy Pumping Plant, Clifton Court Forebay, and Empire Tract; and
- ▶ a location near the proposed intake site (Middle River at Victoria Island).

Water quality data presented for the 16-year DSM2 modeling results include:

- ▶ average monthly salinity over the 16-year study;
- ▶ average monthly change in salinity over the 16-year study;
- ▶ time series of salinity and change in salinity; and
- ▶ monthly average salinity, change from base case, and percent change.

Water level (stage) data are reported at the following locations:

- ▶ water level compliance locations at Middle River near Howard Road Bridge, Old River near Tracy Road Bridge, and Doughty Cut above Grant Line Canal Barrier; and
- ▶ locations near the Proposed Alternative Intake Location on Victoria Canal, West end of Victoria Canal, and East end of Victoria Canal.

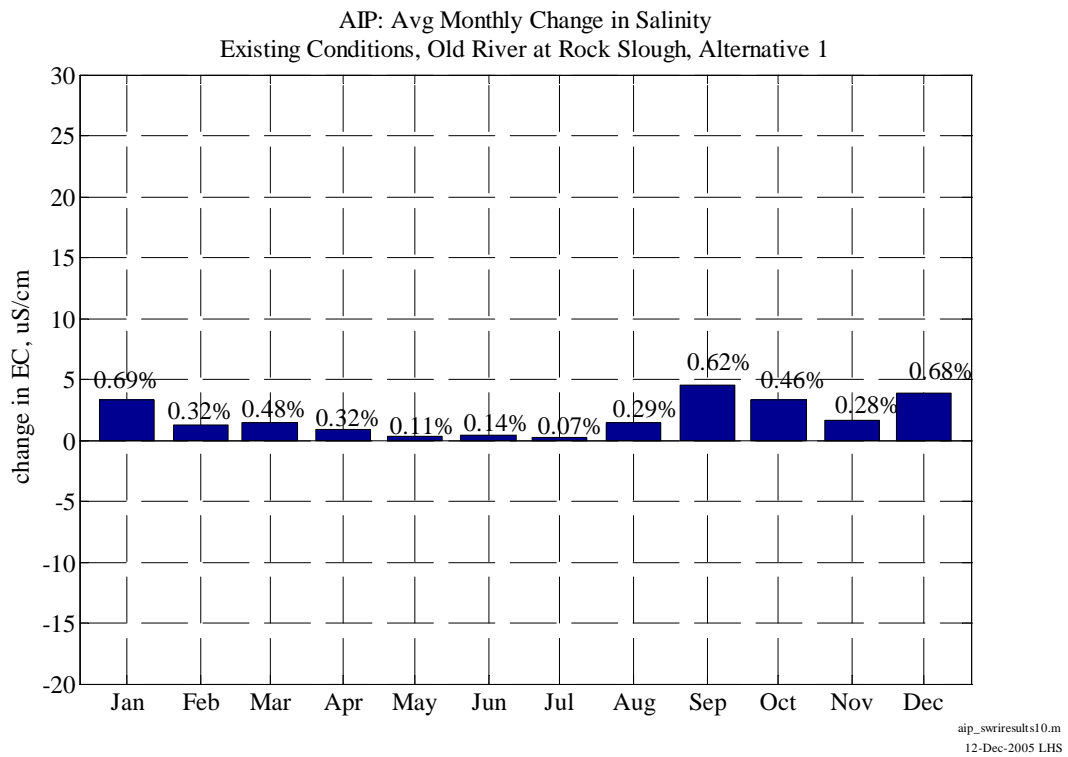
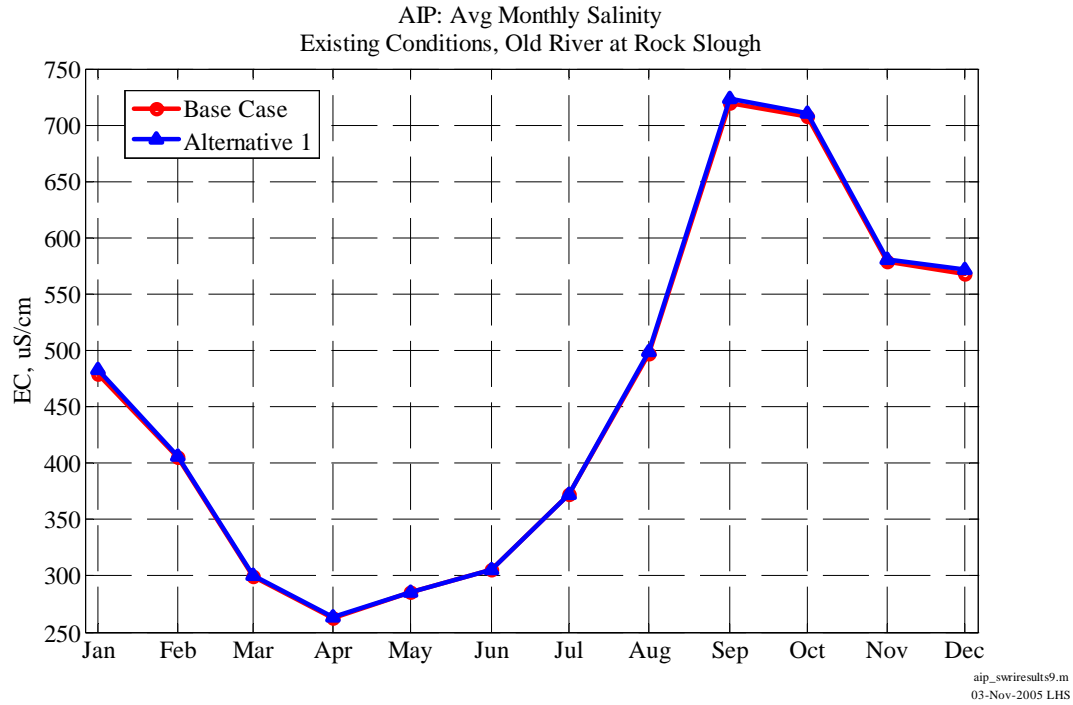
A CD with a full set of modeling files is available for review through CCWD by contacting Samantha Salvia, Project Manager, at ssalvia@ccwater.com or (925) 688-8057.

Alternative 1, Alternative Intake with Direct Pipeline Route (Proposed Action)

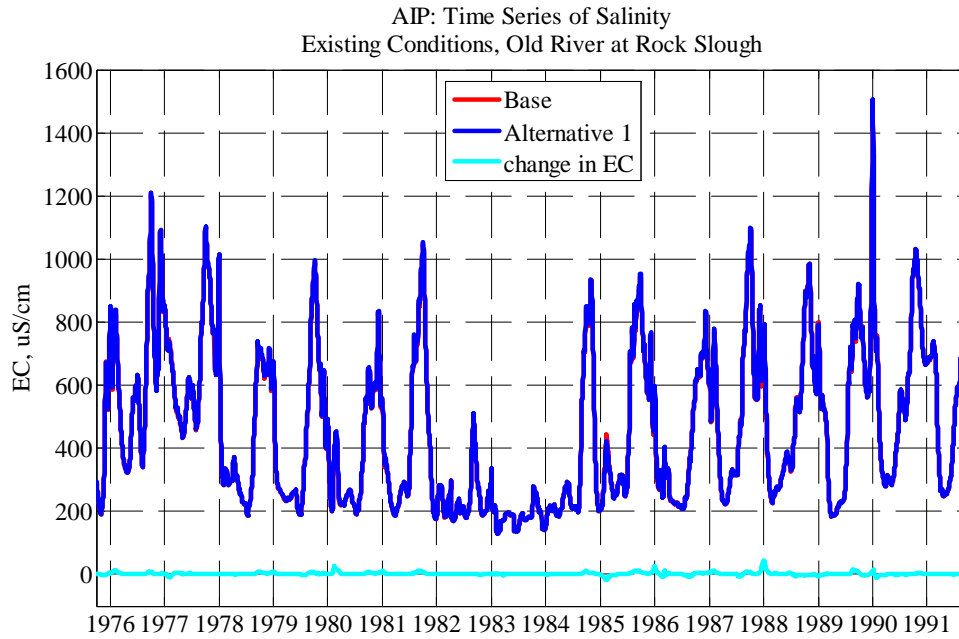
(note: same as Alternative 2, Alternative Intake with Indirect Pipeline Route)

Appendix C-4 DSM2 Delta Modeling

Old River at Rock Slough



Appendix C-4 DSM2 Delta Modeling



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22-Nov-2005 LHS

Old River at Rock Slough Salinity Base (Existing Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	235	283	633	711	726	454	336	400	570	508	448	913
1977	901	700	946	762	689	547	479	475	594	534	552	881
1978	1007	818	740	487	318	293	335	273	229	206	364	661
1979	680	648	641	405	265	242	241	259	213	260	501	830
1980	865	595	504	288	367	271	227	257	235	206	340	558
1981	587	620	651	398	276	199	219	280	265	535	734	929
1982	779	396	192	258	211	226	189	212	207	188	307	409
1983	236	194	253	215	136	168	193	190	139	176	175	181
1984	254	212	149	193	213	193	217	280	235	210	317	701
1985	837	656	232	251	396	291	258	308	268	535	779	888
1986	748	595	563	356	281	329	255	227	217	221	320	504
1987	628	685	713	563	626	322	229	280	319	401	652	948
1988	879	597	739	551	260	256	280	339	365	390	544	654
1989	900	800	645	626	507	265	188	214	237	467	723	820
1990	788	610	807	924	499	303	301	307	439	566	551	788
1991	995	852	682	681	712	431	259	264	357	555	651	843

Appendix C-4 DSM2 Delta Modeling

Old River at Rock Slough Salinity Base (Existing Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Avg	708	579	568	479	405	299	263	285	305	372	497	719
W	504	349	289	255	210	229	213	227	199	199	280	449
AN	936	707	622	387	343	282	281	265	232	206	352	609
BN	680	648	641	405	265	242	241	259	213	260	501	830
D	738	690	560	460	451	269	224	271	272	484	722	897
C	760	608	762	726	577	398	331	357	465	510	549	816

Old River at Rock Slough Salinity Alternative (Existing Alt 1 & 2) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	236	282	635	719	736	457	337	400	570	509	449	919
1977	906	701	948	761	684	552	483	476	596	536	552	882
1978	1009	819	740	487	319	293	335	274	229	206	364	667
1979	688	652	647	410	266	243	241	259	213	259	502	836
1980	870	598	507	288	384	280	227	257	235	206	340	563
1981	592	623	658	404	277	200	220	280	265	537	741	940
1982	784	398	192	260	213	226	189	213	207	188	307	409
1983	236	194	254	215	136	168	193	190	139	176	175	181
1984	254	212	149	193	213	193	217	280	235	210	317	708
1985	844	660	232	246	382	288	257	308	268	537	788	899
1986	754	597	574	365	278	331	259	228	217	220	317	504
1987	633	689	719	571	635	324	230	280	319	398	653	956
1988	883	598	761	574	263	259	281	339	368	390	542	654
1989	899	799	643	622	508	265	189	214	237	468	732	831
1990	790	608	810	925	494	302	302	308	439	567	551	789
1991	997	856	684	682	713	431	259	264	357	555	652	844
Avg	711	580	572	483	406	301	264	286	306	373	499	724
W	507	350	292	258	210	230	214	228	200	199	279	450
AN	940	709	624	388	351	286	281	265	232	206	352	615
BN	688	652	647	410	266	243	241	259	213	259	502	836
D	742	693	563	461	451	269	224	271	272	485	728	907
C	762	609	767	732	578	400	333	358	466	511	549	818

Appendix C-4 DSM2 Delta Modeling

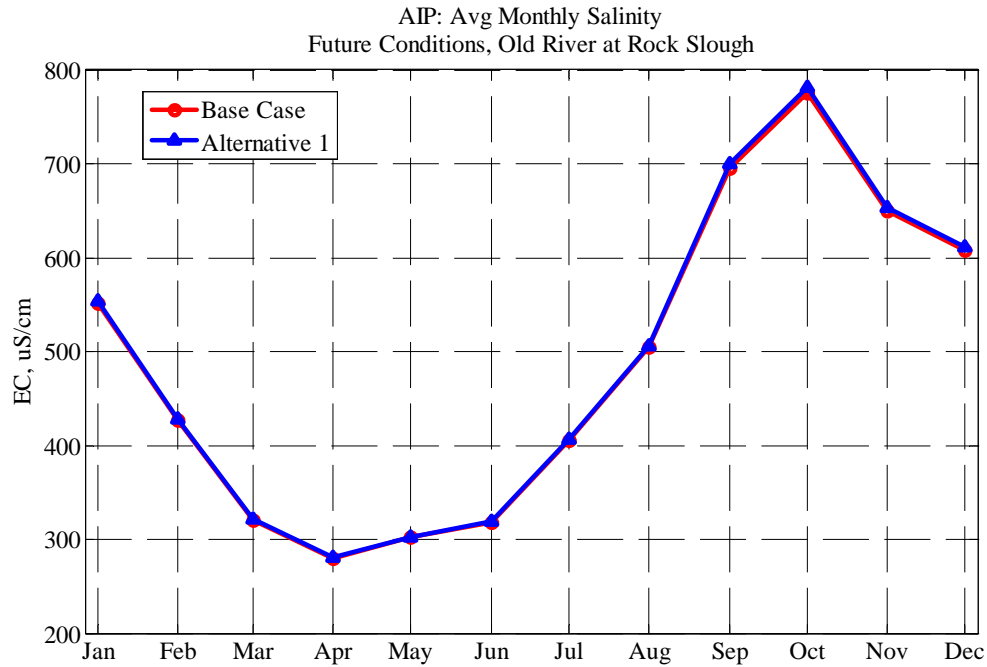
Old River at Rock Slough Salinity Difference (Existing Alt 1 & 2 minus Existing Base) Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	1	-1	1	8	11	3	1	0	0	1	1	7
1977	4	1	2	-1	-5	5	5	1	2	1	1	1
1978	2	1	1	0	0	0	0	0	0	0	0	6
1979	8	4	6	4	1	1	0	0	0	-1	1	6
1980	5	3	3	0	17	9	0	0	0	0	0	5
1981	5	3	8	6	1	0	0	0	0	2	7	10
1982	5	2	0	2	2	0	0	1	0	0	0	0
1983	-1	0	1	1	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	7
1985	7	4	1	-4	-14	-3	0	0	0	3	9	11
1986	6	3	11	10	-3	2	3	0	0	-1	-4	-1
1987	4	4	6	8	9	2	0	0	0	-3	0	8
1988	4	1	21	24	3	3	1	0	3	0	-3	-1
1989	-1	-1	-2	-4	1	0	0	0	0	0	9	11
1990	2	-2	2	0	-5	-1	1	1	0	1	0	1
1991	2	4	2	1	1	0	1	0	0	0	1	1
Avg	3	2	4	3	1	1	1	0	0	0	1	5
W	3	1	3	3	0	1	1	0	0	0	-1	2
AN	3	2	2	0	9	5	0	0	0	0	0	5
BN	8	4	6	4	1	1	0	0	0	-1	1	6
D	4	3	3	1	-1	0	0	0	0	1	6	10
C	3	1	6	6	1	2	2	1	1	1	0	2

Old River at Rock Slough Salinity Percent Difference (Existing Alt 1 & 2 minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	0.6	-0.4	0.2	1.1	1.5	0.7	0.2	0.0	0.0	0.2	0.2	0.7
1977	0.5	0.1	0.2	-0.2	-0.8	0.9	1.0	0.3	0.4	0.3	0.1	0.1
1978	0.2	0.2	0.1	0.0	0.1	0.0	0.0	0.2	0.0	0.0	0.1	0.9
1979	1.1	0.6	0.9	1.1	0.4	0.4	0.2	0.0	0.1	-0.5	0.2	0.8
1980	0.6	0.5	0.6	0.1	4.7	3.4	0.2	0.0	0.0	0.0	0.1	0.8
1981	0.9	0.5	1.2	1.5	0.3	0.1	0.2	0.0	0.0	0.4	1.0	1.1
1982	0.6	0.5	0.1	0.7	0.9	0.1	0.1	0.4	0.1	0.1	0.0	0.1
1983	-0.3	0.0	0.2	0.2	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0

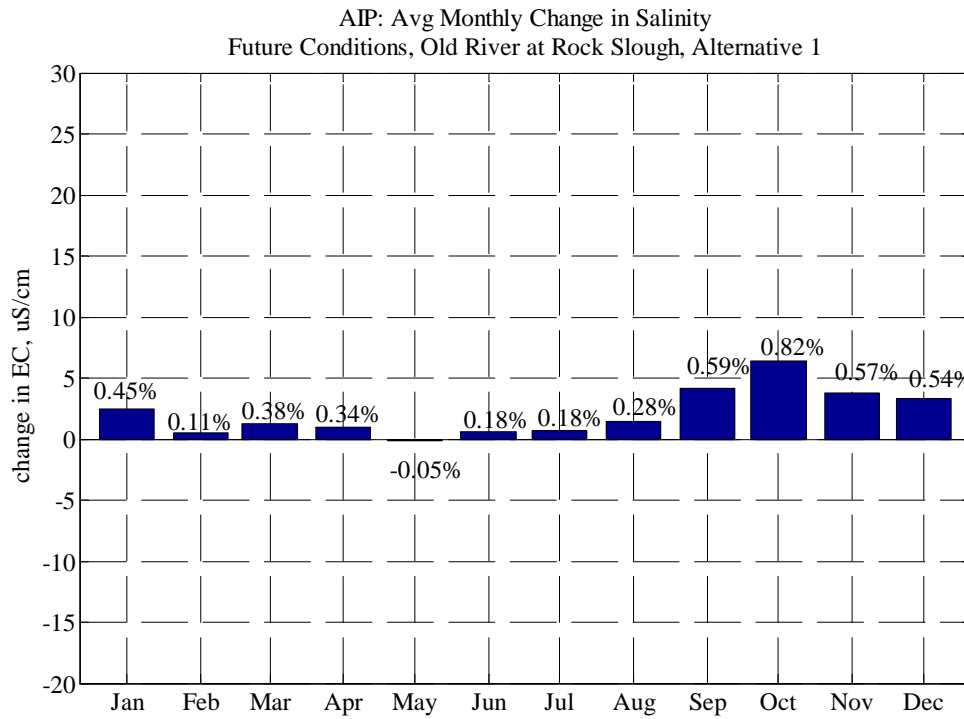
Appendix C-4 DSM2 Delta Modeling

Old River at Rock Slough Salinity Percent Difference (Existing Alt 1 & 2 minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1984	0.0	0.0	0.2	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0
1985	0.8	0.6	0.4	-1.8	-3.5	-1.1	-0.2	0.0	0.0	0.5	1.1	1.2
1986	0.8	0.5	2.0	2.7	-0.9	0.8	1.4	0.2	0.1	-0.4	-1.1	-0.1
1987	0.7	0.6	0.8	1.4	1.4	0.8	0.2	0.0	0.0	-0.7	0.1	0.8
1988	0.4	0.2	2.9	4.3	1.2	1.2	0.5	0.1	0.9	0.0	-0.5	-0.1
1989	-0.1	-0.1	-0.3	-0.6	0.2	0.1	0.0	0.1	0.0	0.1	1.2	1.3
1990	0.2	-0.4	0.3	0.0	-0.9	-0.4	0.3	0.3	0.0	0.2	0.0	0.1
1991	0.2	0.5	0.3	0.1	0.2	0.0	0.2	0.2	0.0	0.0	0.1	0.1
Avg	0.4	0.2	0.6	0.7	0.3	0.4	0.3	0.1	0.1	0.0	0.2	0.6
W	0.3	0.2	0.6	0.9	0.0	0.2	0.4	0.2	0.1	-0.1	-0.3	0.2
AN	0.4	0.3	0.3	0.1	2.4	1.7	0.1	0.1	0.0	0.0	0.1	0.9
BN	1.1	0.6	0.9	1.1	0.4	0.4	0.2	0.0	0.1	-0.5	0.2	0.8
D	0.6	0.4	0.5	0.1	-0.4	0.0	0.1	0.0	0.0	0.1	0.9	1.1
C	0.4	0.0	0.8	1.1	0.2	0.5	0.4	0.2	0.3	0.2	0.0	0.2

Appendix C-4 DSM2 Delta Modeling

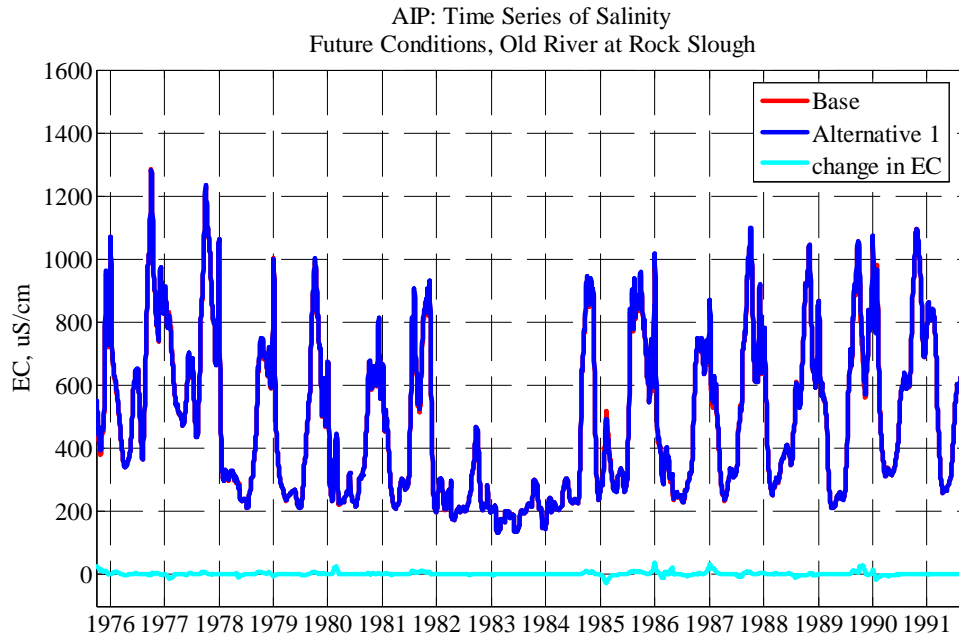


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03-Nov-2005 LHS



aip_swresults10.m
12-Dec-2005 LHS

Appendix C-4 DSM2 Delta Modeling



aip_swresults10.m
22-Nov-2005 LHS

Old River at Rock Slough Salinity Base (Future Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	443	494	854	787	570	423	348	412	610	541	503	997
1977	1054	805	900	841	742	559	505	508	661	568	548	967
1978	1117	877	771	512	317	316	309	270	238	234	336	559
1979	725	667	679	590	304	252	250	265	223	274	473	773
1980	899	620	572	361	349	256	237	283	242	245	316	474
1981	637	640	670	538	365	229	232	296	285	654	671	616
1982	849	748	243	277	236	247	194	200	208	209	278	413
1983	303	216	222	209	142	172	197	185	141	184	201	221
1984	284	230	156	212	216	211	231	294	239	234	375	769
1985	896	752	279	320	460	327	277	327	278	627	853	879
1986	813	621	694	574	348	363	312	250	248	245	301	468
1987	719	695	697	641	551	340	247	312	318	441	675	935
1988	901	647	773	582	286	283	319	379	388	427	582	661
1989	936	821	668	683	533	294	216	251	245	455	754	971
1990	800	619	825	874	625	355	331	329	410	586	607	729
1991	1035	949	721	825	803	490	273	276	362	564	596	698

Appendix C-4 DSM2 Delta Modeling

Old River at Rock Slough Salinity Base (Future Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Avg	776	650	608	552	428	320	280	302	319	406	504	696
W	562	454	329	318	236	248	234	232	209	218	289	468
AN	1008	748	671	437	333	286	273	277	240	240	326	516
BN	725	667	679	590	304	252	250	265	223	274	473	773
D	797	727	579	545	477	298	243	296	282	544	738	850
C	847	703	815	782	605	422	355	381	486	537	567	810

Old River at Rock Slough Salinity Alternative (Future Alt 1, 2, 3) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	462	506	861	790	578	426	347	412	613	542	504	997
1977	1057	808	900	839	731	560	506	508	664	570	549	973
1978	1121	879	772	512	318	319	311	266	238	234	336	564
1979	732	672	682	589	305	253	251	265	223	273	472	779
1980	905	623	575	362	367	262	237	283	242	245	316	476
1981	640	643	674	541	367	229	232	296	285	662	679	626
1982	857	754	243	278	238	248	194	201	208	209	278	414
1983	304	216	222	208	142	172	197	185	141	184	201	221
1984	284	230	156	212	216	211	231	294	239	234	376	776
1985	904	758	280	314	441	322	276	326	278	633	862	889
1986	820	624	709	589	344	369	324	253	248	244	299	469
1987	722	697	709	664	564	343	248	312	318	437	676	944
1988	906	648	778	585	287	287	321	379	391	426	578	659
1989	935	824	668	683	536	295	216	251	245	455	761	981
1990	825	627	827	873	617	353	328	327	410	587	608	730
1991	1037	951	722	826	804	490	273	276	362	565	597	699
Avg	782	654	611	554	428	321	281	302	319	406	506	700
W	566	456	333	322	235	250	237	233	209	218	288	470
AN	1013	751	673	437	342	290	274	274	240	240	326	520
BN	732	672	682	589	305	253	251	265	223	273	472	779
D	800	731	582	551	477	297	243	296	282	547	745	860
C	858	708	818	783	603	423	355	381	488	538	567	811

Appendix C-4 DSM2 Delta Modeling

Old River at Rock Slough Salinity Difference (Future Alt 1 & 2 minus Future Base) Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	20	12	7	4	8	3	0	0	3	2	1	0
1977	3	3	0	-3	-10	0	1	0	3	2	1	6
1978	5	2	1	0	1	2	3	-5	-1	0	1	6
1979	7	4	3	-2	1	1	0	0	0	-1	0	6
1980	6	3	2	1	18	6	0	0	0	0	0	2
1981	3	3	4	3	2	0	0	0	0	8	8	10
1982	9	6	0	1	2	1	0	0	0	0	0	1
1983	1	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	1	7
1985	8	6	0	-6	-19	-5	-1	0	0	6	10	10
1986	6	3	15	15	-4	5	12	3	0	-1	-3	0
1987	3	3	12	23	13	3	0	0	0	-4	1	9
1988	5	2	5	3	0	4	2	1	4	-1	-4	-2
1989	-1	2	-1	0	2	0	0	0	0	0	8	10
1990	26	8	2	-1	-7	-2	-3	-2	0	1	1	1
1991	2	2	1	1	1	1	0	0	0	0	1	1
Avg	6	4	3	2	0	1	1	0	1	1	1	4
W	4	2	4	4	-1	2	3	1	0	0	-1	2
AN	6	3	2	0	10	4	1	-2	0	0	0	4
BN	7	4	3	-2	1	1	0	0	0	-1	0	6
D	3	3	4	5	-1	0	0	0	0	2	6	10
C	11	5	3	1	-2	1	0	0	2	1	0	1

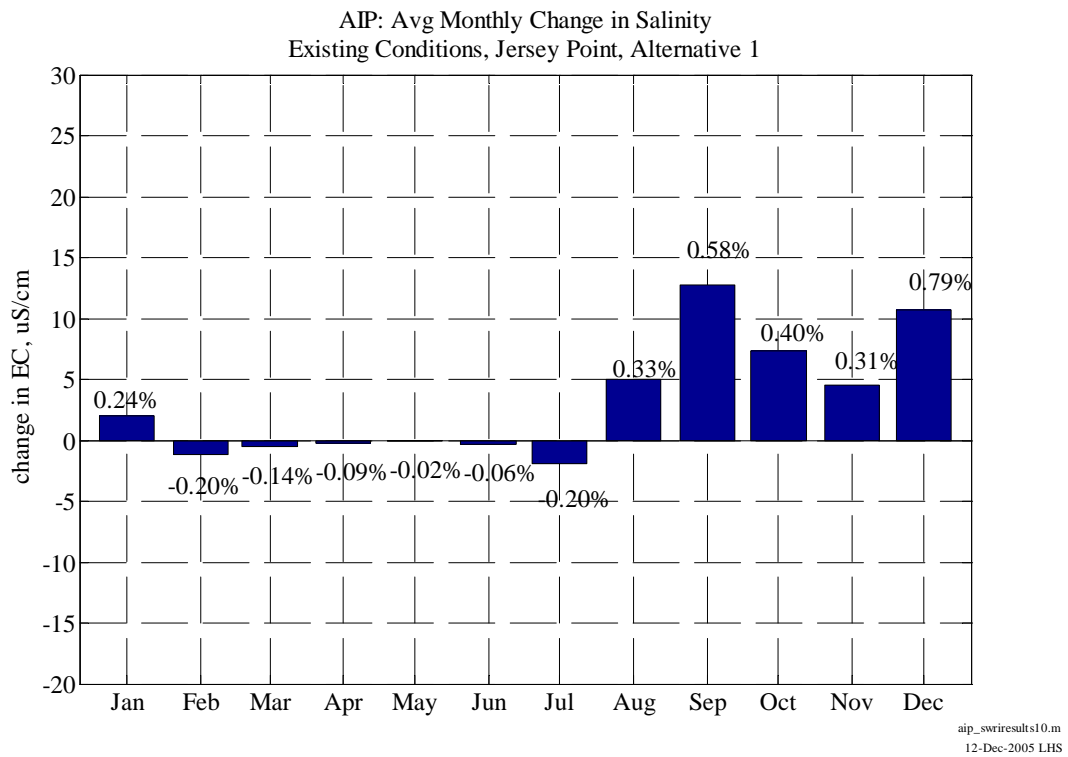
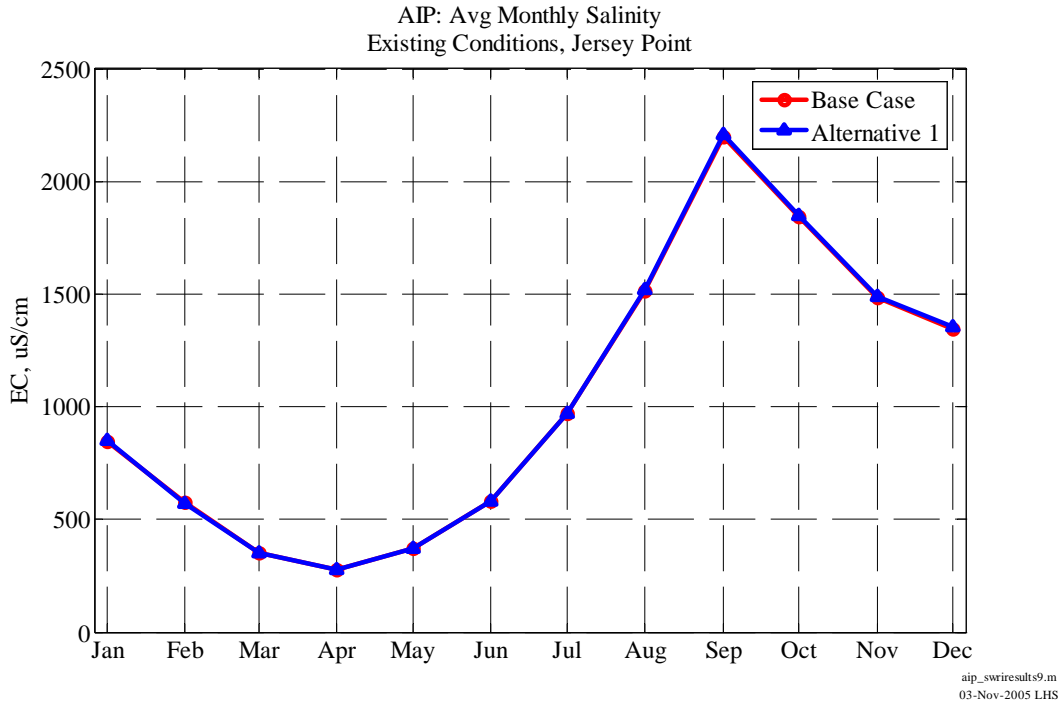
Old River at Rock Slough Salinity Percent Difference (Future Alt 1, 2, 3 minus Future Base divided by Future Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	4.5	2.5	0.8	0.5	1.4	0.7	-0.1	0.0	0.4	0.3	0.2	0.0
1977	0.3	0.4	0.1	-0.3	-1.4	0.1	0.3	0.0	0.5	0.3	0.1	0.6
1978	0.4	0.3	0.1	0.0	0.4	0.8	0.8	-1.7	-0.2	0.0	0.2	1.0
1979	1.0	0.6	0.5	-0.3	0.2	0.3	0.1	0.0	0.0	-0.2	-0.1	0.7
1980	0.7	0.5	0.4	0.2	5.1	2.4	0.1	0.0	0.0	0.0	0.0	0.4
1981	0.5	0.4	0.6	0.5	0.5	0.0	0.1	0.0	0.0	1.2	1.1	1.7
1982	1.0	0.8	0.1	0.5	0.7	0.3	0.1	0.1	0.1	0.0	-0.1	0.3
1983	0.2	0.0	0.0	-0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Appendix C-4 DSM2 Delta Modeling

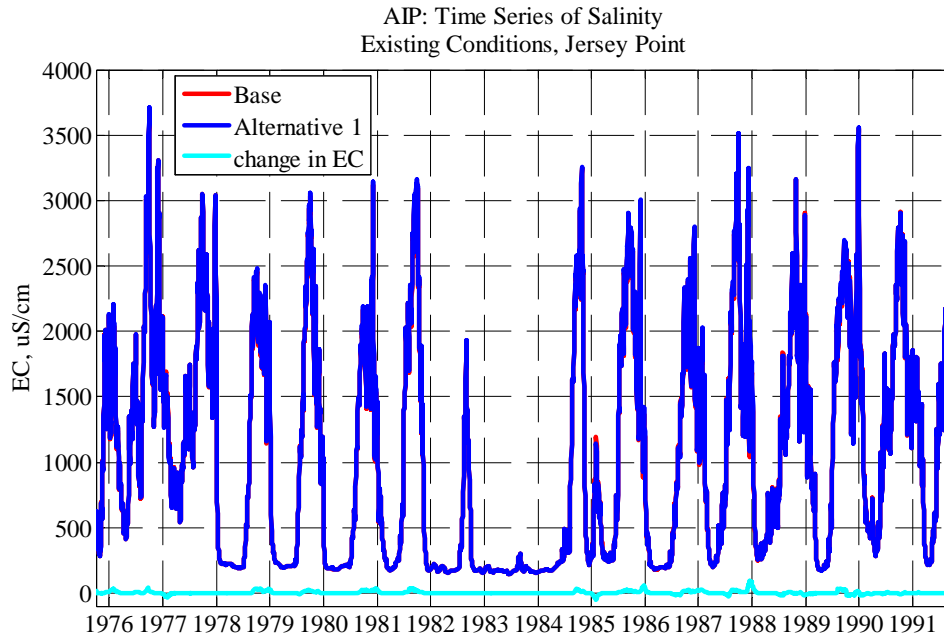
Old River at Rock Slough Salinity Percent Difference (Future Alt 1, 2, 3 minus Future Base divided by Future Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1984	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.9
1985	0.9	0.8	0.2	-1.8	-4.2	-1.6	-0.3	0.0	0.0	0.9	1.1	1.1
1986	0.8	0.5	2.2	2.6	-1.2	1.5	4.0	1.2	0.2	-0.5	-0.9	0.1
1987	0.4	0.4	1.7	3.6	2.4	0.9	0.2	0.0	0.0	-0.9	0.1	0.9
1988	0.6	0.3	0.6	0.6	0.1	1.4	0.5	0.1	0.9	-0.3	-0.7	-0.3
1989	-0.1	0.3	-0.1	0.1	0.4	0.1	0.0	0.0	0.0	0.1	1.0	1.0
1990	3.2	1.3	0.2	-0.2	-1.2	-0.5	-1.0	-0.5	-0.1	0.2	0.1	0.1
1991	0.2	0.2	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.1	0.1	0.1
Avg	0.9	0.6	0.5	0.4	0.2	0.4	0.3	0.0	0.1	0.1	0.2	0.5
W	0.5	0.3	0.6	0.8	-0.1	0.4	1.0	0.3	0.1	-0.1	-0.2	0.3
AN	0.6	0.4	0.3	0.1	2.7	1.6	0.5	-0.8	-0.1	0.0	0.1	0.7
BN	1.0	0.6	0.5	-0.3	0.2	0.3	0.1	0.0	0.0	-0.2	-0.1	0.7
D	0.4	0.5	0.6	0.6	-0.2	-0.1	0.0	0.0	0.0	0.3	0.8	1.2
C	1.8	0.9	0.4	0.1	-0.2	0.3	-0.1	-0.1	0.4	0.1	0.0	0.1

Appendix C-4 DSM2 Delta Modeling

Jersey Point



Appendix C-4 DSM2 Delta Modeling



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San Joaquin River at Jersey Point Salinity Base (Existing Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	414	1033	1734	1696	1453	808	507	954	1517	1118	1528	2984
1977	2017	2278	2083	1533	1057	780	713	1000	1367	1224	1796	2544
1978	2396	1766	2011	473	224	219	215	197	193	387	1239	2156
1979	2112	1906	1592	504	232	202	197	205	220	747	1644	2616
1980	2358	1747	1115	253	188	180	186	206	212	428	1144	1881
1981	1813	1887	1579	760	341	195	184	241	554	1775	2156	2889
1982	2064	700	182	206	177	193	167	165	173	261	1107	1061
1983	219	172	163	191	169	171	174	165	152	163	222	203
1984	187	169	158	163	176	173	177	217	286	379	1084	2303
1985	2583	1216	264	594	780	380	257	262	531	1712	2200	2647
1986	2152	1763	1304	478	209	184	192	196	229	502	1021	1709
1987	2001	2055	1707	1460	1073	315	215	360	586	1259	2114	2949
1988	1935	1817	1853	749	288	310	470	601	631	1265	1307	1903
1989	2431	1755	1738	1341	864	323	177	205	466	1566	2097	2458
1990	2313	1610	2503	1642	670	515	394	577	1198	1317	1636	2355
1991	2497	1860	1535	1514	1293	668	227	381	1011	1449	1969	2482

Appendix C-4 DSM2 Delta Modeling

San Joaquin River at Jersey Point Salinity Base (Existing Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Avg	1843	1483	1345	847	575	351	278	371	583	972	1516	2196
W	1155	701	452	259	183	180	178	186	210	326	858	1319
AN	2377	1756	1563	363	206	199	200	201	202	407	1192	2018
BN	2112	1906	1592	504	232	202	197	205	220	747	1644	2616
D	2207	1728	1322	1039	765	303	208	267	534	1578	2142	2736
C	1835	1720	1942	1427	952	616	462	702	1145	1275	1647	2454

San Joaquin River at Jersey Point Salinity Alternative (Existing Alt 1 & 2) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	414	1028	1740	1716	1468	812	508	953	1520	1123	1530	3008
1977	2025	2280	2080	1514	1040	775	711	1000	1367	1225	1797	2544
1978	2396	1766	2011	473	224	219	215	197	193	387	1240	2179
1979	2139	1922	1614	511	233	202	198	205	220	741	1651	2635
1980	2372	1758	1116	253	189	181	186	206	212	428	1145	1899
1981	1833	1902	1607	770	339	194	184	241	553	1779	2180	2913
1982	2078	704	182	206	178	193	168	166	173	261	1107	1061
1983	219	172	163	191	169	171	174	165	152	163	222	203
1984	187	169	158	163	176	173	177	217	286	379	1084	2323
1985	2597	1223	263	569	758	377	257	262	531	1717	2218	2664
1986	2165	1771	1343	491	210	184	193	196	229	493	1008	1716
1987	2018	2068	1723	1482	1085	316	215	360	586	1240	2129	2970
1988	1943	1823	1920	776	290	309	470	601	628	1247	1305	1909
1989	2433	1756	1727	1333	859	322	177	205	466	1567	2124	2483
1990	2301	1599	2509	1627	662	509	390	576	1194	1320	1635	2354
1991	2490	1862	1536	1515	1295	669	227	381	1011	1449	1969	2482
Avg	1851	1488	1356	849	573	350	278	371	583	970	1522	2209
W	1162	704	461	263	183	180	178	186	210	324	855	1326
AN	2384	1762	1564	363	206	200	201	201	202	407	1192	2039
BN	2139	1922	1614	511	233	202	198	205	220	741	1651	2635
D	2220	1738	1330	1038	760	303	208	267	534	1576	2163	2757
C	1834	1718	1957	1430	951	615	461	702	1144	1273	1647	2459

Appendix C-4 DSM2 Delta Modeling

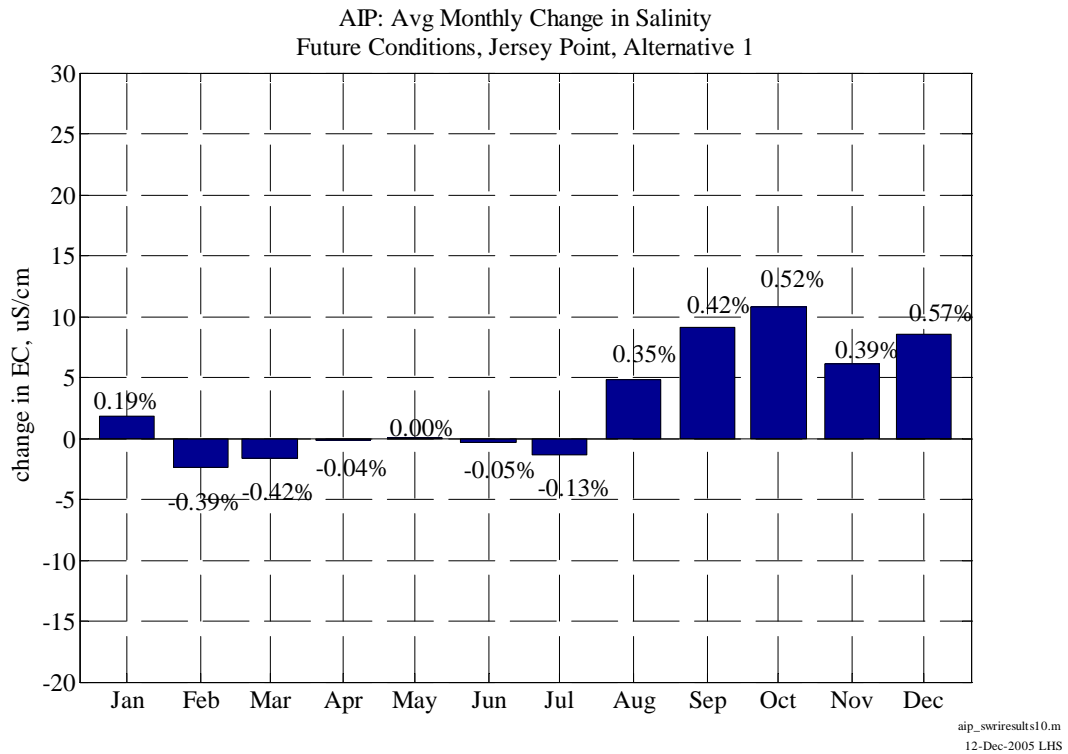
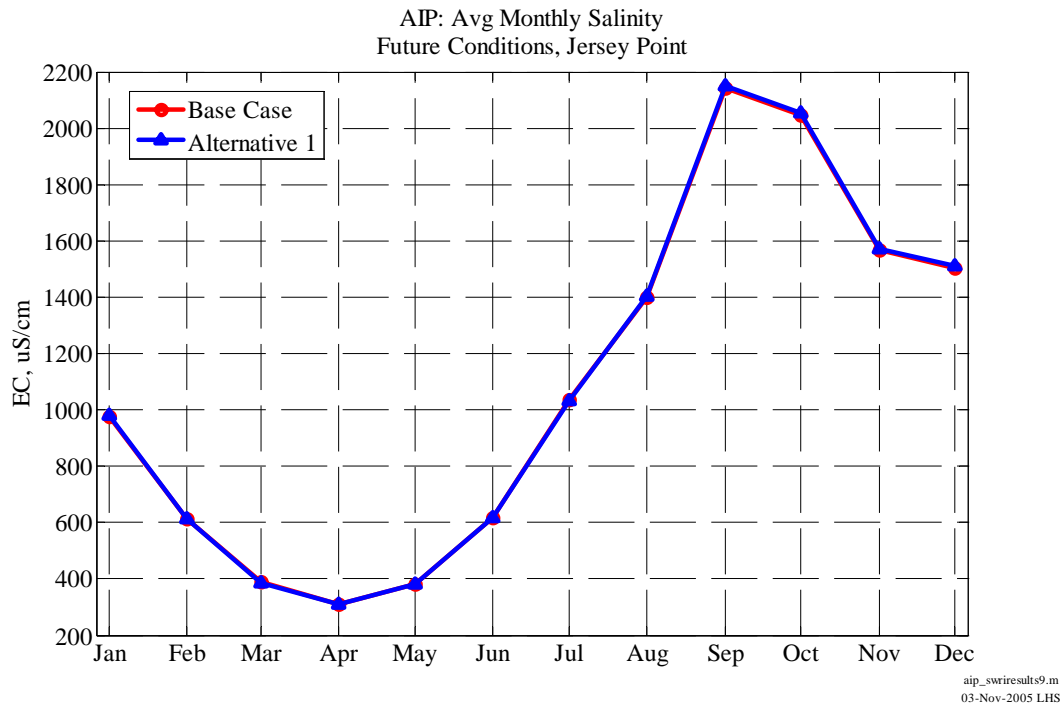
San Joaquin River at Jersey Point Salinity Difference (Existing Alt 1 & 2 minus Existing Base) Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	0	-5	6	21	16	3	1	0	2	5	2	24
1977	8	2	-3	-19	-16	-5	-2	0	0	1	0	0
1978	1	1	0	0	0	0	0	0	0	0	1	24
1979	27	16	22	6	0	0	0	0	0	-6	7	20
1980	14	11	1	0	1	1	0	0	0	0	0	18
1981	20	15	28	10	-2	0	0	0	0	5	24	24
1982	14	4	0	0	1	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	20
1985	15	8	-1	-24	-22	-3	0	0	0	5	19	17
1986	14	9	39	13	0	0	1	0	0	-9	-13	7
1987	17	14	16	22	12	1	0	0	-1	-18	16	21
1988	7	6	67	27	2	-1	0	0	-2	-18	-2	6
1989	3	1	-11	-8	-5	-1	0	0	0	1	27	24
1990	-12	-11	6	-15	-8	-5	-4	-1	-4	3	-1	-1
1991	-7	1	1	1	2	1	0	0	-1	0	0	0
Avg	7	5	11	2	-1	0	0	0	0	-2	5	13
W	7	3	10	3	0	0	0	0	0	-2	-3	7
AN	7	6	1	0	0	1	0	0	0	0	0	21
BN	27	16	22	6	0	0	0	0	0	-6	7	20
D	14	10	8	0	-4	-1	0	0	0	-2	21	22
C	-1	-1	15	3	-1	-1	-1	0	-1	-2	0	6

San Joaquin River at Jersey Point Salinity Percent Difference (Existing Alt 1 & 2 minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	0.0	-0.4	0.3	1.2	1.1	0.4	0.1	0.0	0.2	0.5	0.1	0.8
1977	0.4	0.1	-0.1	-1.2	-1.6	-0.6	-0.3	0.0	0.0	0.1	0.0	0.0
1978	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
1979	1.3	0.8	1.4	1.2	0.2	0.2	0.1	0.0	-0.1	-0.7	0.4	0.7
1980	0.6	0.6	0.1	0.0	0.5	0.7	0.0	0.0	0.0	0.0	0.0	0.9
1981	1.1	0.8	1.8	1.3	-0.5	-0.3	0.1	0.0	-0.1	0.3	1.1	0.8
1982	0.7	0.6	0.1	0.2	0.3	0.0	0.0	0.1	0.0	0.0	0.0	0.0

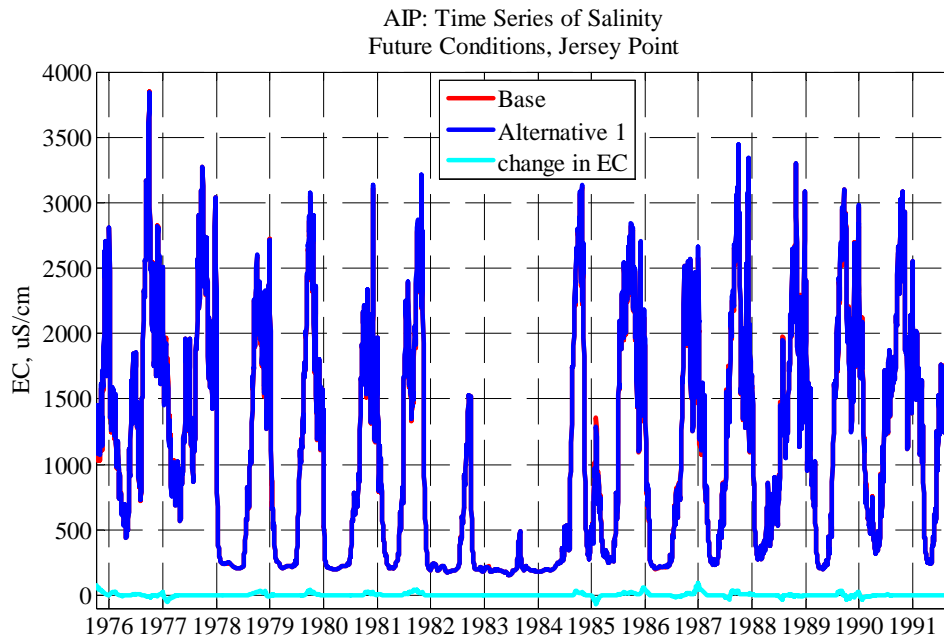
Appendix C-4 DSM2 Delta Modeling

San Joaquin River at Jersey Point Salinity Percent Difference (Existing Alt 1 & 2 minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1983	-0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
1985	0.6	0.6	-0.3	-4.1	-2.8	-0.8	-0.1	0.0	0.0	0.3	0.8	0.7
1986	0.6	0.5	3.0	2.7	0.1	0.3	0.4	0.1	0.0	-1.9	-1.3	0.4
1987	0.8	0.7	0.9	1.5	1.1	0.4	0.1	0.0	-0.1	-1.4	0.7	0.7
1988	0.4	0.3	3.6	3.6	0.5	-0.2	0.0	0.0	-0.4	-1.4	-0.1	0.3
1989	0.1	0.1	-0.6	-0.6	-0.6	-0.3	0.0	0.0	0.0	0.1	1.3	1.0
1990	-0.5	-0.7	0.2	-0.9	-1.2	-1.0	-0.9	-0.2	-0.3	0.2	0.0	-0.1
1991	-0.3	0.1	0.0	0.0	0.2	0.1	0.0	0.0	-0.1	0.0	0.0	0.0
Avg	0.3	0.3	0.7	0.3	-0.2	-0.1	0.0	0.0	-0.1	-0.3	0.2	0.5
W	0.3	0.3	0.8	0.7	0.1	0.1	0.1	0.0	0.0	-0.5	-0.3	0.3
AN	0.3	0.3	0.1	0.0	0.2	0.3	0.0	0.0	0.0	0.0	0.0	1.0
BN	1.3	0.8	1.4	1.2	0.2	0.2	0.1	0.0	-0.1	-0.7	0.4	0.7
D	0.7	0.6	0.4	-0.5	-0.7	-0.2	0.0	0.0	0.0	-0.2	1.0	0.8
C	0.0	-0.1	0.8	0.5	-0.2	-0.3	-0.2	-0.1	-0.1	-0.1	0.0	0.2

Appendix C-4 DSM2 Delta Modeling



Appendix C-4 DSM2 Delta Modeling



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San Joaquin River at Jersey Point Salinity Base (Future Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	1208	1689	2275	1543	1203	764	565	922	1583	1115	1744	3165
1977	2424	2228	2081	1782	1245	847	781	1047	1575	1221	1863	2755
1978	2567	1796	2069	524	242	242	228	208	210	444	911	1946
1979	2209	1864	1991	868	275	221	214	223	231	732	1469	2497
1980	2530	1680	1376	323	206	197	205	221	239	565	767	1702
1981	1933	1772	1767	1101	444	232	209	278	690	2004	1612	2021
1982	2612	1337	229	227	201	216	186	181	190	313	780	1370
1983	416	197	190	209	186	190	187	178	161	180	308	249
1984	207	190	180	180	192	195	199	241	304	427	1194	2403
1985	2705	1330	364	741	876	421	290	272	558	1875	2216	2551
1986	2323	1698	1785	891	250	204	213	217	244	517	753	1696
1987	2191	1814	1928	1383	1000	366	241	370	651	1361	2095	2841
1988	2056	1907	1904	796	304	332	569	598	683	1385	1320	1891
1989	2533	1764	1826	1446	909	395	207	230	451	1463	2227	2852
1990	2094	1881	2298	1802	871	575	427	517	1089	1510	1649	2181
1991	2718	1903	1783	1809	1438	808	258	376	1011	1458	1474	2154

Appendix C-4 DSM2 Delta Modeling

San Joaquin River at Jersey Point Salinity Base (Future Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Avg	2045	1566	1503	977	615	388	311	380	617	1036	1399	2142
W	1389	856	596	377	207	201	196	204	225	359	759	1429
AN	2549	1738	1722	423	224	219	217	214	225	505	839	1824
BN	2209	1864	1991	868	275	221	214	223	231	732	1469	2497
D	2341	1670	1471	1168	807	353	237	287	588	1675	2038	2566
C	2100	1922	2068	1547	1012	665	520	692	1188	1338	1610	2429

San Joaquin River at Jersey Point Salinity Alternative (Future Alt 1, 2, 3) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	1262	1718	2280	1560	1220	762	564	923	1586	1124	1745	3159
1977	2417	2224	2089	1756	1212	836	779	1046	1575	1221	1864	2755
1978	2569	1796	2069	524	243	242	228	207	210	444	916	1963
1979	2236	1886	1989	869	276	221	214	223	231	729	1469	2522
1980	2550	1691	1378	323	207	198	205	221	239	565	767	1702
1981	1954	1787	1775	1108	443	232	209	278	690	2016	1635	2053
1982	2632	1345	230	228	201	216	186	181	190	312	779	1369
1983	416	197	190	209	186	190	187	178	161	180	308	249
1984	207	190	180	180	192	195	199	241	304	427	1195	2425
1985	2724	1337	364	711	843	415	290	272	558	1883	2231	2570
1986	2340	1707	1827	914	251	204	215	218	243	507	744	1693
1987	2204	1823	1981	1432	1018	366	241	370	650	1339	2114	2868
1988	2067	1914	1915	800	304	331	569	598	680	1364	1318	1896
1989	2529	1758	1823	1445	909	395	207	230	451	1463	2253	2859
1990	2072	1872	2310	1786	860	566	427	516	1086	1513	1649	2182
1991	2719	1904	1784	1809	1440	809	258	376	1011	1458	1473	2154
Avg	2056	1572	1512	978	613	386	311	380	617	1034	1404	2151
W	1399	860	607	383	208	201	197	205	225	356	757	1434
AN	2559	1744	1724	424	225	220	217	214	224	505	841	1832
BN	2236	1886	1989	869	276	221	214	223	231	729	1469	2522
D	2353	1676	1486	1174	803	352	237	287	587	1675	2058	2588
C	2107	1926	2076	1542	1007	661	520	692	1188	1336	1610	2429

Appendix C-4 DSM2 Delta Modeling

San Joaquin River at Jersey Point Salinity Difference (Future Alt 1 & 2 minus Future Base) Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	54	29	5	17	17	-2	-1	1	3	9	1	-6
1977	-7	-4	9	-26	-33	-11	-2	0	0	0	0	0
1978	1	1	1	0	0	1	0	0	0	0	4	16
1979	27	22	-2	2	0	0	0	0	0	-3	-1	25
1980	20	11	2	0	0	1	0	0	0	0	0	0
1981	21	15	8	7	0	0	0	0	0	12	22	32
1982	21	8	0	0	0	0	0	0	0	-1	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	22
1985	19	7	0	-30	-32	-5	-1	0	0	8	15	19
1986	17	9	42	24	1	0	2	1	0	-10	-8	-3
1987	13	9	53	49	17	-1	0	0	-2	-22	19	27
1988	11	7	11	4	0	-1	0	0	-3	-21	-2	5
1989	-4	-6	-3	-1	0	0	0	0	0	1	27	7
1990	-22	-9	11	-17	-11	-9	0	-1	-3	3	0	1
1991	1	1	0	0	2	1	0	0	0	1	-1	0
Avg	11	6	9	2	-2	-2	0	0	0	-1	5	9
W	10	4	11	6	0	0	0	0	0	-3	-2	5
AN	10	6	1	0	0	1	0	0	0	0	2	8
BN	27	22	-2	2	0	0	0	0	0	-3	-1	25
D	12	6	14	6	-4	-2	0	0	0	0	21	21
C	7	5	7	-4	-5	-4	-1	0	-1	-2	0	0

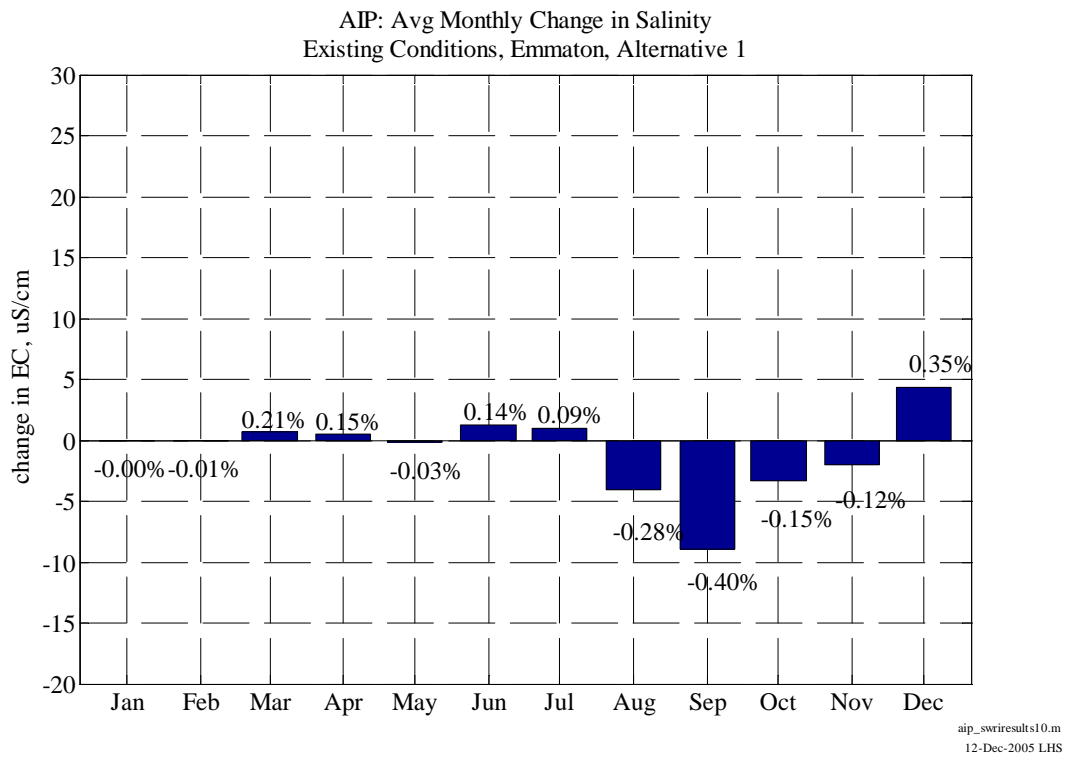
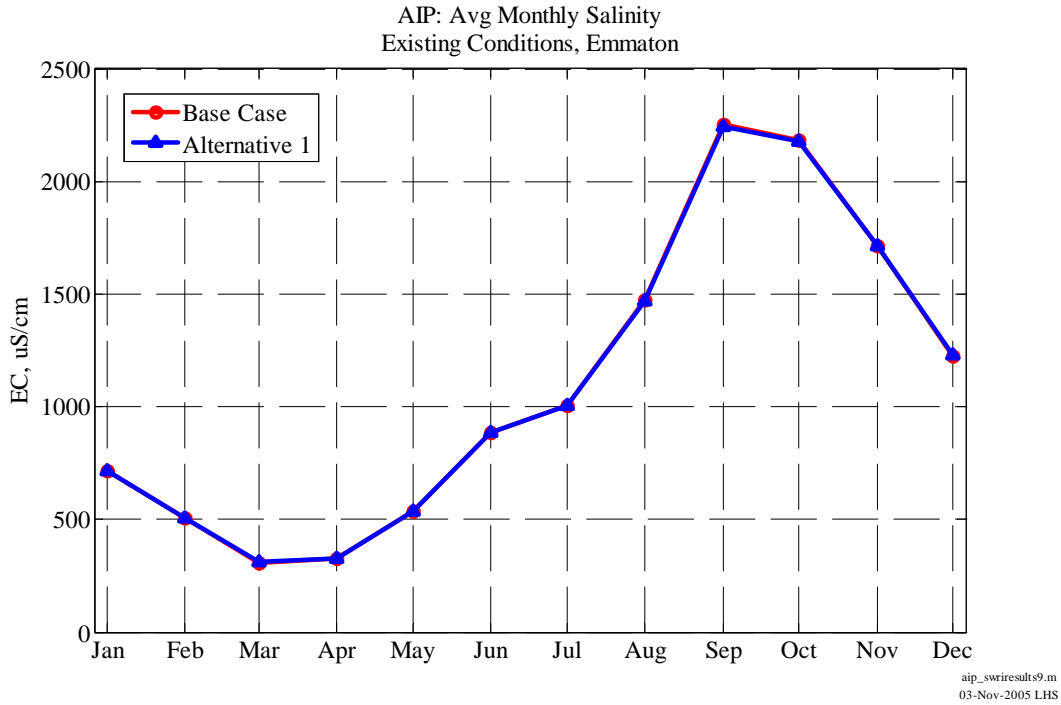
San Joaquin River at Jersey Point Salinity Percent Difference (Future Alt 1, 2, 3 minus Future Base divided by Future Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	4.5	1.7	0.2	1.1	1.4	-0.3	-0.2	0.1	0.2	0.8	0.1	-0.2
1977	-0.3	-0.2	0.4	-1.5	-2.6	-1.3	-0.3	0.0	0.0	0.0	0.0	0.0
1978	0.1	0.0	0.0	0.0	0.1	0.2	0.2	-0.1	-0.1	0.0	0.5	0.8
1979	1.2	1.2	-0.1	0.2	0.1	0.2	0.1	0.0	0.0	-0.4	0.0	1.0
1980	0.8	0.7	0.1	0.0	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0
1981	1.1	0.8	0.4	0.6	-0.1	-0.1	0.0	0.0	0.0	0.6	1.4	1.6
1982	0.8	0.6	0.1	0.2	0.2	0.1	0.0	0.0	0.0	-0.2	-0.1	0.0

Appendix C-4 DSM2 Delta Modeling

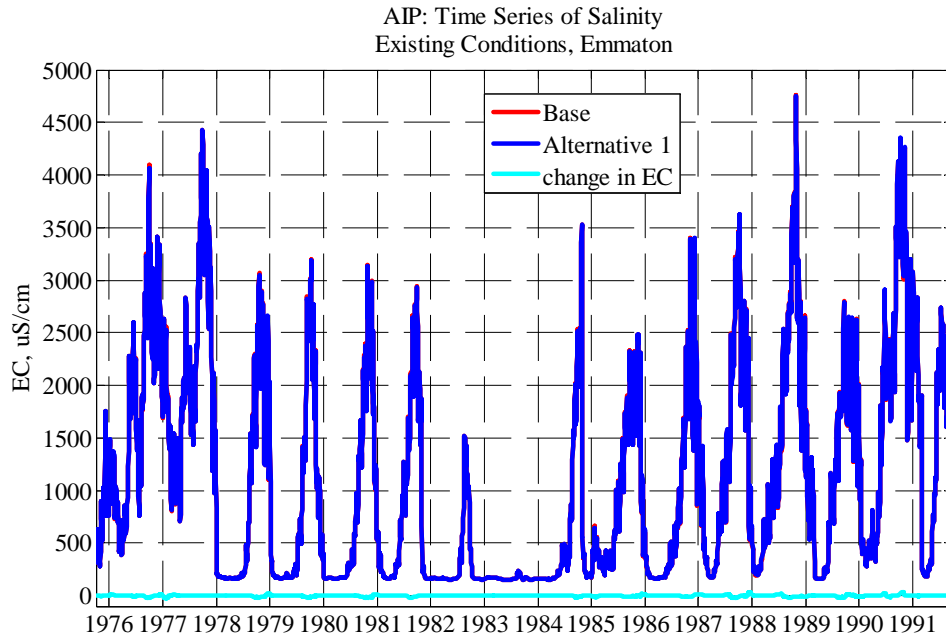
San Joaquin River at Jersey Point Salinity Percent Difference (Future Alt 1, 2, 3 minus Future Base divided by Future Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1983	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
1985	0.7	0.5	0.1	-4.1	-3.7	-1.3	-0.2	0.0	0.0	0.4	0.7	0.8
1986	0.7	0.5	2.3	2.7	0.2	0.2	0.8	0.4	-0.1	-1.9	-1.1	-0.2
1987	0.6	0.5	2.7	3.5	1.7	-0.2	-0.1	0.0	-0.3	-1.6	0.9	0.9
1988	0.5	0.4	0.6	0.5	0.1	-0.3	-0.1	0.0	-0.4	-1.5	-0.1	0.2
1989	-0.2	-0.4	-0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	1.2	0.2
1990	-1.0	-0.5	0.5	-0.9	-1.3	-1.5	0.1	-0.2	-0.3	0.2	0.0	0.0
1991	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Avg	0.6	0.4	0.5	0.1	-0.2	-0.2	0.0	0.0	-0.1	-0.2	0.2	0.4
W	0.4	0.3	0.6	0.7	0.1	0.1	0.2	0.1	0.0	-0.5	-0.3	0.2
AN	0.4	0.3	0.1	0.0	0.2	0.3	0.1	-0.1	-0.1	0.0	0.2	0.4
BN	1.2	1.2	-0.1	0.2	0.1	0.2	0.1	0.0	0.0	-0.4	0.0	1.0
D	0.6	0.4	0.8	0.0	-0.5	-0.4	-0.1	0.0	-0.1	-0.1	1.0	0.9
C	0.7	0.3	0.3	-0.2	-0.5	-0.7	-0.1	0.0	-0.1	-0.1	0.0	0.0

Appendix C-4 DSM2 Delta Modeling

Emmaton



Appendix C-4 DSM2 Delta Modeling



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Sacramento River at Emmaton Salinity Base (Existing Base)												
Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	398	778	1079	1170	898	515	674	1625	2104	1249	1924	3107
1977	2862	2688	2554	2261	1501	1235	1083	1819	2295	1795	2284	3619
1978	3601	2859	1464	195	169	167	166	166	184	297	998	1743
1979	2494	2298	1928	360	178	166	180	178	228	494	1205	2545
1980	2504	1355	597	170	170	160	166	174	249	380	903	1570
1981	2338	2497	1305	394	195	162	181	294	735	1140	1926	2530
1982	1866	235	159	169	160	166	162	156	160	266	1023	892
1983	215	159	155	166	169	171	159	153	152	157	202	166
1984	167	154	164	158	159	156	164	203	349	357	886	1908
1985	2438	323	194	418	408	273	325	303	719	1039	1491	1844
1986	1763	1914	808	275	173	166	169	196	314	438	754	1372
1987	2128	2492	1936	1101	458	196	218	553	974	1198	2094	2981
1988	2595	2260	1116	285	234	464	675	930	1078	1633	2281	2834
1989	3740	2516	1850	1051	1022	176	162	228	744	1076	1588	2198
1990	2069	1938	1757	770	368	486	504	1017	2112	2130	2105	3369
1991	3737	2972	2528	2550	1841	284	231	609	1750	2421	1933	3389

Appendix C-4 DSM2 Delta Modeling

Sacramento River at Emmaton Salinity Base (Existing Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Avg	2182	1715	1225	718	506	309	326	538	884	1004	1475	2254
W	1003	615	322	192	165	165	164	177	244	304	716	1085
AN	3052	2107	1031	182	170	164	166	170	216	338	951	1657
BN	2494	2298	1928	360	178	166	180	178	228	494	1205	2545
D	2661	1957	1321	741	521	202	222	344	793	1114	1775	2388
C	2332	2127	1807	1407	968	597	633	1200	1868	1846	2105	3264

Sacramento River at Emmaton Salinity Alternative (Existing Alt 1 & 2) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	398	775	1081	1180	903	516	675	1625	2101	1246	1926	3087
1977	2853	2687	2561	2244	1498	1242	1088	1819	2295	1796	2284	3620
1978	3601	2860	1465	195	169	167	166	166	184	297	999	1731
1979	2476	2291	1943	363	178	166	180	178	228	495	1201	2529
1980	2496	1353	597	170	170	160	166	174	249	380	903	1562
1981	2324	2483	1316	398	195	162	181	294	736	1139	1911	2518
1982	1863	235	159	169	160	166	162	156	161	266	1023	892
1983	215	159	155	166	169	171	159	153	152	157	202	166
1984	167	154	164	158	159	156	164	203	349	357	886	1896
1985	2431	324	193	408	401	272	325	303	720	1038	1481	1835
1986	1759	1911	822	279	173	166	170	196	314	439	755	1367
1987	2119	2485	1945	1112	462	196	218	553	974	1208	2079	2964
1988	2590	2257	1140	290	235	466	675	929	1087	1648	2272	2817
1989	3731	2510	1842	1046	1026	176	162	228	744	1077	1573	2184
1990	2080	1944	1751	765	366	487	506	1016	2126	2122	2103	3369
1991	3761	2978	2528	2551	1838	284	231	608	1749	2421	1933	3390
Avg	2179	1713	1229	718	506	310	327	538	885	1005	1471	2245
W	1001	615	325	193	165	165	164	177	244	305	717	1080
AN	3049	2106	1031	182	170	164	166	170	216	338	951	1647
BN	2476	2291	1943	363	178	166	180	178	228	495	1201	2529
D	2651	1950	1324	741	521	202	222	344	793	1115	1761	2375
C	2336	2128	1812	1406	968	599	635	1199	1872	1847	2103	3256

Appendix C-4 DSM2 Delta Modeling

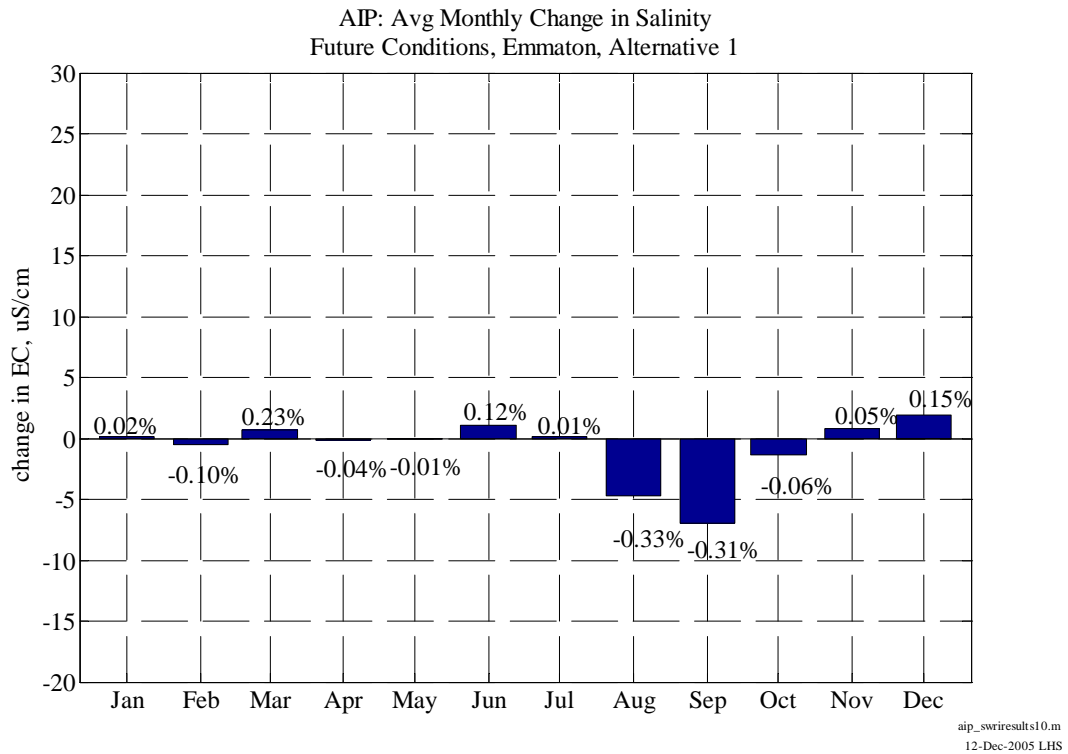
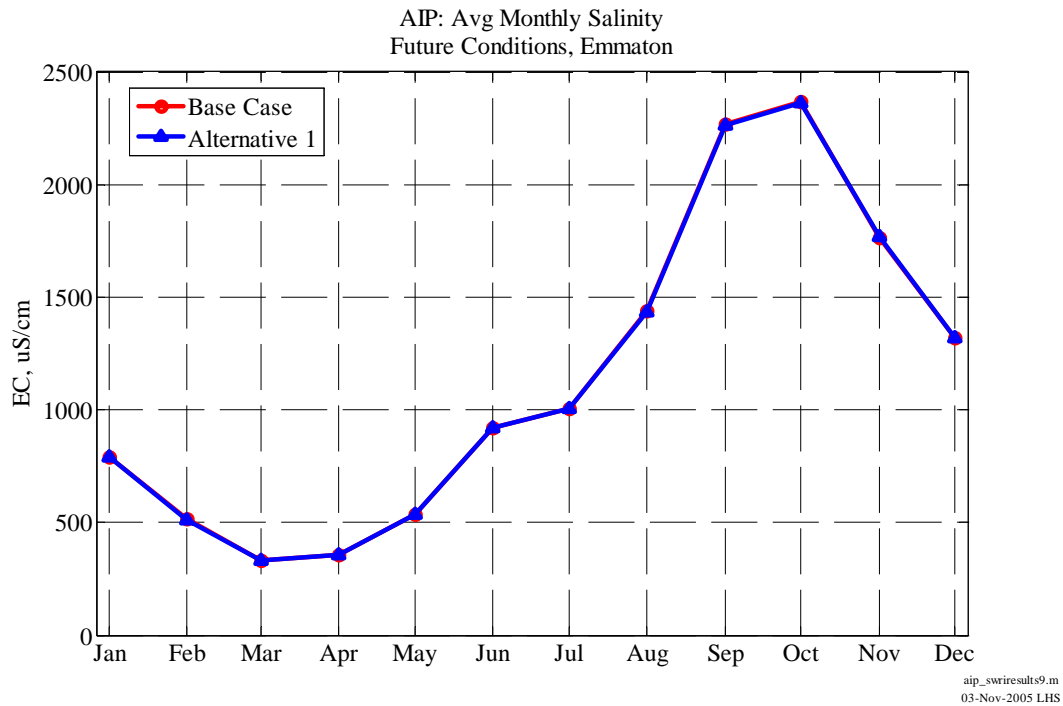
Sacramento River at Emmaton Salinity Difference (Existing Alt 1 & 2 minus Existing Base) Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	0	-3	2	10	5	1	0	0	-4	-2	2	-21
1977	-9	-1	7	-17	-3	7	5	0	0	1	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	-12
1979	-18	-7	15	3	0	0	0	0	0	1	-4	-16
1980	-7	-2	0	0	0	0	0	0	0	0	0	-8
1981	-14	-14	11	3	0	0	0	0	0	-1	-15	-12
1982	-3	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	-12
1985	-7	1	0	-10	-8	-1	0	0	0	-2	-10	-9
1986	-4	-3	14	4	0	0	0	0	0	2	2	-6
1987	-9	-7	10	11	3	0	0	0	0	10	-15	-17
1988	-5	-4	24	5	1	2	0	-1	9	15	-10	-17
1989	-9	-6	-8	-5	5	0	0	0	0	1	-14	-14
1990	10	6	-6	-5	-2	1	2	-1	14	-8	-2	0
1991	24	6	0	1	-3	0	0	0	-1	-1	0	0
Avg	-3	-2	4	0	0	1	1	0	1	1	-4	-9
W	-2	-1	3	1	0	0	0	0	0	0	0	-4
AN	-4	-1	0	0	0	0	0	0	0	0	0	-10
BN	-18	-7	15	3	0	0	0	0	0	1	-4	-16
D	-10	-6	3	0	0	0	0	0	0	2	-14	-13
C	4	1	5	-1	0	2	2	0	4	1	-2	-7

Sacramento River at Emmaton Salinity Percent Difference (Existing Alt 1 & 2 minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	0.0	-0.4	0.2	0.8	0.6	0.2	0.1	0.0	-0.2	-0.2	0.1	-0.7
1977	-0.3	0.0	0.3	-0.8	-0.2	0.6	0.5	0.0	0.0	0.0	0.0	0.0
1978	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.7
1979	-0.7	-0.3	0.8	0.8	0.0	0.1	0.0	0.0	0.1	0.3	-0.4	-0.6
1980	-0.3	-0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	-0.5
1981	-0.6	-0.5	0.8	0.9	0.1	-0.1	0.0	0.0	0.1	-0.1	-0.8	-0.5
1982	-0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

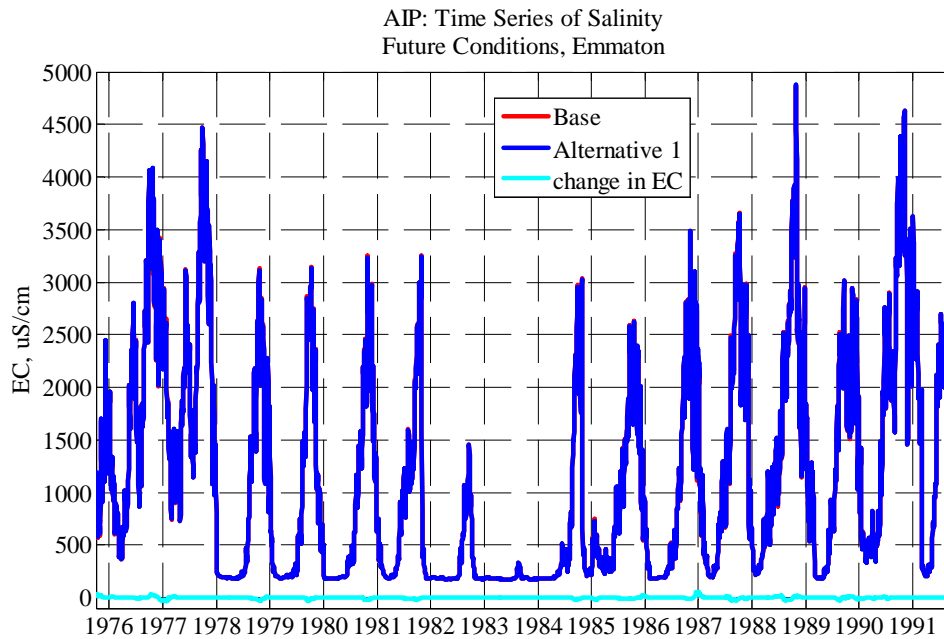
Appendix C-4 DSM2 Delta Modeling

Sacramento River at Emmaton Salinity Percent Difference (Existing Alt 1 & 2 minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1983	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6
1985	-0.3	0.3	-0.1	-2.4	-1.9	-0.3	-0.1	0.0	0.0	-0.2	-0.7	-0.5
1986	-0.3	-0.2	1.7	1.4	0.0	0.0	0.1	0.0	0.1	0.4	0.2	-0.4
1987	-0.4	-0.3	0.5	1.0	0.8	0.2	0.0	0.0	0.0	0.8	-0.7	-0.6
1988	-0.2	-0.2	2.1	1.9	0.3	0.5	0.0	-0.1	0.8	0.9	-0.4	-0.6
1989	-0.3	-0.2	-0.4	-0.5	0.4	0.0	0.0	0.0	0.0	0.1	-0.9	-0.6
1990	0.5	0.3	-0.3	-0.6	-0.5	0.1	0.4	-0.1	0.7	-0.4	-0.1	0.0
1991	0.6	0.2	0.0	0.0	-0.2	0.0	0.1	-0.1	0.0	0.0	0.0	0.0
Avg	-0.2	-0.1	0.4	0.2	0.0	0.1	0.1	0.0	0.1	0.1	-0.2	-0.4
W	-0.1	0.0	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.1	0.1	-0.3
AN	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6
BN	-0.7	-0.3	0.8	0.8	0.0	0.1	0.0	0.0	0.1	0.3	-0.4	-0.6
D	-0.4	-0.2	0.2	-0.2	-0.1	-0.1	0.0	0.0	0.0	0.1	-0.8	-0.5
C	0.1	0.0	0.5	0.3	0.0	0.3	0.2	-0.1	0.3	0.1	-0.1	-0.2

Appendix C-4 DSM2 Delta Modeling



Appendix C-4 DSM2 Delta Modeling



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Sacramento River at Emmaton Salinity Base (Future Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	773	1262	1627	1255	764	480	740	1556	2293	1355	1836	3060
1977	3605	2868	2841	2404	1445	1281	1147	1876	2543	1568	2072	3639
1978	3733	2893	1380	220	193	191	187	187	209	310	1026	1631
1979	2553	2141	1555	488	206	189	197	207	253	511	1260	2572
1980	2458	1360	661	193	185	181	188	196	304	421	1064	1560
1981	2420	2420	1339	493	234	189	202	320	821	1108	1251	1856
1982	2626	391	180	192	180	188	178	178	185	290	747	1094
1983	434	184	179	188	182	180	180	176	174	179	260	199
1984	190	178	178	179	181	180	188	224	381	364	846	2207
1985	2202	372	241	500	444	299	340	297	767	1002	1292	2016
1986	2036	1818	975	431	183	180	192	209	326	428	945	1757
1987	2475	2398	2115	1111	443	223	244	541	976	1198	2076	3060
1988	2652	2408	1145	301	262	488	763	915	1147	1603	2261	2854
1989	3823	2325	1985	1069	1011	203	189	248	620	990	2023	2405
1990	1976	2154	1926	802	437	516	532	844	1947	2388	1995	3164
1991	3907	3091	2768	2836	1896	320	248	581	1751	2360	2081	3224

Appendix C-4 DSM2 Delta Modeling

Sacramento River at Emmaton Salinity Base (Future Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Avg	2366	1766	1319	791	515	331	357	535	919	1005	1440	2269
W	1321	642	378	247	182	182	184	197	266	315	699	1314
AN	3096	2127	1021	207	189	186	188	192	257	366	1045	1596
BN	2553	2141	1555	488	206	189	197	207	253	511	1260	2572
D	2730	1879	1420	793	533	229	244	351	796	1074	1660	2334
C	2582	2357	2061	1520	961	617	686	1155	1936	1855	2049	3188

Sacramento River at Emmaton Salinity Alternative (Future Alt 1, 2, 3) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	796	1273	1629	1264	769	482	740	1558	2292	1349	1836	3065
1977	3632	2883	2818	2377	1440	1288	1149	1876	2543	1568	2072	3639
1978	3734	2894	1381	220	193	191	187	187	209	310	1024	1624
1979	2532	2130	1562	489	206	189	197	207	253	512	1260	2548
1980	2449	1358	662	193	185	181	188	196	304	421	1064	1561
1981	2401	2405	1340	495	235	189	202	320	821	1102	1243	1841
1982	2617	392	180	192	180	189	178	178	185	290	746	1094
1983	434	184	179	188	182	180	180	176	174	179	260	199
1984	190	178	178	179	181	180	188	224	381	364	847	2192
1985	2194	373	241	488	436	298	340	297	768	998	1283	2005
1986	2030	1815	990	438	183	180	192	209	324	429	946	1756
1987	2464	2393	2149	1137	448	223	244	541	977	1208	2056	3039
1988	2647	2404	1149	302	262	491	763	915	1157	1617	2241	2834
1989	3829	2340	1985	1069	1011	203	189	248	620	990	2003	2401
1990	1985	2162	1916	797	434	518	529	843	1955	2381	1994	3164
1991	3907	3091	2769	2836	1894	320	248	581	1751	2358	2082	3224
Avg	2365	1767	1320	792	515	331	357	535	920	1005	1435	2262
W	1317	642	382	249	182	182	184	197	266	316	700	1310
AN	3091	2126	1021	207	189	186	188	192	257	366	1044	1592
BN	2532	2130	1562	489	206	189	197	207	253	512	1260	2548
D	2722	1878	1429	797	532	228	244	351	796	1075	1646	2321
C	2593	2363	2056	1515	960	620	686	1154	1940	1855	2045	3185

Appendix C-4 DSM2 Delta Modeling

Sacramento River at Emmaton Salinity Difference (Future Alt 1 & 2 minus Future Base) Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	23	11	2	9	5	2	0	1	-1	-6	1	5
1977	27	16	-23	-27	-5	7	1	0	0	0	0	0
1978	1	0	0	0	0	0	0	0	0	0	-2	-7
1979	-20	-11	7	1	0	0	0	0	0	1	0	-24
1980	-10	-2	0	0	0	0	0	0	0	0	0	1
1981	-19	-14	1	2	1	0	0	0	0	-6	-8	-15
1982	-10	1	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	-15
1985	-8	1	0	-12	-9	-2	0	0	0	-4	-9	-11
1986	-6	-3	15	7	0	0	0	0	-1	1	1	-1
1987	-11	-5	34	27	4	0	0	0	1	10	-20	-21
1988	-5	-4	4	1	0	3	0	-1	10	14	-20	-19
1989	7	15	0	0	0	0	0	0	0	0	-20	-4
1990	8	8	-10	-5	-3	1	-4	-1	8	-7	-1	0
1991	0	0	0	0	-2	0	0	0	0	-2	1	0
Avg	-1	1	2	0	-1	1	0	0	1	0	-5	-7
W	-4	0	4	2	0	0	0	0	0	0	0	-4
AN	-4	-1	0	0	0	0	0	0	0	0	-1	-3
BN	-20	-11	7	1	0	0	0	0	0	1	0	-24
D	-8	-1	9	4	-1	0	0	0	0	0	-14	-13
C	11	6	-5	-4	-1	3	0	0	3	0	-4	-3

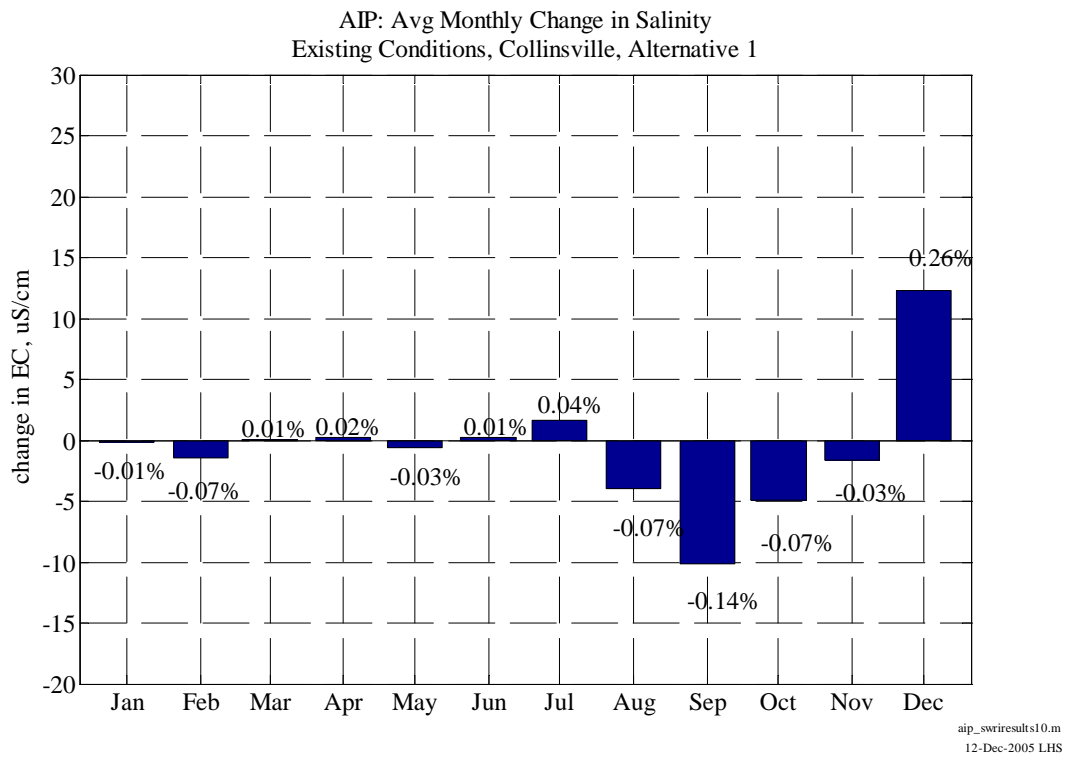
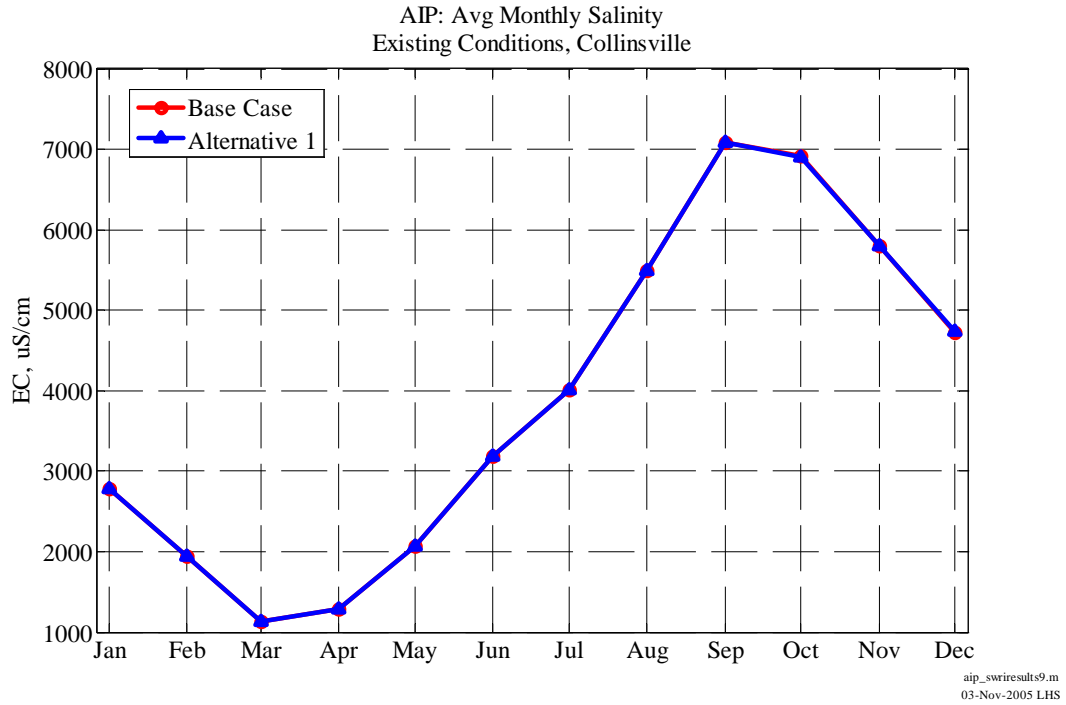
Sacramento River at Emmaton Salinity Percent Difference (Future Alt 1, 2, 3 minus Future Base divided by Future Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	3.0	0.8	0.1	0.7	0.6	0.3	0.0	0.1	-0.1	-0.4	0.0	0.2
1977	0.8	0.5	-0.8	-1.1	-0.4	0.6	0.1	0.0	0.0	0.0	0.0	0.0
1978	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.4
1979	-0.8	-0.5	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	-0.9
1980	-0.4	-0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1981	-0.8	-0.6	0.1	0.4	0.3	0.0	0.0	0.0	0.0	-0.5	-0.6	-0.8
1982	-0.4	0.3	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0

Appendix C-4 DSM2 Delta Modeling

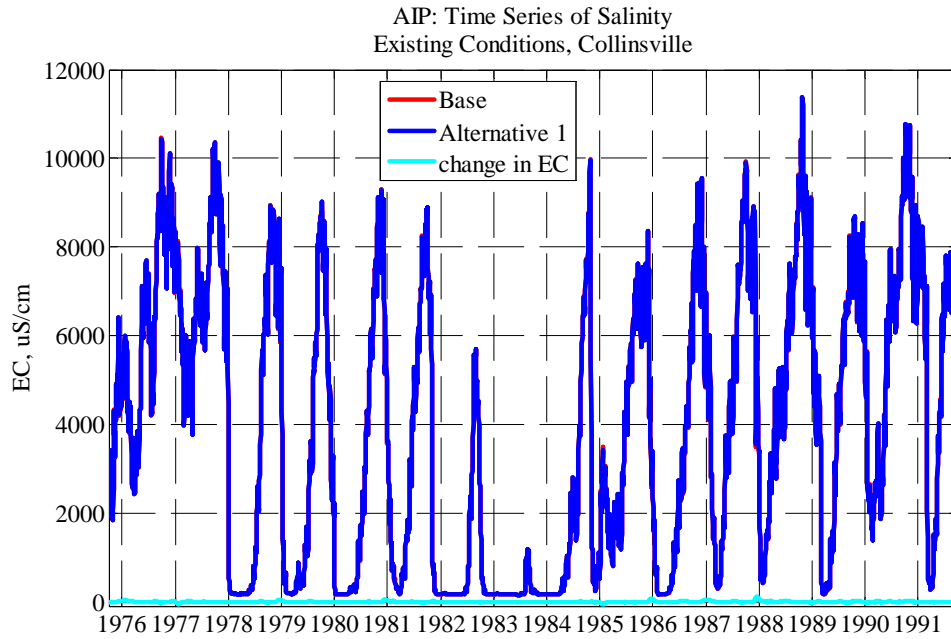
Sacramento River at Emmaton Salinity Percent Difference (Future Alt 1, 2, 3 minus Future Base divided by Future Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1983	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.7
1985	-0.3	0.2	0.0	-2.4	-1.9	-0.5	-0.1	0.0	0.0	-0.4	-0.7	-0.6
1986	-0.3	-0.1	1.5	1.7	0.0	0.0	0.2	0.1	-0.4	0.2	0.1	-0.1
1987	-0.5	-0.2	1.6	2.4	1.0	0.0	-0.1	0.0	0.1	0.8	-0.9	-0.7
1988	-0.2	-0.2	0.3	0.2	0.0	0.6	0.0	-0.1	0.9	0.9	-0.9	-0.7
1989	0.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	-1.0	-0.2
1990	0.4	0.4	-0.5	-0.7	-0.6	0.3	-0.7	-0.1	0.4	-0.3	-0.1	0.0
1991	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	-0.1	0.1	0.0
Avg	0.1	0.1	0.2	0.1	-0.1	0.1	0.0	0.0	0.1	0.0	-0.3	-0.3
W	-0.2	0.0	0.4	0.4	0.0	0.0	0.1	0.0	-0.1	0.1	0.0	-0.2
AN	-0.2	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.2
BN	-0.8	-0.5	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	-0.9
D	-0.3	0.0	0.4	0.1	-0.2	-0.1	0.0	0.0	0.0	0.0	-0.8	-0.6
C	0.8	0.3	-0.2	-0.2	-0.1	0.4	-0.1	0.0	0.2	0.0	-0.2	-0.1

Appendix C-4 DSM2 Delta Modeling

Collinsville

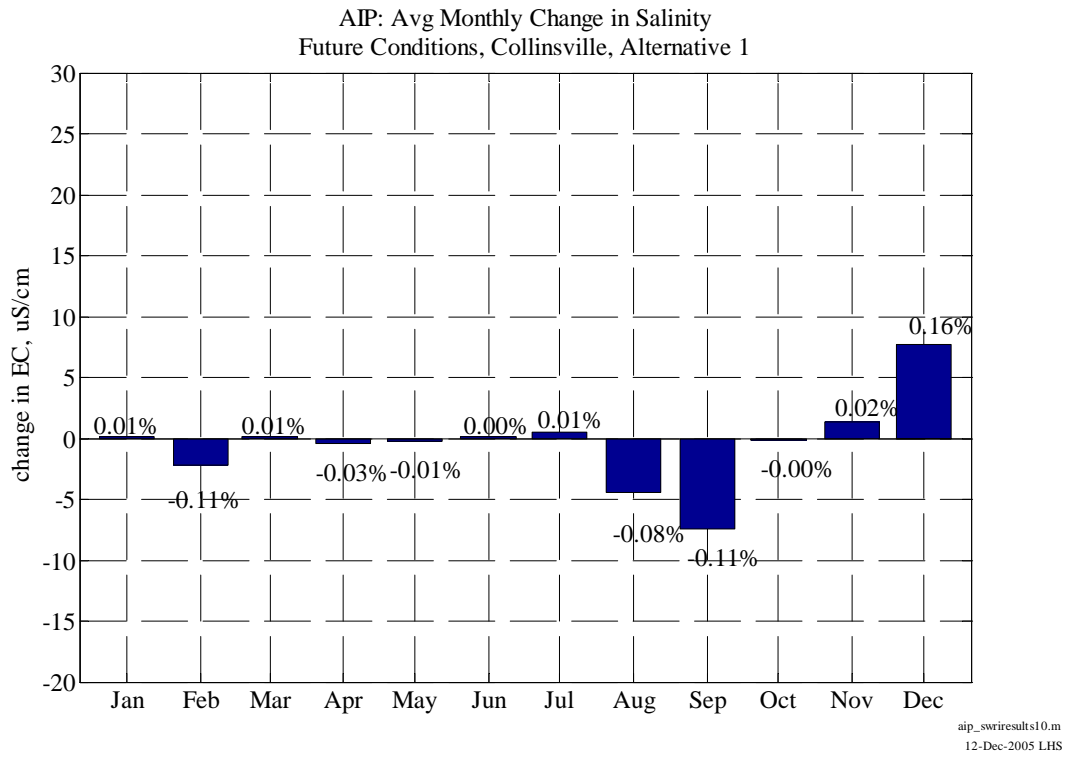
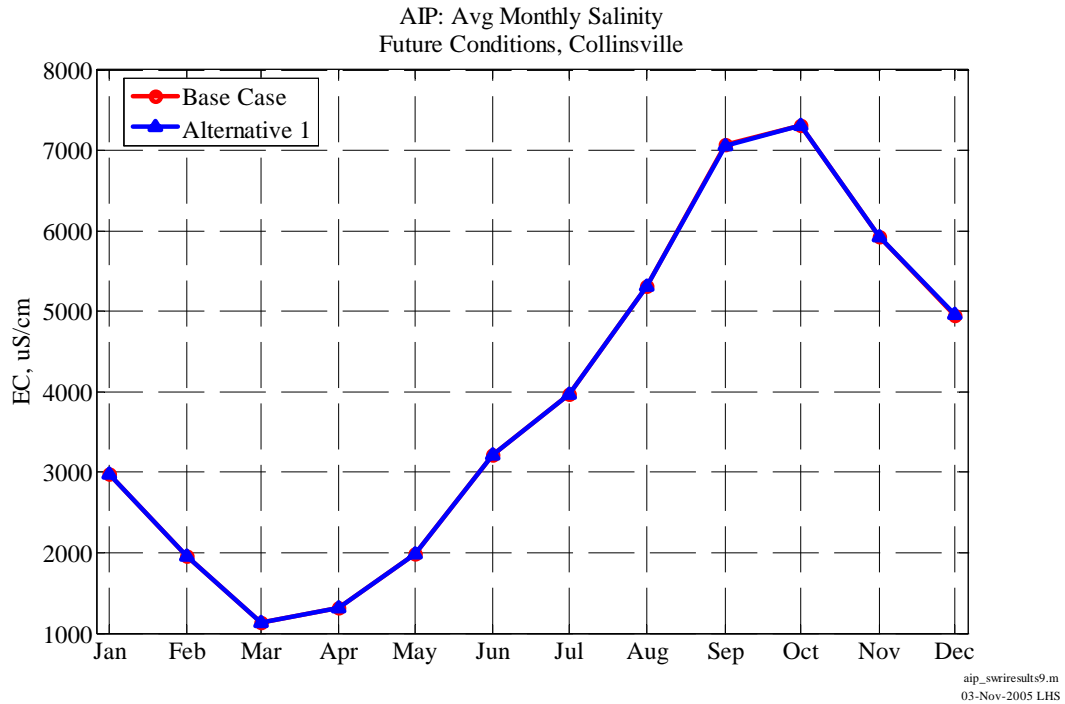


Appendix C-4 DSM2 Delta Modeling

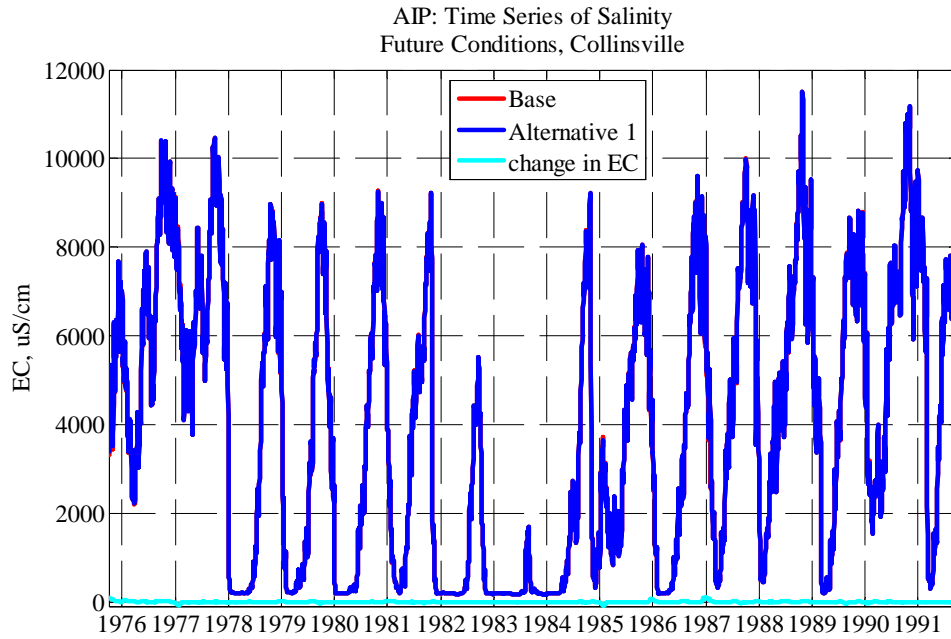


aip_swireresults10.m
22-Nov-2005 LHS

Appendix C-4 DSM2 Delta Modeling



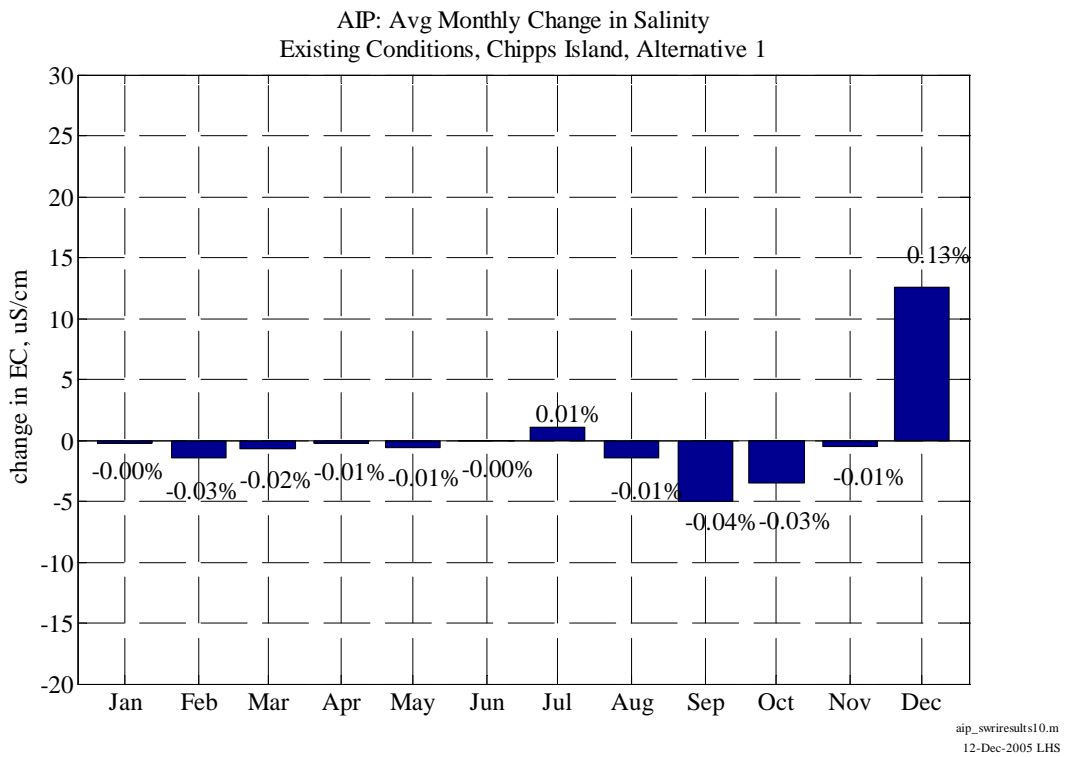
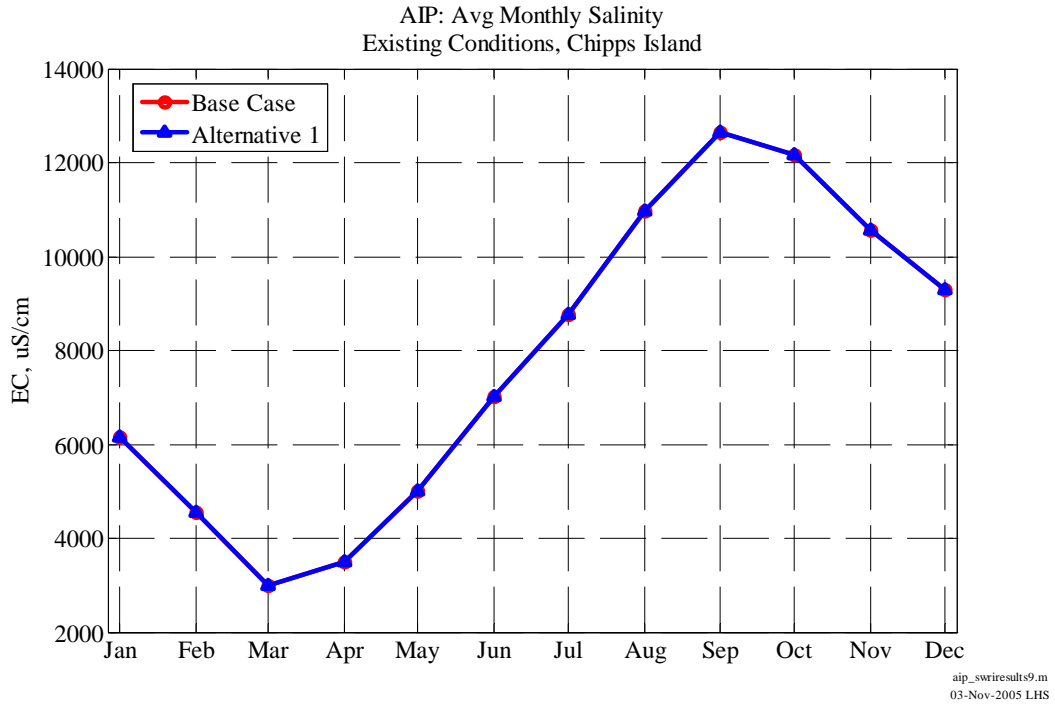
Appendix C-4 DSM2 Delta Modeling



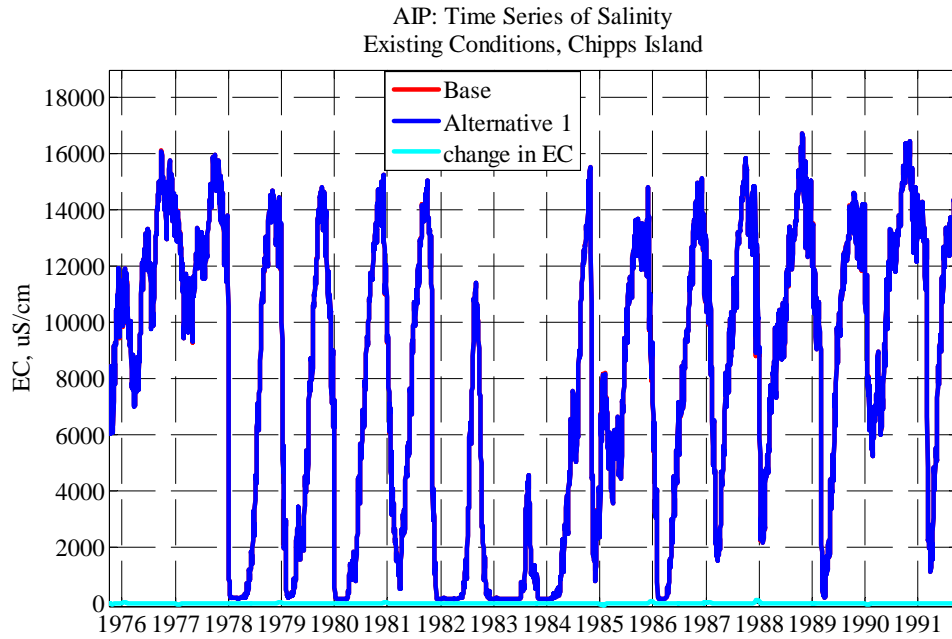
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22-Nov-2005 LHS

Appendix C-4 DSM2 Delta Modeling

Chipps Island

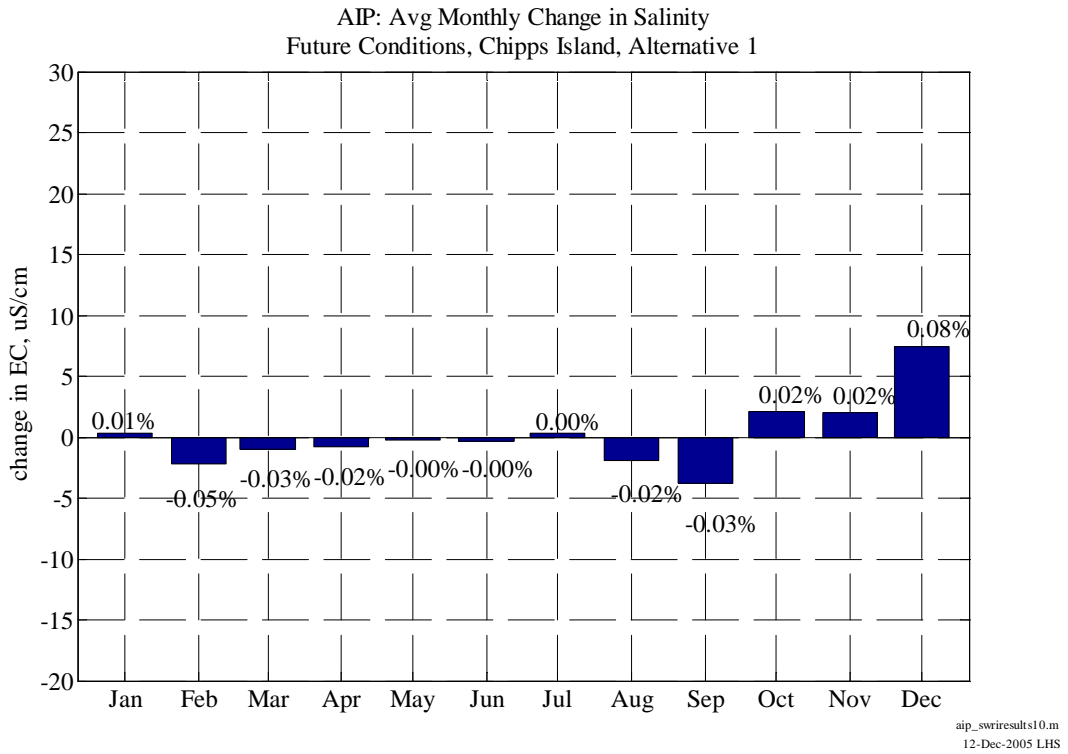
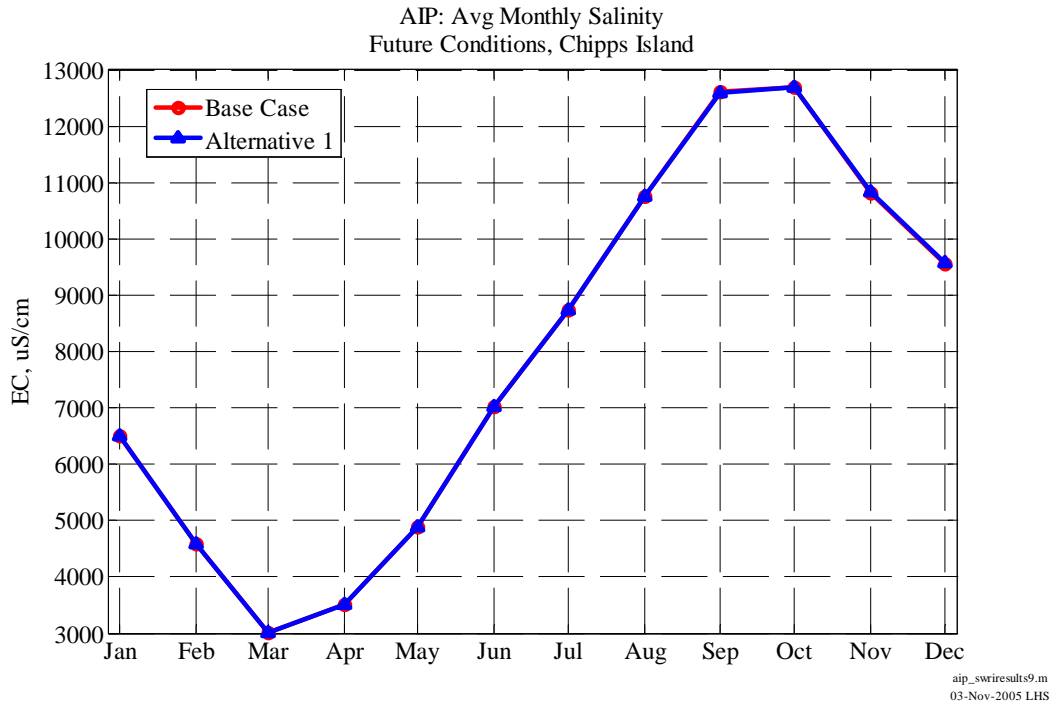


Appendix C-4 DSM2 Delta Modeling



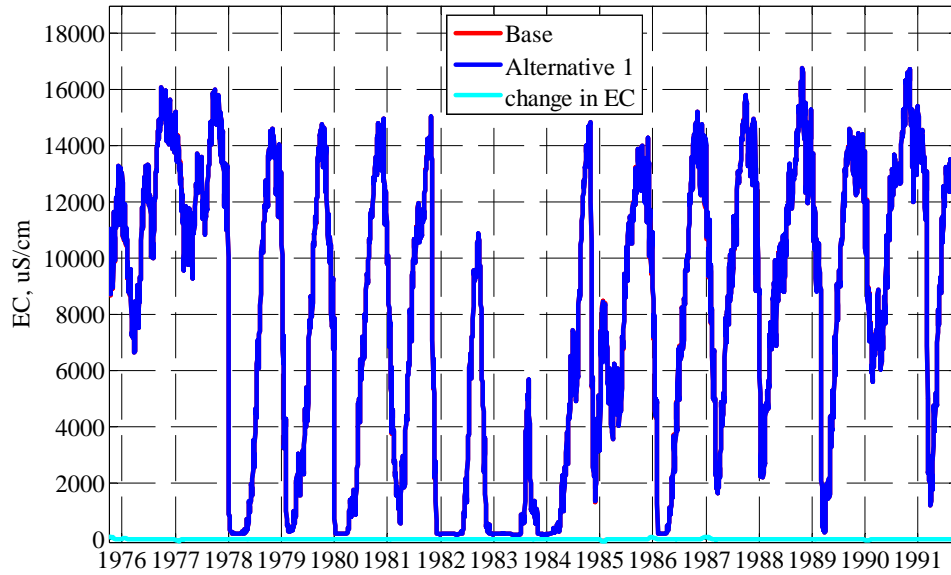
aip_swireresults10.m
22-Nov-2005 LHS

Appendix C-4 DSM2 Delta Modeling



Appendix C-4 DSM2 Delta Modeling

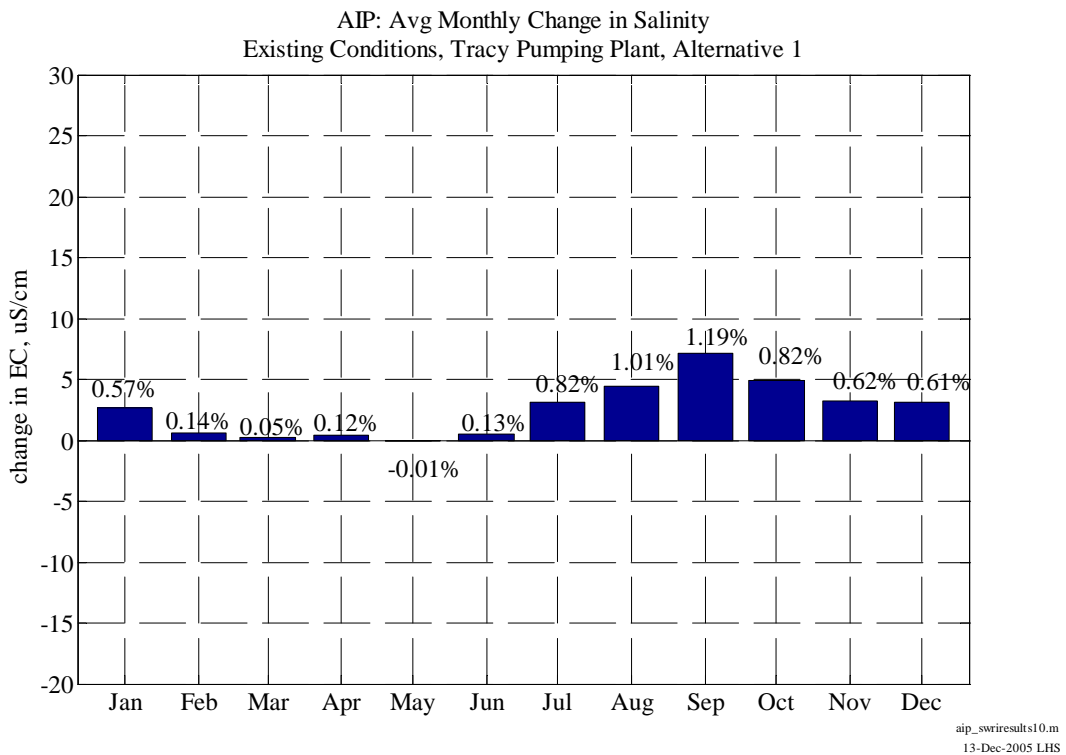
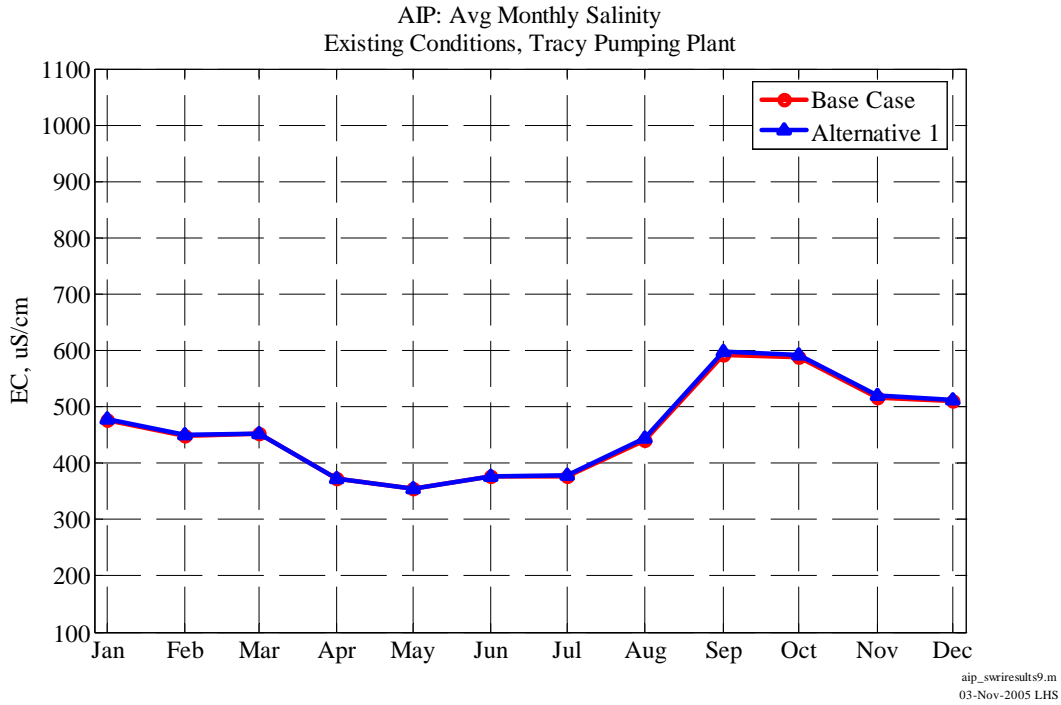
AIP: Time Series of Salinity
Future Conditions, Chipps Island



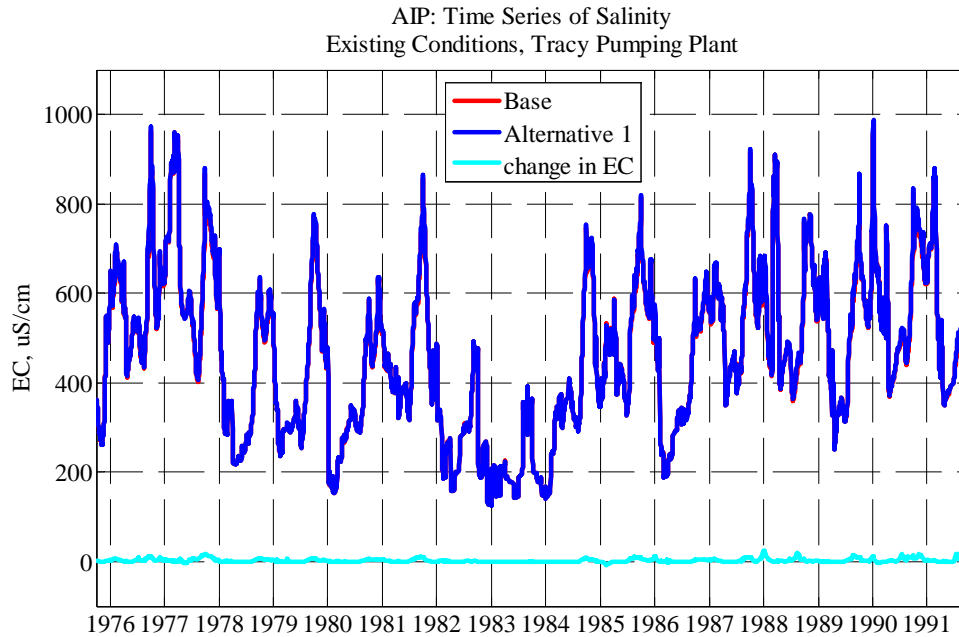
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22-Nov-2005 LHS

Appendix C-4 DSM2 Delta Modeling

Tracy Pumping Plant



Appendix C-4 DSM2 Delta Modeling



aip_swresults10.m
22-Nov-2005 LHS

Tracy Pumping Plant Salinity Base (Existing Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	308	298	523	605	673	618	504	467	533	501	475	701
1977	746	555	638	703	854	913	682	553	586	498	428	629
1978	779	713	629	496	301	348	224	229	246	279	353	558
1979	540	521	571	394	251	292	298	314	322	290	427	646
1980	702	531	487	204	160	222	271	302	340	301	336	496
1981	478	496	569	465	435	391	373	382	356	434	571	713
1982	686	442	405	335	200	259	164	199	278	302	340	460
1983	214	257	138	207	152	207	187	178	145	194	323	350
1984	210	180	159	148	237	329	341	357	377	316	345	593
1985	668	604	396	392	496	490	454	429	369	435	596	703
1986	647	559	568	475	270	192	232	288	336	324	350	496
1987	525	553	602	557	636	585	443	413	448	413	533	724
1988	762	556	623	584	462	838	506	441	480	383	428	527
1989	722	711	581	593	652	471	330	332	344	386	557	680
1990	656	558	611	764	599	546	518	407	463	500	463	597
1991	751	722	648	685	815	530	424	373	396	454	506	594

Appendix C-4 DSM2 Delta Modeling

Tracy Pumping Plant Salinity Base (Existing Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Avg	587	516	509	475	449	452	372	354	376	376	440	592
W	439	359	317	291	215	247	231	255	284	284	340	475
AN	740	622	558	350	230	285	248	266	293	290	345	527
BN	540	521	571	394	251	292	298	314	322	290	427	646
D	598	591	537	502	555	484	400	389	379	417	564	705
C	645	538	609	668	680	689	527	448	491	467	460	610

Tracy Pumping Plant Salinity Alternative (Existing Alt 1 & 2) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	309	298	524	610	679	621	505	467	535	505	478	711
1977	753	559	643	706	854	914	685	550	588	504	435	643
1978	793	722	632	496	301	348	224	229	246	279	355	563
1979	547	526	575	395	251	292	299	314	322	289	430	653
1980	707	533	491	204	160	222	272	301	340	301	337	499
1981	483	501	574	468	435	392	374	382	356	437	579	722
1982	690	442	405	336	200	259	164	199	278	303	341	461
1983	214	257	138	207	152	207	187	178	145	194	323	350
1984	211	180	159	148	237	329	341	357	377	316	346	599
1985	674	608	397	391	490	487	454	429	369	439	605	712
1986	653	561	573	481	270	193	232	288	336	324	349	497
1987	529	558	606	561	640	587	443	413	448	414	537	733
1988	767	557	634	600	465	838	507	442	482	388	443	532
1989	723	712	582	593	653	471	330	333	344	389	565	691
1990	661	559	615	768	596	545	519	408	464	512	470	607
1991	759	736	652	687	816	531	424	374	396	466	512	609
Avg	592	519	512	478	450	452	372	354	377	379	444	599
W	442	360	319	293	215	247	231	255	284	284	340	477
AN	750	628	561	350	230	285	248	265	293	290	346	531
BN	547	526	575	395	251	292	299	314	322	289	430	653
D	602	595	540	503	555	484	400	389	379	420	572	715
C	650	542	614	674	682	690	528	448	493	475	468	620

Appendix C-4 DSM2 Delta Modeling

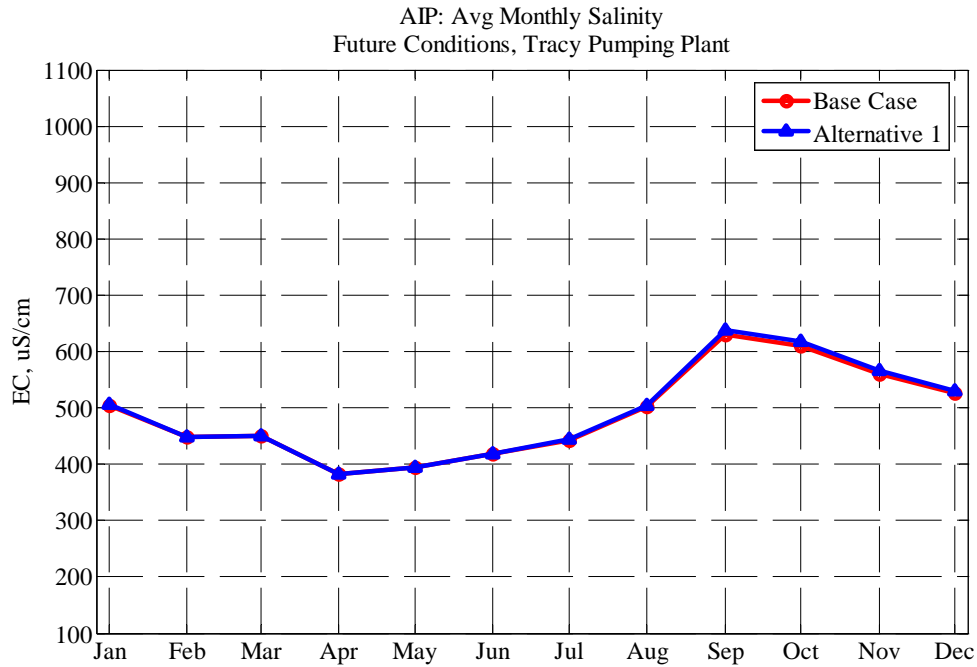
Tracy Pumping Plant Salinity Difference (Existing Alt 1 & 2 minus Existing Base) Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	1	0	1	4	6	3	0	0	2	5	3	10
1977	7	3	5	3	1	1	3	-3	2	6	6	14
1978	14	10	3	0	0	0	0	0	0	0	1	5
1979	7	4	4	2	0	0	1	0	0	0	2	7
1980	5	2	3	0	0	0	0	-1	0	0	1	3
1981	5	4	4	3	1	0	0	0	0	4	8	9
1982	5	1	0	1	1	0	0	0	0	1	1	1
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	1	6
1985	6	3	1	-1	-6	-2	0	0	0	4	8	9
1986	5	2	5	5	0	1	0	0	0	0	-1	1
1987	4	5	4	4	5	1	0	0	0	1	5	9
1988	5	1	11	16	3	0	1	1	2	5	15	5
1989	1	1	1	1	0	0	0	0	0	3	9	11
1990	5	1	4	4	-3	-1	1	1	1	11	7	11
1991	8	13	4	2	2	0	0	0	0	12	6	14
Avg	5	3	3	3	1	0	0	0	0	3	4	7
W	2	1	1	1	0	0	0	0	0	0	0	2
AN	10	6	3	0	0	0	0	0	0	0	1	4
BN	7	4	4	2	0	0	1	0	0	0	2	7
D	4	3	3	2	0	0	0	0	0	3	7	9
C	5	4	5	6	2	1	1	0	1	8	8	11

Tracy Pumping Plant Salinity Percent Difference (Existing Alt 1 & 2 minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	0.3	-0.1	0.2	0.7	0.9	0.4	0.1	0.0	0.4	0.9	0.6	1.4
1977	0.9	0.6	0.8	0.4	0.1	0.1	0.4	-0.5	0.3	1.2	1.5	2.2
1978	1.8	1.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.9
1979	1.2	0.9	0.6	0.4	0.1	0.0	0.2	0.0	0.0	-0.2	0.5	1.1
1980	0.7	0.5	0.7	0.1	0.1	0.1	0.0	-0.2	0.0	0.0	0.3	0.7
1981	1.0	0.9	0.8	0.7	0.2	0.1	0.1	0.0	0.0	0.8	1.4	1.3
1982	0.7	0.2	0.0	0.2	0.3	0.0	0.0	0.0	0.0	0.2	0.2	0.2

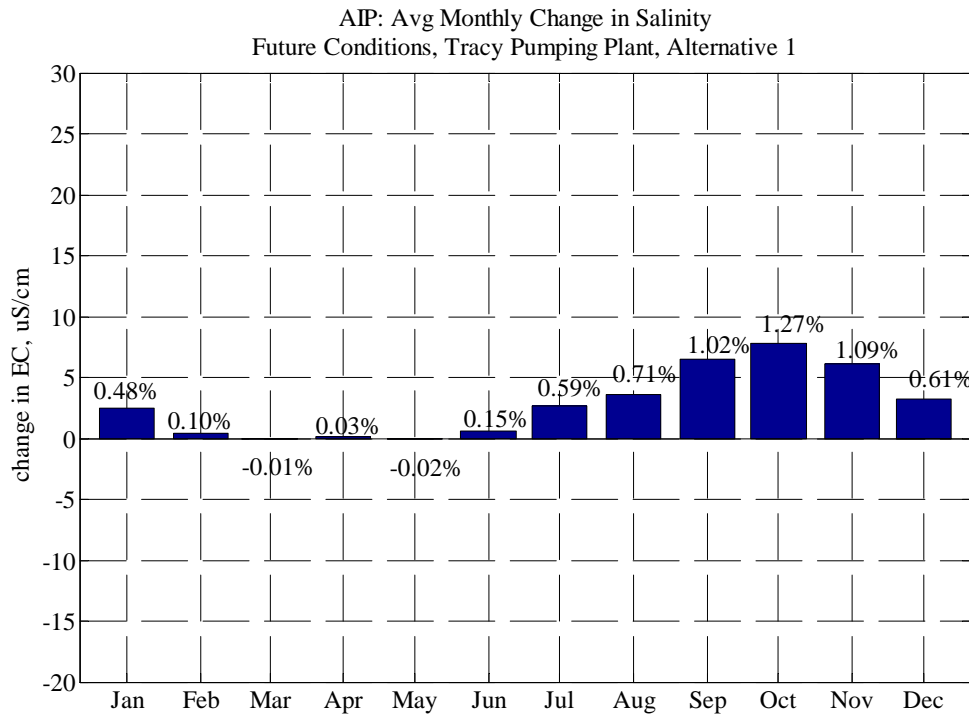
Appendix C-4 DSM2 Delta Modeling

Tracy Pumping Plant Salinity Percent Difference (Existing Alt 1 & 2 minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1983	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.1
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0
1985	0.9	0.6	0.1	-0.3	-1.2	-0.5	-0.1	0.0	0.0	0.8	1.4	1.3
1986	0.8	0.4	0.9	1.1	0.0	0.4	0.1	0.0	0.0	-0.1	-0.3	0.1
1987	0.8	0.8	0.6	0.6	0.7	0.2	0.1	0.0	0.0	0.2	0.8	1.2
1988	0.7	0.2	1.8	2.7	0.6	0.0	0.2	0.1	0.4	1.3	3.5	0.9
1989	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.1	0.0	0.7	1.6	1.6
1990	0.8	0.3	0.7	0.5	-0.4	-0.2	0.1	0.3	0.3	2.2	1.5	1.8
1991	1.0	1.8	0.6	0.4	0.2	0.1	0.1	0.1	0.0	2.7	1.3	2.4
Avg	0.7	0.5	0.5	0.5	0.1	0.1	0.1	0.0	0.1	0.7	0.9	1.1
W	0.4	0.1	0.2	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.4
AN	1.3	0.9	0.5	0.1	0.0	0.1	0.0	-0.1	0.0	0.0	0.3	0.8
BN	1.2	0.9	0.6	0.4	0.1	0.0	0.2	0.0	0.0	-0.2	0.5	1.1
D	0.7	0.6	0.4	0.3	-0.1	0.0	0.0	0.0	0.0	0.6	1.3	1.3
C	0.7	0.5	0.8	0.9	0.3	0.1	0.2	0.0	0.3	1.7	1.7	1.7

Appendix C-4 DSM2 Delta Modeling

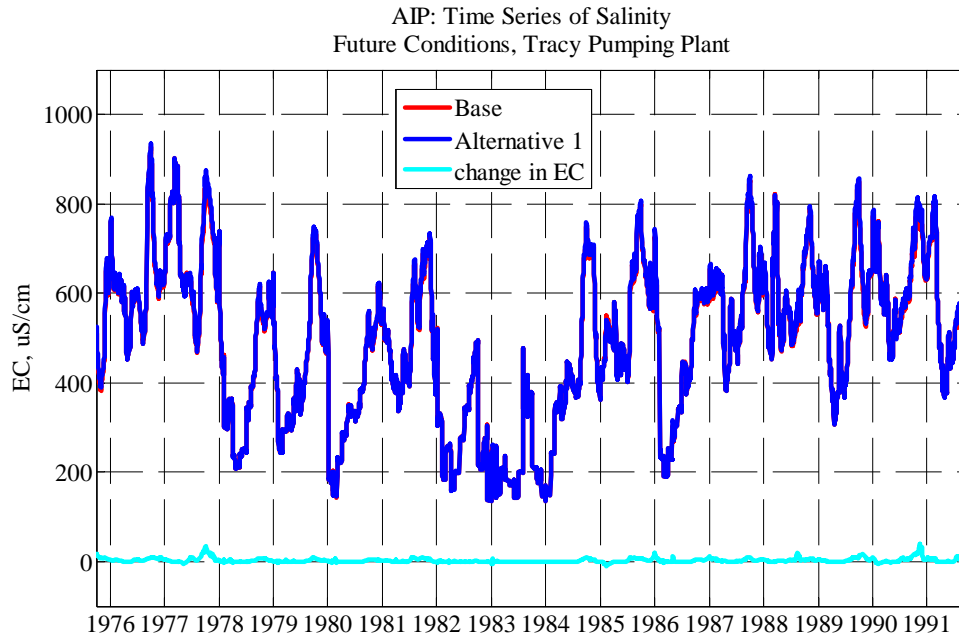


aip_swresults9.m
03-Nov-2005 LHS



aip_swresults10.m
13-Dec-2005 LHS

Appendix C-4 DSM2 Delta Modeling



aip_swresults10.m
22-Nov-2005 LHS

Tracy Pumping Plant Salinity Base (Future Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	430	433	632	673	619	610	521	516	592	568	526	823
1977	764	616	627	708	795	853	693	623	629	553	513	734
1978	823	750	640	505	313	352	229	223	248	335	400	548
1979	552	542	571	456	256	290	312	333	400	369	462	659
1980	702	555	504	206	158	220	280	321	337	332	384	488
1981	500	525	571	524	480	398	374	417	417	529	593	614
1982	674	661	439	333	192	253	165	197	275	337	392	469
1983	228	260	150	249	155	205	186	173	145	198	355	369
1984	222	180	161	151	236	342	354	393	421	381	426	669
1985	697	648	418	424	524	502	485	451	448	515	651	758
1986	686	604	609	587	254	192	233	290	341	427	400	526
1987	581	590	586	627	625	629	452	485	501	494	590	779
1988	753	584	638	598	483	736	535	530	564	502	554	619
1989	721	713	583	620	633	478	346	421	407	452	633	802
1990	681	545	638	702	677	587	541	498	523	554	588	652
1991	743	755	656	693	781	560	414	432	451	525	557	581

Appendix C-4 DSM2 Delta Modeling

Tracy Pumping Plant Salinity Base (Future Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Avg	610	560	526	503	449	451	383	394	419	442	501	631
W	453	426	340	330	209	248	235	263	295	336	393	508
AN	762	653	572	356	236	286	255	272	293	333	392	518
BN	552	542	571	456	256	290	312	333	400	369	462	659
D	625	619	540	549	566	502	414	444	443	497	617	738
C	674	587	638	675	671	669	541	520	552	540	548	682

Tracy Pumping Plant Salinity Alternative (Future Alt 1, 2, 3) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	441	441	637	676	622	612	522	516	595	571	528	829
1977	773	623	634	712	795	853	693	620	633	560	518	753
1978	846	764	642	506	313	353	229	223	248	335	401	552
1979	558	548	573	456	256	291	313	333	400	369	464	666
1980	708	558	507	206	158	221	280	321	337	332	384	489
1981	505	529	575	526	481	398	375	417	417	535	599	621
1982	682	666	439	333	192	253	165	197	275	337	392	470
1983	228	260	150	249	155	205	186	173	145	198	355	369
1984	222	180	161	151	236	342	354	393	421	381	427	676
1985	704	653	418	422	516	499	484	451	448	520	659	766
1986	692	606	616	595	255	192	233	293	341	427	399	528
1987	585	594	592	633	630	631	453	485	501	495	593	788
1988	759	585	642	601	484	735	537	531	566	505	566	622
1989	725	719	585	623	635	477	346	421	407	454	640	812
1990	696	554	642	705	673	586	541	497	523	560	593	661
1991	760	781	662	700	787	560	413	432	451	533	563	591
Avg	618	566	530	506	449	450	383	394	419	445	505	637
W	456	428	342	332	209	248	235	264	295	336	393	511
AN	777	661	575	356	236	287	254	272	293	333	392	521
BN	558	548	573	456	256	291	313	333	400	369	464	666
D	629	623	542	551	566	501	414	444	443	501	623	747
C	686	597	643	679	672	669	541	519	554	546	554	691

Appendix C-4 DSM2 Delta Modeling

Tracy Pumping Plant Salinity Difference (Future Alt 1 & 2 minus Future Base) Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	11	8	5	3	4	2	0	0	4	4	2	6
1977	9	7	7	4	1	0	0	-4	5	7	4	19
1978	24	14	2	0	0	1	0	0	0	0	1	4
1979	7	5	2	0	0	1	0	0	0	0	2	6
1980	6	3	3	0	0	0	0	0	0	0	0	2
1981	4	4	3	2	1	0	0	0	0	6	7	7
1982	8	4	0	0	0	0	0	0	0	0	0	1
1983	0	0	-1	1	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	1	7
1985	7	4	0	-1	-8	-4	-1	0	0	5	8	8
1986	6	2	7	9	0	0	0	2	0	0	-1	2
1987	4	3	6	7	5	2	1	0	0	1	3	9
1988	6	2	4	3	0	-1	2	1	2	3	12	4
1989	3	6	2	3	2	0	0	0	0	2	7	9
1990	15	9	4	3	-4	-1	0	-1	0	7	5	9
1991	16	25	5	7	6	0	0	0	0	7	6	10
Avg	8	6	3	2	0	0	0	0	1	3	4	6
W	3	2	2	2	0	0	0	1	0	0	0	2
AN	15	9	3	0	0	1	0	0	0	0	1	3
BN	7	5	2	0	0	1	0	0	0	0	2	6
D	5	5	3	3	0	-1	0	0	0	4	6	8
C	11	10	5	4	1	0	0	-1	2	6	6	10

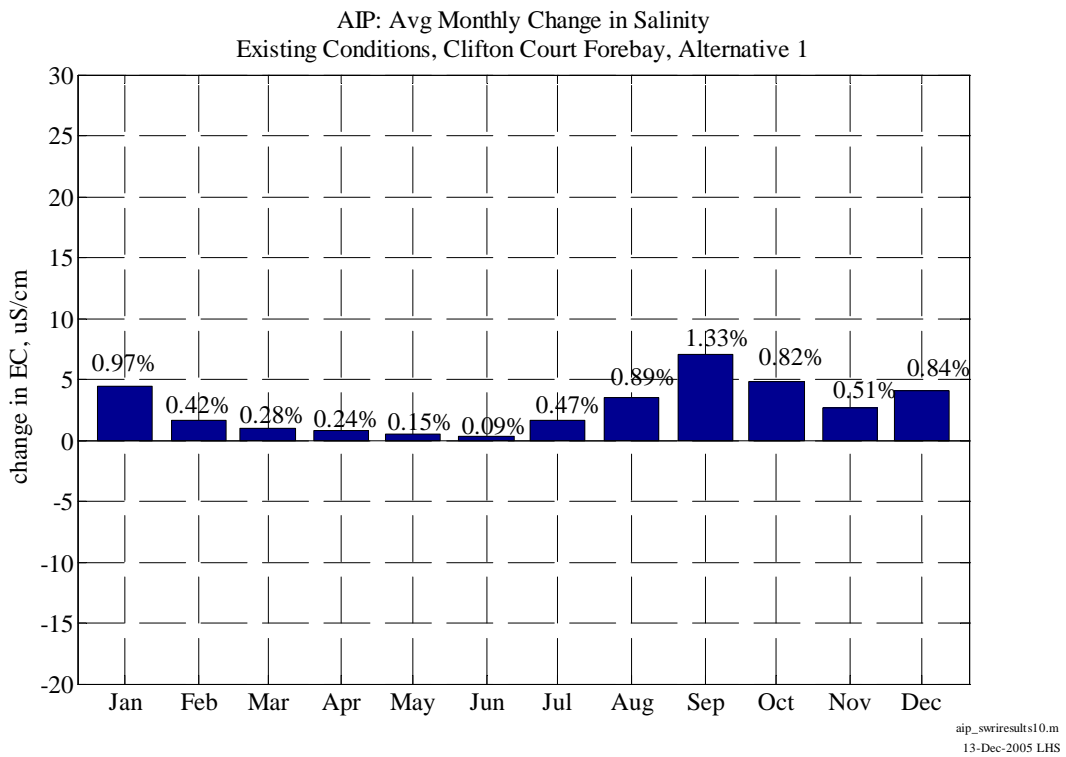
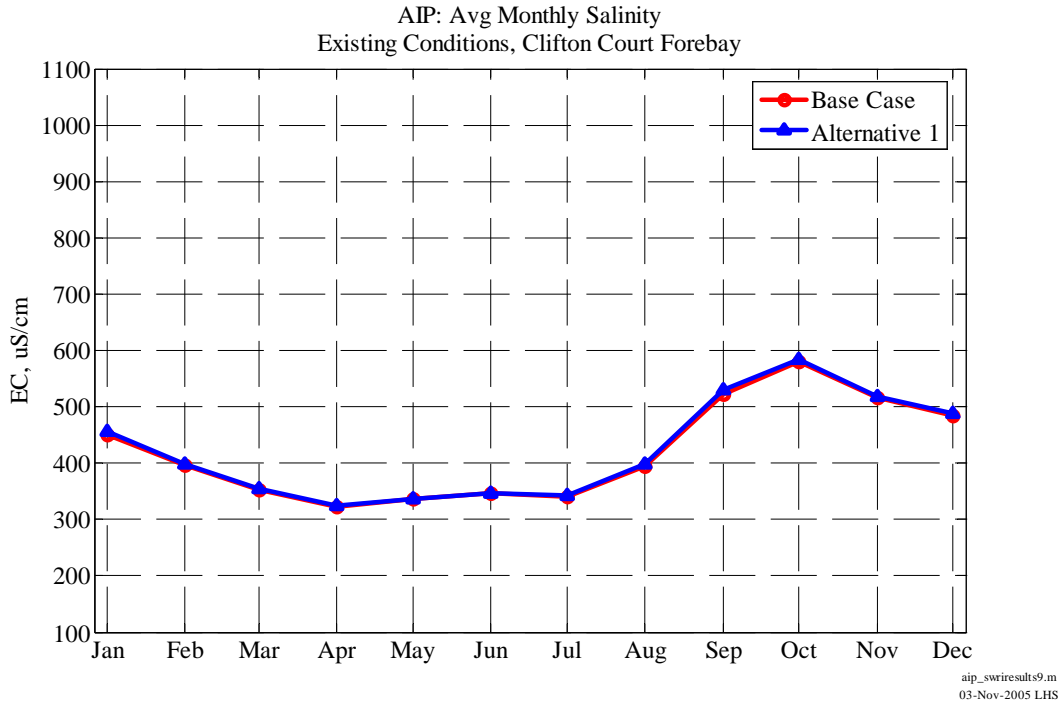
Tracy Pumping Plant Salinity Percent Difference (Future Alt 1, 2, 3) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	2.6	1.8	0.9	0.4	0.6	0.3	0.0	0.0	0.6	0.7	0.4	0.7
1977	1.2	1.1	1.2	0.5	0.1	0.0	0.0	-0.6	0.7	1.2	0.9	2.6
1978	2.9	1.9	0.4	0.0	0.0	0.3	-0.2	0.1	0.0	0.0	0.3	0.8
1979	1.2	1.0	0.4	0.0	0.1	0.3	0.1	0.0	0.0	0.0	0.4	0.9
1980	0.9	0.5	0.6	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.4
1981	0.9	0.8	0.5	0.3	0.3	0.0	0.1	0.0	0.0	1.2	1.1	1.2
1982	1.1	0.7	0.1	0.0	-0.1	0.0	-0.2	0.1	0.0	0.0	0.0	0.2
1983	0.0	0.0	-0.4	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.0

Appendix C-4 DSM2 Delta Modeling

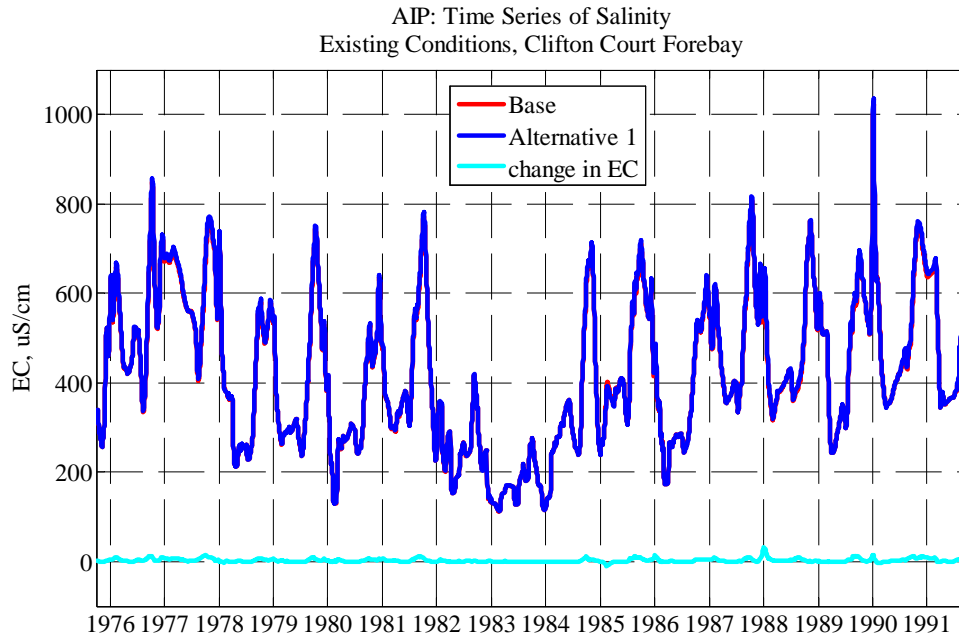
Tracy Pumping Plant Salinity Percent Difference (Future Alt 1, 2, 3) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1985	1.0	0.7	0.1	-0.3	-1.6	-0.7	-0.1	0.0	0.0	1.0	1.2	1.0
1986	0.8	0.4	1.2	1.5	0.0	0.0	0.0	0.8	0.0	-0.1	-0.2	0.3
1987	0.7	0.6	1.0	1.1	0.9	0.2	0.2	0.0	0.0	0.1	0.5	1.2
1988	0.8	0.3	0.6	0.5	0.1	-0.1	0.4	0.2	0.3	0.7	2.1	0.6
1989	0.4	0.9	0.4	0.5	0.3	-0.1	0.0	0.0	0.0	0.4	1.1	1.2
1990	2.2	1.6	0.6	0.4	-0.6	-0.2	-0.1	-0.3	0.0	1.3	0.9	1.4
1991	2.2	3.4	0.8	1.0	0.8	0.0	-0.1	0.0	0.0	1.4	1.0	1.7
Avg	1.2	1.0	0.5	0.4	0.1	0.0	0.0	0.0	0.1	0.5	0.6	1.0
W	0.5	0.3	0.2	0.4	0.0	0.0	-0.1	0.2	0.0	0.0	0.0	0.4
AN	1.9	1.2	0.5	0.1	0.0	0.2	-0.1	0.0	0.0	0.0	0.1	0.6
BN	1.2	1.0	0.4	0.0	0.1	0.3	0.1	0.0	0.0	0.0	0.4	0.9
D	0.7	0.7	0.5	0.4	0.0	-0.1	0.0	0.0	0.0	0.7	1.0	1.1
C	1.8	1.6	0.8	0.6	0.2	0.0	0.1	-0.1	0.3	1.0	1.1	1.4

Appendix C-4 DSM2 Delta Modeling

Clifton Court Forebay



Appendix C-4 DSM2 Delta Modeling



aip_swresults10.m
22-Nov-2005 LHS

Clifton Court Forebay Salinity Base (Existing Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	306	291	491	580	632	507	430	436	512	474	369	610
1977	744	546	693	676	681	680	640	584	560	535	435	559
1978	733	733	609	562	385	367	240	245	256	237	304	506
1979	541	509	560	422	282	283	294	303	290	258	391	592
1980	702	536	449	272	140	244	270	283	302	253	289	439
1981	478	478	560	407	333	298	323	360	349	405	554	672
1982	695	445	270	332	235	268	168	186	247	241	277	386
1983	256	233	156	131	117	145	167	169	132	184	192	237
1984	237	177	127	139	234	271	301	343	330	262	278	512
1985	658	608	310	272	380	367	374	402	358	407	583	661
1986	649	556	508	393	280	179	248	275	283	257	293	409
1987	519	539	604	510	584	468	375	367	396	364	474	665
1988	763	569	591	538	357	341	380	396	421	380	387	447
1989	648	719	571	559	510	349	249	298	337	365	536	610
1990	655	568	574	785	547	387	353	377	410	436	450	520
1991	699	737	670	639	655	494	363	357	366	384	490	544

Appendix C-4 DSM2 Delta Modeling

Clifton Court Forebay Salinity Base (Existing Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Avg	580	515	484	451	397	353	323	336	347	340	394	523
W	459	353	265	249	216	216	221	243	248	236	260	386
AN	717	634	529	417	263	305	255	264	279	245	297	473
BN	541	509	560	422	282	283	294	303	290	258	391	592
D	576	586	511	437	452	371	330	357	360	385	537	652
C	633	542	604	644	574	482	433	430	454	442	426	536

Clifton Court Forebay Salinity Alternative (Existing Alt 1 & 2) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	307	290	492	585	641	511	431	436	513	478	372	620
1977	750	548	701	683	686	687	646	587	561	537	440	570
1978	745	742	612	562	385	367	240	246	257	237	305	512
1979	548	513	564	425	283	284	294	303	290	258	392	599
1980	707	538	453	273	140	247	271	283	302	253	290	443
1981	483	482	566	412	335	299	323	360	349	408	562	683
1982	700	446	270	334	237	268	168	186	247	242	278	388
1983	256	233	157	132	117	145	168	169	132	184	192	237
1984	237	177	127	139	234	271	301	343	330	262	278	519
1985	665	611	311	271	371	363	373	402	358	410	592	671
1986	654	558	514	401	280	179	249	276	283	257	291	410
1987	523	542	608	515	591	471	375	367	396	365	477	674
1988	768	570	603	561	362	343	382	397	423	384	395	452
1989	650	719	572	559	510	349	250	298	337	367	545	622
1990	660	569	579	790	544	386	353	378	411	440	454	530
1991	706	747	680	647	663	495	364	358	366	387	496	553
Avg	585	518	488	455	399	354	324	337	347	342	397	530
W	462	353	267	251	217	216	221	244	248	236	260	388
AN	726	640	533	417	263	307	256	264	279	245	298	478
BN	548	513	564	425	283	284	294	303	290	258	392	599
D	580	589	514	439	452	370	330	357	360	387	544	663
C	639	545	611	653	579	484	435	431	455	445	431	545

Appendix C-4 DSM2 Delta Modeling

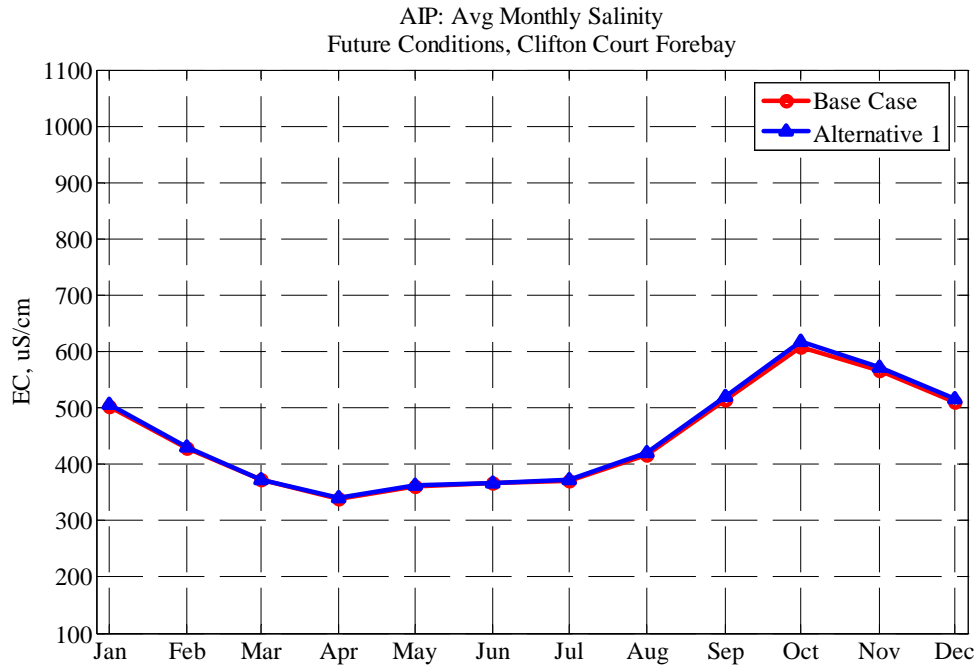
Clifton Court Forebay Salinity Difference (Existing Alt 1 & 2 minus Existing Base) Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	1	0	1	5	9	4	1	0	1	4	3	10
1977	6	2	8	7	6	6	6	3	1	2	5	12
1978	12	9	3	0	0	0	0	1	0	0	1	6
1979	7	4	3	3	1	1	1	0	0	0	2	7
1980	5	2	4	1	0	3	1	0	0	0	1	4
1981	5	3	5	5	1	1	1	0	0	3	8	10
1982	5	1	0	2	2	1	0	0	0	1	1	2
1983	0	0	1	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	6
1985	7	3	1	-1	-9	-4	-1	0	0	3	8	10
1986	5	2	6	8	0	0	1	0	0	0	-1	0
1987	4	4	4	5	7	2	1	0	0	1	3	9
1988	6	1	13	22	5	2	2	1	1	4	8	6
1989	2	0	1	0	0	0	0	0	0	2	8	12
1990	5	1	4	6	-4	-1	0	1	1	4	4	10
1991	8	10	10	8	8	1	1	1	0	3	5	9
Avg	5	3	4	4	2	1	1	0	0	2	4	7
W	3	1	2	3	1	0	0	0	0	0	0	2
AN	8	6	4	1	0	2	0	0	0	0	1	5
BN	7	4	3	3	1	1	1	0	0	0	2	7
D	4	3	3	2	0	0	0	0	0	2	7	10
C	5	3	7	10	5	2	2	1	1	3	5	9

Clifton Court Forebay Salinity Percent Difference (Existing Alt 1 & 2 minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	0.3	-0.1	0.3	0.9	1.4	0.8	0.2	0.1	0.3	0.8	0.7	1.6
1977	0.9	0.4	1.2	1.0	0.8	0.9	0.9	0.5	0.1	0.4	1.1	2.1
1978	1.6	1.2	0.5	0.1	0.0	0.1	0.0	0.5	0.1	0.0	0.4	1.1
1979	1.2	0.8	0.6	0.7	0.3	0.2	0.2	0.0	0.0	-0.2	0.5	1.3
1980	0.7	0.4	1.0	0.3	0.1	1.4	0.3	-0.1	0.0	0.0	0.3	0.9
1981	1.0	0.7	0.9	1.2	0.5	0.3	0.2	0.1	0.0	0.8	1.4	1.5
1982	0.7	0.2	0.0	0.6	0.8	0.2	0.0	0.0	0.1	0.3	0.3	0.4

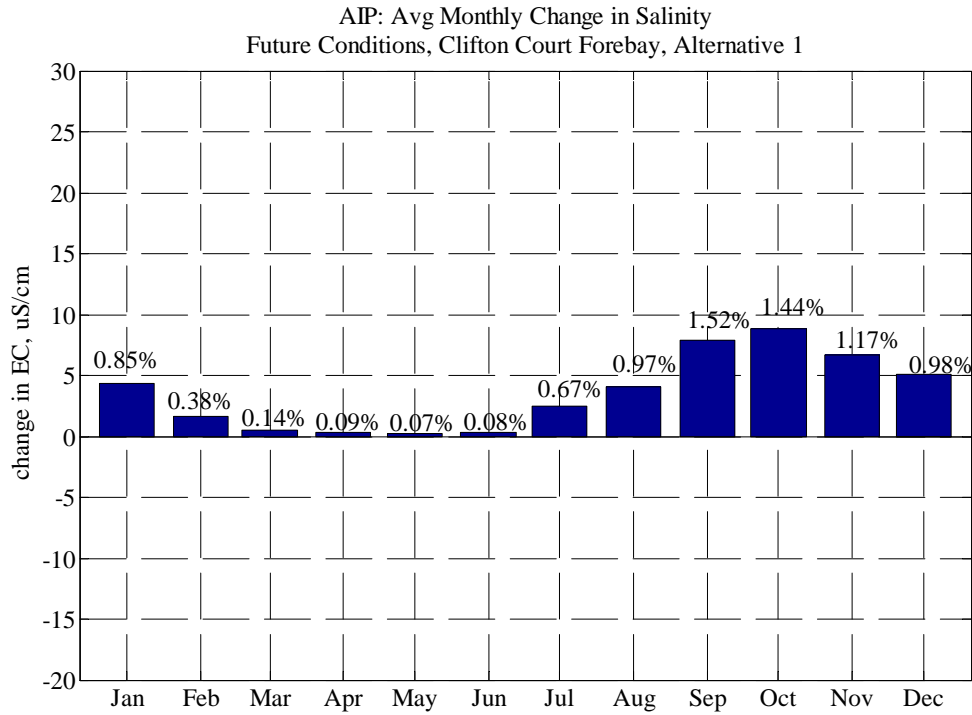
Appendix C-4 DSM2 Delta Modeling

Clifton Court Forebay Salinity Percent Difference (Existing Alt 1 & 2 minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1983	-0.1	0.0	0.6	0.1	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0
1984	0.0	0.0	0.1	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.3
1985	1.0	0.6	0.3	-0.4	-2.3	-1.1	-0.2	0.0	0.0	0.8	1.4	1.5
1986	0.8	0.4	1.2	2.1	0.1	-0.1	0.4	0.2	0.0	-0.1	-0.4	0.1
1987	0.7	0.7	0.7	0.9	1.2	0.5	0.2	0.1	0.0	0.2	0.7	1.4
1988	0.7	0.1	2.2	4.1	1.4	0.7	0.5	0.3	0.3	1.1	2.0	1.3
1989	0.2	0.0	0.1	0.0	-0.1	0.0	0.0	0.1	0.0	0.6	1.6	1.9
1990	0.8	0.1	0.7	0.7	-0.6	-0.4	0.0	0.2	0.2	0.8	0.9	1.9
1991	1.1	1.3	1.5	1.2	1.2	0.2	0.1	0.2	0.1	0.7	1.1	1.7
Avg	0.7	0.4	0.7	0.8	0.3	0.2	0.2	0.1	0.1	0.4	0.8	1.3
W	0.4	0.1	0.5	0.7	0.2	0.0	0.1	0.1	0.0	0.1	0.0	0.5
AN	1.2	0.8	0.7	0.2	0.1	0.7	0.2	0.2	0.0	0.0	0.3	1.0
BN	1.2	0.8	0.6	0.7	0.3	0.2	0.2	0.0	0.0	-0.2	0.5	1.3
D	0.7	0.5	0.5	0.4	-0.2	-0.1	0.1	0.0	0.0	0.6	1.3	1.6
C	0.8	0.4	1.2	1.6	0.8	0.4	0.4	0.2	0.2	0.8	1.2	1.7

Appendix C-4 DSM2 Delta Modeling

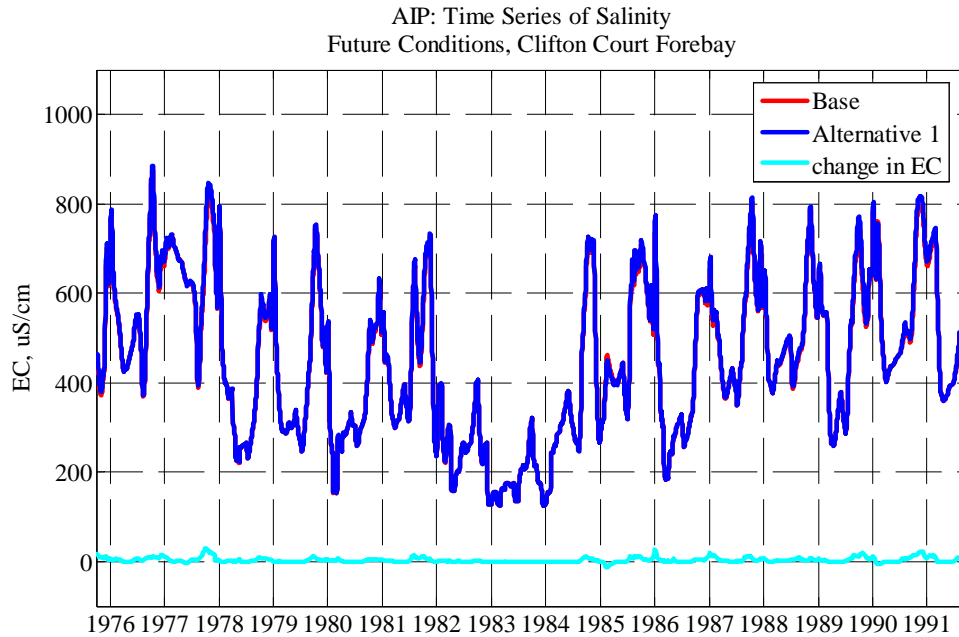


aip_swresults9.m
03-Nov-2005 LHS



aip_swresults10.m
13-Dec-2005 LHS

Appendix C-4 DSM2 Delta Modeling



aip_swresults10.m
22-Nov-2005 LHS

Clifton Court Forebay Salinity Base (Future Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	415	413	647	696	561	474	430	463	522	518	412	673
1977	812	638	666	701	722	697	673	639	623	599	436	598
1978	791	786	636	591	402	375	278	236	261	247	301	433
1979	565	544	553	550	330	290	302	313	296	266	375	550
1980	709	563	478	341	168	247	276	302	312	271	304	383
1981	508	520	566	492	415	315	317	373	339	479	568	474
1982	658	662	310	362	261	283	172	194	248	249	272	362
1983	289	249	145	150	132	157	173	172	140	193	212	279
1984	237	182	134	150	237	275	307	356	336	274	306	558
1985	698	658	332	317	438	418	400	423	371	467	652	663
1986	679	583	562	563	333	198	233	282	317	278	298	378
1987	569	601	585	584	535	458	374	401	407	383	511	660
1988	756	593	625	558	395	410	442	469	497	411	449	490
1989	662	730	578	609	551	366	268	339	336	359	554	704
1990	681	542	630	700	671	455	419	441	458	483	511	514
1991	699	793	718	679	721	539	367	375	397	435	499	494

Appendix C-4 DSM2 Delta Modeling

Clifton Court Forebay Salinity Base (Future Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Avg	608	566	510	503	429	372	339	361	366	370	416	513
W	466	419	288	306	241	228	221	251	260	249	272	394
AN	750	675	557	466	285	311	277	269	286	259	302	408
BN	565	544	553	550	330	290	302	313	296	266	375	550
D	609	627	515	500	485	389	340	384	363	422	571	625
C	673	596	657	667	614	515	466	478	499	489	461	554

Clifton Court Forebay Salinity Alternative (Future Alt 1, 2, 3) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	428	421	655	700	566	477	430	463	525	524	415	683
1977	823	647	679	709	724	698	674	637	622	603	441	617
1978	818	806	639	592	402	377	279	238	260	247	302	438
1979	573	550	556	550	330	291	302	313	296	266	377	559
1980	717	566	482	343	170	250	277	302	312	271	304	386
1981	513	525	570	494	417	315	317	373	339	487	577	483
1982	667	667	310	364	263	284	172	195	248	249	272	363
1983	290	249	145	150	132	157	173	172	140	193	212	279
1984	237	182	134	150	237	275	307	356	336	274	307	567
1985	706	663	332	316	426	412	399	422	371	473	662	674
1986	686	586	572	577	336	198	232	285	317	278	297	379
1987	574	605	592	599	545	461	376	402	408	384	514	672
1988	764	595	630	562	396	411	445	471	499	415	456	495
1989	665	737	581	613	554	366	268	339	336	361	563	717
1990	697	554	636	704	665	453	418	440	457	488	517	524
1991	715	815	731	690	734	540	367	375	397	440	507	502
Avg	617	573	515	507	431	373	340	361	366	372	420	521
W	470	421	290	310	242	229	221	252	260	249	272	397
AN	767	686	561	467	286	313	278	270	286	259	303	412
BN	573	550	556	550	330	291	302	313	296	266	377	559
D	614	632	519	506	486	389	340	384	363	426	579	637
C	685	606	666	673	617	516	467	477	500	494	467	564

Appendix C-4 DSM2 Delta Modeling

Clifton Court Forebay Salinity Difference (Future Alt 1 & 2 minus Future Base) Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	13	8	8	4	5	3	0	0	4	6	3	10
1977	11	8	13	8	2	0	1	-2	-1	4	5	20
1978	26	19	4	1	0	2	1	2	0	0	1	5
1979	8	6	4	0	1	0	0	0	0	0	2	9
1980	8	3	4	2	2	4	1	0	0	0	0	3
1981	5	5	4	3	3	1	0	0	0	7	10	9
1982	9	5	0	1	2	1	0	1	0	0	0	1
1983	1	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	1	9
1985	8	5	1	-2	-12	-6	-1	0	0	6	10	11
1986	7	3	10	14	2	1	0	2	0	0	-1	2
1987	4	4	7	15	10	3	1	1	0	1	4	12
1988	8	2	5	4	1	1	3	2	2	4	8	5
1989	3	7	3	4	3	0	0	0	0	2	9	13
1990	16	11	6	4	-6	-2	-1	-1	-1	5	6	10
1991	15	21	13	11	13	1	0	0	0	5	8	9
Avg	9	7	5	4	2	1	0	0	0	3	4	8
W	4	2	3	4	1	0	0	1	0	0	0	3
AN	17	11	4	1	1	3	1	1	0	0	1	4
BN	8	6	4	0	1	0	0	0	0	0	2	9
D	5	5	4	5	1	-1	0	0	0	4	8	11
C	13	10	9	6	3	1	1	0	1	5	6	11

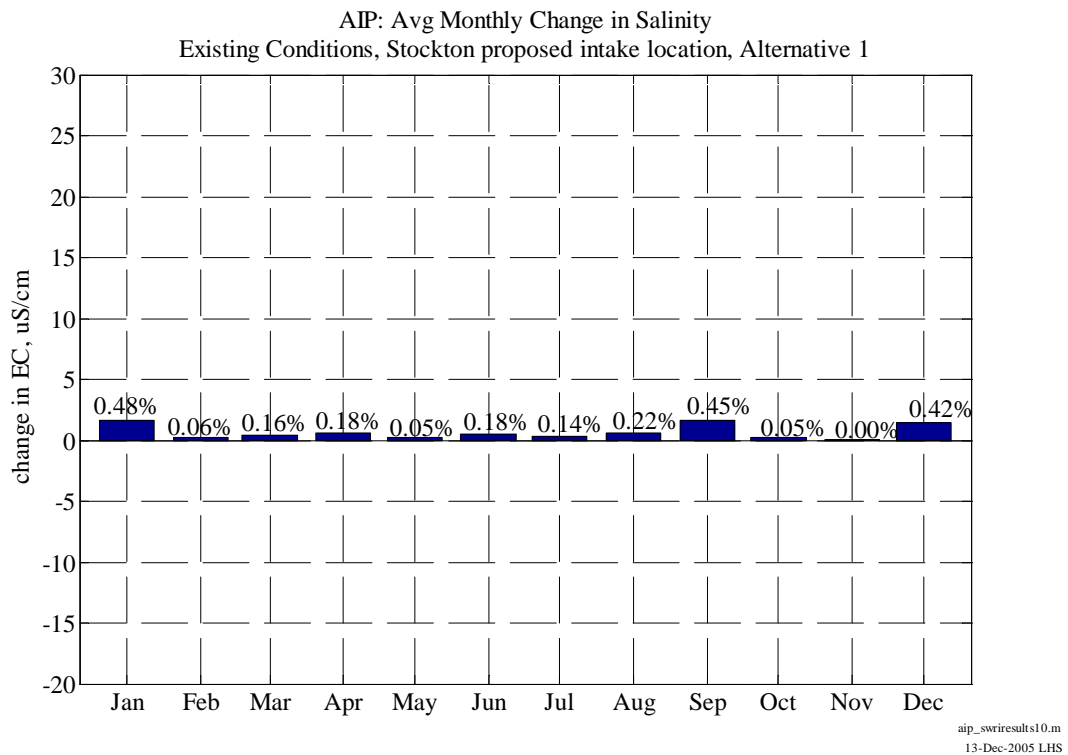
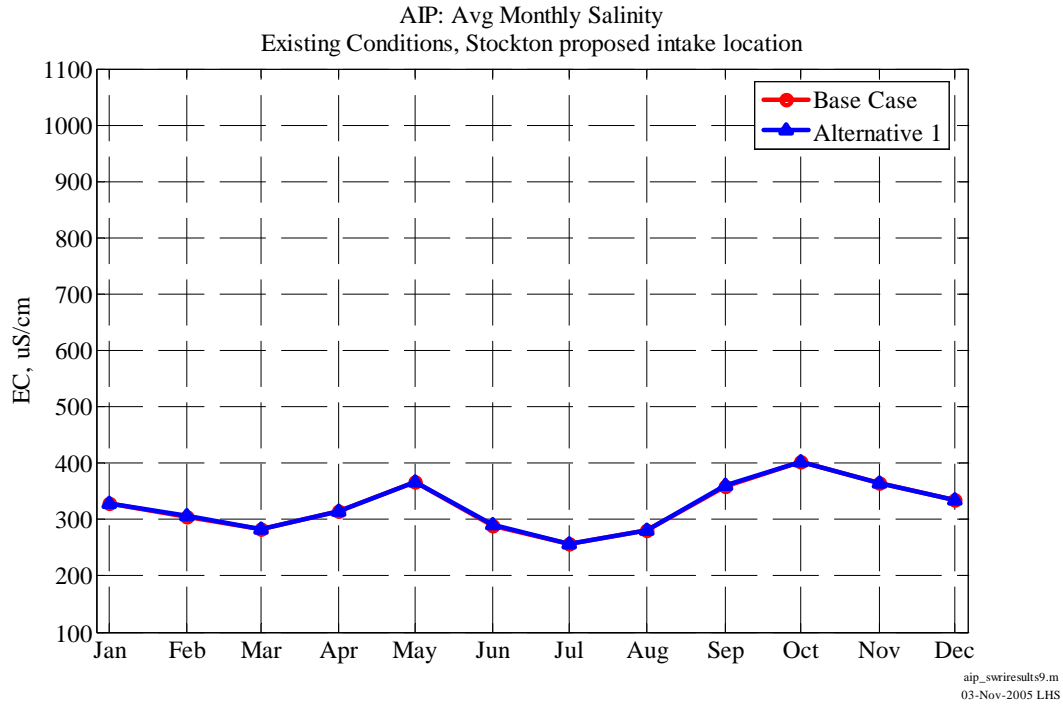
Clifton Court Forebay Salinity Percent Difference (Future Alt 1, 2, 3 minus Future Base divided by Future Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	3.2	2.0	1.2	0.6	0.9	0.6	0.0	0.0	0.7	1.2	0.8	1.4
1977	1.3	1.3	1.9	1.1	0.2	0.1	0.1	-0.3	-0.1	0.7	1.1	3.3
1978	3.3	2.4	0.6	0.1	0.1	0.5	0.2	0.8	-0.2	0.0	0.3	1.2
1979	1.4	1.0	0.7	0.0	0.2	0.1	0.1	0.0	0.0	-0.1	0.6	1.6
1980	1.1	0.6	0.9	0.5	1.1	1.5	0.2	0.0	0.0	0.0	0.0	0.7
1981	1.0	0.9	0.8	0.5	0.6	0.2	0.1	0.0	0.0	1.6	1.7	2.0
1982	1.3	0.7	0.1	0.3	0.7	0.3	0.0	0.3	0.0	0.0	0.0	0.4
1983	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Appendix C-4 DSM2 Delta Modeling

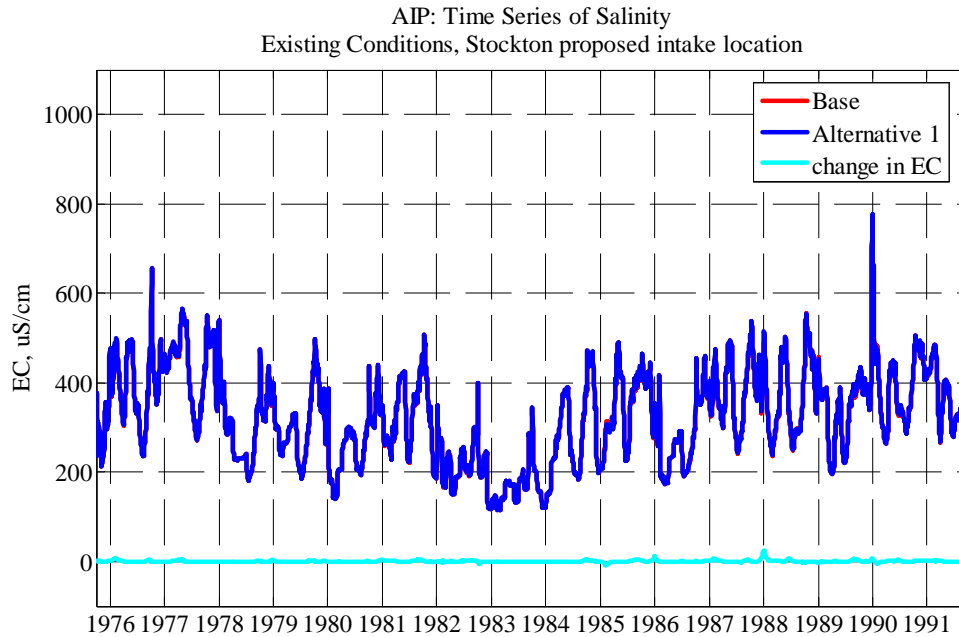
Clifton Court Forebay Salinity Percent Difference (Future Alt 1, 2, 3 minus Future Base divided by Future Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.6
1985	1.1	0.7	0.2	-0.5	-2.7	-1.5	-0.4	-0.1	0.0	1.3	1.6	1.7
1986	1.0	0.5	1.7	2.5	0.7	0.3	0.0	0.8	0.1	-0.1	-0.4	0.4
1987	0.7	0.6	1.2	2.6	2.0	0.8	0.4	0.1	0.1	0.2	0.7	1.8
1988	1.1	0.3	0.8	0.8	0.1	0.2	0.6	0.5	0.4	1.1	1.7	1.0
1989	0.4	0.9	0.5	0.7	0.5	0.0	0.0	0.0	0.0	0.7	1.6	1.9
1990	2.4	2.1	0.9	0.5	-0.8	-0.4	-0.1	-0.3	-0.2	1.0	1.2	2.0
1991	2.2	2.7	1.8	1.7	1.8	0.2	0.0	0.0	0.0	1.1	1.6	1.7
Avg	1.4	1.1	0.8	0.7	0.3	0.2	0.1	0.1	0.1	0.5	0.8	1.4
W	0.7	0.3	0.5	0.7	0.4	0.1	0.0	0.3	0.0	0.0	0.0	0.6
AN	2.2	1.5	0.7	0.3	0.6	1.0	0.2	0.4	-0.1	0.0	0.2	1.0
BN	1.4	1.0	0.7	0.0	0.2	0.1	0.1	0.0	0.0	-0.1	0.6	1.6
D	0.8	0.8	0.7	0.8	0.1	-0.1	0.0	0.0	0.0	0.9	1.4	1.8
C	2.0	1.7	1.3	0.9	0.5	0.1	0.1	0.0	0.2	1.0	1.3	1.9

Appendix C-4 DSM2 Delta Modeling

City of Stockton Proposed Intake Location (Empire Tract)



Appendix C-4 DSM2 Delta Modeling



aip_swresults10.m
22-Nov-2005 LHS

Proposed Stockton Intake Salinity Base (Existing Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	302	248	351	414	467	355	401	488	379	306	258	405
1977	469	383	453	437	472	471	502	538	417	320	297	385
1978	502	498	418	409	317	311	242	230	232	197	229	332
1979	358	361	380	319	255	261	291	325	236	202	276	385
1980	451	357	309	212	145	197	256	295	283	218	217	291
1981	333	355	363	284	260	283	371	417	270	298	368	427
1982	446	322	201	283	182	229	159	186	237	211	211	278
1983	226	228	134	137	119	138	176	173	136	182	169	263
1984	228	162	125	149	217	264	338	382	268	201	213	338
1985	440	416	222	221	302	307	415	434	270	301	386	413
1986	419	412	331	279	212	178	224	261	277	205	216	274
1987	376	384	394	358	426	337	368	475	344	260	330	438
1988	486	389	405	401	266	285	373	473	364	268	293	351
1989	509	467	380	388	382	251	236	349	255	276	368	390
1990	403	387	446	526	396	290	335	434	356	334	307	368
1991	477	475	426	428	472	358	348	392	305	316	340	389

Appendix C-4 DSM2 Delta Modeling

Proposed Stockton Intake Salinity Base (Existing Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Avg	402	365	334	328	306	282	315	366	289	256	280	358
W	330	281	198	212	182	202	224	250	230	200	202	288
AN	477	428	363	310	231	254	249	262	258	208	223	311
BN	358	361	380	319	255	261	291	325	236	202	276	385
D	415	405	340	313	343	294	348	419	285	284	363	417
C	427	376	416	441	415	352	392	465	364	309	299	380

Proposed Stockton Intake Salinity Alternative (Existing Alt 1 & 2) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	303	248	352	418	472	357	401	488	379	306	258	408
1977	469	383	454	436	472	474	506	539	416	320	298	385
1978	502	498	418	409	317	311	242	230	232	197	229	333
1979	358	361	381	320	255	261	291	325	236	202	276	387
1980	452	357	310	212	145	197	256	295	283	218	217	292
1981	333	354	365	287	261	285	371	417	270	298	371	431
1982	446	323	201	283	181	228	159	186	238	213	212	280
1983	225	227	134	137	119	138	176	173	136	182	169	263
1984	228	162	125	149	217	264	338	382	268	201	213	340
1985	442	417	222	220	296	306	415	434	270	302	390	417
1986	420	412	335	283	213	178	224	262	277	206	215	273
1987	376	384	396	362	431	338	369	475	344	260	331	442
1988	486	388	414	414	268	286	374	473	368	269	292	350
1989	507	466	379	386	381	251	237	349	255	276	372	395
1990	404	388	447	526	392	290	337	435	359	335	307	369
1991	479	477	427	429	473	359	349	392	305	316	340	389
Avg	402	365	335	329	306	283	315	366	290	256	281	360
W	330	281	199	213	182	202	224	250	230	200	202	289
AN	477	428	364	310	231	254	249	262	258	208	223	312
BN	358	361	381	320	255	261	291	325	236	202	276	387
D	414	405	341	314	342	295	348	419	285	284	366	421
C	428	377	419	445	416	353	394	465	365	309	299	380

Appendix C-4 DSM2 Delta Modeling

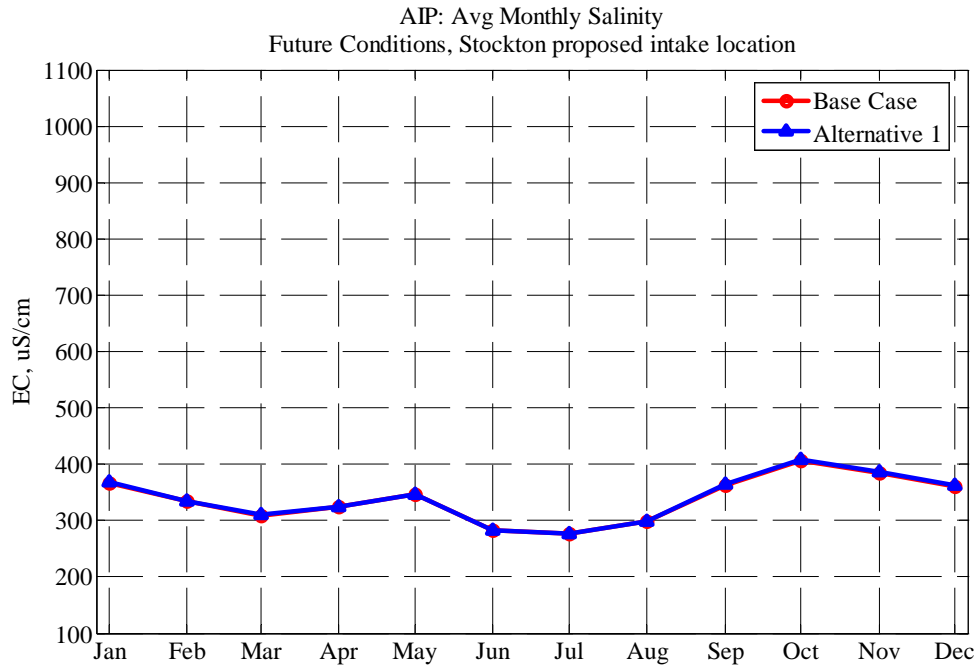
Proposed Stockton Intake Salinity Difference (Existing Alt 1 & 2 minus Existing Base) Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	1	0	1	3	5	2	0	0	0	0	0	3
1977	0	0	0	0	0	2	4	1	-1	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	1
1979	0	0	1	1	0	0	0	0	0	0	0	2
1980	0	0	1	0	0	0	0	0	0	0	0	1
1981	0	-1	2	2	1	2	0	0	0	1	3	4
1982	1	0	0	0	0	-1	0	0	0	2	1	2
1983	-2	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	2
1985	1	1	0	-1	-6	-2	0	0	0	1	3	4
1986	1	0	4	4	0	0	0	0	0	0	-1	-1
1987	0	0	2	3	4	1	0	0	0	-1	0	3
1988	0	-1	9	13	2	2	2	0	5	2	-1	-2
1989	-2	-1	-1	-2	-1	0	0	0	0	0	3	5
1990	1	0	1	0	-3	0	2	1	3	1	0	0
1991	1	1	1	1	1	1	1	0	0	0	0	0
Avg	0	0	1	2	0	0	1	0	1	0	1	2
W	0	0	1	1	0	0	0	0	0	1	0	1
AN	0	0	1	0	0	0	0	0	0	0	0	1
BN	0	0	1	1	0	0	0	0	0	0	0	2
D	0	0	1	1	0	0	0	0	0	0	2	4
C	1	0	2	4	1	1	2	0	1	0	0	0

Proposed Stockton Intake Salinity Percent Difference (Existing Alt 1 & 2 minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	0.2	-0.1	0.1	0.8	1.2	0.5	0.1	0.0	-0.1	0.0	0.1	0.8
1977	0.0	0.0	0.1	-0.1	-0.1	0.5	0.7	0.2	-0.1	0.1	0.1	0.1
1978	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
1979	0.0	0.0	0.4	0.3	-0.1	0.0	0.0	0.0	0.1	-0.1	0.0	0.6
1980	0.1	0.0	0.4	0.0	-0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.2
1981	-0.1	-0.1	0.7	0.8	0.5	0.7	0.1	0.0	0.1	0.2	0.7	0.9
1982	0.2	0.1	0.0	0.1	-0.1	-0.3	0.0	0.0	0.2	0.9	0.6	0.5
1983	-0.7	-0.1	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

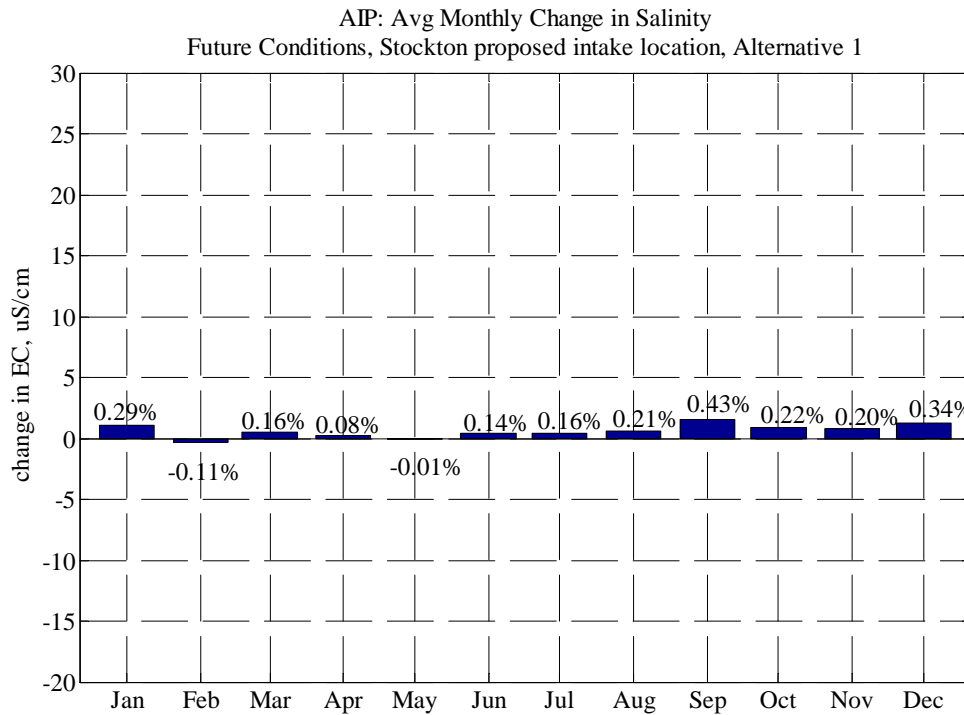
Appendix C-4 DSM2 Delta Modeling

Proposed Stockton Intake Salinity Percent Difference (Existing Alt 1 & 2 minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
1985	0.3	0.3	0.2	-0.5	-2.1	-0.6	0.0	0.0	0.0	0.3	0.9	1.0
1986	0.3	-0.1	1.2	1.5	0.0	0.0	0.0	0.0	0.1	0.2	-0.5	-0.2
1987	0.0	0.1	0.5	0.9	1.0	0.4	0.1	0.0	0.1	-0.2	0.1	0.8
1988	0.1	-0.1	2.3	3.3	0.8	0.7	0.4	0.0	1.3	0.6	-0.3	-0.5
1989	-0.4	-0.2	-0.2	-0.5	-0.2	0.0	0.2	0.1	0.0	0.1	0.9	1.2
1990	0.3	0.1	0.3	0.0	-0.8	-0.1	0.6	0.3	0.8	0.2	-0.1	0.0
1991	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.0	0.0	-0.1	0.0	0.1
Avg	0.0	0.0	0.4	0.4	0.0	0.1	0.1	0.0	0.2	0.1	0.2	0.4
W	-0.1	0.0	0.2	0.4	0.0	-0.1	0.0	0.0	0.1	0.3	0.0	0.2
AN	0.0	0.0	0.2	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3
BN	0.0	0.0	0.4	0.3	-0.1	0.0	0.0	0.0	0.1	-0.1	0.0	0.6
D	0.0	0.0	0.3	0.2	-0.2	0.1	0.1	0.0	0.0	0.1	0.7	1.0
C	0.2	0.0	0.6	0.9	0.2	0.4	0.4	0.1	0.4	0.2	0.0	0.1

Appendix C-4 DSM2 Delta Modeling

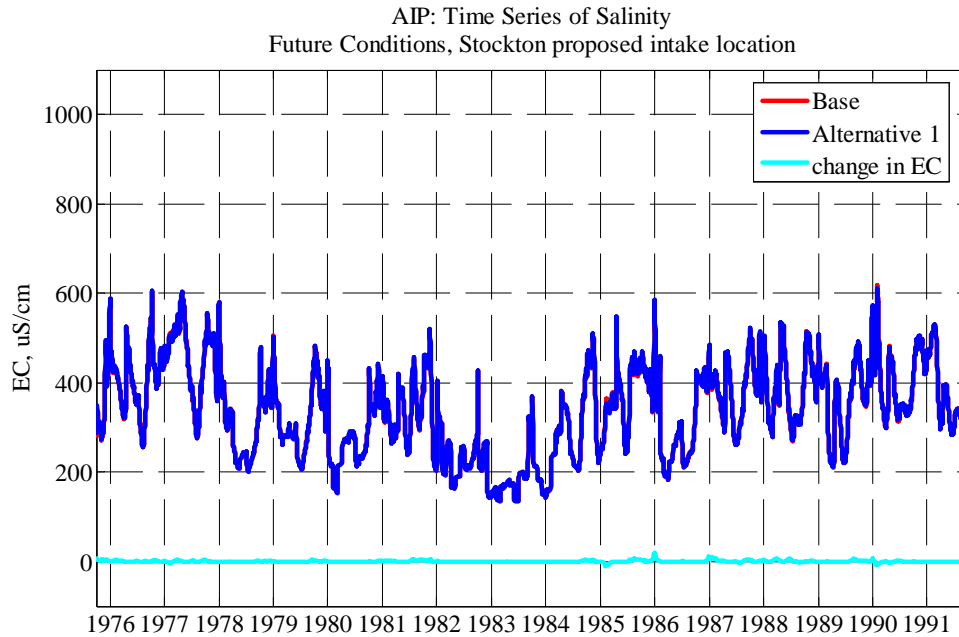


aip_swresults9.m
03-Nov-2005 LHS



aip_swresults10.m
13-Dec-2005 LHS

Appendix C-4 DSM2 Delta Modeling



aip_swresults10.m
22-Nov-2005 LHS

Proposed Stockton Intake Salinity Base (Future Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	307	306	454	462	417	358	404	439	376	331	290	462
1977	475	407	450	466	505	519	553	544	422	342	311	430
1978	514	497	439	429	328	331	248	218	241	214	237	302
1979	375	364	393	393	299	279	290	282	238	220	282	376
1980	448	365	348	252	169	209	259	275	283	226	235	271
1981	356	366	383	351	322	287	340	366	255	362	367	329
1982	438	446	228	314	211	256	174	187	241	215	217	261
1983	236	256	160	157	141	165	176	172	138	192	190	296
1984	238	186	156	157	225	275	324	341	260	216	244	382
1985	449	449	251	264	350	356	397	391	269	355	438	432
1986	438	409	401	392	258	196	220	263	297	226	236	274
1987	404	408	403	406	406	354	370	423	293	284	357	449
1988	468	392	428	424	303	371	433	488	354	290	318	352
1989	489	450	397	423	423	271	276	361	239	286	396	467
1990	411	365	447	505	477	333	386	425	330	343	337	361
1991	467	491	441	472	521	391	345	365	291	328	328	347

Appendix C-4 DSM2 Delta Modeling

Proposed Stockton Intake Salinity Base (Future Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Avg	407	385	361	367	335	309	325	346	283	277	299	362
W	337	324	236	255	209	223	223	241	234	212	222	303
AN	481	431	394	340	249	270	254	247	262	220	236	287
BN	375	364	393	393	299	279	290	282	238	220	282	376
D	424	418	358	361	375	317	346	385	264	322	390	419
C	425	392	444	466	445	394	424	452	355	327	317	390

Proposed Stockton Intake Salinity Alternative (Future Alt 1, 2, 3) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	311	309	457	463	420	359	404	439	376	331	290	462
1977	475	408	450	466	502	521	555	544	422	343	311	433
1978	515	497	440	429	328	330	248	218	241	214	237	304
1979	376	365	394	392	299	279	290	282	238	219	281	379
1980	449	366	349	252	169	209	259	275	283	226	235	271
1981	356	366	384	352	324	288	340	366	255	365	370	333
1982	440	448	228	315	211	256	174	187	241	215	217	261
1983	236	256	160	157	141	165	176	172	138	192	190	296
1984	238	186	156	157	225	275	324	341	260	216	245	385
1985	451	451	251	262	342	353	397	391	269	358	442	436
1986	439	409	407	399	258	196	220	263	298	226	235	274
1987	403	407	406	414	412	357	371	423	293	283	358	453
1988	469	391	430	425	303	375	436	489	358	291	316	350
1989	488	451	397	423	422	271	276	361	239	286	399	470
1990	413	367	448	504	473	332	384	424	331	344	338	361
1991	468	491	441	472	521	391	345	365	291	328	328	347
Avg	408	385	362	368	334	310	325	346	283	277	299	364
W	338	325	238	257	209	223	223	241	234	212	221	304
AN	482	431	394	341	248	269	254	247	262	220	236	288
BN	376	365	394	392	299	279	290	282	238	219	281	379
D	425	419	360	363	375	317	346	385	264	323	392	423
C	427	393	445	466	444	396	425	452	356	327	317	391

Appendix C-4 DSM2 Delta Modeling

Proposed Stockton Intake Salinity Difference (Future Alt 1 & 2 minus Future Base) Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	4	3	3	1	3	2	0	0	0	0	0	0
1977	1	1	0	0	-3	2	2	0	0	0	0	3
1978	1	0	0	0	0	0	0	0	0	0	0	2
1979	0	0	1	-1	0	0	0	0	0	0	0	3
1980	1	0	1	0	0	0	0	0	0	0	0	0
1981	0	0	1	1	2	1	0	0	0	3	3	4
1982	2	2	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	3
1985	2	2	0	-1	-9	-2	0	0	0	2	4	4
1986	1	0	6	7	0	0	0	0	0	0	0	0
1987	0	0	4	9	6	3	1	0	0	-1	0	4
1988	1	0	2	2	0	4	3	0	4	1	-1	-2
1989	0	1	0	0	-1	0	0	0	0	0	3	3
1990	2	2	1	-1	-5	0	-2	-1	1	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
Avg	1	1	1	1	0	0	0	0	0	0	1	2
W	1	1	2	2	0	0	0	0	0	0	0	1
AN	1	0	1	0	0	0	0	0	0	0	0	1
BN	0	0	1	-1	0	0	0	0	0	0	0	3
D	0	1	1	2	0	0	0	0	0	1	3	4
C	2	1	1	0	-1	1	1	0	1	0	0	0

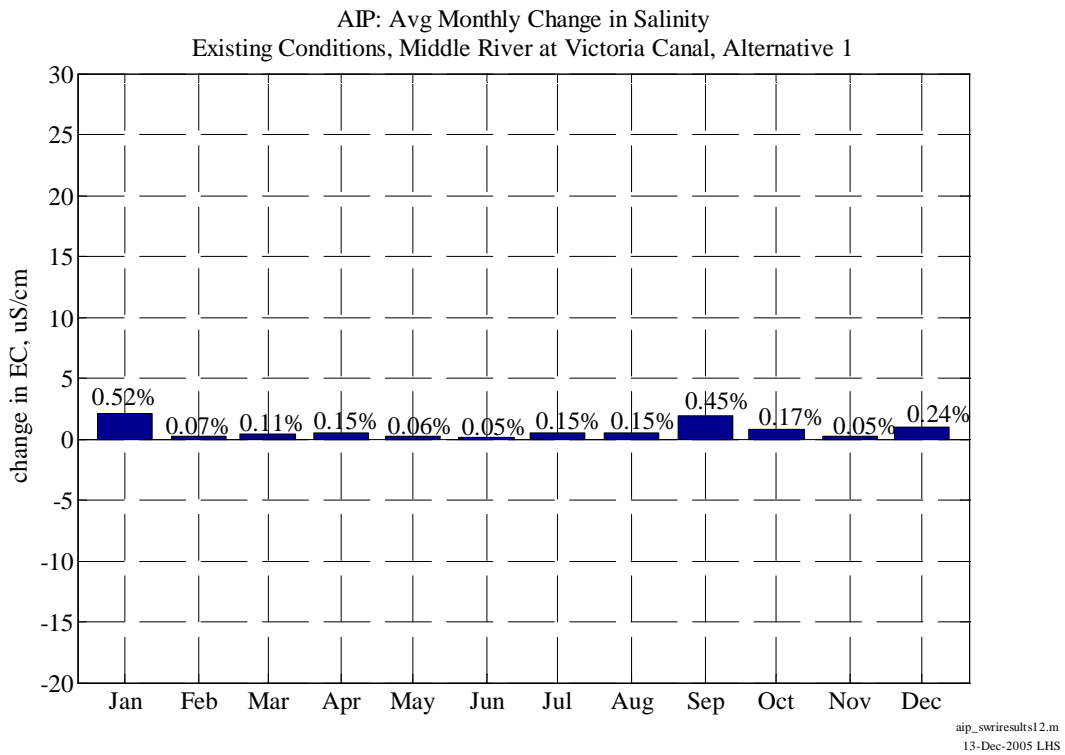
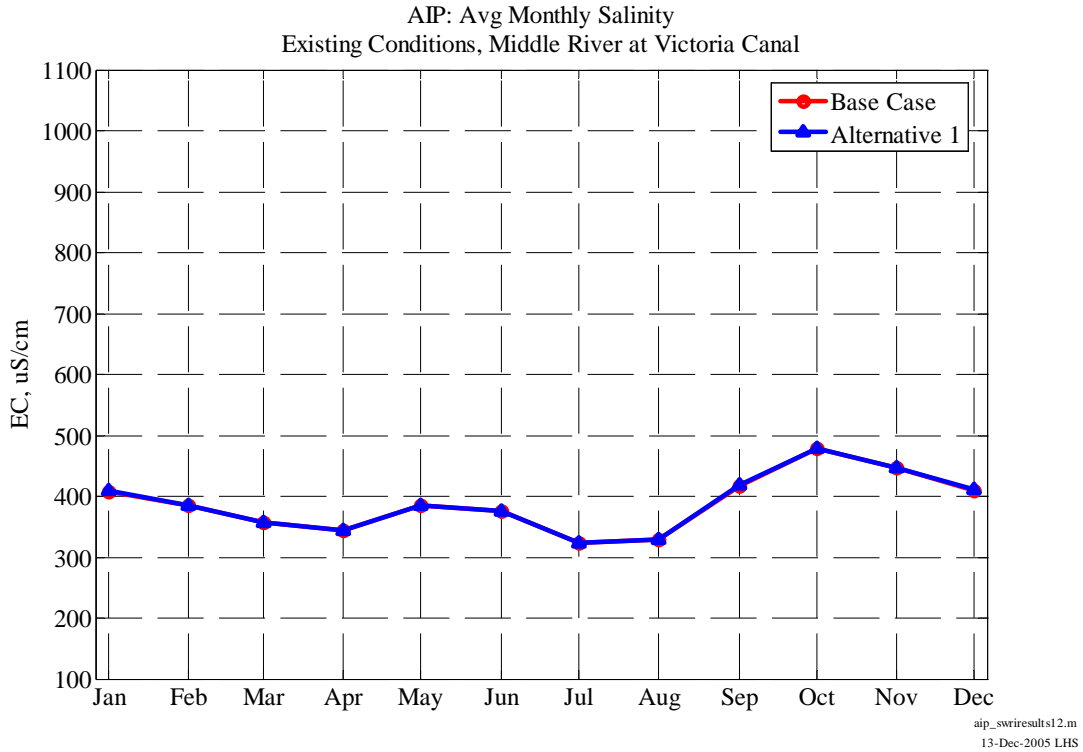
Proposed Stockton Intake Salinity Percent Difference (Future Alt 1, 2, 3 minus Future Base divided by Future Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	1.3	1.1	0.7	0.2	0.6	0.4	0.1	0.0	0.1	0.1	0.1	0.0
1977	0.1	0.2	0.0	-0.1	-0.5	0.4	0.3	0.0	0.0	0.1	0.1	0.6
1978	0.2	0.0	0.1	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.5
1979	0.1	0.1	0.3	-0.2	-0.1	0.0	0.0	0.0	0.0	-0.1	-0.1	0.7
1980	0.3	0.1	0.3	0.0	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1
1981	-0.1	-0.1	0.3	0.3	0.7	0.3	0.1	0.0	0.0	0.9	0.9	1.2
1982	0.5	0.5	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1
1983	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.7

Appendix C-4 DSM2 Delta Modeling

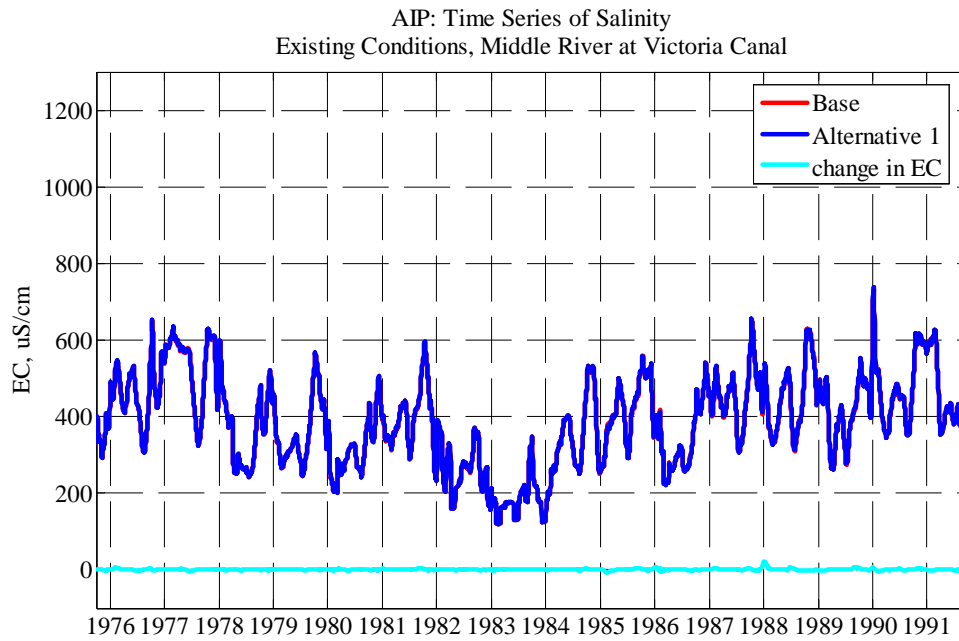
Proposed Stockton Intake Salinity Percent Difference (Future Alt 1, 2, 3 minus Future Base divided by Future Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1985	0.4	0.4	0.1	-0.5	-2.5	-0.7	-0.1	0.0	0.0	0.7	1.0	1.0
1986	0.3	0.0	1.6	1.8	0.1	-0.1	0.1	0.0	0.1	0.0	-0.2	0.0
1987	-0.1	0.0	0.9	2.2	1.5	0.7	0.2	0.0	0.1	-0.4	0.1	0.9
1988	0.2	-0.1	0.4	0.4	0.0	1.1	0.7	0.1	1.1	0.3	-0.5	-0.4
1989	-0.1	0.3	0.0	0.0	-0.2	-0.1	0.0	0.0	0.0	0.1	0.8	0.7
1990	0.5	0.6	0.2	-0.2	-1.0	-0.1	-0.5	-0.3	0.3	0.1	0.1	0.1
1991	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Avg	0.2	0.2	0.3	0.3	-0.1	0.1	0.1	0.0	0.1	0.1	0.2	0.4
W	0.2	0.1	0.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
AN	0.3	0.1	0.2	0.0	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.3
BN	0.1	0.1	0.3	-0.2	-0.1	0.0	0.0	0.0	0.0	-0.1	-0.1	0.7
D	0.0	0.2	0.3	0.5	-0.1	0.1	0.1	0.0	0.0	0.3	0.7	1.0
C	0.4	0.4	0.3	0.1	-0.2	0.4	0.1	0.0	0.3	0.1	0.0	0.1

Appendix C-4 DSM2 Delta Modeling

Middle River at Victoria Canal

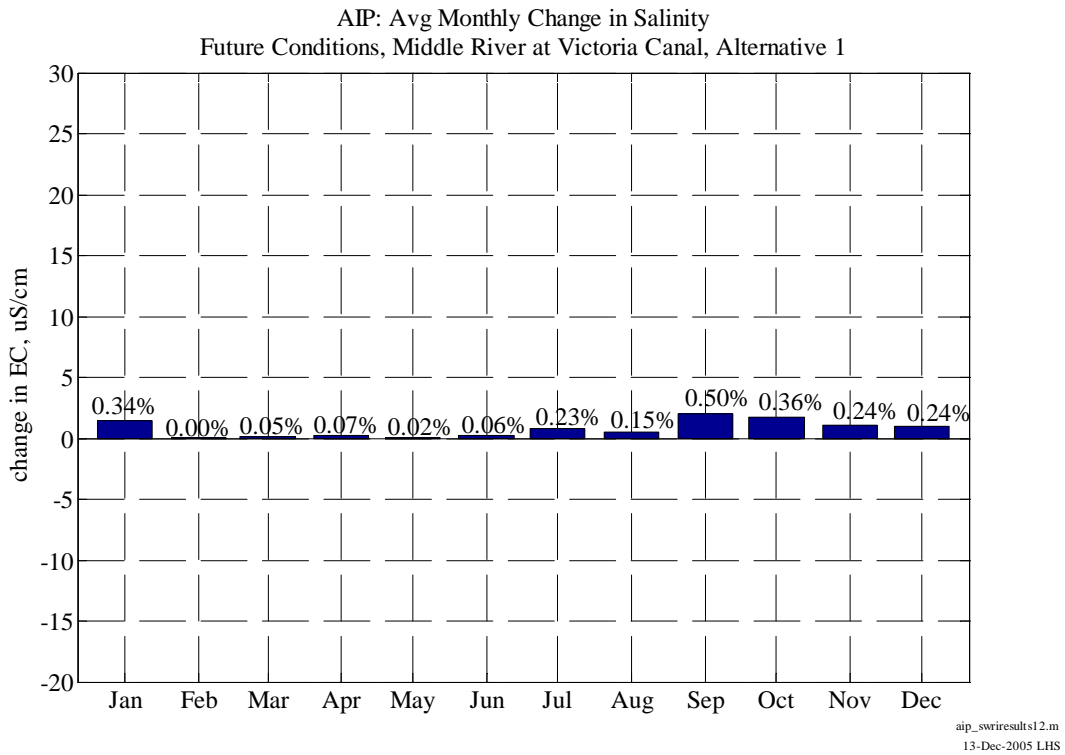
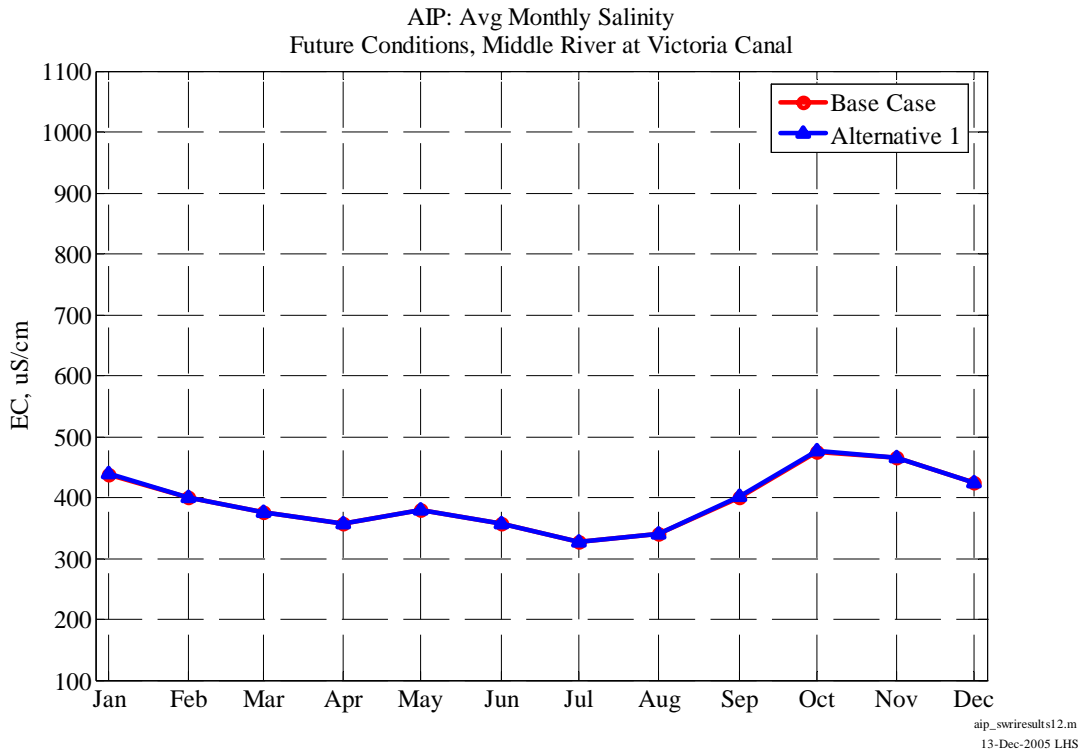


Appendix C-4 DSM2 Delta Modeling

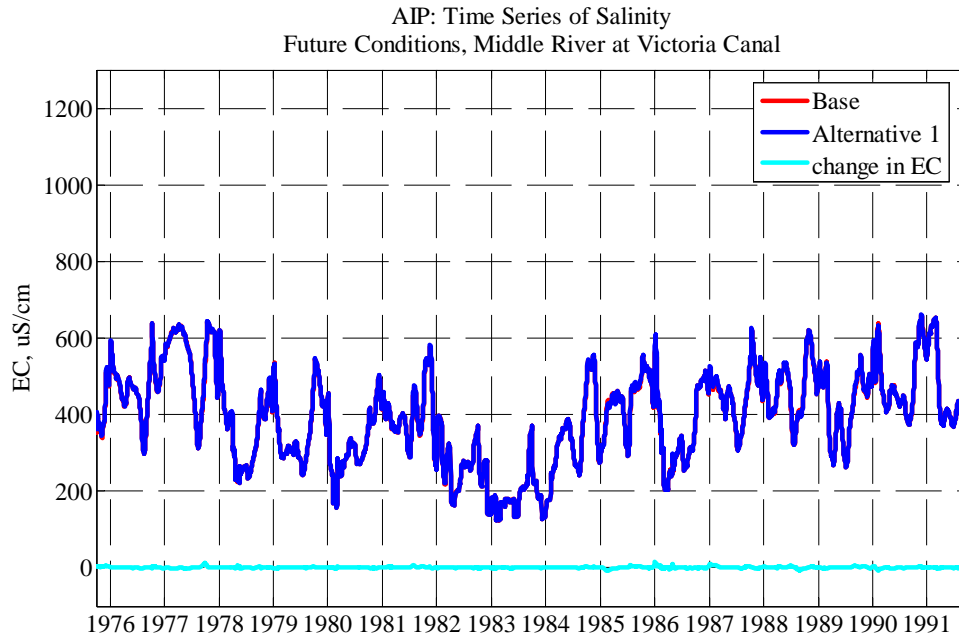


aip_swiresults12.m
13-Dec-2005 LHS

Appendix C-4 DSM2 Delta Modeling



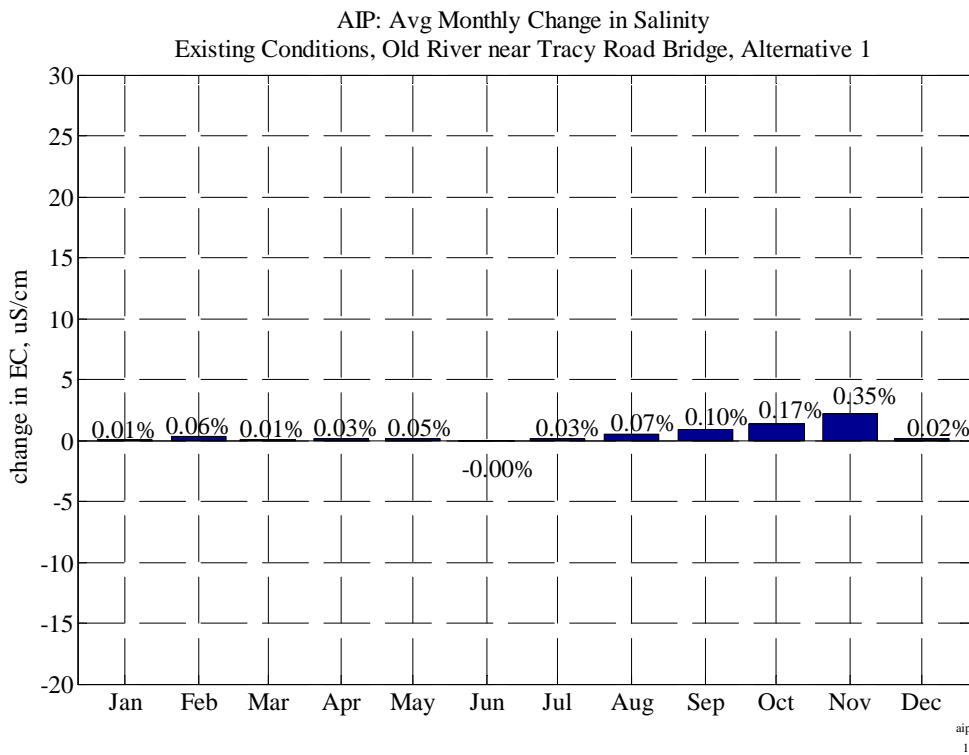
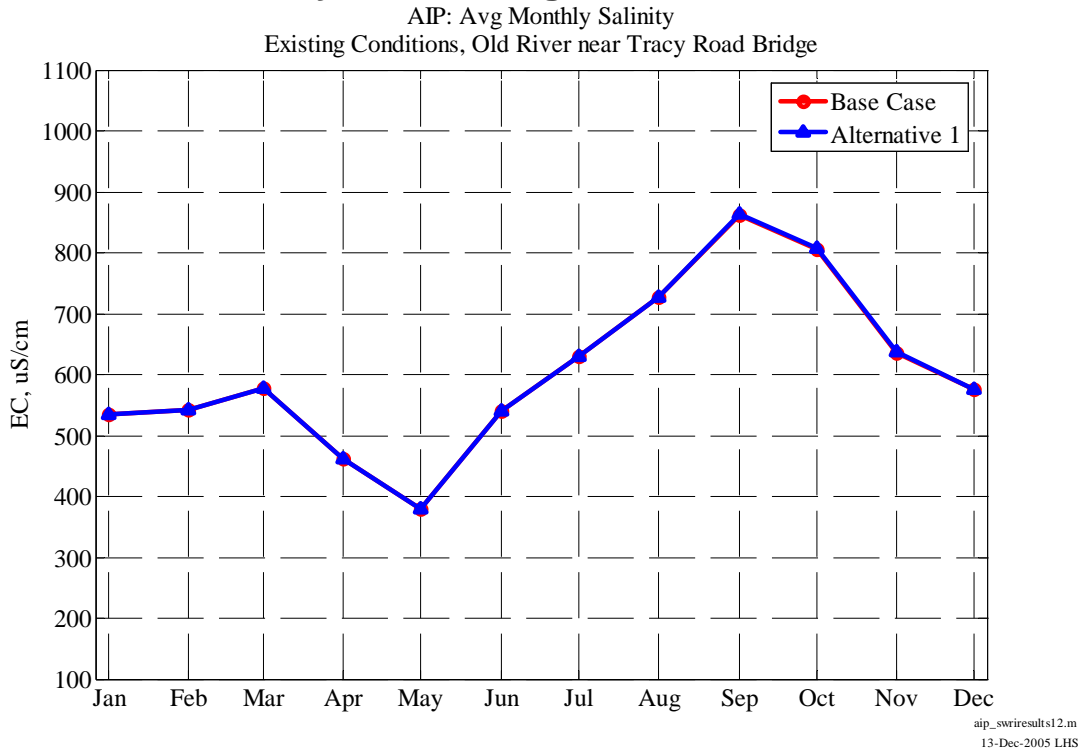
Appendix C-4 DSM2 Delta Modeling



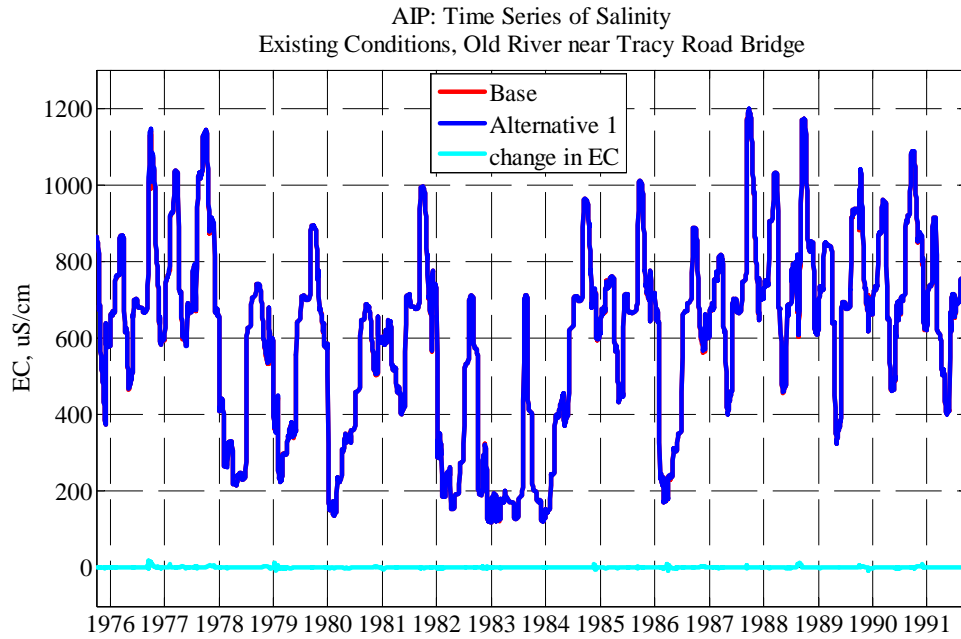
aip_swiresults12.m
13-Dec-2005 LHS

Appendix C-4 DSM2 Delta Modeling

Old River near Tracy Road Bridge

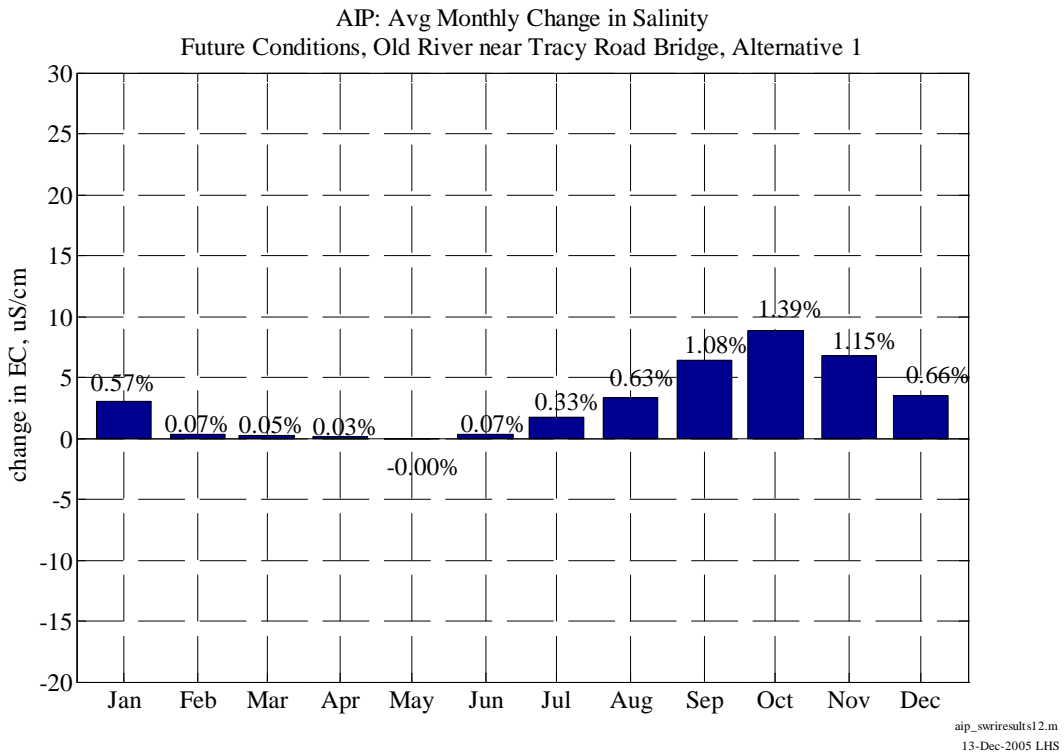
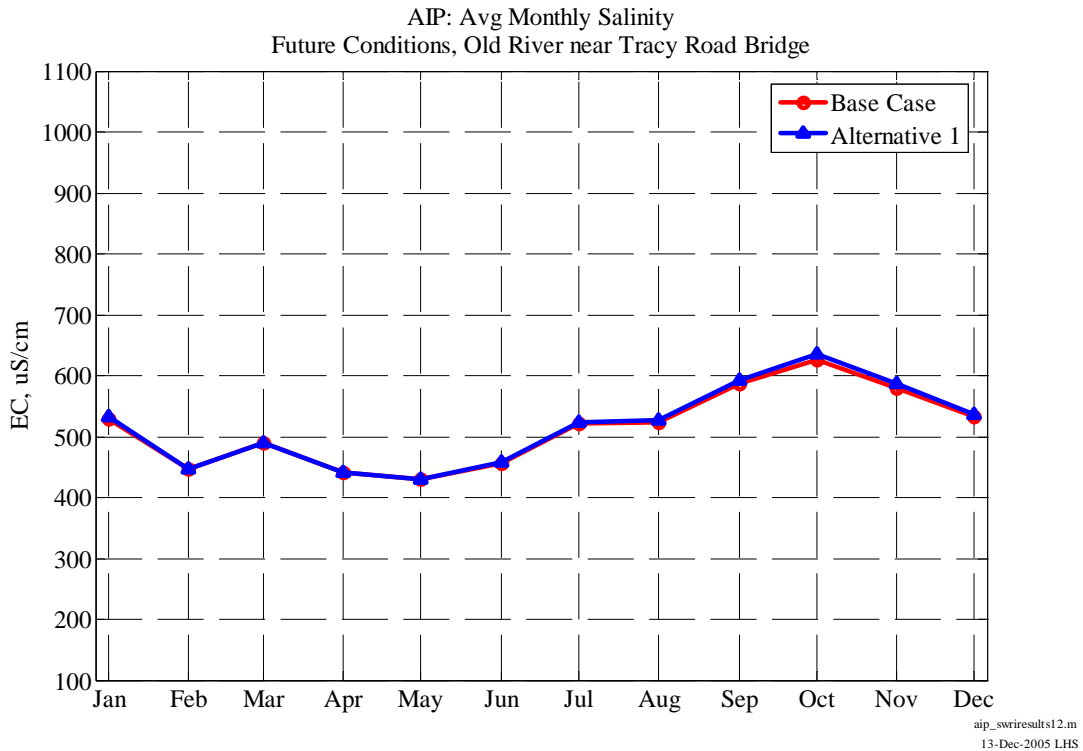


Appendix C-4 DSM2 Delta Modeling

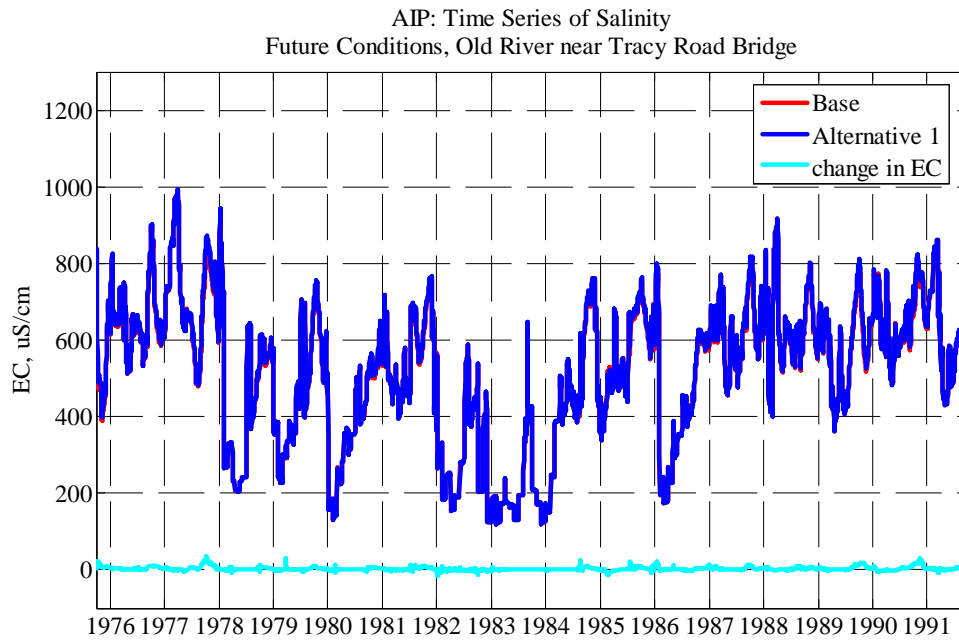


aip_swresults12.m
13-Dec-2005 LHS

Appendix C-4 DSM2 Delta Modeling



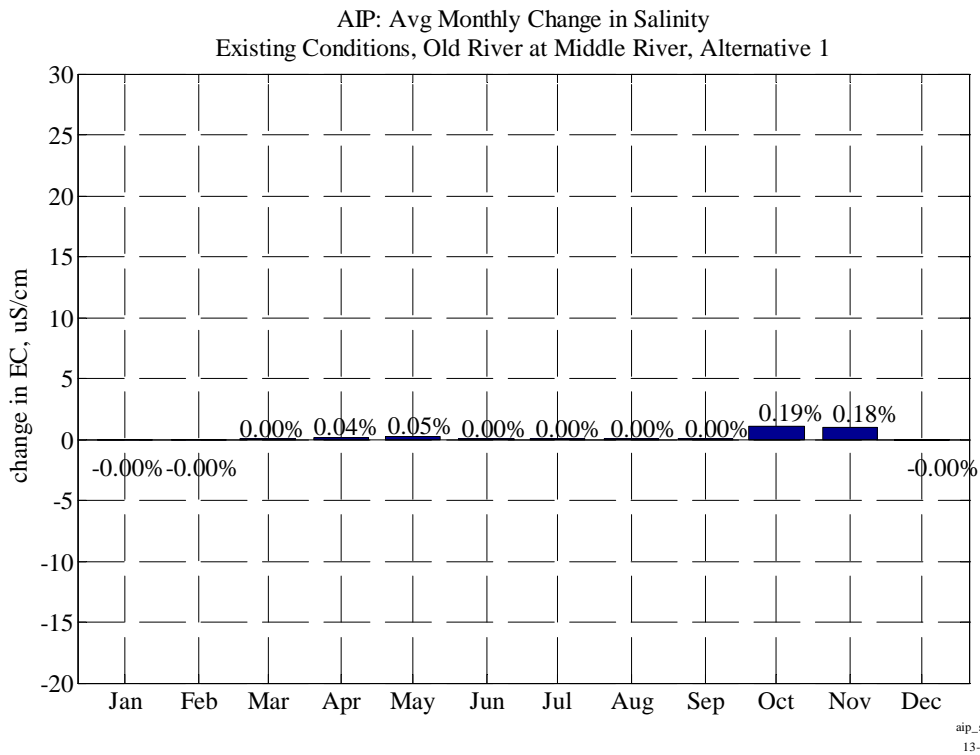
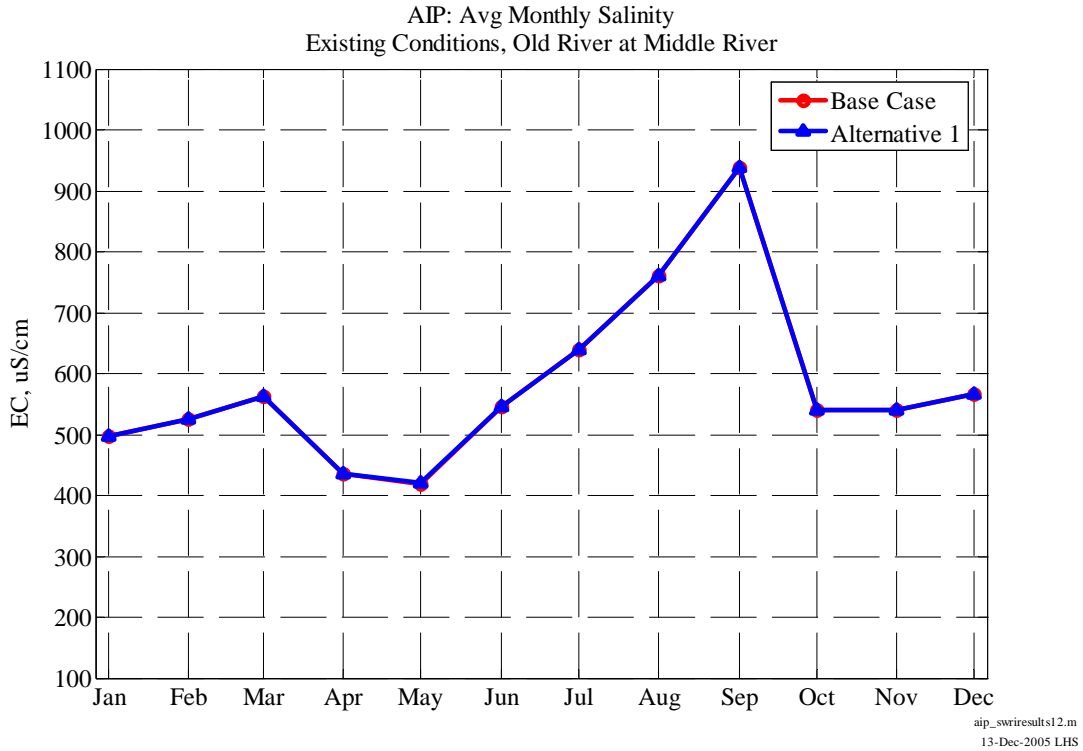
Appendix C-4 DSM2 Delta Modeling



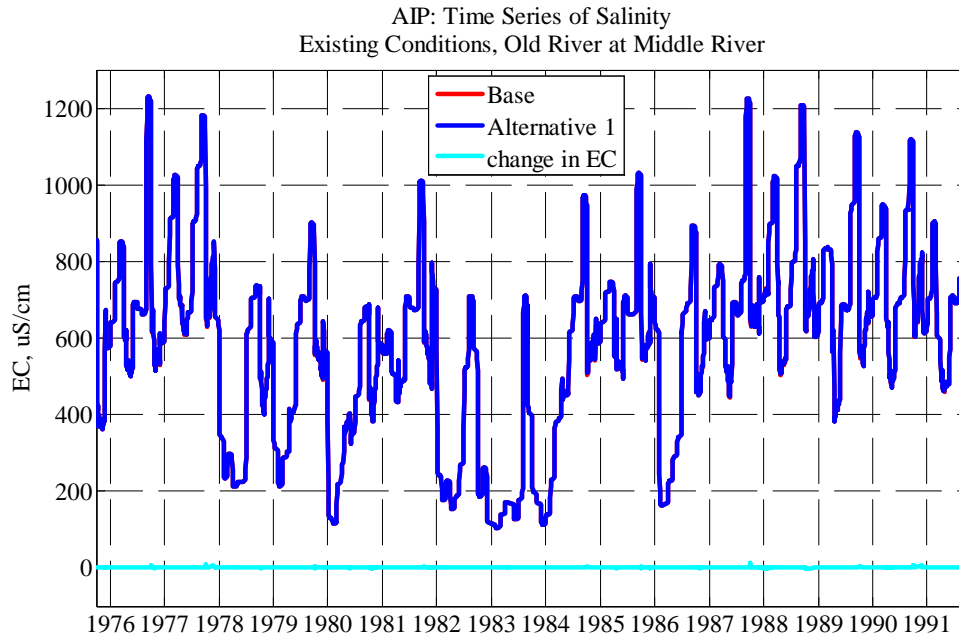
aip_swresults12.m
13-Dec-2005 LHS

Appendix C-4 DSM2 Delta Modeling

Old River at Middle River

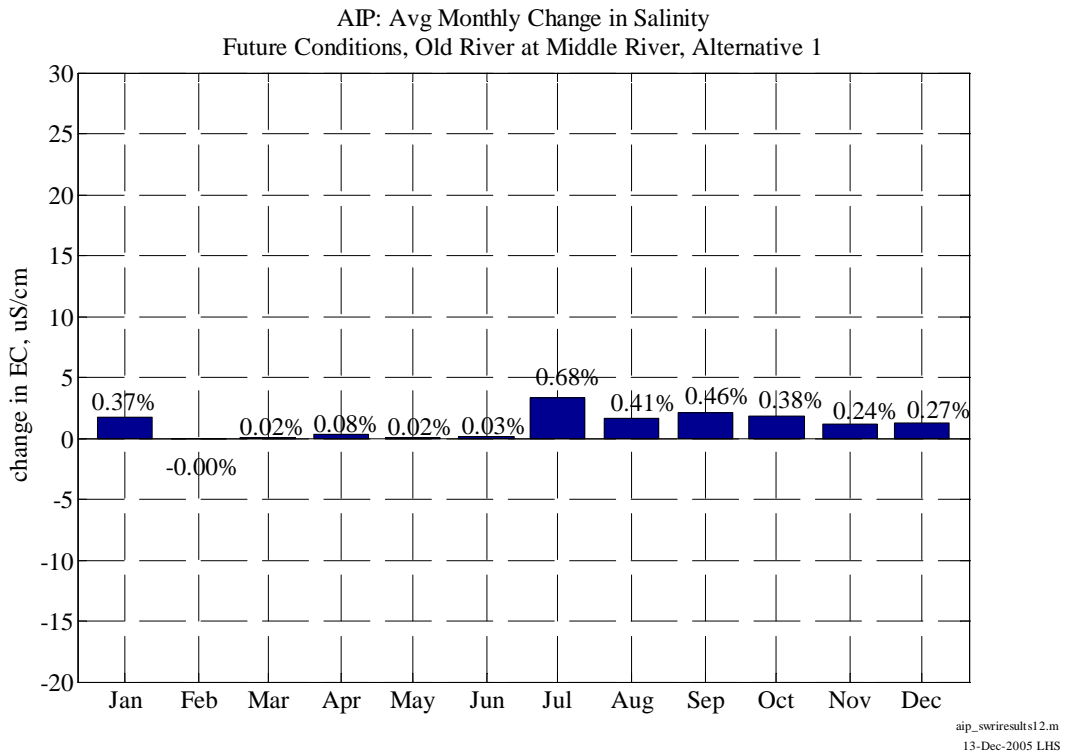
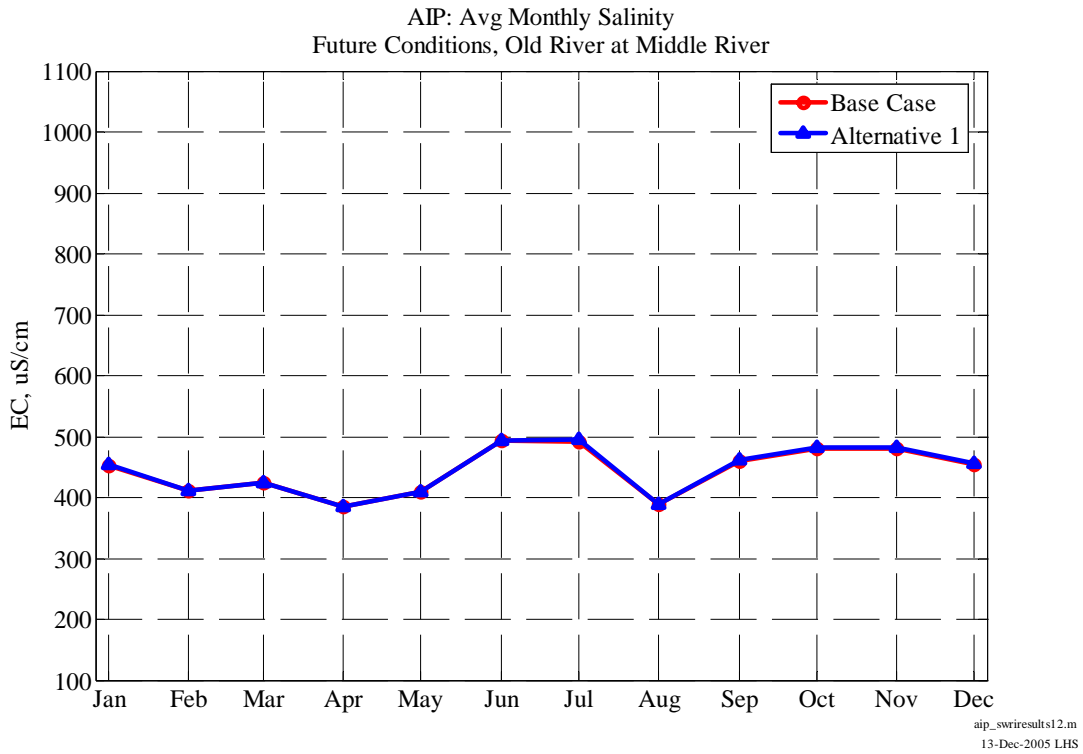


Appendix C-4 DSM2 Delta Modeling

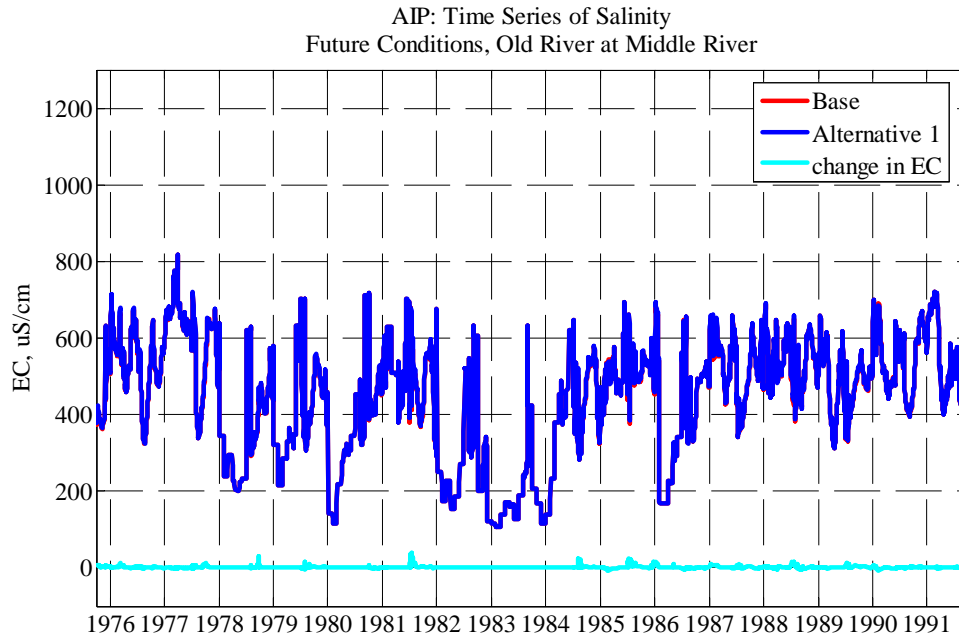


aip_swresults12.m
13-Dec-2005 LHS

Appendix C-4 DSM2 Delta Modeling



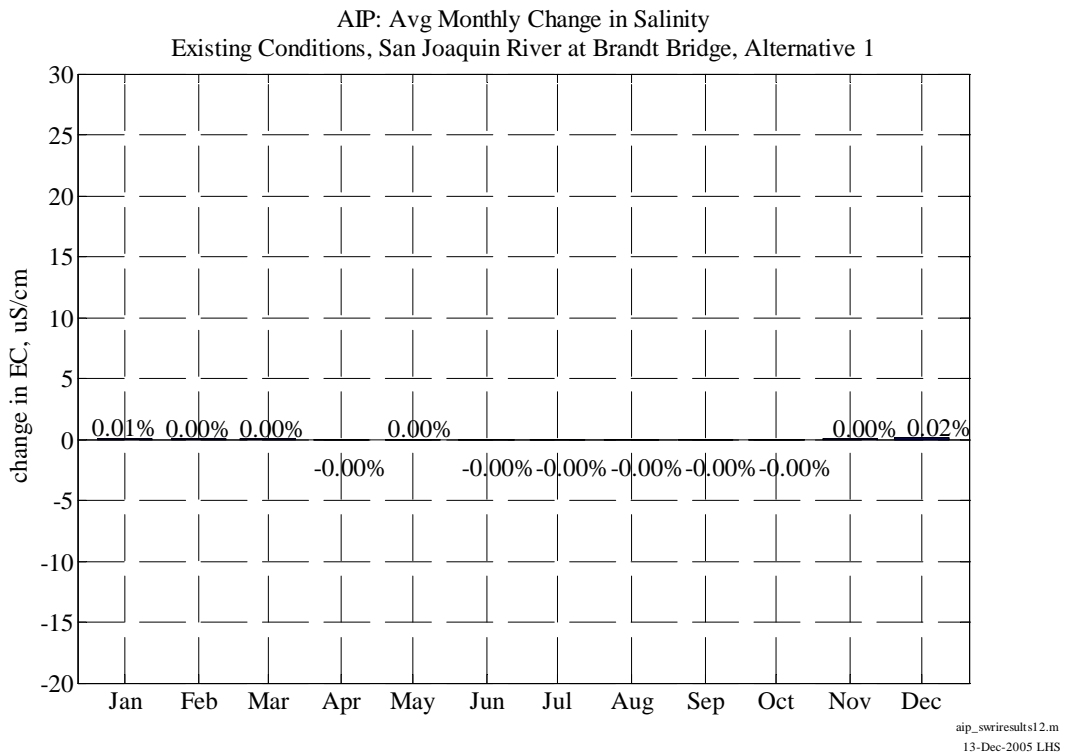
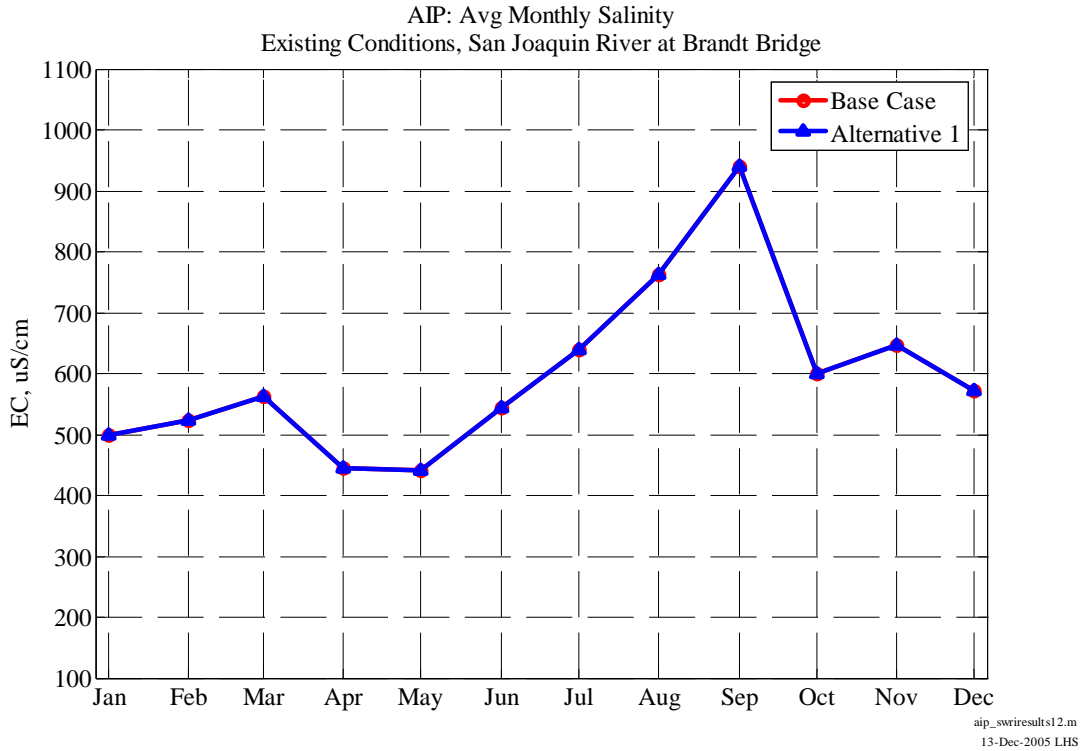
Appendix C-4 DSM2 Delta Modeling



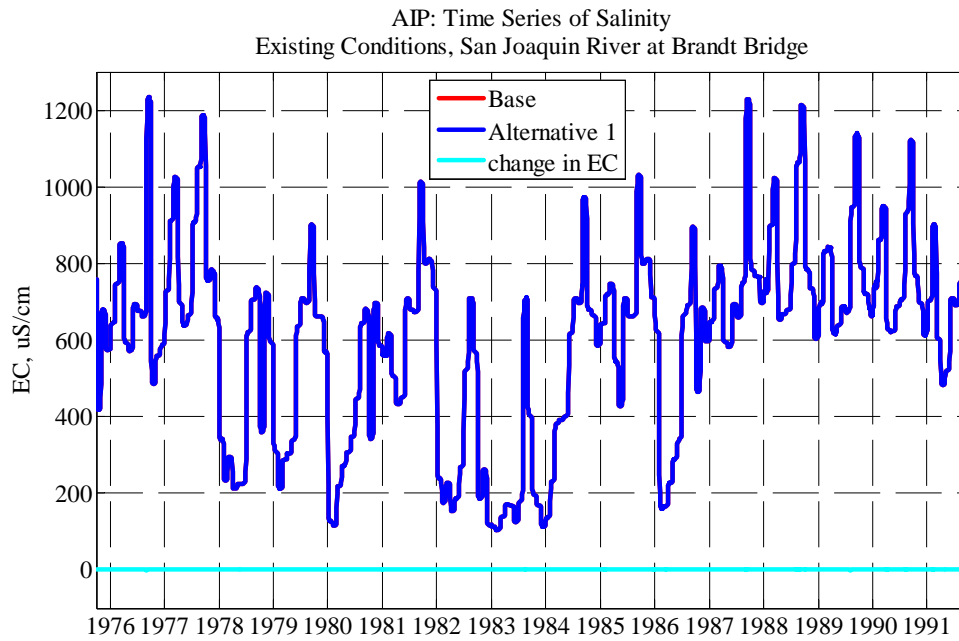
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13-Dec-2005 LHS

Appendix C-4 DSM2 Delta Modeling

San Joaquin River at Brandt Bridge

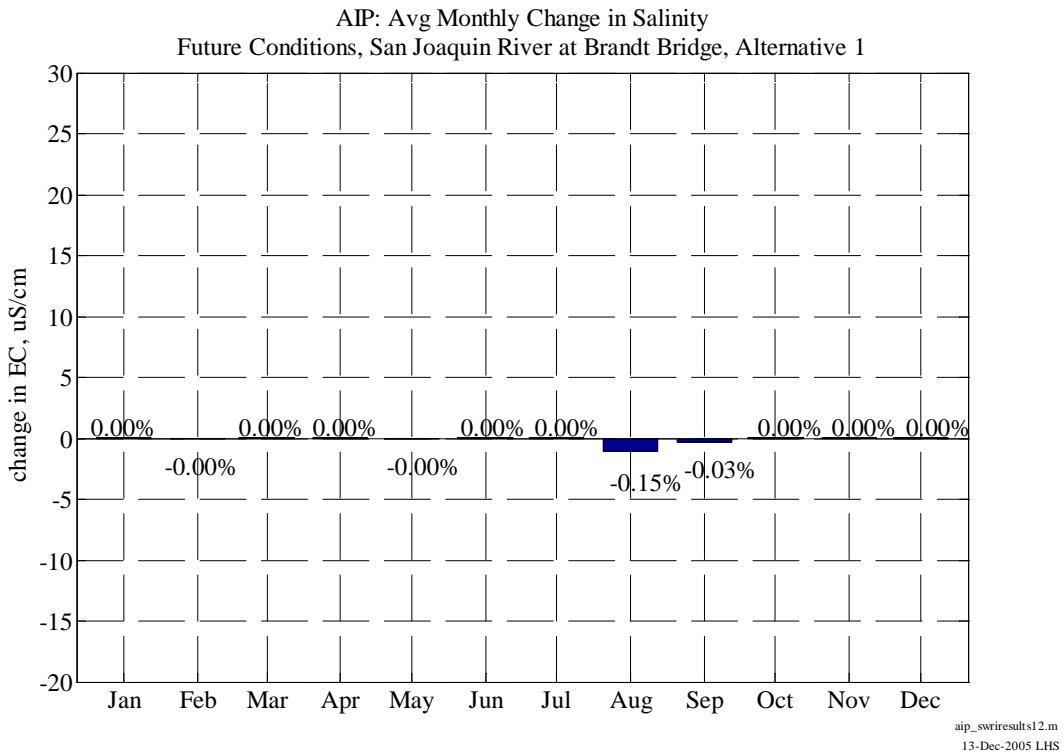
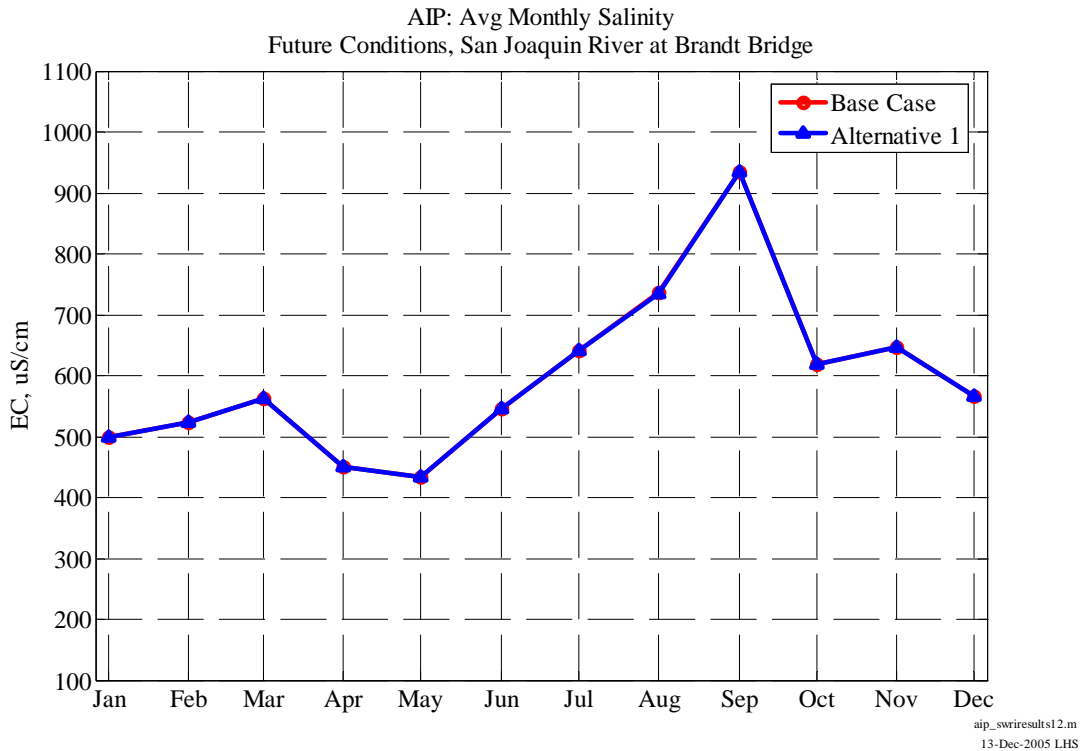


Appendix C-4 DSM2 Delta Modeling

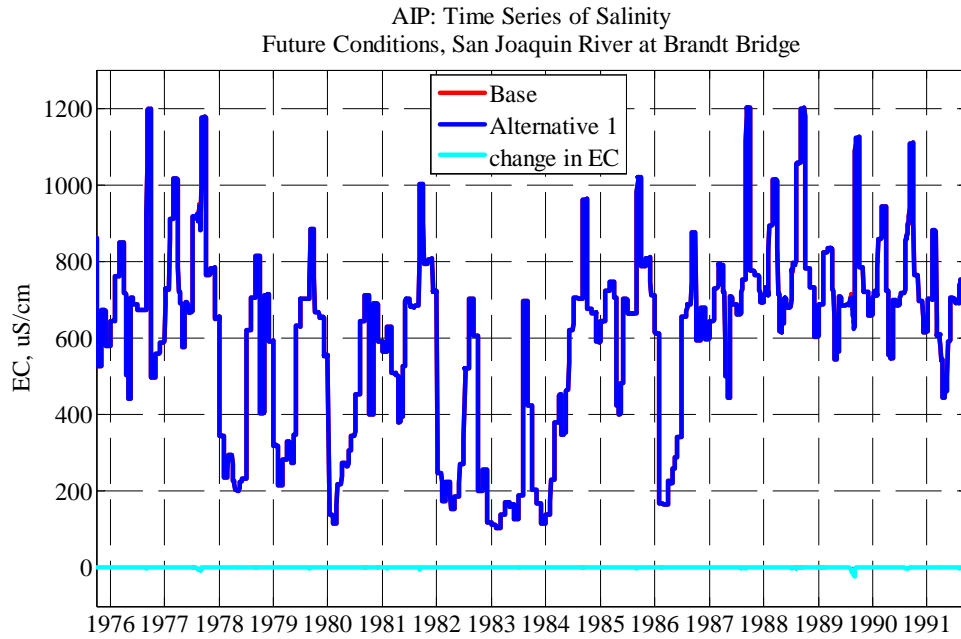


aip_swiresults12.m
13-Dec-2005 LHS

Appendix C-4 DSM2 Delta Modeling



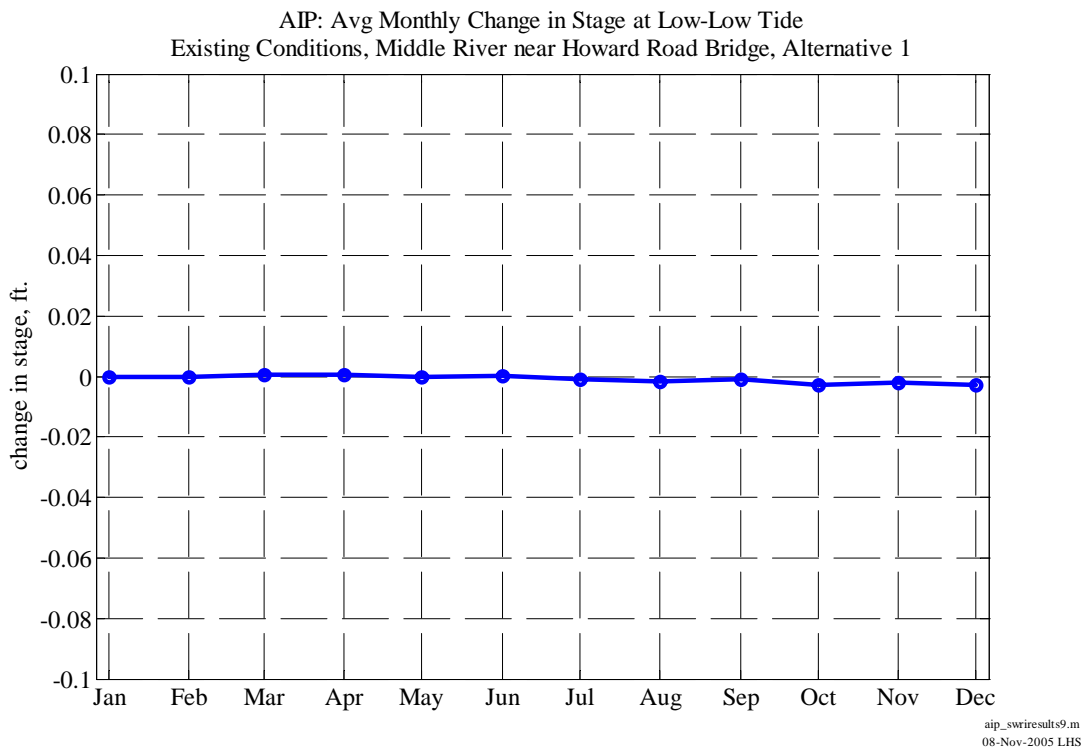
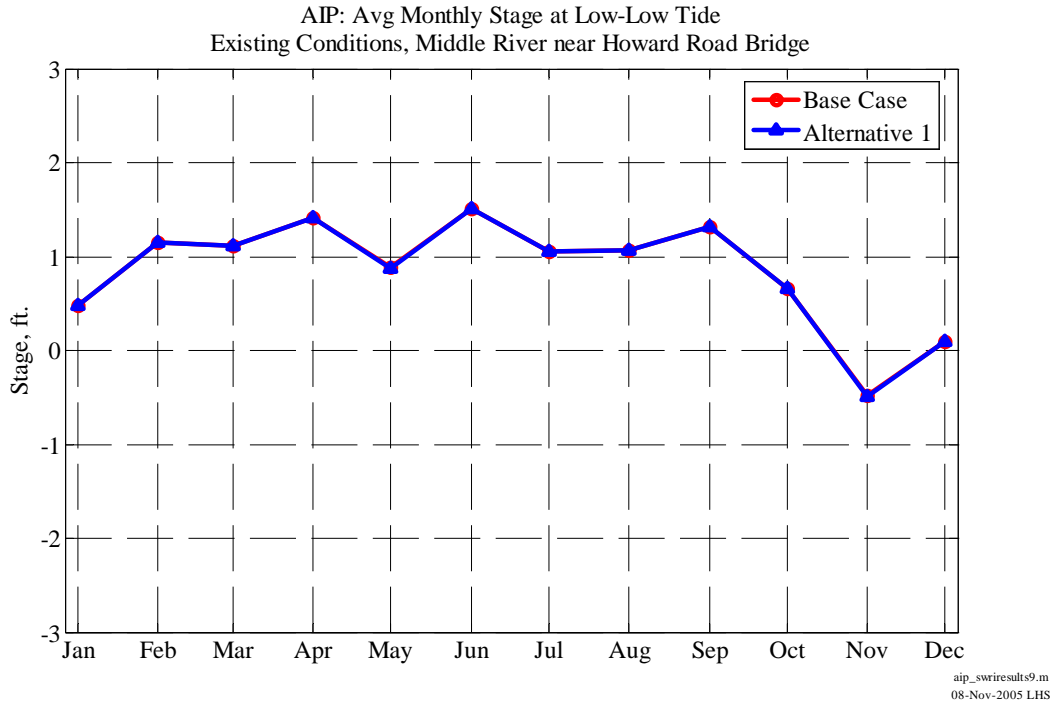
Appendix C-4 DSM2 Delta Modeling



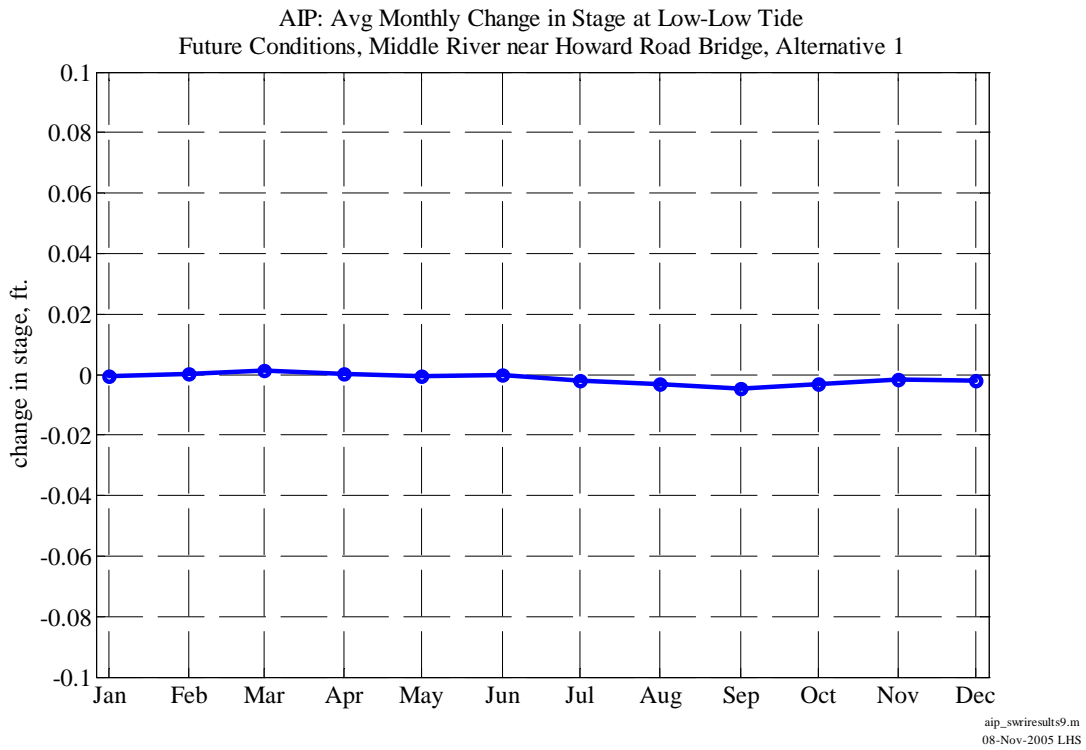
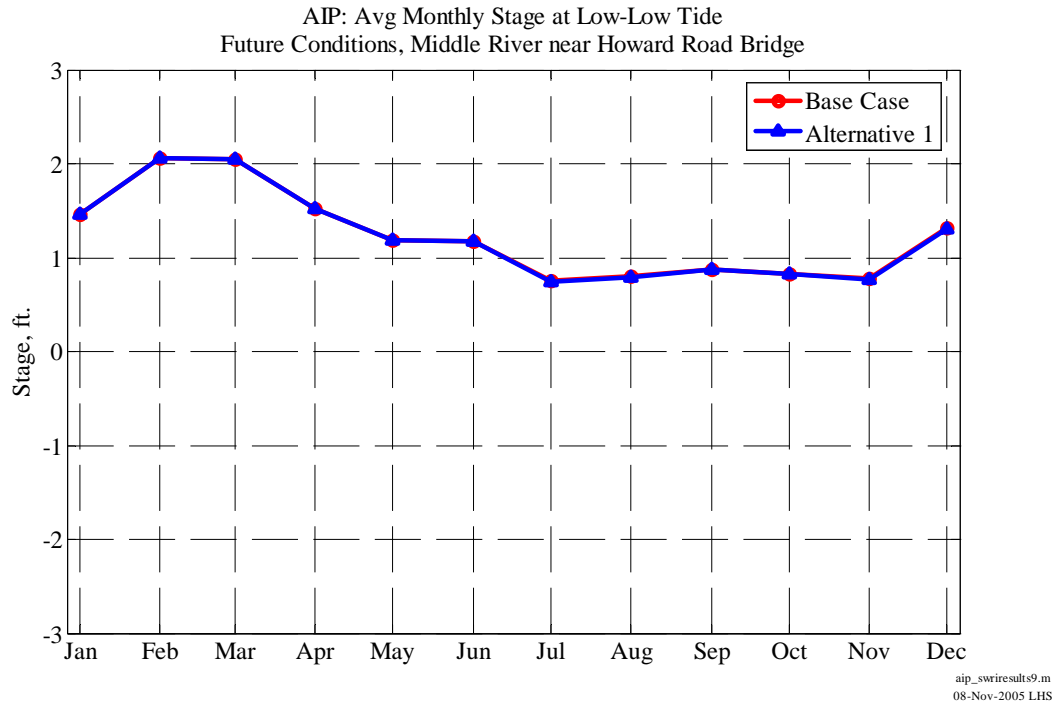
aip_swresults12.m
13-Dec-2005 LHS

Appendix C-4 DSM2 Delta Modeling

Middle River near Howard Road Bridge

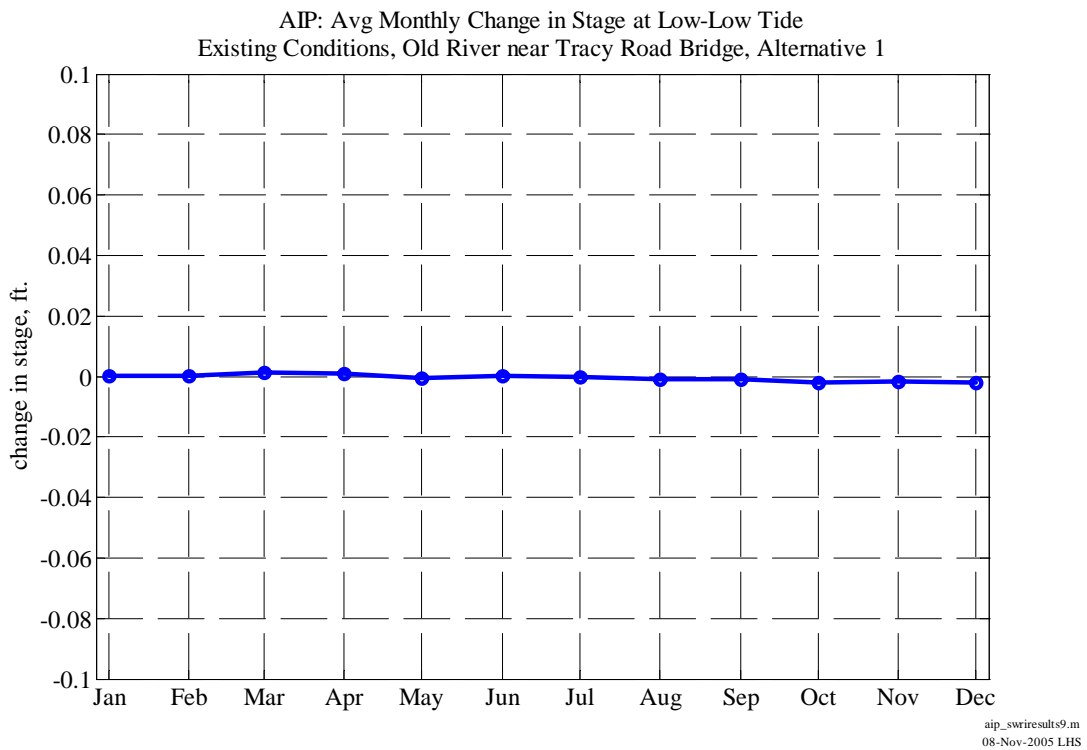
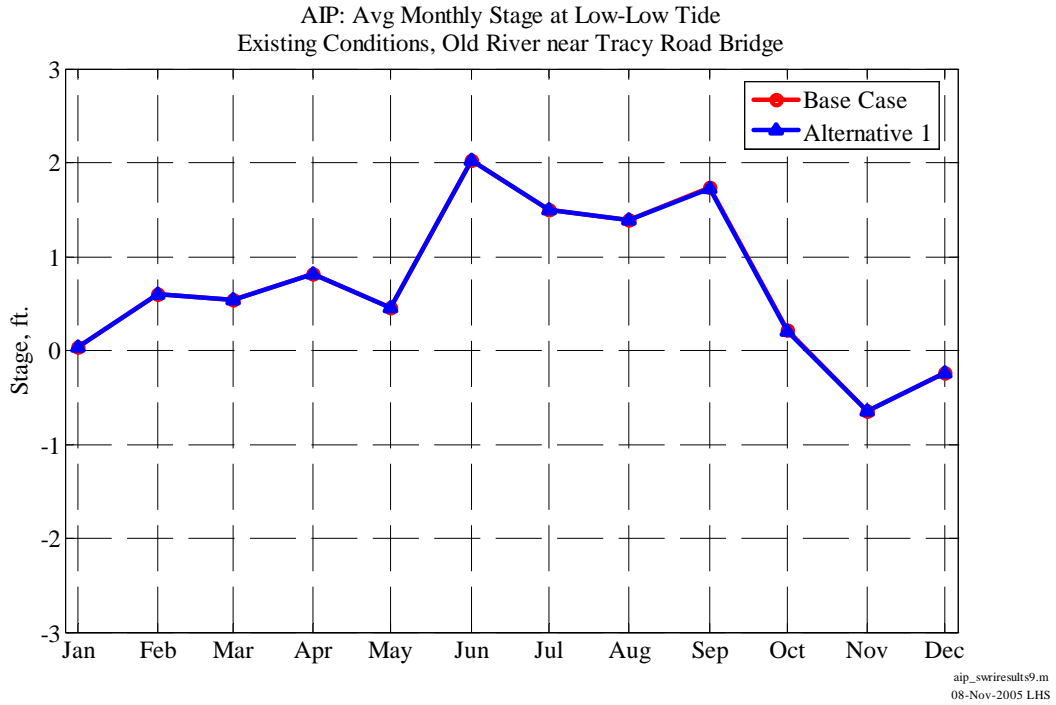


Appendix C-4 DSM2 Delta Modeling

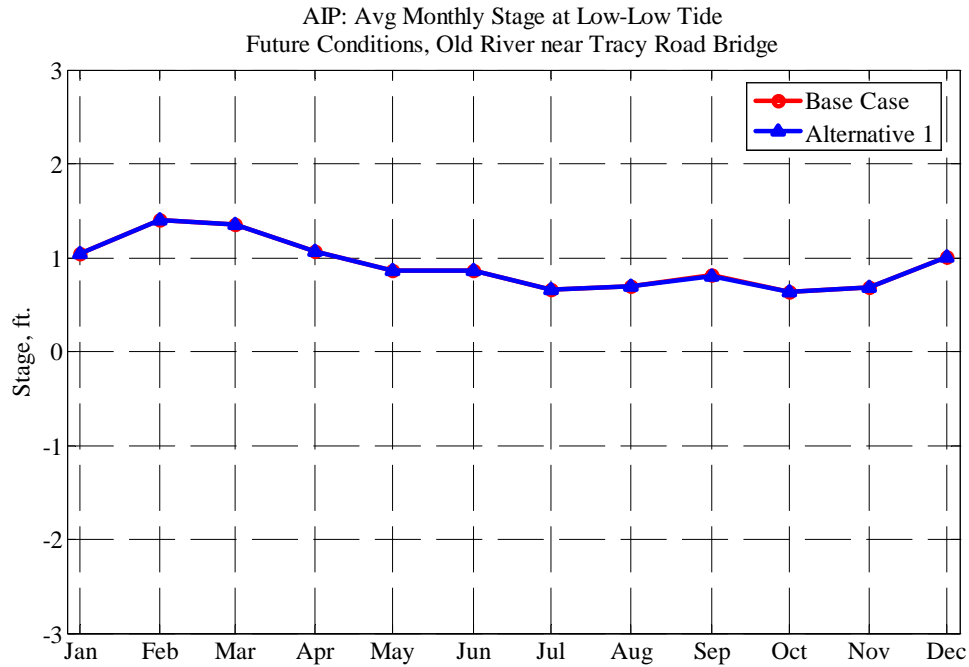


Appendix C-4 DSM2 Delta Modeling

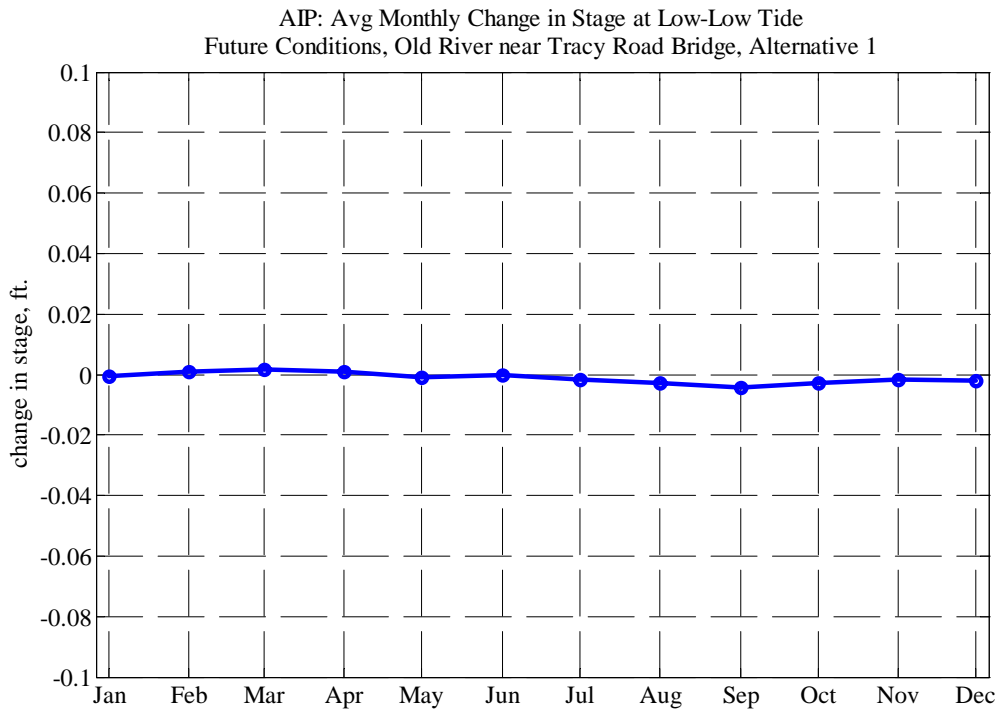
Old River near Tracy Road Bridge



Appendix C-4 DSM2 Delta Modeling



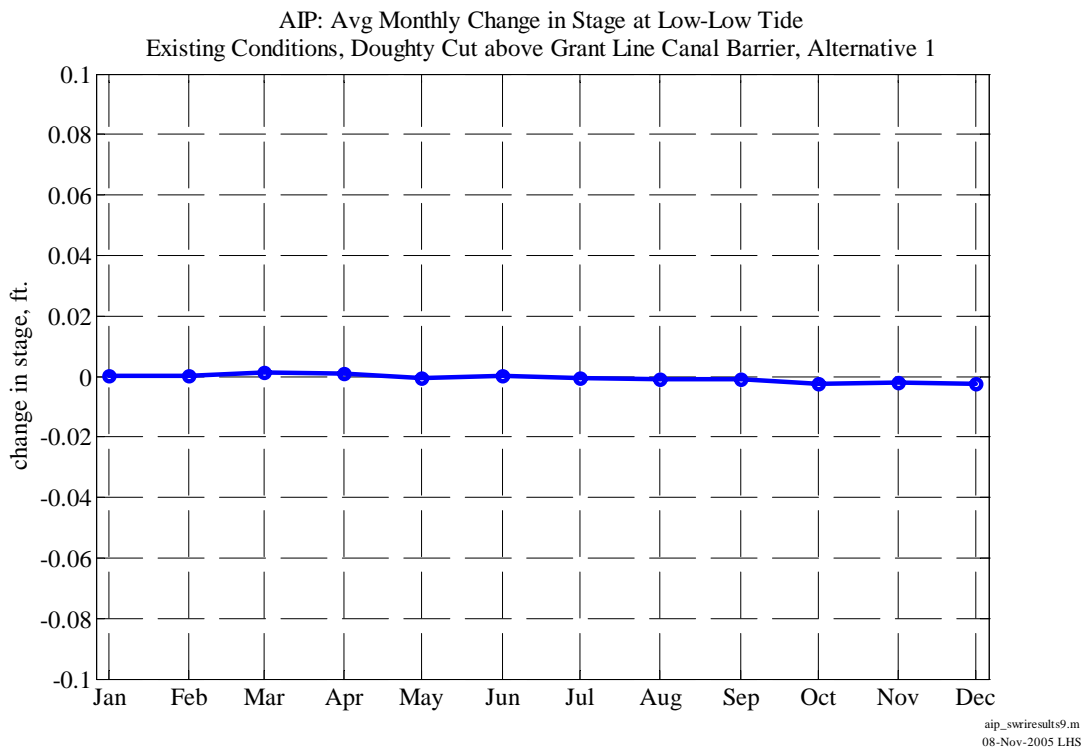
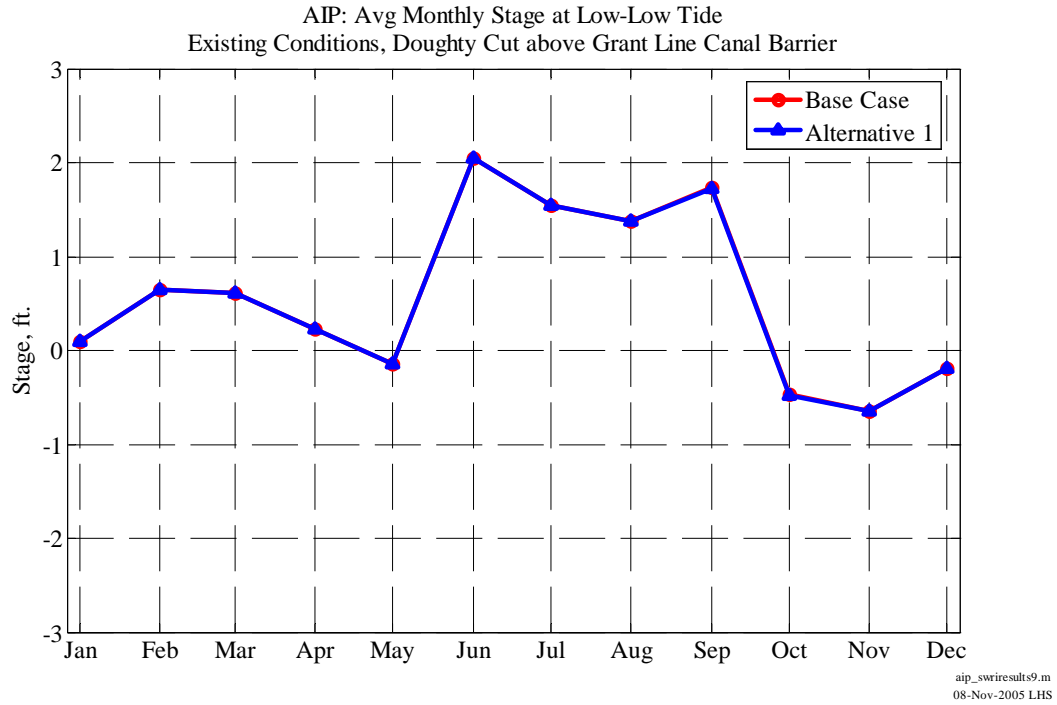
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08-Nov-2005 LHS



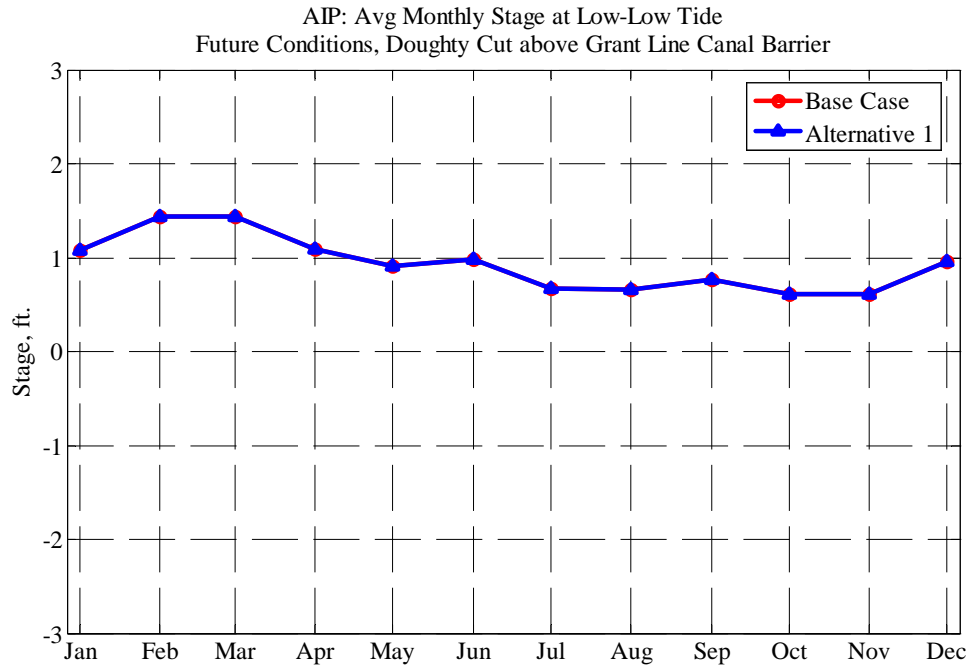
aip_swresults9.m
08-Nov-2005 LHS

Appendix C-4 DSM2 Delta Modeling

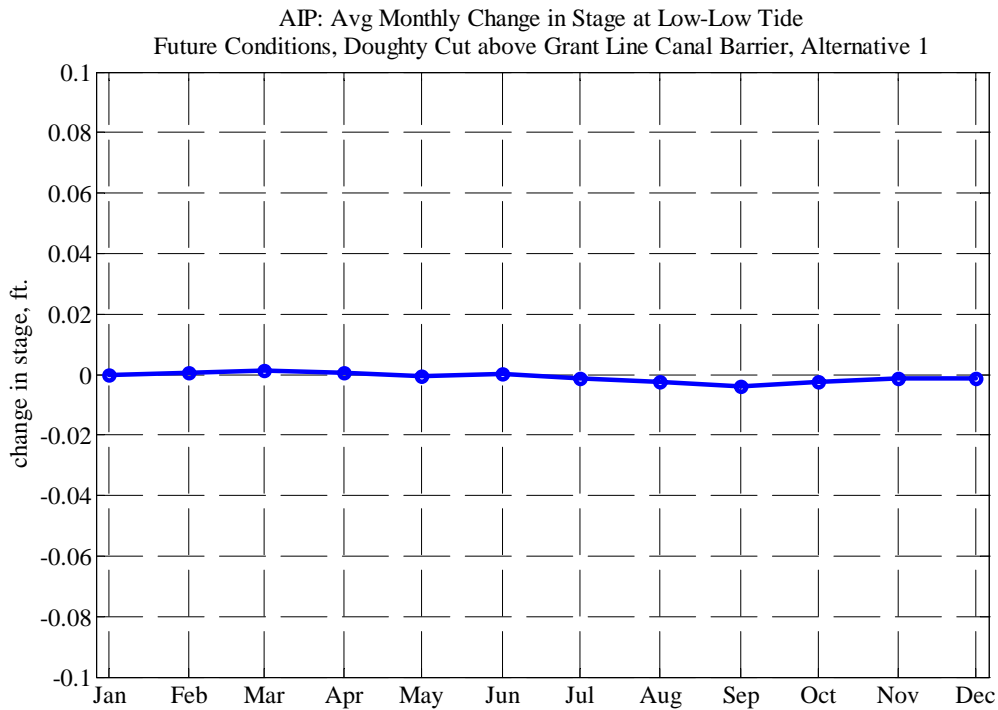
Doughty Cut above Grant Line Canal Barrier



Appendix C-4 DSM2 Delta Modeling



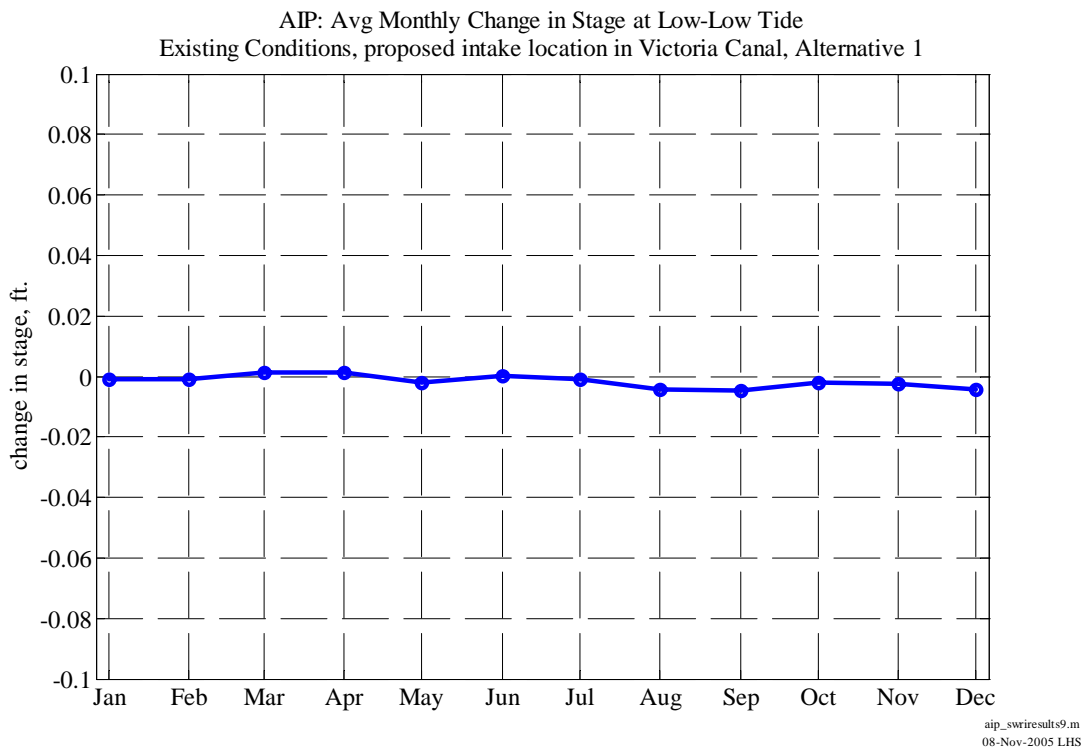
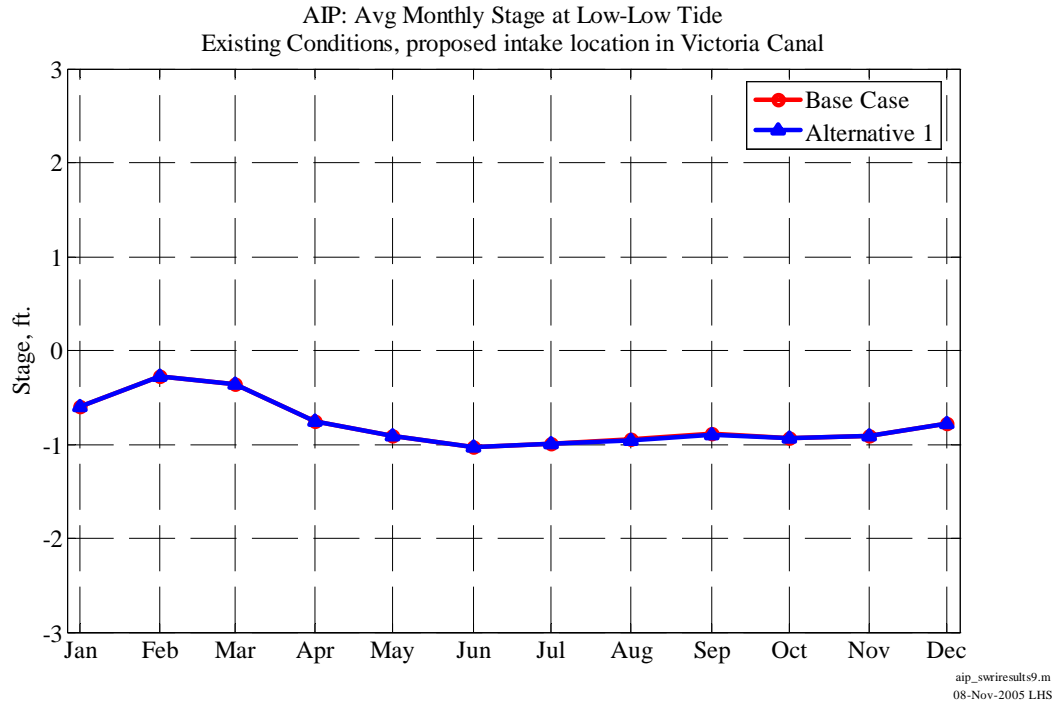
aip_swresults9.m
08-Nov-2005 LHS



aip_swresults9.m
08-Nov-2005 LHS

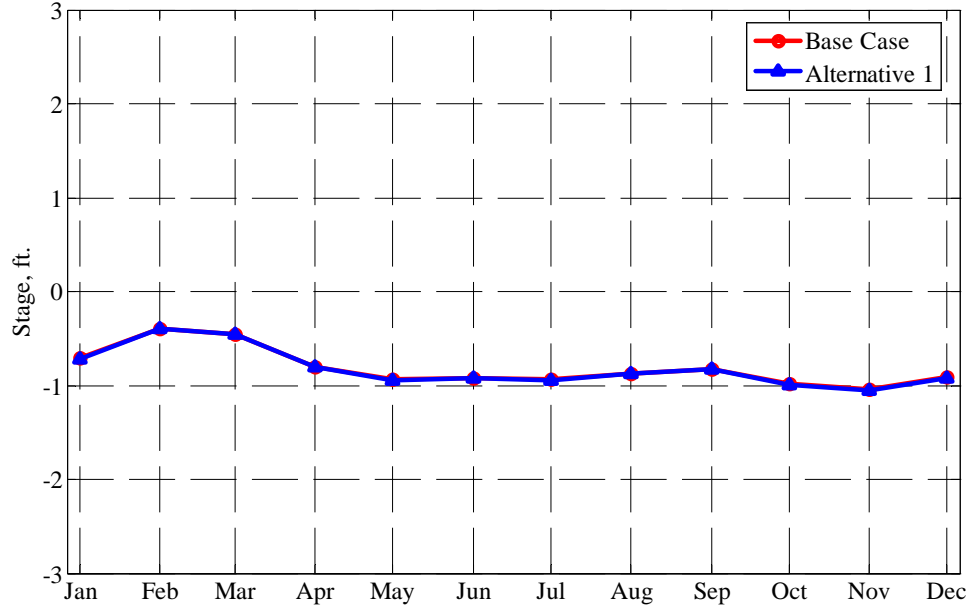
Appendix C-4 DSM2 Delta Modeling

Proposed Alternative Intake Location on Victoria Canal



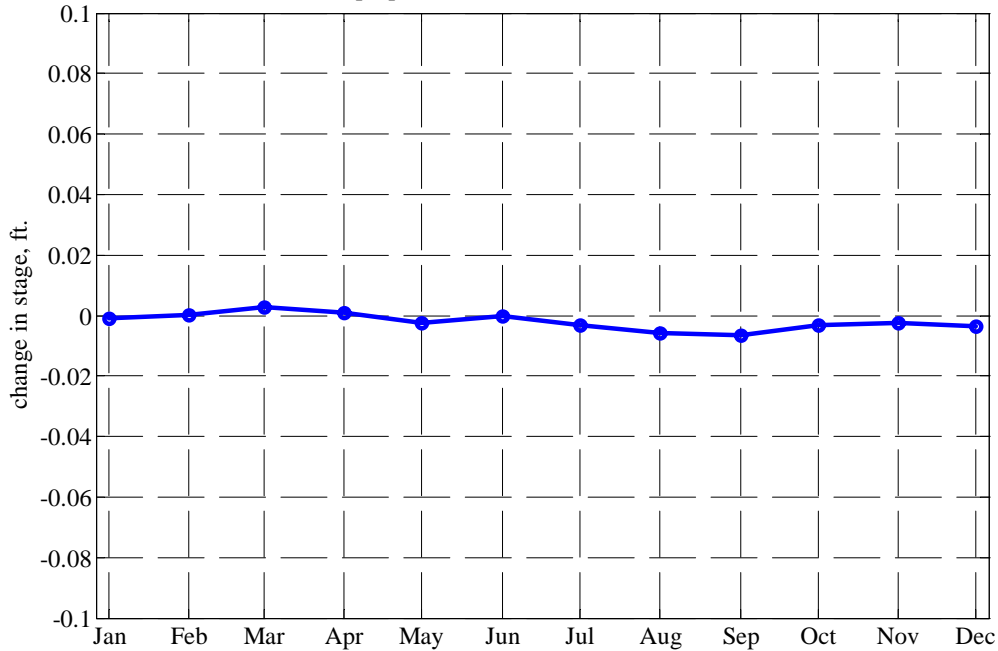
Appendix C-4 DSM2 Delta Modeling

AIP: Avg Monthly Stage at Low-Low Tide
Future Conditions, proposed intake location in Victoria Canal



aip_swresults9.m
08-Nov-2005 LHS

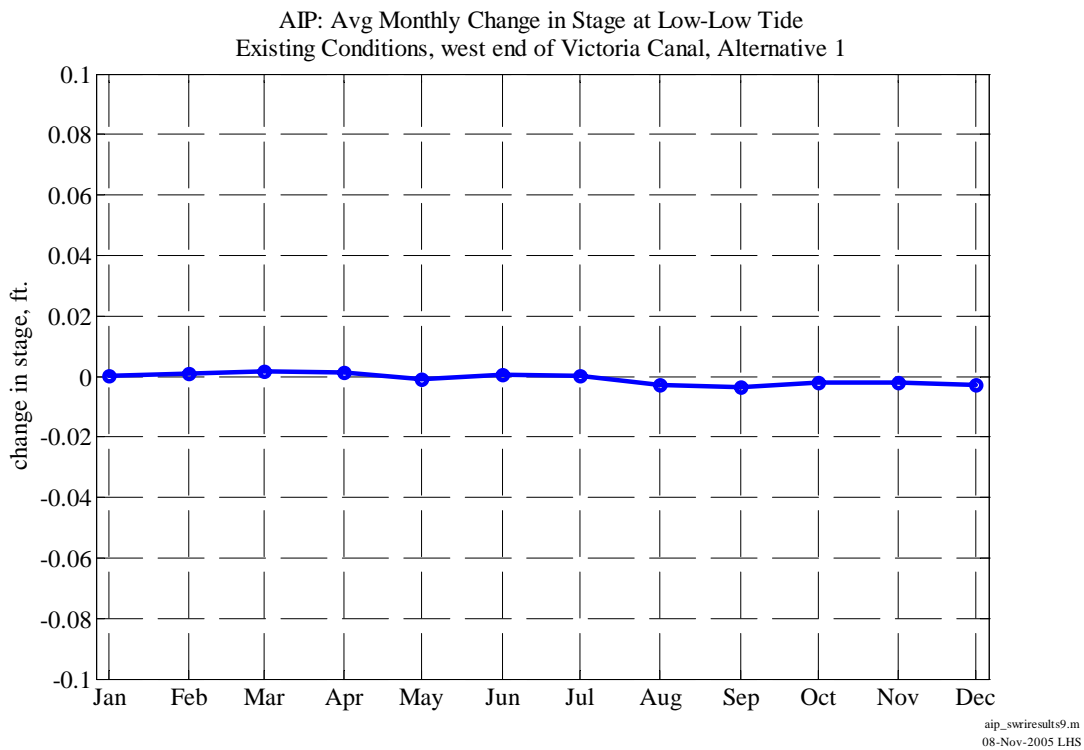
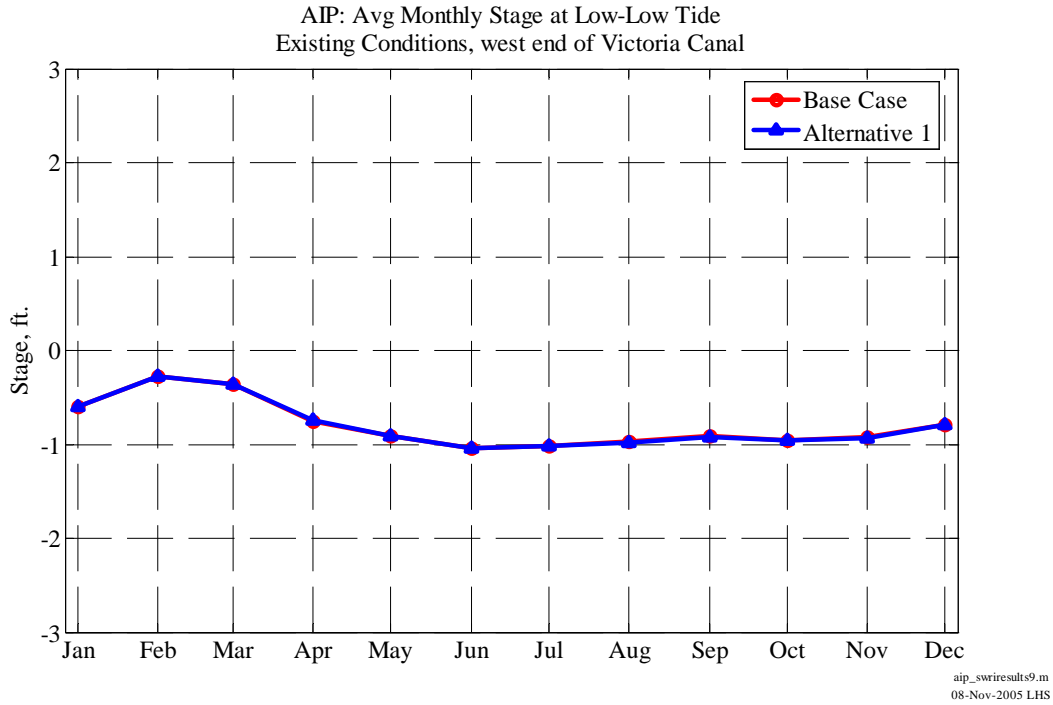
AIP: Avg Monthly Change in Stage at Low-Low Tide
Future Conditions, proposed intake location in Victoria Canal, Alternative 1



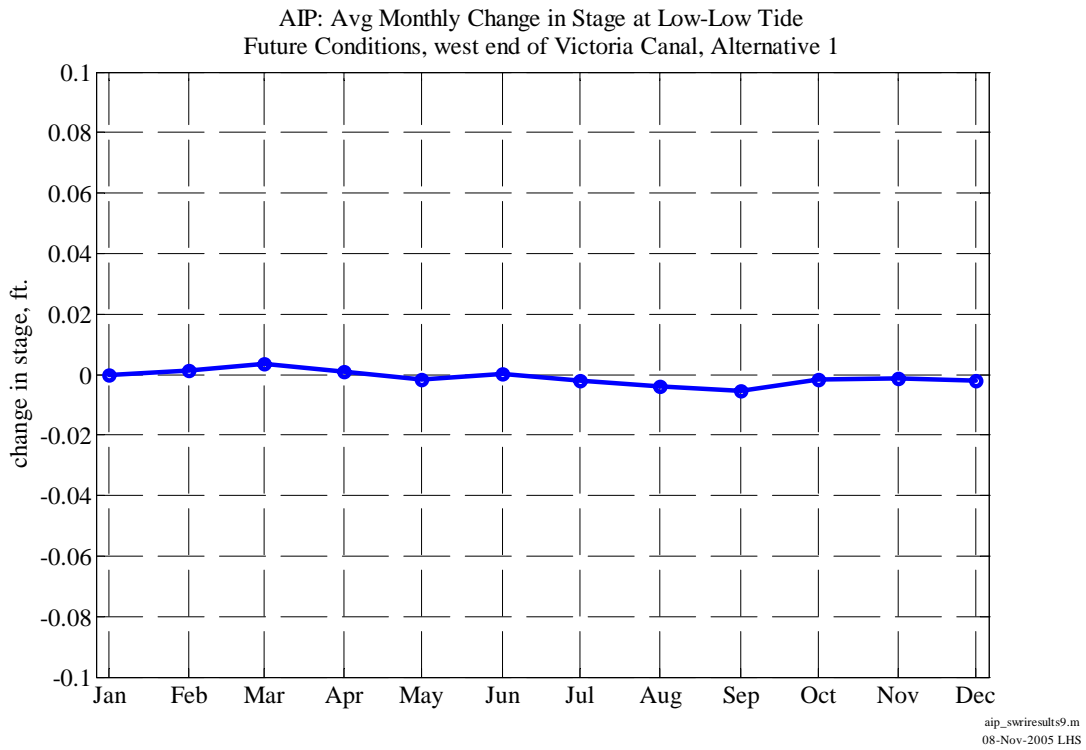
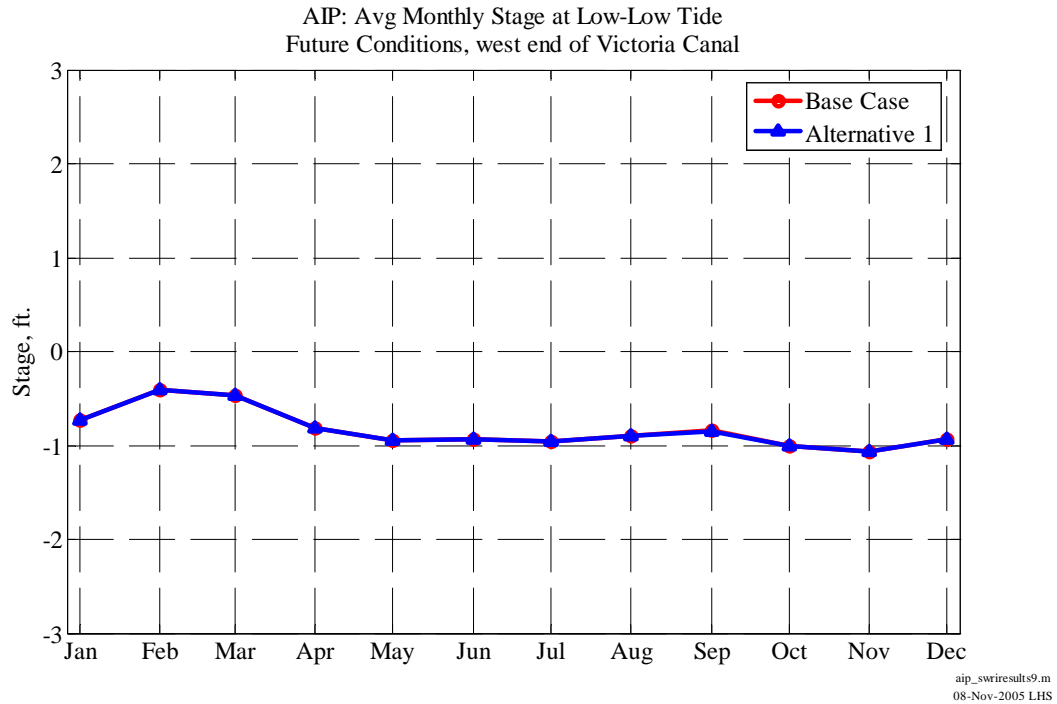
aip_swresults9.m
08-Nov-2005 LHS

Appendix C-4 DSM2 Delta Modeling

West end of Victoria Canal

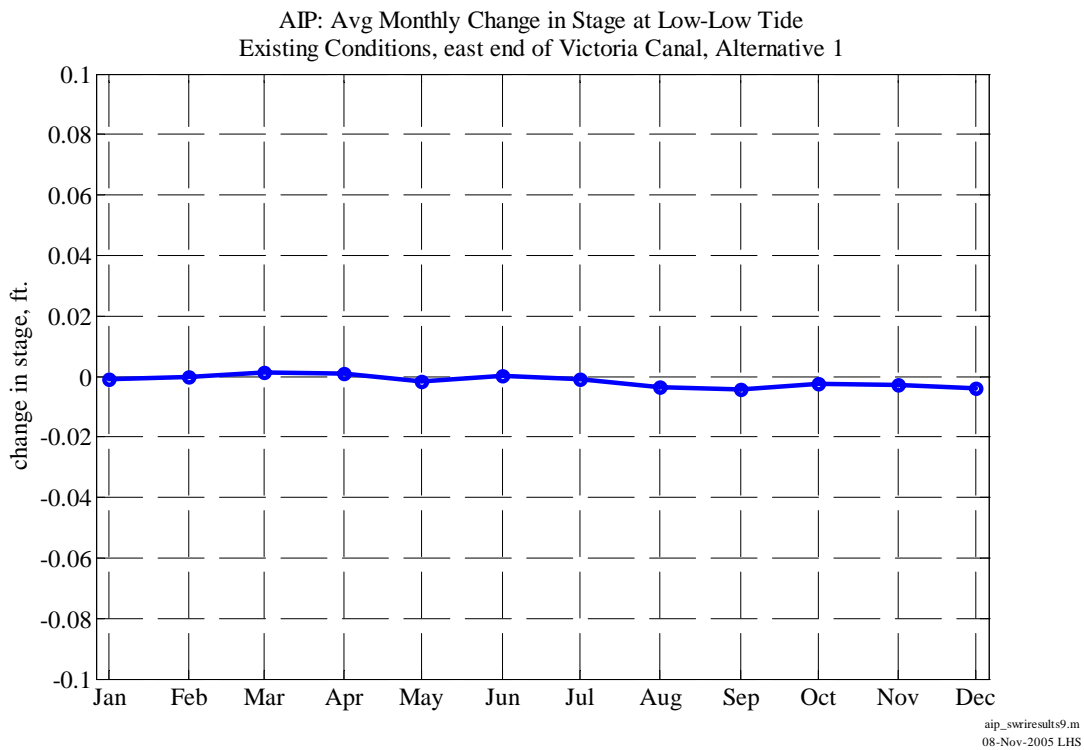
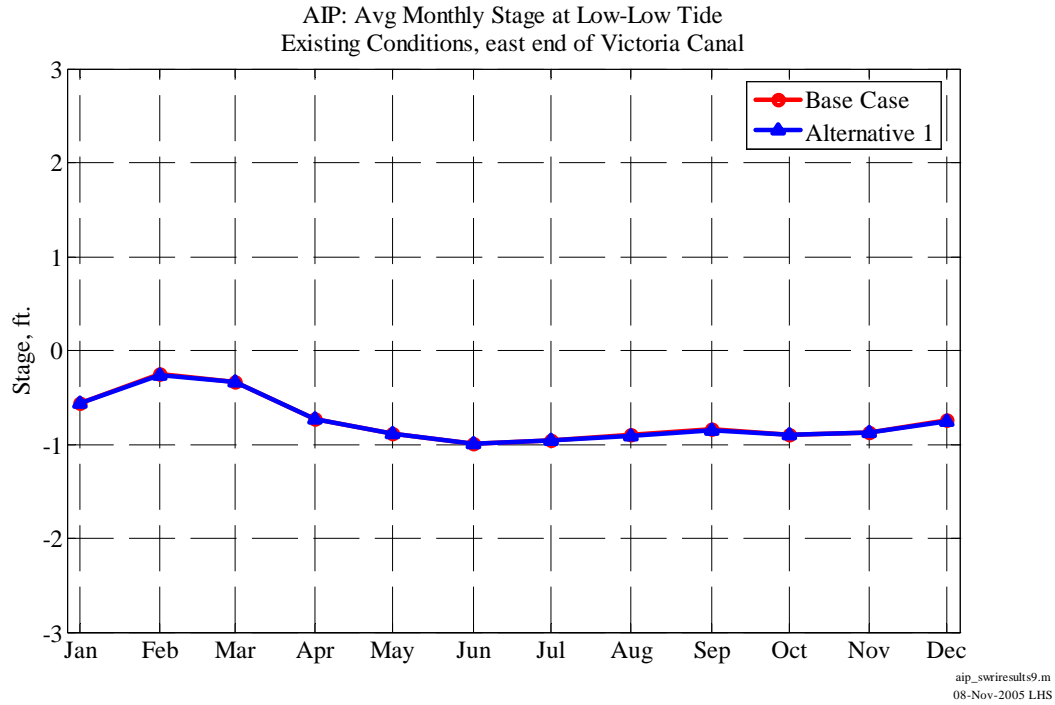


Appendix C-4 DSM2 Delta Modeling

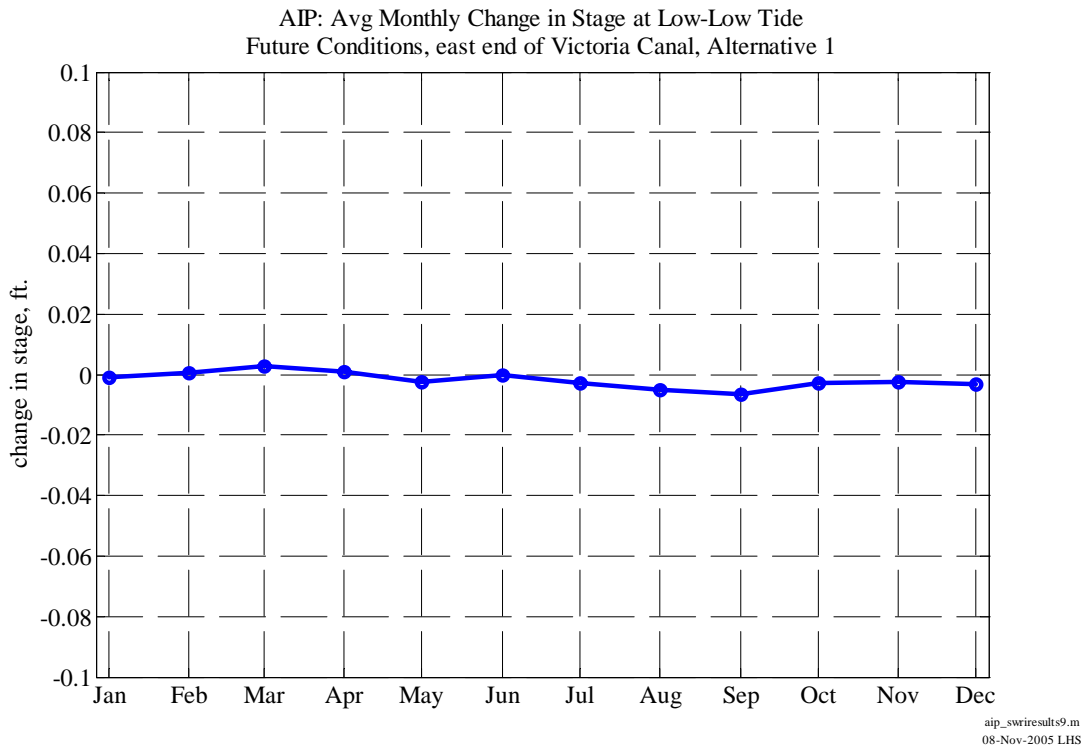
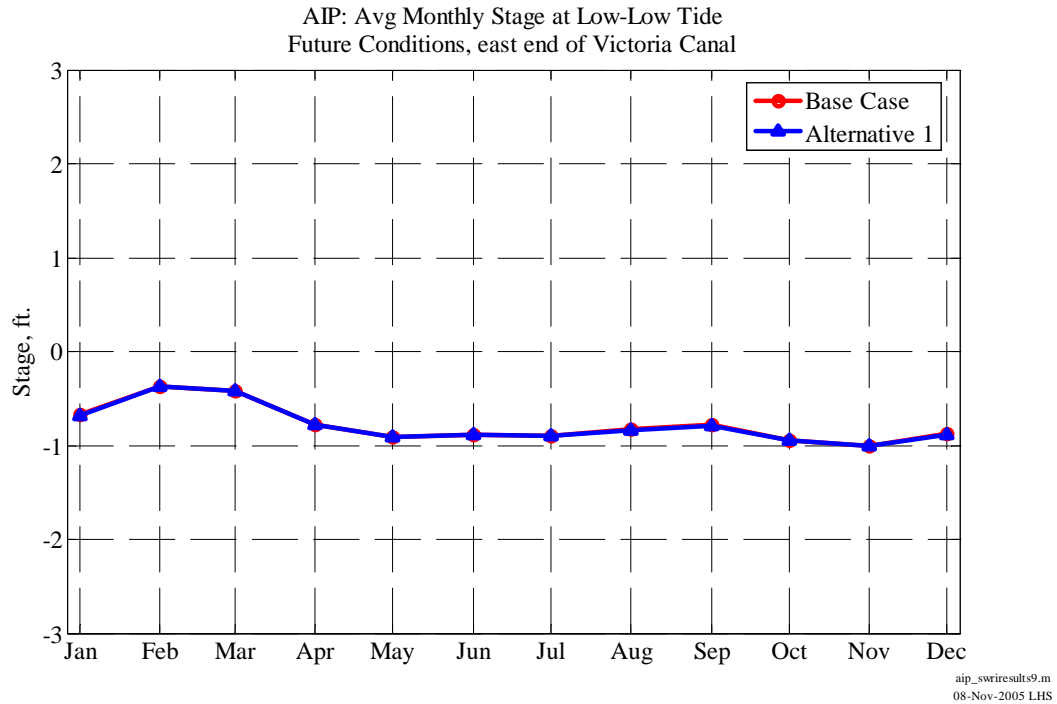


Appendix C-4 DSM2 Delta Modeling

East end of Victoria Canal



Appendix C-4 DSM2 Delta Modeling



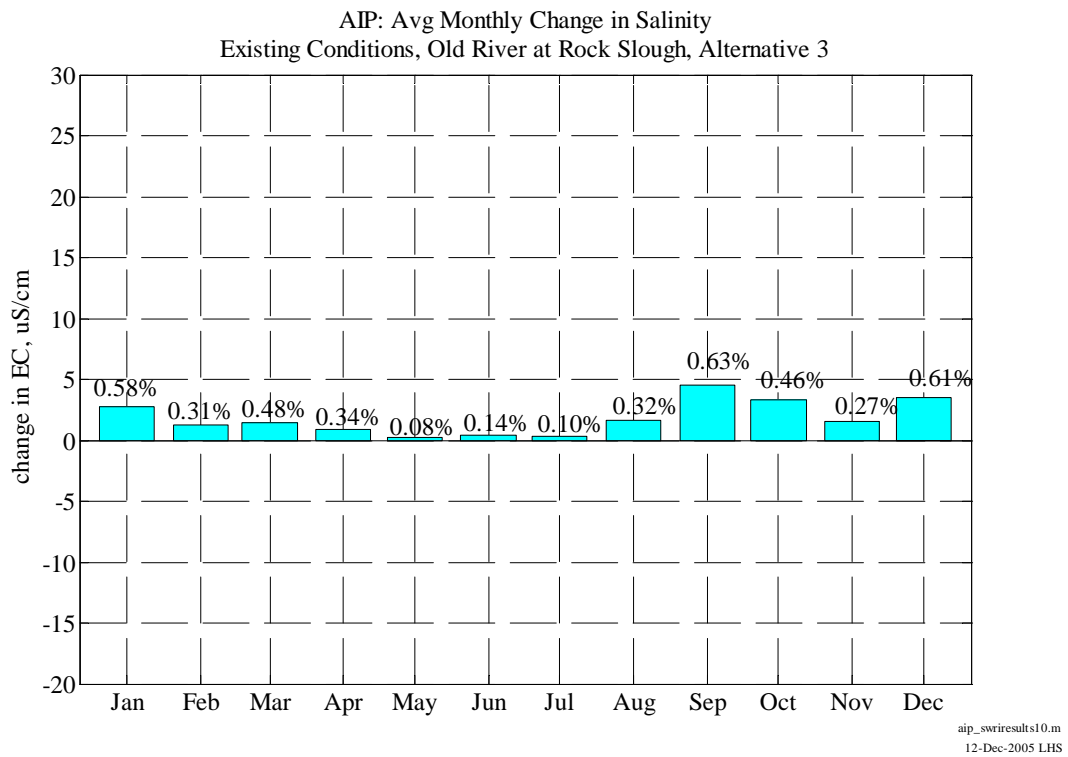
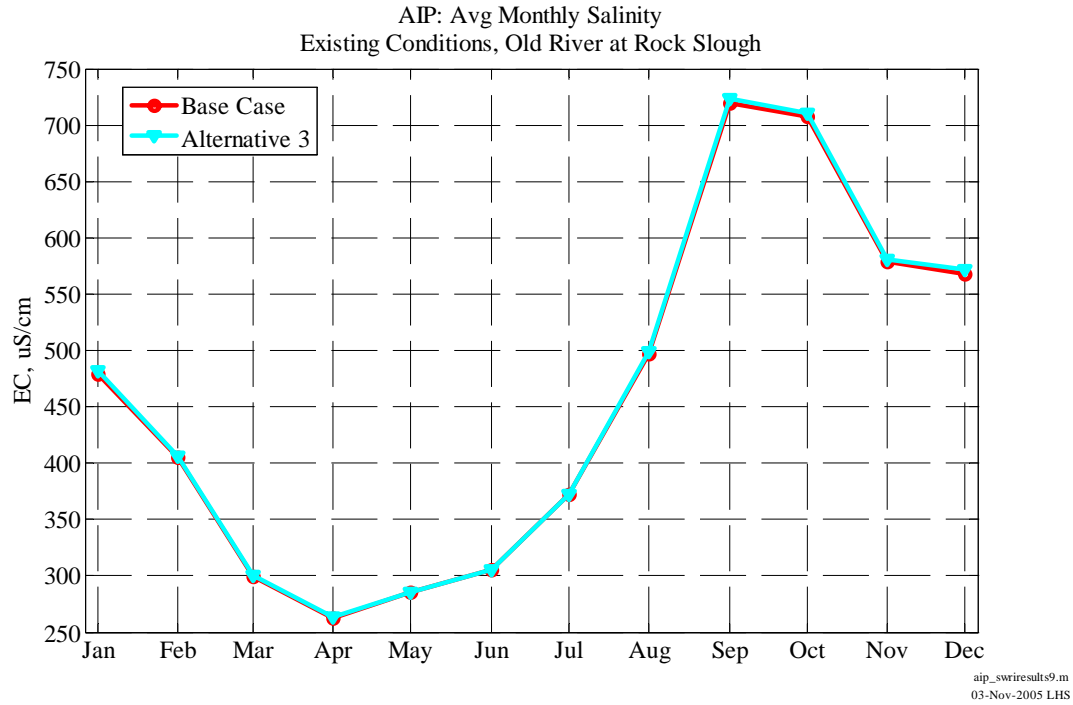
Appendix C-4 DSM2 Delta Modeling

**Alternative 3, Alternative Intake with
Modified Operations for Fisheries**

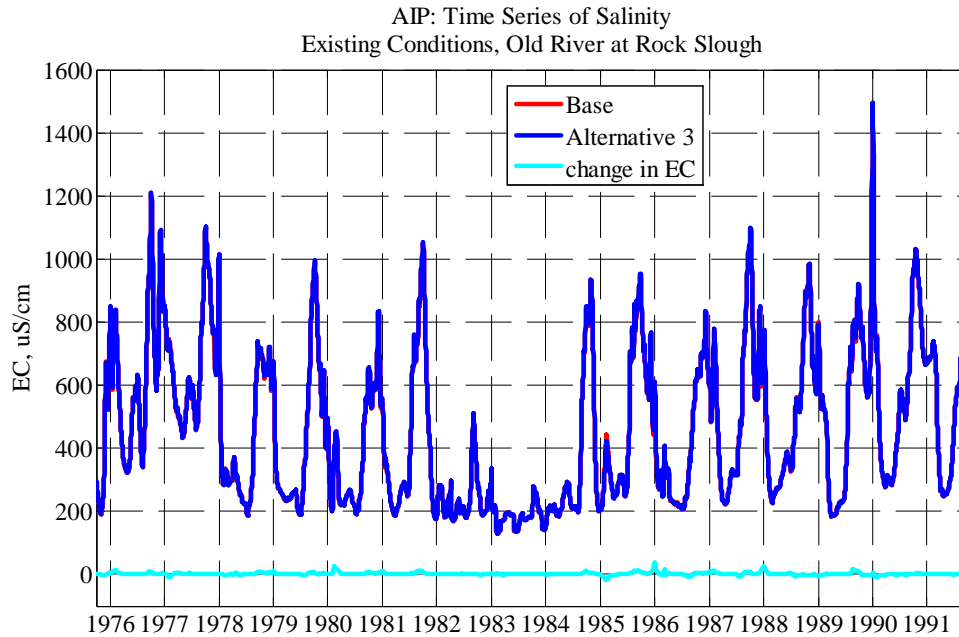
(note that Alternative 3 Future Conditions case is the same as Alternative 1 Future Conditions case)

Appendix C-4 DSM2 Delta Modeling

Old River at Rock Slough



Appendix C-4 DSM2 Delta Modeling



aip_swresults10.m
22-Nov-2005 LHS

Old River at Rock Slough Salinity Base (Existing Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	235	283	633	711	726	454	336	400	570	508	448	913
1977	901	700	946	762	689	547	479	475	594	534	552	881
1978	1007	818	740	487	318	293	335	273	229	206	364	661
1979	680	648	641	405	265	242	241	259	213	260	501	830
1980	865	595	504	288	367	271	227	257	235	206	340	558
1981	587	620	651	398	276	199	219	280	265	535	734	929
1982	779	396	192	258	211	226	189	212	207	188	307	409
1983	236	194	253	215	136	168	193	190	139	176	175	181
1984	254	212	149	193	213	193	217	280	235	210	317	701
1985	837	656	232	251	396	291	258	308	268	535	779	888
1986	748	595	563	356	281	329	255	227	217	221	320	504
1987	628	685	713	563	626	322	229	280	319	401	652	948
1988	879	597	739	551	260	256	280	339	365	390	544	654
1989	900	800	645	626	507	265	188	214	237	467	723	820
1990	788	610	807	924	499	303	301	307	439	566	551	788
1991	995	852	682	681	712	431	259	264	357	555	651	843

Appendix C-4 DSM2 Delta Modeling

Old River at Rock Slough Salinity Base (Existing Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Avg	708	579	568	479	405	299	263	285	305	372	497	719
W	504	349	289	255	210	229	213	227	199	199	280	449
AN	936	707	622	387	343	282	281	265	232	206	352	609
BN	680	648	641	405	265	242	241	259	213	260	501	830
D	738	690	560	460	451	269	224	271	272	484	722	897
C	760	608	762	726	577	398	331	357	465	510	549	816

Old River at Rock Slough Salinity Alternative (Existing Alt 3) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	236	282	635	719	736	457	337	400	570	509	449	919
1977	906	701	948	761	684	551	483	476	596	536	553	882
1978	1009	819	740	487	317	292	337	273	229	206	365	667
1979	688	653	648	410	266	243	241	259	213	259	502	836
1980	870	598	508	288	384	280	227	257	235	206	340	563
1981	592	623	658	404	277	200	220	280	265	537	741	940
1982	784	398	192	260	213	226	189	213	207	188	307	409
1983	236	194	254	215	136	168	193	190	139	176	175	181
1984	254	212	149	193	213	193	217	280	235	210	317	708
1985	844	660	232	246	382	288	257	308	268	537	788	899
1986	754	597	578	370	280	333	259	228	217	220	317	504
1987	633	689	719	571	635	324	230	280	319	398	653	956
1988	883	598	753	565	263	258	281	339	368	390	542	654
1989	899	799	643	622	508	265	189	214	237	468	733	832
1990	790	608	805	921	494	302	302	308	439	567	551	789
1991	997	855	683	682	713	431	259	264	357	555	652	844
Avg	711	580	572	482	406	301	264	286	306	373	499	724
W	507	350	293	259	211	230	214	228	200	199	279	450
AN	940	709	624	388	351	286	282	265	232	206	352	615
BN	688	653	648	410	266	243	241	259	213	259	502	836
D	742	693	563	461	451	269	224	271	272	485	729	907
C	762	609	765	730	578	400	332	358	466	511	549	818

Appendix C-4 DSM2 Delta Modeling

Old River at Rock Slough Salinity Difference (Existing Alt 3 minus Existing Base) Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	1	-1	1	8	11	3	1	0	0	1	1	7
1977	4	1	2	-2	-5	5	4	1	2	2	1	1
1978	2	2	1	0	-1	0	2	-1	0	0	1	6
1979	8	4	7	4	1	1	0	0	0	-1	1	6
1980	5	3	3	1	17	9	0	0	0	0	0	5
1981	5	3	8	6	1	0	0	0	0	2	7	10
1982	5	2	0	2	2	0	0	1	0	0	0	1
1983	-1	0	1	1	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	7
1985	7	4	1	-4	-14	-3	0	0	0	3	9	11
1986	6	3	15	14	0	4	4	0	0	-1	-4	-1
1987	4	4	6	8	9	3	1	0	0	-3	1	8
1988	4	1	13	14	2	1	1	0	4	0	-3	-1
1989	-1	-1	-2	-4	1	0	0	0	0	1	10	11
1990	2	-2	-2	-3	-5	-1	1	1	0	1	0	1
1991	2	3	1	1	1	0	1	0	0	0	1	1
Avg	3	2	3	3	1	1	1	0	0	0	2	5
W	3	1	4	4	0	1	1	0	0	0	-1	2
AN	3	2	2	0	8	4	1	0	0	0	1	5
BN	8	4	7	4	1	1	0	0	0	-1	1	6
D	4	3	3	1	-1	0	0	0	0	1	7	10
C	3	0	3	4	1	2	1	1	1	1	0	2

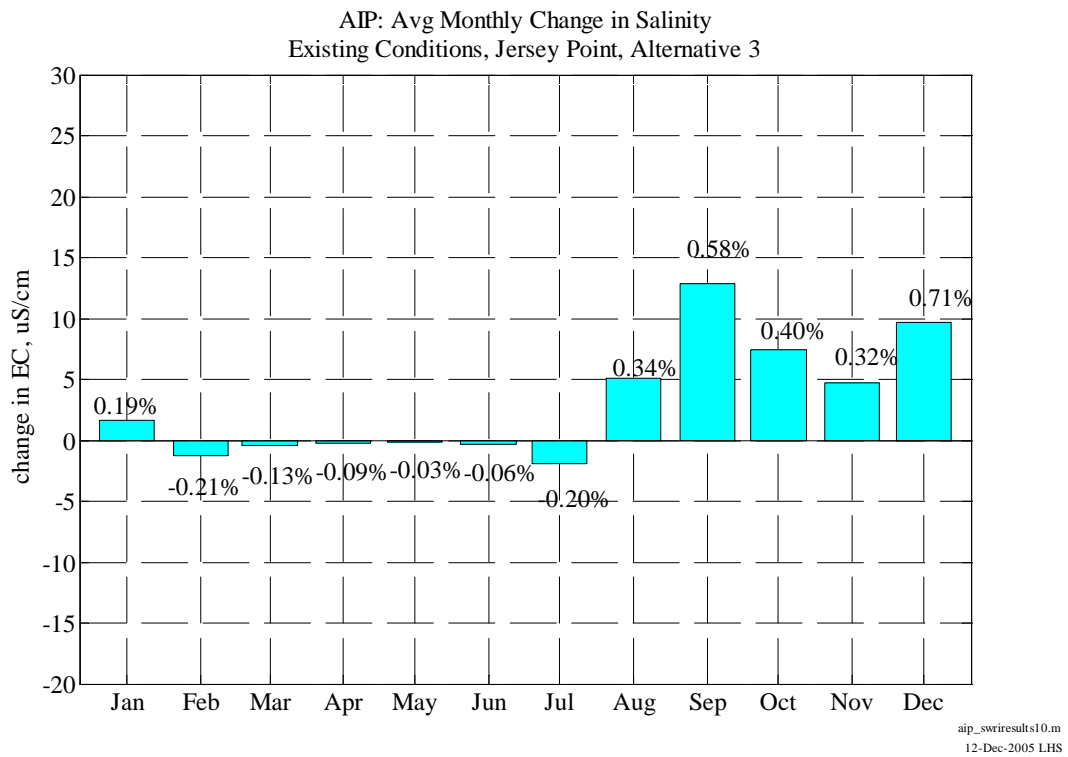
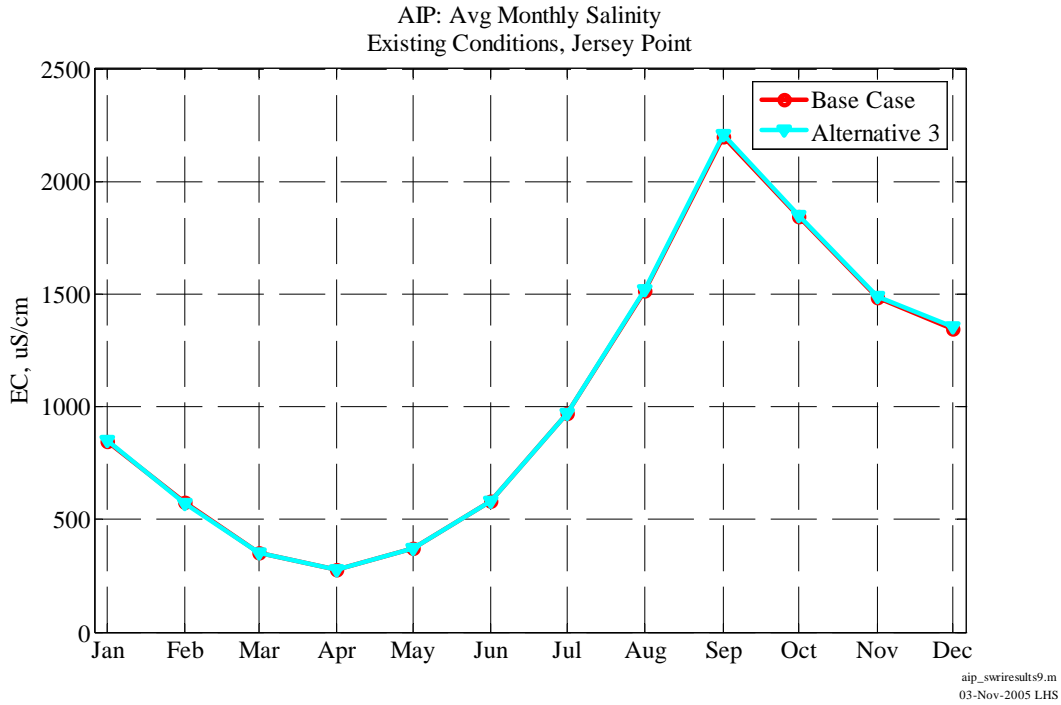
Old River at Rock Slough Salinity Percent Difference (Existing Alt 3 minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	0.6	-0.4	0.2	1.1	1.5	0.7	0.2	0.0	0.0	0.2	0.3	0.7
1977	0.5	0.1	0.2	-0.2	-0.8	0.9	0.9	0.3	0.4	0.3	0.1	0.1
1978	0.2	0.2	0.1	0.0	-0.5	-0.1	0.5	-0.2	-0.1	0.0	0.2	0.9
1979	1.1	0.7	1.1	1.1	0.5	0.4	0.2	0.0	0.1	-0.5	0.2	0.8
1980	0.6	0.5	0.7	0.2	4.7	3.4	0.2	0.0	0.0	0.0	0.1	0.8
1981	0.9	0.5	1.2	1.5	0.3	0.1	0.2	0.0	0.0	0.4	1.0	1.1
1982	0.6	0.5	0.1	0.7	0.9	0.1	0.1	0.4	0.1	0.1	0.0	0.1
1983	-0.3	0.0	0.2	0.2	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0

Appendix C-4 DSM2 Delta Modeling

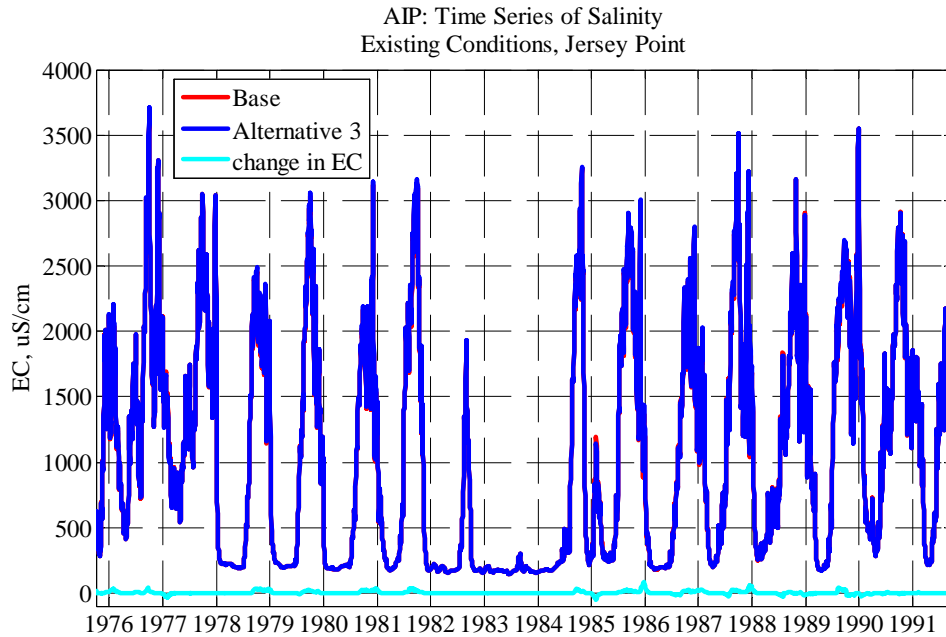
Old River at Rock Slough Salinity Percent Difference (Existing Alt 3 minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1984	0.0	0.0	0.2	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0
1985	0.8	0.6	0.4	-1.8	-3.4	-1.1	-0.2	0.0	0.0	0.5	1.1	1.2
1986	0.8	0.5	2.7	3.9	-0.1	1.3	1.4	0.2	0.1	-0.4	-1.1	-0.1
1987	0.7	0.6	0.8	1.4	1.4	0.8	0.3	0.0	0.0	-0.6	0.1	0.8
1988	0.4	0.2	1.8	2.6	0.8	0.5	0.2	0.0	1.0	0.1	-0.5	-0.1
1989	-0.1	-0.1	-0.3	-0.6	0.2	0.1	0.1	0.1	0.0	0.1	1.3	1.4
1990	0.2	-0.4	-0.2	-0.4	-1.0	-0.4	0.3	0.3	0.0	0.2	0.0	0.1
1991	0.2	0.4	0.2	0.1	0.2	0.0	0.3	0.2	0.0	0.0	0.1	0.1
Avg	0.4	0.2	0.6	0.6	0.3	0.4	0.3	0.1	0.1	0.0	0.2	0.6
W	0.3	0.2	0.8	1.2	0.2	0.3	0.4	0.2	0.1	-0.1	-0.2	0.2
AN	0.4	0.3	0.4	0.1	2.1	1.7	0.3	-0.1	0.0	0.0	0.1	0.9
BN	1.1	0.7	1.1	1.1	0.5	0.4	0.2	0.0	0.1	-0.5	0.2	0.8
D	0.6	0.4	0.5	0.1	-0.4	0.0	0.1	0.0	0.0	0.1	0.9	1.1
C	0.4	0.0	0.4	0.7	0.1	0.4	0.4	0.2	0.3	0.2	0.0	0.2

Appendix C-4 DSM2 Delta Modeling

Jersey Point



Appendix C-4 DSM2 Delta Modeling



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22-Nov-2005 LHS

San Joaquin River at Jersey Point Salinity Base (Existing Base)												
Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	414	1033	1734	1696	1453	808	507	954	1517	1118	1528	2984
1977	2017	2278	2083	1533	1057	780	713	1000	1367	1224	1796	2544
1978	2396	1766	2011	473	224	219	215	197	193	387	1239	2156
1979	2112	1906	1592	504	232	202	197	205	220	747	1644	2616
1980	2358	1747	1115	253	188	180	186	206	212	428	1144	1881
1981	1813	1887	1579	760	341	195	184	241	554	1775	2156	2889
1982	2064	700	182	206	177	193	167	165	173	261	1107	1061
1983	219	172	163	191	169	171	174	165	152	163	222	203
1984	187	169	158	163	176	173	177	217	286	379	1084	2303
1985	2583	1216	264	594	780	380	257	262	531	1712	2200	2647
1986	2152	1763	1304	478	209	184	192	196	229	502	1021	1709
1987	2001	2055	1707	1460	1073	315	215	360	586	1259	2114	2949
1988	1935	1817	1853	749	288	310	470	601	631	1265	1307	1903
1989	2431	1755	1738	1341	864	323	177	205	466	1566	2097	2458
1990	2313	1610	2503	1642	670	515	394	577	1198	1317	1636	2355
1991	2497	1860	1535	1514	1293	668	227	381	1011	1449	1969	2482

Appendix C-4 DSM2 Delta Modeling

San Joaquin River at Jersey Point Salinity Base (Existing Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Avg	1843	1483	1345	847	575	351	278	371	583	972	1516	2196
W	1155	701	452	259	183	180	178	186	210	326	858	1319
AN	2377	1756	1563	363	206	199	200	201	202	407	1192	2018
BN	2112	1906	1592	504	232	202	197	205	220	747	1644	2616
D	2207	1728	1322	1039	765	303	208	267	534	1578	2142	2736
C	1835	1720	1942	1427	952	616	462	702	1145	1275	1647	2454

San Joaquin River at Jersey Point Salinity Alternative (Existing Alt 3) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	414	1028	1740	1716	1468	812	508	953	1519	1123	1530	3008
1977	2025	2280	2080	1514	1040	775	711	1000	1367	1225	1797	2544
1978	2396	1766	2011	473	223	219	215	197	193	387	1240	2180
1979	2139	1927	1616	511	233	202	198	205	220	741	1651	2635
1980	2372	1758	1117	253	189	181	186	206	212	428	1145	1899
1981	1833	1902	1607	770	339	194	184	241	553	1779	2180	2913
1982	2078	704	182	206	178	193	168	166	173	261	1107	1061
1983	219	172	163	191	169	171	174	165	152	163	222	203
1984	187	169	158	163	176	173	177	217	286	379	1084	2323
1985	2597	1223	263	569	758	377	257	262	531	1717	2218	2664
1986	2165	1771	1359	496	210	184	193	196	229	493	1008	1716
1987	2018	2068	1723	1482	1085	316	215	360	586	1240	2130	2969
1988	1942	1823	1895	765	290	310	470	601	628	1247	1305	1909
1989	2433	1756	1727	1333	859	323	177	205	466	1567	2125	2483
1990	2300	1599	2500	1625	662	508	390	576	1193	1320	1635	2355
1991	2492	1862	1536	1515	1295	669	227	381	1011	1449	1969	2482
Avg	1851	1488	1355	849	573	350	278	371	583	970	1522	2209
W	1162	704	465	264	183	180	178	186	210	324	855	1326
AN	2384	1762	1564	363	206	200	200	201	202	407	1192	2039
BN	2139	1927	1616	511	233	202	198	205	220	741	1651	2635
D	2220	1738	1330	1038	760	303	208	267	534	1576	2163	2757
C	1835	1718	1950	1427	951	615	461	702	1144	1273	1647	2460

Appendix C-4 DSM2 Delta Modeling

San Joaquin River at Jersey Point Salinity Difference (Existing Alt 3 minus Existing Base) Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	0	-5	6	21	16	3	1	0	2	5	2	24
1977	8	2	-3	-19	-17	-5	-2	0	0	1	0	0
1978	1	1	0	0	0	0	0	0	0	0	0	24
1979	27	20	24	6	1	0	0	0	0	-5	7	19
1980	14	11	2	0	1	1	0	0	0	0	0	18
1981	20	15	28	10	-2	0	0	0	0	4	24	24
1982	13	4	0	0	1	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	20
1985	15	8	-1	-24	-22	-3	0	0	0	5	19	17
1986	14	9	55	18	0	1	1	0	0	-9	-13	7
1987	17	14	16	21	12	1	0	0	-1	-18	16	21
1988	7	6	41	16	1	0	0	0	-3	-18	-2	6
1989	3	1	-11	-8	-5	0	0	0	0	1	28	25
1990	-12	-11	-3	-17	-8	-7	-4	-1	-4	3	0	0
1991	-5	1	0	1	2	1	0	0	-1	0	0	0
Avg	7	5	10	2	-1	0	0	0	0	-2	5	13
W	7	3	14	5	0	0	0	0	0	-2	-3	7
AN	7	6	1	0	0	1	0	0	0	0	0	21
BN	27	20	24	6	1	0	0	0	0	-5	7	19
D	14	10	8	0	-4	-1	0	0	0	-2	22	22
C	0	-1	8	0	-1	-1	-1	0	-1	-2	0	6

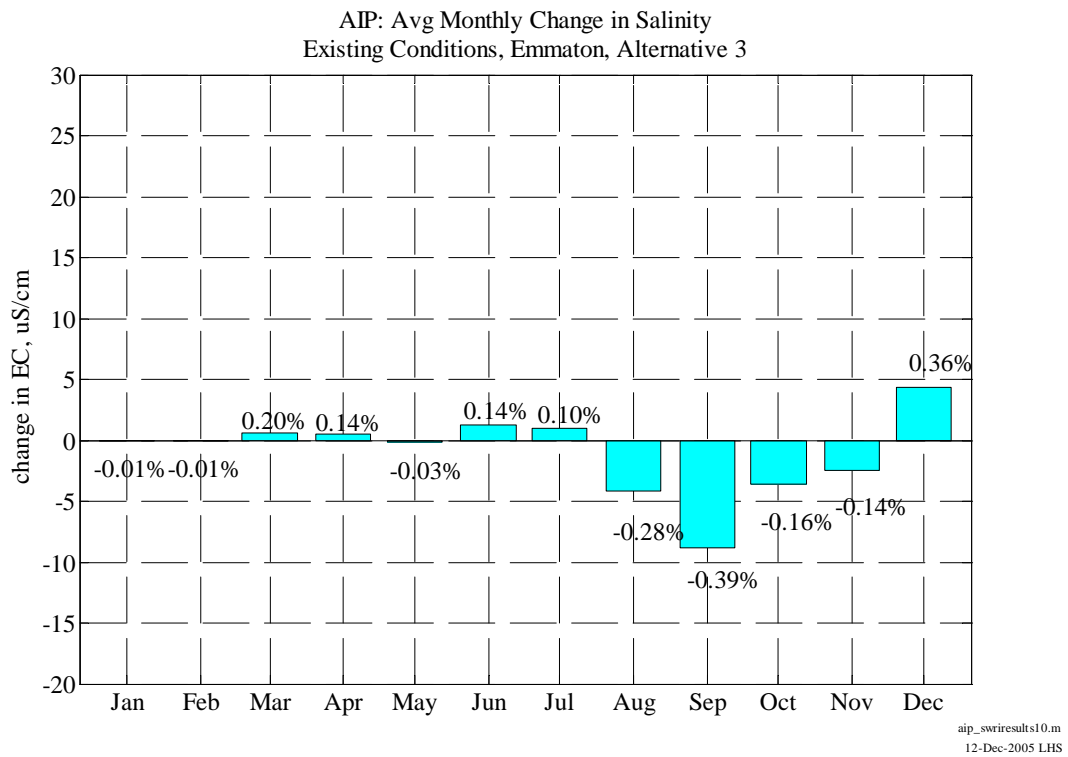
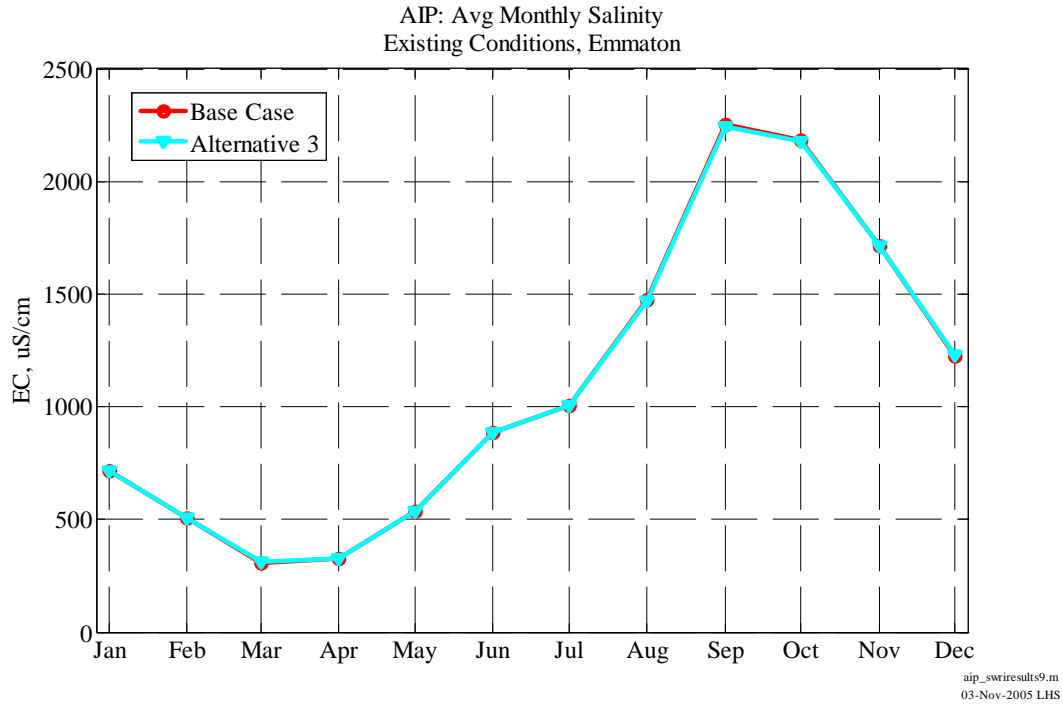
San Joaquin River at Jersey Point Salinity Percent Difference (Existing Alt 3 minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	0.0	-0.4	0.3	1.2	1.1	0.4	0.1	0.0	0.1	0.5	0.1	0.8
1977	0.4	0.1	-0.2	-1.2	-1.6	-0.7	-0.3	0.0	0.0	0.1	0.0	0.0
1978	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	-0.1	0.0	0.0	0.0	1.1
1979	1.3	1.1	1.5	1.3	0.2	0.2	0.1	0.0	-0.1	-0.7	0.4	0.7
1980	0.6	0.6	0.2	0.0	0.5	0.7	0.0	0.0	0.0	0.0	0.0	0.9
1981	1.1	0.8	1.8	1.3	-0.5	-0.3	0.1	0.0	-0.1	0.3	1.1	0.8
1982	0.6	0.6	0.1	0.2	0.3	0.0	0.0	0.1	0.0	0.0	0.0	0.0
1983	-0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Appendix C-4 DSM2 Delta Modeling

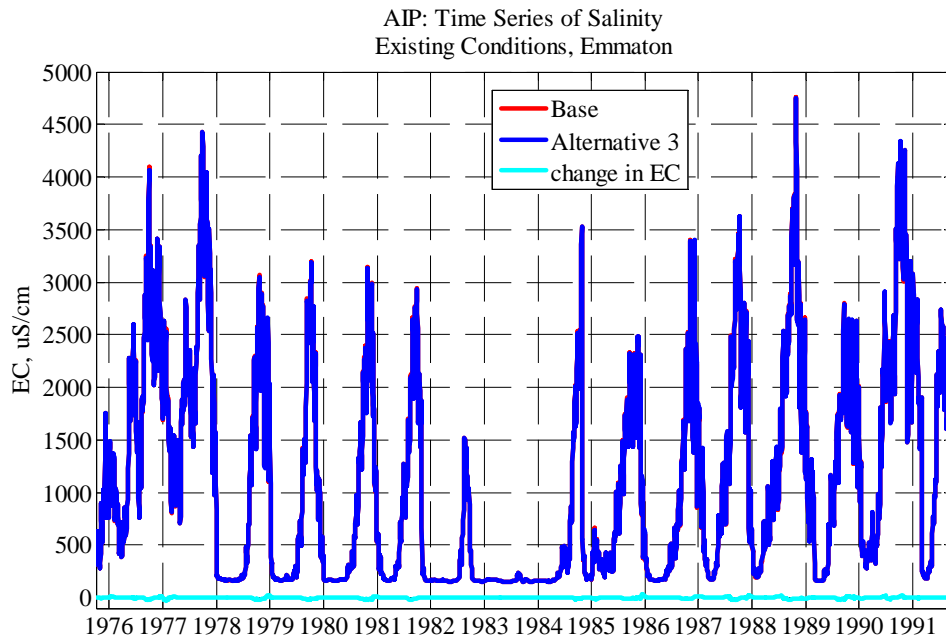
San Joaquin River at Jersey Point Salinity												
Percent Difference (Existing Alt 3 minus Existing Base divided by Existing Base)												
Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
1985	0.6	0.6	-0.3	-4.1	-2.8	-0.8	-0.1	0.0	0.0	0.3	0.9	0.7
1986	0.6	0.5	4.2	3.8	0.1	0.4	0.4	0.1	0.0	-1.9	-1.3	0.4
1987	0.9	0.7	0.9	1.5	1.1	0.5	0.2	0.0	-0.1	-1.4	0.7	0.7
1988	0.4	0.3	2.2	2.2	0.4	0.1	0.0	-0.1	-0.4	-1.4	-0.1	0.3
1989	0.1	0.1	-0.6	-0.6	-0.6	-0.1	0.0	0.0	0.0	0.1	1.3	1.0
1990	-0.5	-0.7	-0.1	-1.0	-1.2	-1.3	-1.0	-0.2	-0.4	0.2	0.0	0.0
1991	-0.2	0.1	0.0	0.0	0.2	0.1	0.0	0.0	-0.1	0.0	0.0	0.0
Avg	0.4	0.3	0.6	0.3	-0.2	0.0	0.0	0.0	-0.1	-0.3	0.2	0.5
W	0.3	0.3	1.1	1.0	0.1	0.1	0.1	0.0	0.0	-0.4	-0.3	0.3
AN	0.3	0.3	0.1	0.0	0.2	0.4	0.0	-0.1	0.0	0.0	0.0	1.0
BN	1.3	1.1	1.5	1.3	0.2	0.2	0.1	0.0	-0.1	-0.7	0.4	0.7
D	0.7	0.6	0.4	-0.5	-0.7	-0.2	0.0	0.0	0.0	-0.2	1.0	0.8
C	0.0	-0.1	0.5	0.2	-0.2	-0.3	-0.2	-0.1	-0.1	-0.1	0.0	0.2

Appendix C-4 DSM2 Delta Modeling

Emmaton



Appendix C-4 DSM2 Delta Modeling



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Sacramento River at Emmaton Salinity Base (Existing Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	398	778	1079	1170	898	515	674	1625	2104	1249	1924	3107
1977	2862	2688	2554	2261	1501	1235	1083	1819	2295	1795	2284	3619
1978	3601	2859	1464	195	169	167	166	166	184	297	998	1743
1979	2494	2298	1928	360	178	166	180	178	228	494	1205	2545
1980	2504	1355	597	170	170	160	166	174	249	380	903	1570
1981	2338	2497	1305	394	195	162	181	294	735	1140	1926	2530
1982	1866	235	159	169	160	166	162	156	160	266	1023	892
1983	215	159	155	166	169	171	159	153	152	157	202	166
1984	167	154	164	158	159	156	164	203	349	357	886	1908
1985	2438	323	194	418	408	273	325	303	719	1039	1491	1844
1986	1763	1914	808	275	173	166	169	196	314	438	754	1372
1987	2128	2492	1936	1101	458	196	218	553	974	1198	2094	2981
1988	2595	2260	1116	285	234	464	675	930	1078	1633	2281	2834
1989	3740	2516	1850	1051	1022	176	162	228	744	1076	1588	2198
1990	2069	1938	1757	770	368	486	504	1017	2112	2130	2105	3369
1991	3737	2972	2528	2550	1841	284	231	609	1750	2421	1933	3389

Appendix C-4 DSM2 Delta Modeling

Sacramento River at Emmaton Salinity Base (Existing Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Avg	2182	1715	1225	718	506	309	326	538	884	1004	1475	2254
W	1003	615	322	192	165	165	164	177	244	304	716	1085
AN	3052	2107	1031	182	170	164	166	170	216	338	951	1657
BN	2494	2298	1928	360	178	166	180	178	228	494	1205	2545
D	2661	1957	1321	741	521	202	222	344	793	1114	1775	2388
C	2332	2127	1807	1407	968	597	633	1200	1868	1846	2105	3264

Sacramento River at Emmaton Salinity Alternative (Existing Alt 3) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	398	775	1081	1180	903	516	675	1625	2101	1247	1926	3087
1977	2853	2687	2561	2244	1498	1243	1088	1819	2295	1795	2284	3620
1978	3601	2860	1465	195	169	167	166	165	184	297	999	1731
1979	2476	2287	1943	363	178	166	180	178	228	495	1201	2529
1980	2496	1353	597	170	170	160	166	174	249	380	904	1562
1981	2324	2483	1316	398	195	162	181	294	736	1139	1911	2519
1982	1863	235	159	169	160	166	162	156	161	266	1023	892
1983	215	159	155	166	169	171	159	153	152	157	202	166
1984	167	154	164	158	159	156	164	203	349	357	886	1896
1985	2431	324	193	408	401	272	325	303	720	1038	1481	1835
1986	1759	1911	828	281	173	166	170	196	314	439	755	1367
1987	2119	2485	1945	1112	462	196	218	553	974	1208	2079	2964
1988	2590	2257	1131	288	234	465	675	929	1087	1648	2271	2816
1989	3731	2510	1842	1046	1026	176	162	228	744	1077	1573	2184
1990	2080	1944	1756	765	366	487	505	1016	2126	2122	2103	3369
1991	3755	2975	2528	2551	1838	284	231	608	1749	2421	1933	3390
Avg	2179	1712	1229	718	506	310	327	538	885	1005	1471	2245
W	1001	615	327	194	165	165	164	177	244	305	717	1080
AN	3049	2106	1031	182	170	164	166	170	216	338	951	1647
BN	2476	2287	1943	363	178	166	180	178	228	495	1201	2529
D	2651	1951	1324	741	521	202	222	344	793	1115	1761	2376
C	2335	2127	1811	1406	968	599	635	1199	1872	1847	2103	3256

Appendix C-4 DSM2 Delta Modeling

Sacramento River at Emmaton Salinity Difference (Existing Alt 3 minus Existing Base) Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	0	-3	2	10	5	1	0	0	-4	-2	2	-21
1977	-9	-1	7	-17	-3	7	5	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	-12
1979	-18	-11	15	3	0	0	0	0	0	1	-4	-16
1980	-7	-2	0	0	0	0	0	0	0	0	0	-8
1981	-14	-14	11	3	0	0	0	0	0	-1	-15	-12
1982	-3	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	-12
1985	-7	1	0	-10	-8	-1	0	0	0	-2	-10	-9
1986	-4	-3	20	6	0	0	0	0	0	2	2	-6
1987	-9	-7	10	11	3	0	0	0	0	10	-15	-16
1988	-4	-3	14	3	0	1	0	-1	10	15	-10	-17
1989	-9	-6	-8	-5	5	0	0	0	0	1	-15	-14
1990	11	6	-1	-5	-2	1	2	-1	14	-8	-2	0
1991	18	3	0	0	-3	0	0	0	-1	0	0	0
Avg	-4	-2	4	0	0	1	0	0	1	1	-4	-9
W	-2	-1	5	1	0	0	0	0	0	0	0	-4
AN	-4	-1	0	0	0	0	0	0	0	0	0	-10
BN	-18	-11	15	3	0	0	0	0	0	1	-4	-16
D	-10	-6	3	0	0	0	0	0	0	2	-14	-13
C	3	0	4	-2	0	2	1	-1	4	1	-2	-7

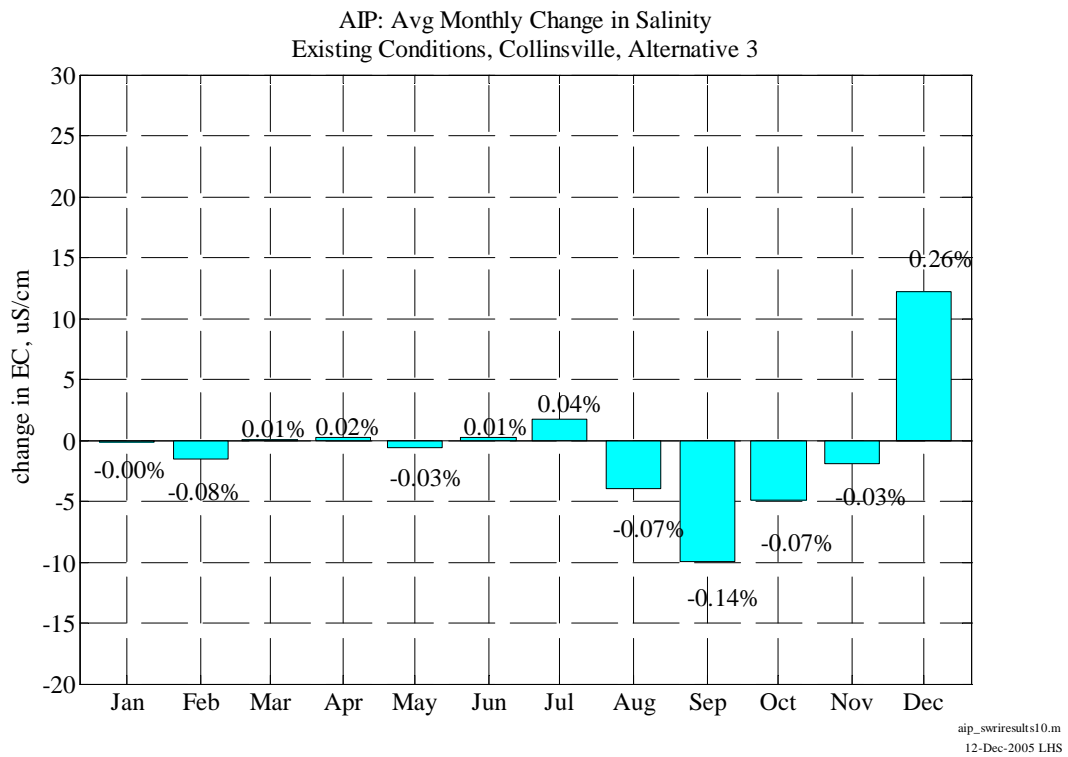
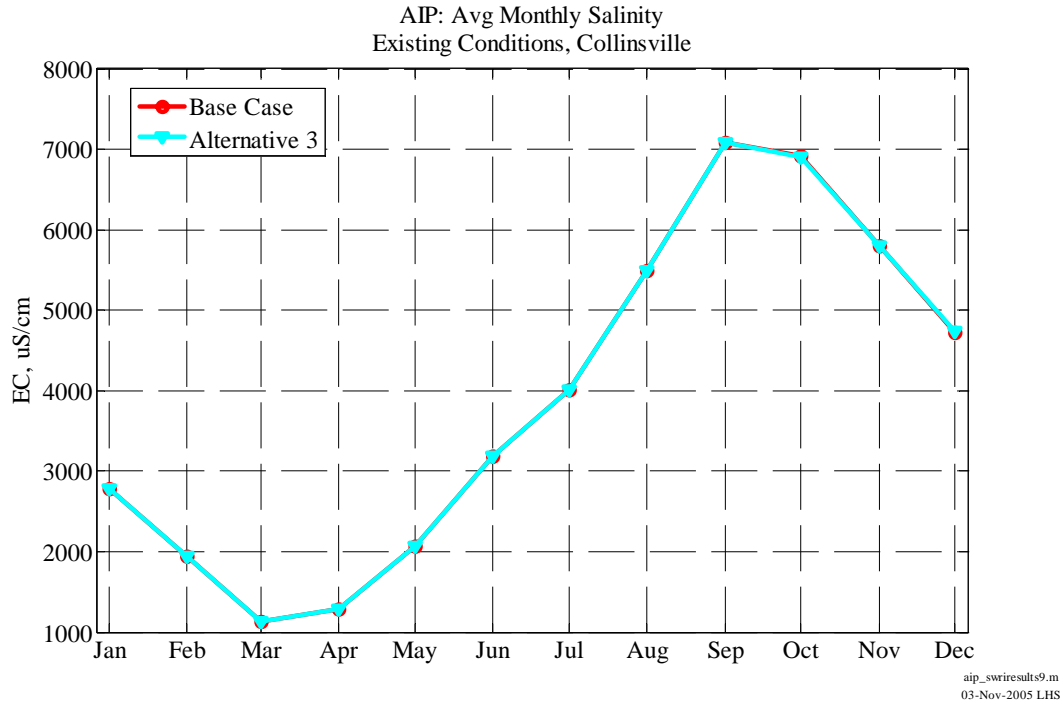
Sacramento River at Emmaton Salinity Percent Difference (Existing Alt 3 minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	0.0	-0.4	0.2	0.8	0.6	0.2	0.1	0.0	-0.2	-0.2	0.1	-0.7
1977	-0.3	0.0	0.3	-0.8	-0.2	0.6	0.5	0.0	0.0	0.0	0.0	0.0
1978	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.7
1979	-0.7	-0.5	0.8	0.8	0.0	0.1	0.0	0.0	0.1	0.3	-0.4	-0.6
1980	-0.3	-0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	-0.5
1981	-0.6	-0.5	0.8	0.9	0.1	-0.1	0.0	0.0	0.1	-0.1	-0.8	-0.5
1982	-0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1983	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Appendix C-4 DSM2 Delta Modeling

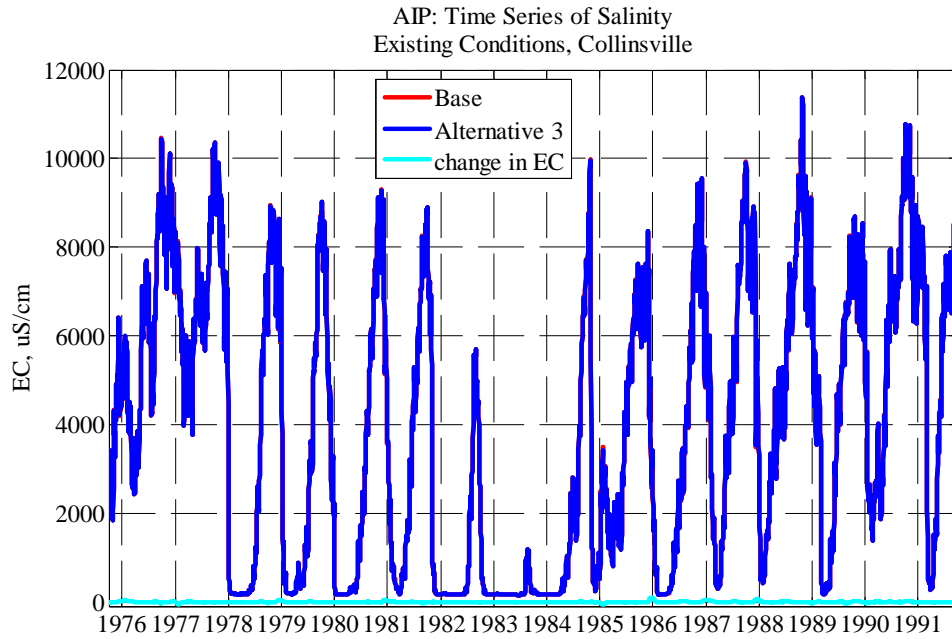
Sacramento River at Emmaton Salinity Percent Difference (Existing Alt 3 minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6
1985	-0.3	0.3	-0.1	-2.4	-1.9	-0.3	-0.1	0.0	0.0	-0.1	-0.7	-0.5
1986	-0.2	-0.2	2.4	2.1	0.0	0.0	0.1	0.0	0.1	0.4	0.2	-0.4
1987	-0.4	-0.3	0.5	1.0	0.8	0.2	0.0	0.0	0.0	0.8	-0.7	-0.5
1988	-0.2	-0.2	1.3	1.2	0.2	0.2	0.0	-0.1	0.9	0.9	-0.4	-0.6
1989	-0.3	-0.2	-0.4	-0.5	0.4	0.0	0.0	0.0	0.0	0.1	-0.9	-0.6
1990	0.5	0.3	-0.1	-0.7	-0.5	0.2	0.3	-0.1	0.7	-0.4	-0.1	0.0
1991	0.5	0.1	0.0	0.0	-0.2	0.0	0.1	-0.1	0.0	0.0	0.0	0.0
Avg	-0.2	-0.1	0.4	0.2	0.0	0.1	0.1	0.0	0.1	0.1	-0.2	-0.4
W	-0.1	0.0	0.6	0.5	0.0	0.0	0.0	0.0	0.0	0.1	0.1	-0.3
AN	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6
BN	-0.7	-0.5	0.8	0.8	0.0	0.1	0.0	0.0	0.1	0.3	-0.4	-0.6
D	-0.4	-0.2	0.2	-0.2	-0.1	-0.1	0.0	0.0	0.0	0.1	-0.8	-0.5
C	0.1	0.0	0.3	0.1	0.0	0.2	0.2	-0.1	0.3	0.1	-0.1	-0.2

Appendix C-4 DSM2 Delta Modeling

Collinsville



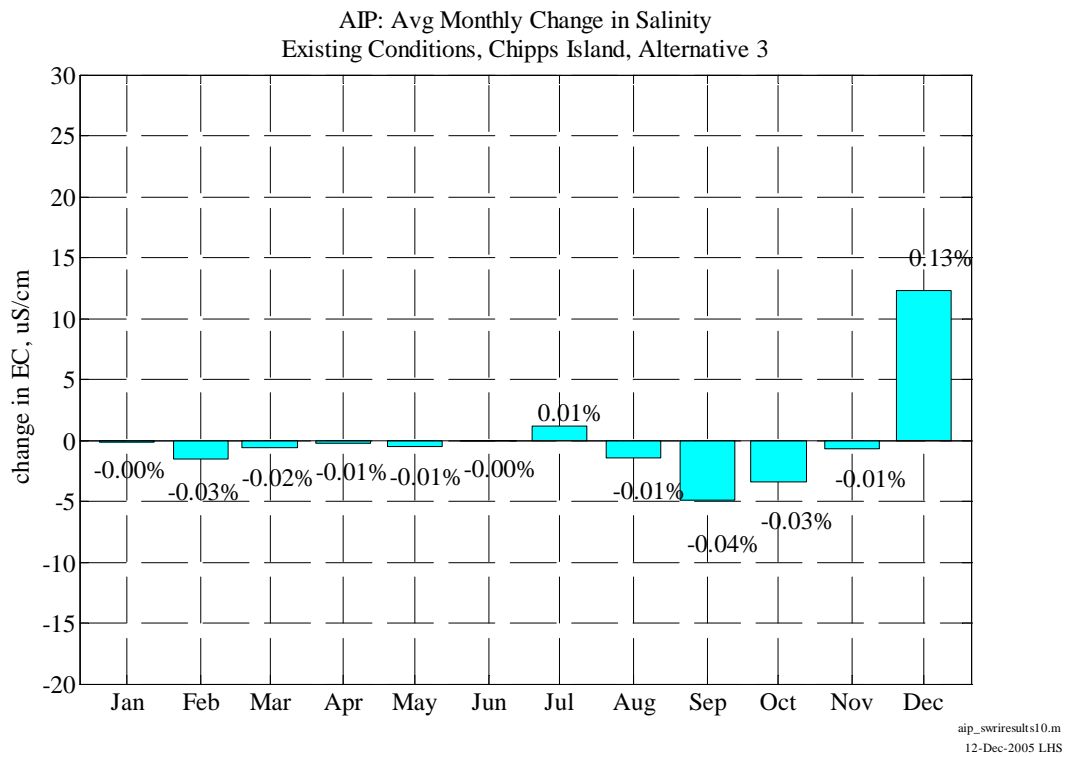
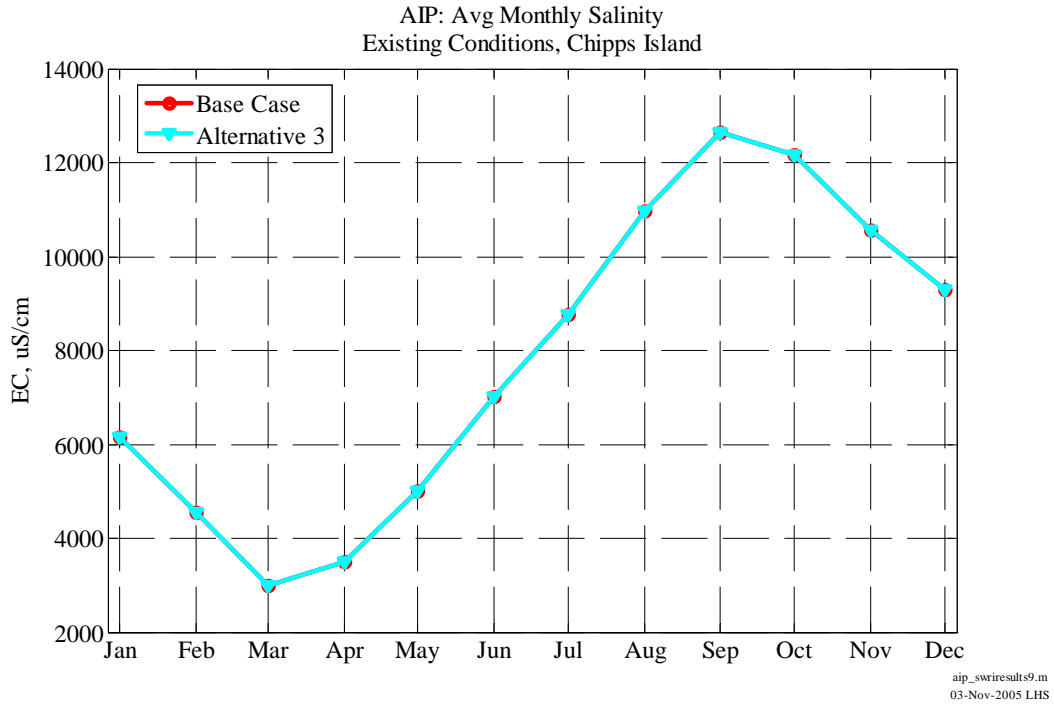
Appendix C-4 DSM2 Delta Modeling



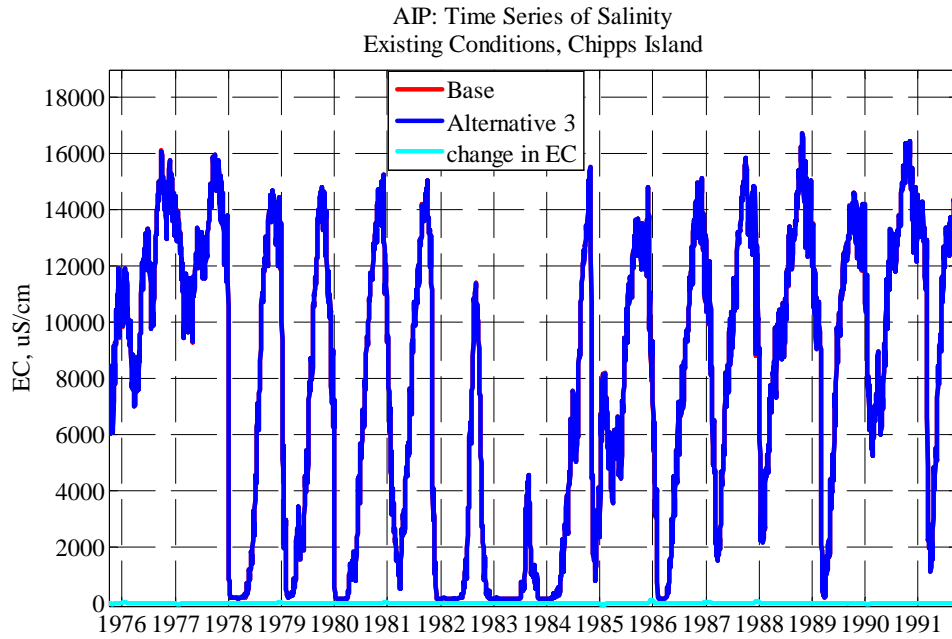
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22-Nov-2005 LHS

Appendix C-4 DSM2 Delta Modeling

Chipps Island



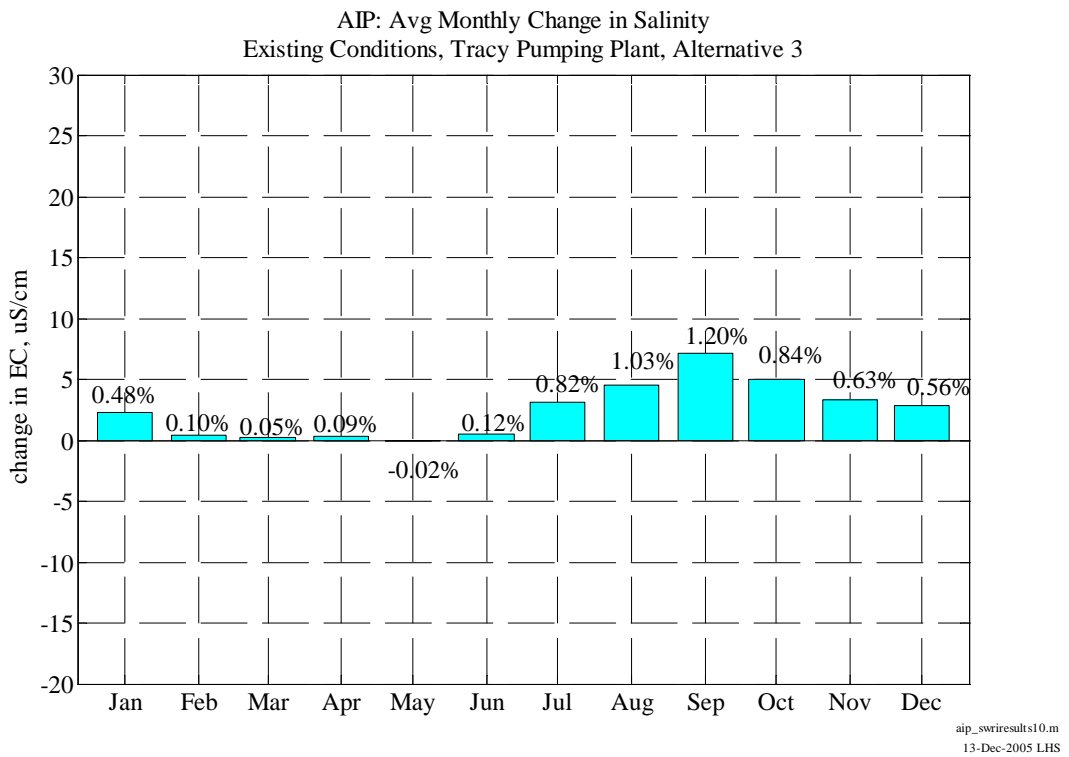
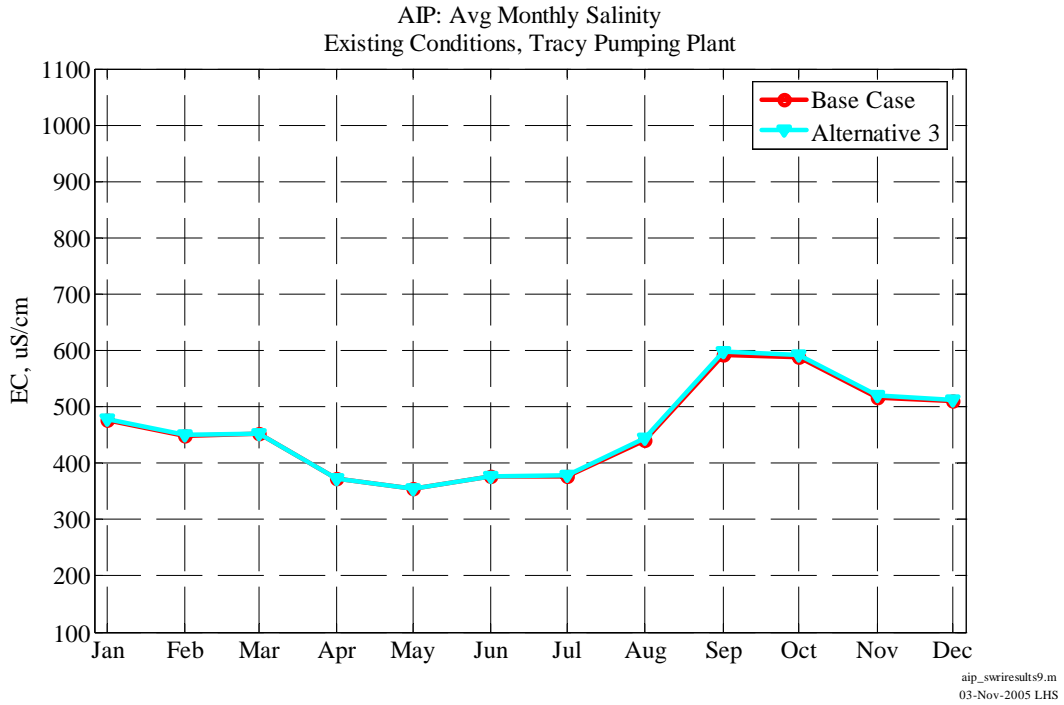
Appendix C-4 DSM2 Delta Modeling



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22-Nov-2005 LHS

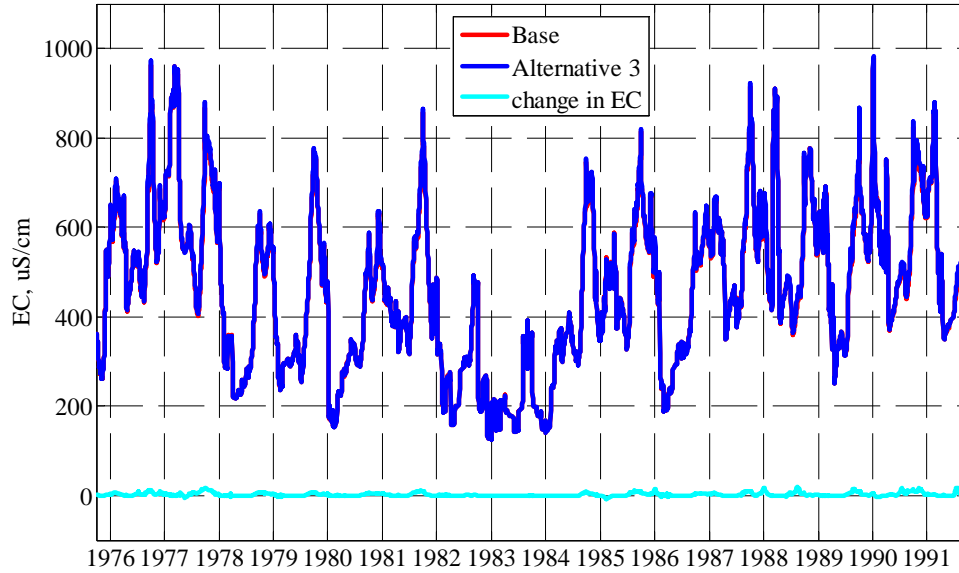
Appendix C-4 DSM2 Delta Modeling

Tracy Pumping Plant



Appendix C-4 DSM2 Delta Modeling

AIP: Time Series of Salinity
Existing Conditions, Tracy Pumping Plant



aip_swireresults10.m
22-Nov-2005 LHS

Tracy Pumping Plant Salinity Base (Existing Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	308	298	523	605	673	618	504	467	533	501	475	701
1977	746	555	638	703	854	913	682	553	586	498	428	629
1978	779	713	629	496	301	348	224	229	246	279	353	558
1979	540	521	571	394	251	292	298	314	322	290	427	646
1980	702	531	487	204	160	222	271	302	340	301	336	496
1981	478	496	569	465	435	391	373	382	356	434	571	713
1982	686	442	405	335	200	259	164	199	278	302	340	460
1983	214	257	138	207	152	207	187	178	145	194	323	350
1984	210	180	159	148	237	329	341	357	377	316	345	593
1985	668	604	396	392	496	490	454	429	369	435	596	703
1986	647	559	568	475	270	192	232	288	336	324	350	496
1987	525	553	602	557	636	585	443	413	448	413	533	724
1988	762	556	623	584	462	838	506	441	480	383	428	527
1989	722	711	581	593	652	471	330	332	344	386	557	680
1990	656	558	611	764	599	546	518	407	463	500	463	597
1991	751	722	648	685	815	530	424	373	396	454	506	594

Appendix C-4 DSM2 Delta Modeling

Tracy Pumping Plant Salinity Base (Existing Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Avg	587	516	509	475	449	452	372	354	376	376	440	592
W	439	359	317	291	215	247	231	255	284	284	340	475
AN	740	622	558	350	230	285	248	266	293	290	345	527
BN	540	521	571	394	251	292	298	314	322	290	427	646
D	598	591	537	502	555	484	400	389	379	417	564	705
C	645	538	609	668	680	689	527	448	491	467	460	610

Tracy Pumping Plant Salinity Alternative (Existing Alt 3) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	309	298	524	610	679	621	505	467	535	505	478	711
1977	753	559	643	705	854	914	685	550	588	504	435	643
1978	793	722	632	496	301	348	224	229	246	279	355	563
1979	547	526	575	395	251	292	299	314	322	289	430	653
1980	707	533	491	204	160	222	272	301	340	301	337	499
1981	483	501	574	468	435	392	374	382	356	437	579	722
1982	690	442	405	336	200	259	164	199	278	303	341	461
1983	214	257	138	207	152	207	187	178	145	194	323	350
1984	211	180	159	148	237	329	341	357	377	316	346	599
1985	674	608	397	391	490	487	454	429	369	439	605	712
1986	653	561	574	483	270	193	232	288	336	324	349	497
1987	529	558	606	560	640	587	443	413	448	414	538	733
1988	767	557	630	594	463	838	506	441	482	388	443	532
1989	723	712	582	593	653	471	330	333	344	389	566	691
1990	661	559	612	765	596	545	519	408	464	511	470	608
1991	761	736	652	687	816	531	424	374	396	466	513	609
Avg	592	519	512	478	450	452	372	354	377	379	444	599
W	442	360	319	293	215	247	231	255	284	284	340	477
AN	750	628	561	350	230	285	248	265	293	290	346	531
BN	547	526	575	395	251	292	299	314	322	289	430	653
D	602	595	540	503	555	484	400	389	379	420	572	715
C	650	542	612	672	682	690	528	448	493	475	468	620

Appendix C-4 DSM2 Delta Modeling

Tracy Pumping Plant Salinity Difference (Existing Alt 3 minus Existing Base) Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	1	0	1	4	6	3	0	0	2	5	3	10
1977	7	3	5	3	1	1	3	-3	2	6	6	14
1978	14	10	3	0	0	0	0	0	0	0	1	5
1979	7	5	4	2	0	0	0	0	0	0	2	7
1980	5	2	3	0	0	0	0	-1	0	0	1	4
1981	5	4	4	3	1	0	0	0	0	4	8	9
1982	5	1	0	1	1	0	0	0	0	1	1	1
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	6
1985	6	3	1	-1	-6	-2	0	0	0	4	8	9
1986	5	2	6	8	0	1	0	0	0	0	-1	1
1987	4	5	4	4	5	1	0	0	0	1	5	9
1988	5	1	8	10	1	0	0	0	2	5	15	5
1989	1	1	1	1	0	0	0	0	0	3	9	11
1990	5	2	2	1	-3	-1	1	1	1	11	7	11
1991	10	13	4	2	2	0	0	0	0	12	7	14
Avg	5	3	3	2	0	0	0	0	0	3	5	7
W	2	1	2	2	0	0	0	0	0	0	0	2
AN	9	6	3	0	0	0	0	0	0	0	1	4
BN	7	5	4	2	0	0	0	0	0	0	2	7
D	4	3	2	2	0	0	0	0	0	3	8	9
C	6	4	4	4	1	1	1	0	1	8	8	11

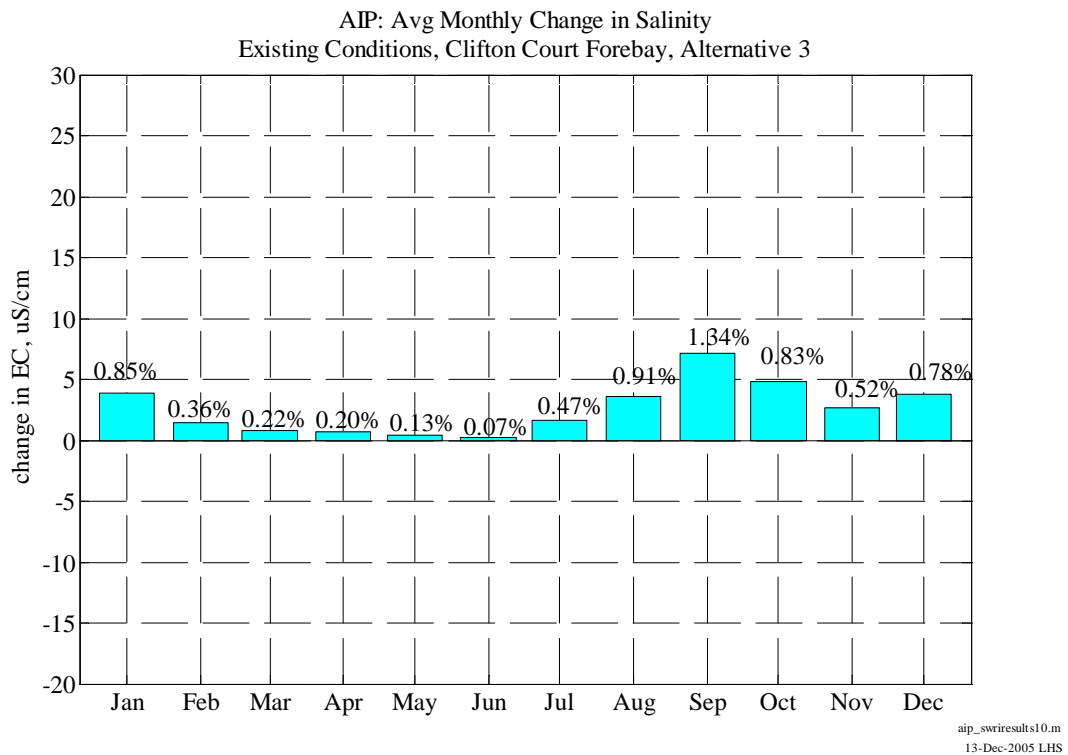
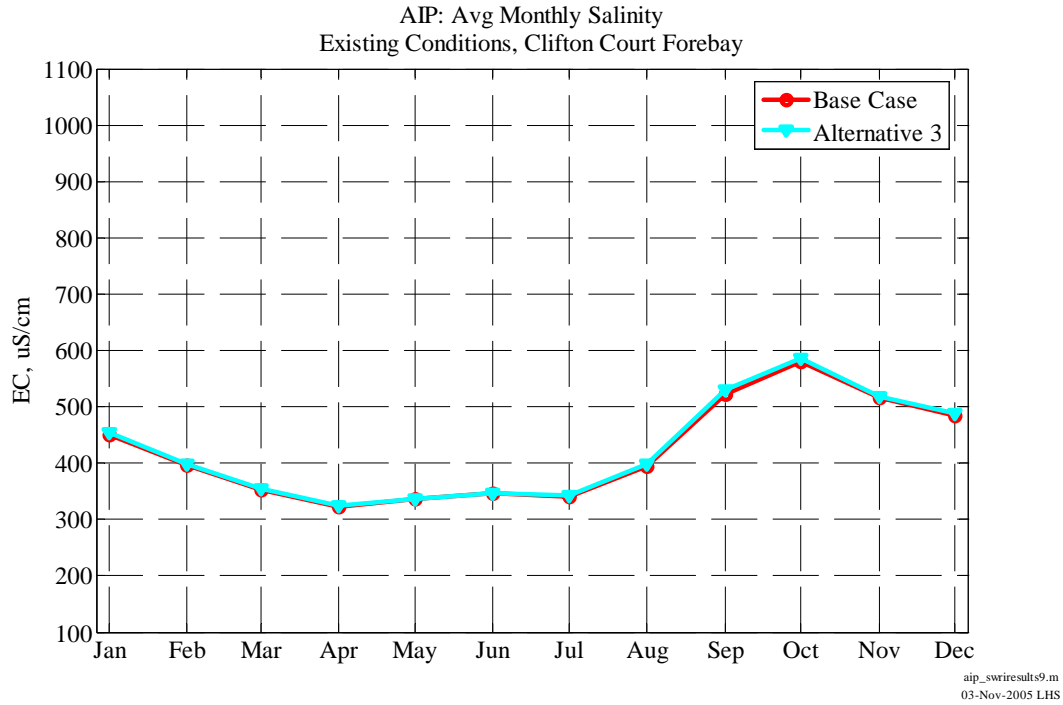
Tracy Pumping Plant Salinity Percent Difference (Existing Alt 3 minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	0.3	-0.1	0.2	0.7	0.9	0.4	0.1	0.0	0.4	0.9	0.6	1.4
1977	0.9	0.6	0.7	0.4	0.1	0.1	0.4	-0.5	0.3	1.2	1.5	2.2
1978	1.8	1.4	0.4	0.0	-0.1	-0.1	0.0	0.0	0.0	-0.1	0.4	0.9
1979	1.2	1.0	0.7	0.4	0.2	0.0	0.0	0.0	0.0	-0.2	0.5	1.1
1980	0.7	0.5	0.7	0.1	0.1	0.1	0.0	-0.2	0.0	0.0	0.3	0.7
1981	1.0	0.9	0.8	0.7	0.2	0.1	0.1	0.0	0.0	0.8	1.4	1.3
1982	0.7	0.2	0.0	0.2	0.3	0.0	0.0	0.0	0.0	0.2	0.2	0.2
1983	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.1
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0

Appendix C-4 DSM2 Delta Modeling

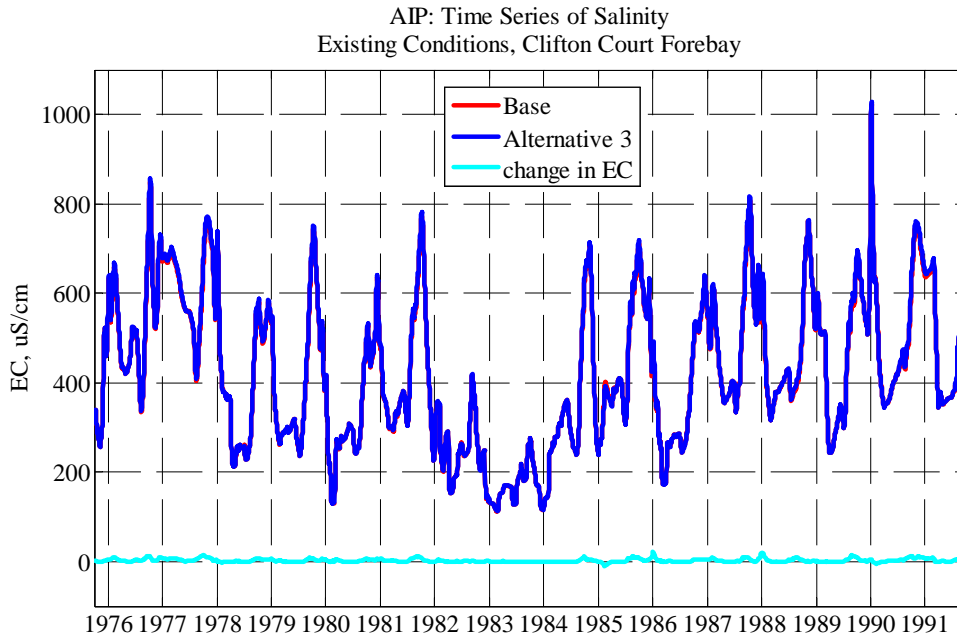
Tracy Pumping Plant Salinity Percent Difference (Existing Alt 3 minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1985	0.9	0.6	0.1	-0.3	-1.2	-0.5	-0.1	0.0	0.0	0.8	1.4	1.3
1986	0.8	0.4	1.1	1.6	0.1	0.3	0.1	0.0	0.0	-0.1	-0.3	0.1
1987	0.8	0.8	0.6	0.6	0.7	0.2	0.1	0.0	0.0	0.2	0.9	1.2
1988	0.7	0.2	1.2	1.7	0.2	0.0	0.0	0.0	0.4	1.3	3.5	0.9
1989	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.1	0.0	0.7	1.7	1.5
1990	0.8	0.3	0.3	0.1	-0.5	-0.2	0.1	0.3	0.3	2.2	1.5	1.9
1991	1.3	1.9	0.6	0.3	0.2	0.1	0.1	0.1	0.0	2.7	1.3	2.4
Avg	0.8	0.5	0.5	0.4	0.1	0.0	0.1	0.0	0.1	0.7	0.9	1.1
W	0.4	0.1	0.3	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.4
AN	1.3	0.9	0.6	0.1	0.0	0.0	0.0	-0.1	0.0	0.0	0.3	0.8
BN	1.2	1.0	0.7	0.4	0.2	0.0	0.0	0.0	0.0	-0.2	0.5	1.1
D	0.7	0.6	0.4	0.3	-0.1	0.0	0.0	0.0	0.0	0.6	1.3	1.3
C	0.8	0.6	0.6	0.7	0.2	0.1	0.2	0.0	0.3	1.7	1.7	1.8

Appendix C-4 DSM2 Delta Modeling

Clifton Court Forebay



Appendix C-4 DSM2 Delta Modeling



aip_swresults10.m
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Clifton Court Forebay Salinity Base (Existing Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	306	291	491	580	632	507	430	436	512	474	369	610
1977	744	546	693	676	681	680	640	584	560	535	435	559
1978	733	733	609	562	385	367	240	245	256	237	304	506
1979	541	509	560	422	282	283	294	303	290	258	391	592
1980	702	536	449	272	140	244	270	283	302	253	289	439
1981	478	478	560	407	333	298	323	360	349	405	554	672
1982	695	445	270	332	235	268	168	186	247	241	277	386
1983	256	233	156	131	117	145	167	169	132	184	192	237
1984	237	177	127	139	234	271	301	343	330	262	278	512
1985	658	608	310	272	380	367	374	402	358	407	583	661
1986	649	556	508	393	280	179	248	275	283	257	293	409
1987	519	539	604	510	584	468	375	367	396	364	474	665
1988	763	569	591	538	357	341	380	396	421	380	387	447
1989	648	719	571	559	510	349	249	298	337	365	536	610
1990	655	568	574	785	547	387	353	377	410	436	450	520
1991	699	737	670	639	655	494	363	357	366	384	490	544

Appendix C-4 DSM2 Delta Modeling

Clifton Court Forebay Salinity Base (Existing Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Avg	580	515	484	451	397	353	323	336	347	340	394	523
W	459	353	265	249	216	216	221	243	248	236	260	386
AN	717	634	529	417	263	305	255	264	279	245	297	473
BN	541	509	560	422	282	283	294	303	290	258	391	592
D	576	586	511	437	452	371	330	357	360	385	537	652
C	633	542	604	644	574	482	433	430	454	442	426	536

Clifton Court Forebay Salinity Alternative (Existing Alt 3) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	307	290	492	585	641	511	431	436	513	478	372	620
1977	750	548	701	683	686	687	646	587	561	537	440	570
1978	745	742	612	562	384	366	240	246	256	236	305	512
1979	548	513	564	425	283	284	294	303	290	258	392	599
1980	707	538	454	273	140	247	271	283	302	253	290	443
1981	483	482	566	412	335	299	323	360	349	408	562	682
1982	700	446	270	334	237	268	168	186	247	242	278	388
1983	256	233	157	132	117	145	168	169	132	184	192	237
1984	237	177	127	139	234	271	301	343	330	262	278	519
1985	665	611	311	271	371	363	373	402	358	410	592	671
1986	654	558	516	404	280	179	249	276	283	257	291	410
1987	523	542	608	515	590	470	375	367	396	365	478	674
1988	768	570	599	552	359	341	380	396	422	384	395	452
1989	650	719	572	559	510	349	249	298	337	367	545	622
1990	660	569	576	786	543	386	353	378	411	440	454	530
1991	707	747	679	646	663	495	364	358	366	387	496	553
Avg	585	518	488	455	398	354	324	337	347	342	398	530
W	462	353	267	252	217	216	221	244	248	236	260	388
AN	726	640	533	417	262	307	255	264	279	245	298	478
BN	548	513	564	425	283	284	294	303	290	258	392	599
D	580	589	514	439	452	370	330	357	360	388	544	662
C	639	545	610	651	579	484	435	431	455	445	431	545

Appendix C-4 DSM2 Delta Modeling

Clifton Court Forebay Salinity Difference (Existing Alt 3 minus Existing Base) Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	1	0	1	5	9	4	1	0	1	4	3	10
1977	6	2	8	7	6	6	6	3	1	2	5	12
1978	12	9	3	0	-1	-1	0	1	0	0	1	6
1979	7	4	4	3	1	1	0	0	0	0	2	7
1980	5	2	5	1	0	3	1	0	0	0	1	4
1981	5	3	5	5	1	1	1	0	0	3	8	10
1982	5	1	0	2	2	1	0	0	0	1	1	2
1983	0	0	1	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	6
1985	7	3	1	-1	-9	-4	-1	0	0	3	9	10
1986	5	2	7	12	1	0	1	0	0	0	-1	0
1987	4	4	4	5	7	2	1	0	0	1	4	9
1988	6	1	9	14	2	0	0	0	1	4	8	6
1989	2	0	1	0	0	0	0	0	0	2	9	12
1990	5	1	2	1	-4	-1	0	1	1	4	4	10
1991	9	10	10	8	8	1	1	1	0	3	5	9
Avg	5	3	4	4	1	1	1	0	0	2	4	7
W	3	1	2	3	1	0	0	0	0	0	0	2
AN	8	6	4	1	0	1	0	0	0	0	1	5
BN	7	4	4	3	1	1	0	0	0	0	2	7
D	4	3	3	2	0	0	0	0	0	2	7	10
C	5	3	6	7	4	2	2	1	1	3	5	9

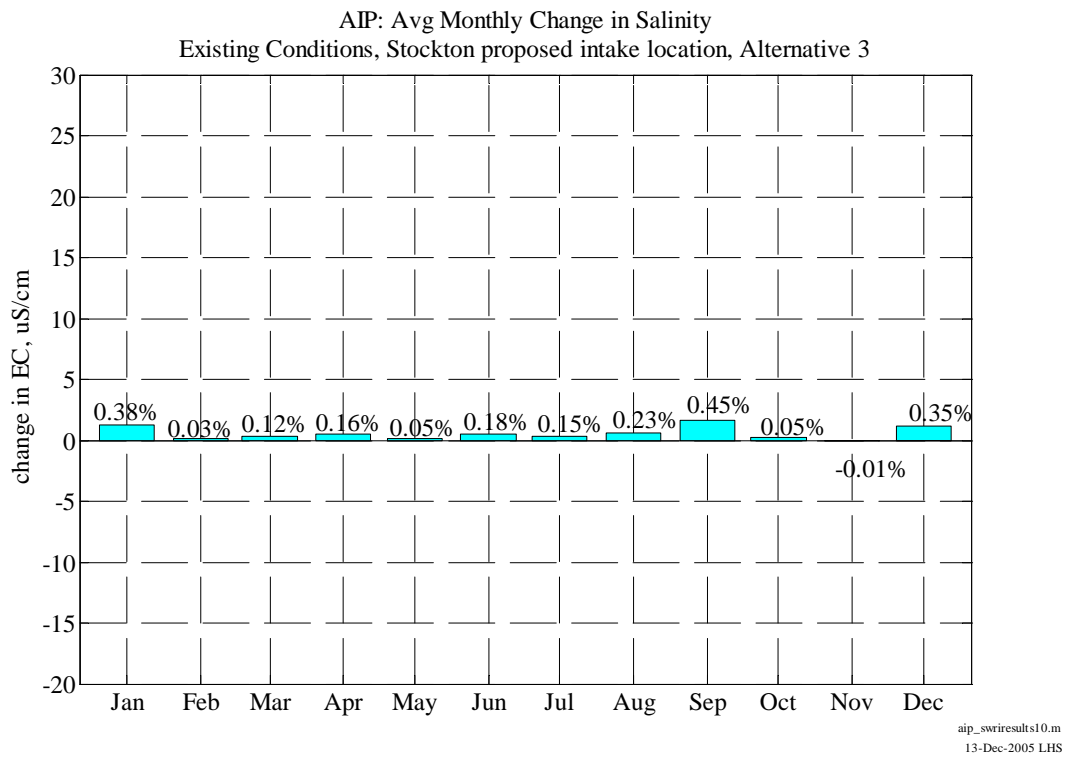
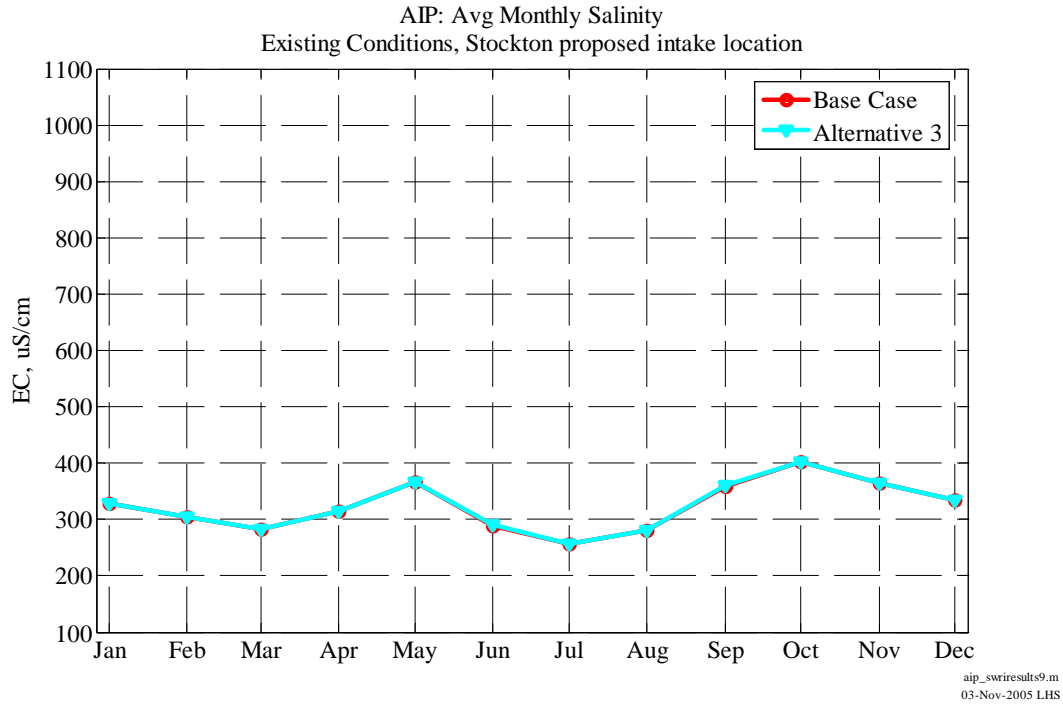
Clifton Court Forebay Salinity Percent Difference (Existing Alt 3 minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	0.3	-0.1	0.3	0.9	1.4	0.8	0.2	0.1	0.2	0.8	0.7	1.6
1977	0.9	0.4	1.2	1.0	0.8	0.9	0.9	0.5	0.1	0.4	1.1	2.1
1978	1.6	1.2	0.5	0.1	-0.3	-0.2	0.0	0.4	-0.2	-0.1	0.4	1.1
1979	1.2	0.9	0.7	0.8	0.3	0.2	0.1	0.0	0.0	-0.2	0.5	1.3
1980	0.7	0.4	1.0	0.3	0.1	1.4	0.3	-0.1	0.0	0.0	0.3	0.9
1981	1.0	0.7	0.9	1.2	0.4	0.3	0.2	0.1	0.0	0.8	1.4	1.5
1982	0.7	0.2	0.0	0.6	0.8	0.2	0.0	0.0	0.0	0.3	0.3	0.5
1983	-0.1	0.0	0.6	0.1	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0

Appendix C-4 DSM2 Delta Modeling

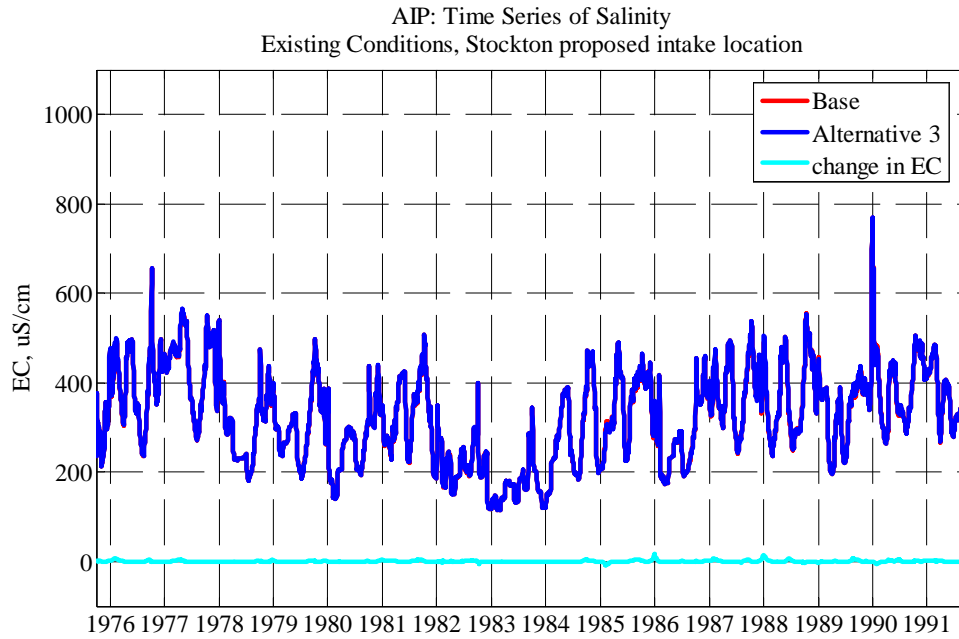
Clifton Court Forebay Salinity Percent Difference (Existing Alt 3 minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1984	0.0	0.0	0.1	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.3
1985	1.0	0.6	0.3	-0.4	-2.3	-1.1	-0.2	0.0	0.0	0.9	1.5	1.5
1986	0.8	0.4	1.4	3.0	0.3	-0.1	0.4	0.2	0.0	-0.1	-0.4	0.1
1987	0.7	0.7	0.7	0.9	1.2	0.5	0.2	0.1	0.0	0.2	0.8	1.4
1988	0.7	0.1	1.5	2.6	0.7	0.1	0.1	0.1	0.1	1.1	2.1	1.3
1989	0.2	0.0	0.1	0.0	-0.1	0.0	0.0	0.1	0.0	0.7	1.7	1.9
1990	0.8	0.2	0.3	0.2	-0.7	-0.4	0.1	0.3	0.2	0.8	0.9	1.9
1991	1.3	1.4	1.4	1.2	1.2	0.2	0.1	0.1	0.1	0.7	1.1	1.7
Avg	0.7	0.4	0.7	0.8	0.2	0.2	0.2	0.1	0.0	0.4	0.8	1.3
W	0.4	0.1	0.5	0.9	0.3	0.0	0.1	0.1	0.0	0.1	0.0	0.5
AN	1.2	0.8	0.8	0.2	-0.1	0.6	0.1	0.2	-0.1	-0.1	0.4	1.0
BN	1.2	0.9	0.7	0.8	0.3	0.2	0.1	0.0	0.0	-0.2	0.5	1.3
D	0.7	0.5	0.5	0.4	-0.2	-0.1	0.0	0.0	0.0	0.6	1.3	1.6
C	0.8	0.4	0.9	1.2	0.7	0.3	0.3	0.2	0.2	0.8	1.2	1.7

Appendix C-4 DSM2 Delta Modeling

City of Stockton Proposed Intake Location (Empire Tract)



Appendix C-4 DSM2 Delta Modeling



aip_swresults10.m
22-Nov-2005 LHS

Proposed Stockton Intake Salinity Base (Existing Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	302	248	351	414	467	355	401	488	379	306	258	405
1977	469	383	453	437	472	471	502	538	417	320	297	385
1978	502	498	418	409	317	311	242	230	232	197	229	332
1979	358	361	380	319	255	261	291	325	236	202	276	385
1980	451	357	309	212	145	197	256	295	283	218	217	291
1981	333	355	363	284	260	283	371	417	270	298	368	427
1982	446	322	201	283	182	229	159	186	237	211	211	278
1983	226	228	134	137	119	138	176	173	136	182	169	263
1984	228	162	125	149	217	264	338	382	268	201	213	338
1985	440	416	222	221	302	307	415	434	270	301	386	413
1986	419	412	331	279	212	178	224	261	277	205	216	274
1987	376	384	394	358	426	337	368	475	344	260	330	438
1988	486	389	405	401	266	285	373	473	364	268	293	351
1989	509	467	380	388	382	251	236	349	255	276	368	390
1990	403	387	446	526	396	290	335	434	356	334	307	368
1991	477	475	426	428	472	358	348	392	305	316	340	389

Appendix C-4 DSM2 Delta Modeling

Proposed Stockton Intake Salinity Base (Existing Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Avg	402	365	334	328	306	282	315	366	289	256	280	358
W	330	281	198	212	182	202	224	250	230	200	202	288
AN	477	428	363	310	231	254	249	262	258	208	223	311
BN	358	361	380	319	255	261	291	325	236	202	276	385
D	415	405	340	313	343	294	348	419	285	284	363	417
C	427	376	416	441	415	352	392	465	364	309	299	380

Proposed Stockton Intake Salinity Alternative (Existing Alt 3) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	303	248	352	418	472	357	401	488	379	306	258	408
1977	469	383	454	436	472	474	506	538	417	320	298	385
1978	502	498	418	409	317	311	242	230	232	197	229	333
1979	358	361	381	320	255	261	291	325	236	202	276	387
1980	452	357	310	212	145	197	256	295	283	218	217	292
1981	333	354	365	287	261	285	371	417	270	298	371	431
1982	446	323	201	283	181	228	159	186	238	213	212	280
1983	225	227	134	137	119	138	176	173	136	182	169	263
1984	228	162	125	149	217	264	338	382	268	201	213	340
1985	442	417	222	220	296	306	415	434	270	302	390	417
1986	420	412	336	285	213	178	224	262	277	206	215	273
1987	376	384	396	362	431	338	368	475	344	260	331	442
1988	486	388	410	409	267	285	373	473	369	269	292	350
1989	507	466	379	386	381	251	236	349	255	277	372	395
1990	404	388	445	524	392	290	337	435	359	335	307	369
1991	479	476	427	429	473	359	349	392	305	316	340	389
Avg	402	365	335	329	306	283	315	366	290	256	281	360
W	330	281	199	214	182	202	224	250	230	200	202	289
AN	477	428	364	310	231	254	249	262	258	208	223	312
BN	358	361	381	320	255	261	291	325	236	202	276	387
D	414	405	341	314	342	295	348	419	285	284	366	421
C	428	376	417	443	415	353	393	465	366	309	299	380

Appendix C-4 DSM2 Delta Modeling

Proposed Stockton Intake Salinity Difference (Existing Alt 3 minus Existing Base) Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	1	0	1	3	5	2	0	0	0	0	0	3
1977	0	0	0	0	0	2	3	1	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	1
1979	0	0	2	1	0	0	0	0	0	0	0	2
1980	0	0	1	0	0	0	0	0	0	0	0	1
1981	0	-1	2	2	1	2	0	0	0	1	3	4
1982	1	0	0	0	0	-1	0	0	0	2	1	2
1983	-2	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	2
1985	1	1	0	-1	-6	-2	0	0	0	1	3	4
1986	1	0	5	6	0	0	0	0	0	0	-1	-1
1987	0	0	2	3	4	1	0	0	0	-1	0	3
1988	0	-1	6	8	1	0	0	0	5	2	-1	-2
1989	-2	-1	-1	-2	-1	0	0	0	0	0	4	5
1990	1	0	-1	-2	-3	0	2	1	3	1	0	0
1991	1	1	1	1	1	1	1	0	0	0	0	0
Avg	0	0	1	1	0	0	0	0	1	0	1	2
W	0	0	1	2	0	0	0	0	0	1	0	1
AN	0	0	1	0	0	0	0	0	0	0	0	1
BN	0	0	2	1	0	0	0	0	0	0	0	2
D	0	0	1	1	0	0	0	0	0	0	3	4
C	1	0	1	2	1	1	1	0	1	1	0	0

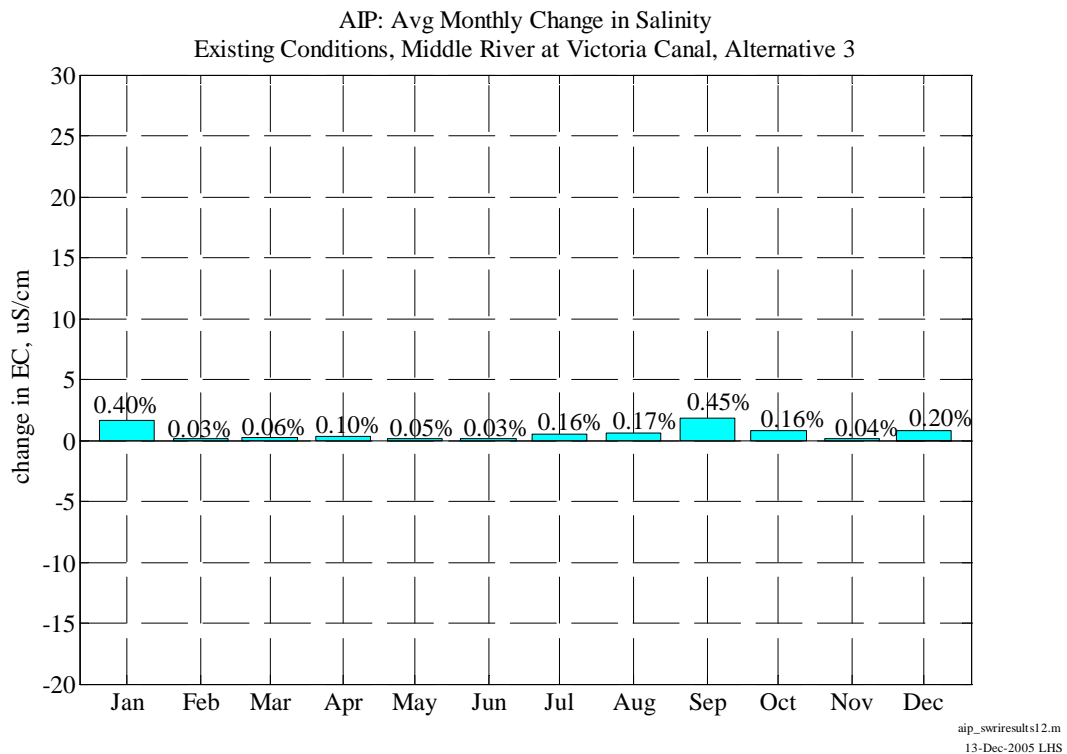
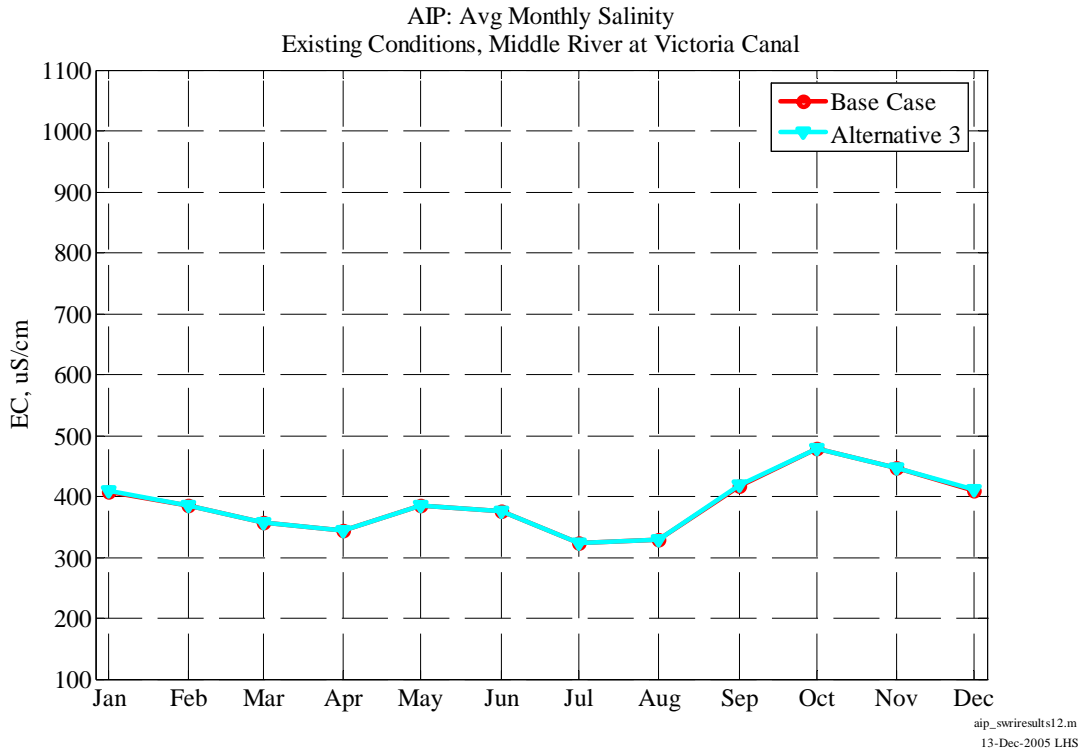
Proposed Stockton Intake Salinity Percent Difference (Existing Alt 3 minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	0.2	-0.1	0.1	0.8	1.2	0.5	0.1	0.0	-0.1	0.1	0.1	0.8
1977	0.0	0.0	0.1	-0.1	-0.1	0.5	0.7	0.2	-0.1	0.1	0.1	0.1
1978	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
1979	0.0	-0.1	0.4	0.3	-0.2	0.0	0.0	0.0	0.1	-0.1	0.0	0.6
1980	0.1	0.0	0.4	0.0	-0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.2
1981	-0.1	-0.1	0.7	0.8	0.5	0.7	0.1	0.0	0.1	0.3	0.7	0.9
1982	0.2	0.1	0.0	0.1	-0.1	-0.3	0.0	0.0	0.1	0.9	0.6	0.5
1983	-0.7	-0.1	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Appendix C-4 DSM2 Delta Modeling

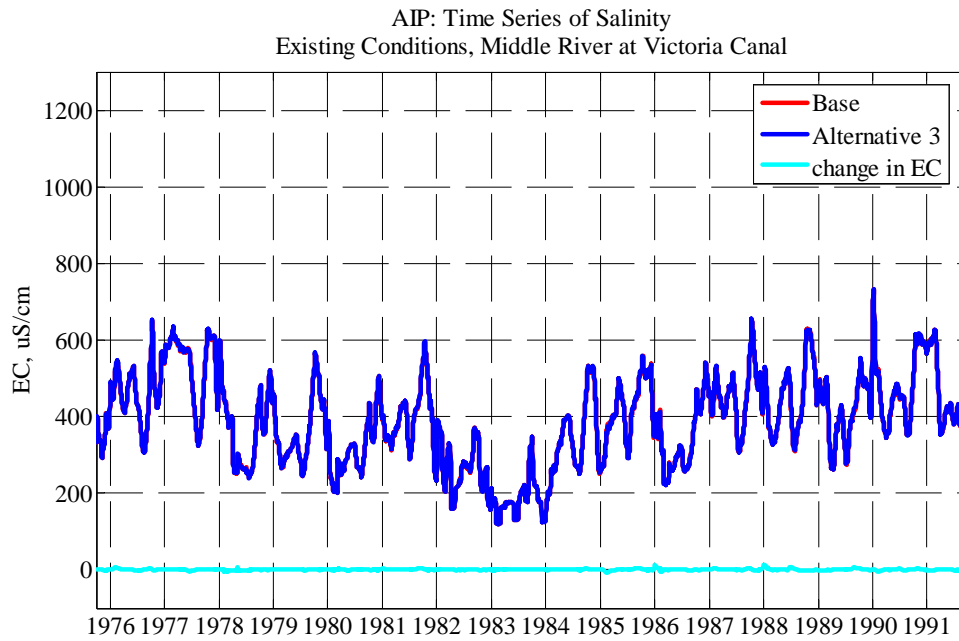
Proposed Stockton Intake Salinity Percent Difference (Existing Alt 3 minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
1985	0.3	0.3	0.2	-0.5	-2.1	-0.6	0.0	0.0	0.0	0.3	0.9	1.0
1986	0.3	-0.1	1.6	2.1	0.0	-0.1	0.0	0.0	0.1	0.2	-0.5	-0.2
1987	0.0	0.1	0.5	0.9	1.0	0.3	0.1	0.0	0.1	-0.2	0.1	0.8
1988	0.1	-0.1	1.4	2.0	0.4	0.1	0.1	0.0	1.4	0.6	-0.3	-0.5
1989	-0.4	-0.2	-0.2	-0.5	-0.2	0.0	0.1	0.1	0.0	0.1	1.0	1.3
1990	0.4	0.1	-0.1	-0.4	-0.9	-0.1	0.6	0.3	0.8	0.2	-0.1	0.1
1991	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.0	0.0	-0.1	0.0	0.1
Avg	0.0	0.0	0.3	0.4	0.0	0.1	0.1	0.0	0.2	0.1	0.2	0.4
W	-0.1	0.0	0.3	0.5	0.0	-0.1	0.0	0.0	0.1	0.3	0.0	0.2
AN	0.0	0.0	0.2	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3
BN	0.0	-0.1	0.4	0.3	-0.2	0.0	0.0	0.0	0.1	-0.1	0.0	0.6
D	0.0	0.0	0.3	0.2	-0.2	0.1	0.1	0.0	0.0	0.1	0.7	1.0
C	0.2	0.0	0.3	0.5	0.2	0.3	0.3	0.1	0.4	0.2	0.0	0.1

Appendix C-4 DSM2 Delta Modeling

Middle River at Victoria Canal



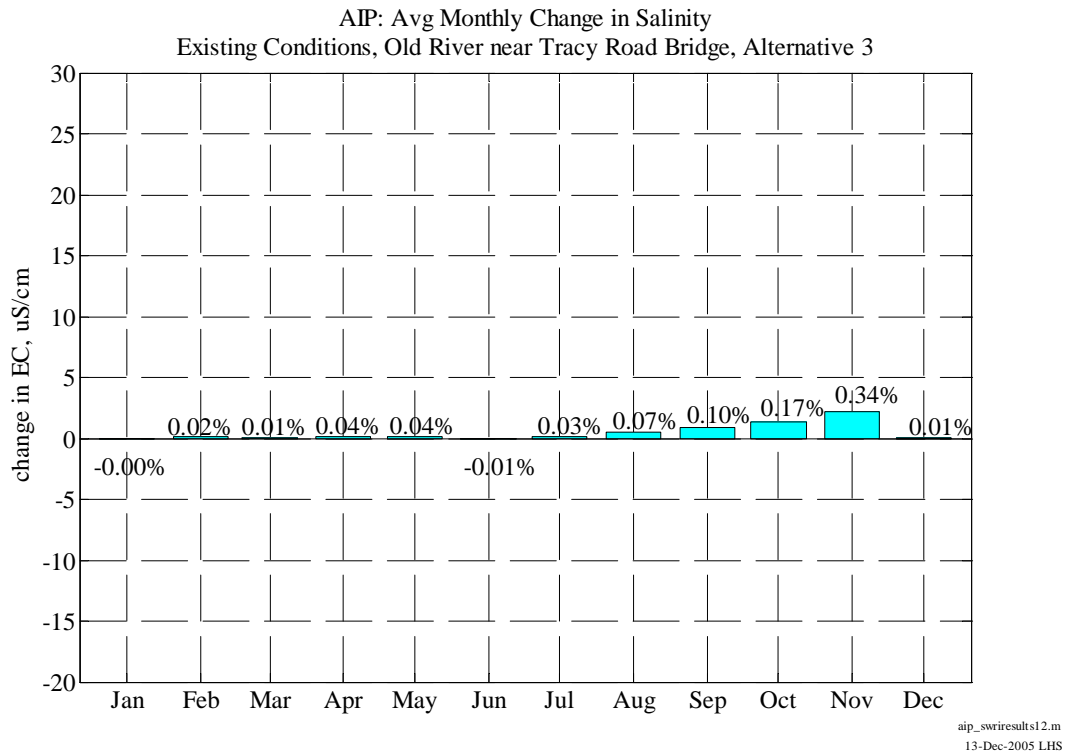
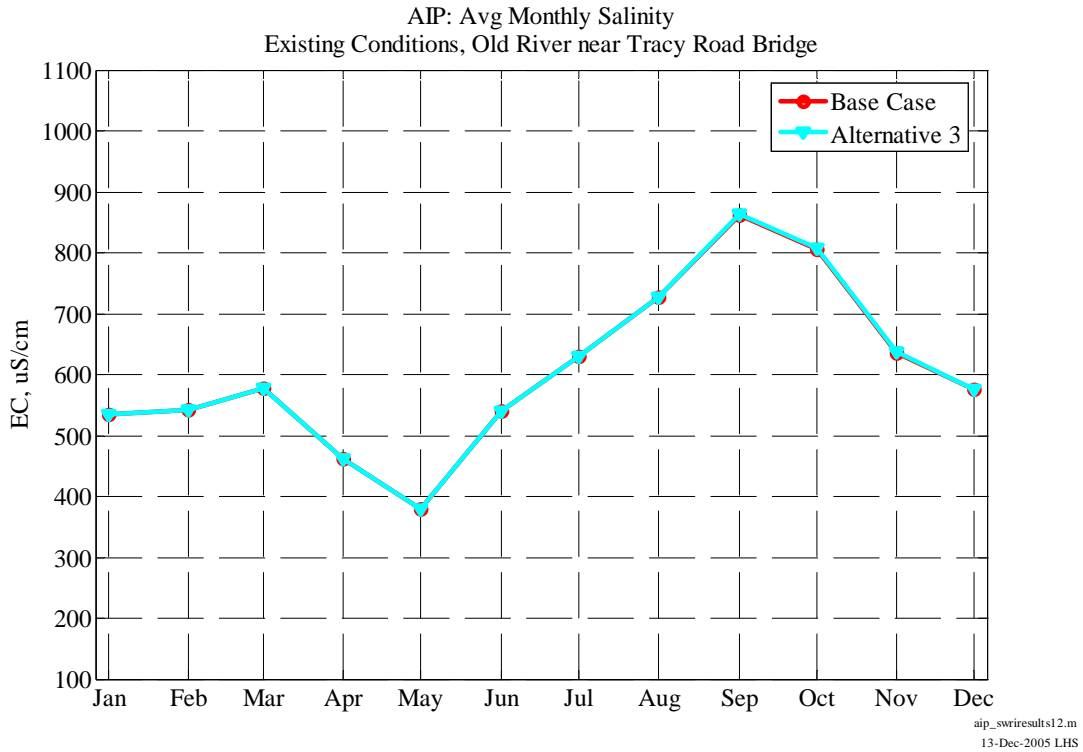
Appendix C-4 DSM2 Delta Modeling



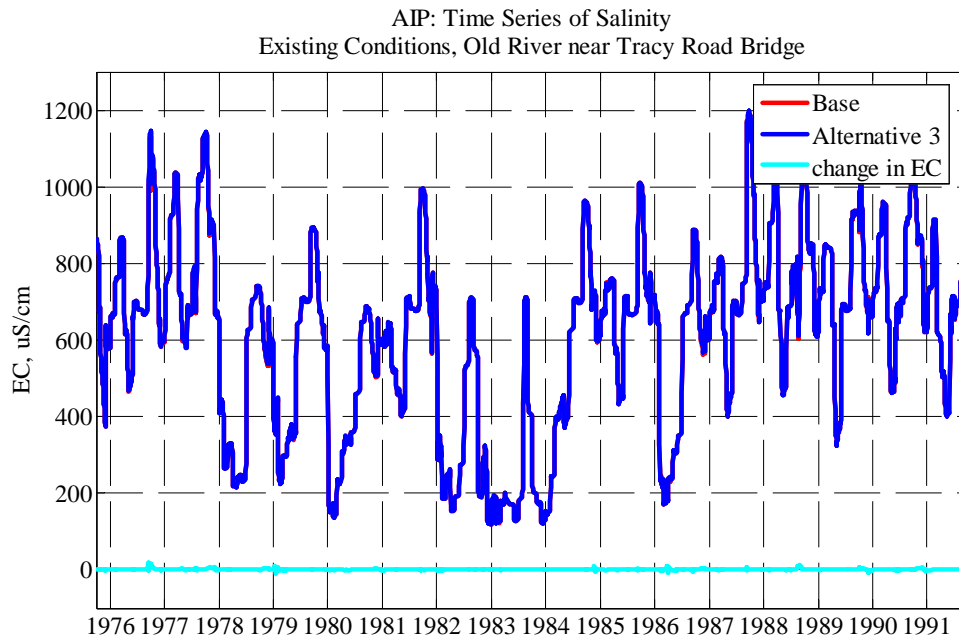
aip_swiresults12.m
13-Dec-2005 LHS

Appendix C-4 DSM2 Delta Modeling

Old River near Tracy Road Bridge



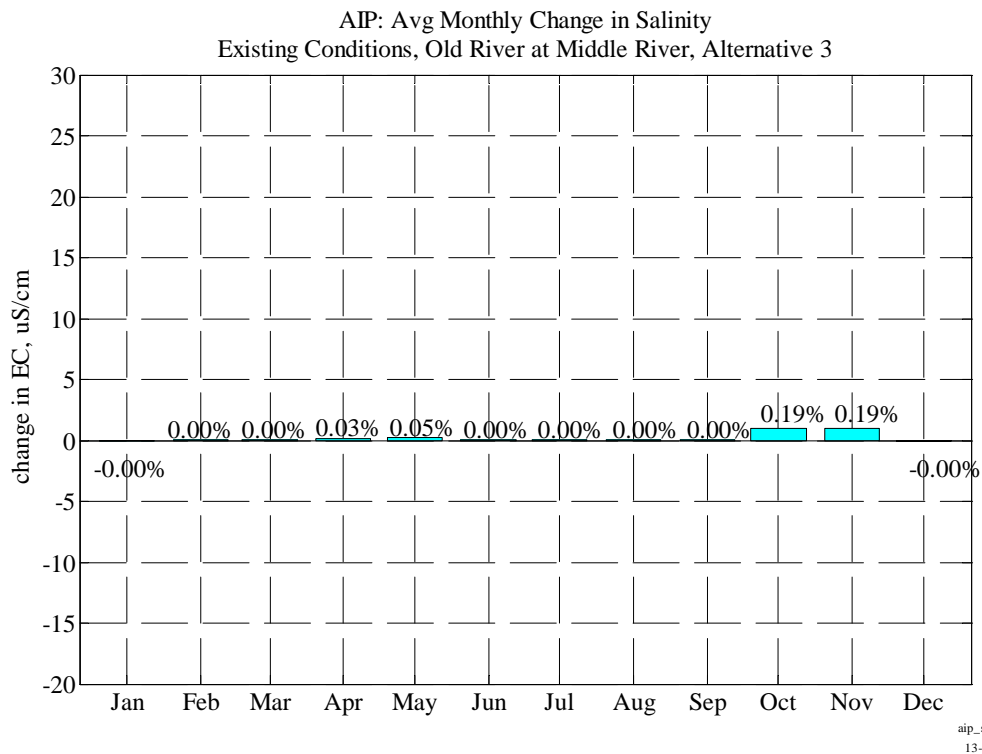
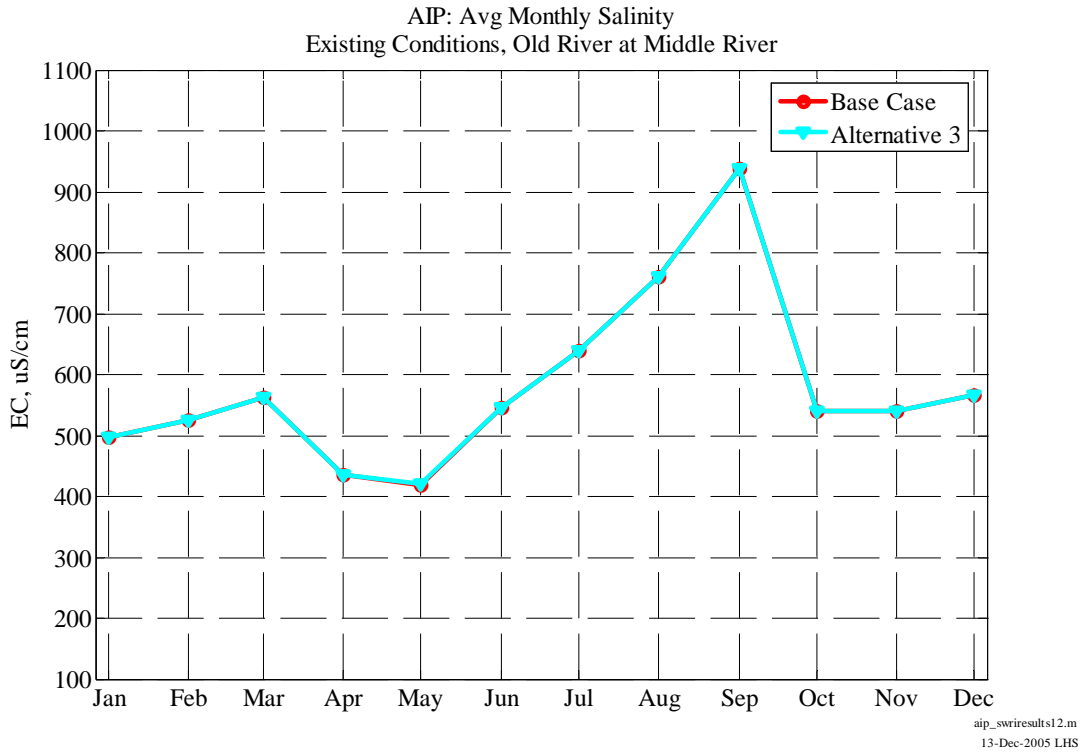
Appendix C-4 DSM2 Delta Modeling



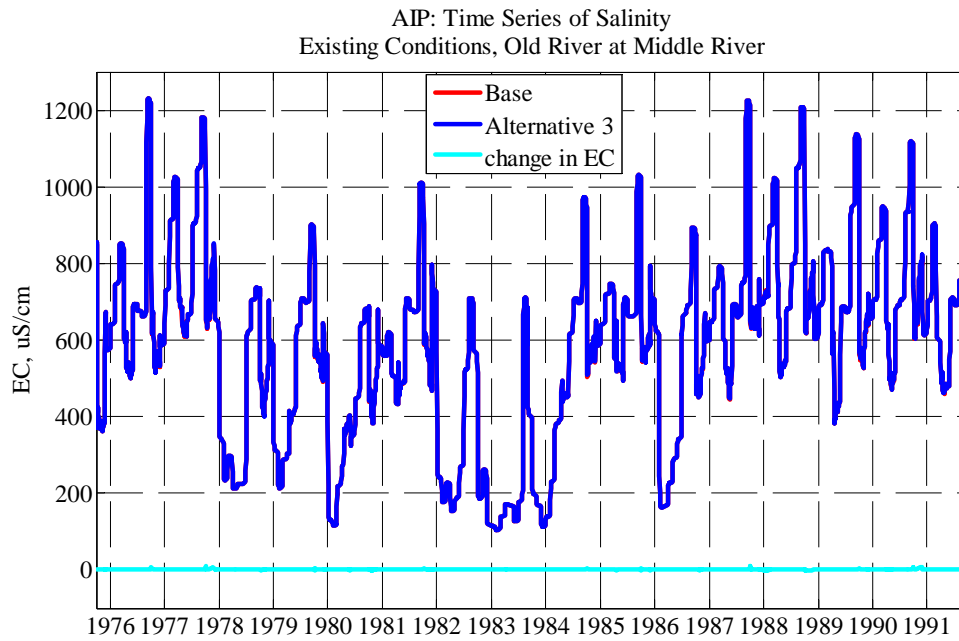
aip_swresults12.m
13-Dec-2005 LHS

Appendix C-4 DSM2 Delta Modeling

Old River at Middle River



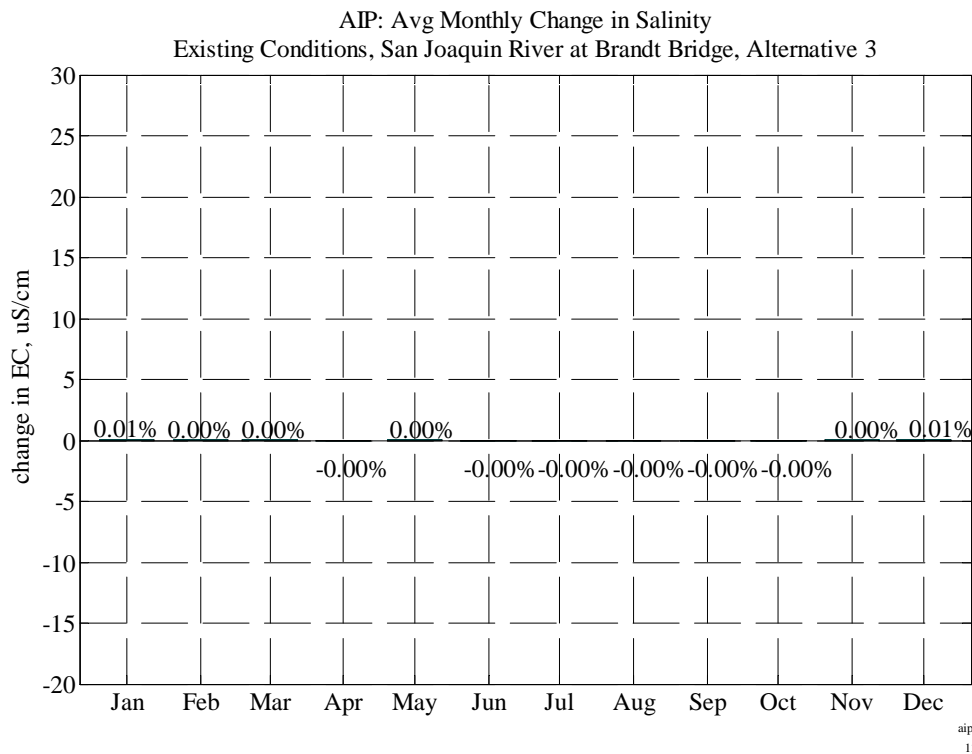
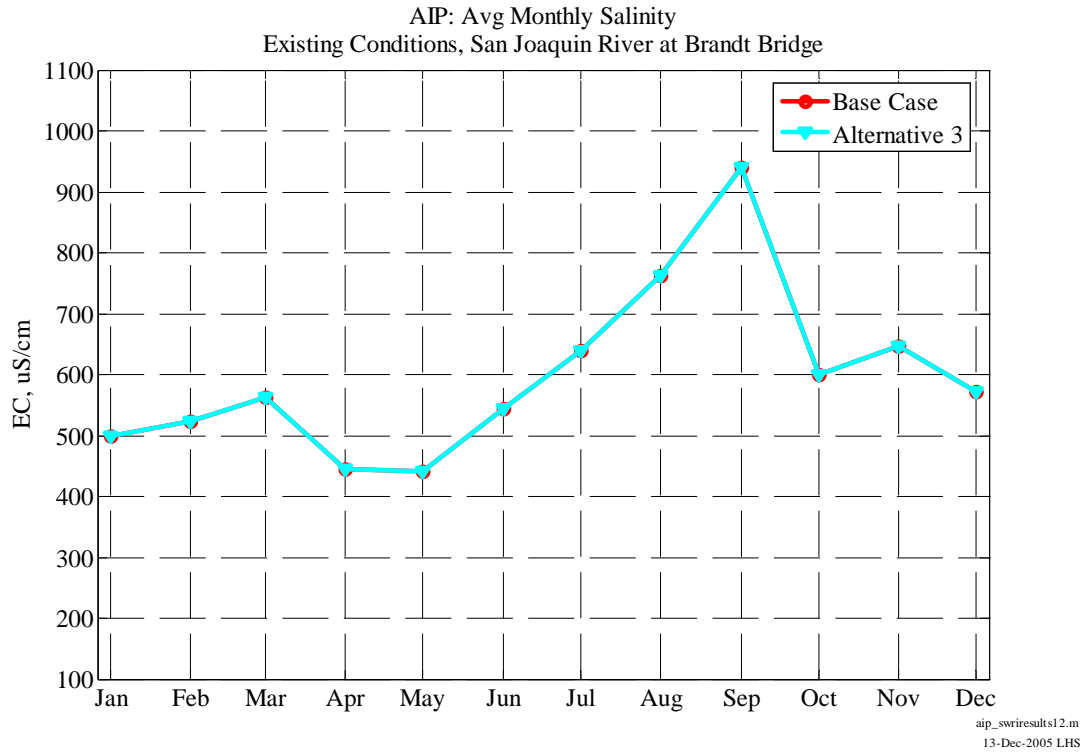
Appendix C-4 DSM2 Delta Modeling



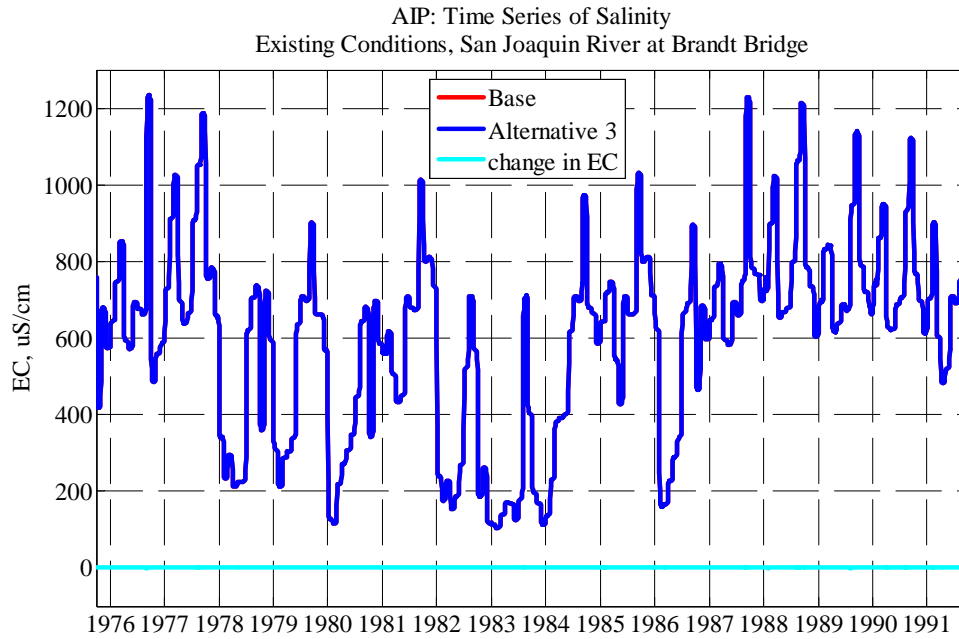
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13-Dec-2005 LHS

Appendix C-4 DSM2 Delta Modeling

San Joaquin River at Brandt Bridge



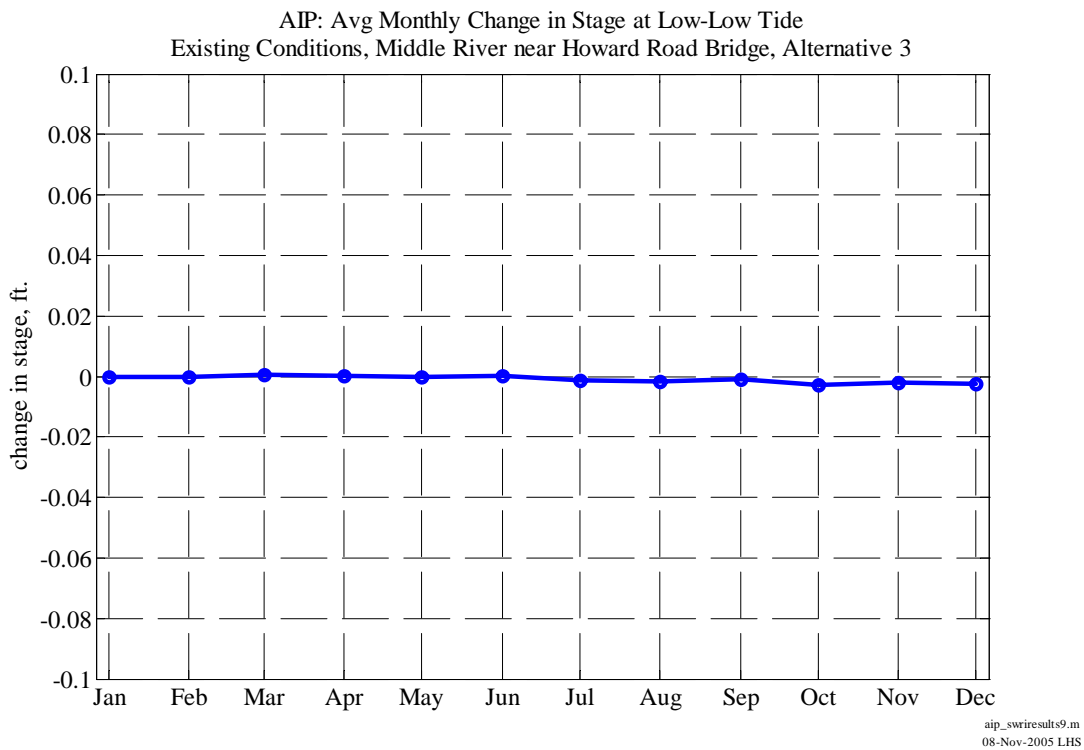
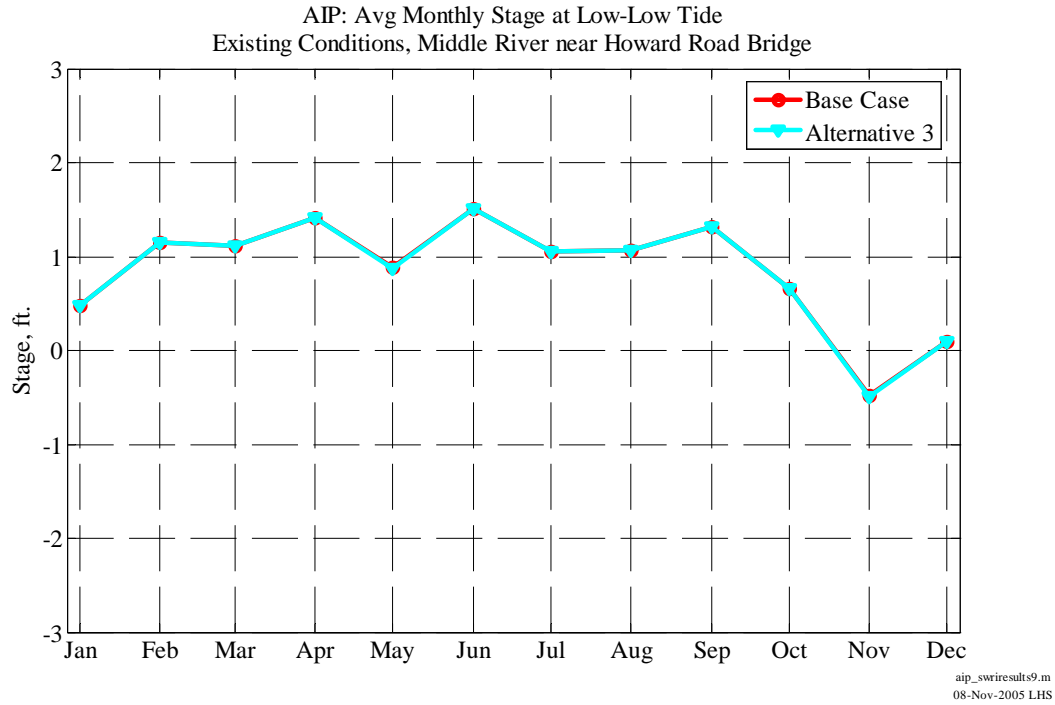
Appendix C-4 DSM2 Delta Modeling



aip_swresults12.m
13-Dec-2005 LHS

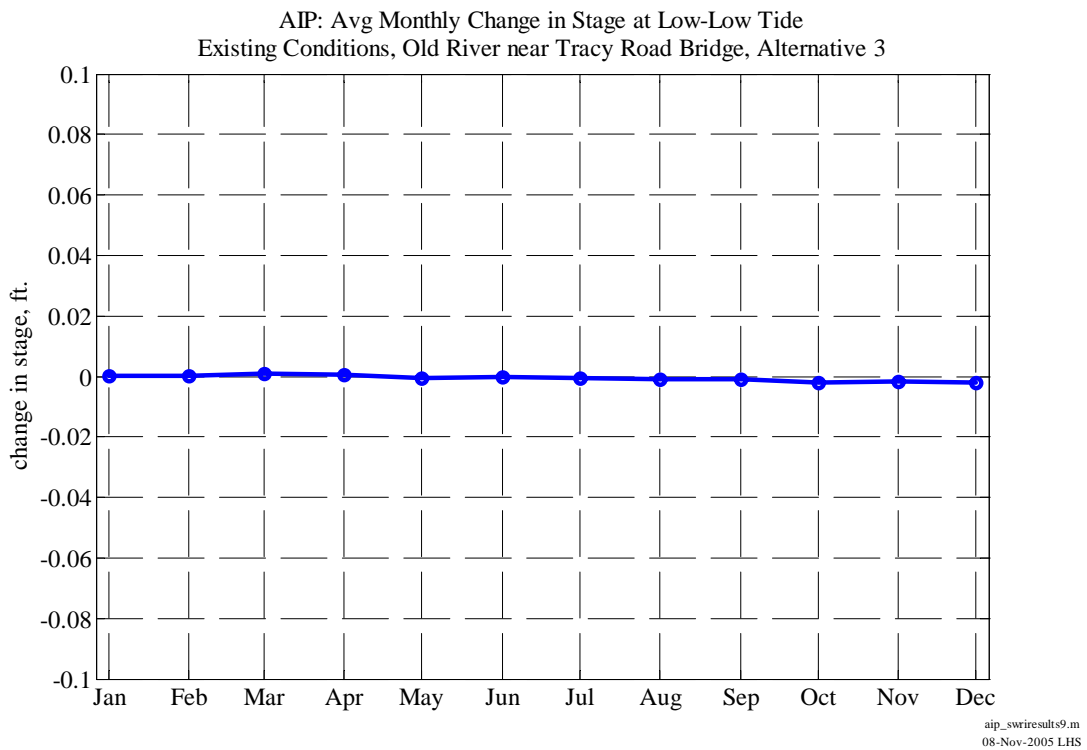
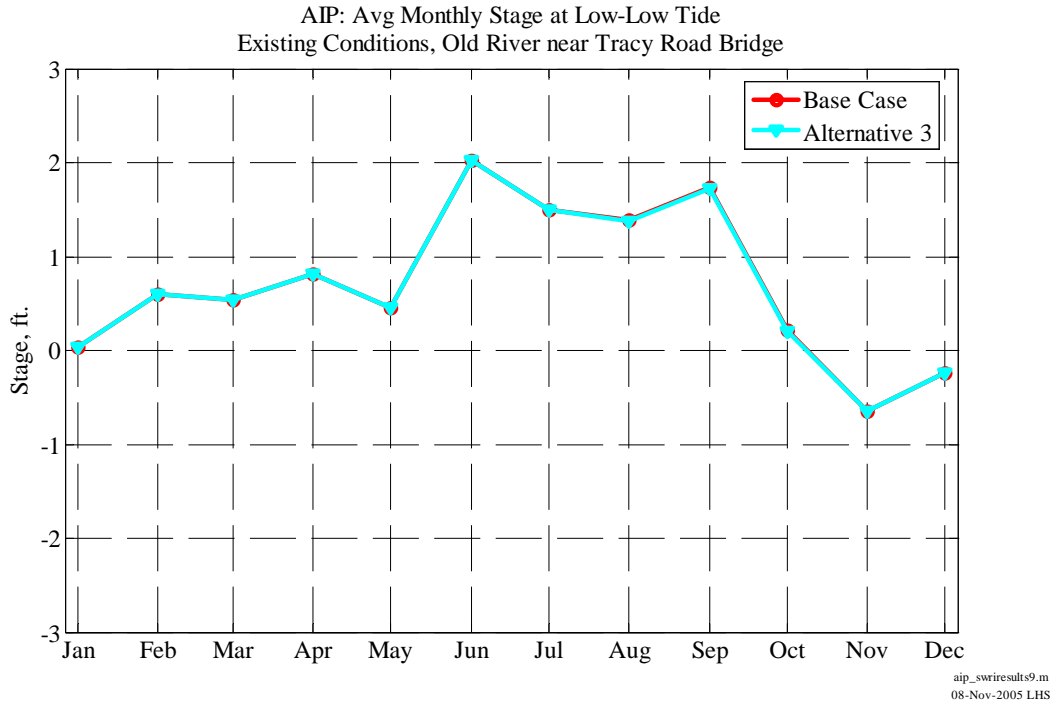
Appendix C-4 DSM2 Delta Modeling

Middle River near Howard Road

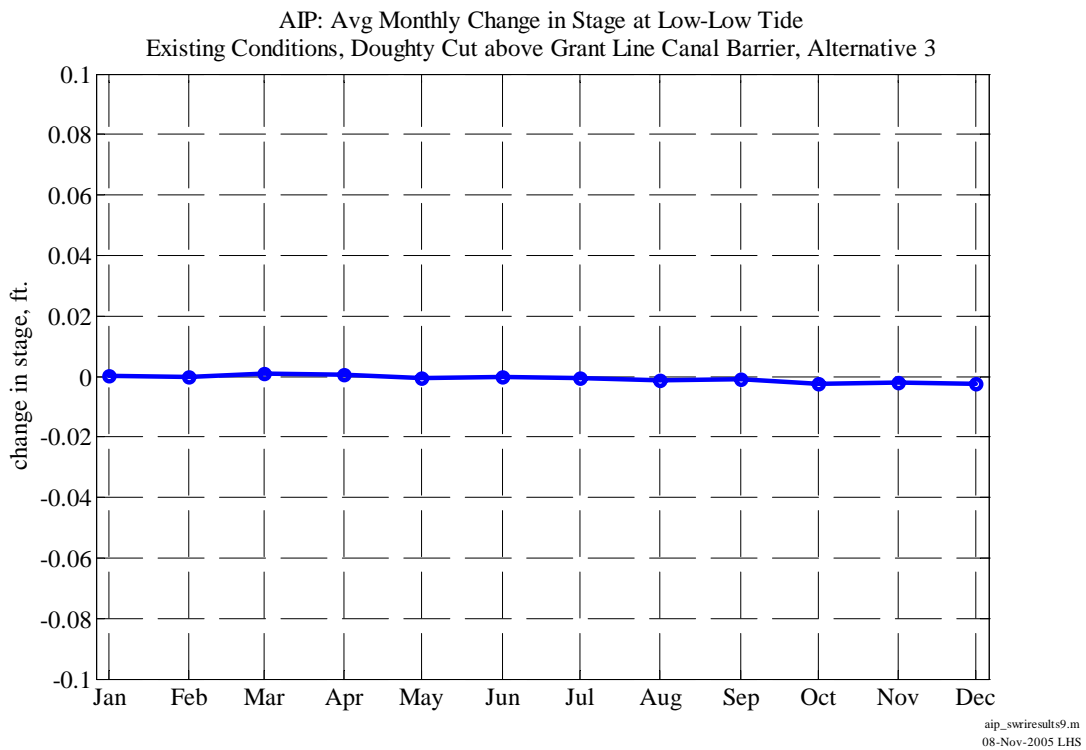
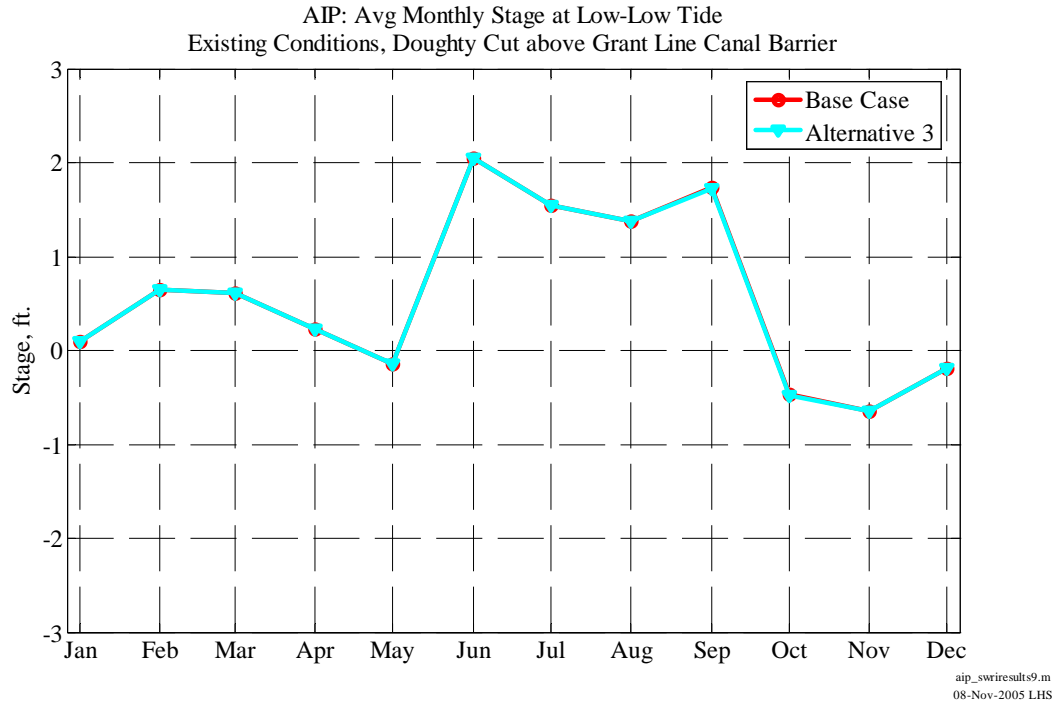


Appendix C-4 DSM2 Delta Modeling

Old River near Tracy Road

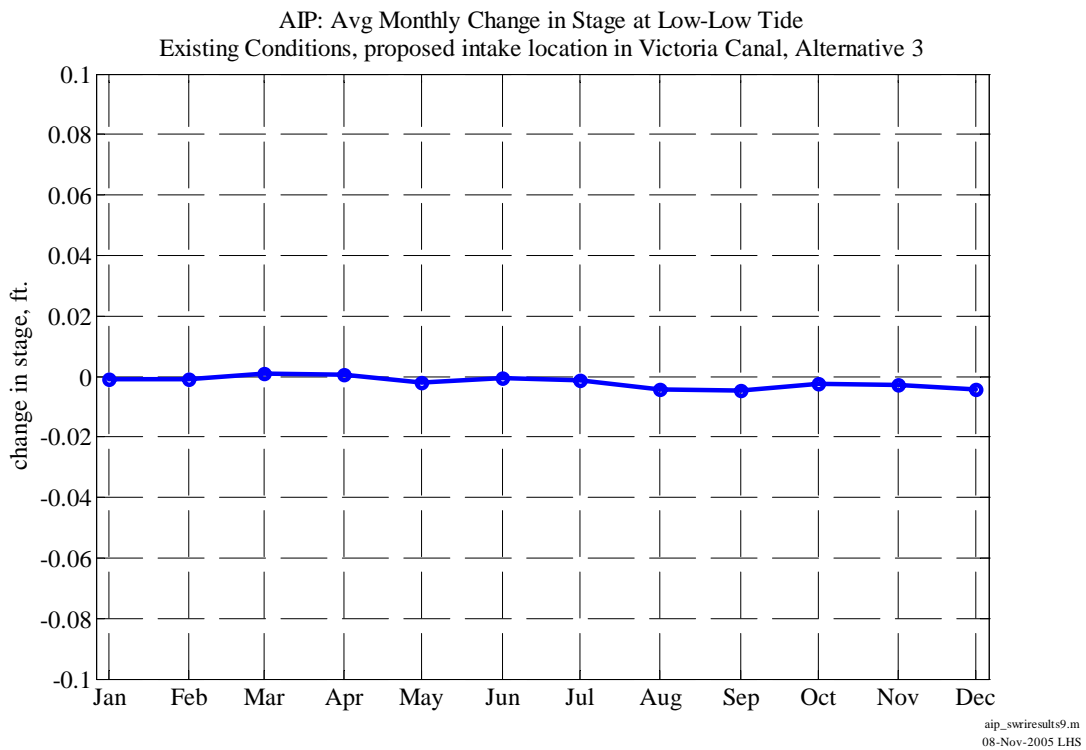
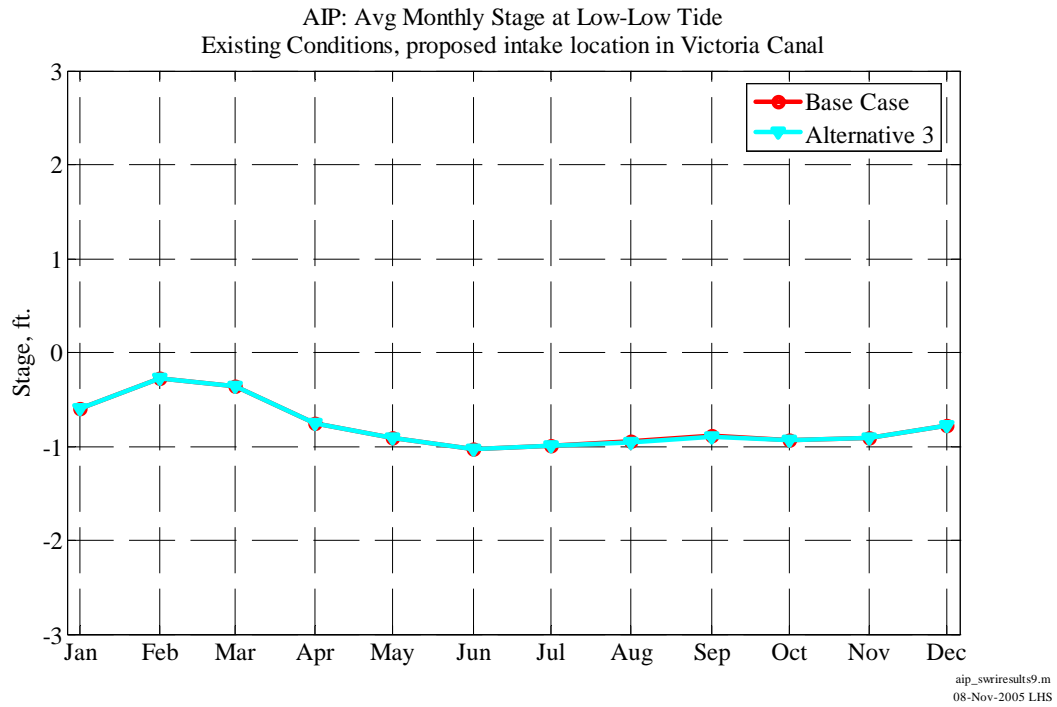


Doughty Cut above Grant Line Canal



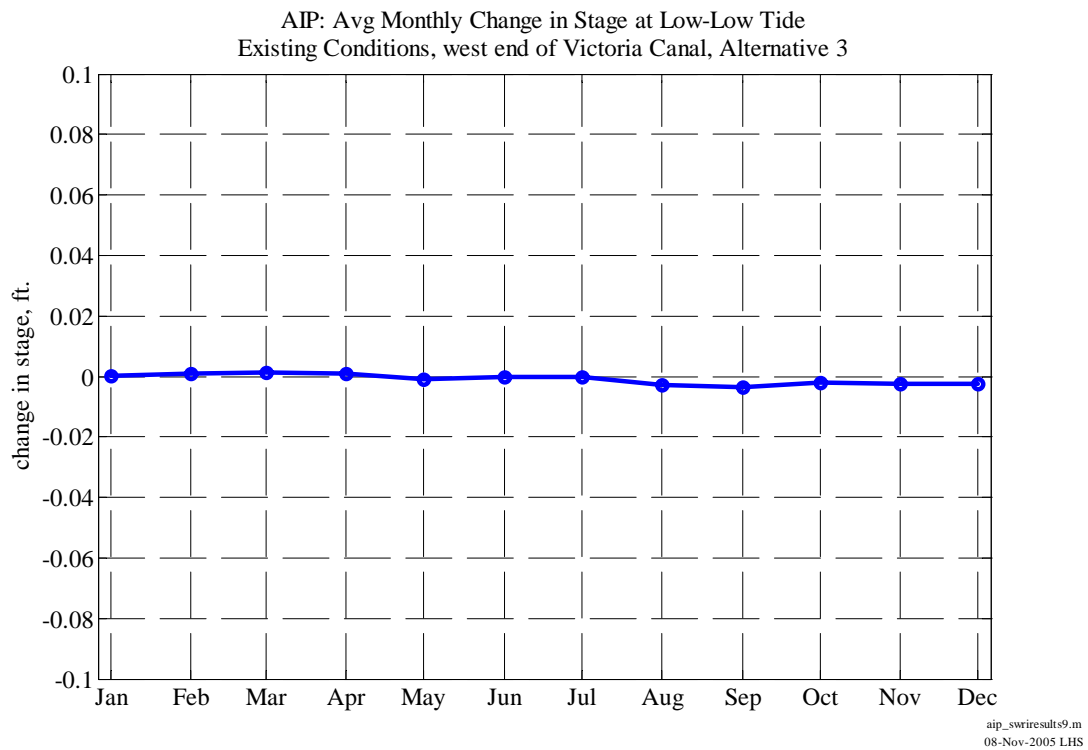
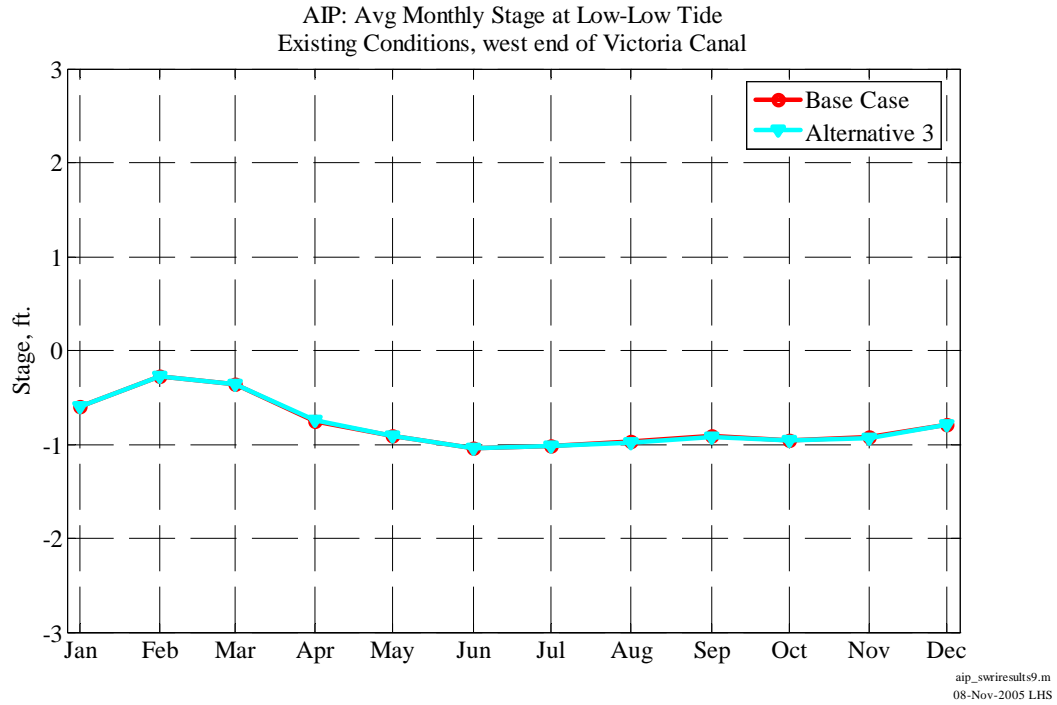
Appendix C-4 DSM2 Delta Modeling

Proposed Alternative Intake Location on Victoria Canal



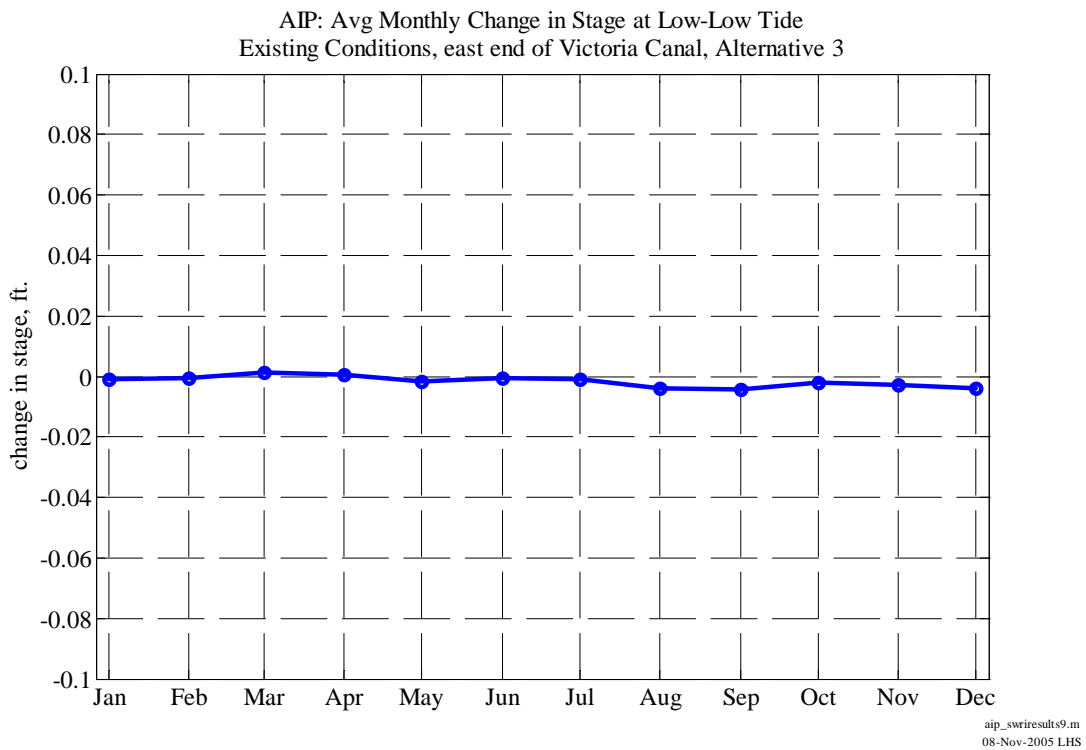
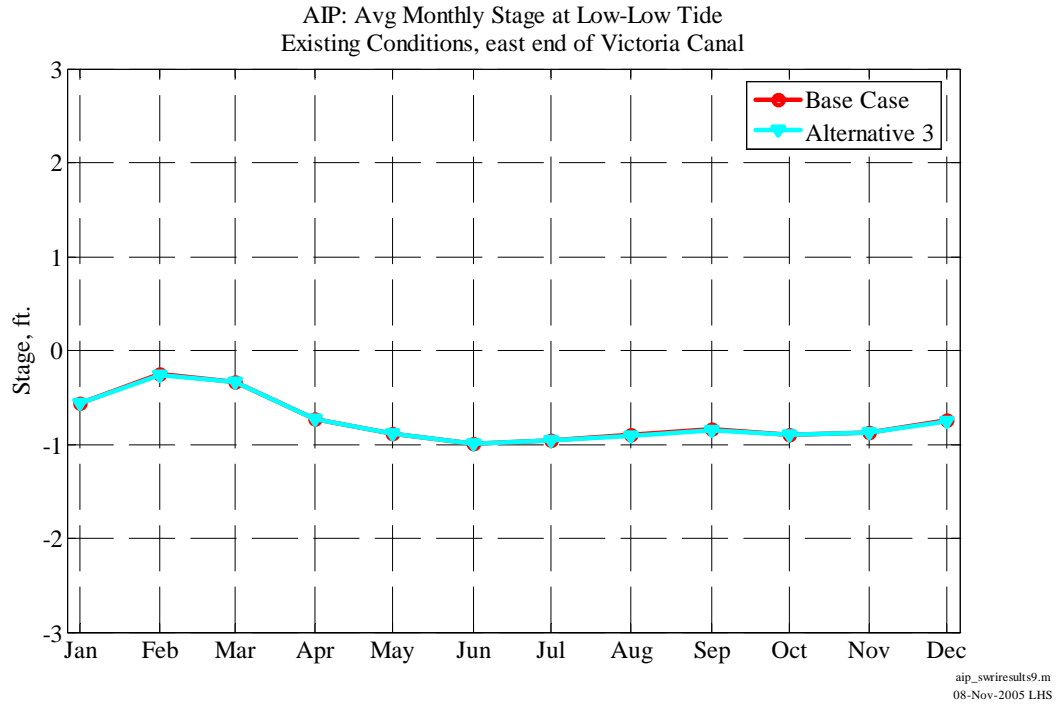
Appendix C-4 DSM2 Delta Modeling

West end of Victoria Canal



Appendix C-4 DSM2 Delta Modeling

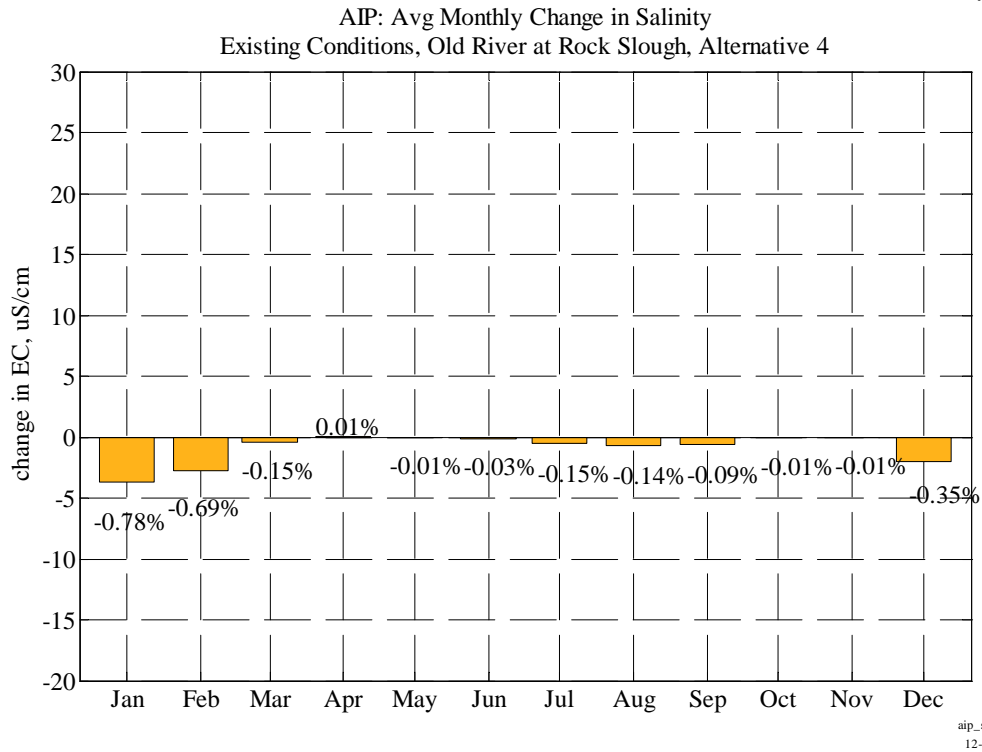
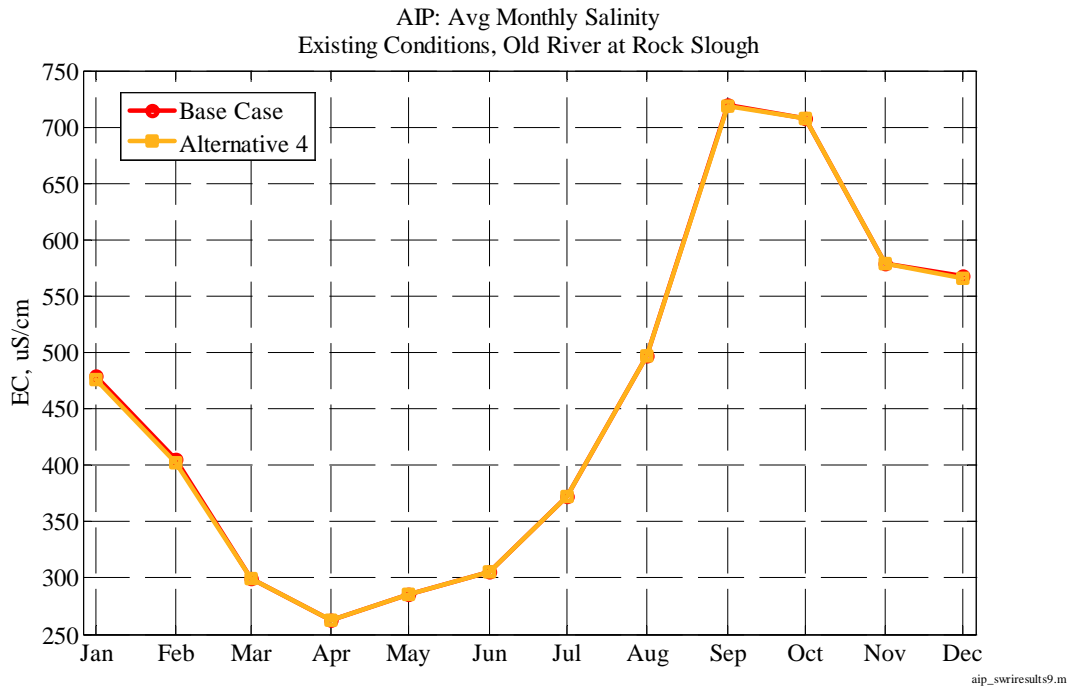
East end of Victoria Canal



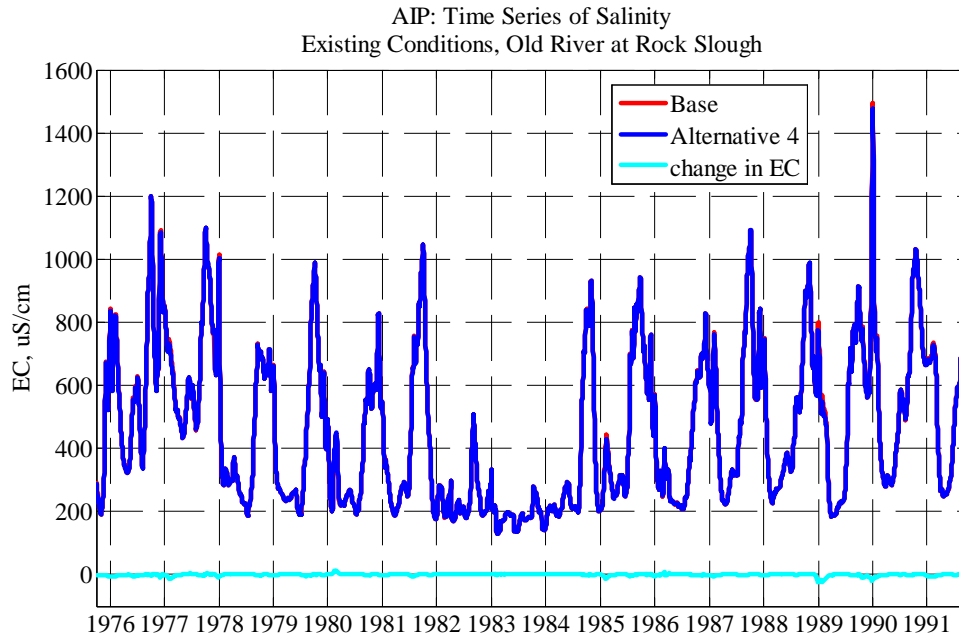
Alternative 4, Desalination Alternative

Old River at Rock Slough

Appendix C-4 DSM2 Delta Modeling



Appendix C-4 DSM2 Delta Modeling



aip_swireresults10.m
22-Nov-2005 LHS

Old River at Rock Slough Salinity Base (Existing Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	235	283	633	711	726	454	336	400	570	508	448	913
1977	901	700	946	762	689	547	479	475	594	534	552	881
1978	1007	818	740	487	318	293	335	273	229	206	364	661
1979	680	648	641	405	265	242	241	259	213	260	501	830
1980	865	595	504	288	367	271	227	257	235	206	340	558
1981	587	620	651	398	276	199	219	280	265	535	734	929
1982	779	396	192	258	211	226	189	212	207	188	307	409
1983	236	194	253	215	136	168	193	190	139	176	175	181
1984	254	212	149	193	213	193	217	280	235	210	317	701
1985	837	656	232	251	396	291	258	308	268	535	779	888
1986	748	595	563	356	281	329	255	227	217	221	320	504
1987	628	685	713	563	626	322	229	280	319	401	652	948
1988	879	597	739	551	260	256	280	339	365	390	544	654
1989	900	800	645	626	507	265	188	214	237	467	723	820
1990	788	610	807	924	499	303	301	307	439	566	551	788
1991	995	852	682	681	712	431	259	264	357	555	651	843

Appendix C-4 DSM2 Delta Modeling

Old River at Rock Slough Salinity Base (Existing Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Avg	708	579	568	479	405	299	263	285	305	372	497	719
W	504	349	289	255	210	229	213	227	199	199	280	449
AN	936	707	622	387	343	282	281	265	232	206	352	609
BN	680	648	641	405	265	242	241	259	213	260	501	830
D	738	690	560	460	451	269	224	271	272	484	722	897
C	760	608	762	726	577	398	331	357	465	510	549	816

Old River at Rock Slough Salinity Alternative (Existing Alt Desal) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	233	282	631	706	722	453	335	399	565	506	447	913
1977	901	698	943	757	677	543	478	475	596	536	551	880
1978	1010	821	737	484	318	293	335	273	229	206	364	660
1979	680	649	640	404	265	242	241	259	213	259	498	828
1980	866	595	504	288	375	277	227	257	235	206	340	557
1981	586	621	650	397	276	199	219	280	265	531	732	930
1982	780	395	192	258	213	226	189	212	207	188	307	409
1983	236	194	253	215	136	168	193	190	139	176	175	181
1984	254	212	149	193	213	193	217	280	235	210	317	700
1985	837	656	231	248	387	289	257	308	268	532	778	888
1986	748	595	562	354	281	329	257	228	217	221	320	503
1987	627	685	713	561	623	321	229	280	319	400	650	947
1988	880	598	738	549	260	256	280	339	365	390	544	656
1989	902	801	638	606	491	262	188	214	237	467	722	820
1990	784	605	797	915	495	302	301	307	439	565	551	787
1991	997	854	682	677	705	428	259	264	357	554	651	841
Avg	708	579	566	476	402	299	263	285	305	372	497	719
W	505	349	289	255	211	229	214	227	199	199	280	448
AN	938	708	620	386	347	285	281	265	232	206	352	608
BN	680	649	640	404	265	242	241	259	213	259	498	828
D	738	691	558	453	444	268	224	271	272	483	720	896
C	759	607	758	721	572	397	331	357	464	510	549	815

Appendix C-4 DSM2 Delta Modeling

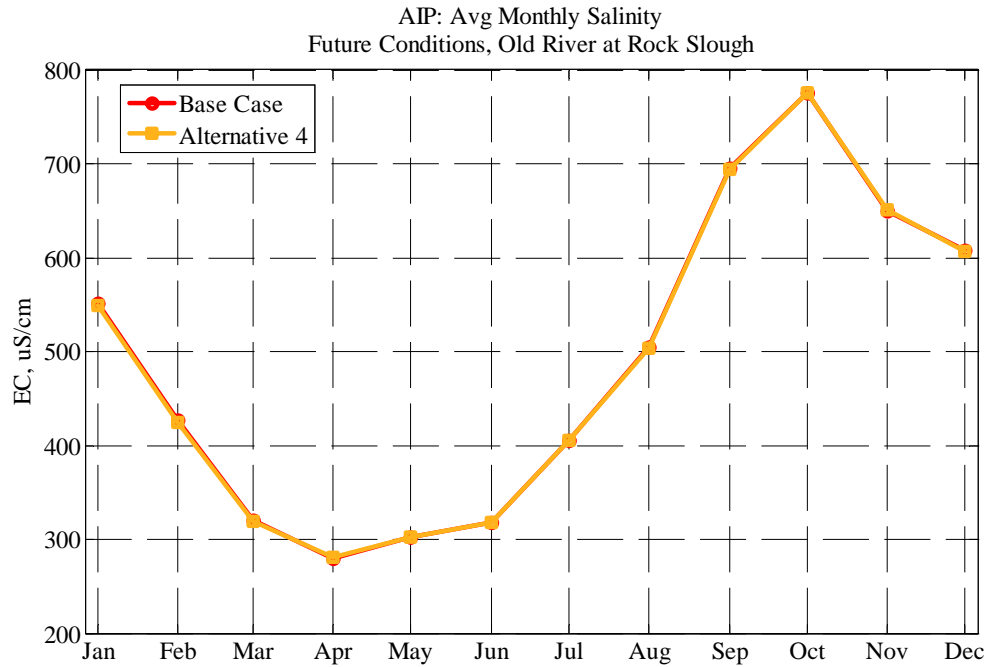
Old River at Rock Slough Salinity Difference (Existing Alt Desal minus Existing Base) Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	-2	-1	-3	-5	-4	-1	-1	-1	-4	-2	0	0
1977	0	-1	-3	-6	-12	-3	-1	0	3	2	0	-1
1978	3	3	-3	-3	0	0	0	0	0	0	0	-1
1979	0	0	-1	-1	0	0	0	0	0	-1	-3	-2
1980	0	0	-1	0	8	6	0	0	0	0	0	-1
1981	0	0	-1	-1	0	0	0	0	0	-3	-2	0
1982	1	-1	0	0	1	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	-1
1985	0	0	0	-3	-9	-2	0	0	0	-3	-2	0
1986	0	0	-1	-2	1	0	2	0	0	0	0	-1
1987	-2	0	-1	-3	-3	-1	0	0	0	-1	-2	-1
1988	1	1	-2	-2	0	0	0	0	0	0	0	1
1989	2	1	-7	-21	-15	-3	0	0	0	0	-1	-1
1990	-4	-5	-10	-9	-4	-1	0	0	0	0	0	-1
1991	1	2	0	-4	-6	-2	0	0	0	-1	0	-3
Avg	0	0	-2	-4	-3	0	0	0	0	-1	-1	-1
W	0	0	0	0	1	0	1	0	0	0	0	-1
AN	1	1	-2	-1	4	3	0	0	0	0	0	-1
BN	0	0	-1	-1	0	0	0	0	0	-1	-3	-2
D	0	0	-2	-7	-7	-1	0	0	0	-2	-1	0
C	-1	-1	-3	-5	-5	-2	0	0	0	0	0	-1

Old River at Rock Slough Salinity Percent Difference (Existing Alt Desal minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	-0.7	-0.2	-0.5	-0.7	-0.5	-0.2	-0.2	-0.3	-0.8	-0.3	-0.1	0.0
1977	0.0	-0.2	-0.3	-0.7	-1.8	-0.6	-0.1	0.1	0.4	0.4	-0.1	-0.1
1978	0.3	0.3	-0.4	-0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1
1979	-0.1	0.0	-0.1	-0.2	0.0	0.0	0.0	0.0	0.1	-0.5	-0.7	-0.2
1980	0.0	0.0	-0.1	0.0	2.1	2.2	0.1	0.0	0.0	0.0	0.0	-0.2
1981	-0.1	0.0	-0.1	-0.3	-0.1	0.0	0.0	0.0	0.0	-0.6	-0.3	0.0
1982	0.1	-0.2	-0.1	0.0	0.7	0.2	0.1	0.0	0.0	0.0	0.0	0.0
1983	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

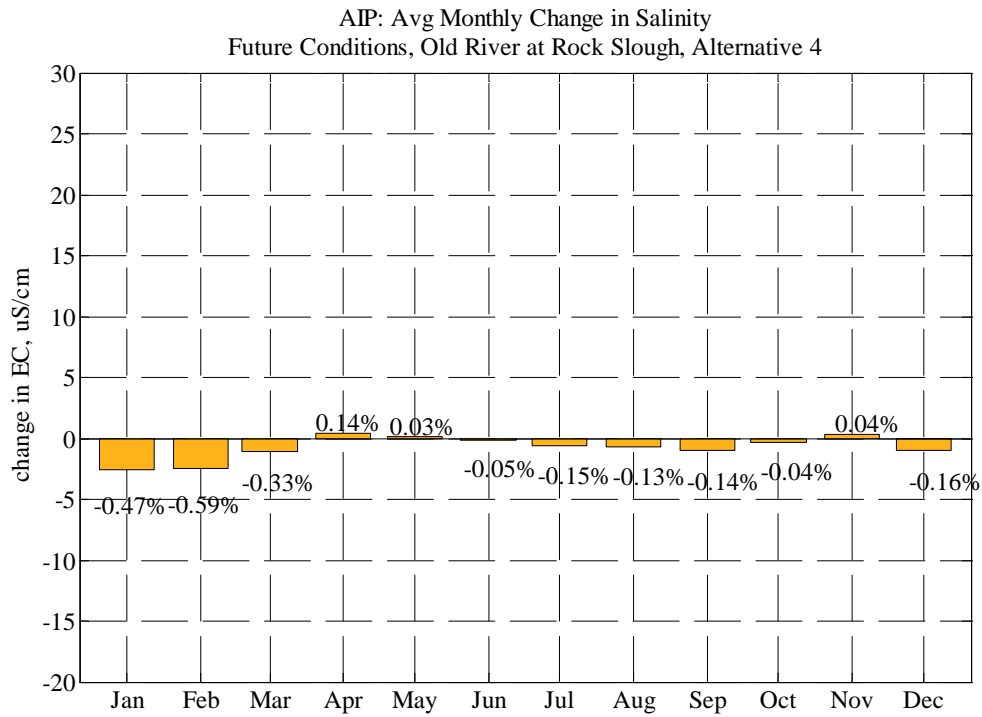
Appendix C-4 DSM2 Delta Modeling

Old River at Rock Slough Salinity Percent Difference (Existing Alt Desal minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1
1985	-0.1	-0.1	0.0	-1.1	-2.3	-0.7	-0.1	0.0	0.0	-0.5	-0.2	0.0
1986	0.0	0.0	-0.3	-0.5	0.2	0.1	0.8	0.1	0.0	0.0	0.0	-0.2
1987	-0.2	0.0	-0.1	-0.5	-0.5	-0.2	0.0	0.0	0.0	-0.2	-0.3	-0.1
1988	0.1	0.1	-0.2	-0.3	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2
1989	0.2	0.1	-1.1	-3.3	-3.1	-1.0	0.0	0.1	0.0	0.0	-0.1	-0.1
1990	-0.6	-0.8	-1.3	-1.0	-0.8	-0.4	-0.1	0.0	0.0	-0.1	0.0	-0.2
1991	0.1	0.3	0.1	-0.6	-0.9	-0.6	-0.1	0.1	0.0	-0.1	-0.1	-0.3
Avg	-0.1	0.0	-0.3	-0.6	-0.4	-0.1	0.0	0.0	0.0	-0.1	-0.1	-0.1
W	0.0	-0.1	-0.1	-0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	-0.1
AN	0.1	0.2	-0.2	-0.3	1.0	1.1	0.1	0.0	0.0	0.0	0.0	-0.2
BN	-0.1	0.0	-0.1	-0.2	0.0	0.0	0.0	0.0	0.1	-0.5	-0.7	-0.2
D	0.0	0.0	-0.3	-1.3	-1.5	-0.5	0.0	0.0	0.0	-0.3	-0.2	0.0
C	-0.2	-0.2	-0.4	-0.7	-0.8	-0.4	-0.1	0.0	-0.1	0.0	-0.1	-0.1

Appendix C-4 DSM2 Delta Modeling

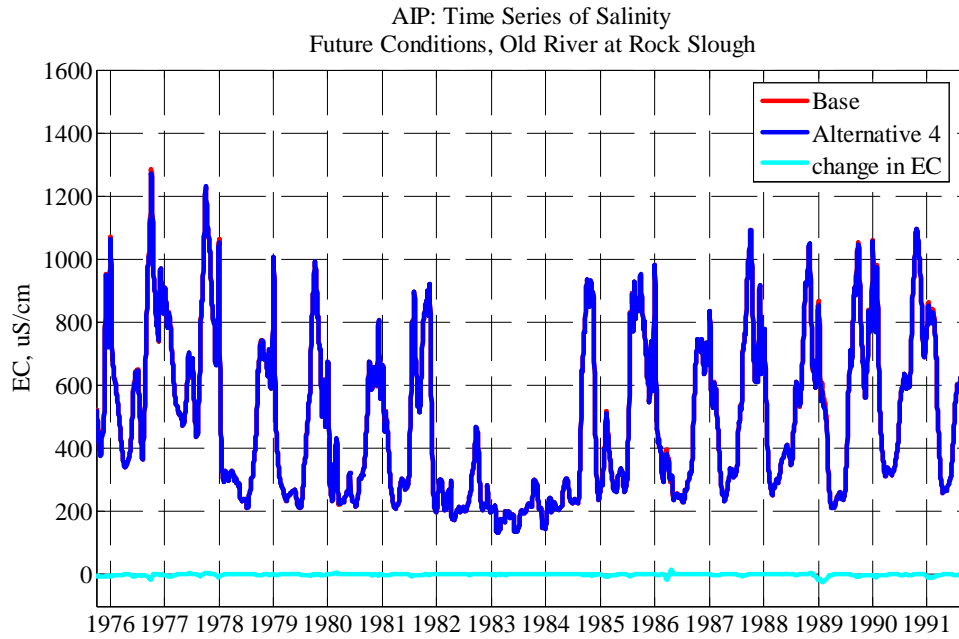


aip_swresults9.m
03-Nov-2005 LHS



aip_swresults10.m
12-Dec-2005 LHS

Appendix C-4 DSM2 Delta Modeling



aip_swresults10.m
22-Nov-2005 LHS

Old River at Rock Slough Salinity Base (Future Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	443	494	854	787	570	423	348	412	610	541	503	997
1977	1054	805	900	841	742	559	505	508	661	568	548	967
1978	1117	877	771	512	317	316	309	270	238	234	336	559
1979	725	667	679	590	304	252	250	265	223	274	473	773
1980	899	620	572	361	349	256	237	283	242	245	316	474
1981	637	640	670	538	365	229	232	296	285	654	671	616
1982	849	748	243	277	236	247	194	200	208	209	278	413
1983	303	216	222	209	142	172	197	185	141	184	201	221
1984	284	230	156	212	216	211	231	294	239	234	375	769
1985	896	752	279	320	460	327	277	327	278	627	853	879
1986	813	621	694	574	348	363	312	250	248	245	301	468
1987	719	695	697	641	551	340	247	312	318	441	675	935
1988	901	647	773	582	286	283	319	379	388	427	582	661
1989	936	821	668	683	533	294	216	251	245	455	754	971
1990	800	619	825	874	625	355	331	329	410	586	607	729
1991	1035	949	721	825	803	490	273	276	362	564	596	698

Appendix C-4 DSM2 Delta Modeling

Old River at Rock Slough Salinity Base (Future Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Avg	776	650	608	552	428	320	280	302	319	406	504	696
W	562	454	329	318	236	248	234	232	209	218	289	468
AN	1008	748	671	437	333	286	273	277	240	240	326	516
BN	725	667	679	590	304	252	250	265	223	274	473	773
D	797	727	579	545	477	298	243	296	282	544	738	850
C	847	703	815	782	605	422	355	381	486	537	567	810

Old River at Rock Slough Salinity Alternative (Future Alt Desal) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	439	489	850	783	567	423	348	411	605	539	503	990
1977	1051	806	899	839	737	559	505	508	663	570	546	967
1978	1120	880	768	509	317	316	309	270	238	234	336	558
1979	724	668	679	590	304	252	251	265	223	273	470	771
1980	899	619	571	361	354	258	237	283	242	245	316	474
1981	637	640	670	537	364	229	232	296	285	652	669	615
1982	849	748	243	277	236	247	194	200	208	209	278	413
1983	303	216	222	209	142	172	197	185	141	184	201	221
1984	284	230	156	212	216	211	231	294	239	234	375	768
1985	895	752	279	318	455	325	277	326	278	625	852	880
1986	814	621	694	574	349	355	319	252	248	245	301	469
1987	719	695	697	641	549	340	247	312	318	439	672	934
1988	902	647	773	582	286	283	319	379	388	427	582	661
1989	937	826	662	665	515	291	216	251	245	455	753	967
1990	796	617	822	870	621	354	331	329	410	585	607	727
1991	1036	950	721	818	794	487	272	276	362	563	597	698
Avg	775	650	607	549	425	319	280	302	318	405	504	695
W	562	454	329	318	236	246	235	233	209	218	289	468
AN	1009	750	670	435	335	287	273	277	240	240	326	516
BN	724	668	679	590	304	252	251	265	223	273	470	771
D	797	728	577	540	471	296	243	296	282	543	737	849
C	845	702	813	778	601	421	355	381	486	537	567	809

Appendix C-4 DSM2 Delta Modeling

Old River at Rock Slough Salinity Difference (Future Alt Desal minus Future Base) Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	-4	-5	-4	-4	-3	-1	0	-1	-5	-1	0	-7
1977	-3	1	0	-2	-5	-1	0	0	2	2	-2	0
1978	4	3	-3	-3	0	0	0	0	0	0	0	-1
1979	-1	0	0	0	0	0	0	0	0	-1	-3	-2
1980	0	0	-1	0	5	2	0	0	0	0	0	0
1981	0	0	0	-1	-1	0	0	0	0	-3	-2	-1
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	-1
1985	0	0	0	-1	-6	-2	0	0	0	-3	-1	1
1986	0	0	0	0	0	-8	7	2	0	0	0	0
1987	0	0	0	0	-2	0	0	0	0	-2	-3	-1
1988	1	1	0	0	0	0	0	0	0	0	0	1
1989	1	4	-6	-17	-19	-3	0	0	0	0	-1	-4
1990	-4	-2	-3	-5	-3	-1	0	0	0	-1	0	-1
1991	1	2	0	-7	-8	-3	0	0	0	-1	1	0
Avg	0	0	-1	-3	-3	-1	0	0	0	-1	-1	-1
W	0	0	0	0	0	-2	2	1	0	0	0	0
AN	2	1	-2	-1	2	1	0	0	0	0	0	-1
BN	-1	0	0	0	0	0	0	0	0	-1	-3	-2
D	0	1	-1	-5	-7	-2	0	0	0	-2	-2	-1
C	-2	-1	-1	-4	-4	-1	0	0	-1	0	0	-2

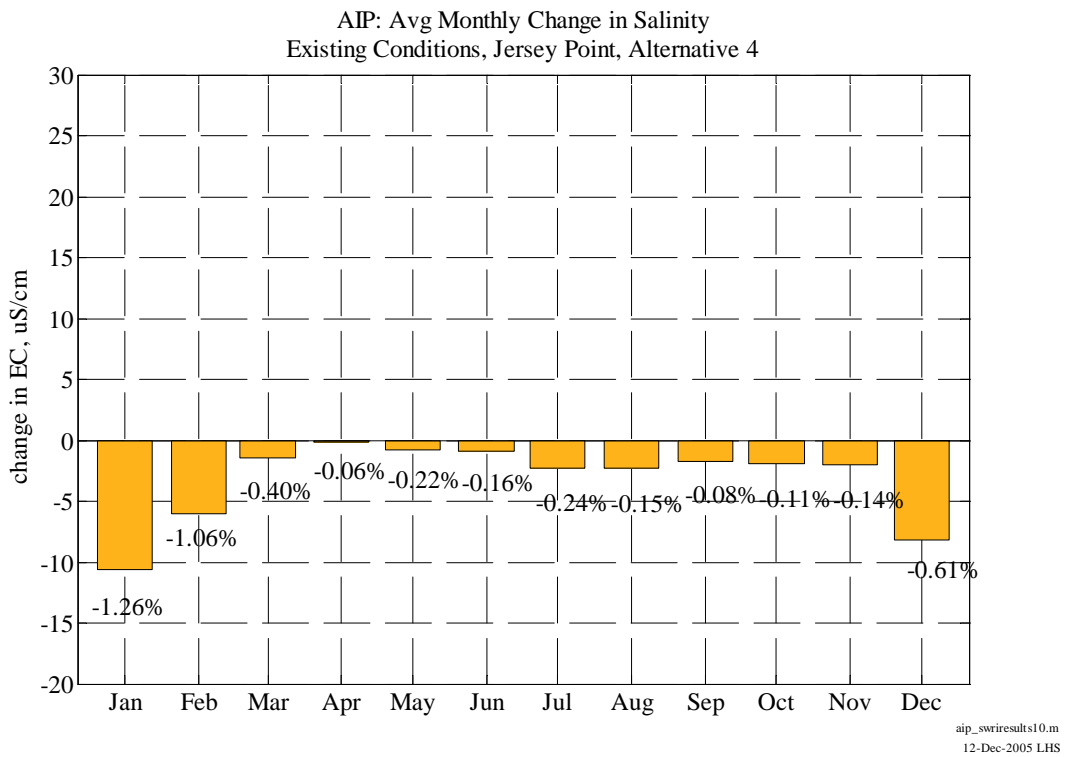
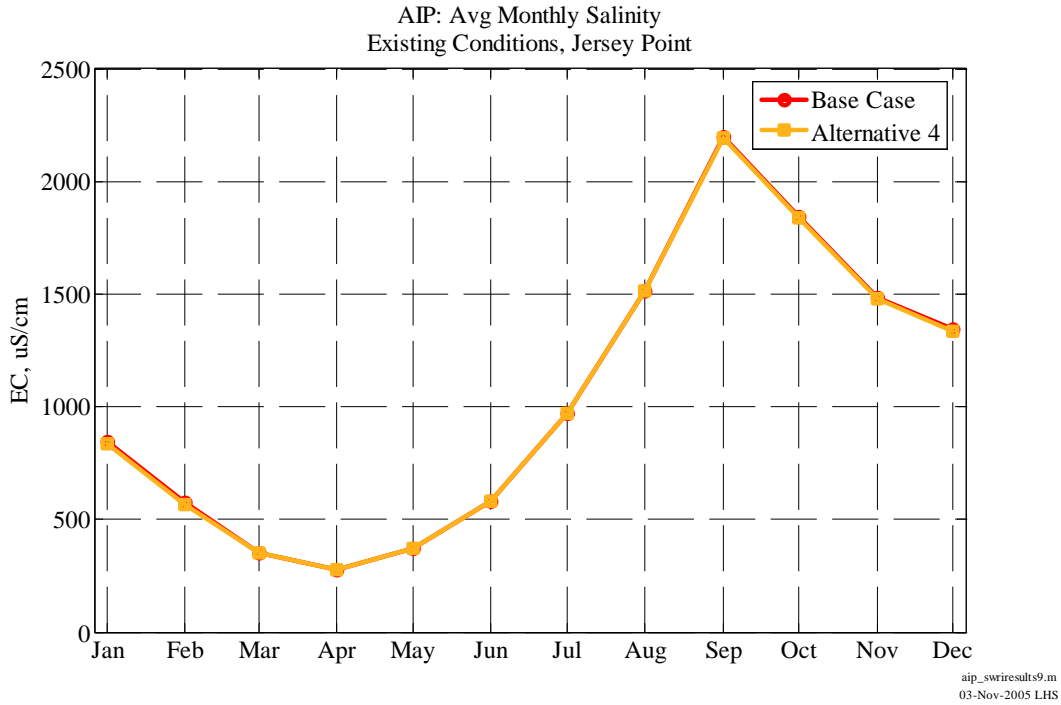
Old River at Rock Slough Salinity Percent Difference (Future Alt Desal minus Future Base divided by Future Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	-0.9	-0.9	-0.5	-0.5	-0.4	-0.2	0.0	-0.2	-0.8	-0.3	-0.1	-0.7
1977	-0.3	0.2	0.0	-0.3	-0.7	-0.1	0.1	0.1	0.3	0.3	-0.3	0.0
1978	0.3	0.4	-0.3	-0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2
1979	-0.2	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	-0.2	-0.6	-0.2
1980	0.0	-0.1	-0.1	0.0	1.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0
1981	0.0	0.0	0.0	-0.1	-0.3	0.0	0.0	0.0	0.0	-0.4	-0.2	-0.2
1982	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	-0.1	0.0
1983	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0
1984	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1

Appendix C-4 DSM2 Delta Modeling

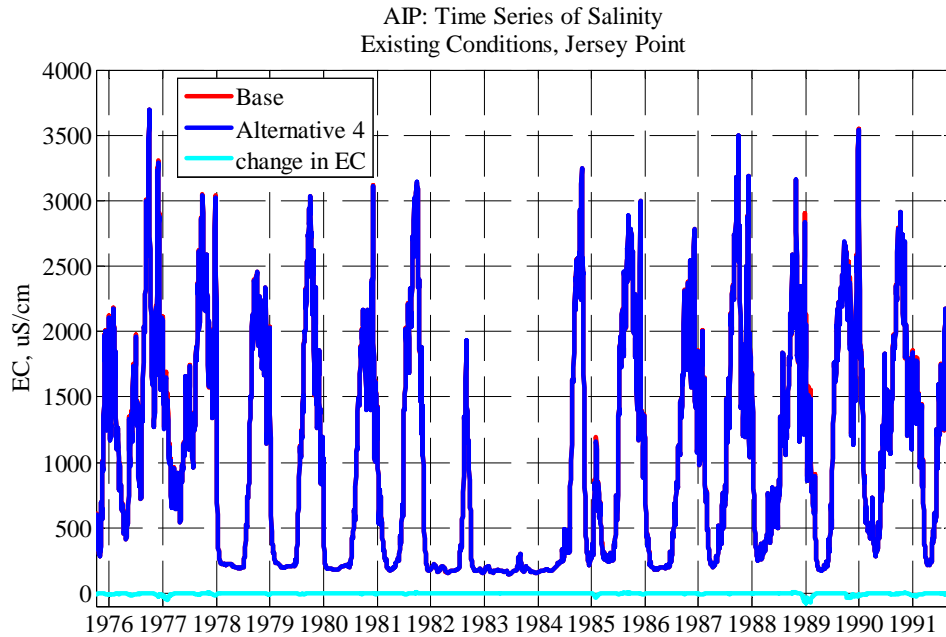
Old River at Rock Slough Salinity Percent Difference (Future Alt Desal minus Future Base divided by Future Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1985	0.0	-0.1	0.0	-0.4	-1.2	-0.8	-0.1	0.0	0.0	-0.4	-0.1	0.1
1986	0.0	0.1	0.0	0.0	0.1	-2.3	2.2	0.8	0.1	0.0	0.1	0.1
1987	0.1	0.0	0.0	0.0	-0.3	-0.1	0.0	0.0	0.0	-0.4	-0.5	-0.1
1988	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
1989	0.1	0.5	-0.9	-2.5	-3.6	-1.2	-0.1	0.0	0.0	0.0	-0.1	-0.4
1990	-0.5	-0.3	-0.3	-0.6	-0.5	-0.3	-0.1	0.0	0.0	-0.3	0.0	-0.2
1991	0.1	0.2	0.0	-0.9	-1.0	-0.6	-0.1	0.0	0.0	-0.2	0.1	0.0
Avg	-0.1	0.0	-0.1	-0.4	-0.4	-0.3	0.1	0.0	0.0	-0.1	-0.1	-0.1
W	0.0	0.0	0.0	0.0	0.0	-0.5	0.5	0.2	0.0	0.0	0.0	0.0
AN	0.2	0.2	-0.2	-0.3	0.7	0.4	0.0	0.0	0.0	0.0	0.0	-0.1
BN	-0.2	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	-0.2	-0.6	-0.2
D	0.0	0.1	-0.2	-0.8	-1.3	-0.5	-0.1	0.0	0.0	-0.3	-0.2	-0.1
C	-0.3	-0.2	-0.2	-0.4	-0.5	-0.2	0.0	0.0	-0.1	-0.1	-0.1	-0.2

Appendix C-4 DSM2 Delta Modeling

Jersey Point



Appendix C-4 DSM2 Delta Modeling



aip_swiresults10.m
22-Nov-2005 LHS

San Joaquin River at Jersey Point Salinity Base (Future Base)												
Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	1208	1689	2275	1543	1203	764	565	922	1583	1115	1744	3165
1977	2424	2228	2081	1782	1245	847	781	1047	1575	1221	1863	2755
1978	2567	1796	2069	524	242	242	228	208	210	444	911	1946
1979	2209	1864	1991	868	275	221	214	223	231	732	1469	2497
1980	2530	1680	1376	323	206	197	205	221	239	565	767	1702
1981	1933	1772	1767	1101	444	232	209	278	690	2004	1612	2021
1982	2612	1337	229	227	201	216	186	181	190	313	780	1370
1983	416	197	190	209	186	190	187	178	161	180	308	249
1984	207	190	180	180	192	195	199	241	304	427	1194	2403
1985	2705	1330	364	741	876	421	290	272	558	1875	2216	2551
1986	2323	1698	1785	891	250	204	213	217	244	517	753	1696
1987	2191	1814	1928	1383	1000	366	241	370	651	1361	2095	2841
1988	2056	1907	1904	796	304	332	569	598	683	1385	1320	1891
1989	2533	1764	1826	1446	909	395	207	230	451	1463	2227	2852
1990	2094	1881	2298	1802	871	575	427	517	1089	1510	1649	2181
1991	2718	1903	1783	1809	1438	808	258	376	1011	1458	1474	2154

Appendix C-4 DSM2 Delta Modeling

San Joaquin River at Jersey Point Salinity Base (Future Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Avg	2045	1566	1503	977	615	388	311	380	617	1036	1399	2142
W	1389	856	596	377	207	201	196	204	225	359	759	1429
AN	2549	1738	1722	423	224	219	217	214	225	505	839	1824
BN	2209	1864	1991	868	275	221	214	223	231	732	1469	2497
D	2341	1670	1471	1168	807	353	237	287	588	1675	2038	2566
C	2100	1922	2068	1547	1012	665	520	692	1188	1338	1610	2429

San Joaquin River at Jersey Point Salinity Alternative (Future Alt Desal) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	1194	1678	2267	1535	1199	764	565	911	1568	1109	1744	3129
1977	2415	2225	2077	1770	1233	843	781	1045	1575	1217	1854	2750
1978	2568	1799	2056	521	242	242	228	208	210	444	911	1940
1979	2208	1864	1991	866	275	221	214	223	231	729	1460	2495
1980	2530	1677	1376	323	207	197	205	221	239	565	767	1701
1981	1930	1771	1768	1099	443	232	209	278	690	2000	1611	2020
1982	2613	1338	229	227	201	216	186	181	190	312	779	1370
1983	416	197	190	209	186	190	187	178	161	180	308	249
1984	207	190	180	180	192	195	199	241	304	427	1194	2400
1985	2706	1330	364	734	864	418	290	272	558	1871	2220	2555
1986	2324	1699	1786	889	250	203	214	218	244	517	755	1697
1987	2190	1815	1930	1380	998	366	241	370	651	1351	2089	2842
1988	2058	1908	1906	797	304	332	569	598	683	1385	1320	1893
1989	2528	1755	1797	1388	875	389	207	230	451	1462	2225	2835
1990	2081	1875	2292	1793	866	574	427	517	1089	1505	1642	2175
1991	2716	1905	1772	1787	1425	804	258	376	1011	1454	1470	2150
Avg	2043	1564	1499	969	610	387	311	379	616	1033	1397	2137
W	1390	856	596	376	207	201	196	205	225	359	759	1429
AN	2549	1738	1716	422	224	219	217	214	225	505	839	1821
BN	2208	1864	1991	866	275	221	214	223	231	729	1460	2495
D	2339	1668	1465	1150	795	351	237	287	588	1671	2036	2563
C	2093	1918	2063	1536	1005	663	520	689	1185	1334	1606	2419

Appendix C-4 DSM2 Delta Modeling

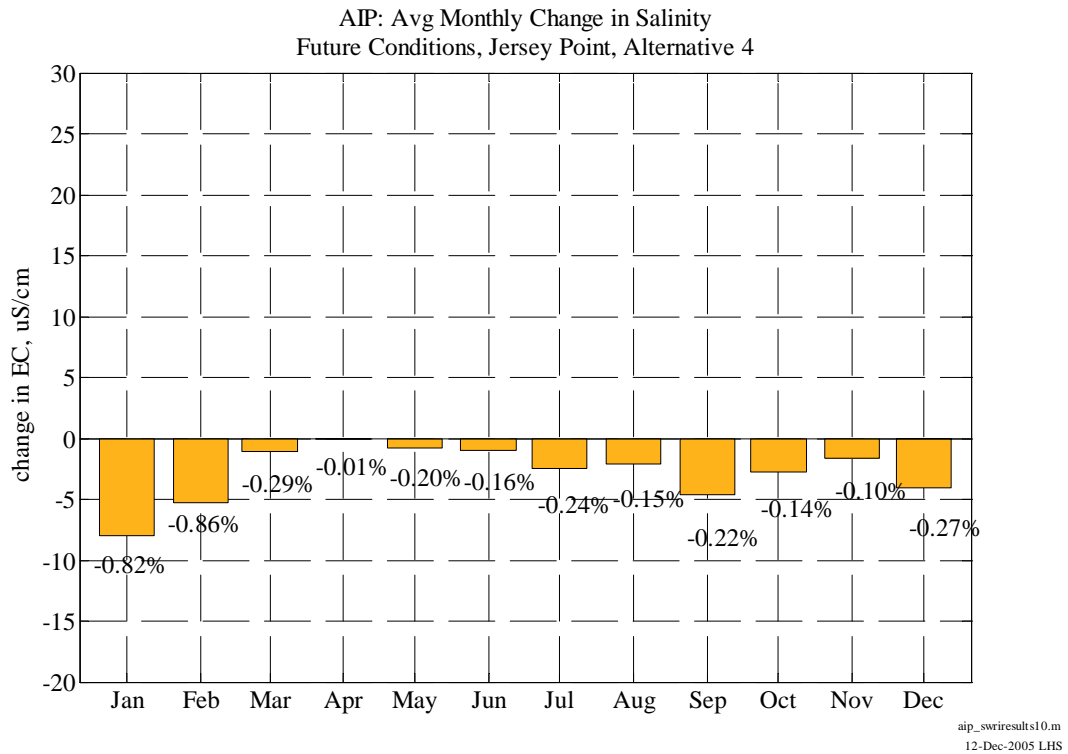
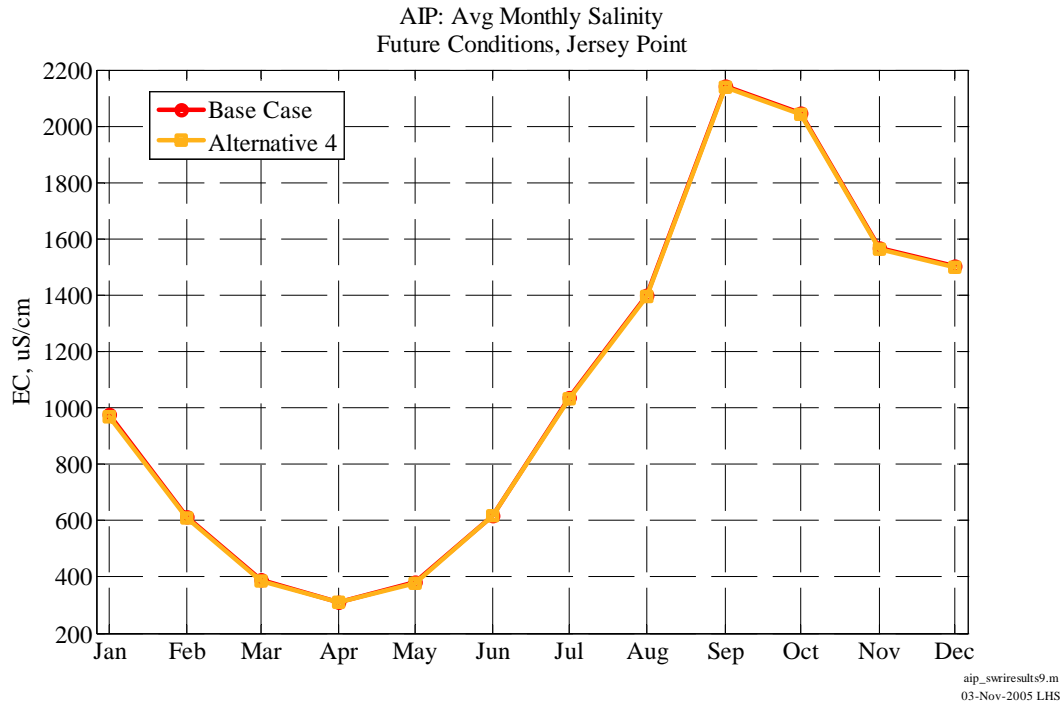
San Joaquin River at Jersey Point Salinity Difference (Future Alt Desal minus Future Base) Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	-14	-10	-9	-8	-5	0	0	-11	-15	-6	0	-36
1977	-10	-3	-4	-13	-12	-4	0	-2	-1	-4	-9	-5
1978	1	3	-12	-3	0	0	0	0	0	0	0	-7
1979	-1	-1	1	-2	0	0	0	0	0	-3	-9	-2
1980	0	-3	0	0	0	0	0	0	0	0	0	0
1981	-3	-1	1	-3	-1	0	0	0	0	-4	-1	-1
1982	1	0	0	0	0	0	0	0	0	-1	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	-3
1985	0	0	0	-7	-11	-3	0	0	0	-4	4	3
1986	1	1	1	-1	0	0	0	1	0	0	2	1
1987	-1	1	1	-3	-3	0	0	0	0	-9	-6	1
1988	2	1	1	1	0	0	0	0	0	0	0	2
1989	-5	-9	-29	-57	-34	-5	0	0	0	0	-2	-17
1990	-13	-7	-6	-9	-5	-1	0	0	0	-5	-8	-6
1991	-3	2	-11	-22	-13	-5	0	0	0	-3	-4	-5
Avg	-3	-2	-4	-8	-5	-1	0	-1	-1	-2	-2	-5
W	1	0	0	0	0	0	0	0	0	0	0	0
AN	0	0	-6	-1	0	0	0	0	0	0	0	-3
BN	-1	-1	1	-2	0	0	0	0	0	-3	-9	-2
D	-2	-2	-7	-17	-12	-2	0	0	0	-4	-1	-3
C	-7	-3	-5	-10	-7	-2	0	-2	-3	-4	-4	-10

San Joaquin River at Jersey Point Salinity Percent Difference (Future Alt Desal minus Future Base divided by Future Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	-1.2	-0.6	-0.4	-0.5	-0.4	-0.1	0.0	-1.2	-0.9	-0.5	0.0	-1.1
1977	-0.4	-0.1	-0.2	-0.7	-1.0	-0.4	0.0	-0.2	0.0	-0.3	-0.5	-0.2
1978	0.0	0.2	-0.6	-0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3
1979	-0.1	0.0	0.0	-0.2	-0.1	0.1	0.1	0.0	0.0	-0.4	-0.6	-0.1
1980	0.0	-0.2	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
1981	-0.1	0.0	0.0	-0.2	-0.2	-0.1	0.0	0.0	0.0	-0.2	-0.1	-0.1
1982	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	-0.2	-0.1	0.0
1983	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

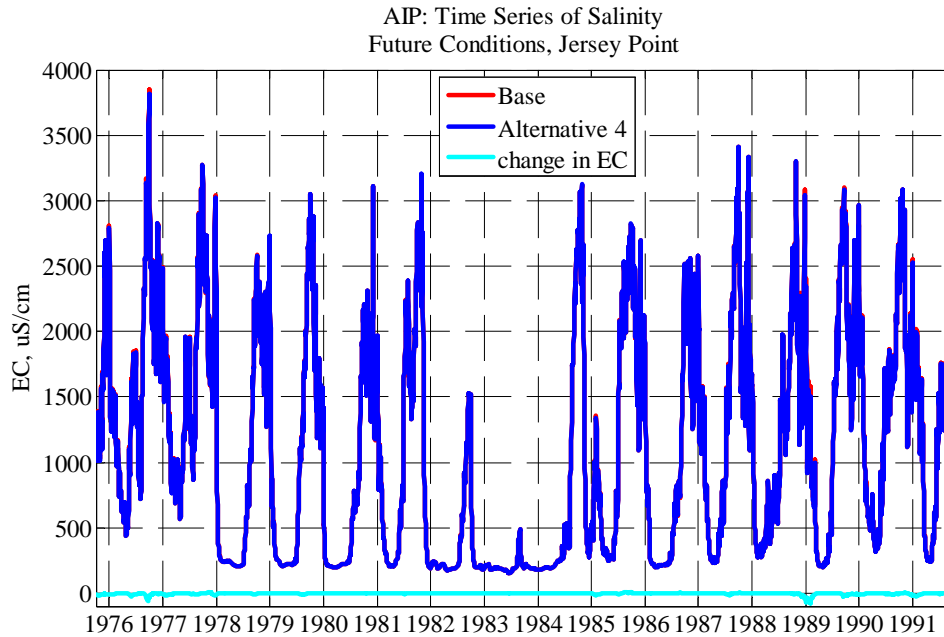
Appendix C-4 DSM2 Delta Modeling

San Joaquin River at Jersey Point Salinity Percent Difference (Future Alt Desal minus Future Base divided by Future Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1
1985	0.0	0.0	0.0	-1.0	-1.3	-0.7	-0.1	0.0	0.0	-0.2	0.2	0.1
1986	0.1	0.0	0.1	-0.2	0.0	-0.1	0.2	0.2	0.0	0.0	0.3	0.1
1987	0.0	0.0	0.1	-0.2	-0.3	-0.1	0.0	0.0	0.0	-0.7	-0.3	0.0
1988	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
1989	-0.2	-0.5	-1.6	-4.0	-3.8	-1.4	-0.1	0.0	0.0	0.0	-0.1	-0.6
1990	-0.6	-0.4	-0.3	-0.5	-0.6	-0.1	0.0	0.0	0.0	-0.3	-0.5	-0.3
1991	-0.1	0.1	-0.6	-1.2	-0.9	-0.6	-0.1	0.0	0.0	-0.2	-0.3	-0.2
Avg	-0.2	-0.1	-0.2	-0.6	-0.5	-0.2	0.0	-0.1	-0.1	-0.2	-0.1	-0.2
W	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.0
AN	0.0	0.0	-0.3	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2
BN	-0.1	0.0	0.0	-0.2	-0.1	0.1	0.1	0.0	0.0	-0.4	-0.6	-0.1
D	-0.1	-0.1	-0.4	-1.3	-1.4	-0.5	-0.1	0.0	0.0	-0.3	-0.1	-0.1
C	-0.4	-0.2	-0.3	-0.6	-0.6	-0.2	0.0	-0.3	-0.2	-0.3	-0.3	-0.3

Appendix C-4 DSM2 Delta Modeling



Appendix C-4 DSM2 Delta Modeling



San Joaquin River at Jersey Point Salinity Base (Future Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	1208	1689	2275	1543	1203	764	565	922	1583	1115	1744	3165
1977	2424	2228	2081	1782	1245	847	781	1047	1575	1221	1863	2755
1978	2567	1796	2069	524	242	242	228	208	210	444	911	1946
1979	2209	1864	1991	868	275	221	214	223	231	732	1469	2497
1980	2530	1680	1376	323	206	197	205	221	239	565	767	1702
1981	1933	1772	1767	1101	444	232	209	278	690	2004	1612	2021
1982	2612	1337	229	227	201	216	186	181	190	313	780	1370
1983	416	197	190	209	186	190	187	178	161	180	308	249
1984	207	190	180	180	192	195	199	241	304	427	1194	2403
1985	2705	1330	364	741	876	421	290	272	558	1875	2216	2551
1986	2323	1698	1785	891	250	204	213	217	244	517	753	1696
1987	2191	1814	1928	1383	1000	366	241	370	651	1361	2095	2841
1988	2056	1907	1904	796	304	332	569	598	683	1385	1320	1891
1989	2533	1764	1826	1446	909	395	207	230	451	1463	2227	2852
1990	2094	1881	2298	1802	871	575	427	517	1089	1510	1649	2181
1991	2718	1903	1783	1809	1438	808	258	376	1011	1458	1474	2154

Appendix C-4 DSM2 Delta Modeling

San Joaquin River at Jersey Point Salinity Base (Future Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Avg	2045	1566	1503	977	615	388	311	380	617	1036	1399	2142
W	1389	856	596	377	207	201	196	204	225	359	759	1429
AN	2549	1738	1722	423	224	219	217	214	225	505	839	1824
BN	2209	1864	1991	868	275	221	214	223	231	732	1469	2497
D	2341	1670	1471	1168	807	353	237	287	588	1675	2038	2566
C	2100	1922	2068	1547	1012	665	520	692	1188	1338	1610	2429

San Joaquin River at Jersey Point Salinity Alternative (Future Alt Desal) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	1194	1678	2267	1535	1199	764	565	911	1568	1109	1744	3129
1977	2415	2225	2077	1770	1233	843	781	1045	1575	1217	1854	2750
1978	2568	1799	2056	521	242	242	228	208	210	444	911	1940
1979	2208	1864	1991	866	275	221	214	223	231	729	1460	2495
1980	2530	1677	1376	323	207	197	205	221	239	565	767	1701
1981	1930	1771	1768	1099	443	232	209	278	690	2000	1611	2020
1982	2613	1338	229	227	201	216	186	181	190	312	779	1370
1983	416	197	190	209	186	190	187	178	161	180	308	249
1984	207	190	180	180	192	195	199	241	304	427	1194	2400
1985	2706	1330	364	734	864	418	290	272	558	1871	2220	2555
1986	2324	1699	1786	889	250	203	214	218	244	517	755	1697
1987	2190	1815	1930	1380	998	366	241	370	651	1351	2089	2842
1988	2058	1908	1906	797	304	332	569	598	683	1385	1320	1893
1989	2528	1755	1797	1388	875	389	207	230	451	1462	2225	2835
1990	2081	1875	2292	1793	866	574	427	517	1089	1505	1642	2175
1991	2716	1905	1772	1787	1425	804	258	376	1011	1454	1470	2150
Avg	2043	1564	1499	969	610	387	311	379	616	1033	1397	2137
W	1390	856	596	376	207	201	196	205	225	359	759	1429
AN	2549	1738	1716	422	224	219	217	214	225	505	839	1821
BN	2208	1864	1991	866	275	221	214	223	231	729	1460	2495
D	2339	1668	1465	1150	795	351	237	287	588	1671	2036	2563
C	2093	1918	2063	1536	1005	663	520	689	1185	1334	1606	2419

Appendix C-4 DSM2 Delta Modeling

San Joaquin River at Jersey Point Salinity Difference (Future Alt Desal minus Future Base) Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	-14	-10	-9	-8	-5	0	0	-11	-15	-6	0	-36
1977	-10	-3	-4	-13	-12	-4	0	-2	-1	-4	-9	-5
1978	1	3	-12	-3	0	0	0	0	0	0	0	-7
1979	-1	-1	1	-2	0	0	0	0	0	-3	-9	-2
1980	0	-3	0	0	0	0	0	0	0	0	0	0
1981	-3	-1	1	-3	-1	0	0	0	0	-4	-1	-1
1982	1	0	0	0	0	0	0	0	0	-1	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	-3
1985	0	0	0	-7	-11	-3	0	0	0	-4	4	3
1986	1	1	1	-1	0	0	0	1	0	0	2	1
1987	-1	1	1	-3	-3	0	0	0	0	-9	-6	1
1988	2	1	1	1	0	0	0	0	0	0	0	2
1989	-5	-9	-29	-57	-34	-5	0	0	0	0	-2	-17
1990	-13	-7	-6	-9	-5	-1	0	0	0	-5	-8	-6
1991	-3	2	-11	-22	-13	-5	0	0	0	-3	-4	-5
Avg	-3	-2	-4	-8	-5	-1	0	-1	-1	-2	-2	-5
W	1	0	0	0	0	0	0	0	0	0	0	0
AN	0	0	-6	-1	0	0	0	0	0	0	0	-3
BN	-1	-1	1	-2	0	0	0	0	0	-3	-9	-2
D	-2	-2	-7	-17	-12	-2	0	0	0	-4	-1	-3
C	-7	-3	-5	-10	-7	-2	0	-2	-3	-4	-4	-10

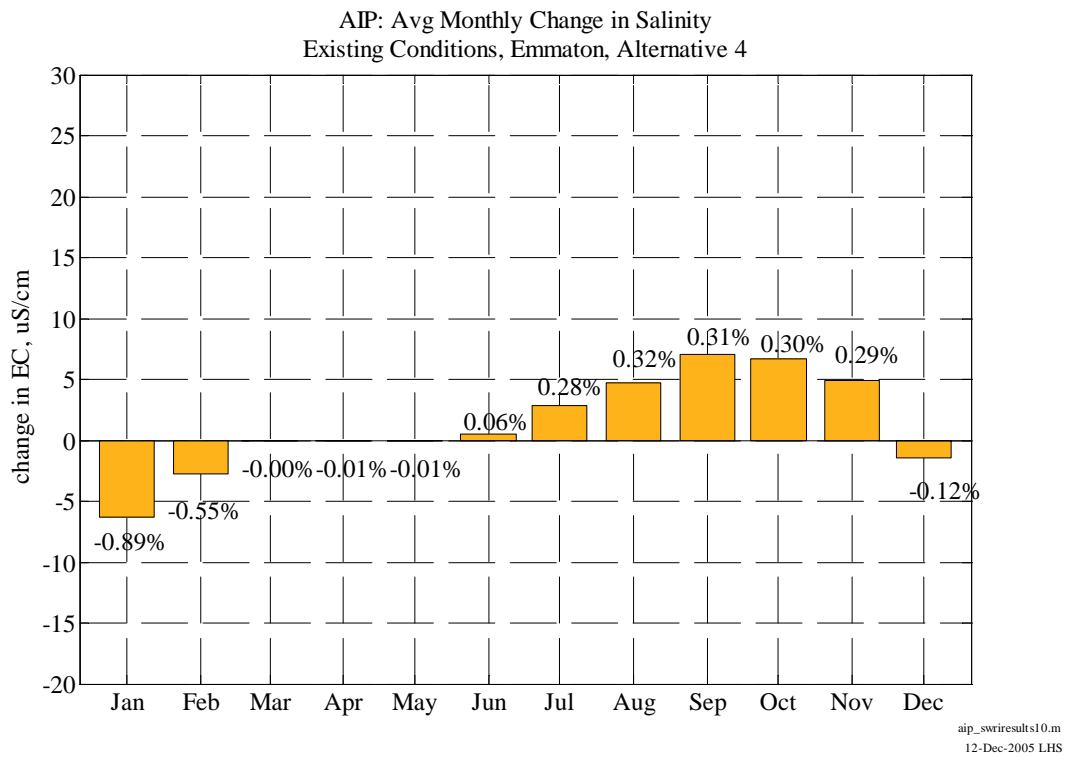
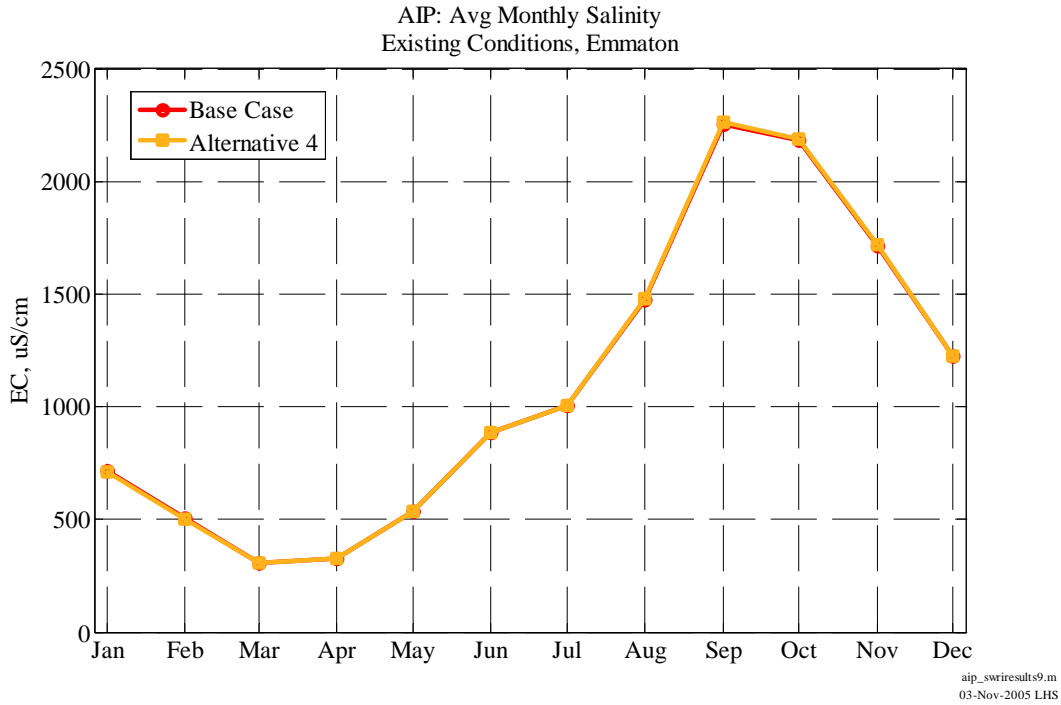
San Joaquin River at Jersey Point Salinity Percent Difference (Future Alt Desal minus Future Base divided by Future Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	-1.2	-0.6	-0.4	-0.5	-0.4	-0.1	0.0	-1.2	-0.9	-0.5	0.0	-1.1
1977	-0.4	-0.1	-0.2	-0.7	-1.0	-0.4	0.0	-0.2	0.0	-0.3	-0.5	-0.2
1978	0.0	0.2	-0.6	-0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3
1979	-0.1	0.0	0.0	-0.2	-0.1	0.1	0.1	0.0	0.0	-0.4	-0.6	-0.1
1980	0.0	-0.2	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
1981	-0.1	0.0	0.0	-0.2	-0.2	-0.1	0.0	0.0	0.0	-0.2	-0.1	-0.1
1982	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	-0.2	-0.1	0.0
1983	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Appendix C-4 DSM2 Delta Modeling

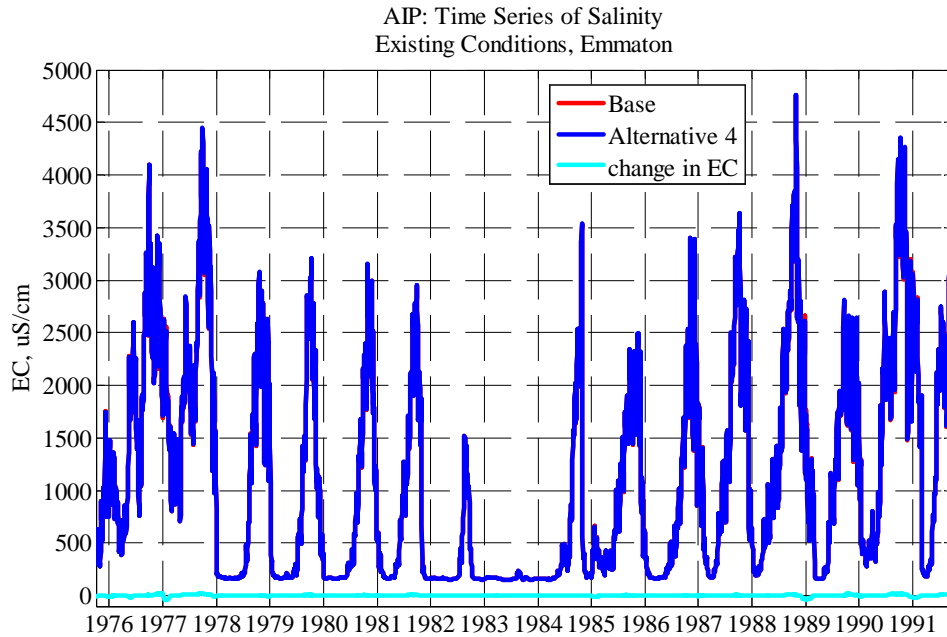
San Joaquin River at Jersey Point Salinity Percent Difference (Future Alt Desal minus Future Base divided by Future Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1
1985	0.0	0.0	0.0	-1.0	-1.3	-0.7	-0.1	0.0	0.0	-0.2	0.2	0.1
1986	0.1	0.0	0.1	-0.2	0.0	-0.1	0.2	0.2	0.0	0.0	0.3	0.1
1987	0.0	0.0	0.1	-0.2	-0.3	-0.1	0.0	0.0	0.0	-0.7	-0.3	0.0
1988	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
1989	-0.2	-0.5	-1.6	-4.0	-3.8	-1.4	-0.1	0.0	0.0	0.0	-0.1	-0.6
1990	-0.6	-0.4	-0.3	-0.5	-0.6	-0.1	0.0	0.0	0.0	-0.3	-0.5	-0.3
1991	-0.1	0.1	-0.6	-1.2	-0.9	-0.6	-0.1	0.0	0.0	-0.2	-0.3	-0.2
Avg	-0.2	-0.1	-0.2	-0.6	-0.5	-0.2	0.0	-0.1	-0.1	-0.2	-0.1	-0.2
W	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.0
AN	0.0	0.0	-0.3	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2
BN	-0.1	0.0	0.0	-0.2	-0.1	0.1	0.1	0.0	0.0	-0.4	-0.6	-0.1
D	-0.1	-0.1	-0.4	-1.3	-1.4	-0.5	-0.1	0.0	0.0	-0.3	-0.1	-0.1
C	-0.4	-0.2	-0.3	-0.6	-0.6	-0.2	0.0	-0.3	-0.2	-0.3	-0.3	-0.3

Appendix C-4 DSM2 Delta Modeling

Emmaton



Appendix C-4 DSM2 Delta Modeling



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22-Nov-2005 LHS

Sacramento River at Emmaton Salinity Base (Existing Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	398	778	1079	1170	898	515	674	1625	2104	1249	1924	3107
1977	2862	2688	2554	2261	1501	1235	1083	1819	2295	1795	2284	3619
1978	3601	2859	1464	195	169	167	166	166	184	297	998	1743
1979	2494	2298	1928	360	178	166	180	178	228	494	1205	2545
1980	2504	1355	597	170	170	160	166	174	249	380	903	1570
1981	2338	2497	1305	394	195	162	181	294	735	1140	1926	2530
1982	1866	235	159	169	160	166	162	156	160	266	1023	892
1983	215	159	155	166	169	171	159	153	152	157	202	166
1984	167	154	164	158	159	156	164	203	349	357	886	1908
1985	2438	323	194	418	408	273	325	303	719	1039	1491	1844
1986	1763	1914	808	275	173	166	169	196	314	438	754	1372
1987	2128	2492	1936	1101	458	196	218	553	974	1198	2094	2981
1988	2595	2260	1116	285	234	464	675	930	1078	1633	2281	2834
1989	3740	2516	1850	1051	1022	176	162	228	744	1076	1588	2198
1990	2069	1938	1757	770	368	486	504	1017	2112	2130	2105	3369
1991	3737	2972	2528	2550	1841	284	231	609	1750	2421	1933	3389

Appendix C-4 DSM2 Delta Modeling

Sacramento River at Emmaton Salinity Base (Existing Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Avg	2182	1715	1225	718	506	309	326	538	884	1004	1475	2254
W	1003	615	322	192	165	165	164	177	244	304	716	1085
AN	3052	2107	1031	182	170	164	166	170	216	338	951	1657
BN	2494	2298	1928	360	178	166	180	178	228	494	1205	2545
D	2661	1957	1321	741	521	202	222	344	793	1114	1775	2388
C	2332	2127	1807	1407	968	597	633	1200	1868	1846	2105	3264

Sacramento River at Emmaton Salinity Alternative (Existing Alt Desal) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	395	777	1076	1166	897	516	674	1614	2101	1254	1925	3113
1977	2866	2703	2572	2231	1482	1236	1083	1829	2309	1807	2298	3639
1978	3619	2871	1460	194	169	167	166	166	184	297	998	1746
1979	2500	2302	1926	359	178	166	180	178	228	495	1210	2553
1980	2510	1358	597	170	170	160	166	174	249	380	903	1574
1981	2344	2502	1303	393	195	162	181	294	736	1145	1933	2537
1982	1871	235	159	169	160	166	162	156	160	266	1023	892
1983	215	159	155	166	169	171	159	153	152	157	202	166
1984	167	154	164	158	159	156	164	203	349	357	885	1912
1985	2443	323	194	412	403	272	325	303	719	1044	1496	1850
1986	1768	1918	806	275	173	166	169	196	314	438	754	1377
1987	2134	2497	1934	1097	457	196	218	553	974	1200	2098	2987
1988	2600	2265	1115	285	234	464	675	930	1078	1632	2288	2842
1989	3747	2520	1826	1021	1012	176	162	228	744	1076	1590	2203
1990	2090	1950	1765	766	367	486	504	1017	2110	2136	2122	3386
1991	3754	2983	2520	2530	1833	283	231	609	1750	2432	1945	3405
Avg	2189	1720	1223	712	504	309	326	538	885	1007	1479	2261
W	1005	616	321	192	165	165	164	177	244	304	716	1087
AN	3064	2115	1029	182	170	164	166	170	216	338	950	1660
BN	2500	2302	1926	359	178	166	180	178	228	495	1210	2553
D	2667	1960	1314	731	517	202	222	344	793	1116	1780	2394
C	2341	2136	1809	1396	963	597	633	1200	1870	1852	2115	3277

Appendix C-4 DSM2 Delta Modeling

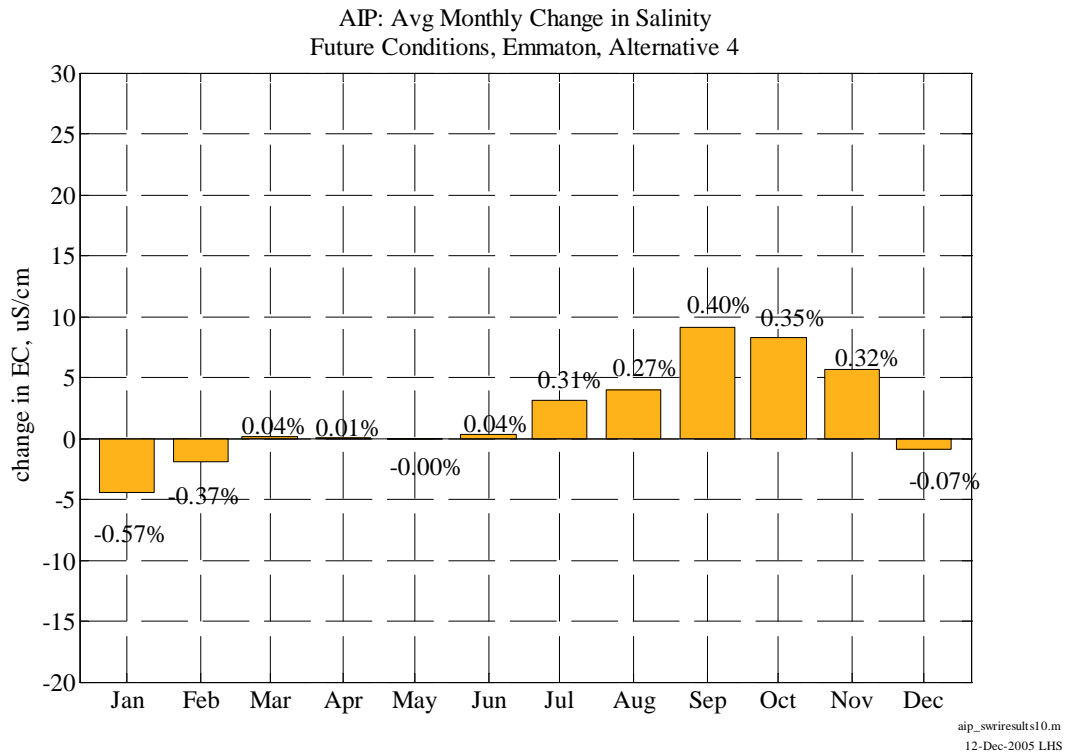
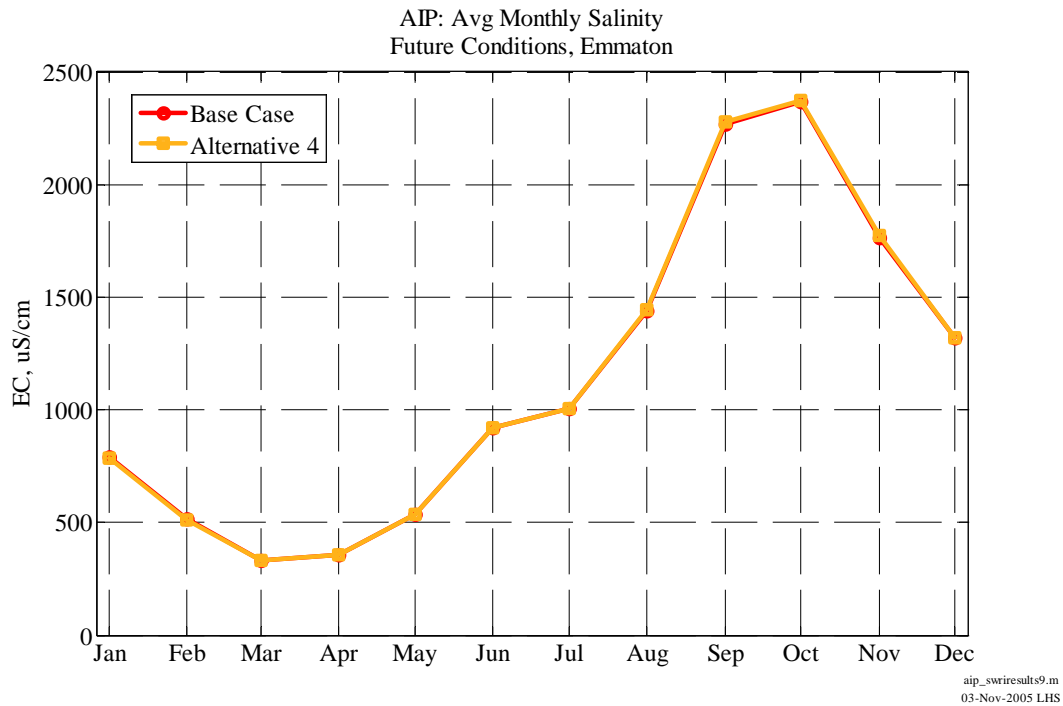
Sacramento River at Emmaton Salinity Difference (Existing Alt Desal minus Existing Base) Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	-3	-1	-4	-5	-1	1	0	-11	-3	5	1	5
1977	5	15	18	-30	-19	1	0	10	14	12	14	20
1978	18	12	-4	0	0	0	0	0	0	0	0	3
1979	6	4	-2	-1	0	0	0	0	0	1	5	7
1980	6	3	0	0	0	0	0	0	0	0	0	4
1981	6	5	-2	-1	0	0	0	0	0	4	7	7
1982	4	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	4
1985	5	0	0	-6	-5	-1	0	0	0	4	5	6
1986	4	4	-2	-1	0	0	0	0	0	0	0	4
1987	5	5	-2	-4	-1	0	0	0	0	2	5	7
1988	5	4	-1	0	0	0	0	0	0	0	7	8
1989	7	4	-24	-30	-10	0	0	0	0	0	3	5
1990	20	13	8	-3	-1	0	0	0	-2	7	17	18
1991	17	11	-8	-20	-8	-1	0	0	0	11	12	15
Avg	7	5	-1	-6	-3	0	0	0	1	3	5	7
W	2	1	0	0	0	0	0	0	0	0	0	2
AN	12	8	-2	0	0	0	0	0	0	0	0	4
BN	6	4	-2	-1	0	0	0	0	0	1	5	7
D	6	3	-7	-10	-4	0	0	0	0	3	5	6
C	9	8	3	-12	-6	0	0	0	2	7	10	13

Sacramento River at Emmaton Salinity Percent Difference (Existing Alt Desal minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	-0.6	-0.1	-0.3	-0.4	-0.1	0.2	0.0	-0.7	-0.2	0.4	0.1	0.2
1977	0.2	0.6	0.7	-1.3	-1.2	0.1	0.0	0.5	0.6	0.7	0.6	0.6
1978	0.5	0.4	-0.3	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
1979	0.2	0.2	-0.1	-0.3	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.3
1980	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
1981	0.3	0.2	-0.1	-0.2	0.0	0.0	0.0	0.0	0.0	0.4	0.3	0.3
1982	0.2	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1983	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

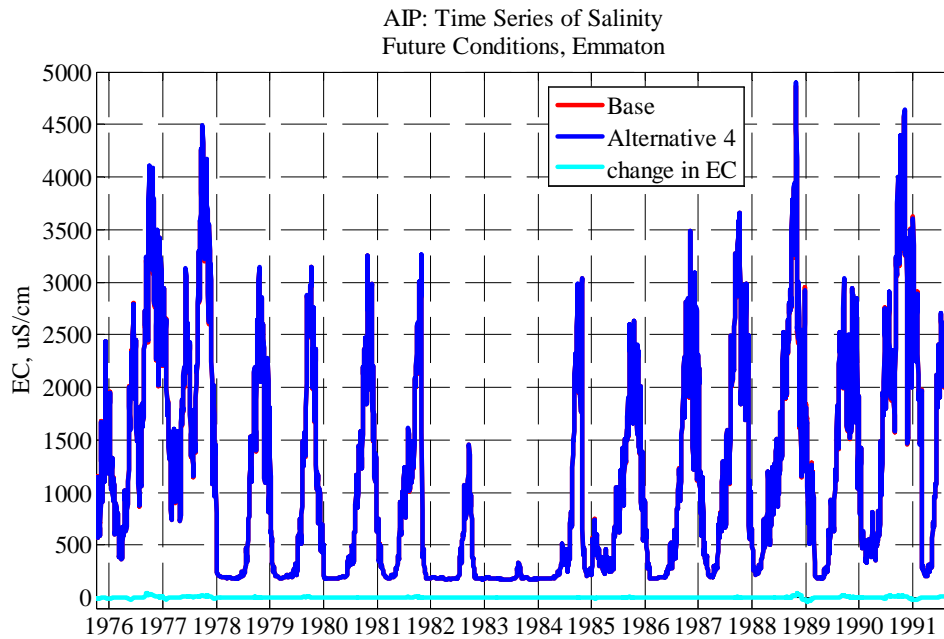
Appendix C-4 DSM2 Delta Modeling

Sacramento River at Emmaton Salinity Percent Difference (Existing Alt Desal minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
1985	0.2	0.0	0.0	-1.5	-1.2	-0.2	0.0	0.0	0.0	0.4	0.4	0.3
1986	0.2	0.2	-0.2	-0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.3
1987	0.2	0.2	-0.1	-0.3	-0.3	-0.1	0.0	0.0	0.0	0.1	0.2	0.2
1988	0.2	0.2	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3
1989	0.2	0.2	-1.3	-2.8	-0.9	-0.3	0.0	0.0	0.0	0.0	0.2	0.2
1990	1.0	0.6	0.4	-0.4	-0.3	0.0	0.0	0.0	-0.1	0.3	0.8	0.5
1991	0.5	0.4	-0.3	-0.8	-0.4	-0.3	0.0	0.0	0.0	0.5	0.6	0.5
Avg	0.2	0.2	-0.1	-0.5	-0.3	0.0	0.0	0.0	0.0	0.2	0.2	0.3
W	0.1	0.0	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
AN	0.4	0.3	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
BN	0.2	0.2	-0.1	-0.3	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.3
D	0.2	0.1	-0.4	-1.2	-0.6	-0.1	0.0	0.0	0.0	0.2	0.3	0.3
C	0.2	0.3	0.1	-0.6	-0.4	0.0	0.0	0.0	0.1	0.4	0.5	0.4

Appendix C-4 DSM2 Delta Modeling



Appendix C-4 DSM2 Delta Modeling



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Sacramento River at Emmaton Salinity Base (Future Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	773	1262	1627	1255	764	480	740	1556	2293	1355	1836	3060
1977	3605	2868	2841	2404	1445	1281	1147	1876	2543	1568	2072	3639
1978	3733	2893	1380	220	193	191	187	187	209	310	1026	1631
1979	2553	2141	1555	488	206	189	197	207	253	511	1260	2572
1980	2458	1360	661	193	185	181	188	196	304	421	1064	1560
1981	2420	2420	1339	493	234	189	202	320	821	1108	1251	1856
1982	2626	391	180	192	180	188	178	178	185	290	747	1094
1983	434	184	179	188	182	180	180	176	174	179	260	199
1984	190	178	178	179	181	180	188	224	381	364	846	2207
1985	2202	372	241	500	444	299	340	297	767	1002	1292	2016
1986	2036	1818	975	431	183	180	192	209	326	428	945	1757
1987	2475	2398	2115	1111	443	223	244	541	976	1198	2076	3060
1988	2652	2408	1145	301	262	488	763	915	1147	1603	2261	2854
1989	3823	2325	1985	1069	1011	203	189	248	620	990	2023	2405
1990	1976	2154	1926	802	437	516	532	844	1947	2388	1995	3164
1991	3907	3091	2768	2836	1896	320	248	581	1751	2360	2081	3224

Appendix C-4 DSM2 Delta Modeling

Sacramento River at Emmaton Salinity Base (Future Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Avg	2366	1766	1319	791	515	331	357	535	919	1005	1440	2269
W	1321	642	378	247	182	182	184	197	266	315	699	1314
AN	3096	2127	1021	207	189	186	188	192	257	366	1045	1596
BN	2553	2141	1555	488	206	189	197	207	253	511	1260	2572
D	2730	1879	1420	793	533	229	244	351	796	1074	1660	2334
C	2582	2357	2061	1520	961	617	686	1155	1936	1855	2049	3188

Sacramento River at Emmaton Salinity Alternative (Future Alt Desal) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	767	1261	1624	1251	764	480	740	1546	2288	1359	1836	3094
1977	3633	2879	2848	2395	1442	1285	1148	1887	2559	1578	2083	3657
1978	3751	2905	1376	220	193	191	187	187	209	310	1026	1636
1979	2559	2145	1556	488	206	189	197	207	253	512	1266	2579
1980	2464	1363	662	193	185	181	188	196	304	421	1064	1560
1981	2424	2423	1340	493	234	189	202	320	821	1112	1255	1863
1982	2633	391	180	192	180	188	178	178	185	290	746	1094
1983	434	184	179	188	182	180	180	176	174	179	260	199
1984	190	178	178	179	181	180	188	224	381	364	846	2212
1985	2207	372	241	497	443	299	340	297	767	1006	1297	2022
1986	2041	1821	976	430	183	180	192	209	326	428	943	1757
1987	2479	2402	2117	1110	443	223	244	541	975	1202	2080	3066
1988	2657	2412	1146	302	262	488	763	915	1147	1603	2266	2860
1989	3846	2354	1971	1041	996	203	189	248	620	990	2026	2424
1990	1985	2160	1929	800	436	516	532	844	1944	2401	2008	3179
1991	3924	3102	2759	2813	1887	319	248	581	1750	2371	2094	3240
Avg	2375	1772	1318	787	514	331	357	535	919	1008	1444	2278
W	1324	643	378	247	182	182	184	197	266	315	699	1315
AN	3107	2134	1019	206	189	186	188	192	257	366	1045	1598
BN	2559	2145	1556	488	206	189	197	207	253	512	1266	2579
D	2739	1888	1417	785	529	228	244	351	796	1077	1664	2344
C	2593	2363	2061	1512	958	618	686	1154	1938	1862	2057	3206

Appendix C-4 DSM2 Delta Modeling

Sacramento River at Emmaton Salinity Difference (Future Alt Desal minus Future Base) Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	-5	-2	-3	-4	-1	0	0	-11	-5	4	0	34
1977	29	11	7	-9	-3	4	0	11	15	10	12	18
1978	19	12	-4	0	0	0	0	0	0	0	0	5
1979	6	4	1	0	0	0	0	0	0	1	6	8
1980	5	3	0	0	0	0	0	0	0	0	0	0
1981	4	4	1	-1	0	0	0	0	0	4	4	7
1982	7	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	4
1985	5	0	0	-3	-2	-1	0	0	0	4	5	6
1986	5	4	1	0	0	0	0	0	0	0	-2	0
1987	4	4	2	-1	0	0	0	0	0	4	4	6
1988	5	5	1	0	0	0	0	0	0	0	5	6
1989	24	30	-15	-28	-15	-1	0	0	0	0	3	19
1990	9	5	4	-2	-1	0	0	0	-3	13	13	15
1991	17	11	-9	-23	-9	0	0	0	-1	11	13	16
Avg	8	6	-1	-4	-2	0	0	0	0	3	4	9
W	3	1	0	0	0	0	0	0	0	0	0	1
AN	12	8	-2	0	0	0	0	0	0	0	0	3
BN	6	4	1	0	0	0	0	0	0	1	6	8
D	9	9	-3	-8	-4	0	0	0	0	3	4	10
C	11	6	0	-8	-3	1	0	0	1	8	9	18

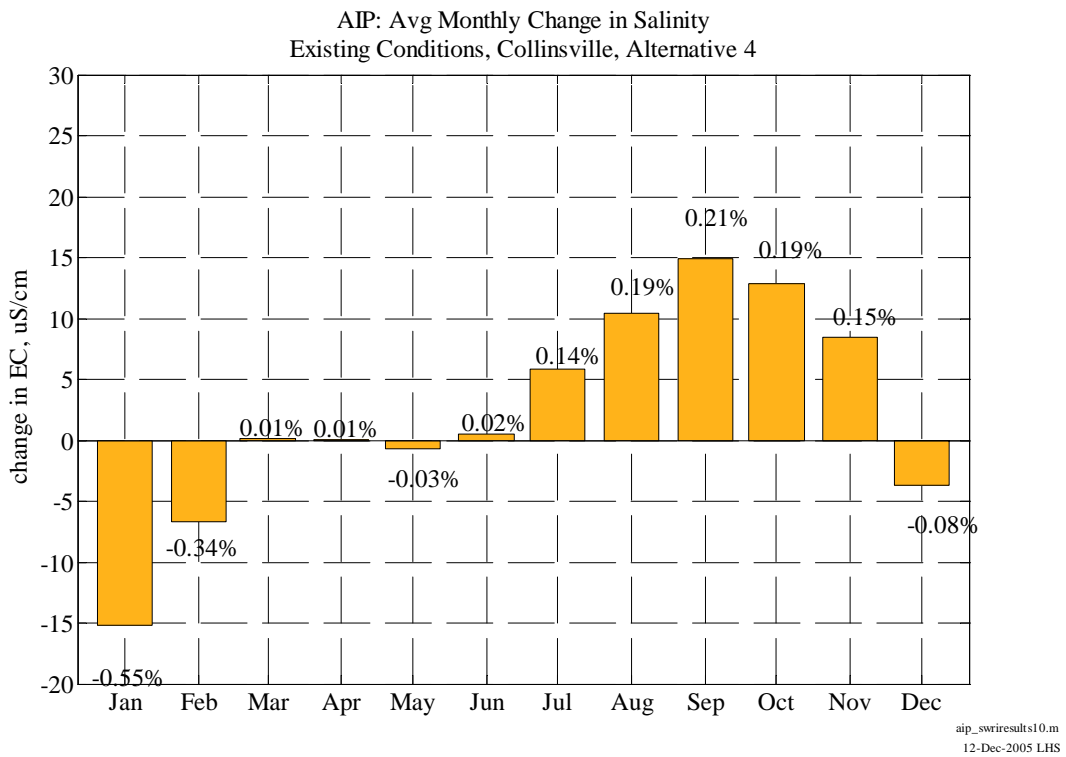
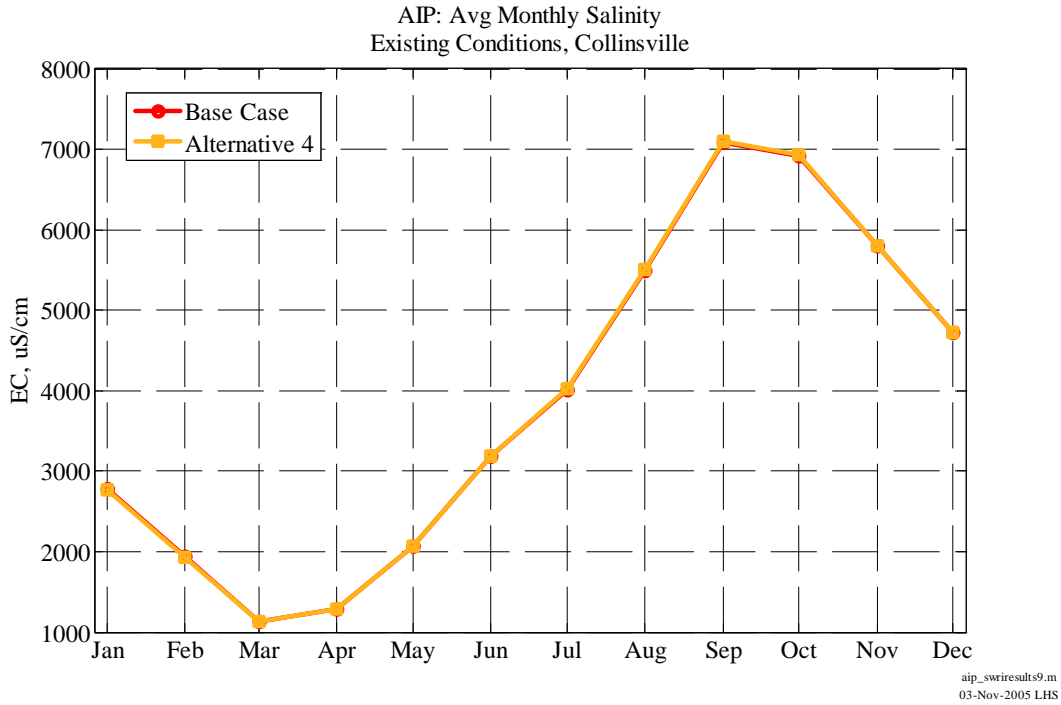
Sacramento River at Emmaton Salinity Percent Difference (Future Alt Desal minus Future Base divided by Future Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	-0.7	-0.1	-0.2	-0.3	-0.1	0.0	0.0	-0.7	-0.2	0.3	0.0	1.1
1977	0.8	0.4	0.3	-0.4	-0.2	0.3	0.0	0.6	0.6	0.6	0.6	0.5
1978	0.5	0.4	-0.3	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
1979	0.2	0.2	0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.3
1980	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1981	0.2	0.2	0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.4	0.4	0.4
1982	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1983	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Appendix C-4 DSM2 Delta Modeling

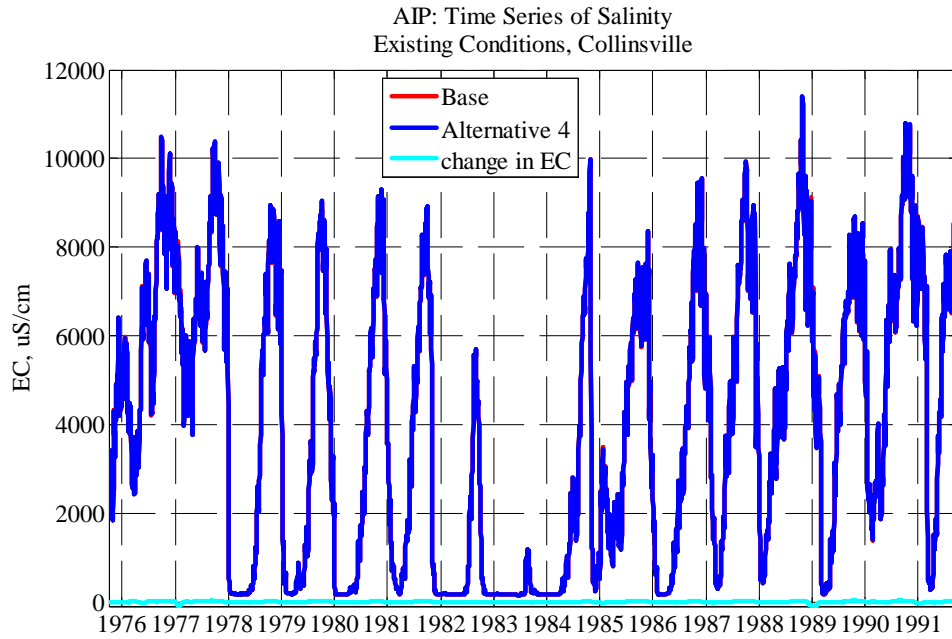
Sacramento River at Emmaton Salinity Percent Difference (Future Alt Desal minus Future Base divided by Future Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
1985	0.2	0.0	0.0	-0.6	-0.4	-0.3	-0.1	0.0	0.0	0.4	0.4	0.3
1986	0.2	0.2	0.1	-0.1	0.0	0.0	0.1	0.0	0.0	0.0	-0.2	0.0
1987	0.1	0.2	0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.3	0.2	0.2
1988	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2
1989	0.6	1.3	-0.7	-2.6	-1.5	-0.3	0.0	0.0	0.0	0.0	0.1	0.8
1990	0.4	0.3	0.2	-0.3	-0.2	0.0	0.0	0.0	-0.2	0.5	0.6	0.5
1991	0.4	0.4	-0.3	-0.8	-0.5	-0.2	0.0	0.0	0.0	0.5	0.6	0.5
Avg	0.2	0.2	0.0	-0.3	-0.2	0.0	0.0	0.0	0.0	0.2	0.2	0.3
W	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
AN	0.4	0.3	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
BN	0.2	0.2	0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.3
D	0.3	0.4	-0.1	-0.8	-0.5	-0.1	0.0	0.0	0.0	0.3	0.3	0.4
C	0.2	0.2	0.0	-0.4	-0.2	0.0	0.0	0.0	0.0	0.4	0.4	0.6

Appendix C-4 DSM2 Delta Modeling

Collinsville

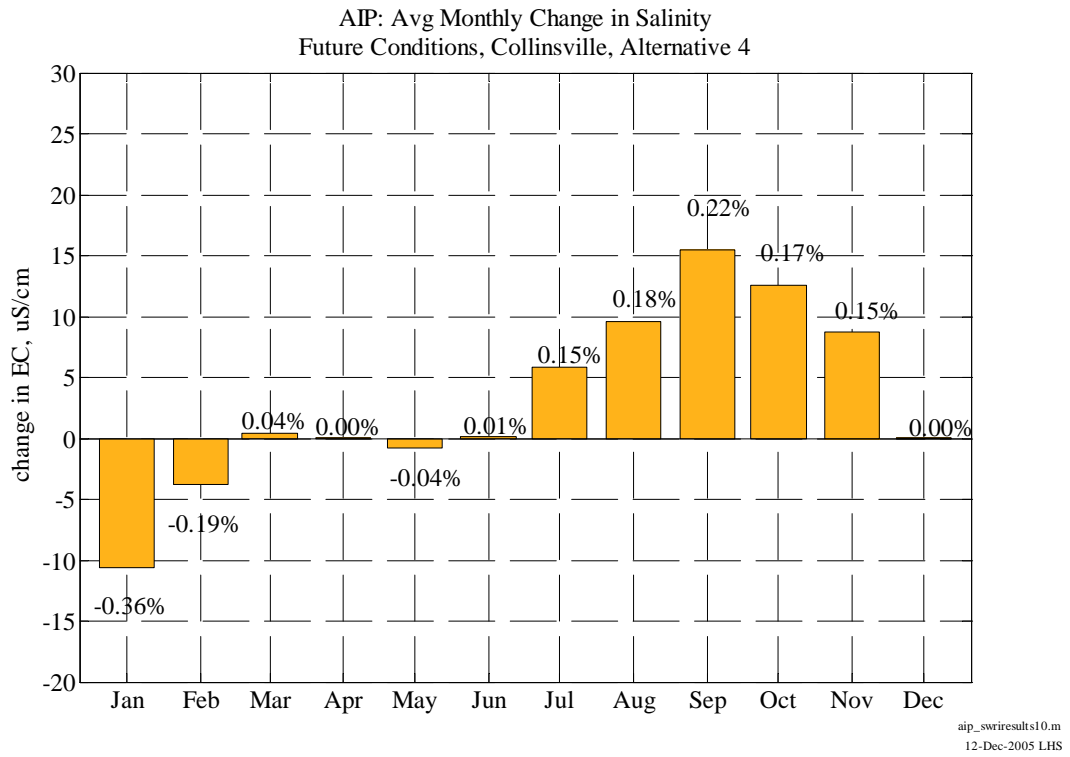
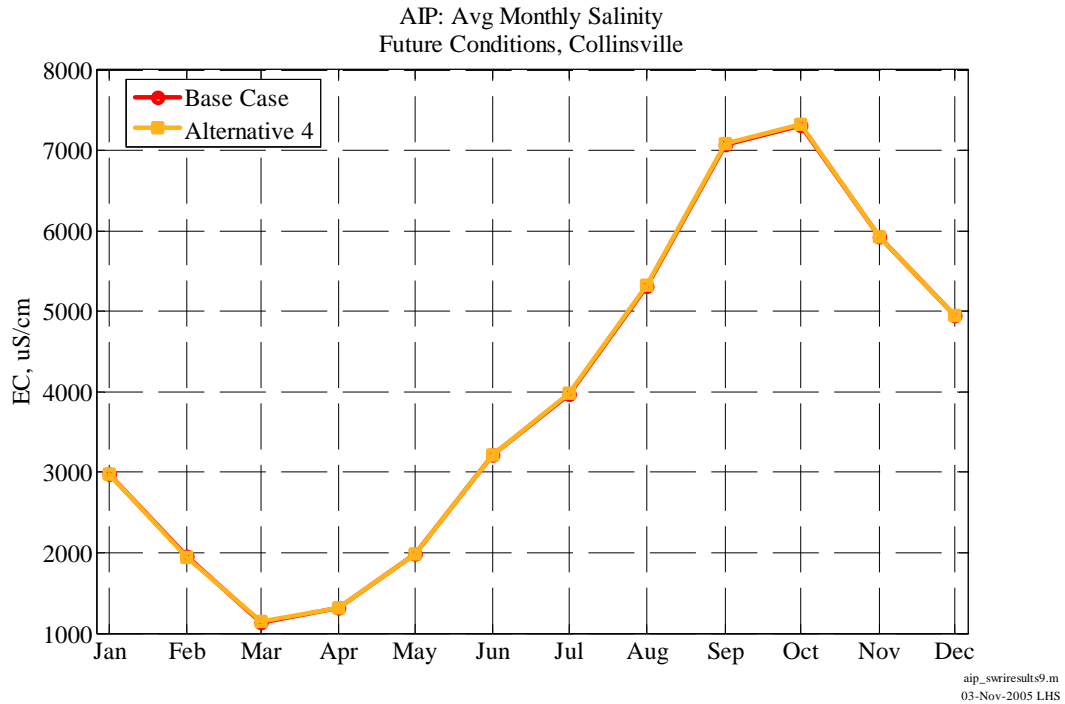


Appendix C-4 DSM2 Delta Modeling

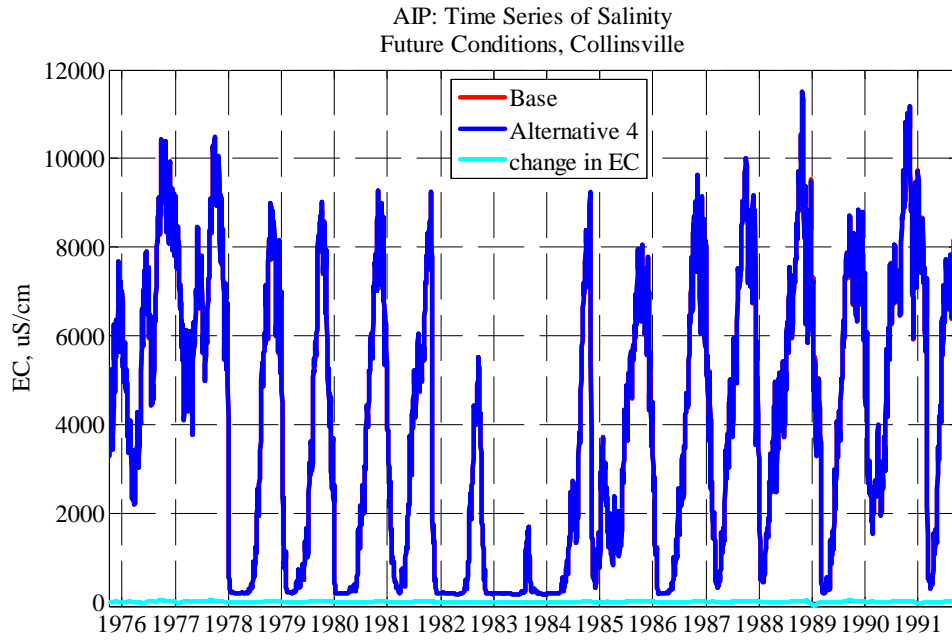


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Appendix C-4 DSM2 Delta Modeling



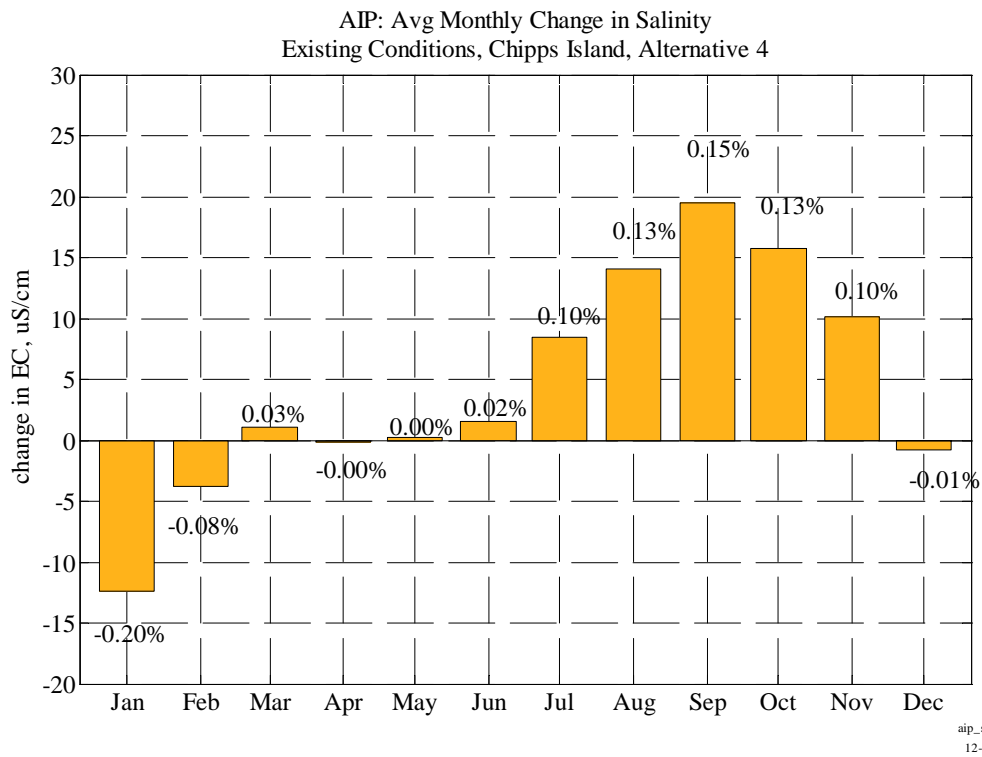
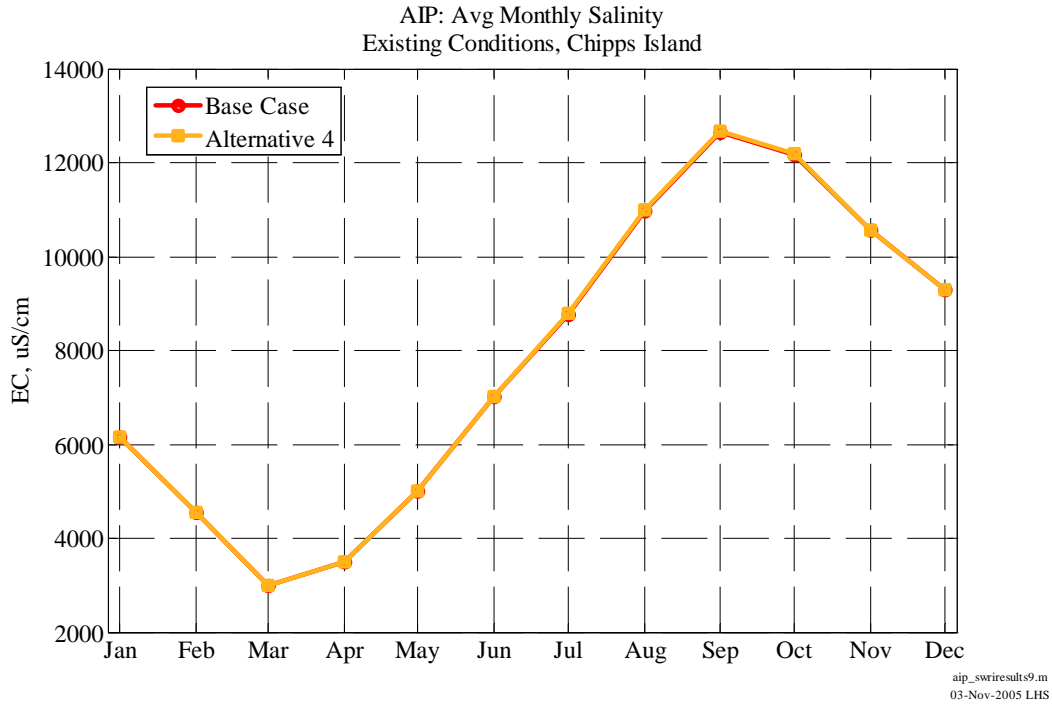
Appendix C-4 DSM2 Delta Modeling



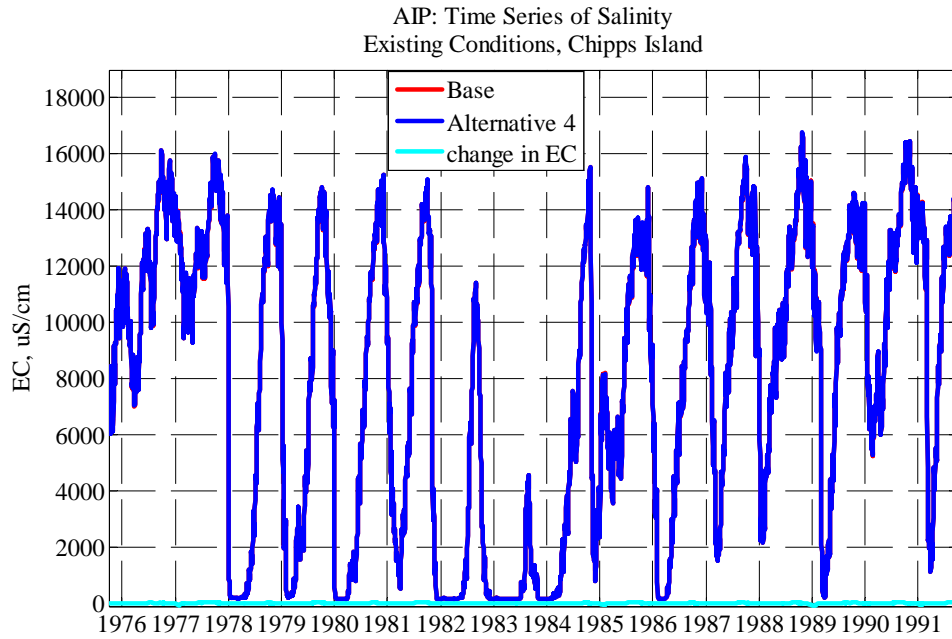
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22-Nov-2005 LHS

Appendix C-4 DSM2 Delta Modeling

Chippis Island

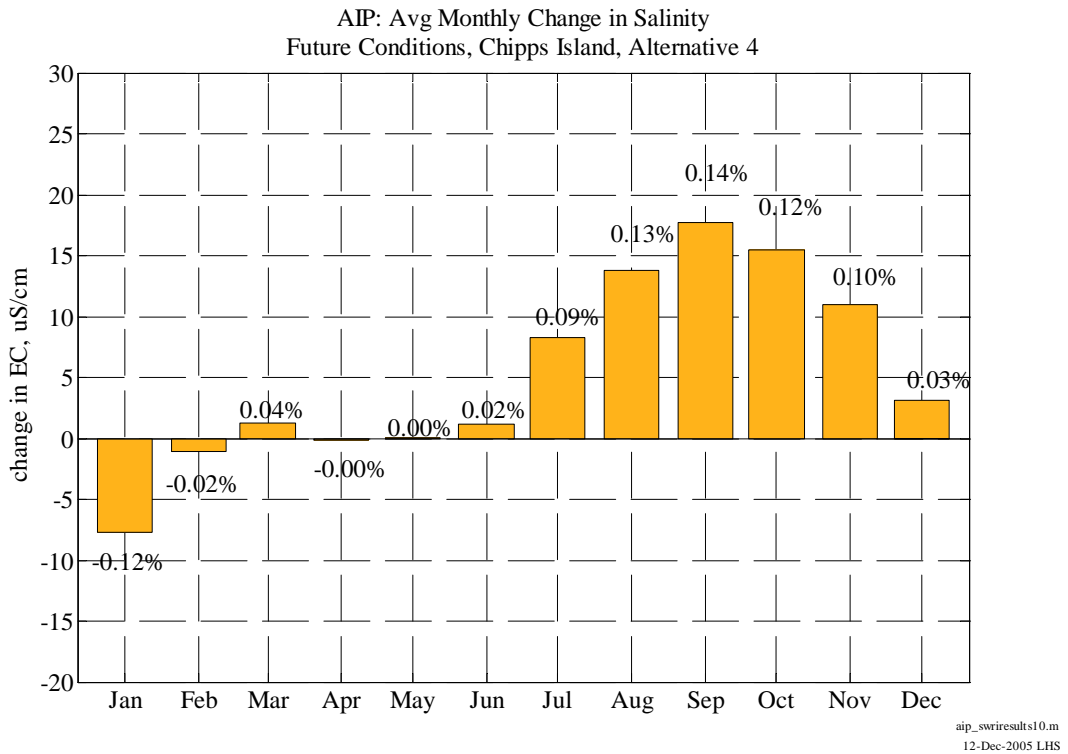
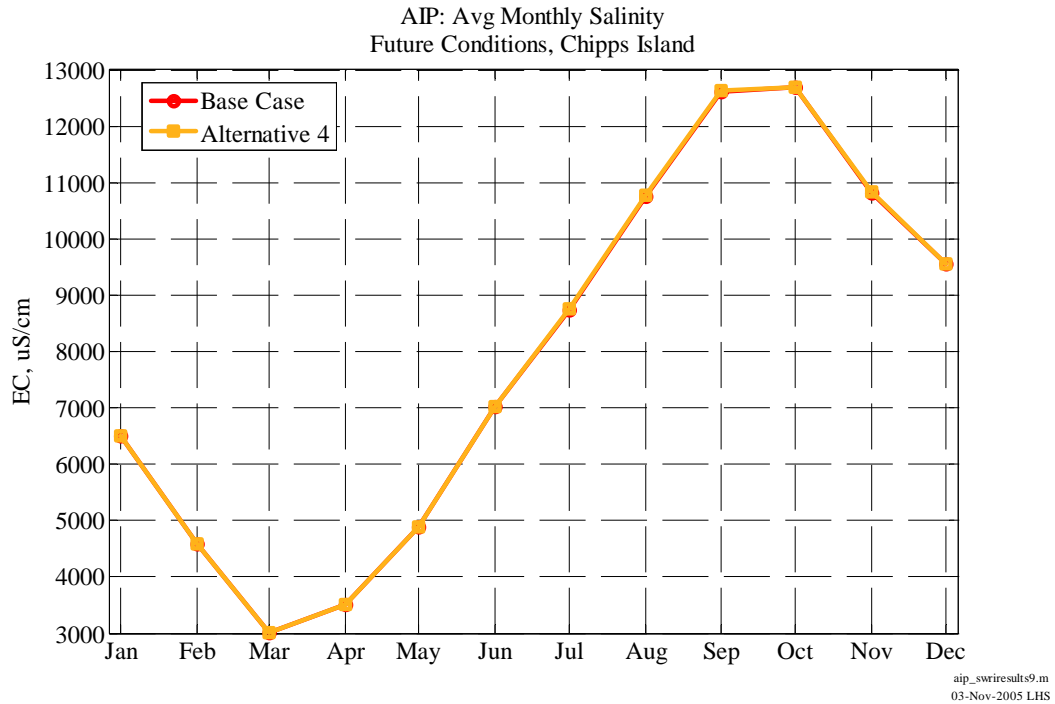


Appendix C-4 DSM2 Delta Modeling

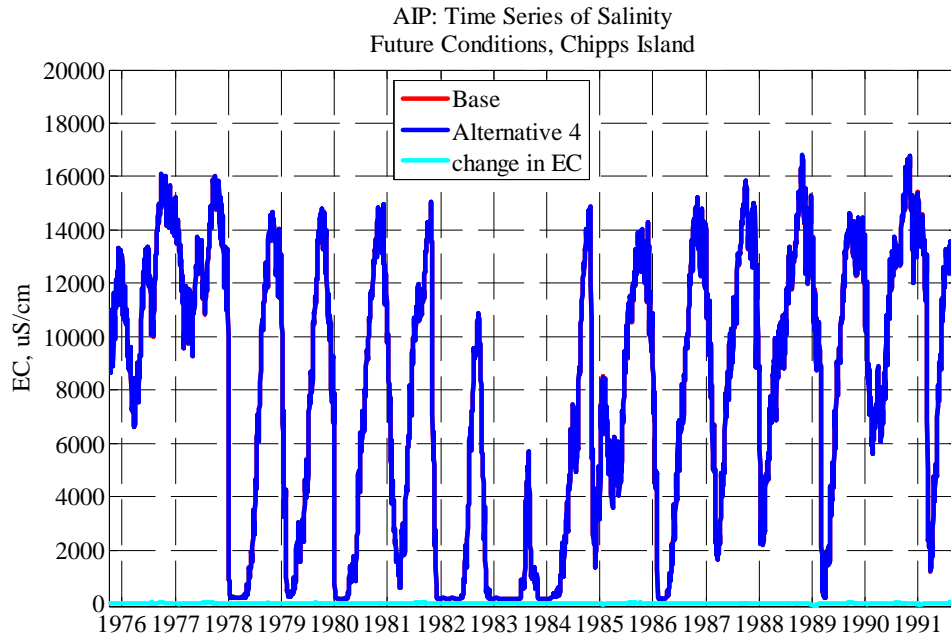


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Appendix C-4 DSM2 Delta Modeling



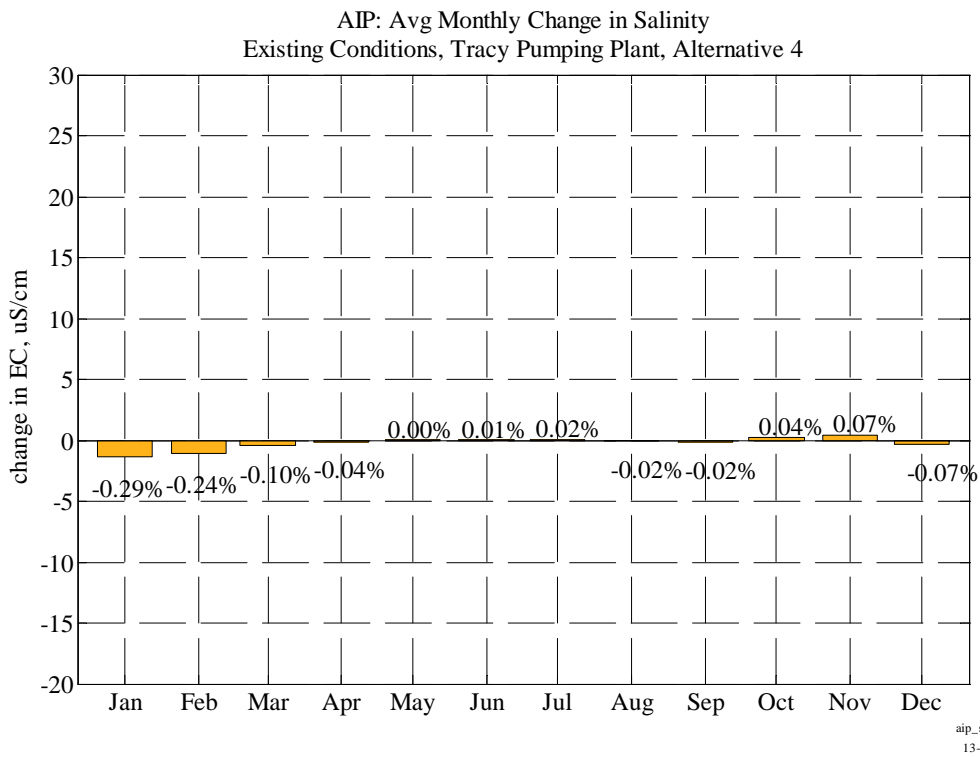
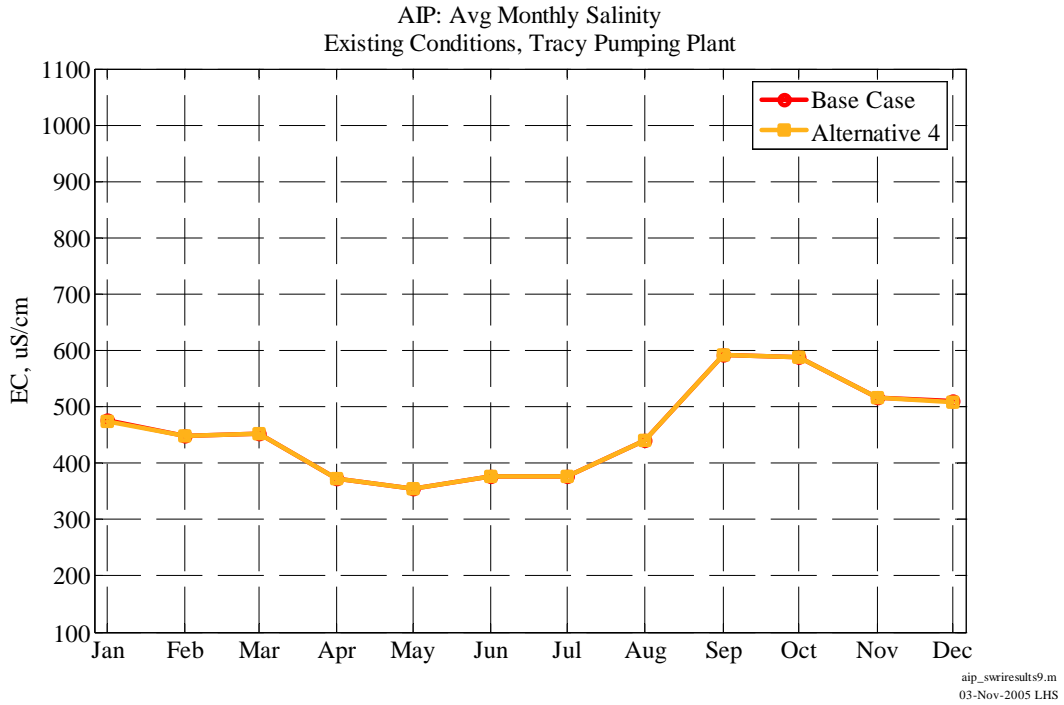
Appendix C-4 DSM2 Delta Modeling



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22-Nov-2005 LHS

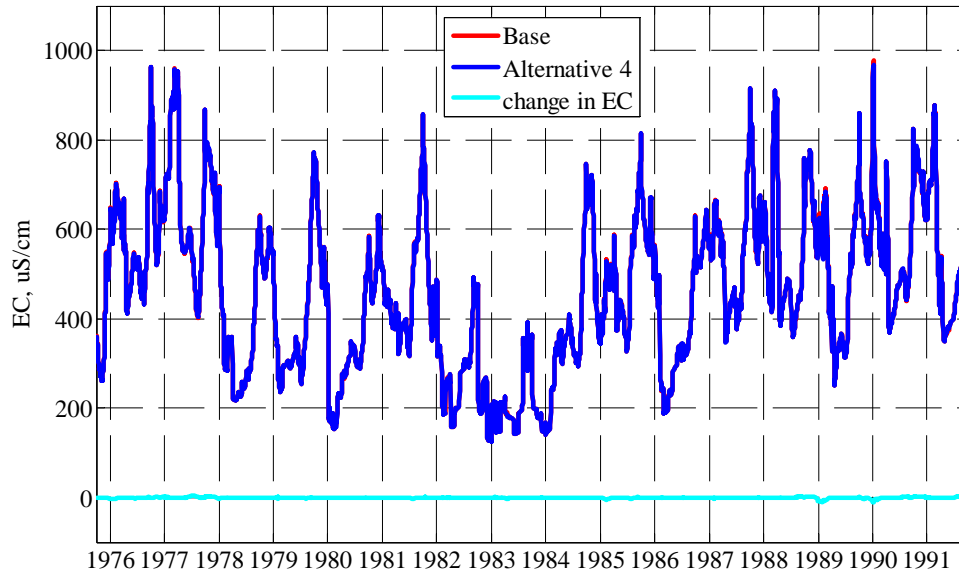
Appendix C-4 DSM2 Delta Modeling

Tracy Pumping Plant



Appendix C-4 DSM2 Delta Modeling

AIP: Time Series of Salinity
Existing Conditions, Tracy Pumping Plant



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Tracy Pumping Plant Salinity Base (Existing Base)												
Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	308	298	523	605	673	618	504	467	533	501	475	701
1977	746	555	638	703	854	913	682	553	586	498	428	629
1978	779	713	629	496	301	348	224	229	246	279	353	558
1979	540	521	571	394	251	292	298	314	322	290	427	646
1980	702	531	487	204	160	222	271	302	340	301	336	496
1981	478	496	569	465	435	391	373	382	356	434	571	713
1982	686	442	405	335	200	259	164	199	278	302	340	460
1983	214	257	138	207	152	207	187	178	145	194	323	350
1984	210	180	159	148	237	329	341	357	377	316	345	593
1985	668	604	396	392	496	490	454	429	369	435	596	703
1986	647	559	568	475	270	192	232	288	336	324	350	496
1987	525	553	602	557	636	585	443	413	448	413	533	724
1988	762	556	623	584	462	838	506	441	480	383	428	527
1989	722	711	581	593	652	471	330	332	344	386	557	680
1990	656	558	611	764	599	546	518	407	463	500	463	597
1991	751	722	648	685	815	530	424	373	396	454	506	594

Appendix C-4 DSM2 Delta Modeling

Tracy Pumping Plant Salinity Base (Existing Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Avg	587	516	509	475	449	452	372	354	376	376	440	592
W	439	359	317	291	215	247	231	255	284	284	340	475
AN	740	622	558	350	230	285	248	266	293	290	345	527
BN	540	521	571	394	251	292	298	314	322	290	427	646
D	598	591	537	502	555	484	400	389	379	417	564	705
C	645	538	609	668	680	689	527	448	491	467	460	610

Tracy Pumping Plant Salinity Alternative (Existing Alt Desal) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	307	298	522	603	671	618	504	466	531	500	475	701
1977	746	556	638	703	853	912	682	553	588	501	430	629
1978	781	715	629	494	301	348	224	229	246	279	353	558
1979	540	521	571	393	251	292	298	314	322	289	426	645
1980	702	531	487	204	160	222	272	302	340	301	336	495
1981	478	496	569	464	434	391	374	382	356	432	569	713
1982	686	441	405	335	200	259	164	198	278	302	340	460
1983	214	257	138	207	152	207	186	178	145	194	323	350
1984	210	180	159	148	237	329	341	357	377	316	345	592
1985	668	604	396	392	492	488	454	429	369	434	595	704
1986	648	559	568	475	270	192	232	288	336	325	350	496
1987	524	553	602	556	634	585	443	413	448	413	532	724
1988	762	556	622	583	462	838	506	441	480	383	429	528
1989	723	712	580	584	646	469	330	333	344	386	556	680
1990	656	556	607	758	596	546	518	407	463	501	465	596
1991	752	725	649	685	814	529	424	374	396	454	507	594
Avg	587	516	509	474	448	452	372	354	376	376	439	592
W	440	359	317	291	215	247	230	255	284	284	340	474
AN	741	623	558	349	230	285	248	266	293	290	345	527
BN	540	521	571	393	251	292	298	314	322	289	426	645
D	598	592	537	499	552	483	400	389	379	416	563	705
C	645	538	608	666	679	689	527	448	491	468	461	610

Appendix C-4 DSM2 Delta Modeling

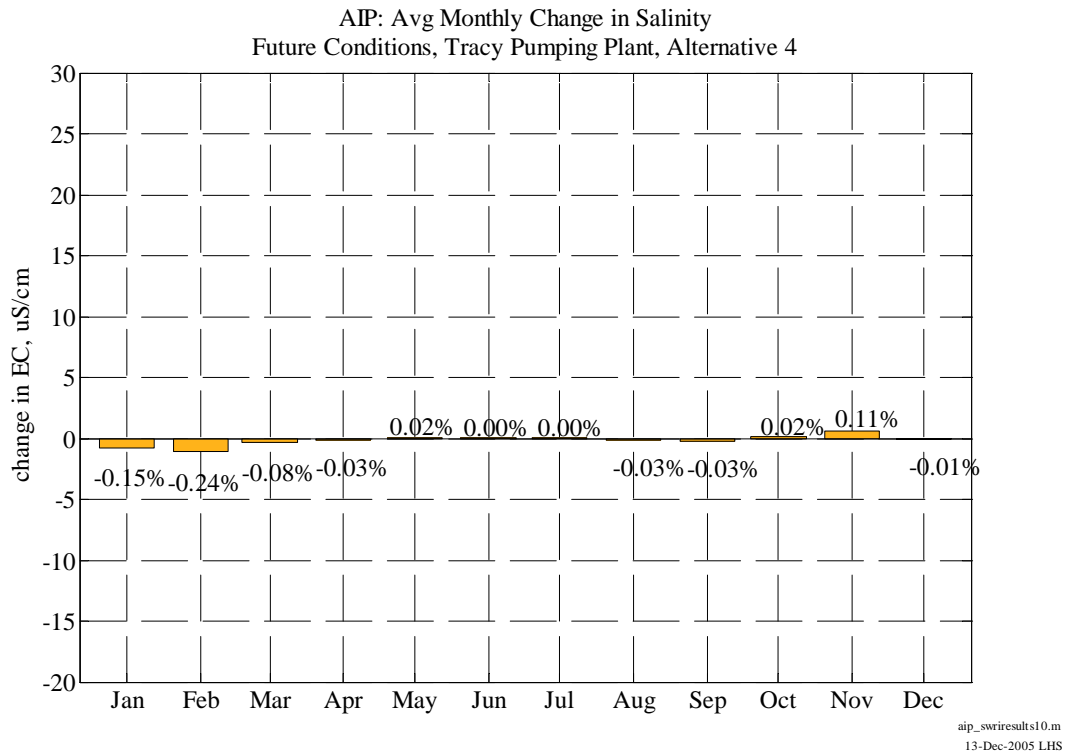
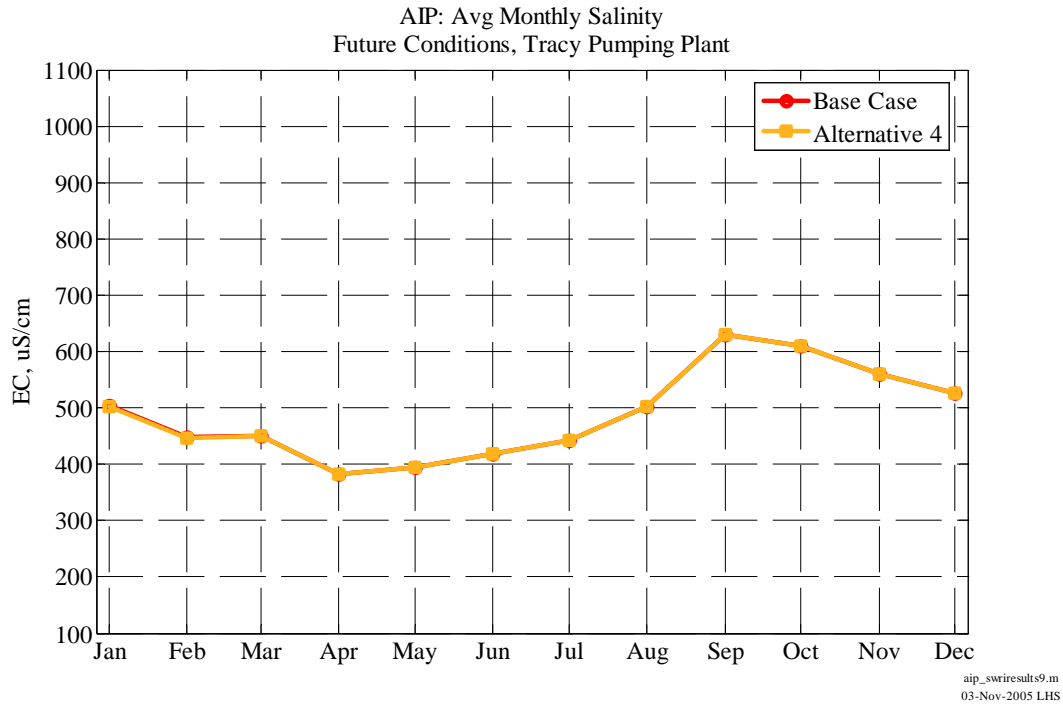
Tracy Pumping Plant Salinity Difference (Existing Alt Desal minus Existing Base) Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	-1	0	-1	-3	-2	-1	0	0	-1	-1	0	0
1977	0	0	0	0	0	-1	0	0	2	4	1	0
1978	2	3	0	-1	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	-2	-1
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	-1	0	0	0	0	0	-1	-1	0
1982	1	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	-2	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	-1	-4	-1	0	0	0	-1	-1	0
1986	0	0	0	-1	0	0	0	0	0	0	0	0
1987	-1	0	0	-1	-1	-1	0	0	0	0	-1	-1
1988	0	1	0	-1	0	0	0	0	0	0	1	1
1989	1	1	-1	-9	-6	-2	0	0	0	0	0	0
1990	0	-1	-3	-6	-3	-1	0	0	0	1	1	0
1991	2	3	1	0	0	-1	0	0	0	1	1	-1
Avg	0	0	0	-1	-1	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0	0	0	0	0	0
AN	1	2	0	-1	0	0	0	0	0	0	0	0
BN	0	0	0	0	0	0	0	0	0	0	-2	-1
D	0	0	0	-3	-3	-1	0	0	0	-1	-1	0
C	0	0	-1	-2	-1	-1	0	0	0	1	1	0

Tracy Pumping Plant Salinity Percent Difference (Existing Alt Desal minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	-0.3	-0.1	-0.2	-0.4	-0.3	-0.1	0.0	-0.1	-0.3	-0.1	0.0	0.0
1977	0.0	0.1	0.0	0.1	0.0	-0.1	0.0	0.0	0.3	0.7	0.3	0.0
1978	0.3	0.4	0.0	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1979	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	-0.2	-0.4	-0.2
1980	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1
1981	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	-0.3	-0.3	0.0
1982	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1983	0.0	0.0	0.0	0.0	0.0	0.0	-0.8	0.0	0.0	0.0	0.0	0.0
1984	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

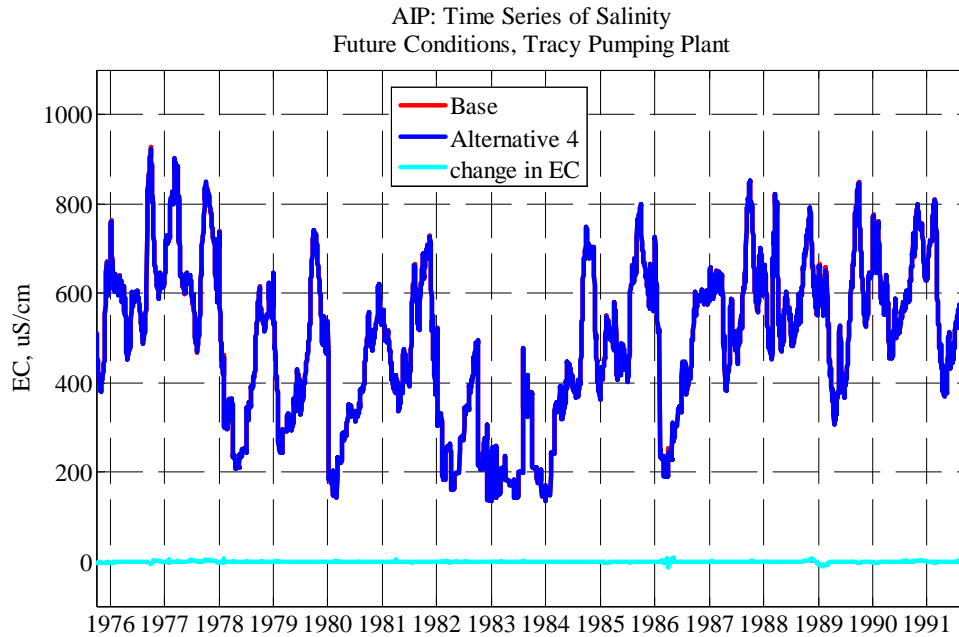
Appendix C-4 DSM2 Delta Modeling

Tracy Pumping Plant Salinity Percent Difference (Existing Alt Desal minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1985	0.0	0.0	0.0	-0.2	-0.8	-0.3	0.0	0.0	0.0	-0.3	-0.2	0.0
1986	0.1	0.0	-0.1	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1
1987	-0.1	0.0	0.0	-0.2	-0.2	-0.1	0.0	0.0	0.0	0.0	-0.1	-0.1
1988	0.1	0.1	-0.1	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2
1989	0.1	0.1	-0.1	-1.5	-1.0	-0.4	0.0	0.1	0.0	0.0	0.0	0.0
1990	-0.1	-0.2	-0.6	-0.7	-0.5	-0.1	0.0	0.0	0.0	0.1	0.3	0.0
1991	0.2	0.4	0.2	0.1	0.0	-0.2	0.0	0.1	0.0	0.2	0.1	-0.1
Avg	0.0	0.0	-0.1	-0.2	-0.2	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	0.0	0.0	0.0	0.0	0.0
AN	0.2	0.2	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1
BN	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	-0.2	-0.4	-0.2
D	0.0	0.0	0.0	-0.5	-0.5	-0.2	0.0	0.0	0.0	-0.2	-0.1	0.0
C	0.0	0.0	-0.1	-0.2	-0.2	-0.1	0.0	0.0	0.0	0.2	0.2	0.0

Appendix C-4 DSM2 Delta Modeling



Appendix C-4 DSM2 Delta Modeling



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Tracy Pumping Plant Salinity Base (Future Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	430	433	632	673	619	610	521	516	592	568	526	823
1977	764	616	627	708	795	853	693	623	629	553	513	734
1978	823	750	640	505	313	352	229	223	248	335	400	548
1979	552	542	571	456	256	290	312	333	400	369	462	659
1980	702	555	504	206	158	220	280	321	337	332	384	488
1981	500	525	571	524	480	398	374	417	417	529	593	614
1982	674	661	439	333	192	253	165	197	275	337	392	469
1983	228	260	150	249	155	205	186	173	145	198	355	369
1984	222	180	161	151	236	342	354	393	421	381	426	669
1985	697	648	418	424	524	502	485	451	448	515	651	758
1986	686	604	609	587	254	192	233	290	341	427	400	526
1987	581	590	586	627	625	629	452	485	501	494	590	779
1988	753	584	638	598	483	736	535	530	564	502	554	619
1989	721	713	583	620	633	478	346	421	407	452	633	802
1990	681	545	638	702	677	587	541	498	523	554	588	652
1991	743	755	656	693	781	560	414	432	451	525	557	581

Appendix C-4 DSM2 Delta Modeling

Tracy Pumping Plant Salinity Base (Future Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Avg	610	560	526	503	449	451	383	394	419	442	501	631
W	453	426	340	330	209	248	235	263	295	336	393	508
AN	762	653	572	356	236	286	255	272	293	333	392	518
BN	552	542	571	456	256	290	312	333	400	369	462	659
D	625	619	540	549	566	502	414	444	443	497	617	738
C	674	587	638	675	671	669	541	520	552	540	548	682

Tracy Pumping Plant Salinity Alternative (Future Alt Desal) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	428	431	630	671	618	610	521	516	591	567	526	821
1977	763	618	627	708	794	853	693	624	630	555	513	734
1978	826	753	640	504	313	352	229	223	248	335	400	548
1979	551	543	571	457	256	290	312	333	400	369	461	659
1980	702	555	504	206	158	220	280	321	337	332	384	488
1981	500	525	572	524	479	398	375	417	417	528	592	613
1982	674	661	439	333	192	253	165	196	275	337	392	469
1983	228	260	150	249	155	205	186	173	145	198	355	368
1984	222	180	161	151	236	342	354	393	421	381	426	669
1985	697	648	418	423	522	501	484	451	448	514	651	758
1986	687	604	609	587	254	193	232	292	341	427	400	527
1987	581	590	587	627	624	629	452	485	501	493	588	778
1988	753	584	638	598	483	736	535	530	564	502	554	619
1989	723	718	582	613	625	475	345	421	407	452	632	801
1990	679	545	637	700	675	587	541	498	523	554	589	652
1991	745	757	658	692	779	559	413	432	451	526	558	582
Avg	610	561	526	503	448	450	382	394	419	442	501	630
W	453	426	340	330	209	248	234	264	295	336	393	508
AN	764	654	572	355	236	286	255	272	293	333	392	518
BN	551	543	571	457	256	290	312	333	400	369	461	659
D	625	620	540	547	563	501	414	444	443	497	616	738
C	674	587	638	674	670	669	541	520	552	541	548	682

Appendix C-4 DSM2 Delta Modeling

Tracy Pumping Plant Salinity Difference (Future Alt Desal minus Future Base) Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	-2	-2	-2	-2	-1	0	0	0	-1	0	0	-2
1977	-1	1	0	0	-1	0	0	0	1	3	0	0
1978	3	3	0	-1	0	0	0	0	0	0	0	0
1979	-1	0	0	0	0	0	0	0	0	0	-1	-1
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	1	0	0	-1	-1	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	-2	-1	0	0	0	-1	-1	0
1986	0	0	0	0	0	1	-2	1	0	0	0	0
1987	0	0	0	0	-1	0	0	0	0	0	-1	0
1988	1	0	0	0	0	0	0	0	0	0	0	0
1989	2	6	0	-7	-8	-2	0	0	0	0	0	-1
1990	-2	-1	-1	-2	-2	-1	0	0	0	0	1	0
1991	1	2	2	0	-2	-1	0	0	0	0	1	1
Avg	0	1	0	-1	-1	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0	0	0	0	0	0
AN	2	1	0	-1	0	0	0	0	0	0	0	0
BN	-1	0	0	0	0	0	0	0	0	0	-1	-1
D	1	1	0	-2	-3	-1	0	0	0	-1	-1	0
C	-1	0	0	-1	-1	0	0	0	0	1	0	0

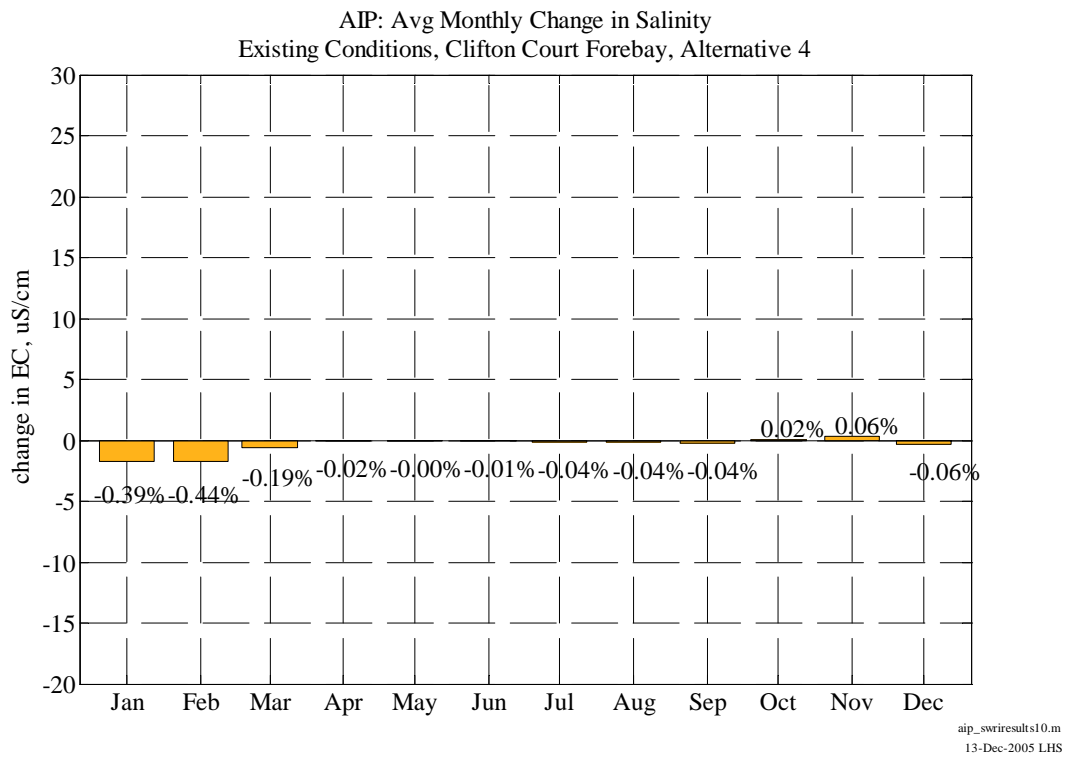
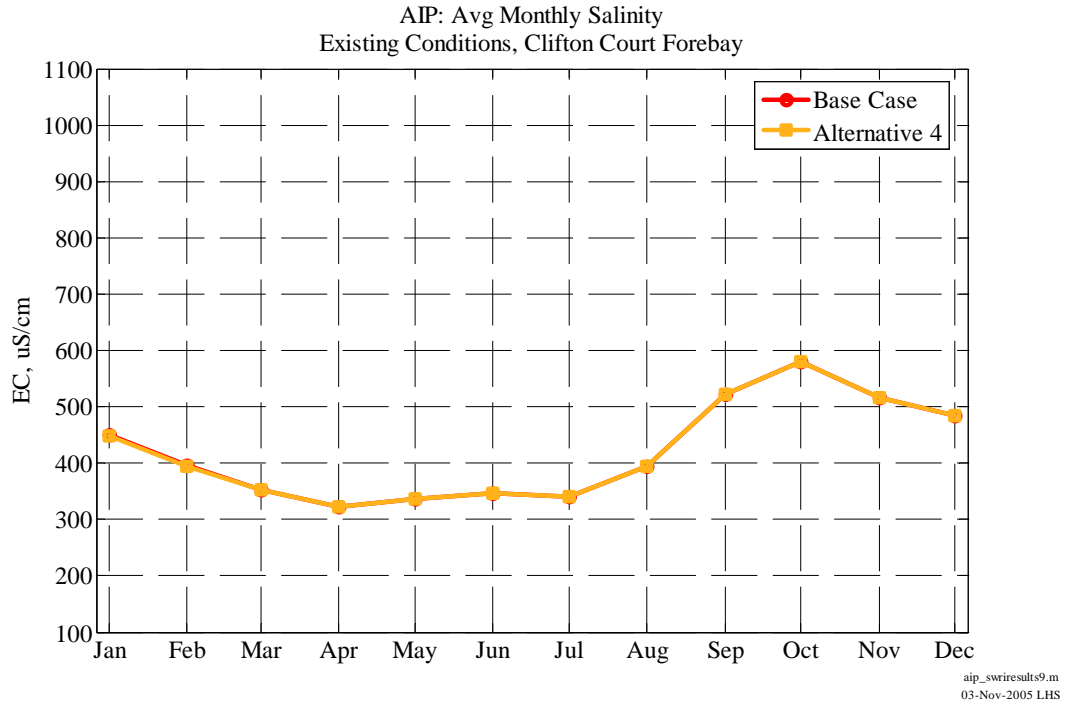
Tracy Pumping Plant Salinity Percent Difference (Future Alt Desal minus Future Base divided by Future Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	-0.4	-0.5	-0.3	-0.3	-0.2	-0.1	0.0	0.0	-0.2	-0.1	0.0	-0.2
1977	-0.1	0.2	0.0	0.0	-0.1	0.0	0.1	0.0	0.2	0.5	0.0	0.0
1978	0.4	0.4	0.0	-0.3	0.0	0.0	-0.2	0.0	0.0	0.0	0.0	0.0
1979	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.2	-0.1
1980	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1981	0.0	0.0	0.0	0.0	-0.1	0.0	0.2	0.0	0.0	-0.2	-0.1	-0.1
1982	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0
1983	-0.1	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.1	0.0

Appendix C-4 DSM2 Delta Modeling

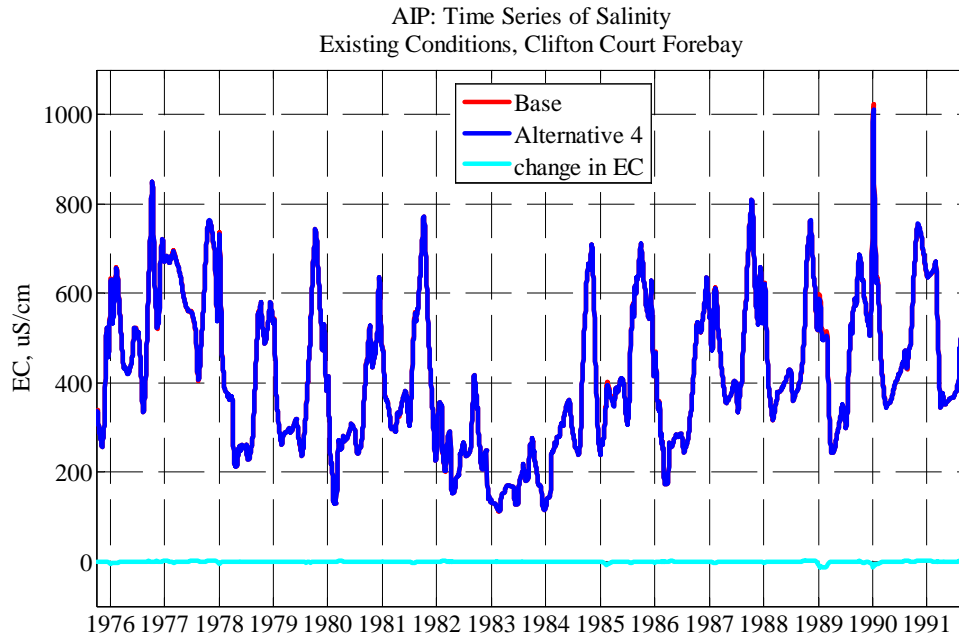
Tracy Pumping Plant Salinity Percent Difference (Future Alt Desal minus Future Base divided by Future Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1985	0.0	-0.1	0.0	-0.1	-0.4	-0.3	-0.1	0.0	0.0	-0.2	-0.1	0.0
1986	0.1	0.0	0.0	0.0	0.0	0.3	-0.6	0.5	0.0	0.0	0.0	0.0
1987	0.1	0.1	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	-0.1	-0.2	-0.1
1988	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
1989	0.3	0.8	0.0	-1.1	-1.3	-0.5	-0.1	0.0	0.0	0.0	0.0	-0.1
1990	-0.3	-0.1	-0.1	-0.3	-0.3	-0.1	0.0	0.0	0.0	0.0	0.1	0.0
1991	0.2	0.3	0.2	-0.1	-0.2	-0.2	0.0	0.0	0.0	0.0	0.2	0.1
Avg	0.0	0.1	0.0	-0.1	-0.2	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.1	-0.2	0.1	0.0	0.0	0.0	0.0
AN	0.2	0.2	0.0	-0.1	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0
BN	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.2	-0.1
D	0.1	0.2	0.0	-0.3	-0.5	-0.2	0.0	0.0	0.0	-0.1	-0.1	-0.1
C	-0.1	0.0	0.0	-0.1	-0.2	-0.1	0.0	0.0	0.0	0.1	0.0	0.0

Appendix C-4 DSM2 Delta Modeling

Clifton Court Forebay



Appendix C-4 DSM2 Delta Modeling



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Clifton Court Forebay Salinity Base (Existing Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	306	291	491	580	632	507	430	436	512	474	369	610
1977	744	546	693	676	681	680	640	584	560	535	435	559
1978	733	733	609	562	385	367	240	245	256	237	304	506
1979	541	509	560	422	282	283	294	303	290	258	391	592
1980	702	536	449	272	140	244	270	283	302	253	289	439
1981	478	478	560	407	333	298	323	360	349	405	554	672
1982	695	445	270	332	235	268	168	186	247	241	277	386
1983	256	233	156	131	117	145	167	169	132	184	192	237
1984	237	177	127	139	234	271	301	343	330	262	278	512
1985	658	608	310	272	380	367	374	402	358	407	583	661
1986	649	556	508	393	280	179	248	275	283	257	293	409
1987	519	539	604	510	584	468	375	367	396	364	474	665
1988	763	569	591	538	357	341	380	396	421	380	387	447
1989	648	719	571	559	510	349	249	298	337	365	536	610
1990	655	568	574	785	547	387	353	377	410	436	450	520
1991	699	737	670	639	655	494	363	357	366	384	490	544

Appendix C-4 DSM2 Delta Modeling

Clifton Court Forebay Salinity Base (Existing Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Avg	580	515	484	451	397	353	323	336	347	340	394	523
W	459	353	265	249	216	216	221	243	248	236	260	386
AN	717	634	529	417	263	305	255	264	279	245	297	473
BN	541	509	560	422	282	283	294	303	290	258	391	592
D	576	586	511	437	452	371	330	357	360	385	537	652
C	633	542	604	644	574	482	433	430	454	442	426	536

Clifton Court Forebay Salinity Alternative (Existing Alt Desal) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	305	290	490	576	629	506	429	435	511	473	369	611
1977	744	546	692	677	680	679	639	584	561	537	436	559
1978	734	736	609	559	385	367	240	245	256	237	304	506
1979	541	509	560	421	282	284	294	303	290	258	389	590
1980	702	536	449	272	140	245	271	283	302	253	289	439
1981	478	478	560	406	333	298	323	360	349	403	553	672
1982	695	445	270	332	236	268	168	186	247	241	277	386
1983	256	233	156	131	117	145	167	169	132	184	192	237
1984	237	177	127	139	234	271	301	343	330	262	278	512
1985	658	607	310	272	374	364	374	402	358	405	582	661
1986	649	556	508	391	280	179	249	276	283	257	293	409
1987	518	539	604	509	581	467	374	367	396	364	473	664
1988	763	570	590	537	356	341	380	396	421	380	387	447
1989	649	720	571	548	498	346	249	298	337	365	536	610
1990	655	567	571	777	543	386	352	377	410	436	451	520
1991	699	739	672	641	655	492	363	357	366	384	491	543
Avg	580	516	484	449	395	352	323	336	347	340	394	523
W	460	353	265	249	217	216	221	243	248	236	260	386
AN	718	636	529	415	262	306	255	264	279	245	297	472
BN	541	509	560	421	282	284	294	303	290	258	389	590
D	576	586	511	434	446	369	330	357	360	384	536	652
C	633	542	603	642	573	481	433	430	454	442	427	536

Appendix C-4 DSM2 Delta Modeling

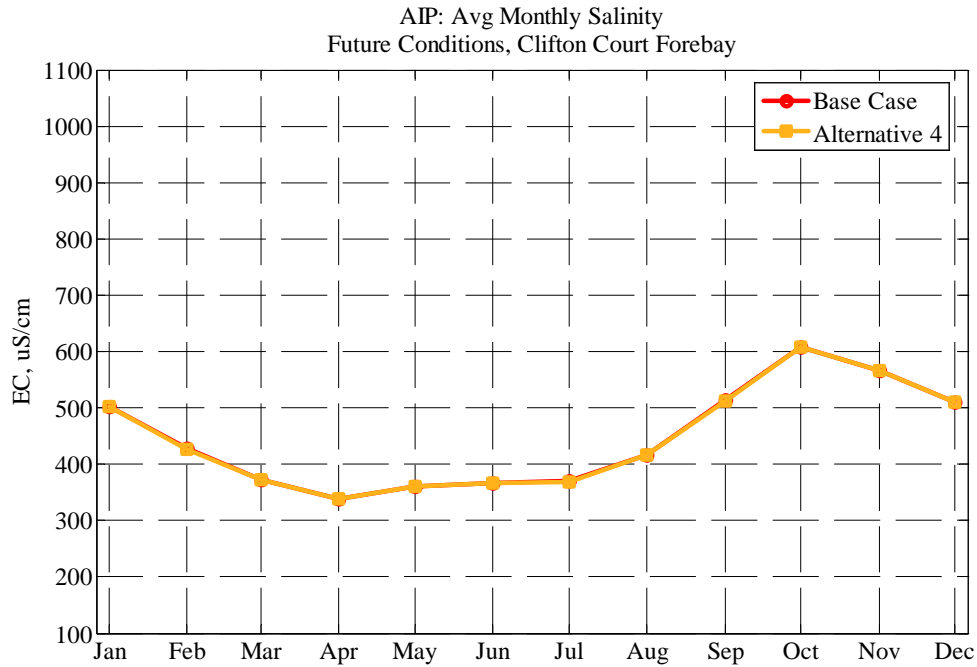
Clifton Court Forebay Salinity Difference (Existing Alt Desal minus Existing Base) Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	-1	0	-1	-4	-3	-1	0	0	-1	-1	0	0
1977	0	0	0	1	-1	-2	-1	0	0	2	1	0
1978	1	3	0	-3	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	-2	-1
1980	0	0	0	0	0	1	1	0	0	0	0	0
1981	0	0	0	-1	0	0	0	0	0	-1	-2	0
1982	1	0	0	0	1	1	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	-1	-6	-3	0	0	0	-1	-1	0
1986	0	0	0	-1	0	0	1	0	0	0	0	0
1987	-1	0	0	-1	-2	-1	0	0	0	0	-1	-1
1988	0	1	0	-1	0	0	0	0	0	0	0	1
1989	1	1	0	-11	-12	-3	0	0	0	0	0	0
1990	0	-2	-4	-8	-4	-1	-1	0	0	0	1	0
1991	1	2	3	2	0	-1	0	0	0	0	1	-1
Avg	0	0	0	-2	-2	-1	0	0	0	0	0	0
W	0	0	0	0	0	0	0	0	0	0	0	0
AN	1	1	0	-1	0	1	0	0	0	0	0	0
BN	0	0	0	0	0	0	0	0	0	0	-2	-1
D	0	0	0	-3	-5	-2	0	0	0	-1	-1	0
C	0	0	-1	-2	-2	-1	0	0	0	0	1	0

Clifton Court Forebay Salinity Percent Difference (Existing Alt Desal minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	-0.3	-0.1	-0.2	-0.6	-0.5	-0.2	-0.1	-0.1	-0.2	-0.1	0.0	0.0
1977	0.0	0.1	0.0	0.2	-0.1	-0.2	-0.1	0.0	0.1	0.3	0.3	0.0
1978	0.2	0.3	0.0	-0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1
1979	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	-0.2	-0.5	-0.2
1980	0.0	0.1	-0.1	0.0	0.0	0.5	0.2	0.0	0.0	0.0	0.0	-0.1
1981	-0.1	0.0	0.0	-0.2	-0.1	0.0	0.0	0.0	0.0	-0.4	-0.3	0.0
1982	0.1	0.0	0.0	0.0	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0
1983	0.0	0.0	0.0	0.1	0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1

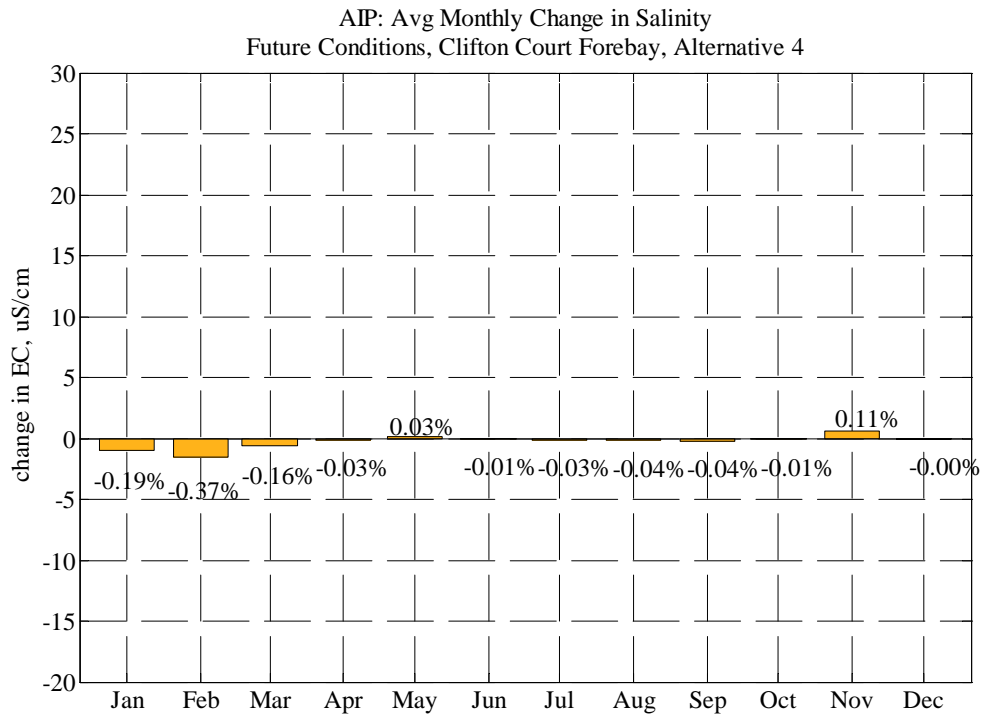
Appendix C-4 DSM2 Delta Modeling

Clifton Court Forebay Salinity Percent Difference (Existing Alt Desal minus Existing Base divided by Existing Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1985	0.0	0.0	0.0	-0.3	-1.6	-0.7	-0.1	0.0	0.0	-0.3	-0.2	0.0
1986	0.1	0.0	-0.1	-0.3	0.1	0.0	0.3	0.2	0.0	0.0	0.0	-0.1
1987	-0.1	0.0	0.0	-0.2	-0.4	-0.2	0.0	0.0	0.0	0.0	-0.2	-0.1
1988	0.0	0.1	-0.1	-0.3	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
1989	0.2	0.1	-0.1	-1.9	-2.4	-1.0	-0.1	0.1	0.0	0.0	0.0	-0.1
1990	-0.1	-0.3	-0.7	-1.0	-0.8	-0.3	-0.2	-0.1	0.0	0.0	0.3	0.0
1991	0.1	0.3	0.4	0.3	0.0	-0.3	-0.1	0.0	0.0	0.0	0.1	-0.1
Avg	0.0	0.0	-0.1	-0.3	-0.3	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	-0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
AN	0.1	0.2	0.0	-0.2	0.0	0.2	0.1	0.0	0.0	0.0	0.0	-0.1
BN	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	-0.2	-0.5	-0.2
D	0.0	0.0	0.0	-0.7	-1.1	-0.5	0.0	0.0	0.0	-0.2	-0.2	0.0
C	0.0	0.0	-0.1	-0.3	-0.3	-0.2	-0.1	0.0	0.0	0.0	0.1	0.0

Appendix C-4 DSM2 Delta Modeling

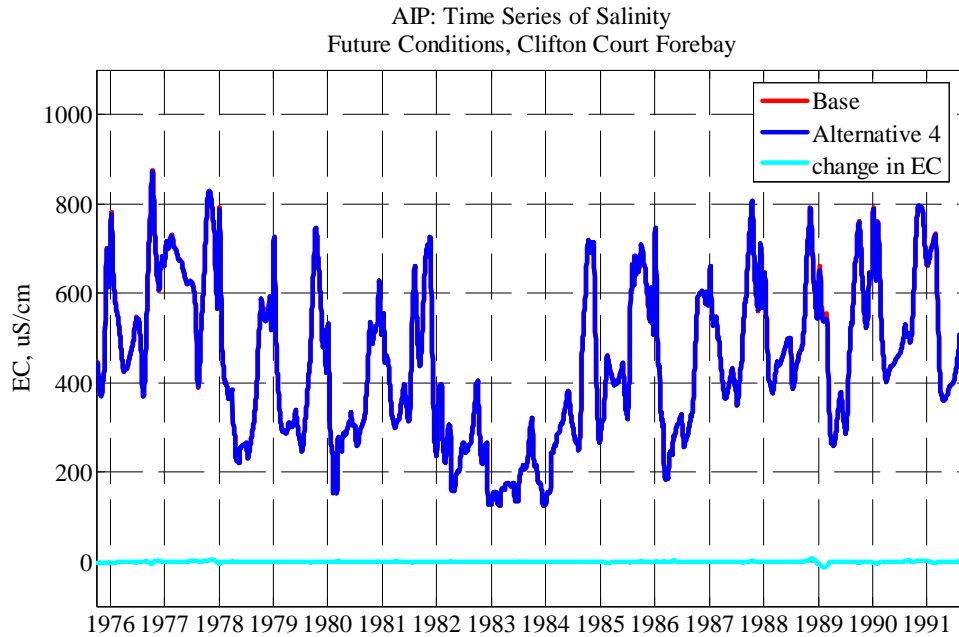


aip_swresults9.m
03-Nov-2005 LHS



aip_swresults10.m
13-Dec-2005 LHS

Appendix C-4 DSM2 Delta Modeling



aip_swresults10.m
22-Nov-2005 LHS

Clifton Court Forebay Salinity Base (Future Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	415	413	647	696	561	474	430	463	522	518	412	673
1977	812	638	666	701	722	697	673	639	623	599	436	598
1978	791	786	636	591	402	375	278	236	261	247	301	433
1979	565	544	553	550	330	290	302	313	296	266	375	550
1980	709	563	478	341	168	247	276	302	312	271	304	383
1981	508	520	566	492	415	315	317	373	339	479	568	474
1982	658	662	310	362	261	283	172	194	248	249	272	362
1983	289	249	145	150	132	157	173	172	140	193	212	279
1984	237	182	134	150	237	275	307	356	336	274	306	558
1985	698	658	332	317	438	418	400	423	371	467	652	663
1986	679	583	562	563	333	198	233	282	317	278	298	378
1987	569	601	585	584	535	458	374	401	407	383	511	660
1988	756	593	625	558	395	410	442	469	497	411	449	490
1989	662	730	578	609	551	366	268	339	336	359	554	704
1990	681	542	630	700	671	455	419	441	458	483	511	514
1991	699	793	718	679	721	539	367	375	397	435	499	494

Appendix C-4 DSM2 Delta Modeling

Clifton Court Forebay Salinity Base (Future Base) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Avg	608	566	510	503	429	372	339	361	366	370	416	513
W	466	419	288	306	241	228	221	251	260	249	272	394
AN	750	675	557	466	285	311	277	269	286	259	302	408
BN	565	544	553	550	330	290	302	313	296	266	375	550
D	609	627	515	500	485	389	340	384	363	422	571	625
C	673	596	657	667	614	515	466	478	499	489	461	554

Clifton Court Forebay Salinity Alternative (Future Alt Desal) Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	413	410	645	693	559	474	430	463	520	517	412	672
1977	810	640	667	701	721	697	673	640	623	601	436	598
1978	794	790	635	589	402	375	278	236	261	247	301	432
1979	565	544	553	550	330	291	302	313	296	266	374	549
1980	709	563	478	341	168	247	277	302	312	271	304	383
1981	508	520	566	492	414	315	317	373	339	478	567	473
1982	658	662	310	362	261	283	172	194	248	249	272	362
1983	289	249	145	150	131	157	172	172	140	193	212	279
1984	237	182	134	150	237	275	307	356	336	274	306	558
1985	698	658	332	317	435	416	400	422	371	465	651	664
1986	680	583	562	563	334	198	232	284	317	278	298	378
1987	570	601	585	584	534	457	374	401	407	383	509	659
1988	757	593	625	558	395	411	442	469	497	411	449	490
1989	663	736	579	601	539	362	268	339	336	359	554	702
1990	679	541	629	697	667	454	418	441	458	483	512	514
1991	700	795	721	679	718	537	366	375	397	435	500	495
Avg	608	567	510	502	428	372	339	361	366	369	416	513
W	466	419	288	306	241	228	221	252	260	249	272	394
AN	752	676	556	465	285	311	277	269	286	259	302	408
BN	565	544	553	550	330	291	302	313	296	266	374	549
D	610	629	515	498	480	387	340	384	363	421	570	625
C	672	596	657	666	612	514	466	478	499	490	462	554

Appendix C-4 DSM2 Delta Modeling

Clifton Court Forebay Salinity Difference (Future Alt Desal minus Future Base) Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	-2	-2	-2	-3	-2	-1	0	0	-1	-1	0	-1
1977	-2	2	1	0	-1	-1	0	0	1	2	0	0
1978	3	3	0	-3	0	0	0	0	0	0	0	0
1979	-1	0	0	0	0	0	0	0	0	0	-1	-1
1980	0	0	-1	0	0	1	0	0	0	0	0	0
1981	0	0	0	0	-1	0	0	0	0	-1	-1	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	-1	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	-3	-2	-1	0	0	-1	-1	1
1986	0	0	0	0	0	0	0	2	0	0	0	0
1987	0	0	0	0	-1	0	0	0	0	-1	-2	-1
1988	1	0	0	0	0	0	0	0	0	0	0	0
1989	1	6	1	-8	-12	-4	0	0	0	0	0	-1
1990	-2	-1	-1	-3	-3	-1	0	0	0	0	1	0
1991	1	2	2	0	-3	-2	0	0	0	0	1	1
Avg	0	1	0	-1	-2	-1	0	0	0	0	0	0
W	0	0	0	0	0	0	0	0	0	0	0	0
AN	1	2	0	-1	0	0	0	0	0	0	0	0
BN	-1	0	0	0	0	0	0	0	0	0	-1	-1
D	0	1	0	-2	-4	-2	0	0	0	-1	-1	0
C	-1	0	0	-1	-2	-1	0	0	0	0	1	0

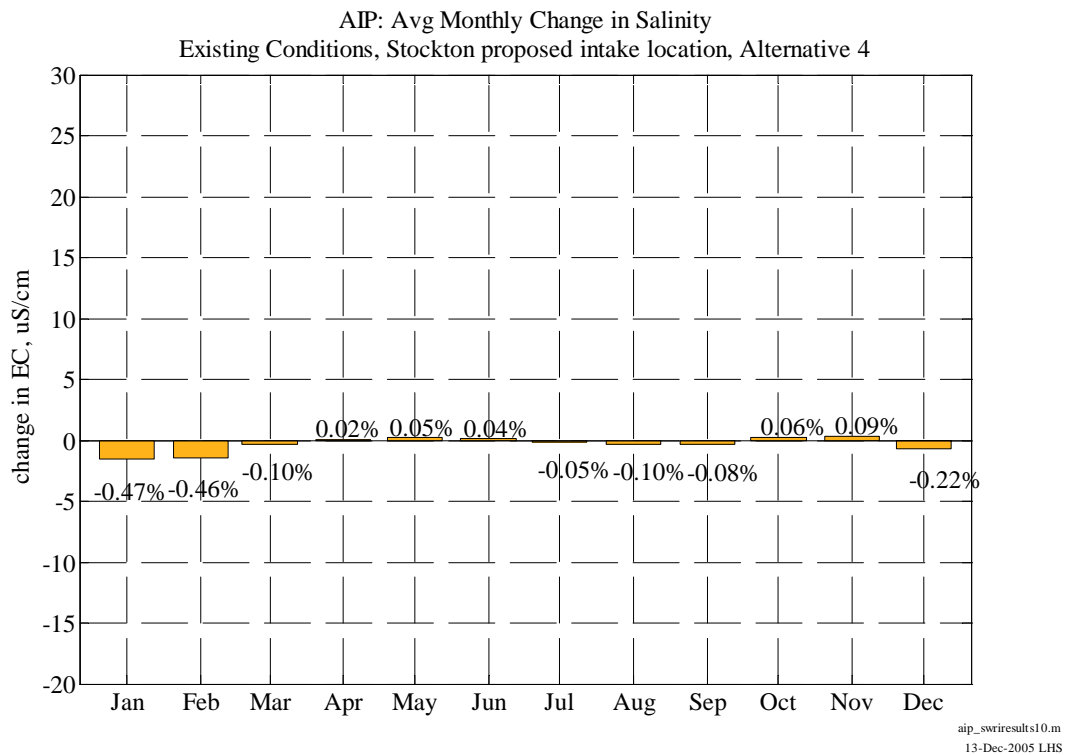
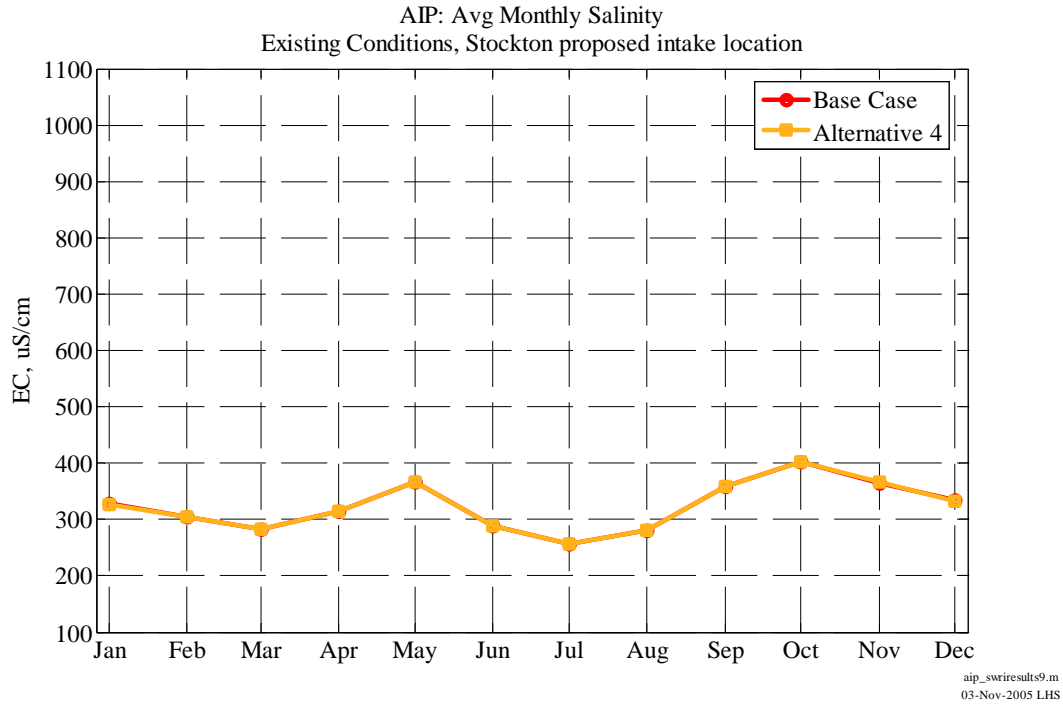
Clifton Court Forebay Salinity Percent Difference (Future Alt Desal minus Future Base divided by Future Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1976	-0.5	-0.6	-0.4	-0.4	-0.3	-0.2	0.0	0.0	-0.3	-0.1	0.0	-0.2
1977	-0.3	0.2	0.1	0.0	-0.2	-0.1	0.1	0.1	0.1	0.3	0.1	0.0
1978	0.4	0.4	0.0	-0.4	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	-0.1
1979	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.3	-0.2
1980	0.0	0.0	-0.1	0.0	0.1	0.3	0.1	0.0	0.0	0.0	0.0	0.0
1981	0.0	0.0	0.0	0.0	-0.2	0.0	0.1	0.0	0.0	-0.3	-0.2	-0.1
1982	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
1983	0.0	0.0	0.0	0.0	-0.1	0.0	-0.3	0.0	0.0	0.0	0.0	0.0
1984	0.0	0.0	-0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1985	0.0	-0.1	0.0	-0.1	-0.7	-0.5	-0.2	0.0	0.0	-0.3	-0.1	0.1
1986	0.1	0.1	0.0	0.0	0.1	0.0	-0.1	0.6	0.0	0.0	0.0	0.0

Appendix C-4 DSM2 Delta Modeling

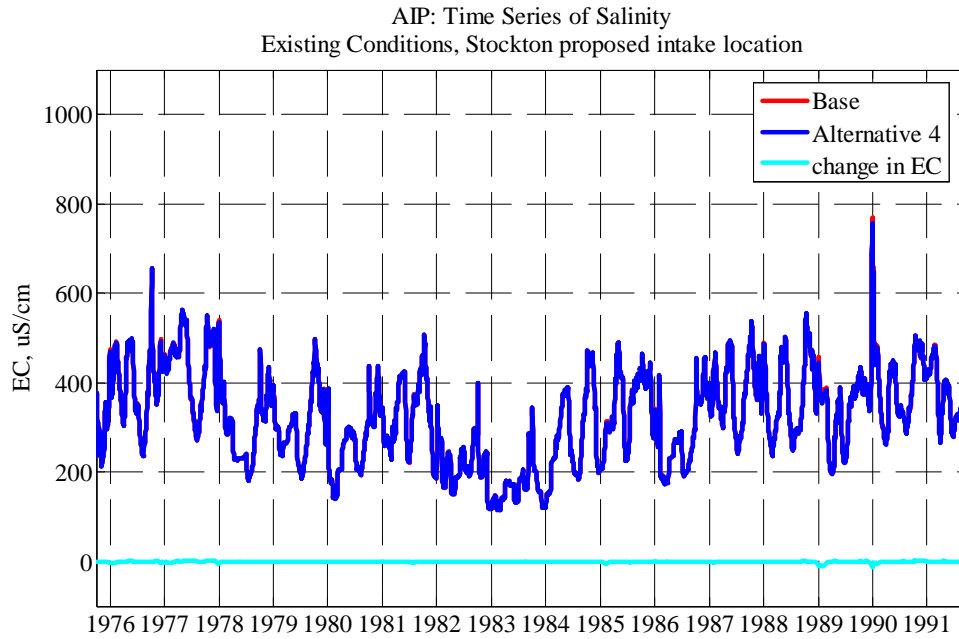
Clifton Court Forebay Salinity Percent Difference (Future Alt Desal minus Future Base divided by Future Base) Percent Difference of Monthly Average Simulated Values (EC (umhos/cm))												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1987	0.1	0.0	0.0	0.0	-0.2	-0.1	0.0	0.0	0.0	-0.1	-0.4	-0.1
1988	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
1989	0.2	0.8	0.1	-1.3	-2.2	-1.0	-0.1	0.0	0.0	0.0	0.0	-0.2
1990	-0.3	-0.1	-0.2	-0.4	-0.5	-0.2	-0.1	-0.1	0.0	0.0	0.2	0.0
1991	0.1	0.3	0.3	0.0	-0.3	-0.4	-0.1	0.0	0.0	0.1	0.3	0.2
Avg	0.0	0.1	0.0	-0.1	-0.3	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.1	0.0	0.0	0.0	0.0
AN	0.2	0.2	-0.1	-0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
BN	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.3	-0.2
D	0.1	0.2	0.0	-0.3	-0.8	-0.4	0.0	0.0	0.0	-0.2	-0.2	-0.1
C	-0.2	0.0	0.0	-0.2	-0.3	-0.2	0.0	0.0	0.0	0.1	0.1	0.0

Appendix C-4 DSM2 Delta Modeling

City of Stockton Proposed Intake Location (Empire Tract)

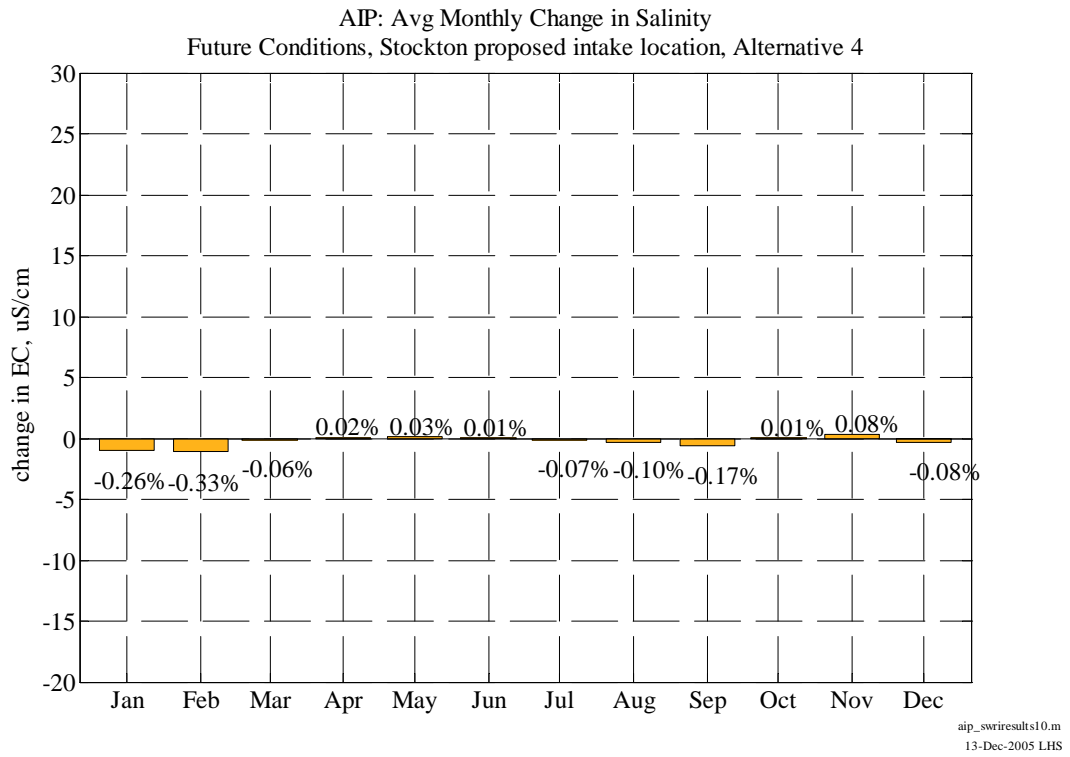
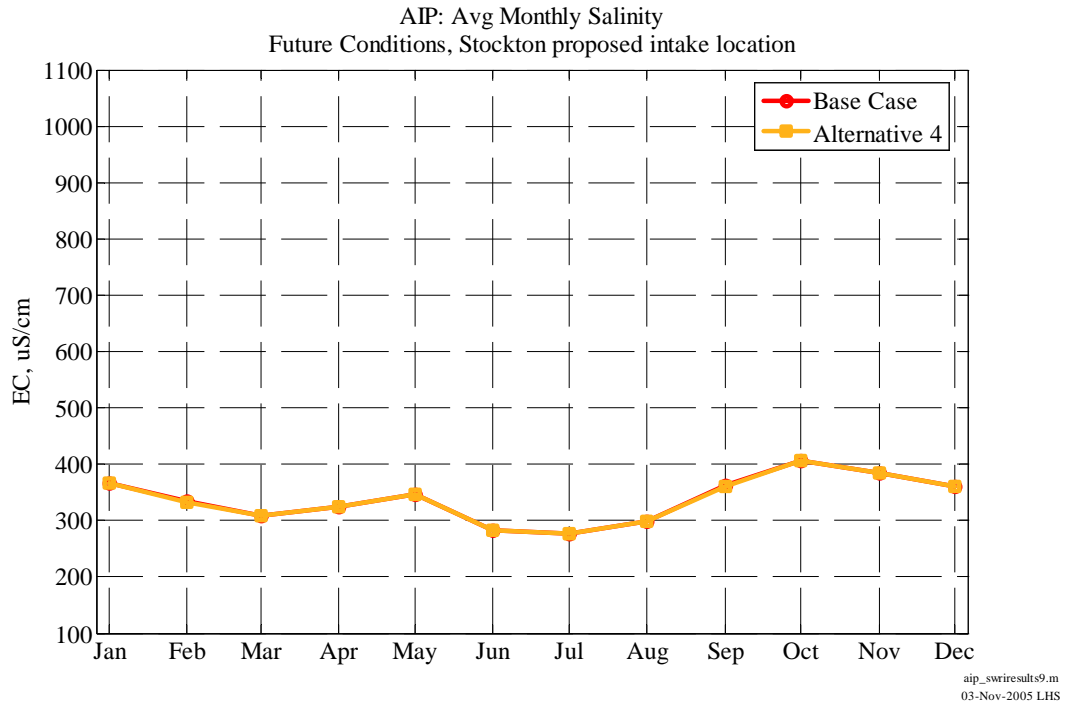


Appendix C-4 DSM2 Delta Modeling

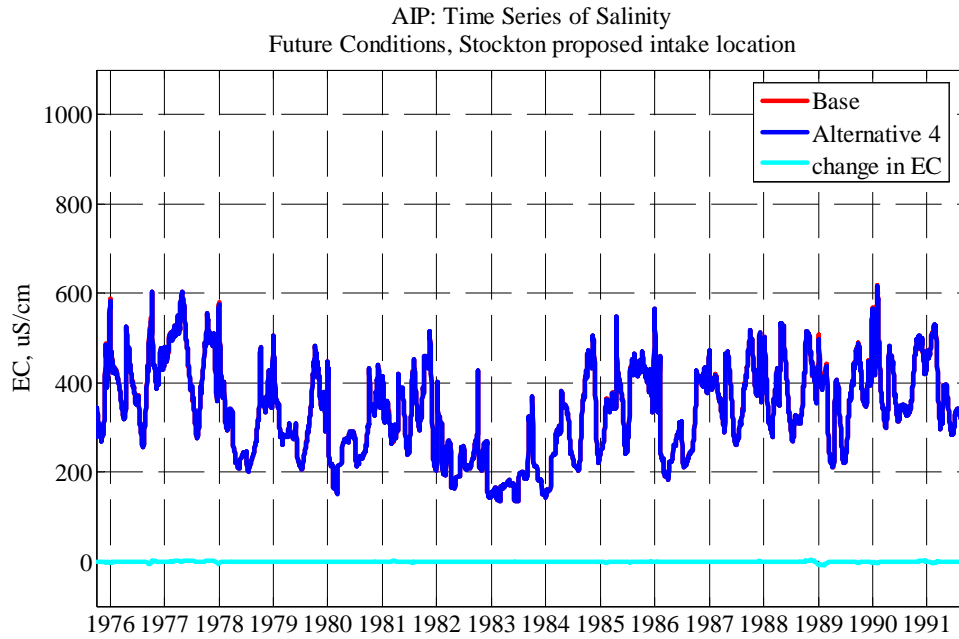


aip_swiresults10.m
22-Nov-2005 LHS

Appendix C-4 DSM2 Delta Modeling



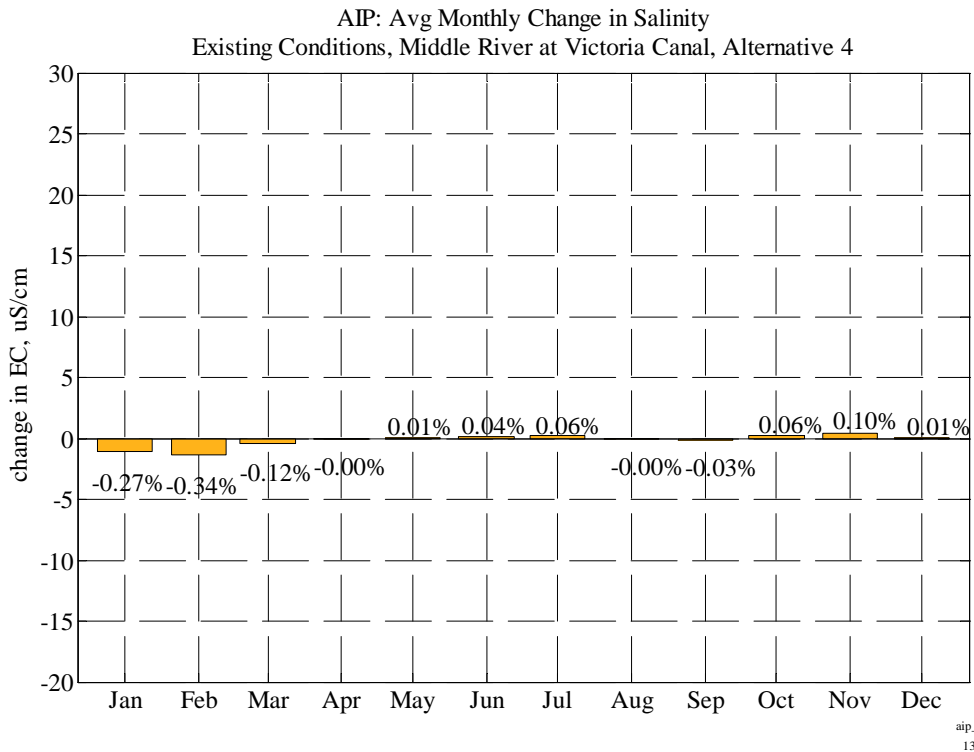
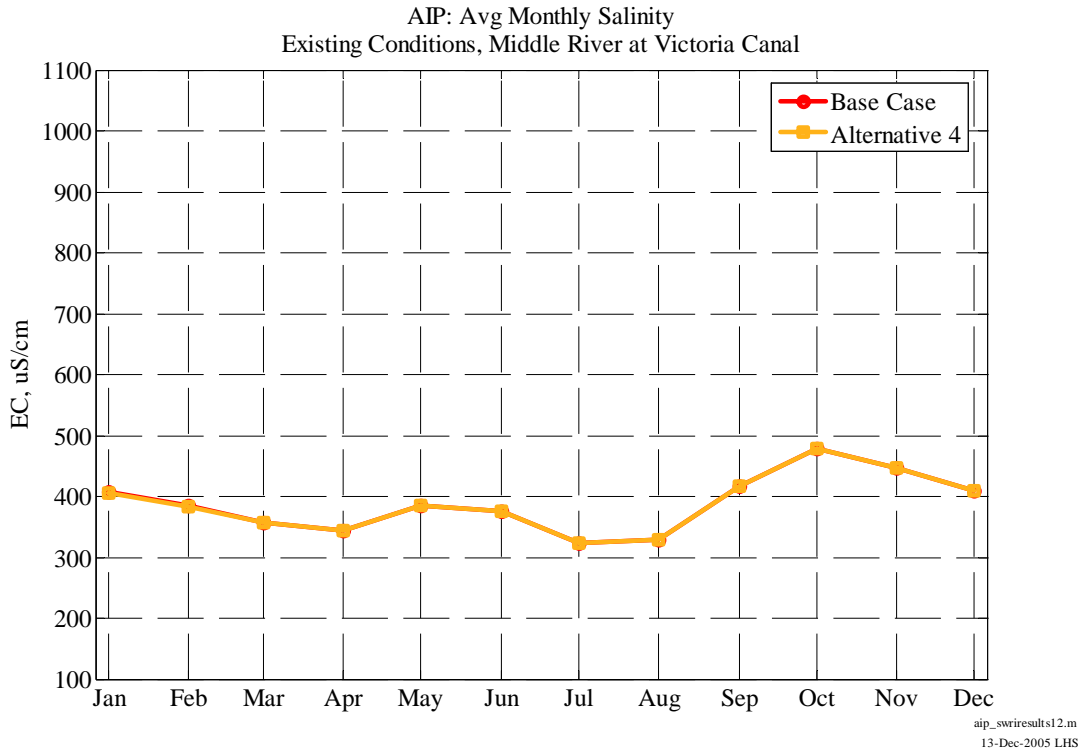
Appendix C-4 DSM2 Delta Modeling



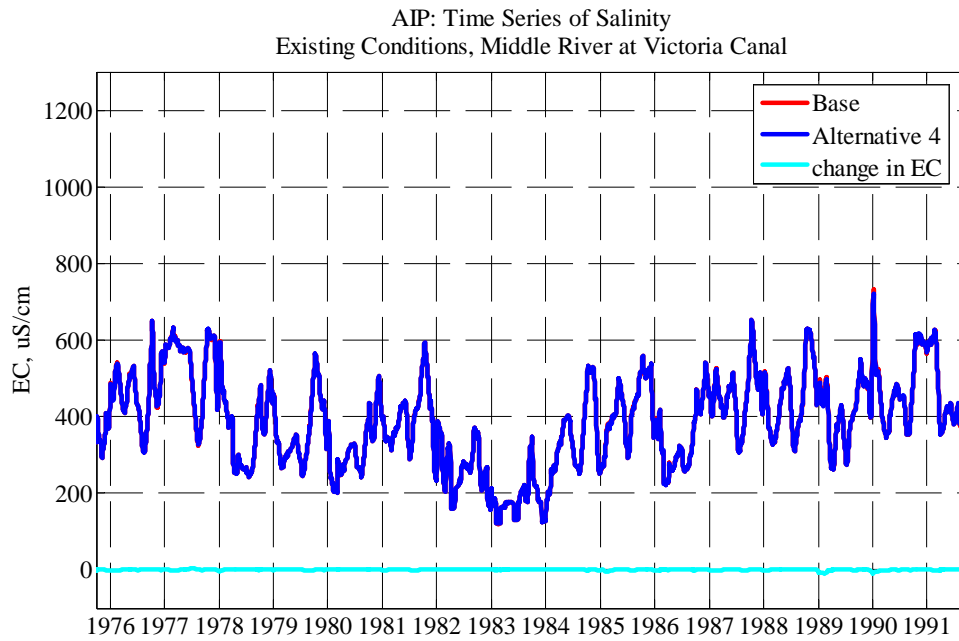
aip_swiresults10.m
22-Nov-2005 LHS

Appendix C-4 DSM2 Delta Modeling

Middle River at Victoria Canal

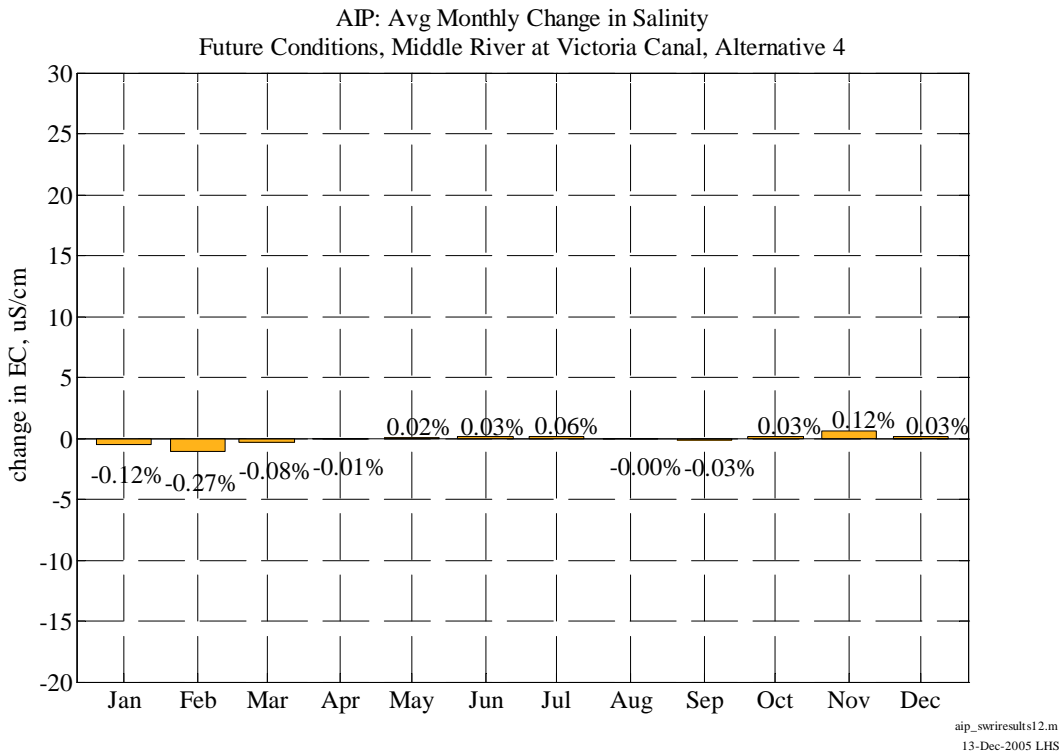
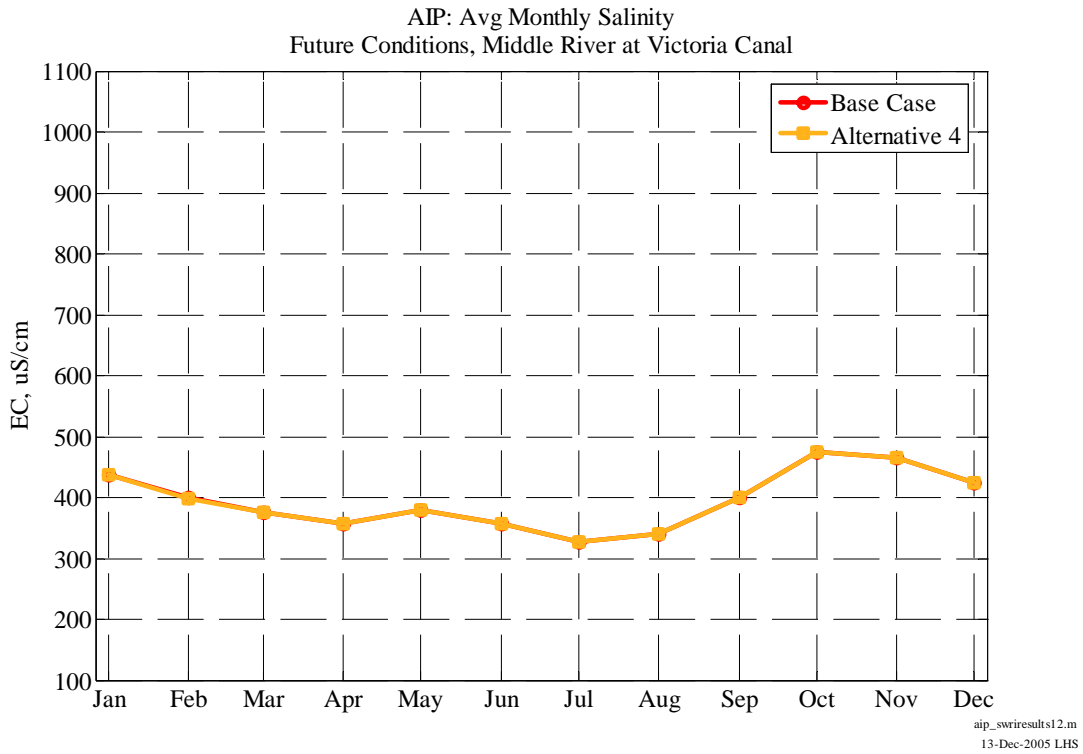


Appendix C-4 DSM2 Delta Modeling

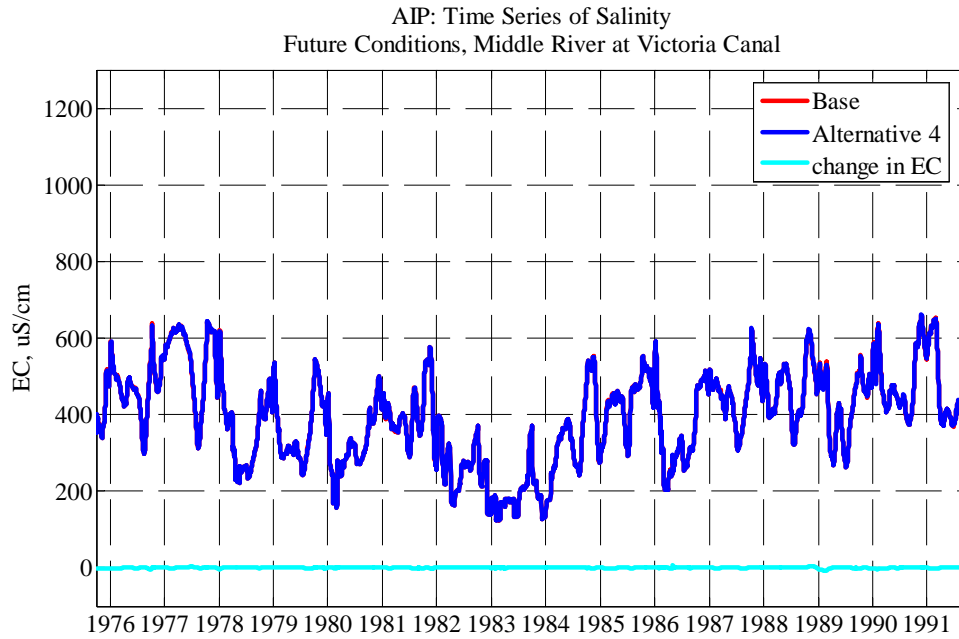


aip_swiresults12.m
13-Dec-2005 LHS

Appendix C-4 DSM2 Delta Modeling



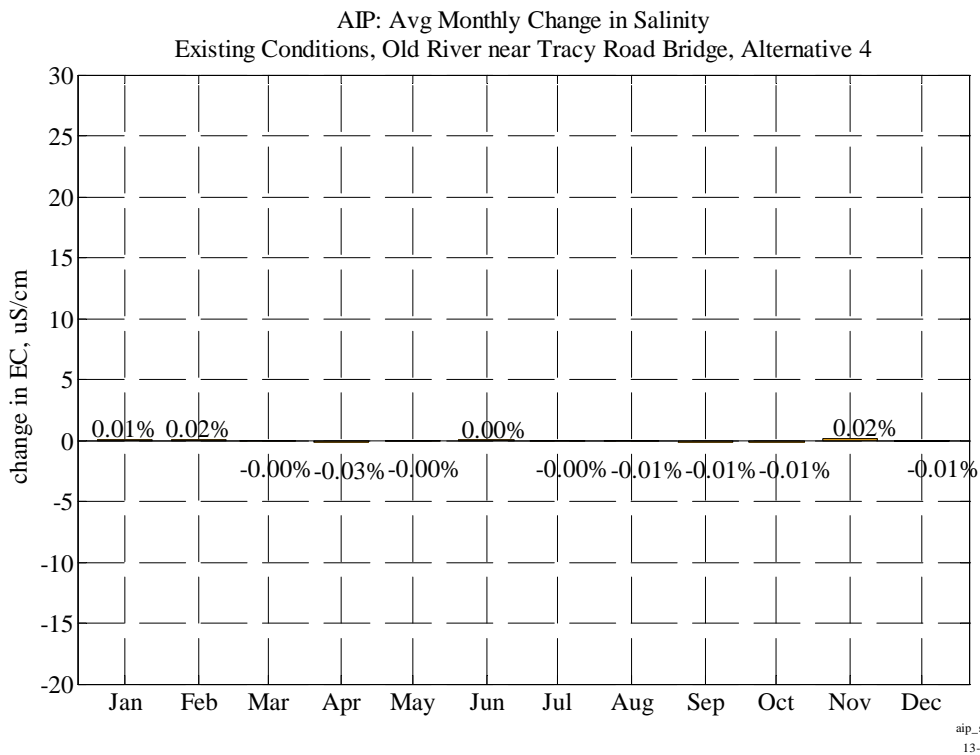
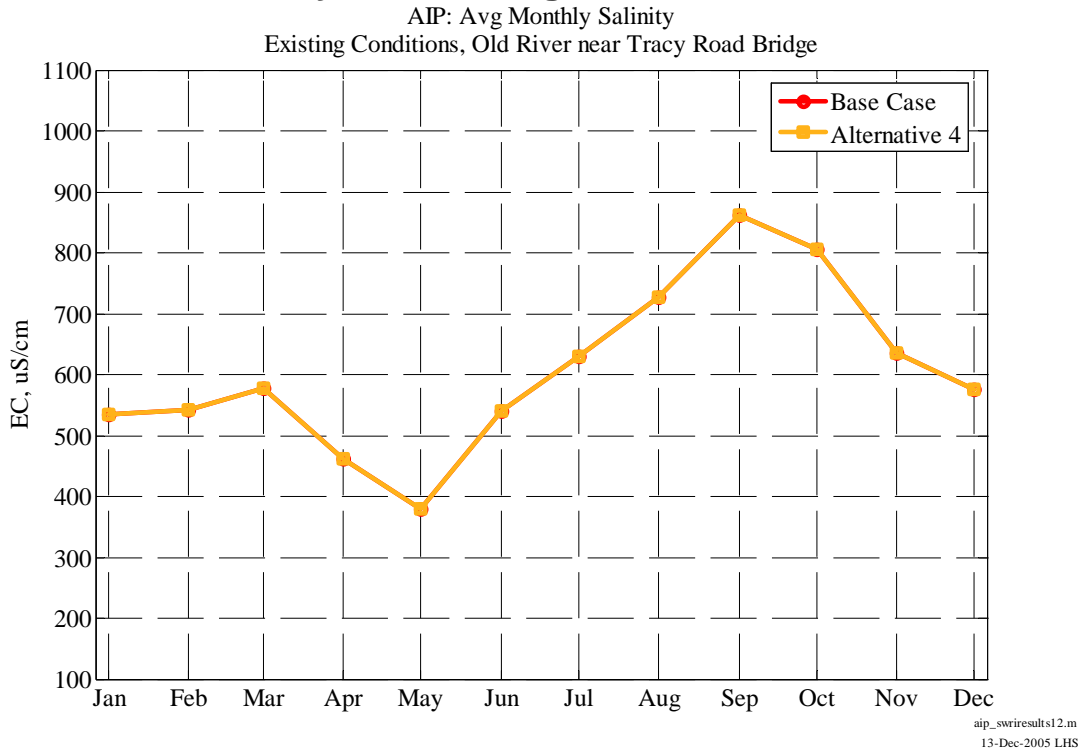
Appendix C-4 DSM2 Delta Modeling



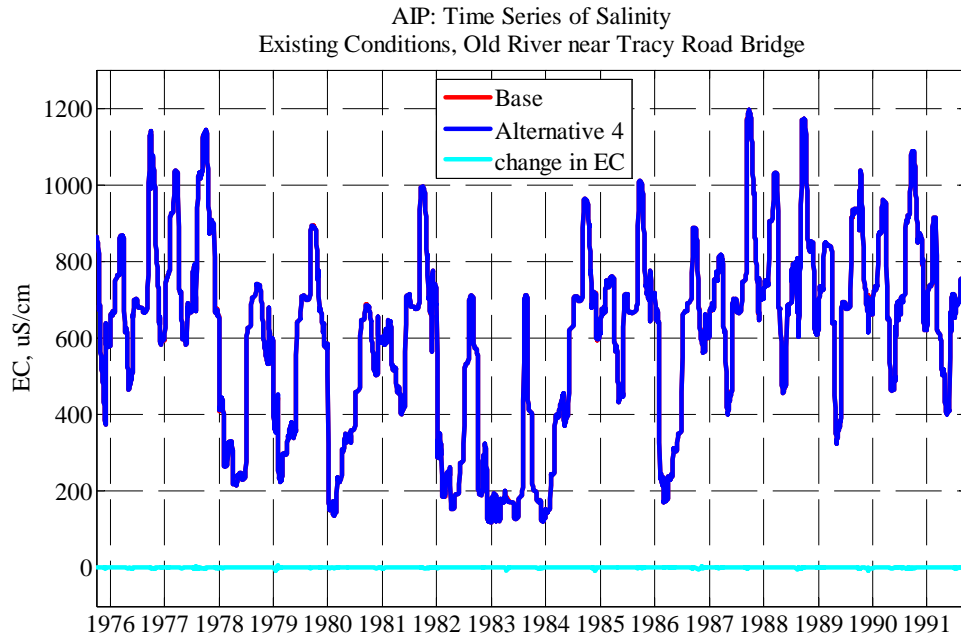
aip_swiresults12.m
13-Dec-2005 LHS

Appendix C-4 DSM2 Delta Modeling

Old River near Tracy Road Bridge

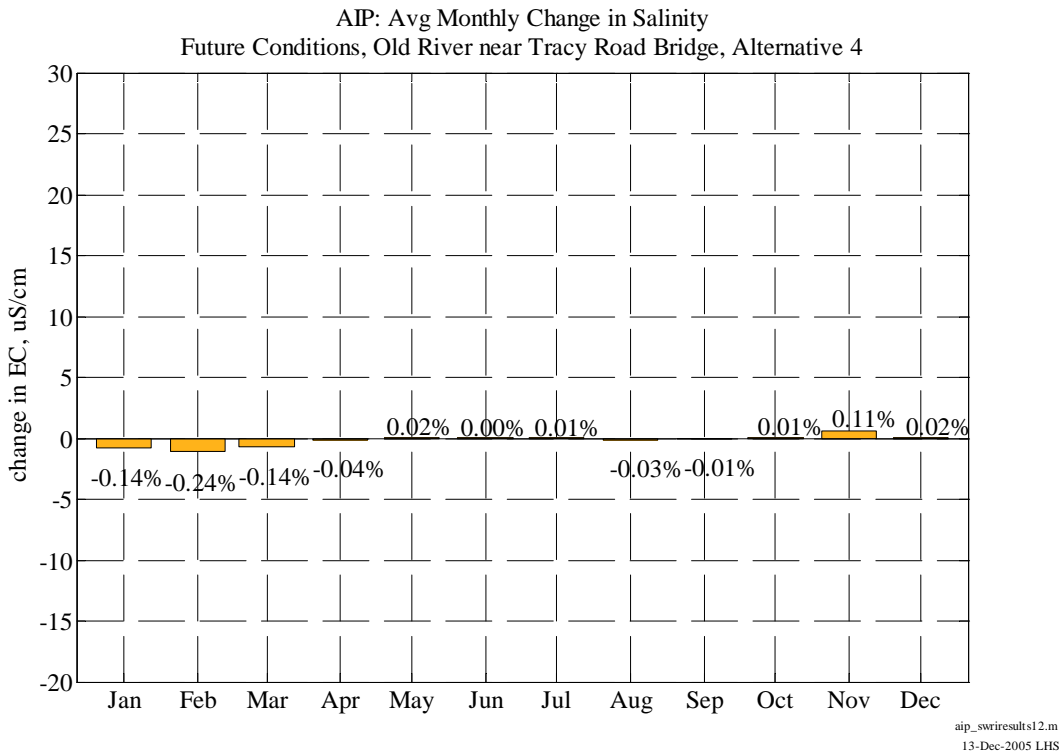
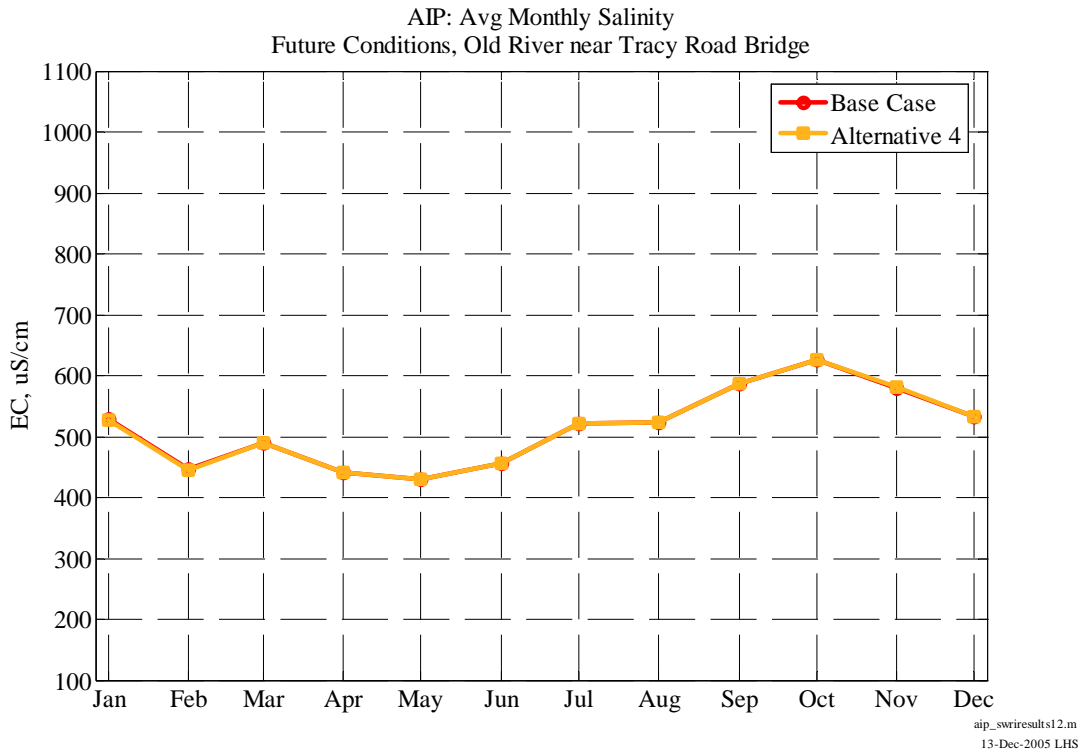


Appendix C-4 DSM2 Delta Modeling

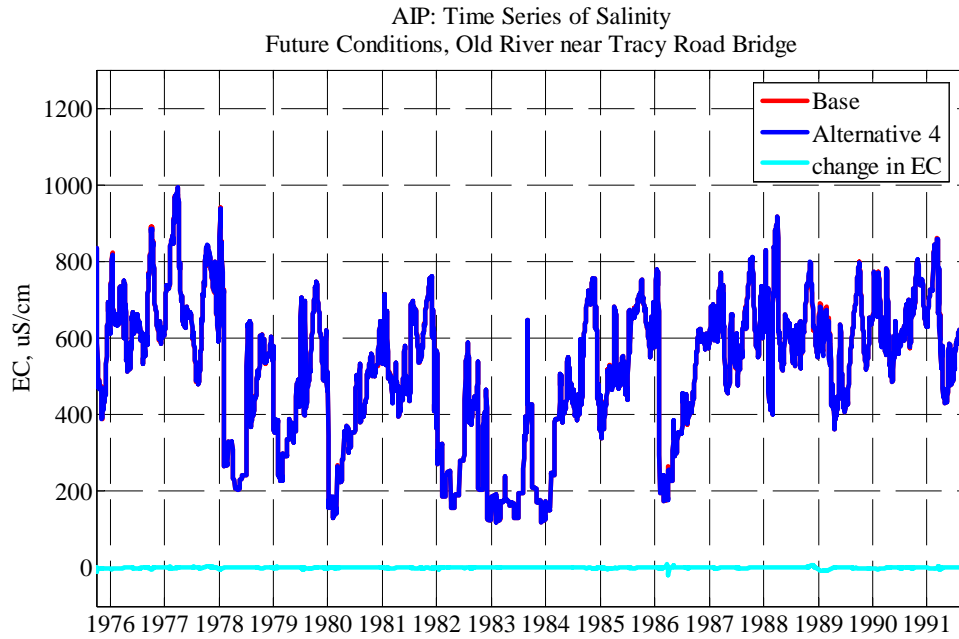


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13-Dec-2005 LHS

Appendix C-4 DSM2 Delta Modeling



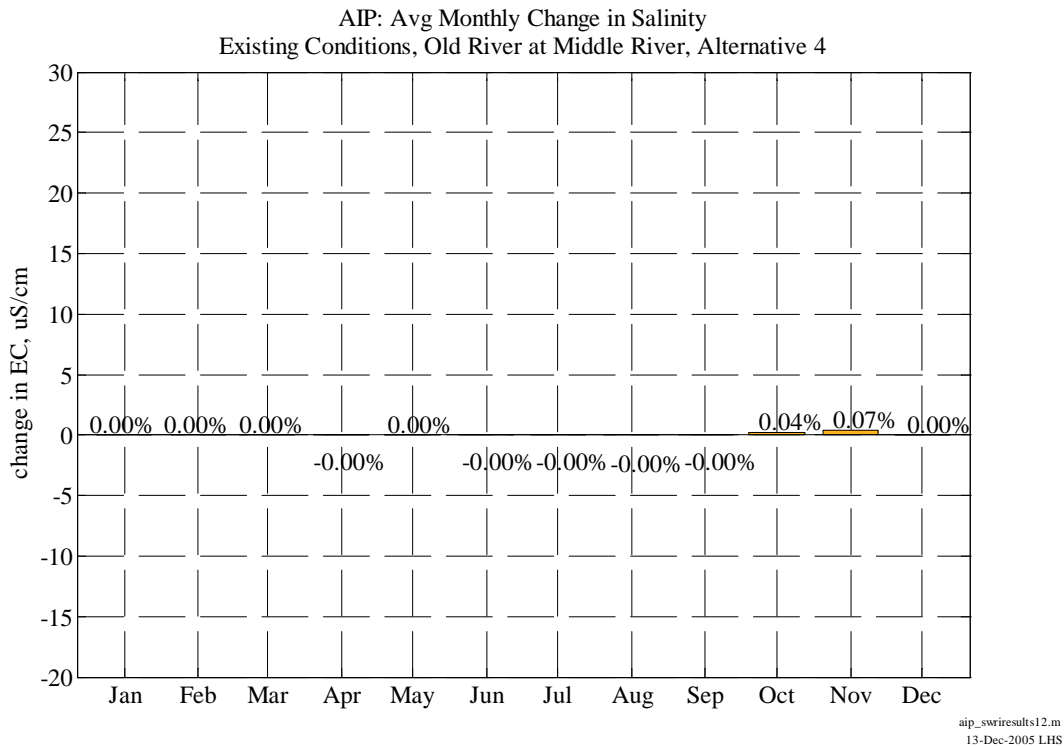
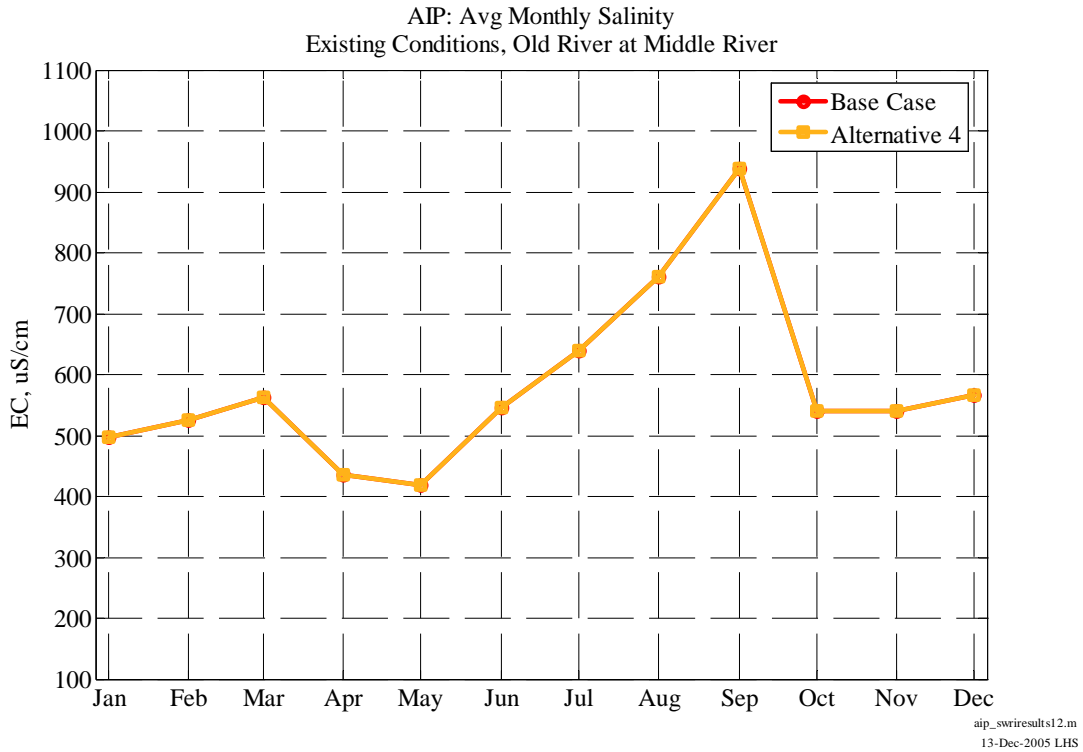
Appendix C-4 DSM2 Delta Modeling



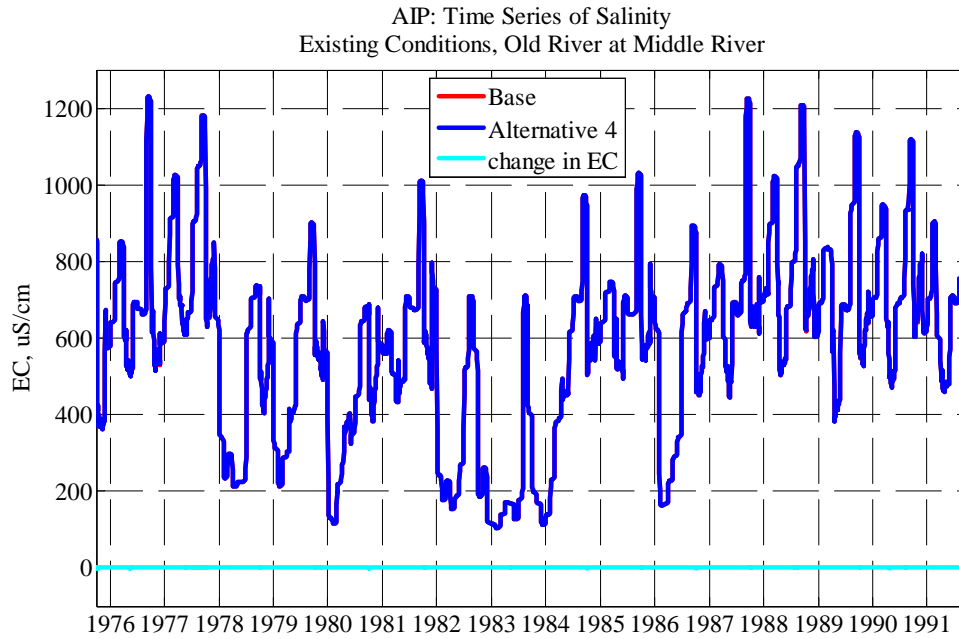
aip_swresults12.m
13-Dec-2005 LHS

Appendix C-4 DSM2 Delta Modeling

Old River at Middle River

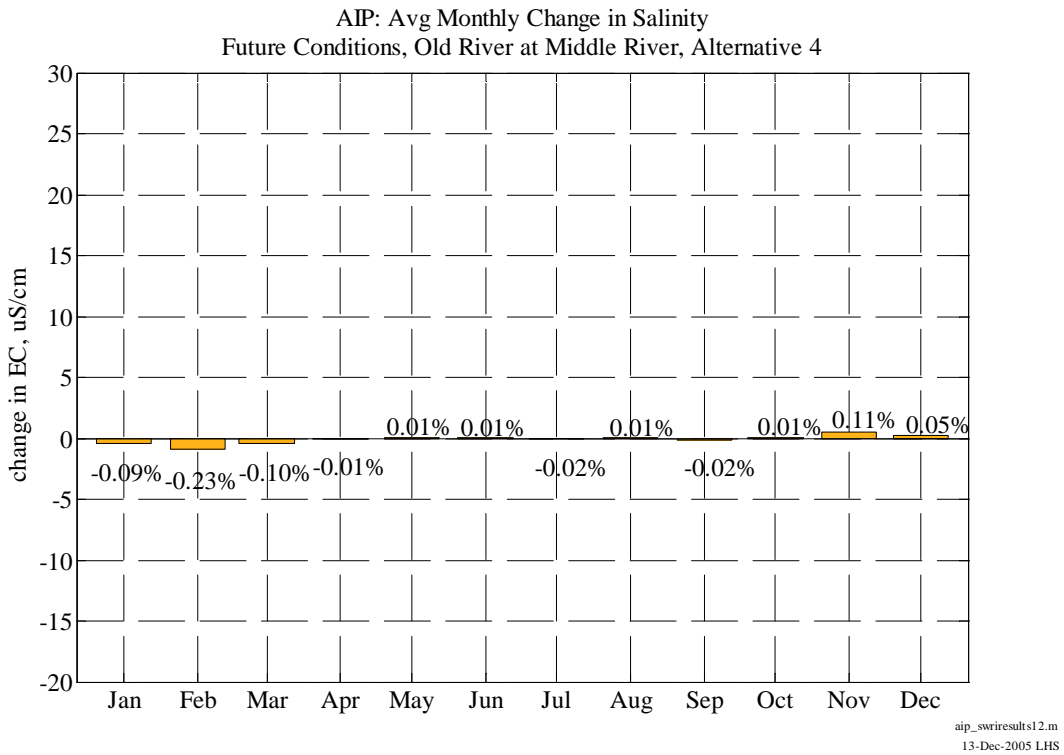
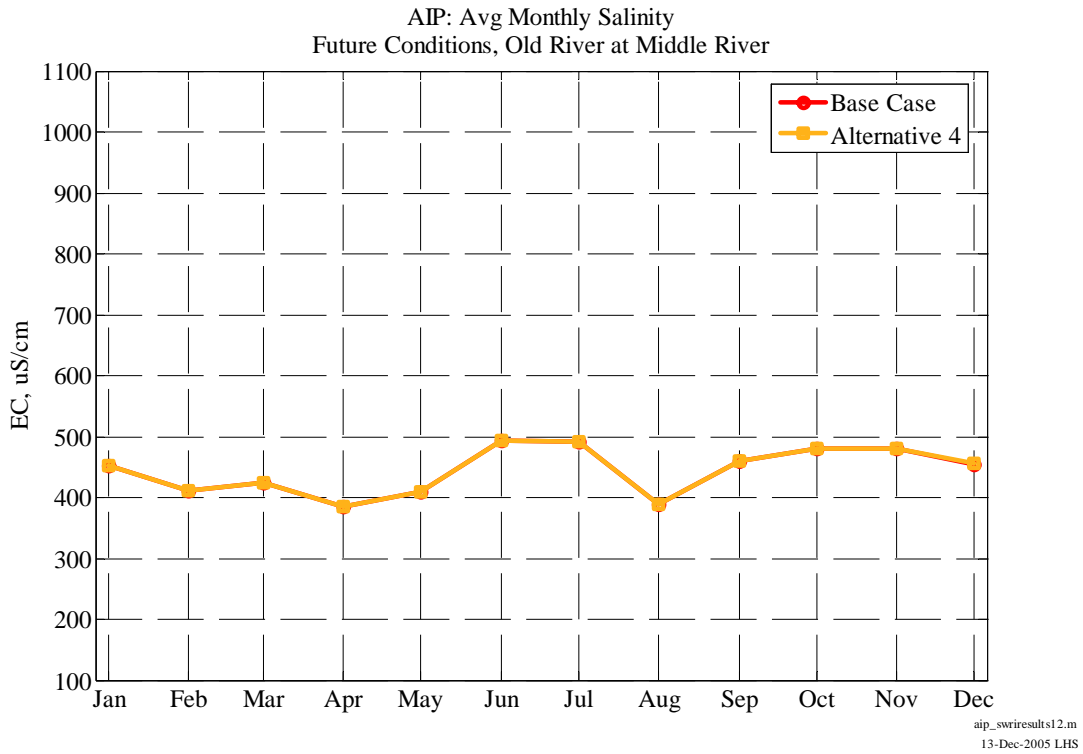


Appendix C-4 DSM2 Delta Modeling

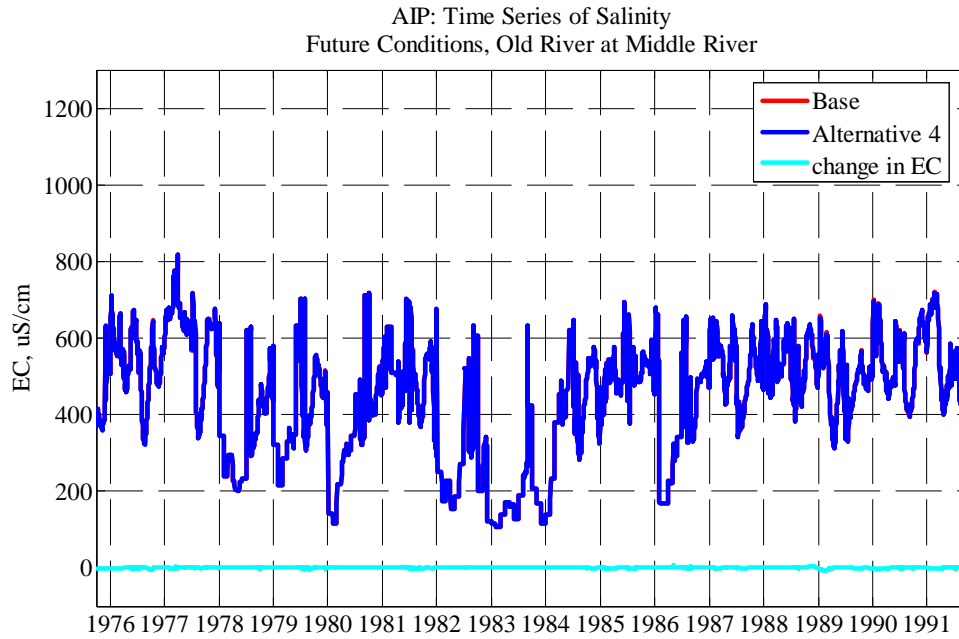


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13-Dec-2005 LHS

Appendix C-4 DSM2 Delta Modeling



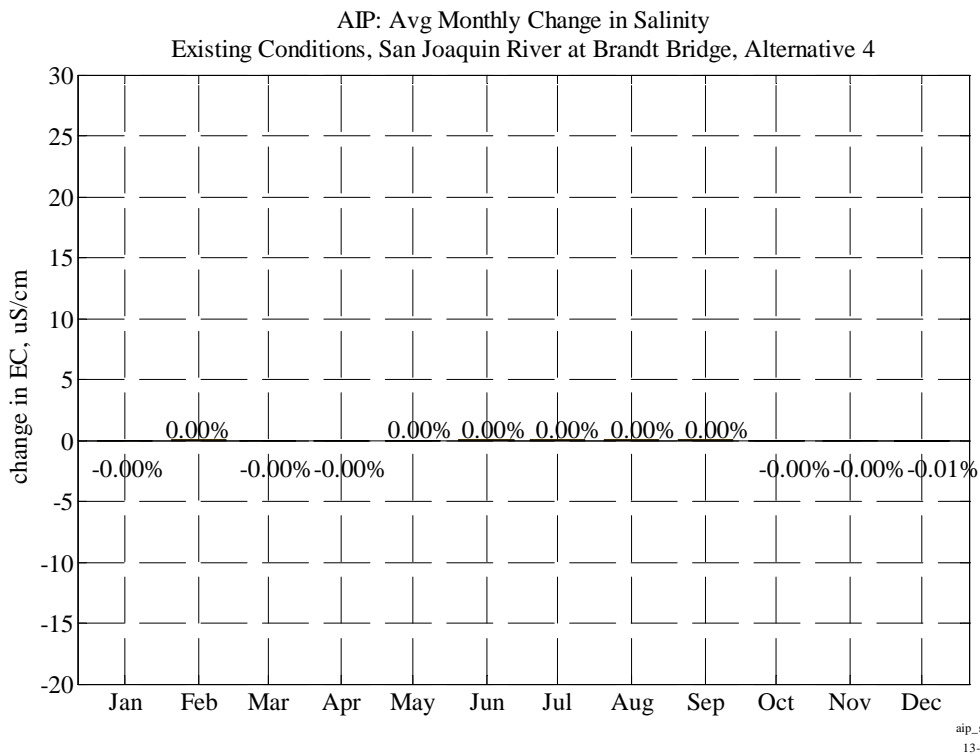
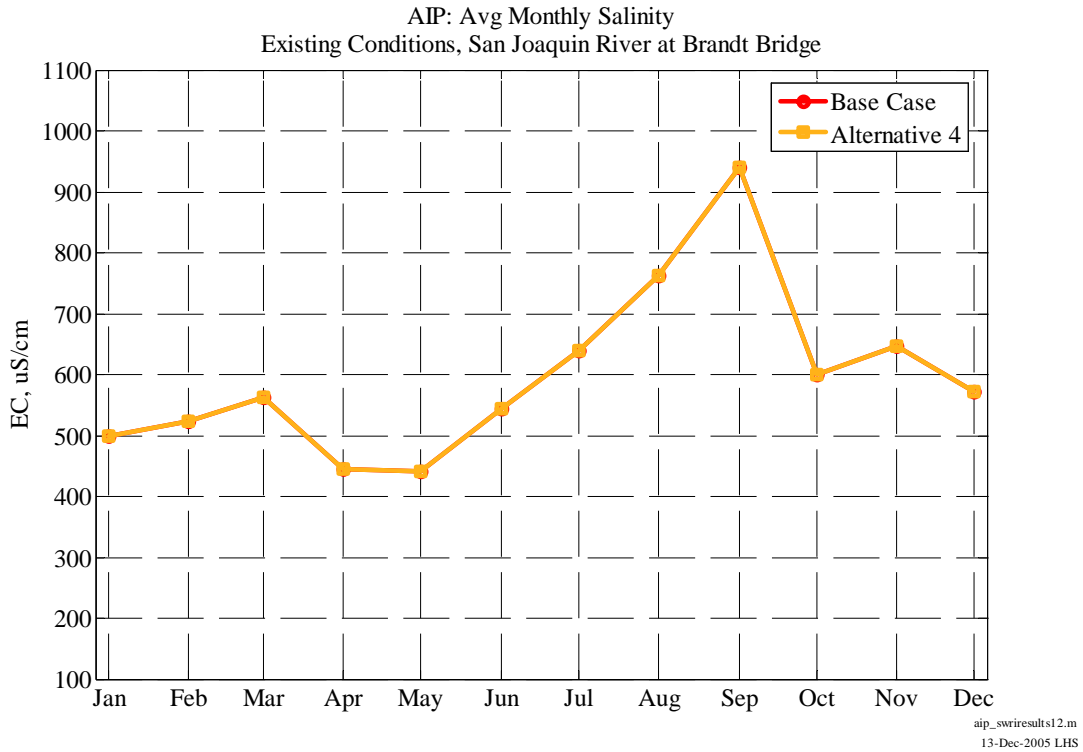
Appendix C-4 DSM2 Delta Modeling



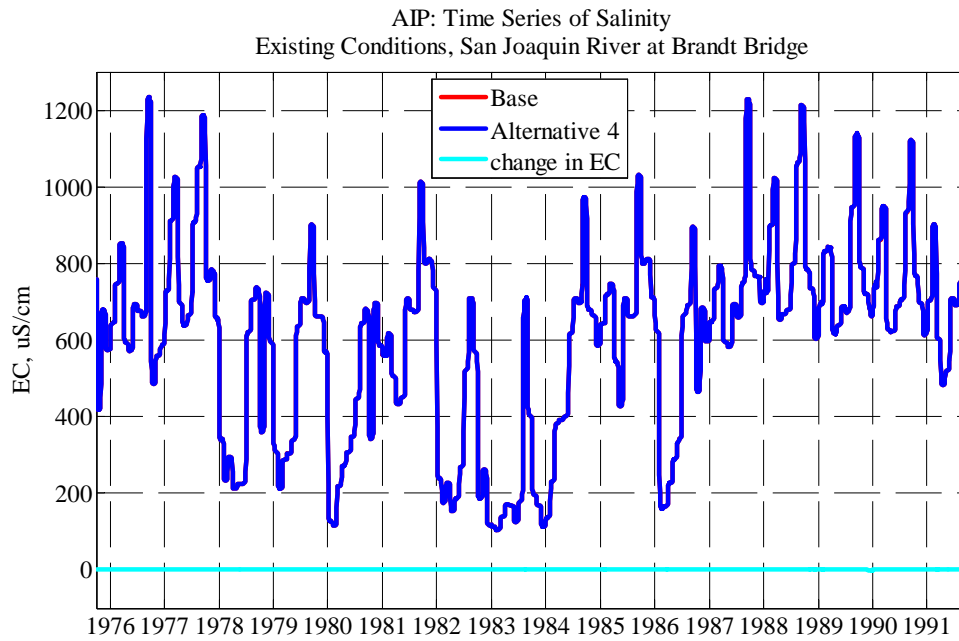
aip_swresults12.m
13-Dec-2005 LHS

Appendix C-4 DSM2 Delta Modeling

San Joaquin River at Brandt Bridge

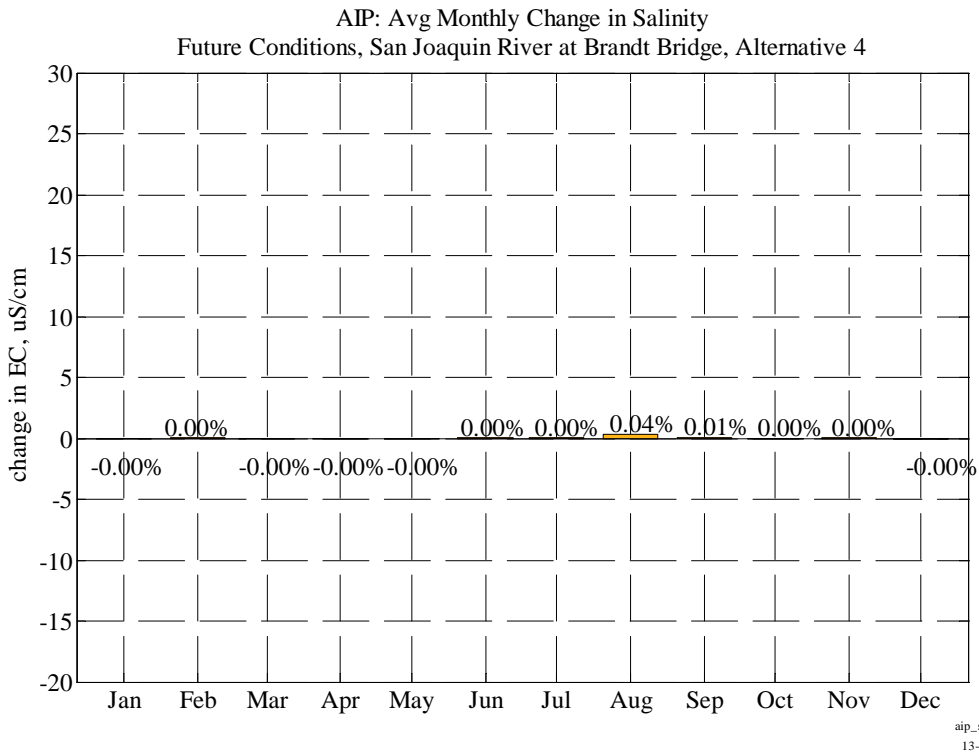
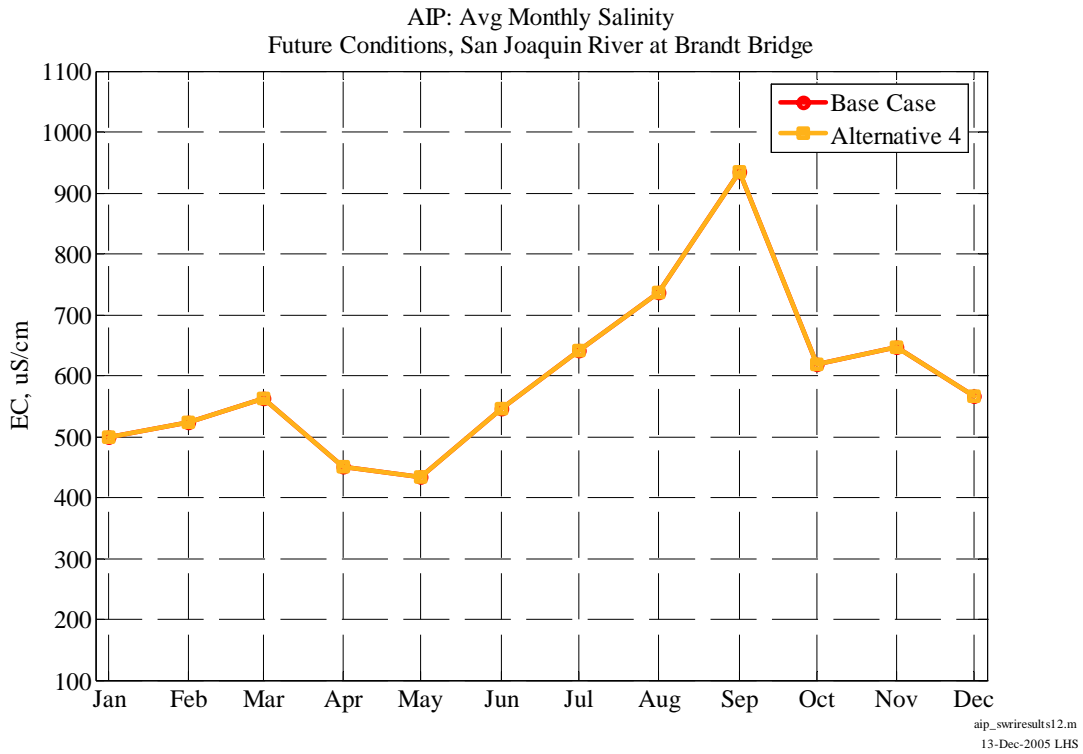


Appendix C-4 DSM2 Delta Modeling

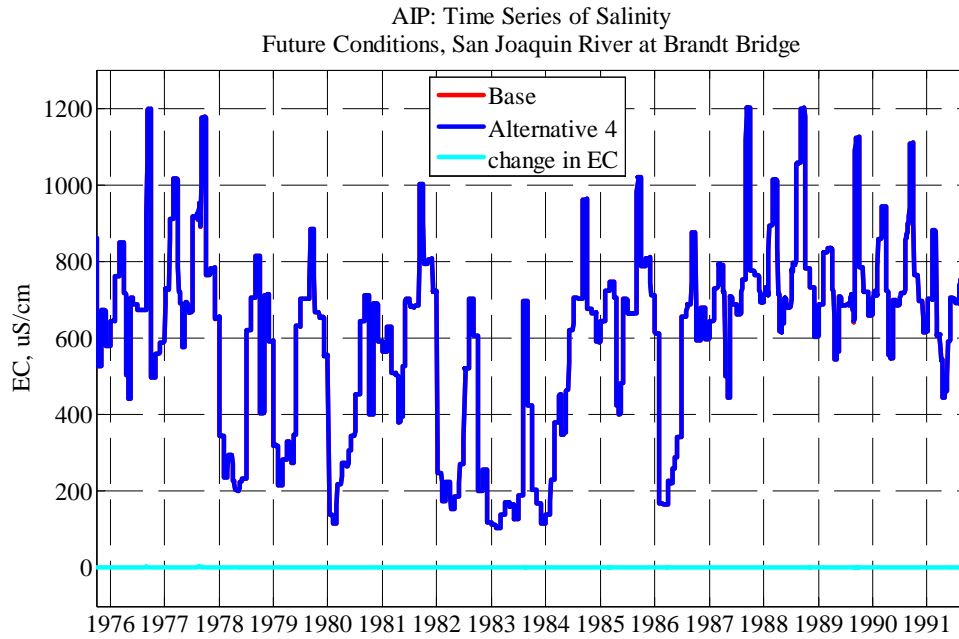


aip_swresults12.m
13-Dec-2005 LHS

Appendix C-4 DSM2 Delta Modeling



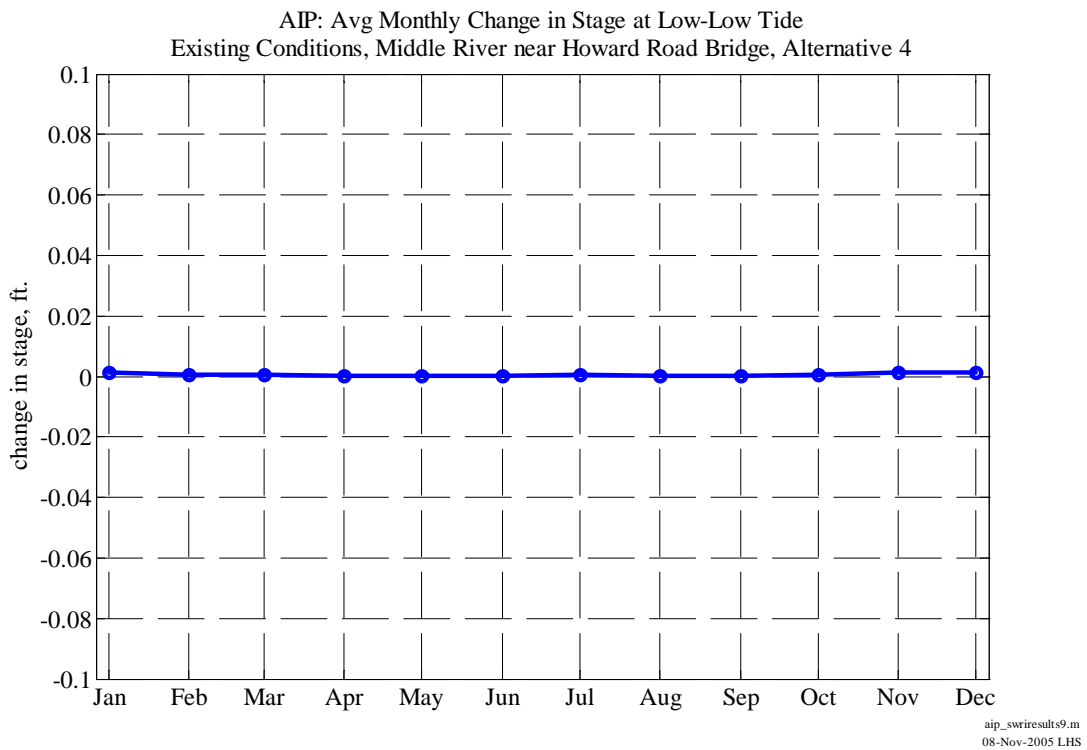
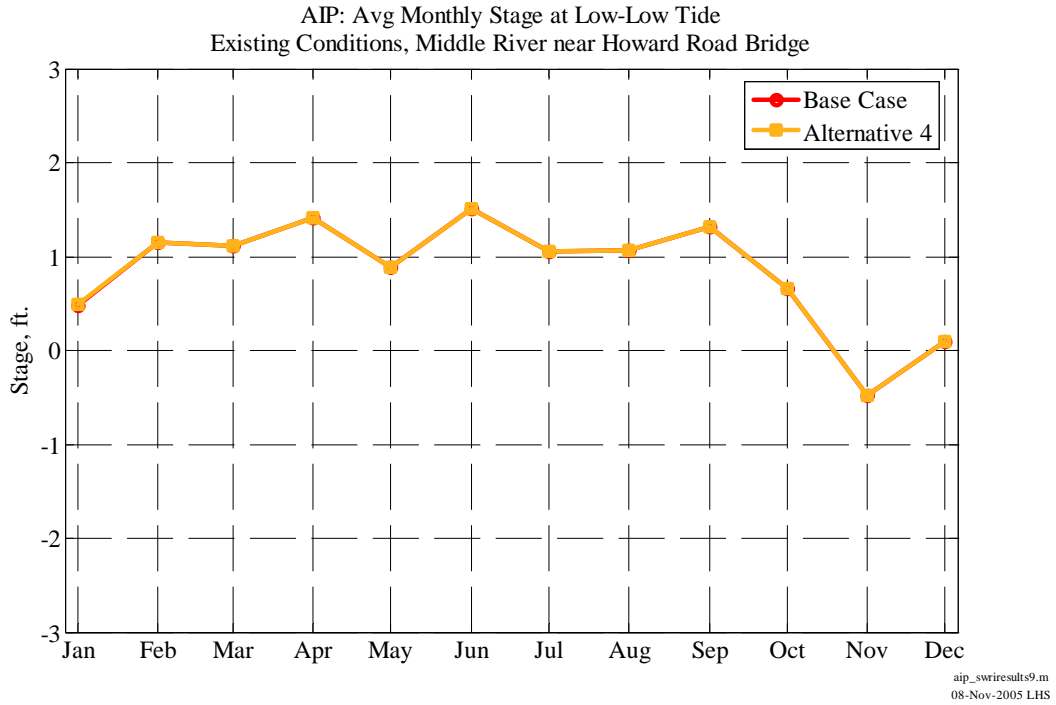
Appendix C-4 DSM2 Delta Modeling



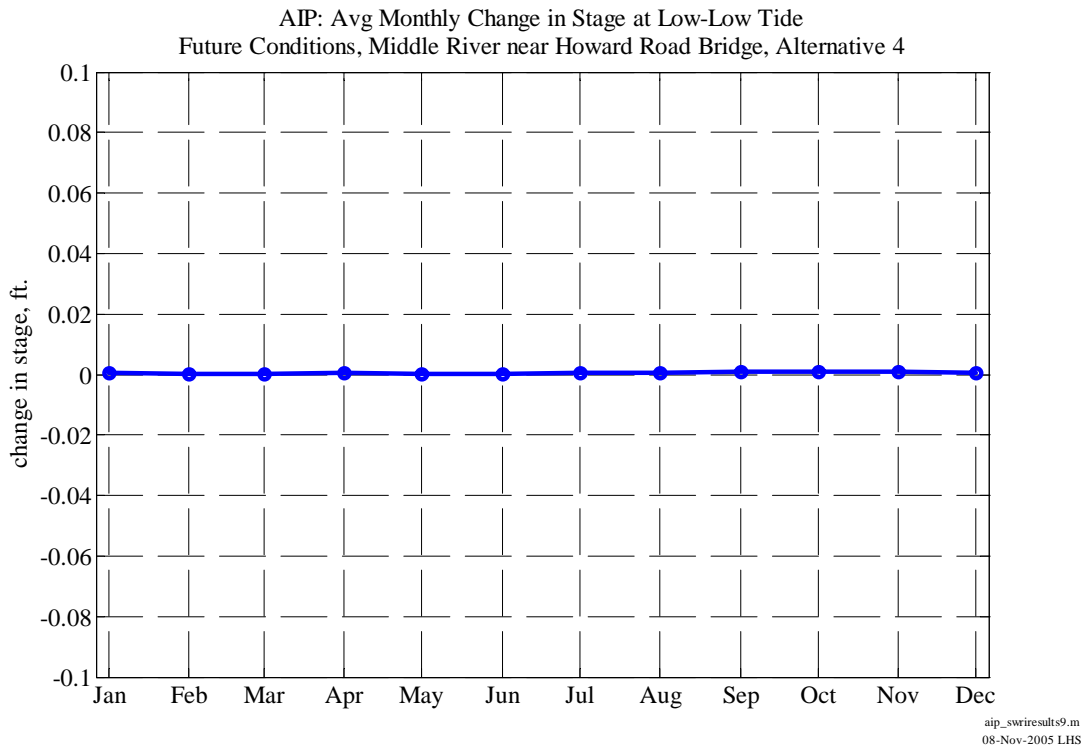
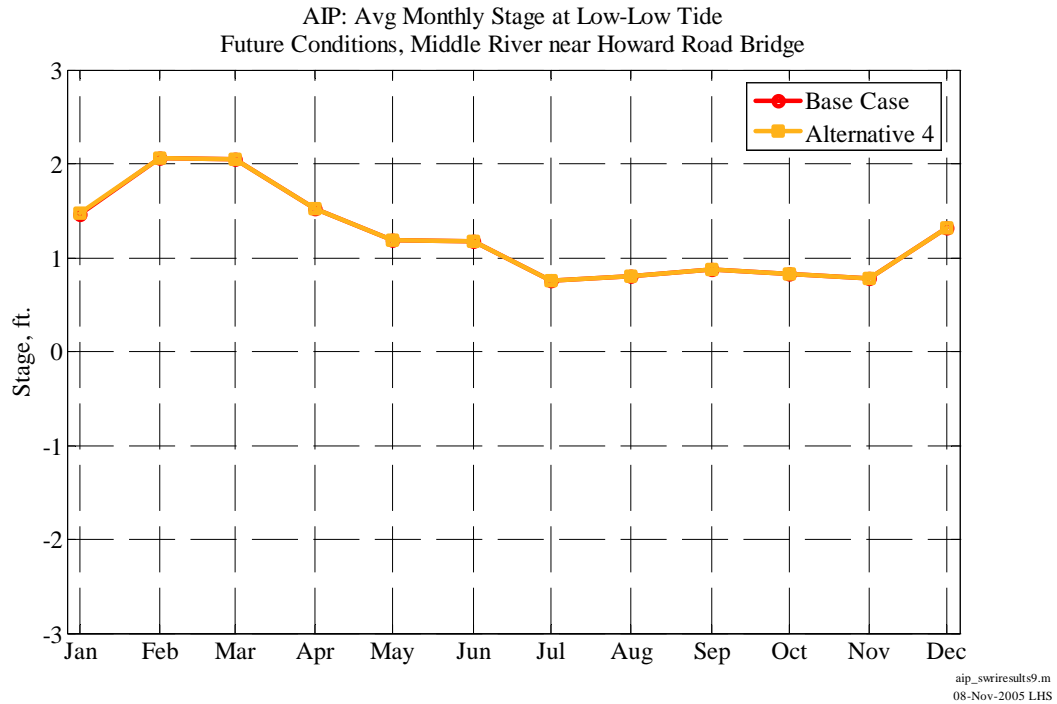
aip_swresults12.m
13-Dec-2005 LHS

Appendix C-4 DSM2 Delta Modeling

Middle River near Howard Road

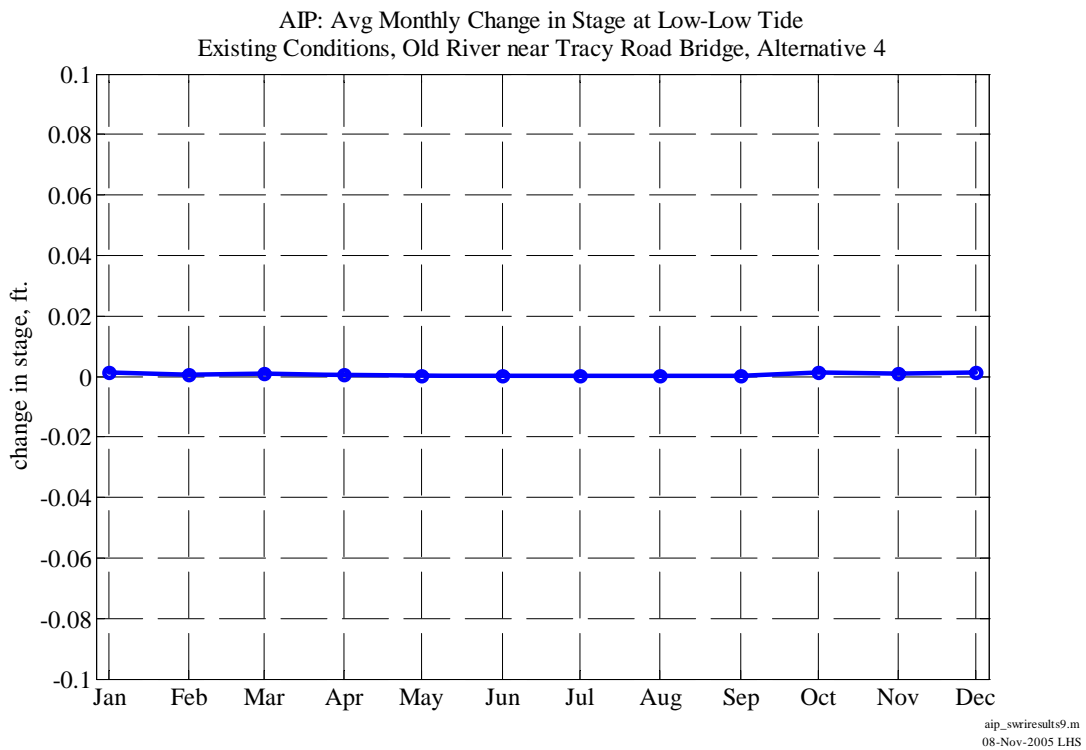
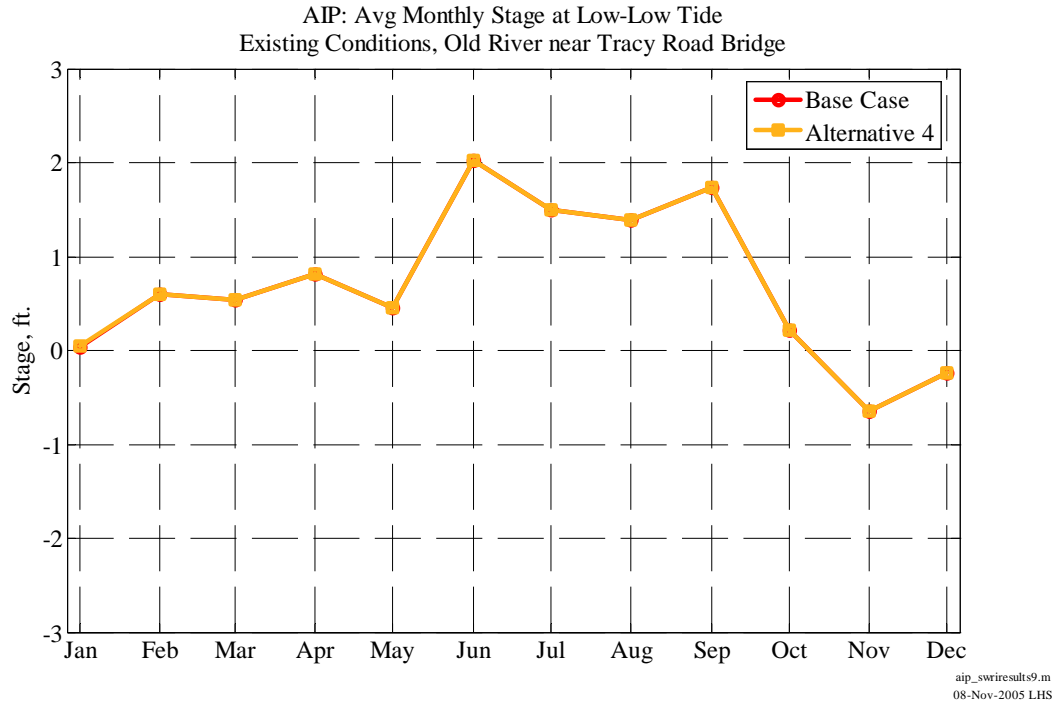


Appendix C-4 DSM2 Delta Modeling

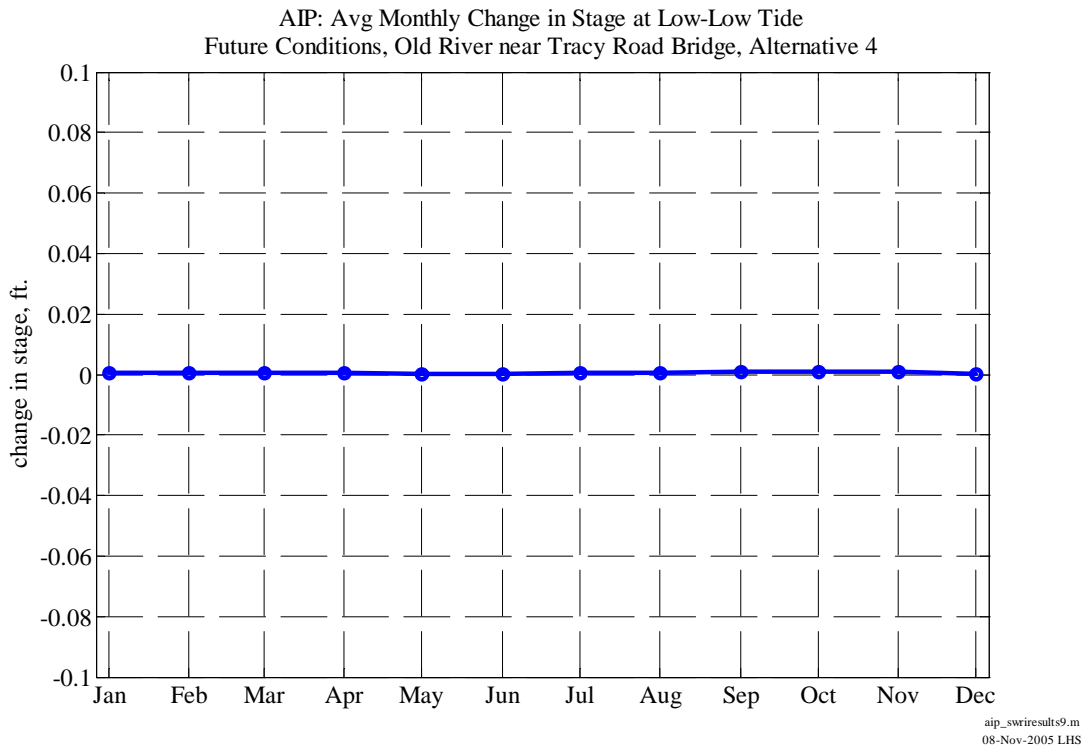
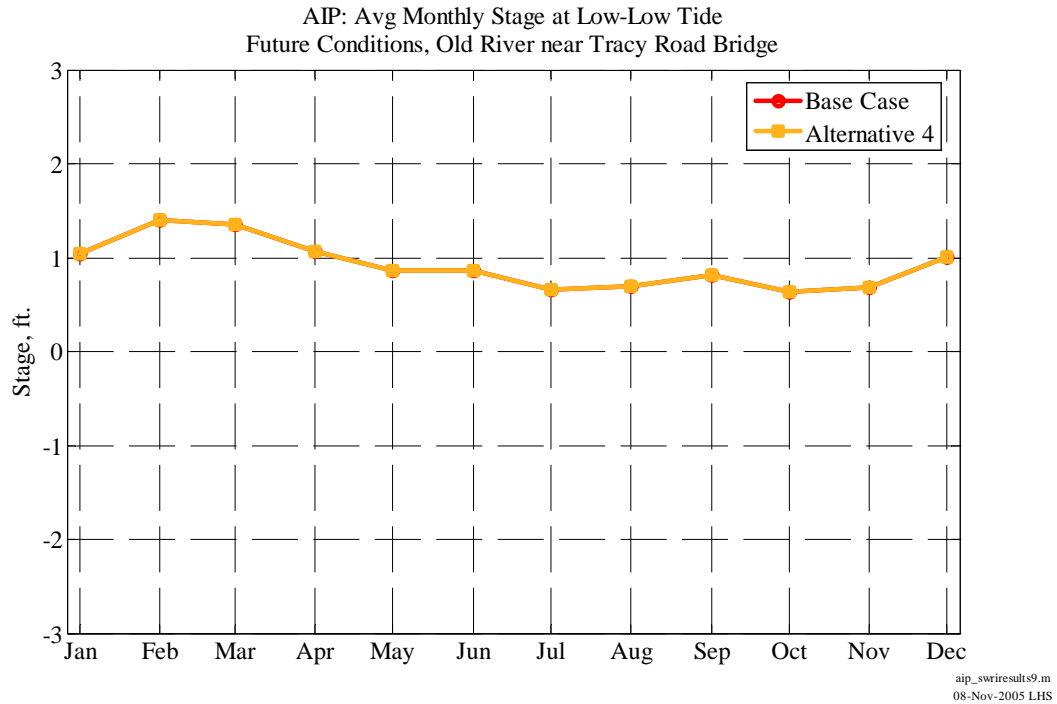


Appendix C-4 DSM2 Delta Modeling

Old River near Tracy Road

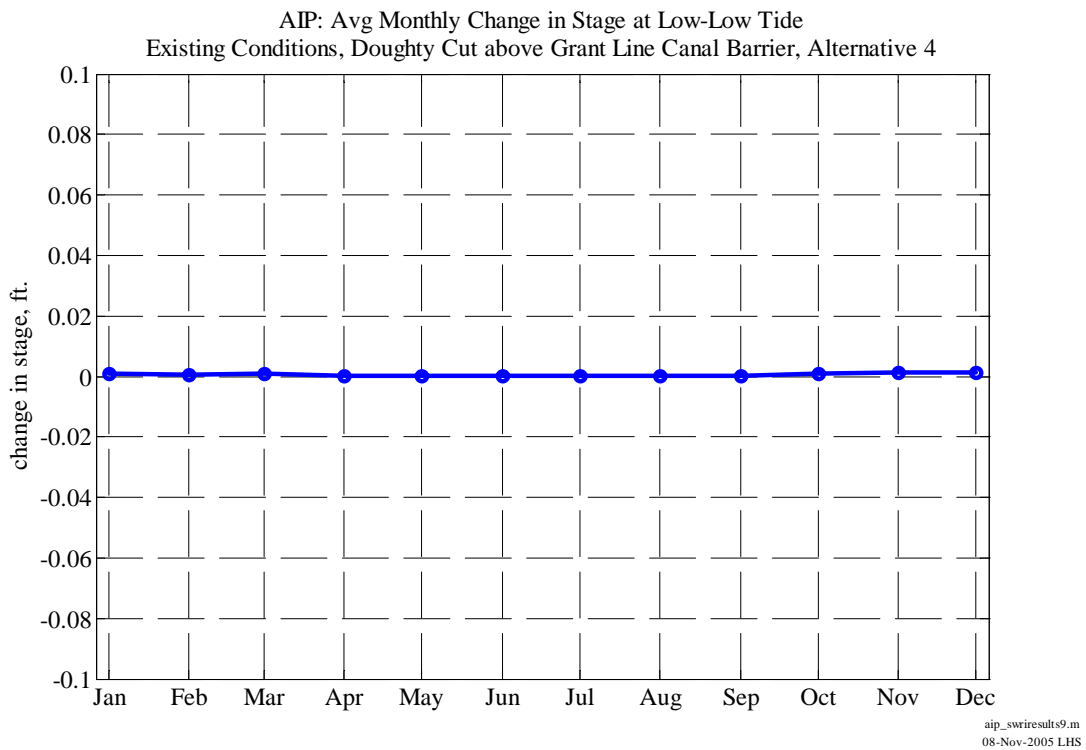
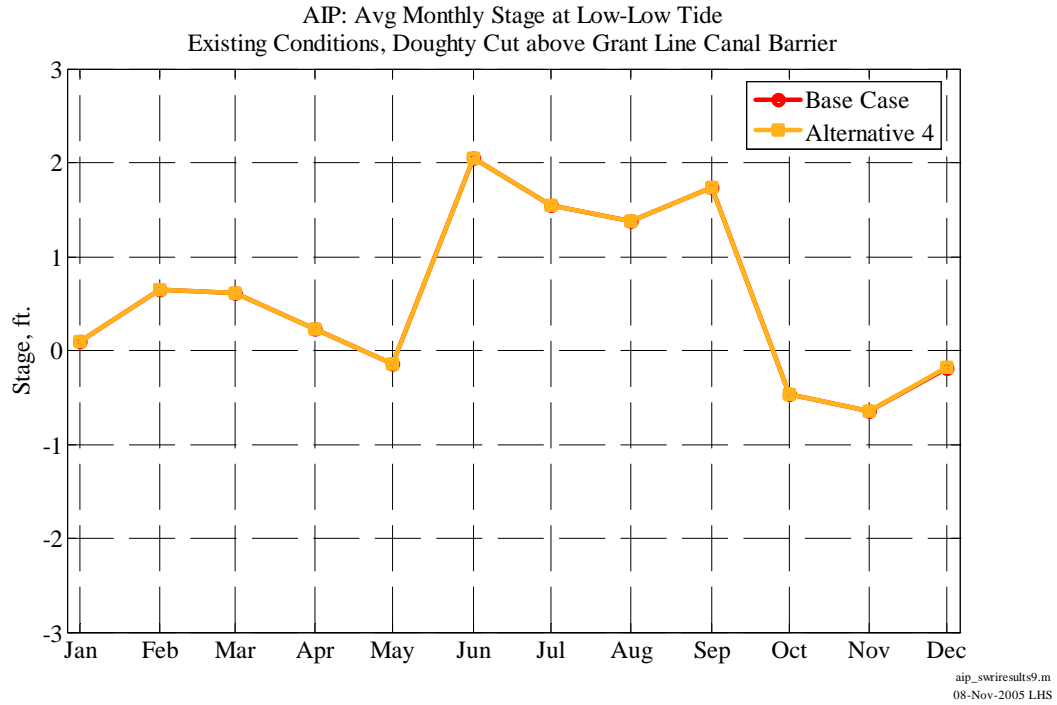


Appendix C-4 DSM2 Delta Modeling

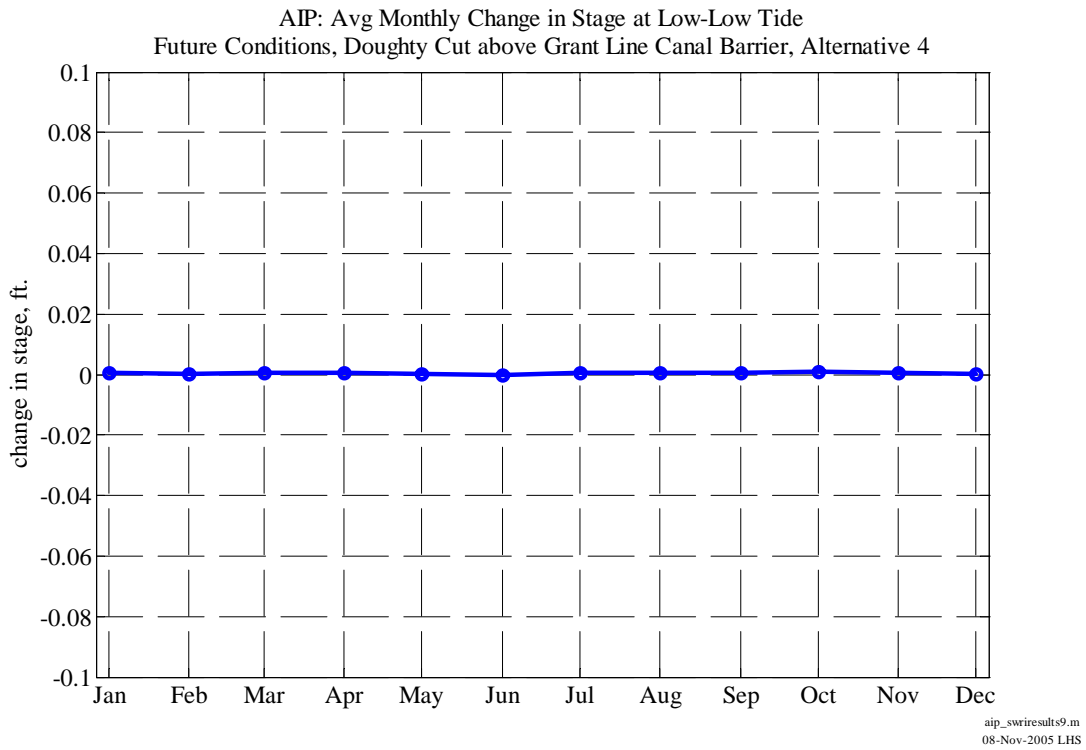
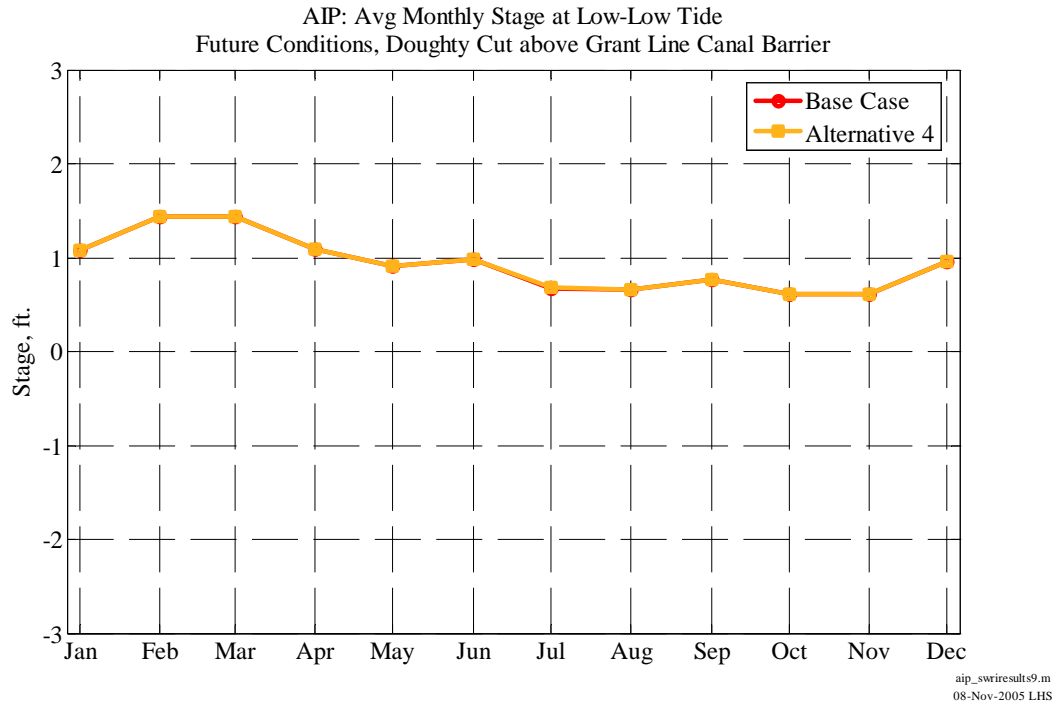


Appendix C-4 DSM2 Delta Modeling

Doughty Cut above Grant Line Canal Barrier

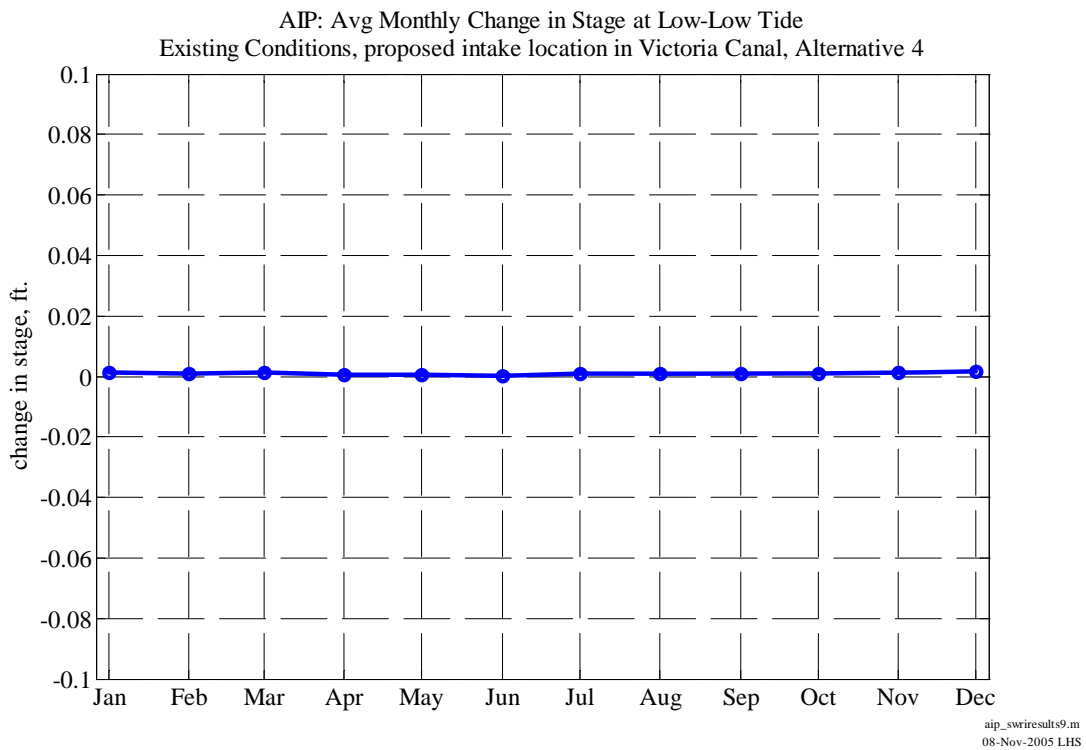
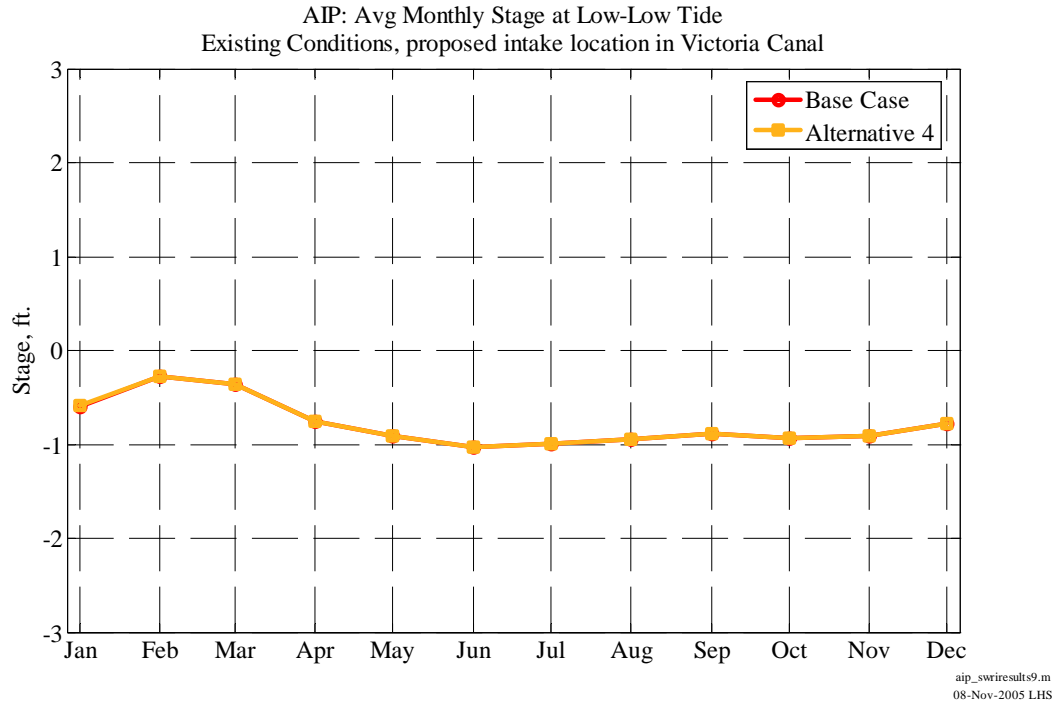


Appendix C-4 DSM2 Delta Modeling



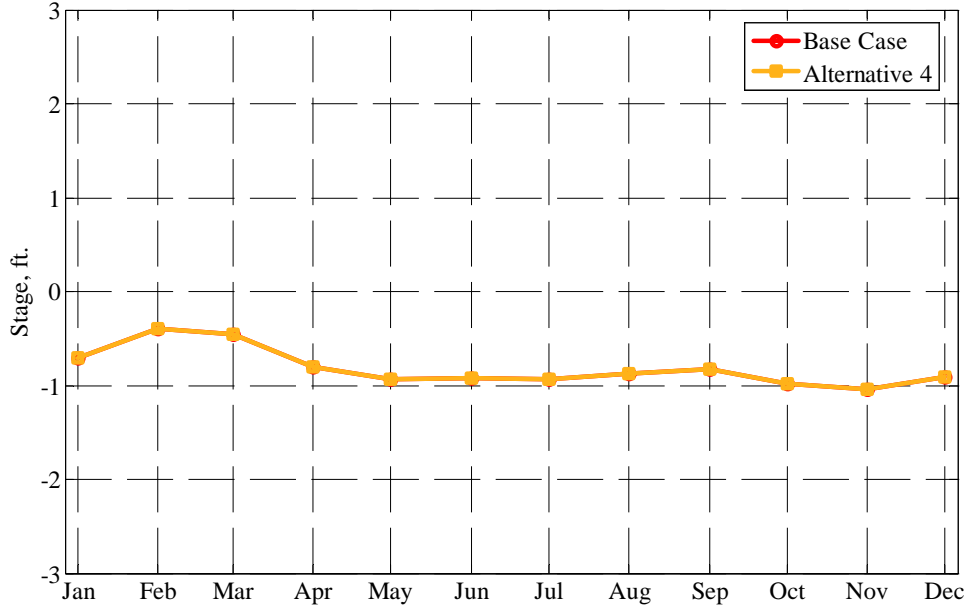
Appendix C-4 DSM2 Delta Modeling

Proposed Alternative Intake Location on Victoria Canal



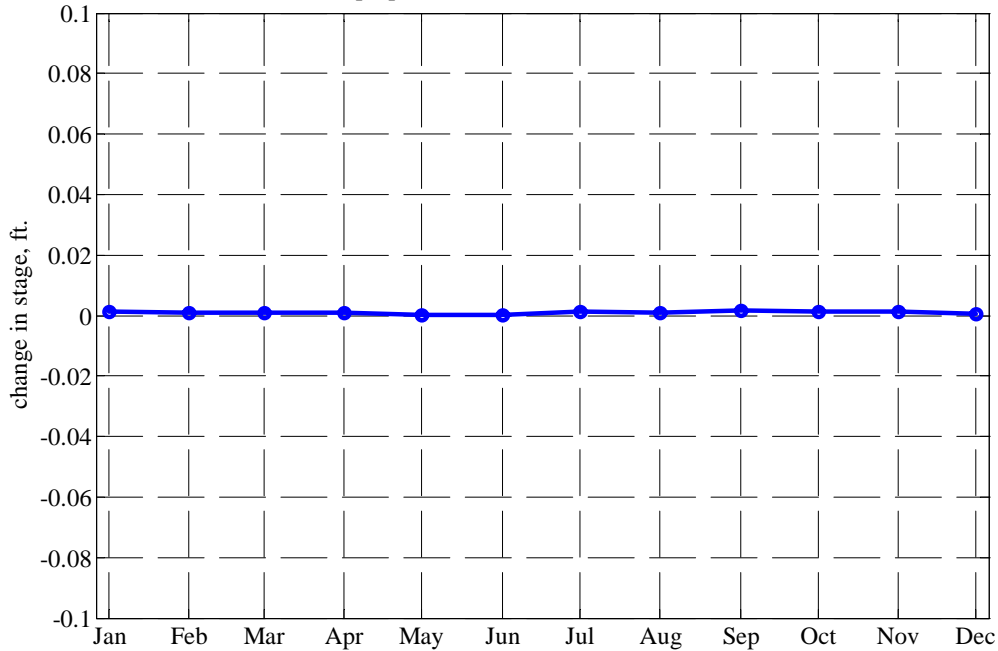
Appendix C-4 DSM2 Delta Modeling

AIP: Avg Monthly Stage at Low-Low Tide
Future Conditions, proposed intake location in Victoria Canal



aip_swresults9.m
08-Nov-2005 LHS

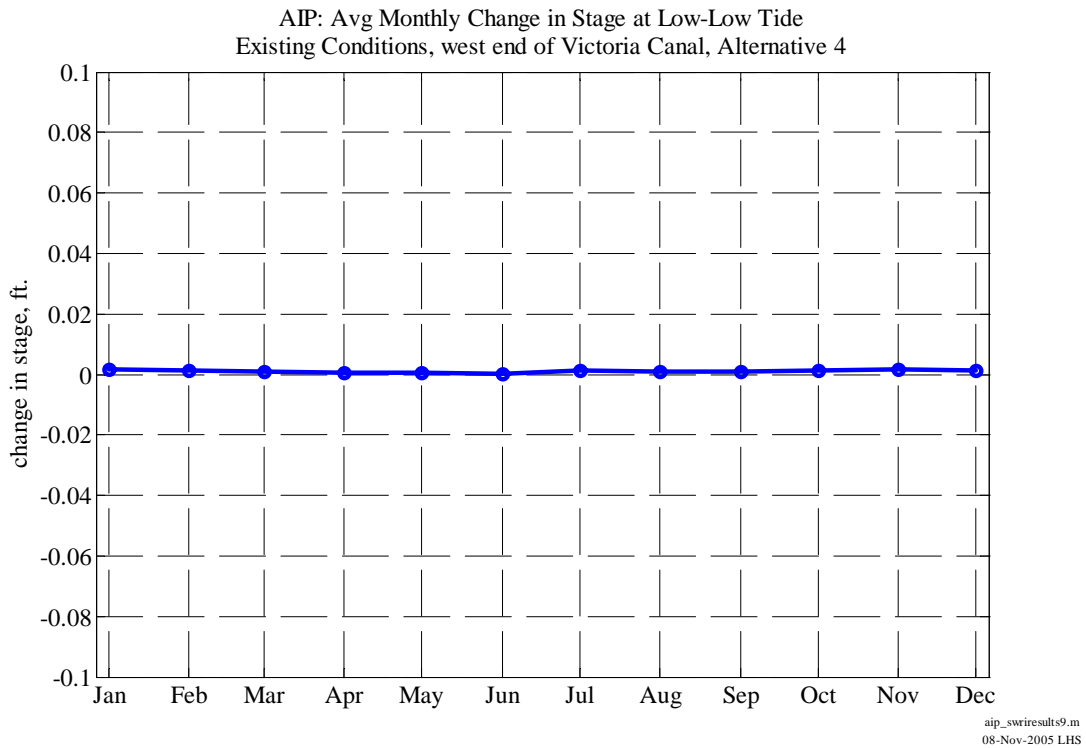
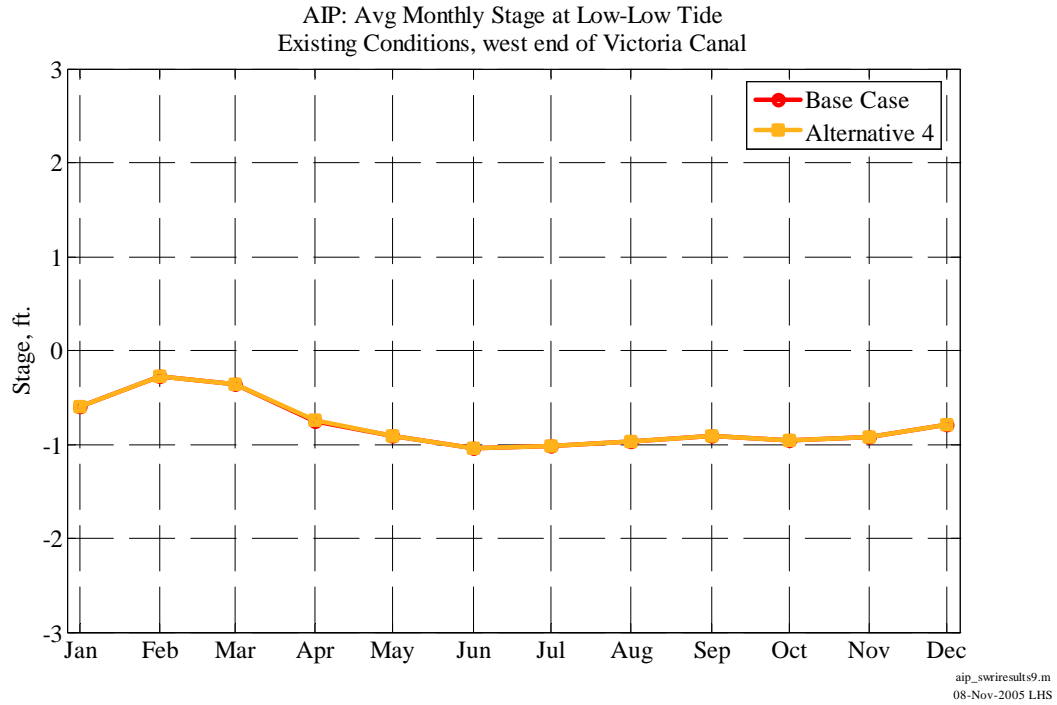
AIP: Avg Monthly Change in Stage at Low-Low Tide
Future Conditions, proposed intake location in Victoria Canal, Alternative 4



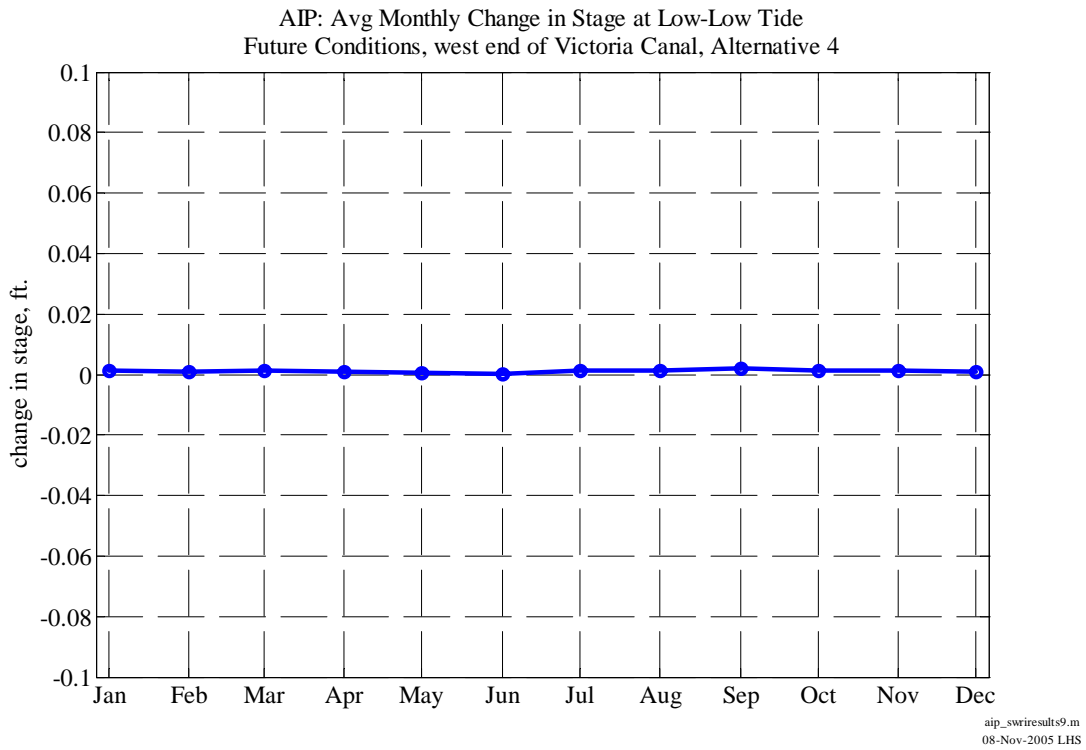
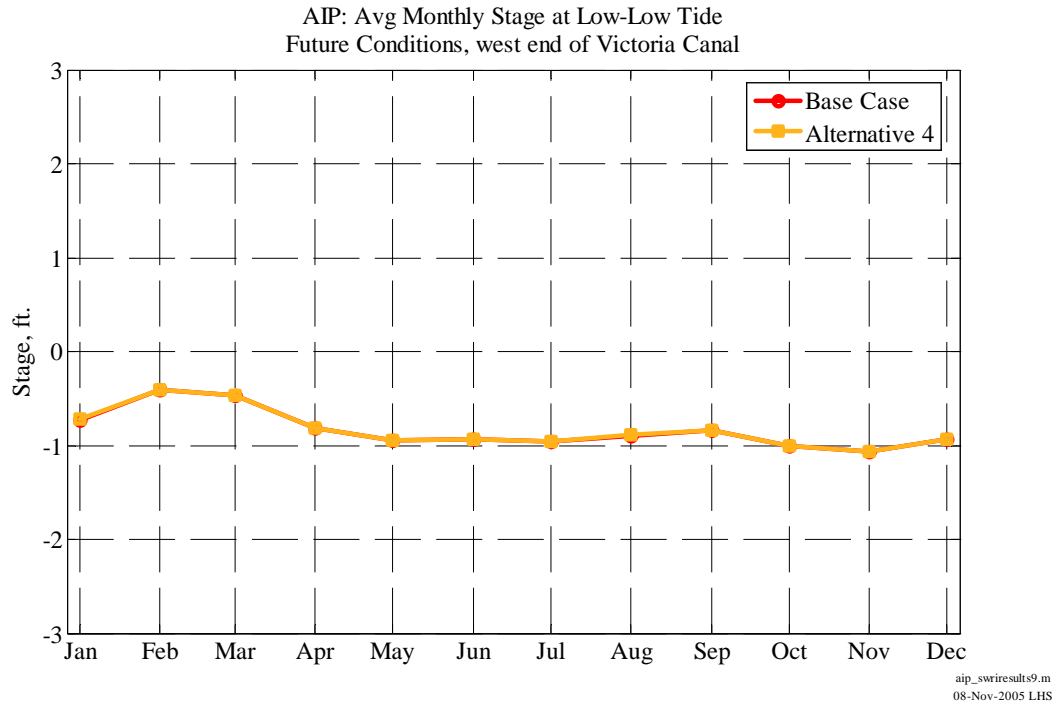
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08-Nov-2005 LHS

Appendix C-4 DSM2 Delta Modeling

West end of Victoria Canal

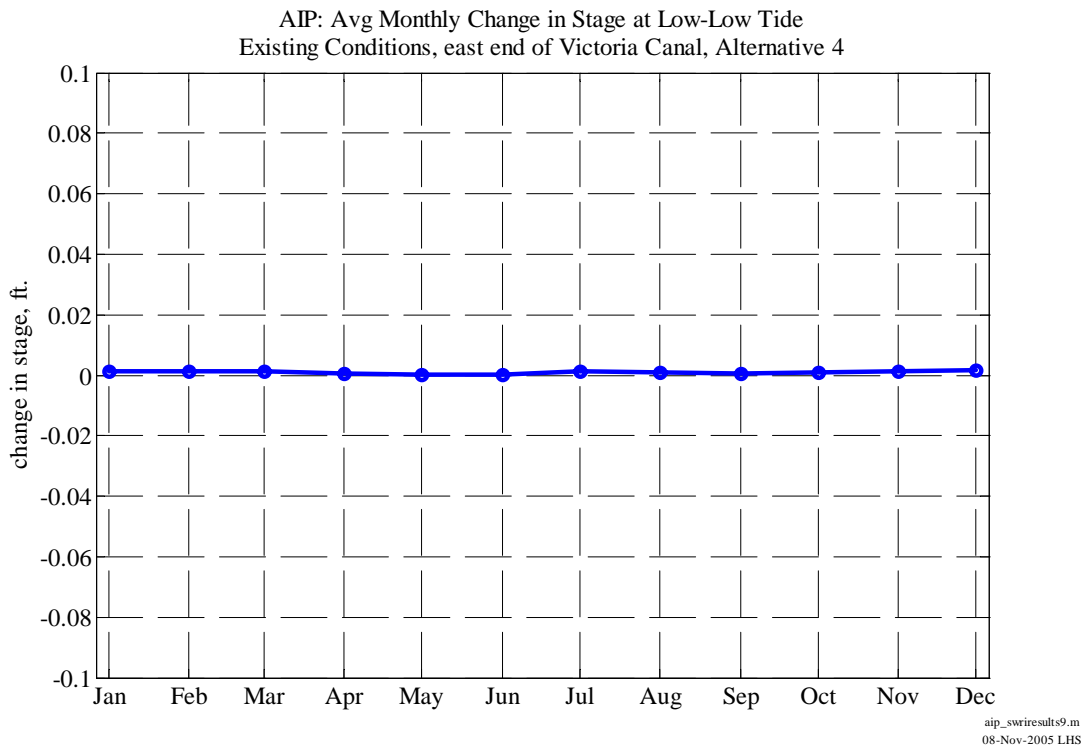
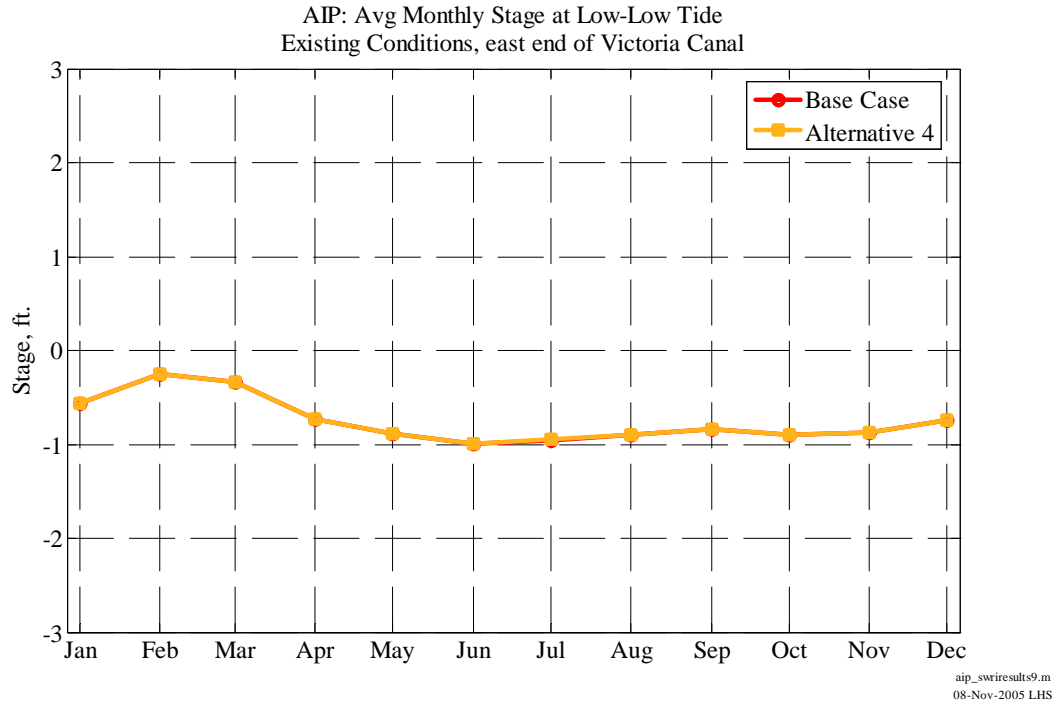


Appendix C-4 DSM2 Delta Modeling

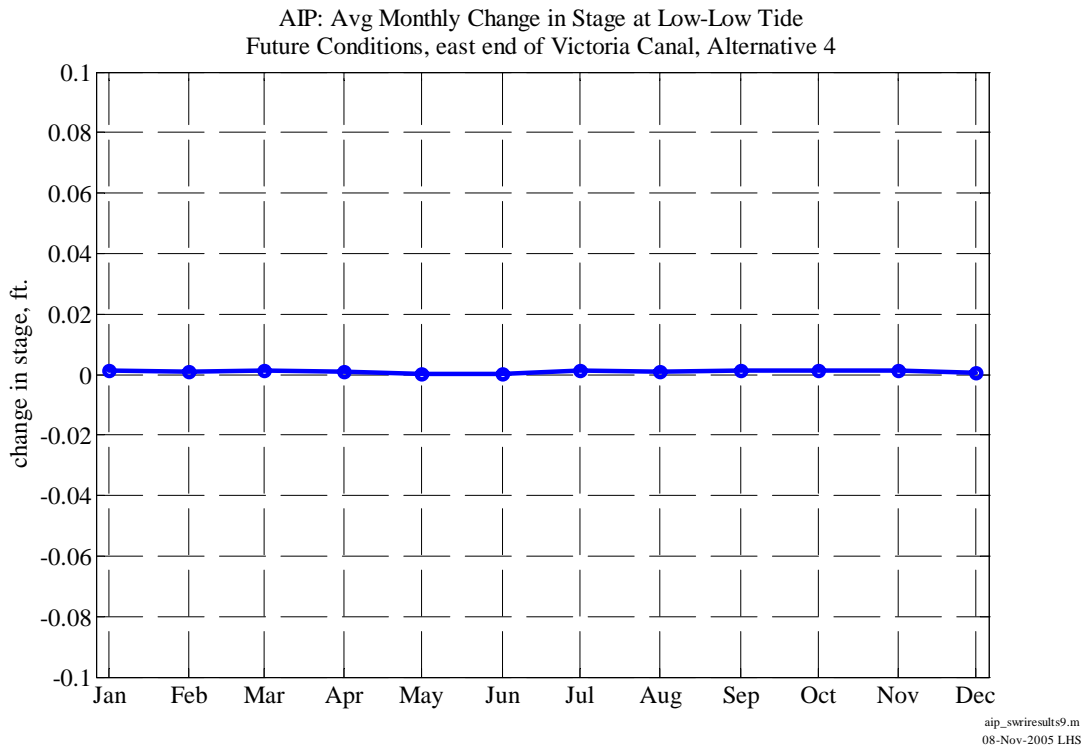
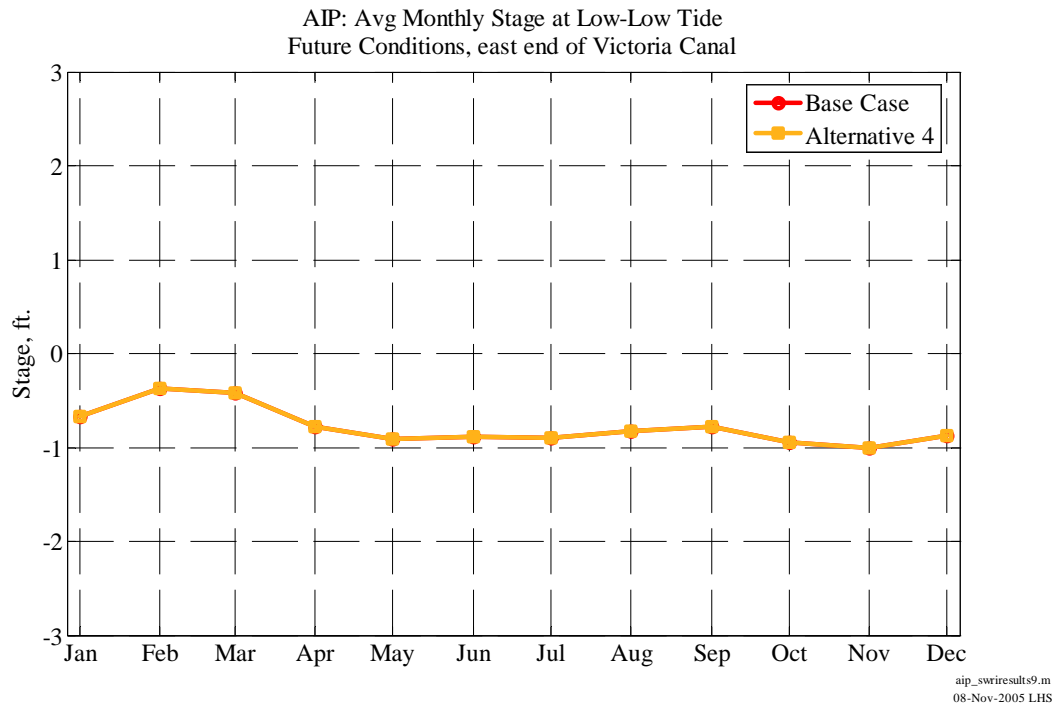


Appendix C-4 DSM2 Delta Modeling

East end of Victoria Canal



Appendix C-4 DSM2 Delta Modeling



Appendix C-5
CCWD Operations Modeling

Appendix C-5

CCWD OPERATIONS MODELING

for the

Alternative Intake Project EIR/EIS

Prepared By:

Contra Costa Water District

With Technical Assistance From:

EDAW

Carollo Engineers

SWRI, Inc.

January 2006

Introduction

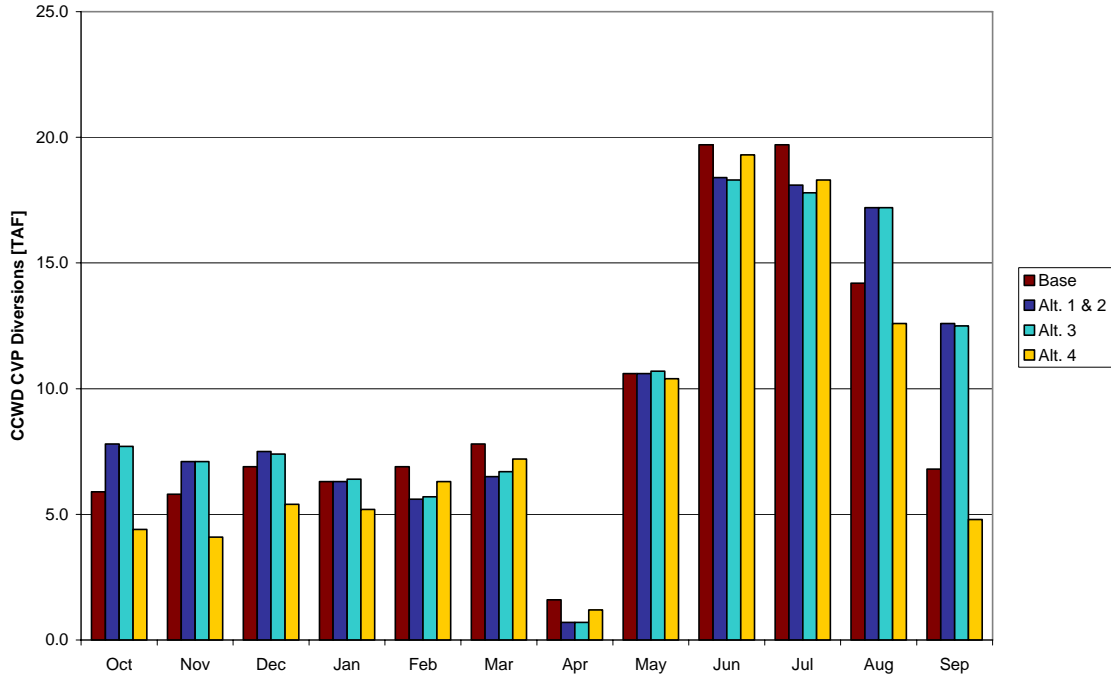
This section contains tables and graphics derived from the Operational Solver Model for the Alternative Intake Project as described in Section 4.2, “Delta Water Resources,” and in Appendix C-2, “Water Resources Modeling Methodology Report.” The results, describing CCWD’s operations over a 73-year simulation period, are presented as follows:

- ▶ tables of monthly diversions at CCWD’s existing and proposed intakes (Rock Slough, Old River, and Alternative Intakes) and total CCWD diversions over the 73-year simulation period (minor diversions at Mallard Slough and Freeport are included in the modeling via pre-processing and are not reported in these tables);
- ▶ tables and bar charts of average CCWD diversions at each of CCWD’s intakes by month;
- ▶ tables and bar charts of average CCWD diversions under the Los Vaqueros water right at CCWD intakes by month and by water year type; and
- ▶ tables and bar charts of average CCWD diversions under Central Valley Project water rights by month and by water year type.

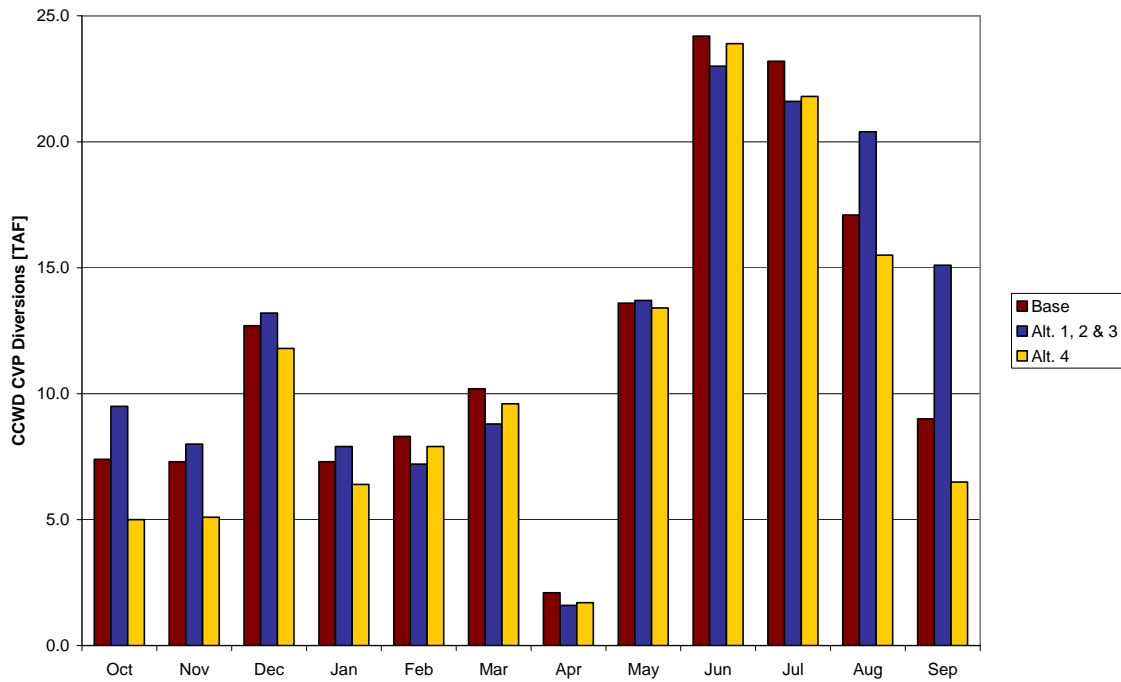
A CD with a full set of modeling files is available for review through CCWD by contacting Samantha Salvia, Project Manager, at ssalvia@ccwater.com or (925) 688-8057.

Appendix C-5 CCWD Operations Modeling

AIP: CCWD CVP Diversions - Existing Conditions



AIP: CCWD CVP Diversions - Future Conditions

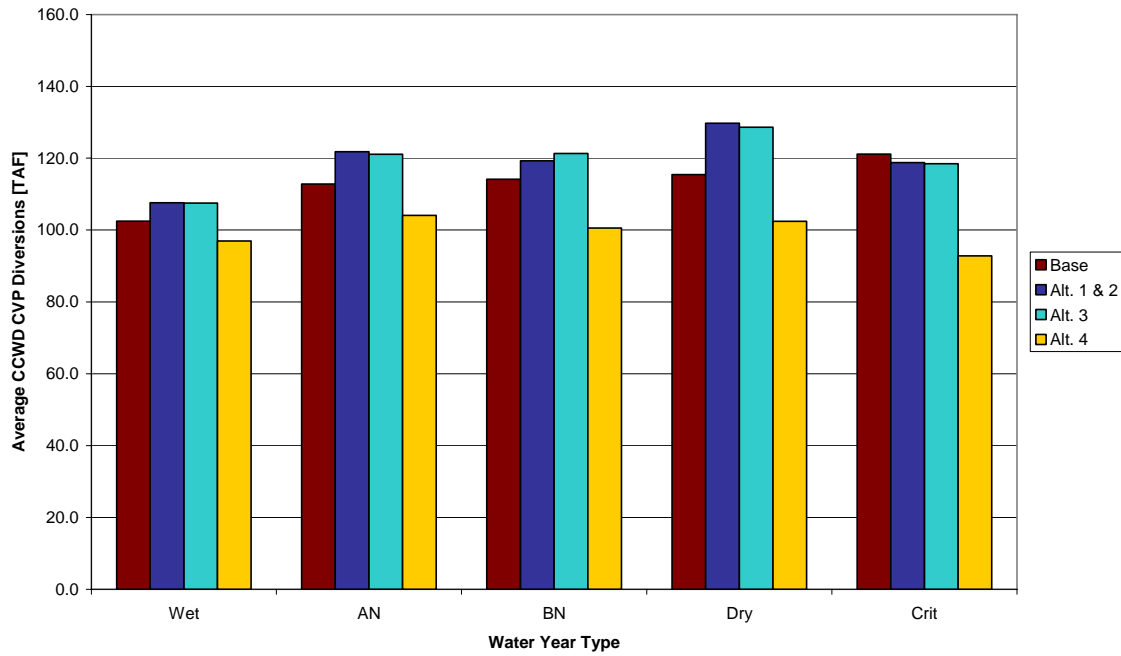


Appendix C-5 CCWD Operations Modeling

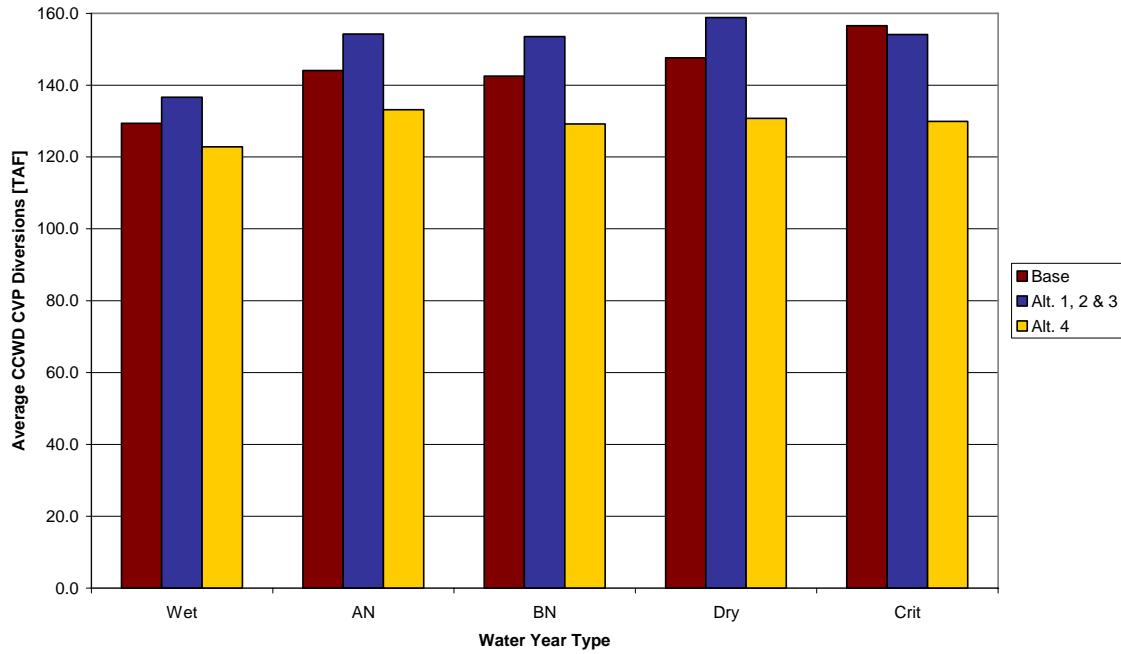
Average CCWD CVP Diversions [TAF]							
	Existing Conditions				Future Conditions		
	Base	Alt. 1 & 2	Alt. 3	Alt. 4	Base	Alt. 1, 2 & 3	Alt. 4
Oct	5.9	7.8	7.7	4.4	7.4	9.5	5.0
Nov	5.8	7.1	7.1	4.1	7.3	8.0	5.1
Dec	6.9	7.5	7.4	5.4	12.7	13.2	11.8
Jan	6.3	6.3	6.4	5.2	7.3	7.9	6.4
Feb	6.9	5.6	5.7	6.3	8.3	7.2	7.9
Mar	7.8	6.5	6.7	7.2	10.2	8.8	9.6
Apr	1.6	0.7	0.7	1.2	2.1	1.6	1.7
May	10.6	10.6	10.7	10.4	13.6	13.7	13.4
Jun	19.7	18.4	18.3	19.3	24.2	23.0	23.9
Jul	19.7	18.1	17.8	18.3	23.2	21.6	21.8
Aug	14.2	17.2	17.2	12.6	17.1	20.4	15.5
Sep	6.8	12.6	12.5	4.8	9.0	15.1	6.5
Totals:	112.2	118.4	118.2	99.2	142.4	150.0	128.6

Appendix C-5 CCWD Operations Modeling

AIP: Average CCWD CVP Diversion by Water Year Type
Existing Conditions



AIP: Average CCWD CVP Diversion by Water Year Type
Future Conditions



Appendix C-5 CCWD Operations Modeling

AIP: Average CCWD CVP Diversion by Water Year Type [TAF]						
		Wet	Above Normal	Below Normal	Dry	Critical
Existing	Base	102.5	112.8	114.1	115.4	121.2
	Alt. 1 & 2	107.6	121.8	119.3	129.8	118.8
	Alt. 3	107.5	121.1	121.3	128.6	118.5
	Alt. 4	97.0	104.1	100.6	102.4	92.8
Future	Base	129.4	144.1	142.5	147.6	156.6
	Alt. 1, 2 & 3	136.6	154.3	153.5	158.8	154.1
	Alt. 4	122.9	133.2	129.2	130.8	129.9

Alt Existing Alt 1 & 2 Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	394	161	124	92	66	85	0	149	368	258	269	236
1923	141	142	171	93	90	97	0	170	382	265	269	184
1924	101	85	132	96	52	112	0	149	151	227	257	214
1925	67	144	150	147	275	198	0	199	432	464	394	331
1926	101	68	62	122	292	198	0	199	432	464	399	243
1927	91	133	279	136	121	85	0	150	336	253	265	228
1928	107	103	202	81	88	83	0	149	367	258	269	236
1929	114	110	244	98	47	187	0	222	292	264	257	182
1930	70	51	139	147	161	234	0	199	232	464	327	233
1931	64	67	105	103	50	47	48	222	253	264	257	235
1932	198	165	152	147	314	198	0	199	432	464	457	311
1933	112	44	103	106	145	269	0	222	343	264	257	235
1934	96	56	132	147	161	144	0	222	253	264	257	235
1935	196	164	152	147	161	292	336	203	422	451	383	204
1936	108	79	161	115	249	93	0	170	383	265	269	234
1937	100	82	259	93	146	70	0	170	384	265	269	235
1938	122	234	126	112	69	67	0	150	336	253	265	227
1939	190	137	93	81	92	110	0	199	422	278	257	141
1940	77	86	101	138	304	209	0	149	401	258	269	189
1941	83	73	330	73	60	71	0	150	313	253	265	228
1942	190	136	74	44	79	81	0	150	331	253	265	227
1943	190	131	90	55	89	78	0	150	337	253	265	228
1944	116	82	77	83	52	198	0	199	432	345	269	120
1945	72	132	319	138	238	92	0	170	387	265	269	177

Appendix C-5 CCWD Operations Modeling

Alt Existing Alt 1 & 2 Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1946	99	106	328	114	102	95	0	170	386	265	269	186
1947	105	110	295	115	123	110	0	199	240	452	257	112
1948	67	105	140	124	67	92	54	176	422	451	383	198
1949	112	100	268	115	7	233	0	199	423	278	269	243
1950	104	84	117	138	332	111	0	170	386	265	269	234
1951	132	218	121	108	99	86	0	149	367	258	269	210
1952	115	109	264	81	86	81	0	150	336	253	265	228
1953	191	135	82	80	95	87	0	150	336	253	265	228
1954	191	136	93	81	92	86	0	149	367	258	269	236
1955	109	117	243	94	91	113	0	199	419	278	269	242
1956	81	83	318	124	124	86	0	150	335	253	265	227
1957	190	138	94	81	89	86	0	149	364	258	269	201
1958	122	259	127	89	54	62	0	150	277	253	265	227
1959	191	138	93	77	81	95	0	170	387	265	269	182
1960	84	69	132	115	55	198	0	199	432	454	265	247
1961	86	119	271	138	162	111	0	199	316	379	257	153
1962	75	104	143	138	332	169	0	170	387	265	269	137
1963	78	354	143	97	87	81	0	150	326	253	265	227
1964	118	64	230	76	91	112	0	199	421	278	234	138
1965	74	133	343	138	194	85	0	150	335	253	264	228
1966	104	221	83	79	90	96	0	170	387	265	269	181
1967	99	247	170	86	96	73	0	150	319	253	265	228
1968	191	136	92	73	86	92	0	170	386	265	267	129
1969	89	124	289	115	123	73	0	150	337	253	265	227
1970	189	137	88	59	87	83	0	150	339	253	265	227
1971	98	104	190	78	93	85	0	150	337	253	265	227
1972	191	137	88	83	30	153	0	170	386	265	269	164
1973	70	111	333	107	74	75	0	149	367	258	269	235
1974	95	110	242	92	90	83	0	150	336	252	265	228
1975	190	137	90	83	86	73	0	150	335	253	265	228
1976	188	138	94	83	39	138	0	161	195	264	257	210
1977	88	137	107	89	70	55	114	222	253	264	257	235
1978	198	165	152	147	291	283	203	157	418	444	383	235
1979	200	111	103	98	124	91	0	170	386	265	269	176
1980	96	123	317	94	55	76	0	149	365	257	269	236
1981	200	147	128	92	90	108	0	199	422	278	250	141
1982	88	150	343	116	125	75	0	150	327	253	265	225
1983	188	126	73	42	52	29	0	150	321	253	265	226
1984	190	127	81	80	87	85	0	150	339	253	265	228
1985	106	80	221	83	90	109	0	199	422	278	228	152

Appendix C-5 CCWD Operations Modeling

Alt Existing Alt 1 & 2 Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1986	110	101	266	138	274	74	0	150	337	253	265	227
1987	169	116	75	83	48	205	0	199	423	278	269	151
1988	70	92	269	138	298	148	0	222	270	264	257	190
1989	67	56	106	147	79	234	0	199	432	464	276	176
1990	97	99	205	67	95	167	0	222	253	238	257	228
1991	72	150	152	147	161	142	183	222	253	264	257	235
1992	198	165	152	147	155	229	127	227	253	264	257	235
1993	198	165	152	147	347	284	134	156	418	444	383	236
1994	172	131	169	97	87	149	0	222	453	283	231	102
Mean	129	126	171	104	126	124	16	175	353	293	277	210
Max	394	354	343	147	347	292	336	227	453	464	457	331
Min	64	44	62	42	7	29	0	149	151	227	228	102

Base Existing Base Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	394	344	174	92	66	85	0	149	368	258	269	123
1923	55	58	330	98	214	97	0	170	382	265	269	62
1924	41	38	83	114	98	108	0	150	144	257	257	235
1925	198	165	152	147	275	198	0	199	432	464	281	138
1926	41	35	112	137	283	198	0	199	432	464	326	93
1927	36	68	343	338	312	208	0	150	396	301	265	73
1928	47	51	293	250	88	83	0	149	367	258	269	103
1929	53	55	64	40	83	204	0	222	453	464	146	70
1930	28	25	81	147	361	234	0	199	432	464	116	48
1931	21	156	143	136	132	144	180	222	253	264	257	235
1932	198	165	152	147	155	198	72	204	432	464	457	94
1933	34	32	49	96	239	269	0	222	453	264	207	111
1934	167	165	151	147	361	229	0	222	291	264	176	223
1935	198	165	152	144	161	292	336	207	422	451	383	52
1936	34	32	104	111	277	217	0	170	422	403	269	59
1937	34	38	94	109	81	217	0	170	422	451	379	111
1938	46	89	333	242	69	67	0	150	336	253	265	214
1939	203	137	93	81	92	110	0	199	422	236	86	51
1940	40	64	64	128	304	209	75	157	418	444	315	59
1941	35	56	330	98	290	99	0	150	313	253	265	142
1942	83	63	76	83	92	208	0	150	396	269	265	156
1943	259	131	90	55	89	78	0	150	337	253	265	85
1944	54	47	59	37	34	198	0	199	432	464	94	41

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1945	37	123	319	138	332	184	0	170	422	451	192	59
1946	38	149	333	115	138	184	0	170	422	387	174	65
1947	47	73	132	115	261	198	0	199	432	443	64	32
1948	29	71	80	43	117	292	336	208	422	451	226	61
1949	50	139	131	114	48	234	0	199	432	464	134	98
1950	46	49	77	86	332	263	161	178	422	451	253	85
1951	58	109	333	315	138	86	0	149	367	258	269	72
1952	52	52	330	98	269	81	0	150	336	253	265	228
1953	191	135	82	80	95	87	0	150	336	253	265	108
1954	109	75	92	83	292	161	0	149	367	258	269	75
1955	52	61	284	98	290	155	0	199	419	278	202	94
1956	41	55	334	138	304	167	0	150	335	253	265	195
1957	220	138	73	38	159	86	0	149	364	258	269	58
1958	55	139	307	98	200	62	0	150	277	253	265	227
1959	191	138	81	83	88	95	0	170	387	265	237	52
1960	32	36	133	112	89	198	0	199	432	242	94	73
1961	40	160	143	138	131	198	74	204	432	374	71	139
1962	199	162	143	138	332	267	189	178	422	451	129	44
1963	136	354	333	191	87	81	0	150	326	253	265	119
1964	41	28	293	230	91	112	0	199	421	269	65	43
1965	33	62	343	138	332	177	0	150	396	353	264	81
1966	49	112	293	172	78	107	0	170	387	265	166	64
1967	54	94	329	115	291	119	0	150	319	253	265	228
1968	191	136	92	73	86	92	0	170	386	265	170	45
1969	44	99	262	115	298	191	0	150	337	253	265	227
1970	189	137	88	59	87	83	0	150	339	253	265	92
1971	41	53	293	213	93	85	0	150	337	253	265	153
1972	183	63	44	54	259	161	0	170	386	265	184	51
1973	30	81	333	315	137	75	0	149	367	258	269	89
1974	35	61	330	252	90	83	0	150	336	252	265	155
1975	259	137	63	53	149	73	0	150	335	253	265	171
1976	242	138	73	35	25	135	0	163	163	218	257	71
1977	40	130	152	147	161	144	180	222	253	264	257	235
1978	198	165	152	147	290	283	210	157	418	444	383	83
1979	57	47	56	95	290	217	0	170	422	356	193	59
1980	40	67	324	115	290	130	0	149	365	257	269	112
1981	74	50	65	98	290	234	0	199	432	239	76	46
1982	42	133	343	314	332	136	0	150	327	253	265	225
1983	188	126	73	42	52	29	0	150	321	253	265	226
1984	190	127	81	80	87	85	0	150	339	253	265	85

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1985	44	43	293	248	90	109	0	199	422	227	74	55
1986	50	58	120	138	131	279	102	158	396	439	379	148
1987	72	46	40	42	32	234	0	199	432	464	116	45
1988	34	56	74	138	328	229	0	222	453	464	169	71
1989	26	22	135	147	161	234	37	204	432	464	67	50
1990	199	162	143	138	132	229	99	225	400	136	257	235
1991	198	165	152	147	137	144	218	227	253	264	257	235
1992	198	165	152	147	155	229	122	227	253	264	257	235
1993	198	165	152	147	347	284	134	156	418	444	383	94
1994	44	38	90	77	52	229	0	222	453	90	54	125
Mean	99	101	174	129	181	164	35	177	375	318	229	114
Max	394	354	343	338	361	292	336	227	453	464	457	235
Min	21	22	40	35	25	29	0	149	144	90	54	32

Difference Existing Alt 1 & 2 minus Existing Base Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	-183	-50	0	0	0	0	0	0	0	0	112
1923	85	83	-159	-5	-124	0	0	0	0	0	0	122
1924	60	47	49	-18	-46	3	0	0	7	-29	0	-21
1925	-131	-21	-2	0	0	0	0	0	0	0	114	192
1926	61	33	-49	-14	9	0	0	0	0	0	73	150
1927	54	66	-64	-202	-190	-123	0	0	-60	-49	0	154
1928	60	51	-90	-168	0	0	0	0	0	0	0	133
1929	61	55	180	58	-36	-17	0	0	-161	-200	111	112
1930	42	26	58	0	-200	0	0	0	-200	0	210	186
1931	43	-89	-38	-34	-82	-96	-132	0	0	0	0	0
1932	0	0	0	0	159	0	-72	-5	0	0	0	217
1933	78	12	55	10	-94	0	0	0	-110	0	50	124
1934	-72	-109	-18	1	-200	-85	0	0	-38	0	80	12
1935	-1	-1	0	3	0	0	0	-5	0	0	0	151
1936	74	47	57	4	-27	-124	0	0	-38	-138	0	175
1937	66	45	165	-16	66	-147	0	0	-38	-186	-110	124
1938	76	145	-207	-130	0	0	0	0	0	0	0	14
1939	-13	0	0	0	0	0	0	0	0	41	171	90
1940	37	22	37	10	0	0	-75	-7	-17	-186	-46	129
1941	48	18	0	-24	-229	-28	0	0	0	0	0	85
1942	106	73	-2	-38	-13	-127	0	0	-66	-16	0	72
1943	-69	0	0	0	0	0	0	0	0	0	0	142

Appendix C-5 CCWD Operations Modeling

Difference Existing Alt 1 & 2 minus Existing Base Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1944	62	36	18	45	19	0	0	0	0	-119	175	79
1945	35	10	0	0	-94	-92	0	0	-35	-186	77	118
1946	61	-43	-6	-1	-35	-89	0	0	-36	-122	95	121
1947	58	37	163	0	-138	-87	0	0	-192	9	192	80
1948	38	35	60	80	-50	-200	-282	-32	0	0	157	136
1949	62	-39	137	1	-41	-1	0	0	-10	-186	134	144
1950	58	35	39	52	0	-152	-161	-8	-36	-186	16	149
1951	74	109	-213	-207	-39	0	0	0	0	0	0	138
1952	64	57	-66	-17	-183	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	119
1954	82	61	1	-2	-200	-75	0	0	0	0	0	161
1955	56	57	-42	-3	-199	-42	0	0	0	0	67	148
1956	40	28	-15	-14	-180	-81	0	0	0	0	0	31
1957	-30	0	20	43	-70	0	0	0	0	0	0	143
1958	67	120	-180	-9	-146	0	0	0	0	0	0	0
1959	0	0	12	-6	-7	0	0	0	0	0	32	130
1960	51	32	-1	2	-34	0	0	0	0	212	171	173
1961	46	-42	128	0	31	-87	-74	-5	-116	5	185	14
1962	-124	-58	0	0	0	-98	-189	-8	-35	-186	140	93
1963	-58	0	-190	-95	0	0	0	0	0	0	0	109
1964	77	35	-63	-154	0	0	0	0	0	9	169	95
1965	41	71	0	0	-138	-92	0	0	-61	-101	0	147
1966	55	110	-210	-94	12	-10	0	0	0	0	103	117
1967	44	153	-158	-29	-195	-46	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	98	84
1969	45	25	27	0	-175	-118	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	135
1971	57	51	-103	-135	0	0	0	0	0	0	0	74
1972	8	73	44	28	-228	-9	0	0	0	0	85	113
1973	40	30	0	-208	-63	0	0	0	0	0	0	147
1974	59	48	-88	-161	0	0	0	0	0	0	0	72
1975	-70	0	27	30	-63	0	0	0	0	0	0	56
1976	-54	0	20	48	15	3	0	-2	33	46	0	139
1977	48	7	-44	-58	-91	-89	-66	0	0	0	0	0
1978	0	0	0	0	1	0	-7	0	0	0	0	153
1979	143	65	48	3	-166	-126	0	0	-36	-91	76	118
1980	56	56	-7	-21	-235	-54	0	0	0	0	0	123
1981	126	96	63	-6	-200	-125	0	0	-11	38	175	95
1982	46	17	0	-198	-207	-61	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	143

Appendix C-5 CCWD Operations Modeling

Difference Existing Alt 1 & 2 minus Existing Base Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1985	62	38	-71	-166	0	0	0	0	0	51	154	97
1986	59	42	147	0	144	-205	-102	-7	-59	-186	-114	79
1987	97	71	35	41	16	-28	0	0	-10	-186	153	106
1988	36	37	196	0	-30	-81	0	0	-183	-200	88	119
1989	41	34	-29	0	-81	0	-37	-5	0	0	210	126
1990	-101	-63	62	-71	-38	-62	-99	-4	-146	102	0	-7
1991	-126	-14	0	0	24	-2	-35	-5	0	0	0	0
1992	0	0	0	0	0	0	5	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	141
1994	127	93	79	20	35	-80	0	0	0	193	177	-22
Mean	30	25	-3	-25	-55	-40	-18	-1	-23	-25	47	96
Max	143	153	196	80	159	3	5	0	33	212	210	217
Min	-131	-183	-213	-208	-235	-205	-282	-32	-200	-200	-114	-22

Alt Existing Alt 1 & 2 Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	144	0	0	0	0	0	0	0	118	8	19	0
1923	0	0	0	0	0	0	0	0	132	15	19	0
1924	0	0	0	0	0	0	0	0	0	227	7	0
1925	0	0	0	0	25	18	0	0	232	214	144	81
1926	0	0	0	0	42	18	0	0	232	214	149	0
1927	0	0	29	0	0	0	0	0	86	3	15	0
1928	0	0	0	0	0	0	0	0	117	8	19	0
1929	0	0	0	0	0	0	0	0	253	14	7	0
1930	0	0	0	0	0	54	0	0	232	214	77	0
1931	0	0	0	0	0	47	0	0	3	14	7	0
1932	0	0	0	0	64	18	0	0	232	214	207	61
1933	0	0	0	0	0	72	0	0	253	14	7	0
1934	0	0	0	0	0	0	0	0	253	14	7	0
1935	0	0	0	0	0	42	102	0	172	201	133	0
1936	0	0	0	0	0	0	0	0	133	15	19	0
1937	0	0	9	0	0	0	0	0	134	15	19	0
1938	0	0	0	0	0	0	0	0	86	3	15	0
1939	0	0	0	0	0	0	0	0	232	28	7	0
1940	0	0	0	0	54	42	0	0	151	8	19	0
1941	0	0	80	0	0	0	0	0	63	3	15	0
1942	0	0	0	0	0	0	0	0	81	3	15	0
1943	0	0	0	0	0	0	0	0	87	3	15	0

Appendix C-5 CCWD Operations Modeling

Alt Existing Alt 1 & 2 Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1944	0	0	0	0	0	18	0	0	232	95	19	0
1945	0	0	69	0	0	0	0	0	137	15	19	0
1946	0	0	78	0	101	0	0	0	136	15	19	0
1947	0	0	45	0	0	0	0	0	232	202	7	0
1948	0	0	0	0	0	0	0	0	172	201	133	0
1949	0	0	18	0	0	53	0	0	232	28	19	0
1950	0	0	0	0	82	0	0	0	136	15	19	0
1951	0	0	0	0	0	0	0	0	218	8	19	0
1952	0	0	14	0	0	0	0	0	86	3	15	0
1953	0	0	0	0	0	0	0	0	86	3	15	0
1954	0	0	0	0	0	0	0	0	117	8	19	0
1955	0	0	0	0	0	0	0	0	232	28	19	0
1956	0	0	68	0	0	0	0	0	85	3	15	0
1957	0	0	0	0	0	0	0	0	114	8	19	0
1958	0	9	0	89	0	0	0	0	27	3	15	0
1959	0	135	0	0	0	0	0	0	222	15	19	0
1960	0	0	0	0	0	18	0	0	232	204	15	0
1961	0	0	21	0	0	0	0	0	232	129	7	0
1962	0	0	0	0	82	0	0	0	222	15	19	0
1963	0	104	0	0	0	0	0	0	76	3	15	0
1964	0	0	0	0	0	0	0	0	232	28	0	0
1965	0	0	93	0	0	0	0	0	85	3	14	0
1966	0	0	0	0	0	0	0	0	222	15	19	0
1967	0	0	0	0	0	0	0	0	69	3	15	0
1968	0	0	0	0	0	0	0	0	222	15	17	0
1969	0	0	39	0	0	0	0	0	87	3	15	0
1970	0	0	88	0	0	0	0	0	196	3	15	0
1971	0	0	0	0	92	0	0	0	87	3	15	0
1972	0	0	0	0	0	0	0	0	222	15	19	0
1973	0	0	83	0	74	0	0	0	117	8	19	0
1974	0	0	0	0	0	0	0	0	86	2	15	0
1975	0	135	0	0	0	0	0	0	85	3	15	0
1976	0	135	0	0	0	0	0	0	0	14	7	0
1977	0	0	0	0	0	0	0	0	3	14	7	0
1978	0	0	0	0	41	33	0	0	168	194	133	0
1979	0	0	0	0	0	0	0	0	136	15	19	0
1980	0	0	67	0	0	0	0	0	115	7	19	0
1981	0	0	0	0	0	0	0	0	232	28	0	0
1982	0	0	93	0	0	41	0	0	77	3	15	0
1983	0	0	0	0	0	0	0	0	71	3	15	0

Appendix C-5 CCWD Operations Modeling

Alt Existing Alt 1 & 2 Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1984	0	0	0	0	0	0	0	0	196	3	15	0
1985	0	0	0	0	0	0	0	0	232	28	0	0
1986	0	0	16	0	24	0	0	0	87	3	15	0
1987	0	0	0	0	0	26	0	0	232	28	19	0
1988	0	0	19	0	48	0	0	0	253	14	7	0
1989	0	0	0	0	0	54	0	0	232	214	26	0
1990	0	0	0	0	0	0	0	0	253	0	7	0
1991	0	0	0	0	0	0	0	0	253	14	7	0
1992	0	0	0	0	0	32	0	0	253	14	7	0
1993	0	0	0	0	97	34	0	0	168	194	133	0
1994	0	0	0	0	0	0	0	0	203	33	0	0
Mean	2	7	13	1	11	9	1	0	156	46	28	2
Max	144	135	93	89	101	72	102	0	253	227	207	81
Min	0	0	0	0	0	0	0	0	0	0	0	0

Base Existing Base Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	144	94	0	0	0	0	0	0	118	8	19	123
1923	0	0	80	0	0	0	0	0	132	15	19	0
1924	0	0	0	0	98	0	0	0	144	257	7	235
1925	0	0	0	0	25	18	0	0	232	214	31	0
1926	0	0	0	0	33	18	0	0	232	214	76	0
1927	0	0	93	88	62	41	0	0	146	51	15	0
1928	0	0	43	0	0	0	0	0	117	8	19	103
1929	0	0	0	0	83	7	0	0	253	214	0	0
1930	0	0	0	0	111	54	0	0	232	214	0	48
1931	0	0	0	0	132	66	0	0	3	14	7	0
1932	0	0	0	0	0	18	0	0	232	214	207	94
1933	0	0	0	0	0	72	0	0	253	14	0	0
1934	167	0	0	0	111	32	0	0	253	14	0	0
1935	0	0	0	0	0	42	107	0	172	201	133	0
1936	0	0	0	0	27	46	0	0	172	153	19	0
1937	0	0	0	0	0	46	0	0	172	201	129	111
1938	0	0	83	0	0	0	0	0	86	3	15	0
1939	0	0	93	0	0	0	0	0	232	0	0	0
1940	0	0	0	0	54	42	0	0	168	194	65	0
1941	0	0	80	0	40	0	0	0	63	3	15	0
1942	0	0	0	0	0	41	0	0	146	19	15	0
1943	9	0	0	0	0	0	0	0	87	3	15	0

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1944	0	0	0	0	0	18	0	0	232	214	0	0
1945	0	0	69	0	82	13	0	0	172	201	0	0
1946	0	0	83	0	101	13	0	0	172	137	0	0
1947	0	0	0	0	11	18	0	0	232	193	0	0
1948	0	0	0	0	0	42	109	0	172	201	0	0
1949	0	0	0	0	0	54	0	0	232	214	0	0
1950	0	0	0	0	82	13	0	0	172	201	3	0
1951	0	0	83	65	101	0	0	0	218	8	19	0
1952	0	0	80	0	19	0	0	0	86	3	15	0
1953	0	0	0	0	0	0	0	0	86	3	15	0
1954	0	0	0	0	42	0	0	0	117	8	19	0
1955	0	0	34	0	40	0	0	0	232	28	0	0
1956	0	0	84	0	54	1	0	0	85	3	15	0
1957	0	0	0	0	0	0	0	0	114	8	19	0
1958	0	0	57	98	0	0	0	0	27	3	15	0
1959	0	135	81	0	0	0	0	0	222	15	0	0
1960	0	0	0	112	89	18	0	0	232	0	0	0
1961	0	0	0	0	0	18	0	0	232	124	0	0
1962	0	0	0	0	82	17	0	0	222	201	0	0
1963	0	104	83	0	0	0	0	0	76	3	15	119
1964	0	0	43	0	0	0	0	0	232	19	0	0
1965	0	0	93	0	82	11	0	0	146	103	14	81
1966	0	0	43	0	0	0	0	0	222	15	0	0
1967	0	0	79	0	41	0	0	0	69	3	15	0
1968	0	0	0	0	0	0	0	0	222	15	0	0
1969	0	0	12	0	48	25	0	0	87	3	15	0
1970	0	0	88	0	0	0	0	0	196	3	15	92
1971	0	0	43	0	92	0	0	0	87	3	15	0
1972	0	63	0	0	9	0	0	0	222	15	0	51
1973	0	0	83	65	101	0	0	0	117	8	19	89
1974	0	0	80	2	0	0	0	0	86	2	15	0
1975	9	135	0	0	0	0	0	0	85	3	15	0
1976	0	135	0	35	25	0	0	0	0	0	7	71
1977	0	0	0	0	0	66	0	0	253	14	7	0
1978	0	0	0	0	40	33	0	0	168	194	133	0
1979	0	0	0	0	40	46	0	0	172	106	0	0
1980	0	0	74	0	40	0	0	0	115	7	19	0
1981	0	0	0	0	40	54	0	0	232	0	0	0
1982	0	0	93	64	82	41	0	0	77	3	15	0
1983	0	0	0	0	0	0	0	0	71	3	15	0
1984	0	0	0	0	0	0	0	0	196	3	15	85

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1985	0	0	43	0	0	0	0	0	232	0	0	0
1986	0	0	0	0	0	29	0	0	146	189	129	0
1987	0	0	0	0	32	54	0	0	232	214	0	0
1988	0	0	0	0	78	32	0	0	253	214	0	0
1989	0	0	0	0	161	54	0	0	232	214	0	0
1990	0	0	0	138	0	32	0	0	253	0	7	0
1991	0	0	0	0	0	0	0	0	253	14	7	0
1992	0	0	0	0	0	32	0	0	253	14	7	0
1993	0	0	0	0	97	34	0	0	168	194	133	0
1994	0	0	0	0	0	32	0	0	203	0	0	0
Mean	5	9	26	9	34	19	3	0	168	76	21	18
Max	167	135	93	138	161	72	109	0	253	257	207	235
Min	0	0	0	0	0	0	0	0	0	0	0	0

Difference Existing Alt 1 & 2 minus Existing Base Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	-94	0	0	0	0	0	0	0	0	0	-123
1923	0	0	-80	0	0	0	0	0	0	0	0	0
1924	0	0	0	0	-98	0	0	0	-144	-29	0	-235
1925	0	0	0	0	0	0	0	0	0	0	114	81
1926	0	0	0	0	9	0	0	0	0	0	73	0
1927	0	0	-64	-88	-62	-41	0	0	-60	-49	0	0
1928	0	0	-43	0	0	0	0	0	0	0	0	-103
1929	0	0	0	0	-83	-7	0	0	0	-200	7	0
1930	0	0	0	0	-111	0	0	0	0	0	77	-48
1931	0	0	0	0	-132	-19	0	0	0	0	0	0
1932	0	0	0	0	64	0	0	0	0	0	0	-33
1933	0	0	0	0	0	0	0	0	0	0	7	0
1934	-167	0	0	0	-111	-32	0	0	0	0	7	0
1935	0	0	0	0	0	0	-5	0	0	0	0	0
1936	0	0	0	0	-27	-46	0	0	-38	-138	0	0
1937	0	0	9	0	0	-46	0	0	-38	-186	-110	-111
1938	0	0	-83	0	0	0	0	0	0	0	0	0
1939	0	0	-93	0	0	0	0	0	0	28	7	0
1940	0	0	0	0	0	0	0	0	-17	-186	-46	0
1941	0	0	0	0	-40	0	0	0	0	0	0	0
1942	0	0	0	0	0	-41	0	0	-66	-16	0	0
1943	-9	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	-119	19	0

Appendix C-5 CCWD Operations Modeling

Difference Existing Alt 1 & 2 minus Existing Base Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1945	0	0	0	0	-82	-13	0	0	-35	-186	19	0
1946	0	0	-6	0	0	-13	0	0	-36	-122	19	0
1947	0	0	45	0	-11	-18	0	0	0	9	7	0
1948	0	0	0	0	0	-42	-109	0	0	0	133	0
1949	0	0	18	0	0	-1	0	0	0	-186	19	0
1950	0	0	0	0	0	-13	0	0	-36	-186	16	0
1951	0	0	-83	-65	-101	0	0	0	0	0	0	0
1952	0	0	-66	0	-19	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	-42	0	0	0	0	0	0	0
1955	0	0	-34	0	-40	0	0	0	0	0	19	0
1956	0	0	-15	0	-54	-1	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	9	-57	-9	0	0	0	0	0	0	0	0
1959	0	0	-81	0	0	0	0	0	0	0	19	0
1960	0	0	0	-112	-89	0	0	0	0	204	15	0
1961	0	0	21	0	0	-18	0	0	0	5	7	0
1962	0	0	0	0	0	-17	0	0	0	-186	19	0
1963	0	0	-83	0	0	0	0	0	0	0	0	-119
1964	0	0	-43	0	0	0	0	0	0	9	0	0
1965	0	0	0	0	-82	-11	0	0	-61	-101	0	-81
1966	0	0	-43	0	0	0	0	0	0	0	19	0
1967	0	0	-79	0	-41	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	17	0
1969	0	0	27	0	-48	-25	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	-92
1971	0	0	-43	0	0	0	0	0	0	0	0	0
1972	0	-63	0	0	-9	0	0	0	0	0	19	-51
1973	0	0	0	-65	-28	0	0	0	0	0	0	-89
1974	0	0	-80	-2	0	0	0	0	0	0	0	0
1975	-9	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	-35	-25	0	0	0	0	14	0	-71
1977	0	0	0	0	0	-66	0	0	-250	0	0	0
1978	0	0	0	0	1	0	0	0	0	0	0	0
1979	0	0	0	0	-40	-46	0	0	-36	-91	19	0
1980	0	0	-7	0	-40	0	0	0	0	0	0	0
1981	0	0	0	0	-40	-54	0	0	0	28	0	0
1982	0	0	0	-64	-82	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	-85
1985	0	0	-43	0	0	0	0	0	0	28	0	0
1986	0	0	16	0	24	-29	0	0	-59	-186	-114	0

Appendix C-5 CCWD Operations Modeling

Difference Existing Alt 1 & 2 minus Existing Base Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1987	0	0	0	0	-32	-28	0	0	0	-186	19	0
1988	0	0	19	0	-30	-32	0	0	0	-200	7	0
1989	0	0	0	0	-161	0	0	0	0	0	26	0
1990	0	0	0	-138	0	-32	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	-32	0	0	0	33	0	0
Mean	-3	-2	-13	-8	-23	-10	-2	0	-12	-30	6	-16
Max	0	9	45	0	64	0	0	0	0	204	133	81
Min	-167	-94	-93	-138	-161	-66	-109	0	-250	-200	-114	-235

Alt Existing Alt 1 & 2 Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	250	161	124	92	66	85	0	149	250	250	250	0
1923	0	0	0	93	90	97	0	170	250	250	0	0
1924	0	0	0	0	0	0	0	149	0	0	0	0
1925	0	0	0	0	250	179	0	199	200	250	0	0
1926	0	0	0	0	0	179	0	199	200	0	0	0
1927	0	0	250	136	121	85	0	150	250	250	0	0
1928	0	0	202	81	88	83	0	149	250	250	0	0
1929	0	0	0	0	0	187	0	222	39	0	0	0
1930	0	0	0	0	161	179	0	199	0	0	0	0
1931	0	0	0	0	0	0	48	222	0	0	0	0
1932	0	0	0	147	250	179	0	199	200	250	0	0
1933	0	0	0	0	145	197	0	222	90	0	0	0
1934	0	0	0	0	161	144	0	222	0	0	0	0
1935	0	0	0	0	161	250	234	203	250	250	0	0
1936	0	0	0	0	249	93	0	170	250	250	0	0
1937	0	0	0	0	0	70	0	0	250	250	0	0
1938	0	0	126	112	69	0	0	0	0	250	250	0
1939	0	137	0	0	92	110	0	199	190	0	0	0
1940	0	0	0	0	250	167	0	149	250	250	0	0
1941	0	0	250	73	0	71	0	150	250	250	250	0
1942	0	0	0	44	0	81	0	150	250	250	0	0
1943	0	0	90	0	89	0	0	150	250	250	0	0
1944	0	0	0	0	0	179	0	199	200	0	0	0
1945	0	0	250	138	238	92	0	170	250	250	0	0

Appendix C-5 CCWD Operations Modeling

Alt Existing Alt 1 & 2 Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1946	0	0	250	114	1	95	0	170	250	250	0	0
1947	0	0	0	0	0	110	0	199	8	0	0	0
1948	0	0	0	0	0	92	54	176	250	250	0	0
1949	0	0	0	0	0	179	0	199	190	0	0	0
1950	0	0	0	0	250	111	0	170	250	250	0	0
1951	0	0	121	108	0	86	0	149	149	250	0	0
1952	0	0	250	81	86	0	0	0	250	250	250	0
1953	191	135	82	80	95	87	0	150	250	250	0	0
1954	0	0	0	0	92	86	0	149	250	250	0	0
1955	0	0	0	94	91	113	0	199	187	0	0	0
1956	0	0	0	0	0	86	0	150	250	250	250	0
1957	190	0	0	0	0	86	0	149	250	250	0	0
1958	0	0	0	0	54	62	0	0	250	250	250	0
1959	191	3	0	0	81	95	0	170	165	0	0	0
1960	0	0	0	0	0	179	0	199	200	0	0	0
1961	0	0	0	0	0	111	0	199	84	0	0	0
1962	0	0	0	138	250	169	0	170	165	0	0	0
1963	0	250	0	97	87	81	0	150	250	250	250	0
1964	0	0	230	0	91	112	0	199	189	0	0	0
1965	0	0	250	138	194	85	0	150	250	250	0	0
1966	0	0	83	79	90	96	0	170	165	0	0	0
1967	0	0	0	86	96	73	0	0	0	250	250	228
1968	191	136	0	73	86	92	0	170	164	0	0	0
1969	0	0	0	0	123	0	0	0	250	250	250	0
1970	0	137	0	59	87	83	0	150	143	250	250	0
1971	0	0	190	78	1	85	0	150	250	250	0	0
1972	0	0	0	0	0	153	0	170	164	250	0	0
1973	0	0	0	107	0	75	0	149	250	250	0	0
1974	0	0	242	92	90	83	0	0	250	250	0	0
1975	190	0	0	0	0	73	0	150	250	250	0	0
1976	188	2	0	0	0	0	0	161	0	0	0	0
1977	0	0	0	0	0	0	114	0	0	0	0	0
1978	0	0	0	147	0	250	203	7	250	250	0	0
1979	0	0	0	0	124	91	0	170	250	250	0	0
1980	0	0	0	0	0	0	0	0	250	250	0	0
1981	0	0	0	0	90	108	0	199	189	0	0	0
1982	0	0	250	116	0	0	0	0	250	250	250	0
1983	188	126	0	0	52	29	0	0	250	250	250	226
1984	190	127	0	80	87	85	0	150	143	250	0	0
1985	0	0	221	83	0	109	0	199	190	0	0	0

Appendix C-5 CCWD Operations Modeling

Alt Existing Alt 1 & 2 Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1986	0	0	0	138	0	0	0	150	250	250	0	0
1987	0	0	0	0	0	179	0	199	190	0	0	0
1988	0	0	0	0	250	148	0	222	17	0	0	0
1989	0	0	0	0	0	179	0	199	200	0	0	0
1990	0	0	0	0	0	167	0	222	0	0	0	0
1991	0	0	0	0	0	142	183	222	0	0	0	0
1992	0	0	0	0	0	197	127	227	0	0	0	0
1993	0	0	0	0	250	250	134	156	250	250	0	0
1994	0	0	0	0	0	149	0	222	250	0	0	0
Mean	24	17	47	40	72	105	15	149	178	147	41	6
Max	250	250	250	147	250	250	234	227	250	250	250	228
Min	0	0	0	0	0	0	0	0	0	0	0	0

Base Existing Base Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	250	250	174	92	66	85	0	149	250	250	250	0
1923	55	58	250	98	214	97	0	170	250	250	250	62
1924	41	38	83	114	0	108	0	150	0	0	250	0
1925	198	165	152	147	250	179	0	199	200	250	250	138
1926	41	35	112	137	250	179	0	199	200	250	250	93
1927	36	68	250	250	250	166	0	150	250	250	250	73
1928	47	51	250	250	88	83	0	149	250	250	250	0
1929	53	55	64	40	0	197	0	222	200	250	146	70
1930	28	25	81	147	250	179	0	199	200	250	116	0
1931	21	156	143	136	0	77	180	222	250	250	250	235
1932	198	165	152	147	155	179	72	204	200	250	250	0
1933	34	32	49	96	239	197	0	222	200	250	207	111
1934	0	165	151	147	250	197	0	222	38	250	176	223
1935	198	165	152	144	161	250	229	207	250	250	250	52
1936	34	32	104	111	250	171	0	170	250	250	250	59
1937	34	38	94	109	81	171	0	170	250	250	250	0
1938	46	89	250	242	69	67	0	150	250	250	250	214
1939	203	137	0	81	92	110	0	199	190	236	86	51
1940	40	64	64	128	250	167	75	157	250	250	250	59
1941	35	56	250	98	250	99	0	150	250	250	250	142
1942	83	63	76	83	92	166	0	150	250	250	250	156
1943	250	131	90	55	89	78	0	150	250	250	250	85
1944	54	47	59	37	34	179	0	199	200	250	94	41
1945	37	123	250	138	250	171	0	170	250	250	192	59

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1946	38	149	250	115	36	171	0	170	250	250	174	65
1947	47	73	132	115	250	179	0	199	200	250	64	32
1948	29	71	80	43	117	250	227	208	250	250	226	61
1949	50	139	131	114	48	179	0	199	200	250	134	98
1950	46	49	77	86	250	250	161	178	250	250	250	85
1951	58	109	250	250	37	86	0	149	149	250	250	72
1952	52	52	250	98	250	81	0	150	250	250	250	228
1953	191	135	82	80	95	87	0	150	250	250	250	108
1954	109	75	92	83	250	161	0	149	250	250	250	75
1955	52	61	250	98	250	155	0	199	187	250	202	94
1956	41	55	250	138	250	166	0	150	250	250	250	195
1957	220	138	73	38	159	86	0	149	250	250	250	58
1958	55	139	250	0	200	62	0	150	250	250	250	227
1959	191	3	0	83	88	95	0	170	165	250	237	52
1960	32	36	133	0	0	179	0	199	200	242	94	73
1961	40	160	143	138	131	179	74	204	200	250	71	139
1962	199	162	143	138	250	250	189	178	200	250	129	44
1963	136	250	250	191	87	81	0	150	250	250	250	0
1964	41	28	250	230	91	112	0	199	189	250	65	43
1965	33	62	250	138	250	166	0	150	250	250	250	0
1966	49	112	250	172	78	107	0	170	165	250	166	64
1967	54	94	250	115	250	119	0	150	250	250	250	228
1968	191	136	92	73	86	92	0	170	164	250	170	45
1969	44	99	250	115	250	166	0	150	250	250	250	227
1970	189	137	0	59	87	83	0	150	143	250	250	0
1971	41	53	250	213	1	85	0	150	250	250	250	153
1972	183	0	44	54	250	161	0	170	164	250	184	0
1973	30	81	250	250	35	75	0	149	250	250	250	0
1974	35	61	250	250	90	83	0	150	250	250	250	155
1975	250	2	63	53	149	73	0	150	250	250	250	171
1976	242	2	73	0	0	135	0	163	163	218	250	0
1977	40	130	152	147	161	77	180	222	0	250	250	235
1978	198	165	152	147	250	250	210	157	250	250	250	83
1979	57	47	56	95	250	171	0	170	250	250	193	59
1980	40	67	250	115	250	130	0	149	250	250	250	112
1981	74	50	65	98	250	179	0	199	200	239	76	46
1982	42	133	250	250	250	94	0	150	250	250	250	225
1983	188	126	73	42	52	29	0	150	250	250	250	226
1984	190	127	81	80	87	85	0	150	143	250	250	0
1985	44	43	250	248	90	109	0	199	190	227	74	55
1986	50	58	120	138	131	250	102	158	250	250	250	148

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1987	72	46	40	42	0	179	0	199	200	250	116	45
1988	34	56	74	138	250	197	0	222	200	250	169	71
1989	26	22	135	147	0	179	37	204	200	250	67	50
1990	199	162	143	0	132	197	99	225	146	136	250	235
1991	198	165	152	147	137	144	218	227	0	250	250	235
1992	198	165	152	147	155	197	122	227	0	250	250	235
1993	198	165	152	147	250	250	134	156	250	250	250	94
1994	44	38	90	77	52	197	0	222	250	90	54	125
Mean	94	92	148	120	147	146	32	177	207	242	208	96
Max	250	250	250	250	250	250	229	227	250	250	250	235
Min	0	0	0	0	0	29	0	149	0	0	54	0

Difference Existing Alt 1 & 2 minus Existing Base Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	-89	-50	0	0	0	0	0	0	0	0	0
1923	-55	-58	-250	-5	-124	0	0	0	0	0	-250	-62
1924	-41	-38	-83	-114	0	-108	0	0	0	0	-250	0
1925	-198	-165	-152	-147	0	0	0	0	0	0	-250	-138
1926	-41	-35	-112	-137	-250	0	0	0	0	-250	-250	-93
1927	-36	-68	0	-114	-129	-82	0	0	0	0	-250	-73
1928	-47	-51	-48	-168	0	0	0	0	0	0	-250	0
1929	-53	-55	-64	-40	0	-10	0	0	-161	-250	-146	-70
1930	-28	-25	-81	-147	-89	0	0	0	-200	-250	-116	0
1931	-21	-156	-143	-136	0	-77	-132	0	-250	-250	-250	-235
1932	-198	-165	-152	0	95	0	-72	-5	0	0	-250	0
1933	-34	-32	-49	-96	-94	0	0	0	-110	-250	-207	-111
1934	0	-165	-151	-147	-89	-53	0	0	-38	-250	-176	-223
1935	-198	-165	-152	-144	0	0	5	-5	0	0	-250	-52
1936	-34	-32	-104	-111	-1	-78	0	0	0	0	-250	-59
1937	-34	-38	-94	-109	-81	-101	0	-170	0	0	-250	0
1938	-46	-89	-124	-130	0	-67	0	-150	-250	0	0	-214
1939	-203	0	0	-81	0	0	0	0	0	-236	-86	-51
1940	-40	-64	-64	-128	0	0	-75	-7	0	0	-250	-59
1941	-35	-56	0	-24	-250	-28	0	0	0	0	0	-142
1942	-83	-63	-76	-38	-92	-86	0	0	0	0	-250	-156
1943	-250	-131	0	-55	0	-78	0	0	0	0	-250	-85
1944	-54	-47	-59	-37	-34	0	0	0	0	-250	-94	-41
1945	-37	-123	0	0	-12	-79	0	0	0	0	-192	-59
1946	-38	-149	0	-1	-35	-76	0	0	0	0	-174	-65

Appendix C-5 CCWD Operations Modeling

Difference Existing Alt 1 & 2 minus Existing Base Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1947	-47	-73	-132	-115	-250	-69	0	0	-192	-250	-64	-32
1948	-29	-71	-80	-43	-117	-158	-173	-32	0	0	-226	-61
1949	-50	-139	-131	-114	-48	0	0	0	-10	-250	-134	-98
1950	-46	-49	-77	-86	0	-139	-161	-8	0	0	-250	-85
1951	-58	-109	-129	-142	-37	0	0	0	0	0	-250	-72
1952	-52	-52	0	-17	-164	-81	0	-150	0	0	0	-228
1953	0	0	0	0	0	0	0	0	0	0	-250	-108
1954	-109	-75	-92	-83	-158	-75	0	0	0	0	-250	-75
1955	-52	-61	-250	-3	-159	-42	0	0	0	-250	-202	-94
1956	-41	-55	-250	-138	-250	-80	0	0	0	0	0	-195
1957	-30	-138	-73	-38	-159	0	0	0	0	0	-250	-58
1958	-55	-139	-250	0	-146	0	0	-150	0	0	0	-227
1959	0	0	0	-83	-7	0	0	0	0	-250	-237	-52
1960	-32	-36	-133	0	0	0	0	0	0	-242	-94	-73
1961	-40	-160	-143	-138	-131	-69	-74	-5	-116	-250	-71	-139
1962	-199	-162	-143	0	0	-81	-189	-8	-35	-250	-129	-44
1963	-136	0	-250	-95	0	0	0	0	0	0	0	0
1964	-41	-28	-20	-230	0	0	0	0	0	-250	-65	-43
1965	-33	-62	0	0	-56	-81	0	0	0	0	-250	0
1966	-49	-112	-167	-94	12	-10	0	0	0	-250	-166	-64
1967	-54	-94	-250	-29	-154	-46	0	-150	-250	0	0	0
1968	0	0	-92	0	0	0	0	0	0	-250	-170	-45
1969	-44	-99	-250	-115	-127	-166	0	-150	0	0	0	-227
1970	-189	0	0	0	0	0	0	0	0	0	0	0
1971	-41	-53	-60	-135	0	0	0	0	0	0	-250	-153
1972	-183	0	-44	-54	-250	-9	0	0	0	0	-184	0
1973	-30	-81	-250	-143	-35	0	0	0	0	0	-250	0
1974	-35	-61	-8	-158	0	0	0	-150	0	0	-250	-155
1975	-60	-2	-63	-53	-149	0	0	0	0	0	-250	-171
1976	-54	0	-73	0	0	-135	0	-2	-163	-218	-250	0
1977	-40	-130	-152	-147	-161	-77	-66	-222	0	-250	-250	-235
1978	-198	-165	-152	0	-250	0	-7	-149	0	0	-250	-83
1979	-57	-47	-56	-95	-126	-80	0	0	0	0	-193	-59
1980	-40	-67	-250	-115	-250	-130	0	-149	0	0	-250	-112
1981	-74	-50	-65	-98	-160	-71	0	0	-11	-239	-76	-46
1982	-42	-133	0	-134	-250	-94	0	-150	0	0	0	-225
1983	0	0	-73	-42	0	0	0	-150	0	0	0	0
1984	0	0	-81	0	0	0	0	0	0	0	-250	0
1985	-44	-43	-29	-166	-90	0	0	0	0	-227	-74	-55
1986	-50	-58	-120	0	-131	-250	-102	-7	0	0	-250	-148
1987	-72	-46	-40	-42	0	0	0	0	-10	-250	-116	-45
1988	-34	-56	-74	-138	0	-49	0	0	-183	-250	-169	-71

Appendix C-5 CCWD Operations Modeling

Difference Existing Alt 1 & 2 minus Existing Base Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1989	-26	-22	-135	-147	0	0	-37	-5	0	-250	-67	-50
1990	-199	-162	-143	0	-132	-29	-99	-4	-146	-136	-250	-235
1991	-198	-165	-152	-147	-137	-2	-35	-5	0	-250	-250	-235
1992	-198	-165	-152	-147	-155	0	5	0	0	-250	-250	-235
1993	-198	-165	-152	-147	0	0	0	0	0	0	-250	-94
1994	-44	-38	-90	-77	-52	-48	0	0	0	-90	-54	-125
Mean	-70	-75	-100	-80	-75	-41	-17	-27	-29	-94	-167	-90
Max	0	0	0	0	95	0	5	0	0	0	0	0
Min	-250	-165	-250	-230	-250	-250	-189	-222	-250	-250	-250	-235

Alt Existing Alt 1 & 2 Total Alternative Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	236
1923	141	142	171	0	0	0	0	0	0	0	250	184
1924	101	85	132	96	52	112	0	0	151	0	250	214
1925	67	144	150	147	0	0	0	0	0	0	250	250
1926	101	68	62	122	250	0	0	0	0	250	250	243
1927	91	133	0	0	0	0	0	0	0	0	250	228
1928	107	103	0	0	0	0	0	0	0	0	250	236
1929	114	110	244	98	47	0	0	0	0	250	250	182
1930	70	51	139	147	0	0	0	0	0	250	250	233
1931	64	67	105	103	50	0	0	0	250	250	250	235
1932	198	165	152	0	0	0	0	0	0	0	250	250
1933	112	44	103	106	0	0	0	0	0	250	250	235
1934	96	56	132	147	0	0	0	0	0	250	250	235
1935	196	164	152	147	0	0	0	0	0	0	250	204
1936	108	79	161	115	0	0	0	0	0	0	250	234
1937	100	82	250	93	146	0	0	170	0	0	250	235
1938	122	234	0	0	0	67	0	150	250	0	0	227
1939	190	0	93	81	0	0	0	0	0	250	250	141
1940	77	86	101	138	0	0	0	0	0	0	250	189
1941	83	73	0	0	60	0	0	0	0	0	0	228
1942	190	136	74	0	79	0	0	0	0	0	250	227
1943	190	131	0	55	0	78	0	0	0	0	250	228
1944	116	82	77	83	52	0	0	0	0	250	250	120
1945	72	132	0	0	0	0	0	0	0	0	250	177
1946	99	106	0	0	0	0	0	0	0	0	250	186
1947	105	110	250	115	123	0	0	0	0	250	250	112

Appendix C-5 CCWD Operations Modeling

Alt Existing Alt 1 & 2 Total Alternative Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1948	67	105	140	124	67	0	0	0	0	0	250	198
1949	112	100	250	115	7	0	0	0	0	250	250	243
1950	104	84	117	138	0	0	0	0	0	0	250	234
1951	132	218	0	0	99	0	0	0	0	0	250	210
1952	115	109	0	0	0	81	0	150	0	0	0	228
1953	0	0	0	0	0	0	0	0	0	0	250	228
1954	191	136	93	81	0	0	0	0	0	0	250	236
1955	109	117	243	0	0	0	0	0	0	250	250	242
1956	81	83	250	124	124	0	0	0	0	0	0	227
1957	0	138	94	81	89	0	0	0	0	0	250	201
1958	122	250	127	0	0	0	0	150	0	0	0	227
1959	0	0	93	77	0	0	0	0	0	250	250	182
1960	84	69	132	115	55	0	0	0	0	250	250	247
1961	86	119	250	138	162	0	0	0	0	250	250	153
1962	75	104	143	0	0	0	0	0	0	250	250	137
1963	78	0	143	0	0	0	0	0	0	0	0	227
1964	118	64	0	76	0	0	0	0	0	250	234	138
1965	74	133	0	0	0	0	0	0	0	0	250	228
1966	104	221	0	0	0	0	0	0	0	250	250	181
1967	99	247	170	0	0	0	0	150	250	0	0	0
1968	0	0	92	0	0	0	0	0	0	250	250	129
1969	89	124	250	115	0	73	0	150	0	0	0	227
1970	189	0	0	0	0	0	0	0	0	0	0	227
1971	98	104	0	0	0	0	0	0	0	0	250	227
1972	191	137	88	83	30	0	0	0	0	0	250	164
1973	70	111	250	0	0	0	0	0	0	0	250	235
1974	95	110	0	0	0	0	0	150	0	0	250	228
1975	0	2	90	83	86	0	0	0	0	0	250	228
1976	0	0	94	83	39	138	0	0	195	250	250	210
1977	88	137	107	89	70	55	0	222	250	250	250	235
1978	198	165	152	0	250	0	0	149	0	0	250	235
1979	200	111	103	98	0	0	0	0	0	0	250	176
1980	96	123	250	94	55	76	0	149	0	0	250	236
1981	200	147	128	92	0	0	0	0	0	250	250	141
1982	88	150	0	0	125	33	0	150	0	0	0	225
1983	0	0	73	42	0	0	0	150	0	0	0	0
1984	0	0	81	0	0	0	0	0	0	0	250	228
1985	106	80	0	0	90	0	0	0	0	250	228	152
1986	110	101	250	0	250	74	0	0	0	0	250	227
1987	169	116	75	83	48	0	0	0	0	250	250	151

Appendix C-5 CCWD Operations Modeling

Alt Existing Alt 1 & 2 Total Alternative Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1988	70	92	250	138	0	0	0	0	0	250	250	190
1989	67	56	106	147	79	0	0	0	0	250	250	176
1990	97	99	205	67	95	0	0	0	0	238	250	228
1991	72	150	152	147	161	0	0	0	0	250	250	235
1992	198	165	152	147	155	0	0	0	0	250	250	235
1993	198	165	152	147	0	0	0	0	0	0	250	236
1994	172	131	169	97	87	0	0	0	0	250	231	102
Mean	103	102	110	63	42	11	0	26	18	99	208	202
Max	200	250	250	147	250	138	0	222	250	250	250	250
Min	0	0	0	0	0	0	0	0	0	0	0	0

Base Existing Base Total Alternate Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	0
1923	0	0	0	0	0	0	0	0	0	0	0	0
1924	0	0	0	0	0	0	0	0	0	0	0	0
1925	0	0	0	0	0	0	0	0	0	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total Alternate Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total Alternate Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0
Mean	0	0	0	0	0	0	0	0	0	0	0	0
Max	0	0	0	0	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	0	0	0	0	0	0	0

Difference Existing Alt 1 & 2 minus Existing Base Total Alternate Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	236
1923	141	142	171	0	0	0	0	0	0	0	250	184
1924	101	85	132	96	52	112	0	0	151	0	250	214
1925	67	144	150	147	0	0	0	0	0	0	250	250
1926	101	68	62	122	250	0	0	0	0	250	250	243
1927	91	133	0	0	0	0	0	0	0	0	250	228
1928	107	103	0	0	0	0	0	0	0	0	250	236
1929	114	110	244	98	47	0	0	0	0	250	250	182
1930	70	51	139	147	0	0	0	0	0	250	250	233
1931	64	67	105	103	50	0	0	0	250	250	250	235
1932	198	165	152	0	0	0	0	0	0	0	250	250
1933	112	44	103	106	0	0	0	0	0	250	250	235
1934	96	56	132	147	0	0	0	0	0	250	250	235
1935	196	164	152	147	0	0	0	0	0	0	250	204
1936	108	79	161	115	0	0	0	0	0	0	250	234
1937	100	82	250	93	146	0	0	170	0	0	250	235
1938	122	234	0	0	0	67	0	150	250	0	0	227
1939	190	0	93	81	0	0	0	0	0	250	250	141
1940	77	86	101	138	0	0	0	0	0	0	250	189
1941	83	73	0	0	60	0	0	0	0	0	0	228
1942	190	136	74	0	79	0	0	0	0	0	250	227
1943	190	131	0	55	0	78	0	0	0	0	250	228
1944	116	82	77	83	52	0	0	0	0	250	250	120
1945	72	132	0	0	0	0	0	0	0	0	250	177
1946	99	106	0	0	0	0	0	0	0	0	250	186
1947	105	110	250	115	123	0	0	0	0	250	250	112

Appendix C-5 CCWD Operations Modeling

Difference Existing Alt 1 & 2 minus Existing Base Total Alternate Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1948	67	105	140	124	67	0	0	0	0	0	250	198
1949	112	100	250	115	7	0	0	0	0	250	250	243
1950	104	84	117	138	0	0	0	0	0	0	250	234
1951	132	218	0	0	99	0	0	0	0	0	250	210
1952	115	109	0	0	0	81	0	150	0	0	0	228
1953	0	0	0	0	0	0	0	0	0	0	250	228
1954	191	136	93	81	0	0	0	0	0	0	250	236
1955	109	117	243	0	0	0	0	0	0	250	250	242
1956	81	83	250	124	124	0	0	0	0	0	0	227
1957	0	138	94	81	89	0	0	0	0	0	250	201
1958	122	250	127	0	0	0	0	150	0	0	0	227
1959	0	0	93	77	0	0	0	0	0	250	250	182
1960	84	69	132	115	55	0	0	0	0	250	250	247
1961	86	119	250	138	162	0	0	0	0	250	250	153
1962	75	104	143	0	0	0	0	0	0	250	250	137
1963	78	0	143	0	0	0	0	0	0	0	0	227
1964	118	64	0	76	0	0	0	0	0	250	234	138
1965	74	133	0	0	0	0	0	0	0	0	250	228
1966	104	221	0	0	0	0	0	0	0	250	250	181
1967	99	247	170	0	0	0	0	150	250	0	0	0
1968	0	0	92	0	0	0	0	0	0	250	250	129
1969	89	124	250	115	0	73	0	150	0	0	0	227
1970	189	0	0	0	0	0	0	0	0	0	0	227
1971	98	104	0	0	0	0	0	0	0	0	250	227
1972	191	137	88	83	30	0	0	0	0	0	250	164
1973	70	111	250	0	0	0	0	0	0	0	250	235
1974	95	110	0	0	0	0	0	150	0	0	250	228
1975	0	2	90	83	86	0	0	0	0	0	250	228
1976	0	0	94	83	39	138	0	0	195	250	250	210
1977	88	137	107	89	70	55	0	222	250	250	250	235
1978	198	165	152	0	250	0	0	149	0	0	250	235
1979	200	111	103	98	0	0	0	0	0	0	250	176
1980	96	123	250	94	55	76	0	149	0	0	250	236
1981	200	147	128	92	0	0	0	0	0	250	250	141
1982	88	150	0	0	125	33	0	150	0	0	0	225
1983	0	0	73	42	0	0	0	150	0	0	0	0
1984	0	0	81	0	0	0	0	0	0	0	250	228
1985	106	80	0	0	90	0	0	0	0	250	228	152
1986	110	101	250	0	250	74	0	0	0	0	250	227
1987	169	116	75	83	48	0	0	0	0	250	250	151

Appendix C-5 CCWD Operations Modeling

Difference Existing Alt 1 & 2 minus Existing Base Total Alternate Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1988	70	92	250	138	0	0	0	0	0	250	250	190
1989	67	56	106	147	79	0	0	0	0	250	250	176
1990	97	99	205	67	95	0	0	0	0	238	250	228
1991	72	150	152	147	161	0	0	0	0	250	250	235
1992	198	165	152	147	155	0	0	0	0	250	250	235
1993	198	165	152	147	0	0	0	0	0	0	250	236
1994	172	131	169	97	87	0	0	0	0	250	231	102
Mean	103	102	110	63	42	11	0	26	18	99	208	202
Max	200	250	250	147	250	138	0	222	250	250	250	250
Min	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-5 CCWD Operations Modeling

Alt Existing Alt 3 Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	394	144	124	92	66	85	0	149	368	258	269	236
1923	139	141	173	93	90	97	0	170	382	265	269	183
1924	100	84	132	95	51	111	0	148	149	226	257	213
1925	65	158	150	147	341	156	0	199	432	464	450	313
1926	100	65	60	122	164	245	0	199	432	464	418	243
1927	90	133	280	136	121	85	0	150	336	253	265	228
1928	106	102	203	81	88	83	0	149	367	258	269	236
1929	113	110	245	98	47	187	0	222	272	264	257	182
1930	70	51	139	147	161	269	0	199	272	464	257	233
1931	64	67	105	103	49	47	67	222	253	264	257	235
1932	198	165	152	147	355	245	0	199	432	464	457	311
1933	108	0	103	106	145	304	0	222	319	264	257	235
1934	96	56	132	147	161	144	0	222	253	264	257	235
1935	154	164	152	147	161	161	336	306	422	451	408	204
1936	108	79	32	115	298	177	0	170	383	265	269	234
1937	101	83	300	93	99	70	0	170	384	265	269	235
1938	122	234	126	112	69	67	0	150	336	253	265	227
1939	190	137	93	81	92	110	0	199	422	278	257	141
1940	77	86	101	138	328	221	0	149	366	258	269	188
1941	82	72	330	76	60	71	0	150	313	253	265	228
1942	190	136	74	44	79	81	0	150	331	253	265	227
1943	190	131	90	55	89	78	0	150	337	253	265	228
1944	116	82	77	83	52	245	0	199	432	301	269	119
1945	71	132	343	138	213	92	0	170	387	265	269	176
1946	98	106	331	114	102	95	0	170	386	265	269	185
1947	103	109	282	115	101	109	0	199	232	264	257	109
1948	64	104	140	123	66	272	115	176	422	451	383	196
1949	109	99	313	114	0	200	0	199	423	278	269	236
1950	100	80	113	138	332	129	0	170	386	265	269	234
1951	130	221	121	108	99	86	0	149	367	258	269	209
1952	113	108	269	81	86	81	0	150	336	253	265	228
1953	191	135	82	80	95	87	0	150	336	253	265	228
1954	191	136	93	81	92	86	0	149	367	258	269	236
1955	107	116	245	94	91	113	0	199	419	278	257	233
1956	79	81	342	124	124	86	0	150	335	253	265	227
1957	190	138	94	81	89	86	0	149	364	258	269	200
1958	120	261	127	89	54	62	0	150	277	253	265	227
1959	191	138	93	77	81	95	0	170	387	265	269	182

Appendix C-5 CCWD Operations Modeling

Alt Existing Alt 3 Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1960	82	68	132	115	54	245	0	199	432	411	269	243
1961	84	118	259	138	146	140	0	199	232	264	257	151
1962	72	103	143	138	332	229	0	170	422	368	269	139
1963	80	354	140	97	87	81	0	150	326	253	265	227
1964	119	64	228	76	91	112	0	199	421	278	235	139
1965	75	134	343	138	192	85	0	150	335	253	264	228
1966	105	221	83	79	90	96	0	170	387	265	269	181
1967	99	259	167	77	96	73	0	150	319	253	265	228
1968	191	136	92	73	86	92	0	170	386	265	267	129
1969	89	124	333	115	75	73	0	150	337	253	265	227
1970	189	137	88	59	87	83	0	150	339	253	265	227
1971	96	103	192	78	93	85	0	150	337	253	265	227
1972	191	137	88	83	30	153	0	170	386	265	269	163
1973	69	111	333	109	74	75	0	149	367	258	269	235
1974	94	109	243	92	90	83	0	150	336	252	265	228
1975	190	137	90	83	86	73	0	150	335	253	265	228
1976	188	138	94	83	39	138	0	161	195	264	257	210
1977	88	137	107	89	69	54	118	222	253	264	257	235
1978	198	165	152	147	361	284	284	208	418	444	383	235
1979	200	143	103	98	89	91	0	170	386	265	269	175
1980	96	122	319	94	55	76	0	149	365	257	269	236
1981	200	147	128	92	90	108	0	199	422	278	250	140
1982	87	150	343	118	125	75	0	150	327	253	265	225
1983	188	126	73	42	52	29	0	150	321	253	265	226
1984	190	127	81	80	87	85	0	150	339	253	265	228
1985	105	80	222	83	90	109	0	199	422	278	227	152
1986	109	100	331	138	205	74	0	150	337	253	265	227
1987	168	116	75	83	47	208	0	199	423	278	269	148
1988	68	91	192	138	328	203	0	222	260	264	257	190
1989	67	56	106	147	79	269	0	199	432	464	287	174
1990	95	97	143	67	94	144	0	222	253	238	257	233
1991	106	165	152	147	161	143	183	222	253	264	257	235
1992	198	165	152	147	155	280	75	227	253	264	257	235
1993	198	165	152	147	361	284	121	156	418	444	383	236
1994	172	130	170	97	87	149	0	222	453	283	231	102
Mean	128	126	170	104	124	131	18	177	351	289	277	209
Max	394	354	343	147	361	304	336	306	453	464	457	313
Min	64	0	32	42	0	29	0	148	149	226	227	102

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	394	344	174	92	66	85	0	149	368	258	269	123
1923	55	58	330	98	214	97	0	170	382	265	269	62
1924	41	38	83	114	98	108	0	150	144	257	257	235
1925	198	165	152	147	275	198	0	199	432	464	281	138
1926	41	35	112	137	283	198	0	199	432	464	326	93
1927	36	68	343	338	312	208	0	150	396	301	265	73
1928	47	51	293	250	88	83	0	149	367	258	269	103
1929	53	55	64	40	83	204	0	222	453	464	146	70
1930	28	25	81	147	361	234	0	199	432	464	116	48
1931	21	156	143	136	132	144	180	222	253	264	257	235
1932	198	165	152	147	155	198	72	204	432	464	457	94
1933	34	32	49	96	239	269	0	222	453	264	207	111
1934	167	165	151	147	361	229	0	222	291	264	176	223
1935	198	165	152	144	161	292	336	207	422	451	383	52
1936	34	32	104	111	277	217	0	170	422	403	269	59
1937	34	38	94	109	81	217	0	170	422	451	379	111
1938	46	89	333	242	69	67	0	150	336	253	265	214
1939	203	137	93	81	92	110	0	199	422	236	86	51
1940	40	64	64	128	304	209	75	157	418	444	315	59
1941	35	56	330	98	290	99	0	150	313	253	265	142
1942	83	63	76	83	92	208	0	150	396	269	265	156
1943	259	131	90	55	89	78	0	150	337	253	265	85
1944	54	47	59	37	34	198	0	199	432	464	94	41
1945	37	123	319	138	332	184	0	170	422	451	192	59
1946	38	149	333	115	138	184	0	170	422	387	174	65
1947	47	73	132	115	261	198	0	199	432	443	64	32
1948	29	71	80	43	117	292	336	208	422	451	226	61
1949	50	139	131	114	48	234	0	199	432	464	134	98
1950	46	49	77	86	332	263	161	178	422	451	253	85
1951	58	109	333	315	138	86	0	149	367	258	269	72
1952	52	52	330	98	269	81	0	150	336	253	265	228
1953	191	135	82	80	95	87	0	150	336	253	265	108
1954	109	75	92	83	292	161	0	149	367	258	269	75
1955	52	61	284	98	290	155	0	199	419	278	202	94
1956	41	55	334	138	304	167	0	150	335	253	265	195
1957	220	138	73	38	159	86	0	149	364	258	269	58
1958	55	139	307	98	200	62	0	150	277	253	265	227
1959	191	138	81	83	88	95	0	170	387	265	237	52
1960	32	36	133	112	89	198	0	199	432	242	94	73
1961	40	160	143	138	131	198	74	204	432	374	71	139
1962	199	162	143	138	332	267	189	178	422	451	129	44

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1963	136	354	333	191	87	81	0	150	326	253	265	119
1964	41	28	293	230	91	112	0	199	421	269	65	43
1965	33	62	343	138	332	177	0	150	396	353	264	81
1966	49	112	293	172	78	107	0	170	387	265	166	64
1967	54	94	329	115	291	119	0	150	319	253	265	228
1968	191	136	92	73	86	92	0	170	386	265	170	45
1969	44	99	262	115	298	191	0	150	337	253	265	227
1970	189	137	88	59	87	83	0	150	339	253	265	92
1971	41	53	293	213	93	85	0	150	337	253	265	153
1972	183	63	44	54	259	161	0	170	386	265	184	51
1973	30	81	333	315	137	75	0	149	367	258	269	89
1974	35	61	330	252	90	83	0	150	336	252	265	155
1975	259	137	63	53	149	73	0	150	335	253	265	171
1976	242	138	73	35	25	135	0	163	163	218	257	71
1977	40	130	152	147	161	144	180	222	253	264	257	235
1978	198	165	152	147	290	283	210	157	418	444	383	83
1979	57	47	56	95	290	217	0	170	422	356	193	59
1980	40	67	324	115	290	130	0	149	365	257	269	112
1981	74	50	65	98	290	234	0	199	432	239	76	46
1982	42	133	343	314	332	136	0	150	327	253	265	225
1983	188	126	73	42	52	29	0	150	321	253	265	226
1984	190	127	81	80	87	85	0	150	339	253	265	85
1985	44	43	293	248	90	109	0	199	422	227	74	55
1986	50	58	120	138	131	279	102	158	396	439	379	148
1987	72	46	40	42	32	234	0	199	432	464	116	45
1988	34	56	74	138	328	229	0	222	453	464	169	71
1989	26	22	135	147	161	234	37	204	432	464	67	50
1990	199	162	143	138	132	229	99	225	400	136	257	235
1991	198	165	152	147	137	144	218	227	253	264	257	235
1992	198	165	152	147	155	229	122	227	253	264	257	235
1993	198	165	152	147	347	284	134	156	418	444	383	94
1994	44	38	90	77	52	229	0	222	453	90	54	125
Mean	99	101	174	129	181	164	35	177	375	318	229	114
Max	394	354	343	338	361	292	336	227	453	464	457	235
Min	21	22	40	35	25	29	0	149	144	90	54	32

Appendix C-5 CCWD Operations Modeling

Difference Existing Alt 3 minus Existing Base Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	-200	-50	0	0	0	0	0	0	0	0	112
1923	84	83	-157	-5	-124	0	0	0	0	0	0	121
1924	58	46	49	-19	-46	2	0	-2	5	-30	0	-22
1925	-133	-7	-2	0	66	-42	0	0	0	0	170	174
1926	59	30	-52	-15	-119	47	0	0	0	0	92	150
1927	53	65	-63	-202	-190	-123	0	0	-60	-49	0	154
1928	59	51	-89	-168	0	0	0	0	0	0	0	133
1929	60	55	181	58	-36	-17	0	0	-182	-200	111	112
1930	42	26	58	0	-200	35	0	0	-160	0	140	186
1931	42	-90	-38	-34	-83	-97	-113	0	0	0	0	0
1932	0	0	0	0	200	47	-72	-5	0	0	0	217
1933	73	-32	54	9	-94	35	0	0	-134	0	50	124
1934	-72	-109	-18	1	-200	-85	0	0	-38	0	80	12
1935	-43	-1	0	3	0	-131	0	99	0	0	25	152
1936	74	47	-73	4	21	-40	0	0	-38	-138	0	175
1937	67	45	206	-16	19	-147	0	0	-38	-186	-110	124
1938	76	145	-207	-130	0	0	0	0	0	0	0	14
1939	-13	0	0	0	0	0	0	0	0	41	171	90
1940	37	22	37	10	24	12	-75	-7	-52	-186	-46	129
1941	47	17	0	-21	-229	-28	0	0	0	0	0	85
1942	106	73	-2	-38	-13	-127	0	0	-66	-16	0	72
1943	-69	0	0	0	0	0	0	0	0	0	0	142
1944	61	35	18	45	18	47	0	0	0	-163	175	78
1945	35	9	24	0	-119	-92	0	0	-35	-186	77	117
1946	60	-44	-3	-1	-35	-89	0	0	-36	-122	95	120
1947	56	36	150	0	-160	-89	0	0	-200	-180	192	77
1948	36	33	59	80	-52	-20	-221	-32	0	0	157	135
1949	59	-41	182	0	-48	-33	0	0	-10	-186	134	138
1950	54	32	35	52	0	-135	-161	-8	-36	-186	16	149
1951	72	111	-213	-207	-39	0	0	0	0	0	0	138
1952	61	56	-61	-17	-183	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	119
1954	82	61	1	-2	-200	-75	0	0	0	0	0	161
1955	54	56	-39	-3	-199	-42	0	0	0	0	54	139
1956	38	27	8	-14	-180	-81	0	0	0	0	0	31
1957	-30	0	20	43	-70	0	0	0	0	0	0	142
1958	65	122	-180	-9	-146	0	0	0	0	0	0	0
1959	0	0	12	-6	-7	0	0	0	0	0	32	129
1960	50	31	-1	2	-35	47	0	0	0	169	175	169
1961	44	-43	117	0	15	-57	-74	-5	-200	-110	185	12

Appendix C-5 CCWD Operations Modeling

Difference Existing Alt 3 minus Existing Base Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1962	-126	-59	0	0	0	-37	-189	-8	0	-84	140	95
1963	-57	0	-194	-95	0	0	0	0	0	0	0	109
1964	78	36	-64	-154	0	0	0	0	0	9	170	96
1965	42	72	0	0	-141	-92	0	0	-61	-101	0	147
1966	56	109	-210	-94	12	-10	0	0	0	0	103	117
1967	45	164	-162	-38	-195	-46	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	98	84
1969	45	25	71	0	-224	-118	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	135
1971	56	50	-101	-135	0	0	0	0	0	0	0	74
1972	8	73	44	28	-228	-9	0	0	0	0	85	112
1973	39	29	0	-206	-63	0	0	0	0	0	0	147
1974	59	48	-87	-161	0	0	0	0	0	0	0	72
1975	-70	0	27	30	-63	0	0	0	0	0	0	56
1976	-54	0	20	48	14	3	0	-2	32	46	0	139
1977	47	7	-45	-58	-92	-90	-62	0	0	0	0	0
1978	0	0	0	0	71	1	74	51	0	0	0	153
1979	143	97	48	3	-200	-126	0	0	-36	-91	76	117
1980	55	56	-5	-21	-235	-54	0	0	0	0	0	123
1981	126	96	63	-6	-200	-125	0	0	-11	38	175	93
1982	45	17	0	-195	-207	-61	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	143
1985	62	37	-70	-166	0	0	0	0	0	51	153	97
1986	59	42	211	0	74	-205	-102	-7	-59	-186	-114	79
1987	97	70	34	41	15	-26	0	0	-10	-186	153	104
1988	34	35	119	0	0	-26	0	0	-193	-200	88	119
1989	41	34	-29	0	-81	35	-37	-5	0	0	220	124
1990	-103	-65	0	-71	-38	-85	-99	-4	-146	102	0	-2
1991	-91	0	0	0	24	0	-35	-5	0	0	0	0
1992	0	0	0	0	0	51	-47	0	0	0	0	0
1993	0	0	0	0	14	0	-13	0	0	0	0	141
1994	127	93	79	20	35	-80	0	0	0	193	177	-23
Mean	30	25	-4	-25	-57	-33	-17	1	-24	-29	48	95
Max	143	164	211	80	200	51	74	99	32	193	220	217
Min	-133	-200	-213	-207	-235	-205	-221	-32	-200	-200	-114	-23

Appendix C-5 CCWD Operations Modeling

Alt Existing Alt 3 Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	144	0	0	0	0	0	0	0	48	0	0	0
1923	0	0	0	0	0	0	0	0	132	0	0	0
1924	0	0	0	0	0	0	0	0	0	226	0	0
1925	0	0	0	0	21	0	0	0	232	144	130	0
1926	0	0	0	0	0	30	0	0	232	144	98	0
1927	0	0	0	0	0	0	0	0	86	0	0	0
1928	0	0	0	0	0	0	0	0	117	0	0	0
1929	0	0	0	0	0	0	0	0	253	0	0	0
1930	0	0	0	0	0	54	0	0	232	144	0	0
1931	0	0	0	0	0	47	0	0	0	0	0	0
1932	0	0	0	0	35	30	0	0	232	214	137	61
1933	0	0	0	0	0	72	0	0	253	0	0	0
1934	0	0	0	0	0	0	0	0	253	0	0	0
1935	0	0	0	0	0	0	136	56	172	201	88	0
1936	0	0	0	0	0	0	0	0	133	0	0	0
1937	0	0	0	0	0	0	0	0	134	15	0	0
1938	0	0	0	0	0	0	0	0	16	0	0	0
1939	0	0	0	0	0	0	0	0	232	0	0	0
1940	0	0	0	0	8	19	0	0	116	0	0	0
1941	0	0	10	0	0	0	0	0	63	0	0	0
1942	0	0	0	0	0	0	0	0	81	3	0	0
1943	0	0	0	0	0	0	0	0	87	3	0	0
1944	0	0	0	0	0	30	0	0	232	0	0	0
1945	0	0	23	0	0	0	0	0	137	0	0	0
1946	0	0	11	0	101	0	0	0	136	0	0	0
1947	0	0	0	0	0	0	0	0	232	0	0	0
1948	0	0	0	0	0	23	0	0	172	131	63	0
1949	0	0	0	0	0	0	0	0	232	0	0	0
1950	0	0	0	0	12	0	0	0	136	0	0	0
1951	0	0	0	0	0	0	0	0	218	0	0	0
1952	0	0	0	0	0	0	0	0	16	0	0	0
1953	0	0	0	0	0	0	0	0	86	0	0	0
1954	0	0	0	0	0	0	0	0	117	0	0	0
1955	0	0	0	0	0	0	0	0	232	0	0	0
1956	0	0	22	0	0	0	0	0	85	0	0	0
1957	0	0	0	0	0	0	0	0	114	0	0	0
1958	0	0	0	89	0	0	0	0	0	0	0	0
1959	0	135	0	0	0	0	0	0	222	0	0	0
1960	0	0	0	0	0	30	0	0	232	91	0	0
1961	0	0	0	0	0	0	0	0	232	0	0	0

Appendix C-5 CCWD Operations Modeling

Alt Existing Alt 3 Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1962	0	0	0	0	12	23	0	0	222	48	0	0
1963	0	104	0	0	0	0	0	0	76	0	0	0
1964	0	0	0	0	0	0	0	0	232	0	0	0
1965	0	0	23	0	0	0	0	0	85	3	0	0
1966	0	0	0	0	0	0	0	0	222	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	222	0	0	0
1969	0	0	13	0	0	0	0	0	17	0	0	0
1970	0	0	88	0	0	0	0	0	196	0	0	0
1971	0	0	0	0	92	0	0	0	87	0	0	0
1972	0	0	0	0	0	0	0	0	222	0	0	0
1973	0	0	13	0	74	0	0	0	117	0	0	0
1974	0	0	0	0	0	0	0	0	86	0	0	0
1975	0	135	0	0	0	0	0	0	85	0	0	0
1976	0	135	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	3	0	0	0
1978	0	0	0	0	41	0	0	0	98	124	63	0
1979	0	0	0	0	0	0	0	0	136	0	0	0
1980	0	0	0	0	0	0	0	0	115	0	0	0
1981	0	0	0	0	0	0	0	0	232	0	0	0
1982	0	0	93	0	0	41	0	0	7	0	0	0
1983	0	0	0	0	0	0	0	0	1	0	0	0
1984	0	0	0	0	0	0	0	0	196	0	0	0
1985	0	0	0	0	0	0	0	0	232	0	0	0
1986	0	0	11	0	0	0	0	0	87	3	0	0
1987	0	0	0	0	0	0	0	0	232	0	0	0
1988	0	0	0	0	8	0	0	0	253	0	0	0
1989	0	0	0	0	0	54	0	0	232	144	0	0
1990	0	0	0	0	0	0	0	0	253	0	0	0
1991	0	0	0	0	0	0	0	0	253	0	0	0
1992	0	0	0	0	0	48	0	0	253	0	0	0
1993	0	0	0	0	41	0	0	0	168	194	63	0
1994	0	0	0	0	0	0	0	0	203	0	0	0
Mean	2	7	4	1	6	7	2	1	147	25	9	1
Max	144	135	93	89	101	72	136	56	253	226	137	61
Min	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	144	94	0	0	0	0	0	0	118	8	19	123
1923	0	0	80	0	0	0	0	0	132	15	19	0
1924	0	0	0	0	98	0	0	0	144	257	7	235
1925	0	0	0	0	25	18	0	0	232	214	31	0
1926	0	0	0	0	33	18	0	0	232	214	76	0
1927	0	0	93	88	62	41	0	0	146	51	15	0
1928	0	0	43	0	0	0	0	0	117	8	19	103
1929	0	0	0	0	83	7	0	0	253	214	0	0
1930	0	0	0	0	111	54	0	0	232	214	0	48
1931	0	0	0	0	132	66	0	0	3	14	7	0
1932	0	0	0	0	0	18	0	0	232	214	207	94
1933	0	0	0	0	0	72	0	0	253	14	0	0
1934	167	0	0	0	111	32	0	0	253	14	0	0
1935	0	0	0	0	0	42	107	0	172	201	133	0
1936	0	0	0	0	27	46	0	0	172	153	19	0
1937	0	0	0	0	0	46	0	0	172	201	129	111
1938	0	0	83	0	0	0	0	0	86	3	15	0
1939	0	0	93	0	0	0	0	0	232	0	0	0
1940	0	0	0	0	54	42	0	0	168	194	65	0
1941	0	0	80	0	40	0	0	0	63	3	15	0
1942	0	0	0	0	0	41	0	0	146	19	15	0
1943	9	0	0	0	0	0	0	0	87	3	15	0
1944	0	0	0	0	0	18	0	0	232	214	0	0
1945	0	0	69	0	82	13	0	0	172	201	0	0
1946	0	0	83	0	101	13	0	0	172	137	0	0
1947	0	0	0	0	11	18	0	0	232	193	0	0
1948	0	0	0	0	0	42	109	0	172	201	0	0
1949	0	0	0	0	0	54	0	0	232	214	0	0
1950	0	0	0	0	82	13	0	0	172	201	3	0
1951	0	0	83	65	101	0	0	0	218	8	19	0
1952	0	0	80	0	19	0	0	0	86	3	15	0
1953	0	0	0	0	0	0	0	0	86	3	15	0
1954	0	0	0	0	42	0	0	0	117	8	19	0
1955	0	0	34	0	40	0	0	0	232	28	0	0
1956	0	0	84	0	54	1	0	0	85	3	15	0
1957	0	0	0	0	0	0	0	0	114	8	19	0
1958	0	0	57	98	0	0	0	0	27	3	15	0
1959	0	135	81	0	0	0	0	0	222	15	0	0
1960	0	0	0	112	89	18	0	0	232	0	0	0
1961	0	0	0	0	0	18	0	0	232	124	0	0
1962	0	0	0	0	82	17	0	0	222	201	0	0

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1963	0	104	83	0	0	0	0	0	76	3	15	119
1964	0	0	43	0	0	0	0	0	232	19	0	0
1965	0	0	93	0	82	11	0	0	146	103	14	81
1966	0	0	43	0	0	0	0	0	222	15	0	0
1967	0	0	79	0	41	0	0	0	69	3	15	0
1968	0	0	0	0	0	0	0	0	222	15	0	0
1969	0	0	12	0	48	25	0	0	87	3	15	0
1970	0	0	88	0	0	0	0	0	196	3	15	92
1971	0	0	43	0	92	0	0	0	87	3	15	0
1972	0	63	0	0	9	0	0	0	222	15	0	51
1973	0	0	83	65	101	0	0	0	117	8	19	89
1974	0	0	80	2	0	0	0	0	86	2	15	0
1975	9	135	0	0	0	0	0	0	85	3	15	0
1976	0	135	0	35	25	0	0	0	0	0	7	71
1977	0	0	0	0	0	66	0	0	253	14	7	0
1978	0	0	0	0	40	33	0	0	168	194	133	0
1979	0	0	0	0	40	46	0	0	172	106	0	0
1980	0	0	74	0	40	0	0	0	115	7	19	0
1981	0	0	0	0	40	54	0	0	232	0	0	0
1982	0	0	93	64	82	41	0	0	77	3	15	0
1983	0	0	0	0	0	0	0	0	71	3	15	0
1984	0	0	0	0	0	0	0	0	196	3	15	85
1985	0	0	43	0	0	0	0	0	232	0	0	0
1986	0	0	0	0	0	29	0	0	146	189	129	0
1987	0	0	0	0	32	54	0	0	232	214	0	0
1988	0	0	0	0	78	32	0	0	253	214	0	0
1989	0	0	0	0	161	54	0	0	232	214	0	0
1990	0	0	0	138	0	32	0	0	253	0	7	0
1991	0	0	0	0	0	0	0	0	253	14	7	0
1992	0	0	0	0	0	32	0	0	253	14	7	0
1993	0	0	0	0	97	34	0	0	168	194	133	0
1994	0	0	0	0	0	32	0	0	203	0	0	0
Mean	5	9	26	9	34	19	3	0	168	76	21	18
Max	167	135	93	138	161	72	109	0	253	257	207	235
Min	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-5 CCWD Operations Modeling

Difference Existing Alt 3 minus Existing Base Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	-94	0	0	0	0	0	0	-70	-8	-19	-123
1923	0	0	-80	0	0	0	0	0	0	-15	-19	0
1924	0	0	0	0	-98	0	0	0	-144	-30	-7	-235
1925	0	0	0	0	-4	-18	0	0	0	-70	100	0
1926	0	0	0	0	-33	12	0	0	0	-70	22	0
1927	0	0	-93	-88	-62	-41	0	0	-60	-51	-15	0
1928	0	0	-43	0	0	0	0	0	0	-8	-19	-103
1929	0	0	0	0	-83	-7	0	0	0	-214	0	0
1930	0	0	0	0	-111	0	0	0	0	-70	0	-48
1931	0	0	0	0	-132	-19	0	0	-3	-14	-7	0
1932	0	0	0	0	35	12	0	0	0	0	-70	-33
1933	0	0	0	0	0	0	0	0	0	-14	0	0
1934	-167	0	0	0	-111	-32	0	0	0	-14	0	0
1935	0	0	0	0	0	-42	29	56	0	0	-45	0
1936	0	0	0	0	-27	-46	0	0	-38	-153	-19	0
1937	0	0	0	0	0	-46	0	0	-38	-186	-129	-111
1938	0	0	-83	0	0	0	0	0	-70	-3	-15	0
1939	0	0	-93	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	-46	-23	0	0	-52	-194	-65	0
1941	0	0	-70	0	-40	0	0	0	0	-3	-15	0
1942	0	0	0	0	0	-41	0	0	-66	-16	-15	0
1943	-9	0	0	0	0	0	0	0	0	0	-15	0
1944	0	0	0	0	0	12	0	0	0	-214	0	0
1945	0	0	-46	0	-82	-13	0	0	-35	-201	0	0
1946	0	0	-73	0	0	-13	0	0	-36	-137	0	0
1947	0	0	0	0	-11	-18	0	0	0	-193	0	0
1948	0	0	0	0	0	-19	-109	0	0	-70	63	0
1949	0	0	0	0	0	-54	0	0	0	-214	0	0
1950	0	0	0	0	-70	-13	0	0	-36	-201	-3	0
1951	0	0	-83	-65	-101	0	0	0	0	-8	-19	0
1952	0	0	-80	0	-19	0	0	0	-70	-3	-15	0
1953	0	0	0	0	0	0	0	0	0	-3	-15	0
1954	0	0	0	0	-42	0	0	0	0	-8	-19	0
1955	0	0	-34	0	-40	0	0	0	0	-28	0	0
1956	0	0	-62	0	-54	-1	0	0	0	-3	-15	0
1957	0	0	0	0	0	0	0	0	0	-8	-19	0
1958	0	0	-57	-9	0	0	0	0	-27	-3	-15	0
1959	0	0	-81	0	0	0	0	0	0	-15	0	0
1960	0	0	0	-112	-89	12	0	0	0	91	0	0
1961	0	0	0	0	0	-18	0	0	0	-124	0	0

Appendix C-5 CCWD Operations Modeling

Difference Existing Alt 3 minus Existing Base Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1962	0	0	0	0	-70	7	0	0	0	-154	0	0
1963	0	0	-83	0	0	0	0	0	0	-3	-15	-119
1964	0	0	-43	0	0	0	0	0	0	-19	0	0
1965	0	0	-70	0	-82	-11	0	0	-61	-101	-14	-81
1966	0	0	-43	0	0	0	0	0	0	-15	0	0
1967	0	0	-79	0	-41	0	0	0	-69	-3	-15	0
1968	0	0	0	0	0	0	0	0	0	-15	0	0
1969	0	0	1	0	-48	-25	0	0	-70	-3	-15	0
1970	0	0	0	0	0	0	0	0	0	-3	-15	-92
1971	0	0	-43	0	0	0	0	0	0	-3	-15	0
1972	0	-63	0	0	-9	0	0	0	0	-15	0	-51
1973	0	0	-70	-65	-28	0	0	0	0	-8	-19	-89
1974	0	0	-80	-2	0	0	0	0	0	-2	-15	0
1975	-9	0	0	0	0	0	0	0	0	-3	-15	0
1976	0	0	0	-35	-25	0	0	0	0	0	-7	-71
1977	0	0	0	0	0	-66	0	0	-250	-14	-7	0
1978	0	0	0	0	1	-33	0	0	-70	-70	-70	0
1979	0	0	0	0	-40	-46	0	0	-36	-106	0	0
1980	0	0	-74	0	-40	0	0	0	0	-7	-19	0
1981	0	0	0	0	-40	-54	0	0	0	0	0	0
1982	0	0	0	-64	-82	0	0	0	-70	-3	-15	0
1983	0	0	0	0	0	0	0	0	-70	-3	-15	0
1984	0	0	0	0	0	0	0	0	0	-3	-15	-85
1985	0	0	-43	0	0	0	0	0	0	0	0	0
1986	0	0	11	0	0	-29	0	0	-59	-186	-129	0
1987	0	0	0	0	-32	-54	0	0	0	-214	0	0
1988	0	0	0	0	-70	-32	0	0	0	-214	0	0
1989	0	0	0	0	-161	0	0	0	0	-70	0	0
1990	0	0	0	-138	0	-32	0	0	0	0	-7	0
1991	0	0	0	0	0	0	0	0	0	-14	-7	0
1992	0	0	0	0	0	16	0	0	0	-14	-7	0
1993	0	0	0	0	-56	-34	0	0	0	0	-70	0
1994	0	0	0	0	0	-32	0	0	0	0	0	0
Mean	-3	-2	-22	-8	-28	-12	-1	1	-21	-51	-13	-17
Max	0	0	11	0	35	16	29	56	0	91	100	0
Min	-167	-94	-93	-138	-161	-66	-109	0	-250	-214	-129	-235

Appendix C-5 CCWD Operations Modeling

Alt Existing Alt 3 Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	250	144	124	92	66	85	0	149	250	250	250	0
1923	0	0	0	93	90	97	0	170	250	250	19	0
1924	0	0	0	0	0	0	0	148	0	0	7	0
1925	0	0	0	0	250	156	0	199	200	250	70	63
1926	0	0	0	0	0	214	0	199	200	70	70	0
1927	0	0	250	136	121	85	0	150	250	250	15	0
1928	0	0	203	81	88	83	0	149	250	250	19	0
1929	0	0	0	0	0	187	0	222	18	14	7	0
1930	0	0	0	0	161	214	0	199	40	70	7	0
1931	0	0	0	0	0	0	67	222	3	14	7	0
1932	0	0	0	147	250	214	0	199	200	250	70	0
1933	0	0	0	0	145	232	0	222	66	14	7	0
1934	0	0	0	0	161	144	0	222	0	14	7	0
1935	0	0	0	0	161	161	200	250	250	250	70	0
1936	0	0	0	0	250	177	0	170	250	250	19	0
1937	0	0	50	0	0	70	0	0	250	250	19	0
1938	0	0	126	112	69	0	0	0	70	250	250	0
1939	0	137	0	0	92	110	0	199	190	28	7	0
1940	0	0	0	0	250	202	0	149	250	250	19	0
1941	0	0	250	76	0	71	0	150	250	250	250	0
1942	0	0	0	44	0	81	0	150	250	250	15	0
1943	0	0	90	0	89	0	0	150	250	250	15	0
1944	0	0	0	0	0	214	0	199	200	51	19	0
1945	0	0	250	138	213	92	0	170	250	250	19	0
1946	0	0	250	114	1	95	0	170	250	250	19	0
1947	0	0	32	0	0	109	0	199	0	14	7	0
1948	0	0	0	0	0	249	115	176	250	250	70	0
1949	0	0	63	0	0	200	0	199	190	28	19	0
1950	0	0	0	0	250	129	0	170	250	250	19	0
1951	0	0	121	108	0	86	0	149	149	250	19	0
1952	0	0	250	81	86	0	0	0	250	250	250	0
1953	191	135	82	80	95	87	0	150	250	250	15	0
1954	0	0	0	0	92	86	0	149	250	250	19	0
1955	0	0	0	94	91	113	0	199	187	28	7	0
1956	0	0	70	0	0	86	0	150	250	250	250	0
1957	190	0	0	0	0	86	0	149	250	250	19	0
1958	0	11	0	0	54	62	0	0	250	250	250	0
1959	191	3	0	0	81	95	0	170	165	15	19	0
1960	0	0	0	0	0	214	0	199	200	70	19	0
1961	0	0	9	0	0	140	0	199	0	14	7	0

Appendix C-5 CCWD Operations Modeling

Alt Existing Alt 3 Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1962	0	0	0	138	250	206	0	170	200	70	19	0
1963	0	250	0	97	87	81	0	150	250	250	250	0
1964	0	0	228	0	91	112	0	199	189	28	0	0
1965	0	0	250	138	192	85	0	150	250	250	14	0
1966	0	0	83	79	90	96	0	170	165	15	19	0
1967	0	9	0	77	96	73	0	0	69	250	250	228
1968	191	136	0	73	86	92	0	170	164	15	17	0
1969	0	0	70	0	75	0	0	0	250	250	250	0
1970	0	137	0	59	87	83	0	150	143	250	250	0
1971	0	0	192	78	1	85	0	150	250	250	15	0
1972	0	0	0	0	0	153	0	170	164	250	19	0
1973	0	0	70	109	0	75	0	149	250	250	19	0
1974	0	0	243	92	90	83	0	0	250	250	15	0
1975	190	0	0	0	0	73	0	150	250	250	15	0
1976	188	2	0	0	0	0	0	161	0	14	7	0
1977	0	0	0	0	0	0	118	0	0	14	7	0
1978	0	0	0	147	70	250	250	59	250	250	70	0
1979	0	0	0	0	89	91	0	170	250	250	19	0
1980	0	0	69	0	0	0	0	0	250	250	19	0
1981	0	0	0	0	90	108	0	199	189	28	0	0
1982	0	0	250	118	0	0	0	0	250	250	250	0
1983	188	126	0	0	52	29	0	0	250	250	250	226
1984	190	127	0	80	87	85	0	150	143	250	15	0
1985	0	0	222	83	0	109	0	199	190	28	0	0
1986	0	0	70	138	0	0	0	150	250	250	15	0
1987	0	0	0	0	0	208	0	199	190	28	19	0
1988	0	0	0	0	250	203	0	222	7	14	7	0
1989	0	0	0	0	0	214	0	199	200	70	37	0
1990	0	0	0	0	0	144	0	222	0	0	7	0
1991	0	0	0	0	0	143	183	222	0	14	7	0
1992	0	0	0	0	0	232	75	227	0	14	7	0
1993	0	0	0	0	250	250	121	156	250	250	70	0
1994	0	0	0	0	0	149	0	222	250	33	0	0
Mean	24	17	54	40	72	113	15	151	179	159	58	7
Max	250	250	250	147	250	250	250	250	250	250	250	228
Min	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	250	250	174	92	66	85	0	149	250	250	250	0
1923	55	58	250	98	214	97	0	170	250	250	250	62
1924	41	38	83	114	0	108	0	150	0	0	250	0
1925	198	165	152	147	250	179	0	199	200	250	250	138
1926	41	35	112	137	250	179	0	199	200	250	250	93
1927	36	68	250	250	250	166	0	150	250	250	250	73
1928	47	51	250	250	88	83	0	149	250	250	250	0
1929	53	55	64	40	0	197	0	222	200	250	146	70
1930	28	25	81	147	250	179	0	199	200	250	116	0
1931	21	156	143	136	0	77	180	222	250	250	250	235
1932	198	165	152	147	155	179	72	204	200	250	250	0
1933	34	32	49	96	239	197	0	222	200	250	207	111
1934	0	165	151	147	250	197	0	222	38	250	176	223
1935	198	165	152	144	161	250	229	207	250	250	250	52
1936	34	32	104	111	250	171	0	170	250	250	250	59
1937	34	38	94	109	81	171	0	170	250	250	250	0
1938	46	89	250	242	69	67	0	150	250	250	250	214
1939	203	137	0	81	92	110	0	199	190	236	86	51
1940	40	64	64	128	250	167	75	157	250	250	250	59
1941	35	56	250	98	250	99	0	150	250	250	250	142
1942	83	63	76	83	92	166	0	150	250	250	250	156
1943	250	131	90	55	89	78	0	150	250	250	250	85
1944	54	47	59	37	34	179	0	199	200	250	94	41
1945	37	123	250	138	250	171	0	170	250	250	192	59
1946	38	149	250	115	36	171	0	170	250	250	174	65
1947	47	73	132	115	250	179	0	199	200	250	64	32
1948	29	71	80	43	117	250	227	208	250	250	226	61
1949	50	139	131	114	48	179	0	199	200	250	134	98
1950	46	49	77	86	250	250	161	178	250	250	250	85
1951	58	109	250	250	37	86	0	149	149	250	250	72
1952	52	52	250	98	250	81	0	150	250	250	250	228
1953	191	135	82	80	95	87	0	150	250	250	250	108
1954	109	75	92	83	250	161	0	149	250	250	250	75
1955	52	61	250	98	250	155	0	199	187	250	202	94
1956	41	55	250	138	250	166	0	150	250	250	250	195
1957	220	138	73	38	159	86	0	149	250	250	250	58
1958	55	139	250	0	200	62	0	150	250	250	250	227
1959	191	3	0	83	88	95	0	170	165	250	237	52
1960	32	36	133	0	0	179	0	199	200	242	94	73
1961	40	160	143	138	131	179	74	204	200	250	71	139
1962	199	162	143	138	250	250	189	178	200	250	129	44

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1963	136	250	250	191	87	81	0	150	250	250	250	0
1964	41	28	250	230	91	112	0	199	189	250	65	43
1965	33	62	250	138	250	166	0	150	250	250	250	0
1966	49	112	250	172	78	107	0	170	165	250	166	64
1967	54	94	250	115	250	119	0	150	250	250	250	228
1968	191	136	92	73	86	92	0	170	164	250	170	45
1969	44	99	250	115	250	166	0	150	250	250	250	227
1970	189	137	0	59	87	83	0	150	143	250	250	0
1971	41	53	250	213	1	85	0	150	250	250	250	153
1972	183	0	44	54	250	161	0	170	164	250	184	0
1973	30	81	250	250	35	75	0	149	250	250	250	0
1974	35	61	250	250	90	83	0	150	250	250	250	155
1975	250	2	63	53	149	73	0	150	250	250	250	171
1976	242	2	73	0	0	135	0	163	163	218	250	0
1977	40	130	152	147	161	77	180	222	0	250	250	235
1978	198	165	152	147	250	250	210	157	250	250	250	83
1979	57	47	56	95	250	171	0	170	250	250	193	59
1980	40	67	250	115	250	130	0	149	250	250	250	112
1981	74	50	65	98	250	179	0	199	200	239	76	46
1982	42	133	250	250	250	94	0	150	250	250	250	225
1983	188	126	73	42	52	29	0	150	250	250	250	226
1984	190	127	81	80	87	85	0	150	143	250	250	0
1985	44	43	250	248	90	109	0	199	190	227	74	55
1986	50	58	120	138	131	250	102	158	250	250	250	148
1987	72	46	40	42	0	179	0	199	200	250	116	45
1988	34	56	74	138	250	197	0	222	200	250	169	71
1989	26	22	135	147	0	179	37	204	200	250	67	50
1990	199	162	143	0	132	197	99	225	146	136	250	235
1991	198	165	152	147	137	144	218	227	0	250	250	235
1992	198	165	152	147	155	197	122	227	0	250	250	235
1993	198	165	152	147	250	250	134	156	250	250	250	94
1994	44	38	90	77	52	197	0	222	250	90	54	125
Mean	94	92	148	120	147	146	32	177	207	242	208	96
Max	250	250	250	250	250	250	229	227	250	250	250	235
Min	0	0	0	0	0	29	0	149	0	0	54	0

Appendix C-5 CCWD Operations Modeling

Difference Existing Alt 3 minus Existing Base Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	-106	-50	0	0	0	0	0	0	0	0	0
1923	-55	-58	-250	-5	-124	0	0	0	0	0	-231	-62
1924	-41	-38	-83	-114	0	-108	0	-2	0	0	-243	0
1925	-198	-165	-152	-147	0	-24	0	0	0	0	-180	-76
1926	-41	-35	-112	-137	-250	35	0	0	0	-180	-180	-93
1927	-36	-68	0	-114	-129	-82	0	0	0	0	-235	-73
1928	-47	-51	-47	-168	0	0	0	0	0	0	-231	0
1929	-53	-55	-64	-40	0	-10	0	0	-182	-236	-139	-70
1930	-28	-25	-81	-147	-89	35	0	0	-160	-180	-110	0
1931	-21	-156	-143	-136	0	-77	-113	0	-247	-236	-243	-235
1932	-198	-165	-152	0	95	35	-72	-5	0	0	-180	0
1933	-34	-32	-49	-96	-94	35	0	0	-134	-236	-200	-111
1934	0	-165	-151	-147	-89	-53	0	0	-38	-236	-170	-223
1935	-198	-165	-152	-144	0	-89	-29	43	0	0	-180	-52
1936	-34	-32	-104	-111	0	6	0	0	0	0	-231	-59
1937	-34	-38	-44	-109	-81	-101	0	-170	0	0	-231	0
1938	-46	-89	-124	-130	0	-67	0	-150	-180	0	0	-214
1939	-203	0	0	-81	0	0	0	0	0	-209	-79	-51
1940	-40	-64	-64	-128	0	35	-75	-7	0	0	-231	-59
1941	-35	-56	0	-21	-250	-28	0	0	0	0	0	-142
1942	-83	-63	-76	-38	-92	-86	0	0	0	0	-235	-156
1943	-250	-131	0	-55	0	-78	0	0	0	0	-235	-85
1944	-54	-47	-59	-37	-34	35	0	0	0	-199	-75	-41
1945	-37	-123	0	0	-37	-79	0	0	0	0	-173	-59
1946	-38	-149	0	-1	-35	-76	0	0	0	0	-155	-65
1947	-47	-73	-100	-115	-250	-71	0	0	-200	-236	-58	-32
1948	-29	-71	-80	-43	-117	-1	-112	-32	0	0	-156	-61
1949	-50	-139	-68	-114	-48	21	0	0	-10	-222	-116	-98
1950	-46	-49	-77	-86	0	-121	-161	-8	0	0	-231	-85
1951	-58	-109	-129	-142	-37	0	0	0	0	0	-231	-72
1952	-52	-52	0	-17	-164	-81	0	-150	0	0	0	-228
1953	0	0	0	0	0	0	0	0	0	0	-235	-108
1954	-109	-75	-92	-83	-158	-75	0	0	0	0	-231	-75
1955	-52	-61	-250	-3	-159	-42	0	0	0	-222	-196	-94
1956	-41	-55	-180	-138	-250	-80	0	0	0	0	0	-195
1957	-30	-138	-73	-38	-159	0	0	0	0	0	-231	-58
1958	-55	-128	-250	0	-146	0	0	-150	0	0	0	-227
1959	0	0	0	-83	-7	0	0	0	0	-235	-218	-52
1960	-32	-36	-133	0	0	35	0	0	0	-172	-75	-73
1961	-40	-160	-133	-138	-131	-39	-74	-5	-200	-236	-65	-139

Appendix C-5 CCWD Operations Modeling

Difference Existing Alt 3 minus Existing Base Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1962	-199	-162	-143	0	0	-44	-189	-8	0	-180	-110	-44
1963	-136	0	-250	-95	0	0	0	0	0	0	0	0
1964	-41	-28	-22	-230	0	0	0	0	0	-222	-65	-43
1965	-33	-62	0	0	-58	-81	0	0	0	0	-236	0
1966	-49	-112	-167	-94	12	-10	0	0	0	-235	-147	-64
1967	-54	-86	-250	-38	-154	-46	0	-150	-181	0	0	0
1968	0	0	-92	0	0	0	0	0	0	-235	-152	-45
1969	-44	-99	-180	-115	-175	-166	0	-150	0	0	0	-227
1970	-189	0	0	0	0	0	0	0	0	0	0	0
1971	-41	-53	-58	-135	0	0	0	0	0	0	-235	-153
1972	-183	0	-44	-54	-250	-9	0	0	0	0	-165	0
1973	-30	-81	-180	-141	-35	0	0	0	0	0	-231	0
1974	-35	-61	-7	-158	0	0	0	-150	0	0	-235	-155
1975	-60	-2	-63	-53	-149	0	0	0	0	0	-235	-171
1976	-54	0	-73	0	0	-135	0	-2	-163	-204	-243	0
1977	-40	-130	-152	-147	-161	-77	-62	-222	0	-236	-243	-235
1978	-198	-165	-152	0	-180	0	40	-98	0	0	-180	-83
1979	-57	-47	-56	-95	-161	-80	0	0	0	0	-174	-59
1980	-40	-67	-181	-115	-250	-130	0	-149	0	0	-231	-112
1981	-74	-50	-65	-98	-160	-71	0	0	-11	-212	-75	-46
1982	-42	-133	0	-132	-250	-94	0	-150	0	0	0	-225
1983	0	0	-73	-42	0	0	0	-150	0	0	0	0
1984	0	0	-81	0	0	0	0	0	0	0	-235	0
1985	-44	-43	-28	-166	-90	0	0	0	0	-199	-74	-55
1986	-50	-58	-50	0	-131	-250	-102	-7	0	0	-235	-148
1987	-72	-46	-40	-42	0	28	0	0	-10	-222	-97	-45
1988	-34	-56	-74	-138	0	6	0	0	-193	-236	-162	-71
1989	-26	-22	-135	-147	0	35	-37	-5	0	-180	-30	-50
1990	-199	-162	-143	0	-132	-53	-99	-4	-146	-136	-243	-235
1991	-198	-165	-152	-147	-137	0	-35	-5	0	-236	-243	-235
1992	-198	-165	-152	-147	-155	35	-47	0	0	-236	-243	-235
1993	-198	-165	-152	-147	0	0	-13	0	0	0	-180	-94
1994	-44	-38	-90	-77	-52	-48	0	0	0	-57	-54	-125
Mean	-70	-75	-93	-80	-75	-33	-16	-26	-28	-83	-150	-89
Max	0	0	0	0	95	35	40	43	0	0	0	0
Min	-250	-165	-250	-230	-250	-250	-189	-222	-247	-236	-243	-235

Appendix C-5 CCWD Operations Modeling

Alt Existing Alt 3 Total Alternative Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	70	8	19	236
1923	139	141	173	0	0	0	0	0	0	15	250	183
1924	100	84	132	95	51	111	0	0	149	0	250	213
1925	65	158	150	147	70	0	0	0	0	70	250	250
1926	100	65	60	122	164	0	0	0	0	250	250	243
1927	90	133	30	0	0	0	0	0	0	3	250	228
1928	106	102	0	0	0	0	0	0	0	8	250	236
1929	113	110	245	98	47	0	0	0	0	250	250	182
1930	70	51	139	147	0	0	0	0	0	250	250	233
1931	64	67	105	103	49	0	0	0	250	250	250	235
1932	198	165	152	0	70	0	0	0	0	0	250	250
1933	108	0	103	106	0	0	0	0	0	250	250	235
1934	96	56	132	147	0	0	0	0	0	250	250	235
1935	154	164	152	147	0	0	0	0	0	0	250	204
1936	108	79	32	115	48	0	0	0	0	15	250	234
1937	101	83	250	93	99	0	0	170	0	0	250	235
1938	122	234	0	0	0	67	0	150	250	3	15	227
1939	190	0	93	81	0	0	0	0	0	250	250	141
1940	77	86	101	138	70	0	0	0	0	8	250	188
1941	82	72	70	0	60	0	0	0	0	3	15	228
1942	190	136	74	0	79	0	0	0	0	0	250	227
1943	190	131	0	55	0	78	0	0	0	0	250	228
1944	116	82	77	83	52	0	0	0	0	250	250	119
1945	71	132	70	0	0	0	0	0	0	15	250	176
1946	98	106	70	0	0	0	0	0	0	15	250	185
1947	103	109	250	115	101	0	0	0	0	250	250	109
1948	64	104	140	123	66	0	0	0	0	70	250	196
1949	109	99	250	114	0	0	0	0	0	250	250	236
1950	100	80	113	138	70	0	0	0	0	15	250	234
1951	130	221	0	0	99	0	0	0	0	8	250	209
1952	113	108	19	0	0	81	0	150	70	3	15	228
1953	0	0	0	0	0	0	0	0	0	3	250	228
1954	191	136	93	81	0	0	0	0	0	8	250	236
1955	107	116	245	0	0	0	0	0	0	250	250	233
1956	79	81	250	124	124	0	0	0	0	3	15	227
1957	0	138	94	81	89	0	0	0	0	8	250	200
1958	120	250	127	0	0	0	0	150	27	3	15	227
1959	0	0	93	77	0	0	0	0	0	250	250	182
1960	82	68	132	115	54	0	0	0	0	250	250	243
1961	84	118	250	138	146	0	0	0	0	250	250	151

Appendix C-5 CCWD Operations Modeling

Alt Existing Alt 3 Total Alternative Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1962	72	103	143	0	70	0	0	0	0	250	250	139
1963	80	0	140	0	0	0	0	0	0	3	15	227
1964	119	64	0	76	0	0	0	0	0	250	235	139
1965	75	134	70	0	0	0	0	0	0	0	250	228
1966	105	221	0	0	0	0	0	0	0	250	250	181
1967	99	250	167	0	0	0	0	150	250	3	15	0
1968	0	0	92	0	0	0	0	0	0	250	250	129
1969	89	124	250	115	0	73	0	150	70	3	15	227
1970	189	0	0	0	0	0	0	0	0	3	15	227
1971	96	103	0	0	0	0	0	0	0	3	250	227
1972	191	137	88	83	30	0	0	0	0	15	250	163
1973	69	111	250	0	0	0	0	0	0	8	250	235
1974	94	109	0	0	0	0	0	150	0	2	250	228
1975	0	2	90	83	86	0	0	0	0	3	250	228
1976	0	0	94	83	39	138	0	0	195	250	250	210
1977	88	137	107	89	69	54	0	222	250	250	250	235
1978	198	165	152	0	250	34	34	149	70	70	250	235
1979	200	143	103	98	0	0	0	0	0	15	250	175
1980	96	122	250	94	55	76	0	149	0	7	250	236
1981	200	147	128	92	0	0	0	0	0	250	250	140
1982	87	150	0	0	125	33	0	150	70	3	15	225
1983	0	0	73	42	0	0	0	150	70	3	15	0
1984	0	0	81	0	0	0	0	0	0	3	250	228
1985	105	80	0	0	90	0	0	0	0	250	227	152
1986	109	100	250	0	205	74	0	0	0	0	250	227
1987	168	116	75	83	47	0	0	0	0	250	250	148
1988	68	91	192	138	70	0	0	0	0	250	250	190
1989	67	56	106	147	79	0	0	0	0	250	250	174
1990	95	97	143	67	94	0	0	0	0	238	250	233
1991	106	165	152	147	161	0	0	0	0	250	250	235
1992	198	165	152	147	155	0	0	0	0	250	250	235
1993	198	165	152	147	70	34	0	0	0	0	250	236
1994	172	130	170	97	87	0	0	0	0	250	231	102
Mean	102	102	111	63	46	12	0	26	25	105	211	201
Max	200	250	250	147	250	138	34	222	250	250	250	250
Min	0	0	0	0	0	0	0	0	0	0	15	0

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total Alternate Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	0
1923	0	0	0	0	0	0	0	0	0	0	0	0
1924	0	0	0	0	0	0	0	0	0	0	0	0
1925	0	0	0	0	0	0	0	0	0	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-5 CCWD Operations Modeling

Base Existing Base												
Total Alternate Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0
Mean	0	0	0	0	0	0	0	0	0	0	0	0
Max	0	0	0	0	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-5 CCWD Operations Modeling

Difference Existing Alt 3 minus Existing Base Total Alternate Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	70	8	19	236
1923	139	141	173	0	0	0	0	0	0	15	250	183
1924	100	84	132	95	51	111	0	0	149	0	250	213
1925	65	158	150	147	70	0	0	0	0	70	250	250
1926	100	65	60	122	164	0	0	0	0	250	250	243
1927	90	133	30	0	0	0	0	0	0	3	250	228
1928	106	102	0	0	0	0	0	0	0	8	250	236
1929	113	110	245	98	47	0	0	0	0	250	250	182
1930	70	51	139	147	0	0	0	0	0	250	250	233
1931	64	67	105	103	49	0	0	0	250	250	250	235
1932	198	165	152	0	70	0	0	0	0	0	250	250
1933	108	0	103	106	0	0	0	0	0	250	250	235
1934	96	56	132	147	0	0	0	0	0	250	250	235
1935	154	164	152	147	0	0	0	0	0	0	250	204
1936	108	79	32	115	48	0	0	0	0	15	250	234
1937	101	83	250	93	99	0	0	170	0	0	250	235
1938	122	234	0	0	0	67	0	150	250	3	15	227
1939	190	0	93	81	0	0	0	0	0	250	250	141
1940	77	86	101	138	70	0	0	0	0	8	250	188
1941	82	72	70	0	60	0	0	0	0	3	15	228
1942	190	136	74	0	79	0	0	0	0	0	250	227
1943	190	131	0	55	0	78	0	0	0	0	250	228
1944	116	82	77	83	52	0	0	0	0	250	250	119
1945	71	132	70	0	0	0	0	0	0	15	250	176
1946	98	106	70	0	0	0	0	0	0	15	250	185
1947	103	109	250	115	101	0	0	0	0	250	250	109
1948	64	104	140	123	66	0	0	0	0	70	250	196
1949	109	99	250	114	0	0	0	0	0	250	250	236
1950	100	80	113	138	70	0	0	0	0	15	250	234
1951	130	221	0	0	99	0	0	0	0	8	250	209
1952	113	108	19	0	0	81	0	150	70	3	15	228
1953	0	0	0	0	0	0	0	0	0	3	250	228
1954	191	136	93	81	0	0	0	0	0	8	250	236
1955	107	116	245	0	0	0	0	0	0	250	250	233
1956	79	81	250	124	124	0	0	0	0	3	15	227
1957	0	138	94	81	89	0	0	0	0	8	250	200
1958	120	250	127	0	0	0	0	150	27	3	15	227
1959	0	0	93	77	0	0	0	0	0	250	250	182
1960	82	68	132	115	54	0	0	0	0	250	250	243
1961	84	118	250	138	146	0	0	0	0	250	250	151

Appendix C-5 CCWD Operations Modeling

Difference Existing Alt 3 minus Existing Base Total Alternate Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1962	72	103	143	0	70	0	0	0	0	250	250	139
1963	80	0	140	0	0	0	0	0	0	3	15	227
1964	119	64	0	76	0	0	0	0	0	250	235	139
1965	75	134	70	0	0	0	0	0	0	0	250	228
1966	105	221	0	0	0	0	0	0	0	250	250	181
1967	99	250	167	0	0	0	0	150	250	3	15	0
1968	0	0	92	0	0	0	0	0	0	250	250	129
1969	89	124	250	115	0	73	0	150	70	3	15	227
1970	189	0	0	0	0	0	0	0	0	3	15	227
1971	96	103	0	0	0	0	0	0	0	3	250	227
1972	191	137	88	83	30	0	0	0	0	15	250	163
1973	69	111	250	0	0	0	0	0	0	8	250	235
1974	94	109	0	0	0	0	0	150	0	2	250	228
1975	0	2	90	83	86	0	0	0	0	3	250	228
1976	0	0	94	83	39	138	0	0	195	250	250	210
1977	88	137	107	89	69	54	0	222	250	250	250	235
1978	198	165	152	0	250	34	34	149	70	70	250	235
1979	200	143	103	98	0	0	0	0	0	15	250	175
1980	96	122	250	94	55	76	0	149	0	7	250	236
1981	200	147	128	92	0	0	0	0	0	250	250	140
1982	87	150	0	0	125	33	0	150	70	3	15	225
1983	0	0	73	42	0	0	0	150	70	3	15	0
1984	0	0	81	0	0	0	0	0	0	3	250	228
1985	105	80	0	0	90	0	0	0	0	250	227	152
1986	109	100	250	0	205	74	0	0	0	0	250	227
1987	168	116	75	83	47	0	0	0	0	250	250	148
1988	68	91	192	138	70	0	0	0	0	250	250	190
1989	67	56	106	147	79	0	0	0	0	250	250	174
1990	95	97	143	67	94	0	0	0	0	238	250	233
1991	106	165	152	147	161	0	0	0	0	250	250	235
1992	198	165	152	147	155	0	0	0	0	250	250	235
1993	198	165	152	147	70	34	0	0	0	0	250	236
1994	172	130	170	97	87	0	0	0	0	250	231	102
Mean	102	102	111	63	46	12	0	26	25	105	211	201
Max	200	250	250	147	250	138	34	222	250	250	250	250
Min	0	0	0	0	0	0	0	0	0	0	15	0

Appendix C-5 CCWD Operations Modeling

Alt Existing Alt Desal Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	199	144	124	92	66	85	0	149	368	258	269	72
1923	31	35	330	98	138	97	0	170	382	265	269	35
1924	24	24	38	21	21	72	0	96	88	147	165	163
1925	141	126	118	112	275	198	0	199	432	464	281	90
1926	26	24	36	51	283	198	0	199	432	464	326	61
1927	24	49	343	338	312	207	0	150	336	253	265	46
1928	31	35	293	144	88	83	0	149	367	258	269	67
1929	35	38	46	25	18	204	0	222	453	464	98	47
1930	19	18	60	147	361	234	0	199	432	464	78	32
1931	15	19	30	22	18	29	169	156	174	178	176	163
1932	141	126	118	147	314	198	0	199	432	464	457	65
1933	24	24	37	46	332	269	0	222	453	264	143	79
1934	21	17	38	54	361	229	0	222	319	264	121	98
1935	141	126	118	109	161	292	336	207	422	451	383	36
1936	24	24	54	64	277	217	0	170	422	303	269	38
1937	23	27	69	32	37	217	0	170	422	451	298	74
1938	32	65	333	149	69	67	0	150	336	253	265	143
1939	201	137	93	81	92	110	0	199	422	159	58	35
1940	28	48	48	95	304	209	0	149	418	439	269	41
1941	25	30	330	98	121	71	0	150	313	253	265	96
1942	58	45	48	83	55	206	0	150	331	253	265	104
1943	240	131	90	55	89	78	0	150	337	253	265	57
1944	38	33	38	21	20	198	0	199	432	464	64	29
1945	26	94	319	138	332	169	0	170	387	265	130	39
1946	26	32	333	115	286	95	0	170	386	265	117	43
1947	32	42	96	63	261	198	0	199	432	418	44	22
1948	20	53	61	32	31	263	139	176	422	451	154	40
1949	34	43	59	73	65	234	0	199	432	464	91	66
1950	32	36	58	63	332	184	18	178	422	451	252	54
1951	38	79	333	184	99	86	0	149	367	258	269	47
1952	35	36	330	98	153	81	0	150	336	253	265	228
1953	191	135	82	80	95	87	0	150	336	253	265	71
1954	74	52	58	83	292	89	0	149	367	258	269	50
1955	36	43	284	98	218	113	0	199	419	278	137	64
1956	28	41	334	138	257	86	0	150	335	253	265	130
1957	213	138	46	22	132	86	0	149	364	258	269	39
1958	39	101	307	98	96	62	0	150	277	253	265	227
1959	191	138	51	83	84	95	0	170	387	265	162	35

Appendix C-5 CCWD Operations Modeling

Alt Existing Alt Desal Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1960	23	26	65	34	20	198	0	199	432	163	64	51
1961	28	46	56	138	87	198	29	204	432	374	49	28
1962	124	122	108	138	332	266	188	178	422	451	88	30
1963	29	354	333	146	87	81	0	150	326	253	265	79
1964	29	20	293	124	91	112	0	199	421	192	45	30
1965	24	47	343	138	332	143	0	150	335	253	264	52
1966	32	79	293	84	90	96	0	170	387	265	111	41
1967	37	68	329	115	203	73	0	150	319	253	265	228
1968	191	136	92	73	86	92	0	170	386	265	115	30
1969	31	52	262	115	298	74	0	150	337	253	265	227
1970	189	137	88	59	87	83	0	150	339	253	265	61
1971	28	37	293	107	93	85	0	150	337	253	265	102
1972	126	44	27	31	255	97	0	170	386	265	125	34
1973	20	43	333	248	74	75	0	149	367	258	269	59
1974	24	44	330	144	90	83	0	150	336	252	265	103
1975	240	137	40	30	124	73	0	150	335	253	265	114
1976	228	138	46	20	14	95	0	114	111	146	257	49
1977	28	41	35	42	125	102	180	156	174	178	176	163
1978	141	126	118	147	290	283	210	157	418	444	383	56
1979	40	33	41	61	290	216	0	170	386	265	131	39
1980	28	43	324	115	210	76	0	149	365	257	269	75
1981	51	36	47	98	290	216	0	199	422	161	51	31
1982	29	101	343	313	125	75	0	150	327	253	265	225
1983	188	126	73	42	52	29	0	150	321	253	265	226
1984	190	127	81	80	87	85	0	150	339	253	265	56
1985	30	30	293	137	90	109	0	199	422	152	50	38
1986	36	44	91	138	96	196	0	150	396	439	373	99
1987	49	32	25	24	20	234	0	199	432	429	80	31
1988	25	43	57	138	328	229	0	222	453	464	119	52
1989	20	18	36	37	39	234	0	199	432	464	47	30
1990	23	30	42	90	95	229	98	225	422	75	136	163
1991	141	126	118	112	125	102	190	227	253	178	176	163
1992	141	126	118	112	119	229	122	227	253	264	176	163
1993	141	126	118	147	347	284	134	156	418	444	383	64
1994	31	27	66	50	31	229	0	222	453	61	37	21
Mean	72	71	150	97	160	148	25	173	368	295	204	80
Max	240	354	343	338	361	292	336	227	453	464	457	228
Min	15	17	25	20	14	29	0	96	88	61	37	21

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	199	144	124	92	66	85	0	149	368	258	269	106
1923	44	48	330	98	256	97	0	170	382	265	269	52
1924	34	32	106	114	98	102	0	138	148	264	257	235
1925	198	165	152	147	275	198	0	199	432	464	281	131
1926	37	31	133	137	283	198	0	199	432	464	326	89
1927	34	65	343	338	312	208	0	150	396	310	265	73
1928	46	51	293	252	88	83	0	149	367	258	269	102
1929	52	54	64	40	85	204	0	222	453	464	145	69
1930	27	24	83	147	361	234	0	199	432	464	116	47
1931	21	157	143	136	132	144	180	222	253	264	257	235
1932	198	165	152	147	155	198	72	204	432	464	457	93
1933	34	32	49	97	239	269	0	222	453	264	207	111
1934	168	165	151	147	361	229	0	222	290	264	176	224
1935	198	165	152	144	161	292	336	207	422	451	383	52
1936	34	32	104	111	277	217	0	170	422	403	269	59
1937	34	38	94	109	81	217	0	170	422	451	379	111
1938	46	89	333	242	69	67	0	150	336	253	265	214
1939	203	137	93	81	92	110	0	199	422	236	86	51
1940	40	64	64	128	304	209	75	157	418	444	315	59
1941	35	56	330	98	290	99	0	150	313	253	265	142
1942	83	63	76	83	92	208	0	150	396	269	265	156
1943	259	131	90	55	89	78	0	150	337	253	265	85
1944	54	47	59	37	34	198	0	199	432	464	94	41
1945	37	123	319	138	332	184	0	170	422	451	192	59
1946	38	149	333	115	138	184	0	170	422	387	174	65
1947	47	73	132	115	261	198	0	199	432	443	64	32
1948	29	71	80	43	117	292	336	208	422	451	226	61
1949	50	139	131	114	48	234	0	199	432	464	134	98
1950	46	49	77	86	332	263	161	178	422	451	253	85
1951	58	109	333	315	138	86	0	149	367	258	269	72
1952	52	52	330	98	269	81	0	150	336	253	265	228
1953	191	135	82	80	95	87	0	150	336	253	265	108
1954	109	75	92	83	292	161	0	149	367	258	269	75
1955	52	61	284	98	290	155	0	199	419	278	202	94
1956	41	55	334	138	304	167	0	150	335	253	265	195
1957	220	138	73	38	159	86	0	149	364	258	269	58
1958	55	139	307	98	200	62	0	150	277	253	265	227
1959	191	138	81	83	88	95	0	170	387	265	237	52
1960	32	36	133	112	89	198	0	199	432	242	94	73
1961	40	160	143	138	131	198	74	204	432	374	71	139
1962	199	162	143	138	332	267	189	178	422	451	129	44

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1963	136	354	333	191	87	81	0	150	326	253	265	119
1964	41	28	293	230	91	112	0	199	421	269	65	43
1965	33	62	343	138	332	177	0	150	396	353	264	81
1966	49	112	293	172	78	107	0	170	387	265	166	64
1967	54	94	329	115	291	119	0	150	319	253	265	228
1968	191	136	92	73	86	92	0	170	386	265	170	45
1969	44	99	262	115	298	191	0	150	337	253	265	227
1970	189	137	88	59	87	83	0	150	339	253	265	92
1971	41	53	293	213	93	85	0	150	337	253	265	153
1972	183	63	44	54	259	161	0	170	386	265	184	51
1973	30	81	333	315	137	75	0	149	367	258	269	89
1974	35	61	330	252	90	83	0	150	336	252	265	155
1975	259	137	63	53	149	73	0	150	335	253	265	171
1976	242	138	73	35	25	135	0	163	163	218	257	71
1977	40	130	152	147	161	144	180	222	253	264	257	235
1978	198	165	152	147	290	283	210	157	418	444	383	83
1979	57	47	56	95	290	217	0	170	422	356	193	59
1980	40	67	324	115	290	130	0	149	365	257	269	112
1981	74	50	65	98	290	234	0	199	432	239	76	46
1982	42	133	343	314	332	136	0	150	327	253	265	225
1983	188	126	73	42	52	29	0	150	321	253	265	226
1984	190	127	81	80	87	85	0	150	339	253	265	85
1985	44	43	293	248	90	109	0	199	422	227	74	55
1986	50	58	120	138	131	279	102	158	396	439	379	148
1987	72	46	40	42	32	234	0	199	432	464	116	45
1988	34	56	74	138	328	229	0	222	453	464	169	71
1989	26	22	135	147	161	234	37	204	432	464	67	50
1990	199	162	143	138	132	229	99	225	400	136	257	235
1991	198	165	152	147	137	144	218	227	253	264	257	235
1992	198	165	152	147	155	229	122	227	253	264	257	235
1993	198	165	152	147	347	284	134	156	418	444	383	94
1994	44	38	90	77	52	229	0	222	453	90	54	125
Mean	96	98	174	129	182	164	35	176	376	318	229	113
Max	259	354	343	338	361	292	336	227	453	464	457	235
Min	21	22	40	35	25	29	0	138	148	90	54	32

Appendix C-5 CCWD Operations Modeling

Difference Existing Alt Desal minus Existing Base Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	-34
1923	-13	-13	0	0	-118	0	0	0	0	0	0	-17
1924	-10	-8	-68	-93	-77	-30	0	-41	-60	-116	-92	-72
1925	-57	-39	-34	-35	0	0	0	0	0	0	0	-41
1926	-11	-8	-97	-85	0	0	0	0	0	0	0	-28
1927	-10	-16	0	0	0	-1	0	0	-60	-57	0	-26
1928	-16	-16	0	-108	0	0	0	0	0	0	0	-35
1929	-17	-16	-18	-15	-68	0	0	0	0	0	-47	-22
1930	-8	-6	-23	0	0	0	0	0	0	0	-37	-15
1931	-6	-138	-113	-114	-114	-115	-11	-66	-79	-86	-81	-72
1932	-57	-39	-34	0	159	0	-72	-5	0	0	0	-29
1933	-10	-7	-12	-51	93	0	0	0	0	0	-64	-32
1934	-146	-148	-113	-93	0	0	0	0	28	0	-56	-126
1935	-57	-39	-34	-35	0	0	0	0	0	0	0	-17
1936	-10	-8	-50	-47	0	0	0	0	0	-100	0	-21
1937	-11	-11	-25	-77	-43	0	0	0	0	0	-81	-36
1938	-14	-23	0	-93	0	0	0	0	0	0	0	-71
1939	-1	0	0	0	0	0	0	0	0	-78	-28	-17
1940	-12	-16	-16	-33	0	0	-75	-7	0	-5	-46	-19
1941	-10	-25	0	0	-169	-28	0	0	0	0	0	-47
1942	-25	-18	-28	0	-36	-2	0	0	-66	-16	0	-52
1943	-20	0	0	0	0	0	0	0	0	0	0	-28
1944	-17	-13	-22	-16	-14	0	0	0	0	0	-29	-12
1945	-10	-29	0	0	0	-15	0	0	-35	-186	-62	-20
1946	-12	-117	0	0	148	-89	0	0	-36	-122	-57	-22
1947	-15	-31	-36	-52	0	0	0	0	0	-26	-21	-10
1948	-8	-17	-20	-11	-87	-29	-197	-32	0	0	-72	-21
1949	-16	-96	-71	-41	18	0	0	0	0	0	-44	-32
1950	-14	-13	-19	-23	0	-79	-143	0	0	0	-1	-31
1951	-20	-30	0	-131	-39	0	0	0	0	0	0	-25
1952	-17	-16	0	0	-116	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	-37
1954	-35	-22	-34	0	0	-72	0	0	0	0	0	-25
1955	-17	-17	0	0	-71	-42	0	0	0	0	-65	-30
1956	-13	-14	0	0	-48	-81	0	0	0	0	0	-65
1957	-7	0	-28	-17	-27	0	0	0	0	0	0	-19
1958	-17	-38	0	0	-103	0	0	0	0	0	0	0
1959	0	0	-30	0	-5	0	0	0	0	0	-75	-17
1960	-10	-11	-68	-78	-68	0	0	0	0	-79	-30	-23
1961	-12	-114	-87	0	-43	0	-45	0	0	0	-23	-111

Appendix C-5 CCWD Operations Modeling

Difference Existing Alt Desal minus Existing Base Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1962	-74	-40	-34	0	0	0	-1	0	0	0	-41	-14
1963	-108	0	0	-45	0	0	0	0	0	0	0	-39
1964	-13	-8	0	-106	0	0	0	0	0	-77	-20	-13
1965	-9	-15	0	0	0	-34	0	0	-61	-101	0	-29
1966	-17	-33	0	-88	12	-10	0	0	0	0	-55	-23
1967	-18	-26	0	0	-88	-46	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	-55	-15
1969	-14	-47	0	0	0	-117	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	-31
1971	-13	-16	0	-106	0	0	0	0	0	0	0	-52
1972	-57	-19	-17	-23	-3	-64	0	0	0	0	-59	-17
1973	-9	-38	0	-67	-63	0	0	0	0	0	0	-29
1974	-11	-17	0	-109	0	0	0	0	0	0	0	-52
1975	-19	0	-24	-23	-25	0	0	0	0	0	0	-57
1976	-15	0	-28	-15	-10	-40	0	-49	-51	-71	0	-22
1977	-12	-89	-117	-105	-36	-42	0	-66	-79	-86	-81	-72
1978	-57	-39	-34	0	0	0	0	0	0	0	0	-27
1979	-17	-13	-15	-34	0	-1	0	0	-36	-91	-62	-20
1980	-13	-24	0	0	-80	-54	0	0	0	0	0	-37
1981	-23	-14	-18	0	0	-18	0	0	-11	-78	-25	-15
1982	-13	-33	0	0	-207	-61	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	-28
1985	-14	-13	0	-111	0	0	0	0	0	-74	-24	-17
1986	-15	-14	-29	0	-35	-84	-102	-7	0	0	-6	-49
1987	-22	-13	-15	-18	-13	0	0	0	0	-35	-36	-13
1988	-9	-13	-17	0	0	0	0	0	0	0	-50	-19
1989	-6	-4	-99	-110	-122	0	-37	-5	0	0	-20	-20
1990	-176	-132	-101	-48	-37	0	-1	0	22	-61	-120	-72
1991	-57	-39	-34	-35	-12	-42	-28	0	0	-86	-81	-72
1992	-57	-39	-34	-35	-36	0	0	0	0	0	-81	-72
1993	-57	-39	-34	0	0	0	0	0	0	0	0	-30
1994	-13	-10	-24	-28	-21	0	0	0	0	-29	-17	-104
Mean	-23	-27	-24	-32	-22	-16	-10	-4	-7	-23	-25	-33
Max	0	0	0	0	159	0	0	0	28	0	0	0
Min	-176	-148	-117	-131	-207	-117	-197	-66	-79	-186	-120	-126

Appendix C-5 CCWD Operations Modeling

Alt Existing Alt Desal Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	118	8	19	72
1923	0	0	80	0	0	0	0	0	132	15	19	0
1924	0	0	0	0	21	0	0	0	88	147	0	163
1925	0	0	0	0	25	18	0	0	232	214	31	0
1926	0	0	0	0	33	18	0	0	232	214	76	0
1927	0	0	93	88	62	40	0	0	86	3	15	0
1928	0	0	43	0	0	0	0	0	117	8	19	67
1929	0	0	0	0	18	7	0	0	253	214	0	0
1930	0	0	0	0	111	54	0	0	232	214	0	32
1931	0	0	0	0	18	29	0	0	0	0	0	0
1932	0	0	0	0	64	18	0	0	232	214	207	65
1933	0	0	0	0	82	72	0	0	253	14	0	0
1934	21	0	0	0	111	32	0	0	253	14	0	0
1935	0	0	0	0	0	42	107	0	172	201	133	0
1936	0	0	0	0	27	46	0	0	172	53	19	0
1937	0	0	0	0	0	46	0	0	172	201	48	74
1938	0	0	83	0	0	0	0	0	86	3	15	0
1939	0	0	93	0	0	0	0	0	232	0	0	0
1940	0	0	0	0	54	42	0	0	168	189	19	0
1941	0	0	80	0	0	0	0	0	63	3	15	0
1942	0	0	0	0	0	39	0	0	81	3	15	0
1943	0	0	0	0	0	0	0	0	87	3	15	0
1944	0	0	0	0	0	18	0	0	232	214	0	0
1945	0	0	69	0	82	0	0	0	137	15	0	0
1946	0	0	83	0	101	0	0	0	136	15	0	0
1947	0	0	0	0	11	18	0	0	232	168	0	0
1948	0	0	0	0	0	13	0	0	172	201	0	0
1949	0	0	0	0	0	54	0	0	232	214	0	0
1950	0	0	0	0	82	13	0	0	172	201	2	0
1951	0	0	83	0	99	0	0	0	218	8	19	0
1952	0	0	80	0	0	0	0	0	86	3	15	0
1953	0	0	0	0	0	0	0	0	86	3	15	0
1954	0	0	0	0	42	0	0	0	117	8	19	0
1955	0	0	34	0	0	0	0	0	232	28	0	0
1956	0	0	84	0	7	0	0	0	85	3	15	0
1957	0	0	0	0	0	0	0	0	114	8	19	0
1958	0	0	57	98	0	0	0	0	27	3	15	0
1959	0	135	51	0	0	0	0	0	222	15	0	0
1960	0	0	0	34	20	18	0	0	232	0	0	0
1961	0	0	0	0	0	18	0	0	232	124	0	0

Appendix C-5 CCWD Operations Modeling

Alt Existing Alt Desal Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1962	0	0	0	0	82	16	0	0	222	201	0	0
1963	0	104	83	0	0	0	0	0	76	3	15	79
1964	0	0	43	0	0	0	0	0	232	0	0	0
1965	0	0	93	0	82	0	0	0	85	3	14	52
1966	0	0	43	0	0	0	0	0	222	15	0	0
1967	0	0	79	0	0	0	0	0	69	3	15	0
1968	0	0	0	0	0	0	0	0	222	15	0	0
1969	0	0	12	0	48	0	0	0	87	3	15	0
1970	0	0	88	0	0	0	0	0	196	3	15	61
1971	0	0	43	0	92	0	0	0	87	3	15	0
1972	0	44	0	0	5	0	0	0	222	15	0	34
1973	0	0	83	0	74	0	0	0	117	8	19	59
1974	0	0	80	0	0	0	0	0	86	2	15	0
1975	0	135	0	0	0	0	0	0	85	3	15	0
1976	0	135	0	20	14	0	0	0	0	0	7	49
1977	0	0	0	0	0	70	0	0	174	0	0	0
1978	0	0	0	0	40	33	0	0	168	194	133	0
1979	0	0	0	0	40	45	0	0	136	15	0	0
1980	0	0	74	0	0	0	0	0	115	7	19	0
1981	0	0	0	0	40	37	0	0	232	0	0	0
1982	0	0	93	63	0	41	0	0	77	3	15	0
1983	0	0	0	0	0	0	0	0	71	3	15	0
1984	0	0	0	0	0	0	0	0	196	3	15	56
1985	0	0	43	0	0	0	0	0	232	0	0	0
1986	0	0	0	0	0	29	0	0	146	189	123	0
1987	0	0	0	0	20	54	0	0	232	179	0	0
1988	0	0	0	0	78	32	0	0	253	214	0	0
1989	0	0	0	0	39	54	0	0	232	214	0	0
1990	0	0	0	90	0	32	0	0	253	0	0	0
1991	0	0	0	0	0	0	0	0	253	0	0	0
1992	0	0	0	0	0	32	0	0	253	14	0	0
1993	0	0	0	0	97	34	0	0	168	194	133	0
1994	0	0	0	0	0	32	0	0	203	0	0	0
Mean	0	8	26	5	25	16	1	0	162	64	19	12
Max	21	135	93	98	111	72	107	0	253	214	207	163
Min	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	118	8	19	106
1923	0	0	80	0	6	0	0	0	132	15	19	0
1924	0	0	0	0	98	0	0	0	148	264	7	235
1925	0	0	0	0	25	18	0	0	232	214	31	0
1926	0	0	0	0	33	18	0	0	232	214	76	0
1927	0	0	93	88	62	41	0	0	146	60	15	0
1928	0	0	43	2	0	0	0	0	117	8	19	102
1929	0	0	0	0	85	7	0	0	253	214	0	0
1930	0	0	0	0	111	54	0	0	232	214	0	47
1931	0	0	0	0	132	66	0	0	3	14	7	0
1932	0	0	0	0	0	18	0	0	232	214	207	93
1933	0	0	0	0	0	72	0	0	253	14	0	0
1934	168	0	0	0	111	32	0	0	253	14	0	0
1935	0	0	0	0	0	42	107	0	172	201	133	0
1936	0	0	0	0	27	46	0	0	172	153	19	0
1937	0	0	0	0	0	46	0	0	172	201	129	111
1938	0	0	83	0	0	0	0	0	86	3	15	0
1939	0	0	93	0	0	0	0	0	232	0	0	0
1940	0	0	0	0	54	42	0	0	168	194	65	0
1941	0	0	80	0	40	0	0	0	63	3	15	0
1942	0	0	0	0	0	41	0	0	146	19	15	0
1943	9	0	0	0	0	0	0	0	87	3	15	0
1944	0	0	0	0	0	18	0	0	232	214	0	0
1945	0	0	69	0	82	13	0	0	172	201	0	0
1946	0	0	83	0	101	13	0	0	172	137	0	0
1947	0	0	0	0	11	18	0	0	232	193	0	0
1948	0	0	0	0	0	42	109	0	172	201	0	0
1949	0	0	0	0	0	54	0	0	232	214	0	0
1950	0	0	0	0	82	13	0	0	172	201	3	0
1951	0	0	83	65	101	0	0	0	218	8	19	0
1952	0	0	80	0	19	0	0	0	86	3	15	0
1953	0	0	0	0	0	0	0	0	86	3	15	0
1954	0	0	0	0	42	0	0	0	117	8	19	0
1955	0	0	34	0	40	0	0	0	232	28	0	0
1956	0	0	84	0	54	1	0	0	85	3	15	0
1957	0	0	0	0	0	0	0	0	114	8	19	0
1958	0	0	57	98	0	0	0	0	27	3	15	0
1959	0	135	81	0	0	0	0	0	222	15	0	0
1960	0	0	0	112	89	18	0	0	232	0	0	0
1961	0	0	0	0	0	18	0	0	232	124	0	0
1962	0	0	0	0	82	17	0	0	222	201	0	0

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1963	0	104	83	0	0	0	0	0	76	3	15	119
1964	0	0	43	0	0	0	0	0	232	19	0	0
1965	0	0	93	0	82	11	0	0	146	103	14	81
1966	0	0	43	0	0	0	0	0	222	15	0	0
1967	0	0	79	0	41	0	0	0	69	3	15	0
1968	0	0	0	0	0	0	0	0	222	15	0	0
1969	0	0	12	0	48	25	0	0	87	3	15	0
1970	0	0	88	0	0	0	0	0	196	3	15	92
1971	0	0	43	0	92	0	0	0	87	3	15	0
1972	0	63	0	0	9	0	0	0	222	15	0	51
1973	0	0	83	65	101	0	0	0	117	8	19	89
1974	0	0	80	2	0	0	0	0	86	2	15	0
1975	9	135	0	0	0	0	0	0	85	3	15	0
1976	0	135	0	35	25	0	0	0	0	0	7	71
1977	0	0	0	0	0	66	0	0	253	14	7	0
1978	0	0	0	0	40	33	0	0	168	194	133	0
1979	0	0	0	0	40	46	0	0	172	106	0	0
1980	0	0	74	0	40	0	0	0	115	7	19	0
1981	0	0	0	0	40	54	0	0	232	0	0	0
1982	0	0	93	64	82	41	0	0	77	3	15	0
1983	0	0	0	0	0	0	0	0	71	3	15	0
1984	0	0	0	0	0	0	0	0	196	3	15	85
1985	0	0	43	0	0	0	0	0	232	0	0	0
1986	0	0	0	0	0	29	0	0	146	189	129	0
1987	0	0	0	0	32	54	0	0	232	214	0	0
1988	0	0	0	0	78	32	0	0	253	214	0	0
1989	0	0	0	0	161	54	0	0	232	214	0	0
1990	0	0	0	138	0	32	0	0	253	0	7	0
1991	0	0	0	0	0	0	0	0	253	14	7	0
1992	0	0	0	0	0	32	0	0	253	14	7	0
1993	0	0	0	0	97	34	0	0	168	194	133	0
1994	0	0	0	0	0	32	0	0	203	0	0	0
Mean	3	8	26	9	34	19	3	0	168	76	21	18
Max	168	135	93	138	161	72	109	0	253	264	207	235
Min	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-5 CCWD Operations Modeling

Difference Existing Alt Desal minus Existing Base Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	-34
1923	0	0	0	0	-6	0	0	0	0	0	0	0
1924	0	0	0	0	-77	0	0	0	-60	-116	-7	-72
1925	0	0	0	0	0	0	0	0	0	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	-1	0	0	-60	-57	0	0
1928	0	0	0	-2	0	0	0	0	0	0	0	-35
1929	0	0	0	0	-68	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	-15
1931	0	0	0	0	-114	-38	0	0	-3	-14	-7	0
1932	0	0	0	0	64	0	0	0	0	0	0	-29
1933	0	0	0	0	82	0	0	0	0	0	0	0
1934	-146	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	-100	0	0
1937	0	0	0	0	0	0	0	0	0	0	-81	-36
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	-5	-46	0
1941	0	0	0	0	-40	0	0	0	0	0	0	0
1942	0	0	0	0	0	-2	0	0	-66	-16	0	0
1943	-9	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	-13	0	0	-35	-186	0	0
1946	0	0	0	0	0	-13	0	0	-36	-122	0	0
1947	0	0	0	0	0	0	0	0	0	-26	0	0
1948	0	0	0	0	0	-29	-109	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	-1	0
1951	0	0	0	-65	-3	0	0	0	0	0	0	0
1952	0	0	0	0	-19	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	-40	0	0	0	0	0	0	0
1956	0	0	0	0	-48	-1	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	-30	0	0	0	0	0	0	0	0	0
1960	0	0	0	-78	-68	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-5 CCWD Operations Modeling

Difference Existing Alt Desal minus Existing Base Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	-39
1964	0	0	0	0	0	0	0	0	0	-19	0	0
1965	0	0	0	0	0	-11	0	0	-61	-101	0	-29
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	-41	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	-25	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	-31
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	-19	0	0	-3	0	0	0	0	0	0	-17
1973	0	0	0	-65	-28	0	0	0	0	0	0	-29
1974	0	0	0	-2	0	0	0	0	0	0	0	0
1975	-9	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	-15	-10	0	0	0	0	0	0	-22
1977	0	0	0	0	0	4	0	0	-79	-14	-7	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	-1	0	0	-36	-91	0	0
1980	0	0	0	0	-40	0	0	0	0	0	0	0
1981	0	0	0	0	0	-18	0	0	0	0	0	0
1982	0	0	0	0	-82	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	-28
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	-6	0
1987	0	0	0	0	-13	0	0	0	0	-35	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	-122	0	0	0	0	0	0	0
1990	0	0	0	-48	0	0	0	0	0	0	-7	0
1991	0	0	0	0	0	0	0	0	0	-14	-7	0
1992	0	0	0	0	0	0	0	0	0	0	-7	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0
Mean	-2	0	0	-4	-9	-2	-1	0	-6	-13	-2	-6
Max	0	0	0	0	82	4	0	0	0	0	0	0
Min	-146	-19	-30	-78	-122	-38	-109	0	-79	-186	-81	-72

Appendix C-5 CCWD Operations Modeling

Alt Existing Alt Desal Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	199	144	124	92	66	85	0	149	250	250	250	0
1923	31	35	250	98	138	97	0	170	250	250	250	35
1924	24	24	38	21	0	72	0	96	0	0	165	0
1925	141	126	118	112	250	179	0	199	200	250	250	90
1926	26	24	36	51	250	179	0	199	200	250	250	61
1927	24	49	250	250	250	166	0	150	250	250	250	46
1928	31	35	250	144	88	83	0	149	250	250	250	0
1929	35	38	46	25	0	197	0	222	200	250	98	47
1930	19	18	60	147	250	179	0	199	200	250	78	0
1931	15	19	30	22	0	0	169	156	174	178	176	163
1932	141	126	118	147	250	179	0	199	200	250	250	0
1933	24	24	37	46	250	197	0	222	200	250	143	79
1934	0	17	38	54	250	197	0	222	65	250	121	98
1935	141	126	118	109	161	250	229	207	250	250	250	36
1936	24	24	54	64	250	171	0	170	250	250	250	38
1937	23	27	69	32	37	171	0	170	250	250	250	0
1938	32	65	250	149	69	67	0	150	250	250	250	143
1939	201	137	0	81	92	110	0	199	190	159	58	35
1940	28	48	48	95	250	167	0	149	250	250	250	41
1941	25	30	250	98	121	71	0	150	250	250	250	96
1942	58	45	48	83	55	166	0	150	250	250	250	104
1943	240	131	90	55	89	78	0	150	250	250	250	57
1944	38	33	38	21	20	179	0	199	200	250	64	29
1945	26	94	250	138	250	169	0	170	250	250	130	39
1946	26	32	250	115	184	95	0	170	250	250	117	43
1947	32	42	96	63	250	179	0	199	200	250	44	22
1948	20	53	61	32	31	250	139	176	250	250	154	40
1949	34	43	59	73	65	179	0	199	200	250	91	66
1950	32	36	58	63	250	171	18	178	250	250	250	54
1951	38	79	250	184	0	86	0	149	149	250	250	47
1952	35	36	250	98	153	81	0	150	250	250	250	228
1953	191	135	82	80	95	87	0	150	250	250	250	71
1954	74	52	58	83	250	89	0	149	250	250	250	50
1955	36	43	250	98	218	113	0	199	187	250	137	64
1956	28	41	250	138	250	86	0	150	250	250	250	130
1957	213	138	46	22	132	86	0	149	250	250	250	39
1958	39	101	250	0	96	62	0	150	250	250	250	227
1959	191	3	0	83	84	95	0	170	165	250	162	35
1960	23	26	65	0	0	179	0	199	200	163	64	51
1961	28	46	56	138	87	179	29	204	200	250	49	28

Appendix C-5 CCWD Operations Modeling

Alt Existing Alt Desal Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1962	124	122	108	138	250	250	188	178	200	250	88	30
1963	29	250	250	146	87	81	0	150	250	250	250	0
1964	29	20	250	124	91	112	0	199	189	192	45	30
1965	24	47	250	138	250	143	0	150	250	250	250	0
1966	32	79	250	84	90	96	0	170	165	250	111	41
1967	37	68	250	115	203	73	0	150	250	250	250	228
1968	191	136	92	73	86	92	0	170	164	250	115	30
1969	31	52	250	115	250	74	0	150	250	250	250	227
1970	189	137	0	59	87	83	0	150	143	250	250	0
1971	28	37	250	107	1	85	0	150	250	250	250	102
1972	126	0	27	31	250	97	0	170	164	250	125	0
1973	20	43	250	248	0	75	0	149	250	250	250	0
1974	24	44	250	144	90	83	0	150	250	250	250	103
1975	240	2	40	30	124	73	0	150	250	250	250	114
1976	228	2	46	0	0	95	0	114	111	146	250	0
1977	28	41	35	42	125	32	180	156	0	178	176	163
1978	141	126	118	147	250	250	210	157	250	250	250	56
1979	40	33	41	61	250	171	0	170	250	250	131	39
1980	28	43	250	115	210	76	0	149	250	250	250	75
1981	51	36	47	98	250	179	0	199	189	161	51	31
1982	29	101	250	250	125	33	0	150	250	250	250	225
1983	188	126	73	42	52	29	0	150	250	250	250	226
1984	190	127	81	80	87	85	0	150	143	250	250	0
1985	30	30	250	137	90	109	0	199	190	152	50	38
1986	36	44	91	138	96	166	0	150	250	250	250	99
1987	49	32	25	24	0	179	0	199	200	250	80	31
1988	25	43	57	138	250	197	0	222	200	250	119	52
1989	20	18	36	37	0	179	0	199	200	250	47	30
1990	23	30	42	0	95	197	98	225	168	75	136	163
1991	141	126	118	112	125	102	190	227	0	178	176	163
1992	141	126	118	112	119	197	122	227	0	250	176	163
1993	141	126	118	147	250	250	134	156	250	250	250	64
1994	31	27	66	50	31	197	0	222	250	61	37	21
Mean	72	63	124	92	135	131	23	173	206	231	185	68
Max	240	250	250	250	250	250	229	227	250	250	250	228
Min	0	0	0	0	0	0	0	96	0	0	37	0

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	199	144	124	92	66	85	0	149	250	250	250	0
1923	44	48	250	98	250	97	0	170	250	250	250	52
1924	34	32	106	114	0	102	0	138	0	0	250	0
1925	198	165	152	147	250	179	0	199	200	250	250	131
1926	37	31	133	137	250	179	0	199	200	250	250	89
1927	34	65	250	250	250	166	0	150	250	250	250	73
1928	46	51	250	250	88	83	0	149	250	250	250	0
1929	52	54	64	40	0	197	0	222	200	250	145	69
1930	27	24	83	147	250	179	0	199	200	250	116	0
1931	21	157	143	136	0	77	180	222	250	250	250	235
1932	198	165	152	147	155	179	72	204	200	250	250	0
1933	34	32	49	97	239	197	0	222	200	250	207	111
1934	0	165	151	147	250	197	0	222	37	250	176	224
1935	198	165	152	144	161	250	229	207	250	250	250	52
1936	34	32	104	111	250	171	0	170	250	250	250	59
1937	34	38	94	109	81	171	0	170	250	250	250	0
1938	46	89	250	242	69	67	0	150	250	250	250	214
1939	203	137	0	81	92	110	0	199	190	236	86	51
1940	40	64	64	128	250	167	75	157	250	250	250	59
1941	35	56	250	98	250	99	0	150	250	250	250	142
1942	83	63	76	83	92	166	0	150	250	250	250	156
1943	250	131	90	55	89	78	0	150	250	250	250	85
1944	54	47	59	37	34	179	0	199	200	250	94	41
1945	37	123	250	138	250	171	0	170	250	250	192	59
1946	38	149	250	115	36	171	0	170	250	250	174	65
1947	47	73	132	115	250	179	0	199	200	250	64	32
1948	29	71	80	43	117	250	227	208	250	250	226	61
1949	50	139	131	114	48	179	0	199	200	250	134	98
1950	46	49	77	86	250	250	161	178	250	250	250	85
1951	58	109	250	250	37	86	0	149	149	250	250	72
1952	52	52	250	98	250	81	0	150	250	250	250	228
1953	191	135	82	80	95	87	0	150	250	250	250	108
1954	109	75	92	83	250	161	0	149	250	250	250	75
1955	52	61	250	98	250	155	0	199	187	250	202	94
1956	41	55	250	138	250	166	0	150	250	250	250	195
1957	220	138	73	38	159	86	0	149	250	250	250	58
1958	55	139	250	0	200	62	0	150	250	250	250	227
1959	191	3	0	83	88	95	0	170	165	250	237	52
1960	32	36	133	0	0	179	0	199	200	242	94	73
1961	40	160	143	138	131	179	74	204	200	250	71	139
1962	199	162	143	138	250	250	189	178	200	250	129	44

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1963	136	250	250	191	87	81	0	150	250	250	250	0
1964	41	28	250	230	91	112	0	199	189	250	65	43
1965	33	62	250	138	250	166	0	150	250	250	250	0
1966	49	112	250	172	78	107	0	170	165	250	166	64
1967	54	94	250	115	250	119	0	150	250	250	250	228
1968	191	136	92	73	86	92	0	170	164	250	170	45
1969	44	99	250	115	250	166	0	150	250	250	250	227
1970	189	137	0	59	87	83	0	150	143	250	250	0
1971	41	53	250	213	1	85	0	150	250	250	250	153
1972	183	0	44	54	250	161	0	170	164	250	184	0
1973	30	81	250	250	35	75	0	149	250	250	250	0
1974	35	61	250	250	90	83	0	150	250	250	250	155
1975	250	2	63	53	149	73	0	150	250	250	250	171
1976	242	2	73	0	0	135	0	163	163	218	250	0
1977	40	130	152	147	161	77	180	222	0	250	250	235
1978	198	165	152	147	250	250	210	157	250	250	250	83
1979	57	47	56	95	250	171	0	170	250	250	193	59
1980	40	67	250	115	250	130	0	149	250	250	250	112
1981	74	50	65	98	250	179	0	199	200	239	76	46
1982	42	133	250	250	250	94	0	150	250	250	250	225
1983	188	126	73	42	52	29	0	150	250	250	250	226
1984	190	127	81	80	87	85	0	150	143	250	250	0
1985	44	43	250	248	90	109	0	199	190	227	74	55
1986	50	58	120	138	131	250	102	158	250	250	250	148
1987	72	46	40	42	0	179	0	199	200	250	116	45
1988	34	56	74	138	250	197	0	222	200	250	169	71
1989	26	22	135	147	0	179	37	204	200	250	67	50
1990	199	162	143	0	132	197	99	225	146	136	250	235
1991	198	165	152	147	137	144	218	227	0	250	250	235
1992	198	165	152	147	155	197	122	227	0	250	250	235
1993	198	165	152	147	250	250	134	156	250	250	250	94
1994	44	38	90	77	52	197	0	222	250	90	54	125
Mean	93	90	148	120	148	145	32	176	207	242	208	96
Max	250	250	250	250	250	250	229	227	250	250	250	235
Min	0	0	0	0	0	29	0	138	0	0	54	0

Appendix C-5 CCWD Operations Modeling

Difference Existing Alt Desal minus Existing Base Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	0
1923	-13	-13	0	0	-112	0	0	0	0	0	0	-17
1924	-10	-8	-68	-93	0	-30	0	-41	0	0	-85	0
1925	-57	-39	-34	-35	0	0	0	0	0	0	0	-41
1926	-11	-8	-97	-85	0	0	0	0	0	0	0	-28
1927	-10	-16	0	0	0	0	0	0	0	0	0	-26
1928	-16	-16	0	-106	0	0	0	0	0	0	0	0
1929	-17	-16	-18	-15	0	0	0	0	0	0	-47	-22
1930	-8	-6	-23	0	0	0	0	0	0	0	-37	0
1931	-6	-138	-113	-114	0	-77	-11	-66	-76	-72	-74	-72
1932	-57	-39	-34	0	95	0	-72	-5	0	0	0	0
1933	-10	-7	-12	-51	11	0	0	0	0	0	-64	-32
1934	0	-148	-113	-93	0	0	0	0	28	0	-56	-126
1935	-57	-39	-34	-35	0	0	0	0	0	0	0	-17
1936	-10	-8	-50	-47	0	0	0	0	0	0	0	-21
1937	-11	-11	-25	-77	-43	0	0	0	0	0	0	0
1938	-14	-23	0	-93	0	0	0	0	0	0	0	-71
1939	-1	0	0	0	0	0	0	0	0	-78	-28	-17
1940	-12	-16	-16	-33	0	0	-75	-7	0	0	0	-19
1941	-10	-25	0	0	-129	-28	0	0	0	0	0	-47
1942	-25	-18	-28	0	-36	0	0	0	0	0	0	-52
1943	-10	0	0	0	0	0	0	0	0	0	0	-28
1944	-17	-13	-22	-16	-14	0	0	0	0	0	-29	-12
1945	-10	-29	0	0	0	-2	0	0	0	0	-62	-20
1946	-12	-117	0	0	148	-76	0	0	0	0	-57	-22
1947	-15	-31	-36	-52	0	0	0	0	0	0	-21	-10
1948	-8	-17	-20	-11	-87	0	-88	-32	0	0	-72	-21
1949	-16	-96	-71	-41	18	0	0	0	0	0	-44	-32
1950	-14	-13	-19	-23	0	-79	-143	0	0	0	0	-31
1951	-20	-30	0	-66	-37	0	0	0	0	0	0	-25
1952	-17	-16	0	0	-97	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	-37
1954	-35	-22	-34	0	0	-72	0	0	0	0	0	-25
1955	-17	-17	0	0	-32	-42	0	0	0	0	-65	-30
1956	-13	-14	0	0	0	-80	0	0	0	0	0	-65
1957	-7	0	-28	-17	-27	0	0	0	0	0	0	-19
1958	-17	-38	0	0	-103	0	0	0	0	0	0	0
1959	0	0	0	0	-5	0	0	0	0	0	-75	-17
1960	-10	-11	-68	0	0	0	0	0	0	-79	-30	-23
1961	-12	-114	-87	0	-43	0	-45	0	0	0	-23	-111

Appendix C-5 CCWD Operations Modeling

Difference Existing Alt Desal minus Existing Base Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1962	-74	-40	-34	0	0	0	-1	0	0	0	-41	-14
1963	-108	0	0	-45	0	0	0	0	0	0	0	0
1964	-13	-8	0	-106	0	0	0	0	0	-58	-20	-13
1965	-9	-15	0	0	0	-24	0	0	0	0	0	0
1966	-17	-33	0	-88	12	-10	0	0	0	0	-55	-23
1967	-18	-26	0	0	-47	-46	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	-55	-15
1969	-14	-47	0	0	0	-92	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	-13	-16	0	-106	0	0	0	0	0	0	0	-52
1972	-57	0	-17	-23	0	-64	0	0	0	0	-59	0
1973	-9	-38	0	-2	-35	0	0	0	0	0	0	0
1974	-11	-17	0	-106	0	0	0	0	0	0	0	-52
1975	-10	0	-24	-23	-25	0	0	0	0	0	0	-57
1976	-15	0	-28	0	0	-40	0	-49	-51	-71	0	0
1977	-12	-89	-117	-105	-36	-46	0	-66	0	-72	-74	-72
1978	-57	-39	-34	0	0	0	0	0	0	0	0	-27
1979	-17	-13	-15	-34	0	0	0	0	0	0	-62	-20
1980	-13	-24	0	0	-40	-54	0	0	0	0	0	-37
1981	-23	-14	-18	0	0	0	0	0	-11	-78	-25	-15
1982	-13	-33	0	0	-125	-61	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	-14	-13	0	-111	0	0	0	0	0	-74	-24	-17
1986	-15	-14	-29	0	-35	-84	-102	-7	0	0	0	-49
1987	-22	-13	-15	-18	0	0	0	0	0	0	-36	-13
1988	-9	-13	-17	0	0	0	0	0	0	0	-50	-19
1989	-6	-4	-99	-110	0	0	-37	-5	0	0	-20	-20
1990	-176	-132	-101	0	-37	0	-1	0	22	-61	-114	-72
1991	-57	-39	-34	-35	-12	-42	-28	0	0	-72	-74	-72
1992	-57	-39	-34	-35	-36	0	0	0	0	0	-74	-72
1993	-57	-39	-34	0	0	0	0	0	0	0	0	-30
1994	-13	-10	-24	-28	-21	0	0	0	0	-29	-17	-104
Mean	-21	-27	-24	-28	-13	-14	-8	-4	-1	-10	-23	-27
Max	0	0	0	0	148	0	0	0	28	0	0	0
Min	-176	-148	-117	-114	-129	-92	-143	-66	-76	-79	-114	-126

Appendix C-5 CCWD Operations Modeling

Alt Existing Alt Desal Total Alternative Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	0
1923	0	0	0	0	0	0	0	0	0	0	0	0
1924	0	0	0	0	0	0	0	0	0	0	0	0
1925	0	0	0	0	0	0	0	0	0	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-5 CCWD Operations Modeling

Alt Existing Alt Desal Total Alternative Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0
Mean	0	0	0	0	0	0	0	0	0	0	0	0
Max	0	0	0	0	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total Alternate Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	0
1923	0	0	0	0	0	0	0	0	0	0	0	0
1924	0	0	0	0	0	0	0	0	0	0	0	0
1925	0	0	0	0	0	0	0	0	0	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-5 CCWD Operations Modeling

Base Existing Base												
Total Alternate Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0
Mean	0	0	0	0	0	0	0	0	0	0	0	0
Max	0	0	0	0	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-5 CCWD Operations Modeling

Difference Existing Alt Desal minus Existing Base Total Alternate Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	0
1923	0	0	0	0	0	0	0	0	0	0	0	0
1924	0	0	0	0	0	0	0	0	0	0	0	0
1925	0	0	0	0	0	0	0	0	0	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-5 CCWD Operations Modeling

Difference												
Existing Alt Desal minus Existing Base												
Total Alternate Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0
Mean	0	0	0	0	0	0	0	0	0	0	0	0
Max	0	0	0	0	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-5 CCWD Operations Modeling

Alt Future Alt 1 & 2 Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	440	304	149	118	91	109	0	193	464	321	330	290
1923	166	144	189	119	115	125	0	214	481	328	330	251
1924	139	96	307	123	64	140	0	140	165	283	318	218
1925	122	202	189	180	212	125	151	254	493	528	519	266
1926	109	78	86	158	342	261	0	250	351	328	319	289
1927	116	152	322	369	366	267	0	193	428	316	327	272
1928	129	100	226	104	116	108	0	193	463	321	330	290
1929	122	104	287	123	56	215	0	273	314	328	318	183
1930	77	59	133	180	198	300	0	250	293	328	319	289
1931	114	199	122	168	166	174	224	274	314	328	318	290
1932	245	202	133	180	191	261	85	255	493	528	519	411
1933	156	62	195	146	218	334	0	273	314	328	318	258
1934	105	66	133	180	198	174	81	274	314	328	318	290
1935	245	202	133	180	198	121	375	414	482	514	502	255
1936	137	102	29	136	325	204	0	214	482	328	330	288
1937	135	89	303	120	120	98	0	214	482	329	330	289
1938	128	157	238	133	97	91	0	193	426	316	327	282
1939	236	158	59	96	72	195	0	250	493	375	284	162
1940	89	93	250	169	360	206	0	193	462	321	330	252
1941	98	78	303	123	108	95	0	193	403	316	327	282
1942	161	116	155	67	108	105	0	193	420	316	327	282
1943	237	152	56	77	118	102	0	193	426	316	327	244
1944	119	76	259	98	152	144	0	250	493	373	325	277
1945	104	110	317	169	210	137	0	214	482	331	330	279
1946	119	107	305	135	130	123	0	214	482	331	330	173
1947	115	127	307	136	183	141	0	250	293	528	272	253
1948	98	94	122	169	86	243	74	220	482	514	443	233
1949	131	124	307	136	0	276	0	250	493	376	331	257
1950	107	95	129	129	166	243	0	214	482	514	334	288
1951	171	251	94	129	126	110	0	193	463	321	330	206
1952	134	118	303	123	131	105	0	193	425	316	327	282
1953	238	156	49	103	124	111	0	193	425	316	326	282
1954	126	118	209	104	121	110	0	193	463	321	330	262
1955	139	121	281	120	116	145	0	250	493	372	331	298
1956	105	89	322	169	173	110	0	193	425	316	327	281
1957	236	158	60	104	118	110	0	193	460	321	330	222
1958	123	121	303	123	105	86	0	193	367	316	326	282
1959	238	158	60	100	110	123	0	214	482	331	330	189

Appendix C-5 CCWD Operations Modeling

Alt Future Alt 1 & 2 Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1960	100	77	307	136	76	261	0	250	451	328	319	289
1961	117	97	251	169	155	261	0	250	493	525	319	289
1962	116	94	122	169	232	243	0	214	482	380	330	152
1963	76	379	203	118	115	105	0	193	415	316	327	282
1964	146	56	243	99	119	144	0	250	493	374	254	201
1965	90	115	322	169	361	109	0	193	424	316	326	258
1966	138	279	49	101	119	125	0	214	482	331	330	197
1967	110	139	307	136	134	97	0	193	409	316	327	282
1968	238	157	59	95	114	121	0	214	482	331	328	148
1969	101	118	307	136	211	97	0	193	426	316	327	282
1970	236	157	54	82	116	107	0	193	428	316	327	262
1971	132	114	199	100	122	109	0	193	426	316	327	282
1972	162	113	174	105	118	126	0	214	482	330	330	208
1973	86	110	307	193	101	99	0	193	463	321	330	280
1974	112	125	264	117	115	107	0	193	425	316	327	282
1975	236	144	70	105	115	97	0	193	424	316	326	282
1976	235	158	60	91	74	234	0	215	196	324	318	216
1977	101	140	276	97	75	61	207	274	314	328	318	290
1978	245	202	133	180	330	158	158	392	479	507	476	290
1979	225	160	41	123	188	119	0	214	482	330	330	257
1980	121	128	306	115	82	100	0	193	461	320	330	290
1981	246	160	114	117	71	181	0	250	493	375	260	299
1982	124	93	322	202	159	99	0	193	416	316	327	280
1983	235	147	40	65	81	53	0	193	410	316	326	281
1984	237	147	100	103	115	109	0	193	428	316	327	251
1985	126	82	259	109	119	141	0	250	493	375	225	187
1986	127	109	322	169	366	111	0	193	426	316	327	282
1987	158	95	201	104	76	179	0	250	453	328	319	184
1988	82	98	133	169	360	174	0	273	314	328	318	185
1989	78	98	134	177	198	300	47	256	493	528	288	173
1990	108	131	222	89	123	183	221	274	314	328	318	290
1991	245	202	133	180	192	174	299	273	314	328	307	290
1992	245	202	133	180	191	294	112	279	314	328	318	290
1993	245	202	133	180	398	308	158	199	479	507	444	290
1994	167	112	238	123	0	280	0	273	514	305	214	125
Mean	156	135	191	136	156	159	30	226	427	354	332	257
Max	440	379	322	369	398	334	375	414	514	528	519	411
Min	76	56	29	65	0	53	0	140	165	283	214	125

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	246	170	149	118	91	109	0	193	464	321	330	212
1923	61	59	303	123	274	125	0	214	481	328	220	84
1924	64	179	107	136	125	121	0	135	314	328	318	290
1925	245	202	133	180	376	123	83	254	493	528	519	144
1926	40	37	66	168	366	261	0	250	493	528	519	268
1927	48	57	322	369	366	127	0	193	425	316	327	81
1928	44	48	259	105	317	205	0	193	463	321	330	129
1929	51	50	123	77	115	279	0	273	514	480	126	62
1930	54	202	139	171	398	300	0	250	493	421	142	77
1931	241	199	122	168	166	174	224	274	314	328	318	290
1932	245	202	133	180	191	261	85	255	493	528	519	183
1933	44	36	68	124	366	334	0	273	514	328	203	124
1934	245	202	133	180	197	209	194	274	314	328	318	290
1935	245	202	133	180	191	321	375	319	482	514	407	66
1936	47	102	111	136	325	281	0	214	482	439	330	135
1937	52	46	163	64	326	281	0	214	482	431	330	172
1938	48	74	307	336	100	91	0	193	426	316	327	250
1939	127	303	59	41	54	261	0	250	493	303	109	51
1940	41	70	82	158	360	308	220	193	479	507	279	82
1941	94	170	303	123	315	124	0	193	403	316	327	207
1942	62	54	259	105	208	105	0	193	420	316	327	114
1943	90	75	136	105	321	196	0	193	426	316	327	81
1944	55	49	259	51	95	261	0	250	493	528	139	102
1945	43	59	322	162	366	281	0	214	482	514	291	104
1946	43	169	307	136	327	227	0	214	482	331	139	62
1947	166	178	307	65	127	261	0	250	493	528	90	71
1948	37	50	184	94	160	321	375	303	482	514	202	68
1949	161	179	143	98	0	300	0	250	493	528	186	94
1950	49	107	146	142	366	321	269	214	482	514	331	171
1951	76	142	307	310	126	110	0	193	463	321	330	71
1952	57	77	303	123	311	184	0	193	425	316	327	211
1953	307	156	49	103	124	111	0	193	425	316	326	109
1954	54	55	212	105	321	225	0	193	463	321	330	86
1955	62	62	303	123	315	243	0	250	493	372	286	150
1956	46	54	322	169	360	217	0	193	425	316	327	116
1957	70	55	82	45	321	268	0	193	479	422	330	66
1958	46	96	303	123	315	152	0	193	367	316	326	153
1959	210	116	105	105	268	123	0	214	482	331	225	59
1960	81	179	143	99	116	261	0	250	493	462	153	258
1961	55	48	322	55	79	261	0	250	493	301	169	289
1962	246	199	322	169	366	243	80	222	482	514	115	123

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1963	234	379	307	136	200	105	0	193	415	316	327	135
1964	45	22	259	305	176	144	0	250	493	374	58	46
1965	28	44	322	169	366	231	2	201	457	503	440	83
1966	58	89	259	305	19	236	0	214	482	331	170	71
1967	127	176	307	136	329	150	0	193	409	316	327	249
1968	270	157	59	95	114	121	0	214	482	331	235	51
1969	80	178	307	136	329	141	0	193	426	316	327	282
1970	178	217	54	82	116	107	0	193	428	316	327	93
1971	57	50	259	105	321	165	0	193	426	316	327	111
1972	72	51	94	39	89	281	19	222	482	514	198	68
1973	211	169	307	336	164	99	0	193	463	321	330	111
1974	41	66	303	323	168	107	0	193	425	316	327	126
1975	170	78	111	60	321	198	0	193	424	316	326	108
1976	156	112	63	36	47	294	0	211	171	221	318	249
1977	245	202	133	180	198	174	224	274	314	328	318	290
1978	245	202	133	180	398	308	219	193	479	507	417	196
1979	68	53	101	87	315	281	0	214	482	380	330	88
1980	48	78	307	136	325	138	0	193	461	320	330	290
1981	88	58	113	77	315	259	0	250	493	241	97	116
1982	53	47	322	369	366	267	0	193	457	345	327	280
1983	235	147	40	65	81	53	0	193	410	316	326	281
1984	237	147	48	103	115	109	0	193	428	316	327	95
1985	52	41	259	305	197	141	0	250	493	275	77	68
1986	59	68	198	108	120	307	342	251	457	503	400	282
1987	73	47	83	44	53	300	0	250	493	528	126	52
1988	38	59	107	169	360	294	0	273	514	528	146	68
1989	135	202	132	180	198	300	47	256	493	528	79	157
1990	246	199	122	169	166	294	107	277	406	252	318	290
1991	245	202	133	180	175	174	299	273	314	311	318	290
1992	245	202	133	180	191	294	118	279	362	328	291	290
1993	245	202	133	180	398	308	139	199	479	507	444	140
1994	47	40	303	58	76	294	0	273	514	90	51	202
Mean	118	120	190	146	230	214	47	224	449	380	278	151
Max	307	379	322	369	398	334	375	319	514	528	519	290
Min	28	22	40	36	0	53	0	135	171	90	51	46

Appendix C-5 CCWD Operations Modeling

Difference Future Alt 1 & 2 minus Existing Base Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	195	134	0	0	0	0	0	0	0	0	0	78
1923	104	85	-114	-5	-159	0	0	0	0	0	110	168
1924	75	-83	200	-13	-61	20	0	5	-149	-45	0	-72
1925	-123	0	56	0	-164	2	69	0	0	0	0	121
1926	70	42	19	-10	-24	0	0	0	-142	-200	-200	20
1927	68	95	0	0	0	140	0	0	3	0	0	191
1928	85	52	-33	-1	-200	-97	0	0	0	0	0	161
1929	71	54	164	46	-60	-64	0	0	-200	-152	192	121
1930	23	-143	-6	9	-200	0	0	0	-200	-93	176	211
1931	-127	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	229
1933	112	26	127	23	-148	0	0	0	-200	0	115	135
1934	-140	-136	0	0	1	-35	-113	0	0	0	0	0
1935	0	0	0	0	7	-200	0	95	0	0	95	189
1936	90	-1	-82	0	0	-76	0	0	0	-111	0	154
1937	84	44	139	57	-206	-183	0	0	0	-102	0	117
1938	80	83	-68	-203	-3	0	0	0	0	0	0	32
1939	109	-145	0	55	18	-66	0	0	0	72	175	111
1940	48	24	169	11	0	-102	-220	0	-16	-186	51	170
1941	4	-92	0	0	-207	-29	0	0	0	0	0	75
1942	99	63	-105	-38	-100	0	0	0	0	0	0	168
1943	147	77	-79	-28	-203	-93	0	0	0	0	0	163
1944	64	28	0	47	56	-117	0	0	0	-155	186	174
1945	61	51	-5	7	-156	-144	0	0	0	-183	38	175
1946	76	-63	-2	-1	-197	-103	0	0	0	0	191	111
1947	-51	-51	0	71	56	-120	0	0	-200	0	182	183
1948	61	43	-62	75	-74	-77	-301	-83	0	0	241	166
1949	-30	-55	164	38	0	-24	0	0	0	-152	145	164
1950	58	-11	-17	-13	-200	-77	-269	0	0	0	2	117
1951	95	109	-213	-181	0	0	0	0	0	0	0	134
1952	76	41	0	0	-180	-79	0	0	0	0	0	72
1953	-69	0	0	0	0	0	0	0	0	0	0	174
1954	71	63	-3	-2	-200	-115	0	0	0	0	0	175
1955	77	59	-22	-3	-199	-99	0	0	0	0	44	148
1956	58	35	0	0	-187	-106	0	0	0	0	0	166
1957	166	104	-21	59	-203	-159	0	0	-19	-101	0	157
1958	77	25	0	0	-210	-65	0	0	0	0	0	129
1959	28	42	-45	-6	-158	0	0	0	0	0	105	130
1960	19	-103	163	38	-40	0	0	0	-43	-133	166	31
1961	62	48	-72	114	76	0	0	0	0	224	149	0

Appendix C-5 CCWD Operations Modeling

Difference Future Alt 1 & 2 minus Existing Base Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1962	-130	-105	-200	0	-134	0	-80	-7	0	-134	215	30
1963	-158	0	-104	-18	-85	0	0	0	0	0	0	148
1964	101	34	-16	-207	-57	0	0	0	0	0	196	155
1965	62	71	0	0	-5	-122	-2	-8	-33	-186	-114	175
1966	80	190	-210	-204	100	-112	0	0	0	0	160	127
1967	-17	-37	0	0	-195	-53	0	0	0	0	0	33
1968	-32	0	0	0	0	0	0	0	0	0	93	96
1969	21	-60	0	0	-118	-43	0	0	0	0	0	0
1970	58	-59	0	0	0	0	0	0	0	0	0	169
1971	75	64	-60	-5	-199	-56	0	0	0	0	0	171
1972	90	62	79	67	29	-155	-19	-7	0	-184	132	140
1973	-125	-59	0	-143	-63	0	0	0	0	0	0	169
1974	71	59	-39	-206	-52	0	0	0	0	0	0	157
1975	66	66	-41	45	-206	-101	0	0	0	0	0	174
1976	79	46	-3	55	27	-60	0	5	25	103	0	-33
1977	-144	-62	143	-83	-123	-113	-17	0	0	0	0	0
1978	0	0	1	0	-68	-151	-61	200	0	0	59	93
1979	157	106	-59	36	-127	-161	0	0	0	-50	0	169
1980	73	50	-1	-21	-243	-38	0	0	0	0	0	0
1981	158	102	2	40	-244	-79	0	0	0	134	163	183
1982	71	46	0	-167	-207	-168	0	0	-40	-28	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	52	0	0	0	0	0	0	0	0	156
1985	74	42	0	-196	-77	0	0	0	0	100	148	119
1986	68	42	125	61	245	-196	-342	-57	-31	-186	-73	0
1987	84	48	118	60	23	-121	0	0	-41	-200	192	132
1988	44	39	26	0	0	-120	0	0	-200	-200	172	117
1989	-57	-104	3	-3	0	0	0	0	0	0	209	16
1990	-138	-68	100	-79	-43	-111	113	-4	-92	76	0	0
1991	0	0	0	0	17	0	1	0	0	17	-11	0
1992	0	0	0	0	0	0	-6	0	-48	0	27	0
1993	0	0	0	0	0	0	19	0	0	0	0	150
1994	120	72	-65	65	-76	-14	0	0	0	215	164	-77
Mean	37	15	1	-10	-74	-55	-17	2	-22	-25	53	106
Max	195	190	200	114	245	140	113	200	25	224	241	229
Min	-158	-145	-213	-207	-244	-200	-342	-83	-200	-200	-200	-77

Appendix C-5 CCWD Operations Modeling

Alt Future Alt 1 & 2 Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	240	170	0	0	0	0	0	0	144	1	10	40
1923	0	0	0	0	0	0	0	0	282	8	10	0
1924	0	0	0	0	0	0	0	0	165	283	68	0
1925	0	0	0	0	0	70	0	0	293	208	199	16
1926	0	0	0	0	22	31	0	0	293	8	0	39
1927	0	0	2	49	46	53	0	0	108	0	77	22
1928	0	0	0	0	0	0	0	0	279	1	10	40
1929	0	0	0	0	0	0	0	0	314	8	0	0
1930	0	0	0	0	0	70	0	0	293	8	0	39
1931	0	0	0	0	0	87	42	57	64	8	0	0
1932	0	0	0	0	0	31	0	0	293	208	199	161
1933	0	0	0	0	0	87	0	0	314	8	0	0
1934	0	0	0	0	0	0	0	0	314	78	0	0
1935	0	0	0	0	0	0	175	204	282	194	182	0
1936	0	0	0	0	5	0	0	0	162	8	10	0
1937	0	0	0	0	0	0	0	0	162	9	10	39
1938	0	0	0	133	0	0	0	0	106	0	7	32
1939	0	0	0	0	0	0	0	0	293	55	0	0
1940	0	0	0	0	40	0	0	0	279	1	10	2
1941	0	0	0	0	0	0	0	0	83	0	7	32
1942	0	0	0	0	108	0	0	0	100	0	314	32
1943	0	0	0	0	0	0	0	0	257	0	77	0
1944	0	0	0	0	0	0	0	0	293	53	5	0
1945	0	0	0	0	0	60	0	0	282	11	10	29
1946	0	0	0	135	129	60	0	0	282	81	10	0
1947	0	0	0	0	0	0	0	0	293	278	0	0
1948	0	0	0	0	0	23	0	0	282	194	123	0
1949	0	0	0	0	0	46	0	0	293	56	11	0
1950	0	0	0	0	0	23	0	0	282	194	14	0
1951	0	0	0	129	126	0	0	0	279	1	80	0
1952	0	0	0	0	111	0	0	0	105	0	7	0
1953	0	0	49	103	121	53	0	0	257	0	6	32
1954	0	0	0	0	0	54	0	0	279	1	10	12
1955	0	0	0	0	0	0	0	0	293	52	11	48
1956	0	0	2	0	0	0	0	0	105	0	77	31
1957	0	0	0	0	0	0	0	0	279	1	80	0
1958	0	0	0	0	0	0	0	0	47	0	6	0
1959	0	0	0	0	0	60	0	0	282	11	10	0
1960	0	0	0	0	0	31	0	0	293	8	0	0
1961	0	0	0	0	0	31	0	0	293	275	0	0

Appendix C-5 CCWD Operations Modeling

Alt Future Alt 1 & 2 Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1962	0	0	0	0	0	23	0	0	282	60	10	0
1963	0	59	0	0	0	0	0	0	95	0	7	32
1964	0	0	0	0	0	0	0	0	293	124	0	0
1965	0	0	2	0	41	0	0	0	104	0	6	0
1966	0	0	0	0	0	0	0	0	282	11	10	0
1967	0	0	0	0	0	0	0	0	89	0	7	0
1968	0	156	0	0	114	60	0	0	282	11	78	0
1969	0	0	0	0	0	0	0	0	106	0	7	32
1970	0	156	54	0	0	0	0	0	257	303	77	12
1971	0	0	0	0	121	53	0	0	257	0	7	32
1972	0	0	0	0	0	0	0	0	282	10	10	0
1973	0	0	0	0	101	0	0	0	279	1	10	30
1974	0	0	0	117	115	0	0	0	105	0	77	0
1975	0	0	0	0	0	0	0	0	104	0	76	0
1976	0	0	0	0	0	0	0	0	0	4	0	0
1977	0	0	0	0	0	0	0	56	64	8	0	40
1978	0	0	0	0	10	0	0	72	159	187	156	40
1979	0	0	0	0	0	0	0	0	162	10	10	7
1980	0	0	0	0	0	0	0	0	279	0	10	40
1981	0	0	0	0	0	0	0	0	293	125	0	0
1982	0	0	2	0	0	0	0	0	96	0	7	30
1983	0	0	0	0	0	0	0	0	90	0	6	273
1984	0	0	0	0	0	0	0	0	257	0	77	1
1985	0	0	0	0	0	0	0	0	293	125	0	0
1986	0	0	2	0	46	0	0	0	257	0	314	32
1987	0	0	0	0	0	0	0	0	293	8	0	0
1988	0	0	0	0	40	87	0	0	314	8	0	0
1989	0	0	0	0	0	70	0	0	293	208	0	0
1990	0	0	0	0	0	0	0	0	314	8	0	0
1991	0	0	0	0	0	0	37	0	314	8	0	0
1992	0	0	0	0	0	47	0	0	314	78	0	0
1993	0	0	0	0	78	3	0	0	159	187	124	40
1994	0	0	0	0	0	33	0	0	314	0	0	0
Mean	3	7	2	9	19	17	3	5	226	52	37	18
Max	240	170	54	135	129	87	175	204	314	303	314	273
Min	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	240	170	0	0	0	0	0	0	144	1	10	212
1923	0	0	0	0	0	0	0	0	282	8	0	0
1924	0	0	0	136	125	0	0	0	314	320	318	290
1925	0	0	0	0	56	70	0	0	293	208	199	144
1926	0	0	0	0	46	31	0	0	293	208	199	268
1927	48	0	2	49	46	0	0	0	105	0	314	81
1928	0	0	0	0	0	0	0	0	279	1	10	129
1929	0	0	0	0	115	32	0	0	314	160	0	0
1930	0	0	0	0	78	70	0	0	293	101	0	77
1931	0	0	0	0	166	87	42	57	314	8	0	0
1932	0	0	0	0	0	31	0	0	293	208	199	183
1933	0	0	0	0	46	87	0	0	314	8	0	0
1934	245	0	0	180	0	0	0	0	314	320	0	0
1935	245	0	0	0	0	1	171	38	282	194	87	0
1936	0	0	0	0	5	60	0	0	162	119	10	0
1937	0	0	0	0	6	60	0	0	162	111	10	172
1938	0	0	0	136	0	0	0	0	106	0	7	250
1939	0	0	59	41	54	31	0	0	293	0	0	0
1940	0	0	0	0	40	0	37	0	279	187	0	82
1941	0	0	0	0	0	0	0	0	83	0	7	207
1942	0	0	0	0	121	0	0	0	100	0	314	114
1943	0	0	0	0	1	0	0	0	257	0	314	81
1944	0	0	0	51	0	31	0	0	293	208	0	0
1945	0	0	2	0	46	60	0	0	282	194	0	104
1946	0	0	0	136	129	29	0	0	282	314	0	0
1947	0	0	0	65	0	31	0	0	293	320	0	0
1948	0	0	0	94	160	121	146	51	282	194	0	0
1949	0	0	0	0	0	70	0	0	293	208	0	0
1950	0	0	0	142	46	57	45	0	282	194	11	0
1951	76	0	0	136	126	0	0	0	279	1	318	0
1952	0	0	0	0	111	0	0	0	105	0	7	0
1953	0	0	49	103	121	53	0	0	257	0	6	109
1954	0	0	0	0	1	54	0	0	279	1	10	86
1955	0	0	0	0	0	13	0	0	293	52	0	150
1956	0	0	2	0	40	3	0	0	105	0	314	116
1957	0	0	0	0	1	54	0	0	279	102	318	0
1958	0	0	0	0	0	0	0	0	47	0	6	0
1959	0	116	0	0	0	60	0	0	282	11	0	0
1960	0	0	0	99	116	31	0	0	293	142	0	0
1961	0	0	2	55	0	31	0	0	293	301	0	0
1962	0	0	2	0	46	23	0	0	282	194	0	0

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1963	0	59	159	0	0	0	0	0	95	0	7	135
1964	0	22	0	0	0	0	0	0	293	320	0	0
1965	0	0	2	0	46	18	0	0	137	183	120	0
1966	0	0	0	0	0	16	0	0	282	11	0	0
1967	0	0	0	0	9	0	0	0	89	0	7	0
1968	0	156	0	0	114	60	0	0	282	11	235	0
1969	0	0	0	0	9	0	0	0	106	0	7	273
1970	0	156	54	0	0	0	0	0	257	303	314	93
1971	0	0	0	0	121	53	0	0	257	0	7	111
1972	0	0	0	39	0	60	0	0	282	194	0	68
1973	0	0	0	16	129	0	0	0	279	1	10	111
1974	0	0	0	123	115	0	0	0	105	0	314	0
1975	0	78	0	0	1	0	0	0	104	0	314	0
1976	0	0	63	0	0	47	0	0	171	0	0	0
1977	0	0	0	0	0	87	43	57	314	8	0	290
1978	0	0	0	0	78	0	36	0	159	187	97	196
1979	0	0	0	0	0	60	0	0	162	60	10	88
1980	0	0	0	0	5	0	0	0	279	0	10	281
1981	0	0	0	0	0	29	0	0	293	241	0	0
1982	0	0	2	49	46	53	0	0	137	25	7	273
1983	0	0	0	0	0	0	0	0	90	0	6	273
1984	0	0	0	0	0	0	0	0	257	0	314	95
1985	0	0	0	0	0	0	0	0	293	275	0	0
1986	0	0	0	0	0	0	22	42	257	183	314	273
1987	73	0	0	0	53	70	0	0	293	208	0	0
1988	0	0	0	0	40	47	0	0	314	208	0	0
1989	0	0	0	0	198	70	0	0	293	208	0	0
1990	0	0	0	169	0	47	0	0	314	0	0	0
1991	0	0	0	0	0	0	37	0	314	0	0	0
1992	245	0	0	0	0	47	0	0	314	320	0	0
1993	0	0	0	0	78	21	0	0	159	187	124	140
1994	0	0	0	0	0	47	0	0	314	0	0	0
Mean	16	10	5	25	40	29	8	3	238	106	71	76
Max	245	170	159	180	198	121	171	57	314	320	318	290
Min	0	0	0	0	0	0	0	0	47	0	0	0

Appendix C-5 CCWD Operations Modeling

Difference Future Alt 1 & 2 minus Existing Base Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	-172
1923	0	0	0	0	0	0	0	0	0	0	10	0
1924	0	0	0	-136	-125	0	0	0	-149	-37	-250	-290
1925	0	0	0	0	-56	0	0	0	0	0	0	-129
1926	0	0	0	0	-24	0	0	0	0	-200	-199	-230
1927	-48	0	0	0	0	53	0	0	3	0	-238	-59
1928	0	0	0	0	0	0	0	0	0	0	0	-89
1929	0	0	0	0	-115	-32	0	0	0	-152	0	0
1930	0	0	0	0	-78	0	0	0	0	-93	0	-39
1931	0	0	0	0	-166	0	0	0	-250	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	-21
1933	0	0	0	0	-46	0	0	0	0	0	0	0
1934	-245	0	0	-180	0	0	0	0	0	-242	0	0
1935	-245	0	0	0	0	-1	4	167	0	0	95	0
1936	0	0	0	0	0	-60	0	0	0	-111	0	0
1937	0	0	0	0	-6	-60	0	0	0	-102	0	-133
1938	0	0	0	-3	0	0	0	0	0	0	0	-218
1939	0	0	-59	-41	-54	-31	0	0	0	55	0	0
1940	0	0	0	0	0	0	-37	0	0	-186	10	-80
1941	0	0	0	0	0	0	0	0	0	0	0	-175
1942	0	0	0	0	-13	0	0	0	0	0	0	-82
1943	0	0	0	0	-1	0	0	0	0	0	-238	-81
1944	0	0	0	-51	0	-31	0	0	0	-155	5	0
1945	0	0	-2	0	-46	0	0	0	0	-183	10	-75
1946	0	0	0	-1	0	31	0	0	0	-234	10	0
1947	0	0	0	-65	0	-31	0	0	0	-42	0	0
1948	0	0	0	-94	-160	-98	-146	-51	0	0	123	0
1949	0	0	0	0	0	-24	0	0	0	-152	11	0
1950	0	0	0	-142	-46	-35	-45	0	0	0	2	0
1951	-76	0	0	-7	0	0	0	0	0	0	-238	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	-76
1954	0	0	0	0	-1	0	0	0	0	0	0	-75
1955	0	0	0	0	0	-13	0	0	0	0	11	-102
1956	0	0	0	0	-40	-3	0	0	0	0	-238	-84
1957	0	0	0	0	-1	-54	0	0	0	-101	-238	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	-116	0	0	0	0	0	0	0	0	10	0
1960	0	0	0	-99	-116	0	0	0	0	-133	0	0
1961	0	0	-2	-55	0	0	0	0	0	-26	0	0

Appendix C-5 CCWD Operations Modeling

Difference Future Alt 1 & 2 minus Existing Base Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1962	0	0	-2	0	-46	0	0	0	0	-134	10	0
1963	0	0	-159	0	0	0	0	0	0	0	0	-102
1964	0	-22	0	0	0	0	0	0	0	-196	0	0
1965	0	0	0	0	-5	-18	0	0	-33	-183	-114	0
1966	0	0	0	0	0	-16	0	0	0	0	10	0
1967	0	0	0	0	-9	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	-157	0
1969	0	0	0	0	-9	0	0	0	0	0	0	-241
1970	0	0	0	0	0	0	0	0	0	0	-238	-81
1971	0	0	0	0	0	0	0	0	0	0	0	-79
1972	0	0	0	-39	0	-60	0	0	0	-184	10	-68
1973	0	0	0	-16	-28	0	0	0	0	0	0	-81
1974	0	0	0	-6	0	0	0	0	0	0	-238	0
1975	0	-78	0	0	-1	0	0	0	0	0	-238	0
1976	0	0	-63	0	0	-47	0	0	-171	4	0	0
1977	0	0	0	0	0	-87	-43	-2	-250	0	0	-250
1978	0	0	0	0	-68	0	-36	72	0	0	59	-157
1979	0	0	0	0	0	-60	0	0	0	-50	0	-81
1980	0	0	0	0	-5	0	0	0	0	0	0	-241
1981	0	0	0	0	0	-29	0	0	0	-116	0	0
1982	0	0	0	-49	-46	-53	0	0	-40	-25	0	-243
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	-238	-94
1985	0	0	0	0	0	0	0	0	0	-150	0	0
1986	0	0	2	0	46	0	-22	-42	0	-183	0	-241
1987	-73	0	0	0	-53	-70	0	0	0	-200	0	0
1988	0	0	0	0	0	40	0	0	0	-200	0	0
1989	0	0	0	0	-198	0	0	0	0	0	0	0
1990	0	0	0	-169	0	-47	0	0	0	8	0	0
1991	0	0	0	0	0	0	0	0	0	8	0	0
1992	-245	0	0	0	0	0	0	0	0	-242	0	0
1993	0	0	0	0	0	-18	0	0	0	0	0	-100
1994	0	0	0	0	0	-14	0	0	0	0	0	0
Mean	-13	-3	-4	-16	-21	-12	-4	2	-12	-54	-34	-59
Max	0	0	2	0	46	53	4	167	3	55	123	0
Min	-245	-116	-159	-180	-198	-98	-146	-51	-250	-242	-250	-290

Appendix C-5 CCWD Operations Modeling

Alt Future Alt 1 & 2 Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	200	134	149	118	91	109	0	193	320	320	320	0
1923	0	0	0	119	115	125	0	214	199	320	70	1
1924	0	0	57	0	0	0	0	140	0	0	0	0
1925	0	0	0	0	212	55	151	254	200	320	70	0
1926	0	0	0	0	70	230	0	250	58	70	69	0
1927	0	0	70	320	320	213	0	193	320	316	0	0
1928	0	0	0	0	116	108	0	193	185	320	70	0
1929	0	0	37	0	0	215	0	273	0	70	68	0
1930	0	0	0	0	0	230	0	250	0	70	69	0
1931	0	0	0	0	0	0	182	217	0	70	68	40
1932	0	0	0	0	191	230	85	255	200	320	70	0
1933	0	0	0	0	218	247	0	273	0	70	68	8
1934	0	0	0	0	0	174	81	274	0	0	68	40
1935	0	0	0	0	198	121	200	210	200	320	70	5
1936	0	0	0	0	320	204	0	214	320	320	70	38
1937	0	0	53	0	0	0	0	0	320	320	70	0
1938	0	0	238	0	97	0	0	193	70	316	320	0
1939	0	0	0	0	0	195	0	250	200	70	34	0
1940	0	0	0	0	320	206	0	193	184	320	70	0
1941	0	0	303	123	0	95	0	193	320	316	320	0
1942	0	0	0	67	0	105	0	193	320	316	0	0
1943	0	0	0	0	118	0	0	193	169	316	0	0
1944	0	0	9	0	0	144	0	250	200	70	70	27
1945	0	0	67	0	210	76	0	214	200	320	70	0
1946	0	0	305	0	1	63	0	214	200	0	70	0
1947	0	0	57	0	0	141	0	250	0	0	22	3
1948	0	0	0	0	0	220	74	220	200	70	70	0
1949	0	0	57	0	0	230	0	250	200	70	70	7
1950	0	0	0	0	0	220	0	214	200	70	70	38
1951	0	1	94	0	0	110	0	193	185	320	0	0
1952	0	0	303	123	20	105	0	0	320	316	320	32
1953	0	156	0	0	3	57	0	193	168	316	70	0
1954	0	0	0	0	121	56	0	193	184	70	70	0
1955	0	0	31	0	0	145	0	250	200	70	70	0
1956	0	0	70	0	0	110	0	193	320	316	0	0
1957	0	0	0	0	0	110	0	193	181	320	0	0
1958	0	0	53	123	105	86	0	0	320	316	70	32
1959	0	0	0	0	110	63	0	214	200	70	70	0
1960	0	0	57	0	0	230	0	250	157	70	69	39
1961	0	0	1	0	0	230	0	250	200	0	69	39

Appendix C-5 CCWD Operations Modeling

Alt Future Alt 1 & 2 Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1962	0	0	0	0	232	220	0	214	200	70	70	0
1963	0	320	0	118	115	105	0	193	320	316	320	0
1964	0	0	0	0	119	144	0	250	200	0	4	0
1965	0	0	320	169	320	109	0	193	320	316	70	8
1966	0	29	0	101	119	125	0	214	200	70	70	0
1967	0	0	57	136	134	97	0	0	320	316	70	32
1968	238	1	0	95	0	60	0	214	200	70	0	0
1969	0	0	57	0	211	0	0	0	320	316	320	0
1970	0	1	0	82	116	107	0	193	171	14	0	0
1971	0	0	199	100	1	56	0	193	169	316	70	0
1972	0	0	0	0	0	126	0	214	200	70	70	0
1973	0	0	57	193	0	99	0	193	185	320	70	0
1974	0	0	264	0	0	107	0	193	320	316	0	32
1975	0	0	0	0	0	97	0	193	320	316	0	32
1976	0	0	0	0	0	0	0	215	0	70	68	0
1977	0	0	26	0	0	0	207	0	0	70	68	0
1978	0	0	0	180	320	158	158	127	320	320	70	0
1979	0	0	0	0	188	119	0	214	320	320	70	0
1980	0	0	56	0	0	0	0	193	182	320	320	0
1981	0	0	0	0	71	181	0	250	200	0	10	49
1982	0	0	320	202	0	99	0	0	320	316	320	0
1983	0	147	40	0	81	53	0	0	320	316	320	8
1984	237	147	0	103	115	109	0	193	171	316	0	0
1985	0	0	259	0	0	141	0	250	200	0	0	0
1986	0	0	70	0	70	0	0	0	169	316	12	0
1987	0	0	0	0	0	179	0	250	159	70	69	0
1988	0	0	0	0	320	87	0	273	0	70	68	0
1989	0	0	0	0	0	230	47	256	200	70	38	0
1990	0	0	0	0	0	183	221	274	0	70	68	40
1991	0	0	0	0	0	0	262	273	0	70	57	40
1992	0	0	0	0	0	247	112	279	0	0	68	40
1993	0	0	0	0	320	306	158	199	320	320	70	0
1994	0	0	0	0	0	247	0	273	200	55	0	0
Mean	9	13	51	34	80	124	27	194	188	186	83	9
Max	238	320	320	320	320	306	262	279	320	320	320	49
Min	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	5	0	149	118	91	109	0	193	320	320	320	0
1923	61	59	303	123	274	125	0	214	199	320	220	84
1924	64	179	107	0	0	121	0	135	0	8	0	0
1925	245	202	133	180	320	53	83	254	200	320	320	0
1926	40	37	66	168	320	230	0	250	200	320	320	0
1927	0	57	320	320	320	127	0	193	320	316	12	0
1928	44	48	259	105	317	205	0	193	185	320	320	0
1929	51	50	123	77	0	247	0	273	200	320	126	62
1930	54	202	139	171	320	230	0	250	200	320	142	0
1931	241	199	122	168	0	87	182	217	0	320	318	290
1932	245	202	133	180	191	230	85	255	200	320	320	0
1933	44	36	68	124	320	247	0	273	200	320	203	124
1934	0	202	133	0	197	209	194	274	0	8	318	290
1935	0	202	133	180	191	320	204	281	200	320	320	66
1936	47	102	111	136	320	220	0	214	320	320	320	135
1937	52	46	163	64	320	220	0	214	320	320	320	0
1938	48	74	307	200	100	91	0	193	320	316	320	0
1939	127	303	0	0	0	230	0	250	200	303	109	51
1940	41	70	82	158	320	308	183	193	200	320	279	0
1941	94	170	303	123	315	124	0	193	320	316	320	0
1942	62	54	259	105	87	105	0	193	320	316	12	0
1943	90	75	136	105	320	196	0	193	169	316	12	0
1944	55	49	259	0	95	230	0	250	200	320	139	102
1945	43	59	320	162	320	220	0	214	200	320	291	0
1946	43	169	307	0	198	198	0	214	200	16	139	62
1947	166	178	307	0	127	230	0	250	200	208	90	71
1948	37	50	184	0	0	200	230	253	200	320	202	68
1949	161	179	143	98	0	230	0	250	200	320	186	94
1950	49	107	146	0	320	263	224	214	200	320	320	171
1951	0	142	307	174	0	110	0	193	185	320	12	71
1952	57	77	303	123	200	184	0	193	320	316	320	211
1953	307	156	0	0	3	57	0	193	168	316	320	0
1954	54	55	212	105	320	171	0	193	184	320	320	0
1955	62	62	303	123	315	230	0	250	200	320	286	0
1956	46	54	320	169	320	213	0	193	320	316	12	0
1957	70	55	82	45	320	214	0	193	200	320	12	66
1958	46	96	303	123	315	152	0	193	320	316	320	153
1959	210	0	105	105	268	63	0	214	200	320	225	59
1960	81	179	143	0	0	230	0	250	200	320	153	258
1961	55	48	320	0	79	230	0	250	200	0	169	289
1962	246	199	320	169	320	220	80	222	200	320	115	123

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1963	234	320	148	136	200	105	0	193	320	316	320	0
1964	45	0	259	305	176	144	0	250	200	54	58	46
1965	28	44	320	169	320	213	2	201	320	320	320	83
1966	58	89	259	305	19	220	0	214	200	320	170	71
1967	127	176	307	136	320	150	0	193	320	316	320	249
1968	270	1	59	95	0	60	0	214	200	320	0	51
1969	80	178	307	136	320	141	0	193	320	316	320	9
1970	178	61	0	82	116	107	0	193	171	14	12	0
1971	57	50	259	105	200	112	0	193	169	316	320	0
1972	72	51	94	0	89	220	19	222	200	320	198	0
1973	211	169	307	320	35	99	0	193	185	320	320	0
1974	41	66	303	200	53	107	0	193	320	316	12	126
1975	170	0	111	60	320	198	0	193	320	316	12	108
1976	156	112	0	36	47	247	0	211	0	221	318	249
1977	245	202	133	180	198	87	181	216	0	320	318	0
1978	245	202	133	180	320	308	182	193	320	320	320	0
1979	68	53	101	87	315	220	0	214	320	320	320	0
1980	48	78	307	136	320	138	0	193	182	320	320	9
1981	88	58	113	77	315	230	0	250	200	0	97	116
1982	53	47	320	320	320	213	0	193	320	320	320	7
1983	235	147	40	65	81	53	0	193	320	316	320	8
1984	237	147	48	103	115	109	0	193	171	316	12	0
1985	52	41	259	305	197	141	0	250	200	0	77	68
1986	59	68	198	108	120	307	320	209	200	320	85	9
1987	0	47	83	44	0	230	0	250	200	320	126	52
1988	38	59	107	169	320	247	0	273	200	320	146	68
1989	135	202	132	180	0	230	47	256	200	320	79	157
1990	246	199	122	0	166	247	107	277	92	252	318	290
1991	245	202	133	180	175	174	262	273	0	311	318	290
1992	0	202	133	180	191	247	118	279	48	8	291	290
1993	245	202	133	180	320	287	139	199	320	320	320	0
1994	47	40	303	58	76	247	0	273	200	90	51	202
Mean	102	110	184	121	191	185	39	221	211	274	207	75
Max	307	320	320	320	320	320	320	281	320	320	320	290
Min	0	0	0	0	0	53	0	135	0	0	0	0

Appendix C-5 CCWD Operations Modeling

Difference Future Alt 1 & 2 minus Existing Base Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	195	134	0	0	0	0	0	0	0	0	0	0
1923	-61	-59	-303	-5	-159	0	0	0	0	0	-150	-82
1924	-64	-179	-50	0	0	-121	0	5	0	-8	0	0
1925	-245	-202	-133	-180	-108	2	69	0	0	0	-250	0
1926	-40	-37	-66	-168	-250	0	0	0	-142	-250	-251	0
1927	0	-57	-250	0	0	86	0	0	0	0	-12	0
1928	-44	-48	-259	-105	-200	-97	0	0	0	0	-250	0
1929	-51	-50	-86	-77	0	-32	0	0	-200	-250	-58	-62
1930	-54	-202	-139	-171	-320	0	0	0	-200	-250	-74	0
1931	-241	-199	-122	-168	0	-87	0	0	0	-250	-250	-250
1932	-245	-202	-133	-180	0	0	0	0	0	0	-250	0
1933	-44	-36	-68	-124	-102	0	0	0	-200	-250	-135	-115
1934	0	-202	-133	0	-197	-35	-113	0	0	-8	-250	-250
1935	0	-202	-133	-180	7	-199	-4	-71	0	0	-250	-61
1936	-47	-102	-111	-136	0	-16	0	0	0	0	-250	-96
1937	-52	-46	-111	-64	-320	-220	0	-214	0	0	-250	0
1938	-48	-74	-68	-200	-3	-91	0	0	-250	0	0	0
1939	-127	-303	0	0	0	-35	0	0	0	-233	-75	-51
1940	-41	-70	-81	-158	0	-102	-183	0	-16	0	-209	0
1941	-94	-170	0	0	-315	-29	0	0	0	0	0	0
1942	-62	-54	-259	-38	-87	0	0	0	0	0	-12	0
1943	-90	-75	-136	-105	-202	-196	0	0	0	0	-12	0
1944	-55	-49	-250	0	-95	-86	0	0	0	-250	-69	-76
1945	-43	-59	-253	-162	-110	-144	0	0	0	0	-221	0
1946	-43	-169	-2	0	-197	-135	0	0	0	-16	-69	-62
1947	-166	-178	-250	0	-127	-89	0	0	-200	-208	-68	-67
1948	-37	-50	-184	0	0	20	-156	-33	0	-250	-132	-68
1949	-161	-179	-86	-98	0	0	0	0	0	-250	-116	-86
1950	-49	-107	-146	0	-320	-43	-224	0	0	-250	-250	-133
1951	0	-141	-213	-174	0	0	0	0	0	0	-12	-71
1952	-57	-77	0	0	-180	-79	0	-193	0	0	0	-178
1953	-307	0	0	0	0	0	0	0	0	0	-250	0
1954	-54	-55	-212	-105	-199	-115	0	0	0	-250	-250	0
1955	-62	-62	-272	-123	-315	-85	0	0	0	-250	-216	0
1956	-46	-54	-250	-169	-320	-103	0	0	0	0	-12	0
1957	-70	-55	-82	-45	-320	-105	0	0	-19	0	-12	-66
1958	-46	-96	-250	0	-210	-65	0	-193	0	0	-250	-121
1959	-210	0	-105	-105	-158	0	0	0	0	-250	-155	-59
1960	-81	-179	-87	0	0	0	0	0	-43	-250	-84	-219
1961	-55	-48	-319	0	-79	0	0	0	0	0	-101	-250

Appendix C-5 CCWD Operations Modeling

Difference Future Alt 1 & 2 minus Existing Base Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1962	-246	-199	-320	-169	-88	0	-80	-7	0	-250	-45	-123
1963	-234	0	-148	-18	-85	0	0	0	0	0	0	0
1964	-45	0	-259	-305	-57	0	0	0	0	-54	-54	-46
1965	-28	-44	0	0	0	-104	-2	-8	0	-4	-250	-75
1966	-58	-60	-259	-204	100	-96	0	0	0	-250	-100	-71
1967	-127	-176	-250	0	-186	-53	0	-193	0	0	-250	-217
1968	-32	0	-59	0	0	0	0	0	0	-250	0	-51
1969	-80	-178	-250	-136	-109	-141	0	-193	0	0	0	-9
1970	-178	-59	0	0	0	0	0	0	0	0	-12	0
1971	-57	-50	-60	-5	-199	-56	0	0	0	0	-250	0
1972	-72	-51	-94	0	-89	-95	-19	-7	0	-250	-128	0
1973	-211	-169	-250	-127	-35	0	0	0	0	0	-250	0
1974	-41	-66	-39	-200	-52	0	0	0	0	0	-12	-93
1975	-170	0	-111	-60	-320	-101	0	0	0	0	-12	-76
1976	-156	-112	0	-36	-47	-247	0	5	0	-151	-250	-249
1977	-245	-202	-107	-180	-198	-87	26	-216	0	-250	-250	0
1978	-245	-202	-133	0	0	-151	-25	-65	0	0	-250	0
1979	-68	-53	-101	-87	-127	-101	0	0	0	0	-250	0
1980	-48	-78	-251	-136	-320	-138	0	0	0	0	0	-9
1981	-88	-58	-113	-77	-244	-50	0	0	0	0	-87	-67
1982	-53	-47	0	-118	-320	-115	0	-193	0	-4	0	-7
1983	-235	0	0	-65	0	0	0	-193	0	0	0	0
1984	0	0	-48	0	0	0	0	0	0	0	-12	0
1985	-52	-41	0	-305	-197	0	0	0	0	0	-77	-68
1986	-59	-68	-128	-108	-50	-307	-320	-209	-31	-4	-73	-9
1987	0	-47	-83	-44	0	-51	0	0	-41	-250	-58	-52
1988	-38	-59	-107	-169	0	-160	0	0	-200	-250	-78	-68
1989	-135	-202	-132	-180	0	0	0	0	0	-250	-41	-157
1990	-246	-199	-122	0	-166	-64	113	-4	-92	-182	-250	-250
1991	-245	-202	-133	-180	-175	-174	1	0	0	-241	-261	-250
1992	0	-202	-133	-180	-191	0	-6	0	-48	-8	-223	-250
1993	-245	-202	-133	-180	0	18	19	0	0	0	-250	0
1994	-47	-40	-303	-58	-76	0	0	0	0	-35	-51	-202
Mean	-93	-97	-133	-87	-111	-61	-12	-27	-23	-88	-124	-66
Max	195	134	0	0	100	86	113	5	0	0	0	0
Min	-307	-303	-320	-305	-320	-307	-320	-216	-250	-250	-261	-250

Appendix C-5 CCWD Operations Modeling

Alt Future Alt 1 & 2 Total Alternative Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	250
1923	166	144	189	0	0	0	0	0	0	0	250	250
1924	139	96	250	123	64	140	0	0	0	0	250	218
1925	122	202	189	180	0	0	0	0	0	0	250	250
1926	109	78	86	158	250	0	0	0	0	250	250	250
1927	116	152	250	0	0	0	0	0	0	0	250	250
1928	129	100	226	104	0	0	0	0	0	0	250	250
1929	122	104	250	123	56	0	0	0	0	250	250	183
1930	77	59	133	180	198	0	0	0	0	250	250	250
1931	114	199	122	168	166	87	0	0	250	250	250	250
1932	245	202	133	180	0	0	0	0	0	0	250	250
1933	156	62	195	146	0	0	0	0	0	250	250	250
1934	105	66	133	180	198	0	0	0	0	250	250	250
1935	245	202	133	180	0	0	0	0	0	0	250	250
1936	137	102	29	136	0	0	0	0	0	0	250	250
1937	135	89	250	120	120	98	0	214	0	0	250	250
1938	128	157	0	0	0	91	0	0	250	0	0	250
1939	236	158	59	96	72	0	0	0	0	250	250	162
1940	89	93	250	169	0	0	0	0	0	0	250	250
1941	98	78	0	0	108	0	0	0	0	0	0	250
1942	161	116	155	0	0	0	0	0	0	0	12	250
1943	237	152	56	77	0	102	0	0	0	0	250	244
1944	119	76	250	98	152	0	0	0	0	250	250	250
1945	104	110	250	169	0	0	0	0	0	0	250	250
1946	119	107	0	0	0	0	0	0	0	250	250	173
1947	115	127	250	136	183	0	0	0	0	250	250	250
1948	98	94	122	169	86	0	0	0	0	250	250	233
1949	131	124	250	136	0	0	0	0	0	250	250	250
1950	107	95	129	129	166	0	0	0	0	250	250	250
1951	171	250	0	0	0	0	0	0	0	0	250	206
1952	134	118	0	0	0	0	0	193	0	0	0	250
1953	238	0	0	0	0	0	0	0	0	0	250	250
1954	126	118	209	104	0	0	0	0	0	250	250	250
1955	139	121	250	120	116	0	0	0	0	250	250	250
1956	105	89	250	169	173	0	0	0	0	0	250	250
1957	236	158	60	104	118	0	0	0	0	0	250	222
1958	123	121	250	0	0	0	0	193	0	0	250	250
1959	238	158	60	100	0	0	0	0	0	250	250	189
1960	100	77	250	136	76	0	0	0	0	250	250	250
1961	117	97	250	169	155	0	0	0	0	250	250	250

Appendix C-5 CCWD Operations Modeling

Alt Future Alt 1 & 2 Total Alternative Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1962	116	94	122	169	0	0	0	0	0	250	250	152
1963	76	0	203	0	0	0	0	0	0	0	0	250
1964	146	56	243	99	0	0	0	0	0	250	250	201
1965	90	115	0	0	0	0	0	0	0	0	250	250
1966	138	250	49	0	0	0	0	0	0	250	250	197
1967	110	139	250	0	0	0	0	193	0	0	250	250
1968	0	0	59	0	0	0	0	0	0	250	250	148
1969	101	118	250	136	0	97	0	193	0	0	0	250
1970	236	0	0	0	0	0	0	0	0	0	250	250
1971	132	114	0	0	0	0	0	0	0	0	250	250
1972	162	113	174	105	118	0	0	0	0	250	250	208
1973	86	110	250	0	0	0	0	0	0	0	250	250
1974	112	125	0	0	0	0	0	0	0	0	250	250
1975	236	144	70	105	115	0	0	0	0	0	250	250
1976	235	158	60	91	74	234	0	0	196	250	250	216
1977	101	140	250	97	75	61	0	218	250	250	250	250
1978	245	202	133	0	0	0	0	193	0	0	250	250
1979	225	160	41	123	0	0	0	0	0	0	250	250
1980	121	128	250	115	82	100	0	0	0	0	0	250
1981	246	160	114	117	0	0	0	0	0	250	250	250
1982	124	93	0	0	159	0	0	193	0	0	0	250
1983	235	0	0	65	0	0	0	193	0	0	0	0
1984	0	0	100	0	0	0	0	0	0	0	250	250
1985	126	82	0	109	119	0	0	0	0	250	225	187
1986	127	109	250	169	250	111	0	193	0	0	0	250
1987	158	95	201	104	76	0	0	0	0	250	250	184
1988	82	98	133	169	0	0	0	0	0	250	250	185
1989	78	98	134	177	198	0	0	0	0	250	250	173
1990	108	131	222	89	123	0	0	0	0	250	250	250
1991	245	202	133	180	192	174	0	0	0	250	250	250
1992	245	202	133	180	191	0	0	0	0	250	250	250
1993	245	202	133	180	0	0	0	0	0	0	250	250
1994	167	112	238	123	0	0	0	0	0	250	214	125
Mean	143	115	139	93	58	18	0	27	13	116	212	230
Max	246	250	250	180	250	234	0	218	250	250	250	250
Min	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total Alternate Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	0
1923	0	0	0	0	0	0	0	0	0	0	0	0
1924	0	0	0	0	0	0	0	0	0	0	0	0
1925	0	0	0	0	0	0	0	0	0	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-5 CCWD Operations Modeling

Base Existing Base												
Total Alternate Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0
Mean	0	0	0	0	0	0	0	0	0	0	0	0
Max	0	0	0	0	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-5 CCWD Operations Modeling

Difference Future Alt 1 & 2 minus Existing Base Total Alternate Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	250
1923	166	144	189	0	0	0	0	0	0	0	250	250
1924	139	96	250	123	64	140	0	0	0	0	250	218
1925	122	202	189	180	0	0	0	0	0	0	250	250
1926	109	78	86	158	250	0	0	0	0	250	250	250
1927	116	152	250	0	0	0	0	0	0	0	250	250
1928	129	100	226	104	0	0	0	0	0	0	250	250
1929	122	104	250	123	56	0	0	0	0	250	250	183
1930	77	59	133	180	198	0	0	0	0	250	250	250
1931	114	199	122	168	166	87	0	0	250	250	250	250
1932	245	202	133	180	0	0	0	0	0	0	250	250
1933	156	62	195	146	0	0	0	0	0	250	250	250
1934	105	66	133	180	198	0	0	0	0	250	250	250
1935	245	202	133	180	0	0	0	0	0	0	250	250
1936	137	102	29	136	0	0	0	0	0	0	250	250
1937	135	89	250	120	120	98	0	214	0	0	250	250
1938	128	157	0	0	0	91	0	0	250	0	0	250
1939	236	158	59	96	72	0	0	0	0	250	250	162
1940	89	93	250	169	0	0	0	0	0	0	250	250
1941	98	78	0	0	108	0	0	0	0	0	0	250
1942	161	116	155	0	0	0	0	0	0	0	12	250
1943	237	152	56	77	0	102	0	0	0	0	250	244
1944	119	76	250	98	152	0	0	0	0	250	250	250
1945	104	110	250	169	0	0	0	0	0	0	250	250
1946	119	107	0	0	0	0	0	0	0	250	250	173
1947	115	127	250	136	183	0	0	0	0	250	250	250
1948	98	94	122	169	86	0	0	0	0	250	250	233
1949	131	124	250	136	0	0	0	0	0	250	250	250
1950	107	95	129	129	166	0	0	0	0	250	250	250
1951	171	250	0	0	0	0	0	0	0	0	250	206
1952	134	118	0	0	0	0	0	193	0	0	0	250
1953	238	0	0	0	0	0	0	0	0	0	250	250
1954	126	118	209	104	0	0	0	0	0	250	250	250
1955	139	121	250	120	116	0	0	0	0	250	250	250
1956	105	89	250	169	173	0	0	0	0	0	250	250
1957	236	158	60	104	118	0	0	0	0	0	250	222
1958	123	121	250	0	0	0	0	193	0	0	250	250
1959	238	158	60	100	0	0	0	0	0	250	250	189
1960	100	77	250	136	76	0	0	0	0	250	250	250
1961	117	97	250	169	155	0	0	0	0	250	250	250

Appendix C-5 CCWD Operations Modeling

Difference Future Alt 1 &2 minus Existing Base Total Alternate Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1962	116	94	122	169	0	0	0	0	0	250	250	152
1963	76	0	203	0	0	0	0	0	0	0	0	250
1964	146	56	243	99	0	0	0	0	0	250	250	201
1965	90	115	0	0	0	0	0	0	0	0	250	250
1966	138	250	49	0	0	0	0	0	0	250	250	197
1967	110	139	250	0	0	0	0	193	0	0	250	250
1968	0	0	59	0	0	0	0	0	0	250	250	148
1969	101	118	250	136	0	97	0	193	0	0	0	250
1970	236	0	0	0	0	0	0	0	0	0	250	250
1971	132	114	0	0	0	0	0	0	0	0	250	250
1972	162	113	174	105	118	0	0	0	0	250	250	208
1973	86	110	250	0	0	0	0	0	0	0	250	250
1974	112	125	0	0	0	0	0	0	0	0	250	250
1975	236	144	70	105	115	0	0	0	0	0	250	250
1976	235	158	60	91	74	234	0	0	196	250	250	216
1977	101	140	250	97	75	61	0	218	250	250	250	250
1978	245	202	133	0	0	0	0	193	0	0	250	250
1979	225	160	41	123	0	0	0	0	0	0	250	250
1980	121	128	250	115	82	100	0	0	0	0	0	250
1981	246	160	114	117	0	0	0	0	0	250	250	250
1982	124	93	0	0	159	0	0	193	0	0	0	250
1983	235	0	0	65	0	0	0	193	0	0	0	0
1984	0	0	100	0	0	0	0	0	0	0	250	250
1985	126	82	0	109	119	0	0	0	0	250	225	187
1986	127	109	250	169	250	111	0	193	0	0	0	250
1987	158	95	201	104	76	0	0	0	0	250	250	184
1988	82	98	133	169	0	0	0	0	0	250	250	185
1989	78	98	134	177	198	0	0	0	0	250	250	173
1990	108	131	222	89	123	0	0	0	0	250	250	250
1991	245	202	133	180	192	174	0	0	0	250	250	250
1992	245	202	133	180	191	0	0	0	0	250	250	250
1993	245	202	133	180	0	0	0	0	0	0	250	250
1994	167	112	238	123	0	0	0	0	0	250	214	125
Mean	143	115	139	93	58	18	0	27	13	116	212	230
Max	246	250	250	180	250	234	0	218	250	250	250	250
Min	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-5 CCWD Operations Modeling

Alt Future Alt Desal Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	246	170	149	118	91	109	0	193	464	321	330	158
1923	47	45	303	123	181	125	0	214	481	328	162	62
1924	35	39	104	69	88	91	0	101	196	242	237	218
1925	188	163	99	145	376	91	67	254	493	528	519	107
1926	30	29	61	68	366	261	0	250	493	528	519	201
1927	37	46	322	369	218	109	0	193	425	316	327	61
1928	34	28	259	105	299	108	0	193	463	321	330	95
1929	38	38	123	29	23	279	0	273	514	418	94	47
1930	18	24	111	128	398	300	0	250	493	419	106	58
1931	91	160	88	133	130	132	224	208	235	242	237	218
1932	188	163	99	180	391	261	0	250	493	528	519	138
1933	34	30	68	59	366	334	0	273	514	328	155	78
1934	24	73	96	144	160	286	114	274	314	328	237	218
1935	188	163	99	145	198	321	375	312	482	514	408	49
1936	36	35	111	136	325	281	0	214	482	336	330	96
1937	37	34	163	45	326	233	0	214	482	329	330	122
1938	33	54	307	257	97	91	0	193	426	316	327	183
1939	92	275	25	26	36	229	0	250	493	223	78	37
1940	30	54	72	116	360	268	16	200	479	507	206	60
1941	29	112	303	123	315	123	0	193	403	316	327	152
1942	46	40	259	105	117	105	0	193	420	316	327	85
1943	68	57	136	105	280	102	0	193	426	316	327	60
1944	41	36	225	34	66	261	0	250	493	458	105	79
1945	34	49	288	129	366	281	0	214	482	342	214	75
1946	32	35	307	136	329	165	0	214	482	331	100	45
1947	38	115	273	48	92	261	0	250	493	528	65	52
1948	27	40	184	52	40	321	308	214	482	514	145	48
1949	40	139	143	39	81	300	0	250	493	528	134	67
1950	36	44	146	43	366	243	122	222	482	514	330	122
1951	54	109	307	281	126	110	0	193	463	321	330	51
1952	42	44	303	123	292	105	0	193	425	316	327	154
1953	292	156	49	103	124	111	0	193	425	316	326	79
1954	40	40	212	105	292	110	0	193	463	321	330	61
1955	45	46	303	123	306	145	0	250	493	372	212	110
1956	34	42	322	169	358	110	0	193	425	316	327	82
1957	51	39	82	28	321	239	0	193	460	321	330	44
1958	32	43	303	123	300	86	0	193	367	316	326	109
1959	157	86	105	105	186	123	0	214	482	331	161	41
1960	29	66	143	43	63	261	0	250	493	462	107	191
1961	39	36	288	42	60	261	0	250	493	221	83	97

Appendix C-5 CCWD Operations Modeling

Alt Future Alt Desal Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1962	173	159	322	169	366	243	73	222	482	514	82	29
1963	149	379	307	136	200	105	0	193	415	316	327	98
1964	34	16	259	246	119	144	0	250	493	374	44	36
1965	23	36	322	169	366	231	0	193	457	423	326	58
1966	42	65	259	225	119	125	0	214	482	331	121	50
1967	44	81	273	136	329	150	0	193	409	316	327	183
1968	264	157	59	95	114	121	0	214	482	331	173	37
1969	39	60	307	136	329	126	0	193	426	316	327	282
1970	134	204	54	82	116	107	0	193	428	316	327	68
1971	42	37	259	105	258	109	0	193	426	316	327	80
1972	53	38	94	25	60	281	0	214	482	494	143	49
1973	29	63	273	336	164	99	0	193	463	321	330	81
1974	30	50	303	261	115	107	0	193	425	316	327	91
1975	127	58	111	39	303	97	0	193	424	316	326	78
1976	116	83	44	24	32	294	0	159	127	162	318	41
1977	129	163	99	145	162	132	224	208	235	242	237	218
1978	188	163	99	180	398	308	216	193	479	507	417	146
1979	52	41	101	62	315	201	0	214	482	330	249	63
1980	35	48	307	136	259	100	0	193	461	320	330	290
1981	66	44	113	54	315	154	0	250	493	175	68	84
1982	39	36	322	369	366	154	0	193	416	316	327	280
1983	235	147	40	65	81	53	0	193	410	316	326	281
1984	237	147	48	103	115	109	0	193	428	316	327	68
1985	38	30	259	261	119	141	0	250	493	203	57	51
1986	46	55	198	86	94	304	91	201	457	503	441	282
1987	56	35	83	29	37	300	0	250	493	444	95	40
1988	30	49	107	169	360	294	0	273	514	528	115	56
1989	21	20	76	35	118	300	46	256	493	528	60	32
1990	181	160	88	134	129	294	106	277	435	139	237	218
1991	188	163	99	145	162	132	274	273	314	227	237	218
1992	188	163	99	145	155	294	118	279	316	328	237	218
1993	188	163	99	180	398	308	156	199	479	507	444	104
1994	36	31	269	42	52	294	0	273	514	68	39	27
Mean	81	84	179	123	213	191	35	219	444	356	253	109
Max	292	379	322	369	398	334	375	312	514	528	519	290
Min	18	16	25	24	23	53	0	101	127	68	39	27

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	246	170	149	118	91	109	0	193	464	321	330	212
1923	61	59	303	123	274	125	0	214	481	328	220	84
1924	64	179	107	136	125	121	0	135	314	328	318	290
1925	245	202	133	180	376	123	83	254	493	528	519	144
1926	40	37	66	168	366	261	0	250	493	528	519	268
1927	48	57	322	369	366	127	0	193	425	316	327	81
1928	44	48	259	105	317	205	0	193	463	321	330	129
1929	51	50	123	77	115	279	0	273	514	480	126	62
1930	54	202	139	171	398	300	0	250	493	421	142	77
1931	241	199	122	168	166	174	224	274	314	328	318	290
1932	245	202	133	180	191	261	85	255	493	528	519	183
1933	44	36	68	124	366	334	0	273	514	328	203	124
1934	245	202	133	180	197	209	194	274	314	328	318	290
1935	245	202	133	180	191	321	375	319	482	514	407	66
1936	47	102	111	136	325	281	0	214	482	439	330	135
1937	52	46	163	64	326	281	0	214	482	431	330	172
1938	48	74	307	336	100	91	0	193	426	316	327	250
1939	127	303	59	41	54	261	0	250	493	303	109	51
1940	41	70	82	158	360	308	220	193	479	507	279	82
1941	94	170	303	123	315	124	0	193	403	316	327	207
1942	62	54	259	105	208	105	0	193	420	316	327	114
1943	90	75	136	105	321	196	0	193	426	316	327	81
1944	55	49	259	51	95	261	0	250	493	528	139	102
1945	43	59	322	162	366	281	0	214	482	514	291	104
1946	43	169	307	136	327	227	0	214	482	331	139	62
1947	166	178	307	65	127	261	0	250	493	528	90	71
1948	37	50	184	94	160	321	375	303	482	514	202	68
1949	161	179	143	98	0	300	0	250	493	528	186	94
1950	49	107	146	142	366	321	269	214	482	514	331	171
1951	76	142	307	310	126	110	0	193	463	321	330	71
1952	57	77	303	123	311	184	0	193	425	316	327	211
1953	307	156	49	103	124	111	0	193	425	316	326	109
1954	54	55	212	105	321	225	0	193	463	321	330	86
1955	62	62	303	123	315	243	0	250	493	372	286	150
1956	46	54	322	169	360	217	0	193	425	316	327	116
1957	70	55	82	45	321	268	0	193	479	422	330	66
1958	46	96	303	123	315	152	0	193	367	316	326	153
1959	210	116	105	105	268	123	0	214	482	331	225	59
1960	81	179	143	99	116	261	0	250	493	462	153	258
1961	55	48	322	55	79	261	0	250	493	301	169	289
1962	246	199	322	169	366	243	80	222	482	514	115	123

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1963	234	379	307	136	200	105	0	193	415	316	327	135
1964	45	22	259	305	176	144	0	250	493	374	58	46
1965	28	44	322	169	366	231	2	201	457	503	440	83
1966	58	89	259	305	19	236	0	214	482	331	170	71
1967	127	176	307	136	329	150	0	193	409	316	327	249
1968	270	157	59	95	114	121	0	214	482	331	235	51
1969	80	178	307	136	329	141	0	193	426	316	327	282
1970	178	217	54	82	116	107	0	193	428	316	327	93
1971	57	50	259	105	321	165	0	193	426	316	327	111
1972	72	51	94	39	89	281	19	222	482	514	198	68
1973	211	169	307	336	164	99	0	193	463	321	330	111
1974	41	66	303	323	168	107	0	193	425	316	327	126
1975	170	78	111	60	321	198	0	193	424	316	326	108
1976	156	112	63	36	47	294	0	211	171	221	318	249
1977	245	202	133	180	198	174	224	274	314	328	318	290
1978	245	202	133	180	398	308	219	193	479	507	417	196
1979	68	53	101	87	315	281	0	214	482	380	330	88
1980	48	78	307	136	325	138	0	193	461	320	330	290
1981	88	58	113	77	315	259	0	250	493	241	97	116
1982	53	47	322	369	366	267	0	193	457	345	327	280
1983	235	147	40	65	81	53	0	193	410	316	326	281
1984	237	147	48	103	115	109	0	193	428	316	327	95
1985	52	41	259	305	197	141	0	250	493	275	77	68
1986	59	68	198	108	120	307	342	251	457	503	400	282
1987	73	47	83	44	53	300	0	250	493	528	126	52
1988	38	59	107	169	360	294	0	273	514	528	146	68
1989	135	202	132	180	198	300	47	256	493	528	79	157
1990	246	199	122	169	166	294	107	277	406	252	318	290
1991	245	202	133	180	175	174	299	273	314	311	318	290
1992	245	202	133	180	191	294	118	279	362	328	291	290
1993	245	202	133	180	398	308	139	199	479	507	444	140
1994	47	40	303	58	76	294	0	273	514	90	51	202
Mean	118	120	190	146	230	214	47	224	449	380	278	151
Max	307	379	322	369	398	334	375	319	514	528	519	290
Min	28	22	40	36	0	53	0	135	171	90	51	46

Appendix C-5 CCWD Operations Modeling

Difference Future Alt Desal minus Existing Base Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	-54
1923	-15	-14	0	0	-93	0	0	0	0	0	-58	-22
1924	-29	-140	-3	-67	-36	-30	0	-34	-118	-86	-81	-72
1925	-57	-39	-34	-35	0	-33	-15	0	0	0	0	-37
1926	-10	-8	-5	-100	0	0	0	0	0	0	0	-67
1927	-11	-11	0	0	-148	-18	0	0	0	0	0	-20
1928	-10	-21	0	0	-18	-97	0	0	0	0	0	-35
1929	-13	-12	0	-48	-92	0	0	0	0	-62	-32	-15
1930	-37	-178	-28	-43	0	0	0	0	0	-2	-36	-19
1931	-150	-39	-34	-35	-36	-42	0	-66	-79	-86	-81	-72
1932	-57	-39	-34	0	200	0	-85	-5	0	0	0	-44
1933	-9	-7	0	-65	0	0	0	0	0	0	-48	-46
1934	-221	-129	-36	-36	-37	78	-80	0	0	0	-81	-72
1935	-57	-39	-34	-35	7	0	0	-7	0	0	1	-17
1936	-11	-67	0	0	0	0	0	0	0	-103	0	-38
1937	-14	-12	0	-19	0	-48	0	0	0	-102	0	-50
1938	-15	-20	0	-79	-3	0	0	0	0	0	0	-67
1939	-35	-28	-34	-15	-18	-32	0	0	0	-80	-31	-15
1940	-11	-16	-10	-42	0	-40	-204	7	0	0	-74	-23
1941	-64	-58	0	0	0	-1	0	0	0	0	0	-55
1942	-16	-14	0	0	-91	0	0	0	0	0	0	-30
1943	-22	-18	0	0	-41	-93	0	0	0	0	0	-22
1944	-14	-12	-34	-16	-29	0	0	0	0	-70	-34	-24
1945	-9	-11	-34	-33	0	0	0	0	0	-172	-77	-29
1946	-11	-134	0	0	2	-62	0	0	0	0	-39	-17
1947	-128	-63	-34	-18	-35	0	0	0	0	0	-25	-19
1948	-9	-11	0	-42	-120	0	-67	-89	0	0	-57	-20
1949	-122	-40	0	-59	81	0	0	0	0	0	-52	-27
1950	-13	-62	0	-98	0	-77	-147	7	0	0	-1	-49
1951	-22	-33	0	-28	0	0	0	0	0	0	0	-21
1952	-16	-33	0	0	-20	-79	0	0	0	0	0	-57
1953	-15	0	0	0	0	0	0	0	0	0	0	-30
1954	-14	-14	0	0	-29	-115	0	0	0	0	0	-25
1955	-17	-16	0	0	-9	-99	0	0	0	0	-75	-40
1956	-12	-12	0	0	-2	-106	0	0	0	0	0	-33
1957	-19	-15	0	-16	0	-29	0	0	-19	-101	0	-21
1958	-14	-53	0	0	-15	-65	0	0	0	0	0	-44
1959	-53	-31	0	0	-82	0	0	0	0	0	-64	-18
1960	-52	-113	0	-55	-53	0	0	0	0	0	-46	-66
1961	-16	-12	-34	-13	-19	0	0	0	0	-80	-86	-192

Appendix C-5 CCWD Operations Modeling

Difference Future Alt Desal minus Existing Base Total CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1962	-73	-40	0	0	0	0	-7	0	0	0	-32	-93
1963	-85	0	0	0	0	0	0	0	0	0	0	-36
1964	-12	-6	0	-59	-57	0	0	0	0	0	-14	-10
1965	-6	-7	0	0	0	0	-2	-8	0	-80	-114	-25
1966	-16	-24	0	-80	100	-112	0	0	0	0	-49	-21
1967	-83	-95	-34	0	0	0	0	0	0	0	0	-66
1968	-5	0	0	0	0	0	0	0	0	0	-62	-14
1969	-41	-118	0	0	0	-14	0	0	0	0	0	0
1970	-44	-13	0	0	0	0	0	0	0	0	0	-25
1971	-15	-13	0	0	-63	-56	0	0	0	0	0	-31
1972	-19	-14	0	-14	-29	0	-19	-7	0	-20	-55	-19
1973	-183	-106	-34	0	0	0	0	0	0	0	0	-30
1974	-10	-16	0	-63	-52	0	0	0	0	0	0	-34
1975	-43	-20	0	-21	-18	-101	0	0	0	0	0	-30
1976	-40	-29	-19	-12	-15	0	0	-52	-44	-59	0	-209
1977	-116	-39	-34	-35	-36	-42	0	-66	-79	-86	-81	-72
1978	-57	-39	-34	0	0	0	-3	0	0	0	0	-51
1979	-16	-12	0	-25	0	-80	0	0	0	-50	-81	-25
1980	-13	-30	0	0	-66	-38	0	0	0	0	0	0
1981	-22	-14	0	-23	0	-105	0	0	0	-66	-29	-32
1982	-14	-11	0	0	0	-113	0	0	-40	-28	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	-27
1985	-14	-11	0	-45	-77	0	0	0	0	-72	-20	-16
1986	-13	-13	0	-22	-27	-3	-251	-50	0	0	41	0
1987	-17	-11	0	-15	-16	0	0	0	0	-84	-31	-12
1988	-8	-10	0	0	0	0	0	0	0	0	-31	-12
1989	-113	-182	-56	-145	-80	0	-1	0	0	0	-19	-125
1990	-65	-39	-34	-35	-37	0	-1	0	28	-113	-81	-72
1991	-57	-39	-34	-35	-13	-42	-25	0	0	-83	-81	-72
1992	-57	-39	-34	-35	-36	0	0	0	-46	0	-54	-72
1993	-57	-39	-34	0	0	0	17	0	0	0	0	-36
1994	-11	-9	-34	-16	-23	0	0	0	0	-22	-12	-175
Mean	-38	-36	-11	-23	-18	-23	-12	-5	-5	-23	-26	-42
Max	0	0	0	0	200	78	17	7	28	0	41	0
Min	-221	-182	-56	-145	-148	-115	-251	-89	-118	-172	-114	-209

Appendix C-5 CCWD Operations Modeling

Alt Future Alt Desal Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	240	170	0	0	0	0	0	0	144	1	10	158
1923	0	0	0	0	0	0	0	0	282	8	0	0
1924	0	0	0	69	88	0	0	0	196	242	237	218
1925	0	0	0	0	56	70	0	0	293	208	199	107
1926	0	0	0	0	46	31	0	0	293	208	199	201
1927	37	0	2	49	0	0	0	0	105	0	314	61
1928	0	0	0	0	0	0	0	0	279	1	10	95
1929	0	0	0	0	23	32	0	0	314	98	0	0
1930	0	0	0	0	78	70	0	0	293	99	0	58
1931	0	0	0	0	130	87	42	4	235	0	0	0
1932	0	0	0	0	71	31	0	0	293	208	199	138
1933	0	0	0	0	46	87	0	0	314	8	0	0
1934	24	0	0	144	0	39	0	0	314	320	0	0
1935	188	0	0	0	0	1	165	37	282	194	88	0
1936	0	0	0	0	5	60	0	0	162	16	10	0
1937	0	0	0	0	6	12	0	0	162	9	10	122
1938	0	0	0	136	0	0	0	0	106	0	7	183
1939	0	0	25	26	36	0	0	0	293	0	0	0
1940	0	0	0	0	40	54	0	0	279	187	0	60
1941	0	0	0	0	0	0	0	0	83	0	7	152
1942	0	0	0	0	117	0	0	0	100	0	314	85
1943	0	0	0	0	0	0	0	0	257	0	314	60
1944	0	0	0	34	0	31	0	0	293	138	0	0
1945	0	0	0	0	46	60	0	0	282	22	0	75
1946	0	0	0	136	129	52	0	0	282	314	0	0
1947	0	0	0	48	0	31	0	0	293	320	0	0
1948	0	0	0	52	40	86	51	0	282	194	0	0
1949	0	0	0	0	0	70	0	0	293	208	0	0
1950	0	0	0	43	46	23	0	0	282	194	10	0
1951	54	0	0	136	126	0	0	0	279	1	318	0
1952	0	0	0	0	111	0	0	0	105	0	7	0
1953	0	0	49	103	121	53	0	0	257	0	6	79
1954	0	0	0	0	0	54	0	0	279	1	10	61
1955	0	0	0	0	0	0	0	0	293	52	0	110
1956	0	0	2	0	38	0	0	0	105	0	314	82
1957	0	0	0	0	1	25	0	0	279	1	318	0
1958	0	0	0	0	0	0	0	0	47	0	6	0
1959	0	86	0	0	0	60	0	0	282	11	0	0
1960	0	0	0	43	63	31	0	0	293	142	0	0
1961	0	0	0	42	0	31	0	0	293	221	0	0

Appendix C-5 CCWD Operations Modeling

Alt Future Alt Desal Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1962	0	0	2	0	46	23	0	0	282	194	0	0
1963	0	59	159	0	0	0	0	0	95	0	7	98
1964	0	16	0	0	0	0	0	0	293	320	0	0
1965	0	0	2	0	46	18	0	0	137	103	6	0
1966	0	0	0	0	0	0	0	0	282	11	0	0
1967	0	0	0	0	9	0	0	0	89	0	7	0
1968	0	156	0	0	114	60	0	0	282	11	173	0
1969	0	0	0	0	9	0	0	0	106	0	7	273
1970	0	156	54	0	0	0	0	0	257	303	314	68
1971	0	0	0	0	121	53	0	0	257	0	7	80
1972	0	0	0	25	0	60	0	0	282	174	0	49
1973	0	0	0	16	129	0	0	0	279	1	10	81
1974	0	0	0	123	115	0	0	0	105	0	314	0
1975	0	58	0	0	0	0	0	0	104	0	314	0
1976	0	0	44	0	0	47	0	0	127	0	0	0
1977	0	0	0	0	0	87	42	4	235	0	0	218
1978	0	0	0	0	78	0	36	0	159	187	97	146
1979	0	0	0	0	0	0	0	0	162	10	0	63
1980	0	0	0	0	0	0	0	0	279	0	10	281
1981	0	0	0	0	0	0	0	0	293	175	0	0
1982	0	0	2	49	46	0	0	0	96	0	7	273
1983	0	0	0	0	0	0	0	0	90	0	6	273
1984	0	0	0	0	0	0	0	0	257	0	314	68
1985	0	0	0	0	0	0	0	0	293	203	0	0
1986	0	0	0	0	0	53	0	0	257	183	314	273
1987	56	0	0	0	37	70	0	0	293	124	0	0
1988	0	0	0	0	40	47	0	0	314	208	0	0
1989	0	0	0	0	118	70	0	0	293	208	0	0
1990	0	0	0	134	0	47	0	0	314	0	0	0
1991	0	0	0	0	0	0	34	0	314	0	0	0
1992	188	0	0	0	0	47	0	0	314	320	0	0
1993	0	0	0	0	78	4	0	0	159	187	124	104
1994	0	0	0	0	0	47	0	0	314	0	0	0
Mean	11	10	5	19	34	26	5	1	233	90	68	61
Max	240	170	159	144	130	87	165	37	314	320	318	281
Min	0	0	0	0	0	0	0	0	47	0	0	0

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	240	170	0	0	0	0	0	0	144	1	10	212
1923	0	0	0	0	0	0	0	0	282	8	0	0
1924	0	0	0	136	125	0	0	0	314	320	318	290
1925	0	0	0	0	56	70	0	0	293	208	199	144
1926	0	0	0	0	46	31	0	0	293	208	199	268
1927	48	0	2	49	46	0	0	0	105	0	314	81
1928	0	0	0	0	0	0	0	0	279	1	10	129
1929	0	0	0	0	115	32	0	0	314	160	0	0
1930	0	0	0	0	78	70	0	0	293	101	0	77
1931	0	0	0	0	166	87	42	57	314	8	0	0
1932	0	0	0	0	0	31	0	0	293	208	199	183
1933	0	0	0	0	46	87	0	0	314	8	0	0
1934	245	0	0	180	0	0	0	0	314	320	0	0
1935	245	0	0	0	0	1	171	38	282	194	87	0
1936	0	0	0	0	5	60	0	0	162	119	10	0
1937	0	0	0	0	6	60	0	0	162	111	10	172
1938	0	0	0	136	0	0	0	0	106	0	7	250
1939	0	0	59	41	54	31	0	0	293	0	0	0
1940	0	0	0	0	40	0	37	0	279	187	0	82
1941	0	0	0	0	0	0	0	0	83	0	7	207
1942	0	0	0	0	121	0	0	0	100	0	314	114
1943	0	0	0	0	1	0	0	0	257	0	314	81
1944	0	0	0	51	0	31	0	0	293	208	0	0
1945	0	0	2	0	46	60	0	0	282	194	0	104
1946	0	0	0	136	129	29	0	0	282	314	0	0
1947	0	0	0	65	0	31	0	0	293	320	0	0
1948	0	0	0	94	160	121	146	51	282	194	0	0
1949	0	0	0	0	0	70	0	0	293	208	0	0
1950	0	0	0	142	46	57	45	0	282	194	11	0
1951	76	0	0	136	126	0	0	0	279	1	318	0
1952	0	0	0	0	111	0	0	0	105	0	7	0
1953	0	0	49	103	121	53	0	0	257	0	6	109
1954	0	0	0	0	1	54	0	0	279	1	10	86
1955	0	0	0	0	0	13	0	0	293	52	0	150
1956	0	0	2	0	40	3	0	0	105	0	314	116
1957	0	0	0	0	1	54	0	0	279	102	318	0
1958	0	0	0	0	0	0	0	0	47	0	6	0
1959	0	116	0	0	0	60	0	0	282	11	0	0
1960	0	0	0	99	116	31	0	0	293	142	0	0
1961	0	0	2	55	0	31	0	0	293	301	0	0
1962	0	0	2	0	46	23	0	0	282	194	0	0

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1963	0	59	159	0	0	0	0	0	95	0	7	135
1964	0	22	0	0	0	0	0	0	293	320	0	0
1965	0	0	2	0	46	18	0	0	137	183	120	0
1966	0	0	0	0	0	16	0	0	282	11	0	0
1967	0	0	0	0	9	0	0	0	89	0	7	0
1968	0	156	0	0	114	60	0	0	282	11	235	0
1969	0	0	0	0	9	0	0	0	106	0	7	273
1970	0	156	54	0	0	0	0	0	257	303	314	93
1971	0	0	0	0	121	53	0	0	257	0	7	111
1972	0	0	0	39	0	60	0	0	282	194	0	68
1973	0	0	0	16	129	0	0	0	279	1	10	111
1974	0	0	0	123	115	0	0	0	105	0	314	0
1975	0	78	0	0	1	0	0	0	104	0	314	0
1976	0	0	63	0	0	47	0	0	171	0	0	0
1977	0	0	0	0	0	87	43	57	314	8	0	290
1978	0	0	0	0	78	0	36	0	159	187	97	196
1979	0	0	0	0	0	60	0	0	162	60	10	88
1980	0	0	0	0	5	0	0	0	279	0	10	281
1981	0	0	0	0	0	29	0	0	293	241	0	0
1982	0	0	2	49	46	53	0	0	137	25	7	273
1983	0	0	0	0	0	0	0	0	90	0	6	273
1984	0	0	0	0	0	0	0	0	257	0	314	95
1985	0	0	0	0	0	0	0	0	293	275	0	0
1986	0	0	0	0	0	0	22	42	257	183	314	273
1987	73	0	0	0	53	70	0	0	293	208	0	0
1988	0	0	0	0	40	47	0	0	314	208	0	0
1989	0	0	0	0	198	70	0	0	293	208	0	0
1990	0	0	0	169	0	47	0	0	314	0	0	0
1991	0	0	0	0	0	0	37	0	314	0	0	0
1992	245	0	0	0	0	47	0	0	314	320	0	0
1993	0	0	0	0	78	21	0	0	159	187	124	140
1994	0	0	0	0	0	47	0	0	314	0	0	0
Mean	16	10	5	25	40	29	8	3	238	106	71	76
Max	245	170	159	180	198	121	171	57	314	320	318	290
Min	0	0	0	0	0	0	0	0	47	0	0	0

Appendix C-5 CCWD Operations Modeling

Difference Future Alt Desal minus Existing Base Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	-54
1923	0	0	0	0	0	0	0	0	0	0	0	0
1924	0	0	0	-67	-36	0	0	0	-118	-78	-81	-72
1925	0	0	0	0	0	0	0	0	0	0	0	-37
1926	0	0	0	0	0	0	0	0	0	0	0	-67
1927	-11	0	0	0	-46	0	0	0	0	0	0	-20
1928	0	0	0	0	0	0	0	0	0	0	0	-35
1929	0	0	0	0	-92	0	0	0	0	-62	0	0
1930	0	0	0	0	0	0	0	0	0	-2	0	-19
1931	0	0	0	0	-36	0	0	-53	-79	-8	0	0
1932	0	0	0	0	71	0	0	0	0	0	0	-44
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	-221	0	0	-36	0	39	0	0	0	0	0	0
1935	-57	0	0	0	0	0	-6	-1	0	0	1	0
1936	0	0	0	0	0	0	0	0	0	-103	0	0
1937	0	0	0	0	0	-48	0	0	0	-102	0	-50
1938	0	0	0	0	0	0	0	0	0	0	0	-67
1939	0	0	-34	-15	-18	-31	0	0	0	0	0	0
1940	0	0	0	0	0	54	-37	0	0	0	0	-23
1941	0	0	0	0	0	0	0	0	0	0	0	-55
1942	0	0	0	0	-4	0	0	0	0	0	0	-30
1943	0	0	0	0	-1	0	0	0	0	0	0	-22
1944	0	0	0	-16	0	0	0	0	0	-70	0	0
1945	0	0	-2	0	0	0	0	0	0	-172	0	-29
1946	0	0	0	0	0	23	0	0	0	0	0	0
1947	0	0	0	-18	0	0	0	0	0	0	0	0
1948	0	0	0	-42	-120	-34	-94	-51	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	-98	0	-35	-45	0	0	0	-1	0
1951	-22	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	-30
1954	0	0	0	0	-1	0	0	0	0	0	0	-25
1955	0	0	0	0	0	-13	0	0	0	0	0	-40
1956	0	0	0	0	-2	-3	0	0	0	0	0	-33
1957	0	0	0	0	0	-29	0	0	0	-101	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	-31	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	-55	-53	0	0	0	0	0	0	0
1961	0	0	-2	-13	0	0	0	0	0	-80	0	0

Appendix C-5 CCWD Operations Modeling

Difference Future Alt Desal minus Existing Base Total Rock Slough CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	-36
1964	0	-6	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	-80	-114	0
1966	0	0	0	0	0	-16	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	-62	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	-25
1971	0	0	0	0	0	0	0	0	0	0	0	-31
1972	0	0	0	-14	0	0	0	0	0	-20	0	-19
1973	0	0	0	0	0	0	0	0	0	0	0	-30
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	-20	0	0	-1	0	0	0	0	0	0	0
1976	0	0	-19	0	0	0	0	0	-44	0	0	0
1977	0	0	0	0	0	0	-1	-54	-79	-8	0	-72
1978	0	0	0	0	0	0	0	0	0	0	0	-51
1979	0	0	0	0	0	-60	0	0	0	-50	-10	-25
1980	0	0	0	0	-5	0	0	0	0	0	0	0
1981	0	0	0	0	0	-29	0	0	0	-66	0	0
1982	0	0	0	0	0	-53	0	0	-40	-25	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	-27
1985	0	0	0	0	0	0	0	0	0	-72	0	0
1986	0	0	0	0	0	53	-22	-42	0	0	0	0
1987	-17	0	0	0	-16	0	0	0	0	-84	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	-80	0	0	0	0	0	0	0
1990	0	0	0	-35	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	-3	0	0	0	0	0
1992	-57	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	-17	0	0	0	0	0	-36
1994	0	0	0	0	0	0	0	0	0	0	0	0
Mean	-5	-1	-1	-6	-6	-3	-3	-3	-5	-16	-4	-15
Max	0	0	0	0	71	54	0	0	0	0	1	0
Min	-221	-31	-34	-98	-120	-60	-94	-54	-118	-172	-114	-72

Appendix C-5 CCWD Operations Modeling

Alt Future Alt Desal Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	5	0	149	118	91	109	0	193	320	320	320	0
1923	47	45	303	123	181	125	0	214	199	320	162	62
1924	35	39	104	0	0	91	0	101	0	0	0	0
1925	188	163	99	145	320	21	67	254	200	320	320	0
1926	30	29	61	68	320	230	0	250	200	320	320	0
1927	0	46	320	320	218	109	0	193	320	316	12	0
1928	34	28	259	105	299	108	0	193	185	320	320	0
1929	38	38	123	29	0	247	0	273	200	320	94	47
1930	18	24	111	128	320	230	0	250	200	320	106	0
1931	91	160	88	133	0	45	182	204	0	242	237	218
1932	188	163	99	180	320	230	0	250	200	320	320	0
1933	34	30	68	59	320	247	0	273	200	320	155	78
1934	0	73	96	0	160	247	114	274	0	8	237	218
1935	0	163	99	145	198	320	210	275	200	320	320	49
1936	36	35	111	136	320	220	0	214	320	320	320	96
1937	37	34	163	45	320	220	0	214	320	320	320	0
1938	33	54	307	121	97	91	0	193	320	316	320	0
1939	92	275	0	0	0	229	0	250	200	223	78	37
1940	30	54	72	116	320	214	16	200	200	320	206	0
1941	29	112	303	123	315	123	0	193	320	316	320	0
1942	46	40	259	105	0	105	0	193	320	316	12	0
1943	68	57	136	105	280	102	0	193	169	316	12	0
1944	41	36	225	0	66	230	0	250	200	320	105	79
1945	34	49	288	129	320	220	0	214	200	320	214	0
1946	32	35	307	0	200	113	0	214	200	16	100	45
1947	38	115	273	0	92	230	0	250	200	208	65	52
1948	27	40	184	0	0	234	257	214	200	320	145	48
1949	40	139	143	39	81	230	0	250	200	320	134	67
1950	36	44	146	0	320	220	122	222	200	320	320	122
1951	0	109	307	145	0	110	0	193	185	320	12	51
1952	42	44	303	123	180	105	0	193	320	316	320	154
1953	292	156	0	0	3	57	0	193	168	316	320	0
1954	40	40	212	105	292	56	0	193	184	320	320	0
1955	45	46	303	123	306	145	0	250	200	320	212	0
1956	34	42	320	169	320	110	0	193	320	316	12	0
1957	51	39	82	28	320	214	0	193	181	320	12	44
1958	32	43	303	123	300	86	0	193	320	316	320	109
1959	157	0	105	105	186	63	0	214	200	320	161	41
1960	29	66	143	0	0	230	0	250	200	320	107	191
1961	39	36	288	0	60	230	0	250	200	0	83	97

Appendix C-5 CCWD Operations Modeling

Alt Future Alt Desal Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1962	173	159	320	169	320	220	73	222	200	320	82	29
1963	149	320	148	136	200	105	0	193	320	316	320	0
1964	34	0	259	246	119	144	0	250	200	54	44	36
1965	23	36	320	169	320	213	0	193	320	320	320	58
1966	42	65	259	225	119	125	0	214	200	320	121	50
1967	44	81	273	136	320	150	0	193	320	316	320	183
1968	264	1	59	95	0	60	0	214	200	320	0	37
1969	39	60	307	136	320	126	0	193	320	316	320	9
1970	134	48	0	82	116	107	0	193	171	14	12	0
1971	42	37	259	105	137	56	0	193	169	316	320	0
1972	53	38	94	0	60	220	0	214	200	320	143	0
1973	29	63	273	320	35	99	0	193	185	320	320	0
1974	30	50	303	137	0	107	0	193	320	316	12	91
1975	127	0	111	39	303	97	0	193	320	316	12	78
1976	116	83	0	24	32	247	0	159	0	162	318	41
1977	129	163	99	145	162	45	182	204	0	242	237	0
1978	188	163	99	180	320	308	180	193	320	320	320	0
1979	52	41	101	62	315	201	0	214	320	320	249	0
1980	35	48	307	136	259	100	0	193	182	320	320	9
1981	66	44	113	54	315	154	0	250	200	0	68	84
1982	39	36	320	320	320	154	0	193	320	316	320	7
1983	235	147	40	65	81	53	0	193	320	316	320	8
1984	237	147	48	103	115	109	0	193	171	316	12	0
1985	38	30	259	261	119	141	0	250	200	0	57	51
1986	46	55	198	86	94	251	91	201	200	320	126	9
1987	0	35	83	29	0	230	0	250	200	320	95	40
1988	30	49	107	169	320	247	0	273	200	320	115	56
1989	21	20	76	35	0	230	46	256	200	320	60	32
1990	181	160	88	0	129	247	106	277	120	139	237	218
1991	188	163	99	145	162	132	240	273	0	227	237	218
1992	0	163	99	145	155	247	118	279	2	8	237	218
1993	188	163	99	180	320	304	156	199	320	320	320	0
1994	36	31	269	42	52	247	0	273	200	68	39	27
Mean	70	75	175	104	179	165	30	219	211	267	185	48
Max	292	320	320	320	320	320	257	279	320	320	320	218
Min	0	0	0	0	0	21	0	101	0	0	0	0

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	5	0	149	118	91	109	0	193	320	320	320	0
1923	61	59	303	123	274	125	0	214	199	320	220	84
1924	64	179	107	0	0	121	0	135	0	8	0	0
1925	245	202	133	180	320	53	83	254	200	320	320	0
1926	40	37	66	168	320	230	0	250	200	320	320	0
1927	0	57	320	320	320	127	0	193	320	316	12	0
1928	44	48	259	105	317	205	0	193	185	320	320	0
1929	51	50	123	77	0	247	0	273	200	320	126	62
1930	54	202	139	171	320	230	0	250	200	320	142	0
1931	241	199	122	168	0	87	182	217	0	320	318	290
1932	245	202	133	180	191	230	85	255	200	320	320	0
1933	44	36	68	124	320	247	0	273	200	320	203	124
1934	0	202	133	0	197	209	194	274	0	8	318	290
1935	0	202	133	180	191	320	204	281	200	320	320	66
1936	47	102	111	136	320	220	0	214	320	320	320	135
1937	52	46	163	64	320	220	0	214	320	320	320	0
1938	48	74	307	200	100	91	0	193	320	316	320	0
1939	127	303	0	0	0	230	0	250	200	303	109	51
1940	41	70	82	158	320	308	183	193	200	320	279	0
1941	94	170	303	123	315	124	0	193	320	316	320	0
1942	62	54	259	105	87	105	0	193	320	316	12	0
1943	90	75	136	105	320	196	0	193	169	316	12	0
1944	55	49	259	0	95	230	0	250	200	320	139	102
1945	43	59	320	162	320	220	0	214	200	320	291	0
1946	43	169	307	0	198	198	0	214	200	16	139	62
1947	166	178	307	0	127	230	0	250	200	208	90	71
1948	37	50	184	0	0	200	230	253	200	320	202	68
1949	161	179	143	98	0	230	0	250	200	320	186	94
1950	49	107	146	0	320	263	224	214	200	320	320	171
1951	0	142	307	174	0	110	0	193	185	320	12	71
1952	57	77	303	123	200	184	0	193	320	316	320	211
1953	307	156	0	0	3	57	0	193	168	316	320	0
1954	54	55	212	105	320	171	0	193	184	320	320	0
1955	62	62	303	123	315	230	0	250	200	320	286	0
1956	46	54	320	169	320	213	0	193	320	316	12	0
1957	70	55	82	45	320	214	0	193	200	320	12	66
1958	46	96	303	123	315	152	0	193	320	316	320	153
1959	210	0	105	105	268	63	0	214	200	320	225	59
1960	81	179	143	0	0	230	0	250	200	320	153	258
1961	55	48	320	0	79	230	0	250	200	0	169	289
1962	246	199	320	169	320	220	80	222	200	320	115	123

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1963	234	320	148	136	200	105	0	193	320	316	320	0
1964	45	0	259	305	176	144	0	250	200	54	58	46
1965	28	44	320	169	320	213	2	201	320	320	320	83
1966	58	89	259	305	19	220	0	214	200	320	170	71
1967	127	176	307	136	320	150	0	193	320	316	320	249
1968	270	1	59	95	0	60	0	214	200	320	0	51
1969	80	178	307	136	320	141	0	193	320	316	320	9
1970	178	61	0	82	116	107	0	193	171	14	12	0
1971	57	50	259	105	200	112	0	193	169	316	320	0
1972	72	51	94	0	89	220	19	222	200	320	198	0
1973	211	169	307	320	35	99	0	193	185	320	320	0
1974	41	66	303	200	53	107	0	193	320	316	12	126
1975	170	0	111	60	320	198	0	193	320	316	12	108
1976	156	112	0	36	47	247	0	211	0	221	318	249
1977	245	202	133	180	198	87	181	216	0	320	318	0
1978	245	202	133	180	320	308	182	193	320	320	320	0
1979	68	53	101	87	315	220	0	214	320	320	320	0
1980	48	78	307	136	320	138	0	193	182	320	320	9
1981	88	58	113	77	315	230	0	250	200	0	97	116
1982	53	47	320	320	320	213	0	193	320	320	320	7
1983	235	147	40	65	81	53	0	193	320	316	320	8
1984	237	147	48	103	115	109	0	193	171	316	12	0
1985	52	41	259	305	197	141	0	250	200	0	77	68
1986	59	68	198	108	120	307	320	209	200	320	85	9
1987	0	47	83	44	0	230	0	250	200	320	126	52
1988	38	59	107	169	320	247	0	273	200	320	146	68
1989	135	202	132	180	0	230	47	256	200	320	79	157
1990	246	199	122	0	166	247	107	277	92	252	318	290
1991	245	202	133	180	175	174	262	273	0	311	318	290
1992	0	202	133	180	191	247	118	279	48	8	291	290
1993	245	202	133	180	320	287	139	199	320	320	320	0
1994	47	40	303	58	76	247	0	273	200	90	51	202
Mean	102	110	184	121	191	185	39	221	211	274	207	75
Max	307	320	320	320	320	320	320	281	320	320	320	290
Min	0	0	0	0	0	53	0	135	0	0	0	0

Appendix C-5 CCWD Operations Modeling

Difference Future Alt Desal minus Existing Base Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	0
1923	-15	-14	0	0	-93	0	0	0	0	0	-58	-22
1924	-29	-140	-3	0	0	-30	0	-34	0	-8	0	0
1925	-57	-39	-34	-35	0	-33	-15	0	0	0	0	0
1926	-10	-8	-5	-100	0	0	0	0	0	0	0	0
1927	0	-11	0	0	-102	-18	0	0	0	0	0	0
1928	-10	-21	0	0	-18	-97	0	0	0	0	0	0
1929	-13	-12	0	-48	0	0	0	0	0	0	-32	-15
1930	-37	-178	-28	-43	0	0	0	0	0	0	-36	0
1931	-150	-39	-34	-35	0	-42	0	-13	0	-78	-81	-72
1932	-57	-39	-34	0	129	0	-85	-5	0	0	0	0
1933	-9	-7	0	-65	0	0	0	0	0	0	-48	-46
1934	0	-129	-36	0	-37	38	-80	0	0	0	-81	-72
1935	0	-39	-34	-35	7	0	6	-6	0	0	0	-17
1936	-11	-67	0	0	0	0	0	0	0	0	0	-38
1937	-14	-12	0	-19	0	0	0	0	0	0	0	0
1938	-15	-20	0	-79	-3	0	0	0	0	0	0	0
1939	-35	-28	0	0	0	-1	0	0	0	-80	-31	-15
1940	-11	-16	-10	-42	0	-94	-167	7	0	0	-74	0
1941	-64	-58	0	0	0	-1	0	0	0	0	0	0
1942	-16	-14	0	0	-87	0	0	0	0	0	0	0
1943	-22	-18	0	0	-40	-93	0	0	0	0	0	0
1944	-14	-12	-34	0	-29	0	0	0	0	0	-34	-24
1945	-9	-11	-32	-33	0	0	0	0	0	0	-77	0
1946	-11	-134	0	0	2	-85	0	0	0	0	-39	-17
1947	-128	-63	-34	0	-35	0	0	0	0	0	-25	-19
1948	-9	-11	0	0	0	34	27	-38	0	0	-57	-20
1949	-122	-40	0	-59	81	0	0	0	0	0	-52	-27
1950	-13	-62	0	0	0	-43	-102	7	0	0	0	-49
1951	0	-33	0	-28	0	0	0	0	0	0	0	-21
1952	-16	-33	0	0	-20	-79	0	0	0	0	0	-57
1953	-15	0	0	0	0	0	0	0	0	0	0	0
1954	-14	-14	0	0	-28	-115	0	0	0	0	0	0
1955	-17	-16	0	0	-9	-85	0	0	0	0	-75	0
1956	-12	-12	0	0	0	-103	0	0	0	0	0	0
1957	-19	-15	0	-16	0	0	0	0	-19	0	0	-21
1958	-14	-53	0	0	-15	-65	0	0	0	0	0	-44
1959	-53	0	0	0	-82	0	0	0	0	0	-64	-18
1960	-52	-113	0	0	0	0	0	0	0	0	-46	-66
1961	-16	-12	-32	0	-19	0	0	0	0	0	-86	-192

Appendix C-5 CCWD Operations Modeling

Difference Future Alt Desal minus Existing Base Total Old River CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1962	-73	-40	0	0	0	0	-7	0	0	0	-32	-93
1963	-85	0	0	0	0	0	0	0	0	0	0	0
1964	-12	0	0	-59	-57	0	0	0	0	0	-14	-10
1965	-6	-7	0	0	0	0	-2	-8	0	0	0	-25
1966	-16	-24	0	-80	100	-96	0	0	0	0	-49	-21
1967	-83	-95	-34	0	0	0	0	0	0	0	0	-66
1968	-5	0	0	0	0	0	0	0	0	0	0	-14
1969	-41	-118	0	0	0	-14	0	0	0	0	0	0
1970	-44	-13	0	0	0	0	0	0	0	0	0	0
1971	-15	-13	0	0	-63	-56	0	0	0	0	0	0
1972	-19	-14	0	0	-29	0	-19	-7	0	0	-55	0
1973	-183	-106	-34	0	0	0	0	0	0	0	0	0
1974	-10	-16	0	-63	-52	0	0	0	0	0	0	-34
1975	-43	0	0	-21	-17	-101	0	0	0	0	0	-30
1976	-40	-29	0	-12	-15	0	0	-52	0	-59	0	-209
1977	-116	-39	-34	-35	-36	-42	1	-12	0	-78	-81	0
1978	-57	-39	-34	0	0	0	-2	0	0	0	0	0
1979	-16	-12	0	-25	0	-19	0	0	0	0	-71	0
1980	-13	-30	0	0	-61	-38	0	0	0	0	0	0
1981	-22	-14	0	-23	0	-76	0	0	0	0	-29	-32
1982	-14	-11	0	0	0	-59	0	0	0	-4	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	-14	-11	0	-45	-77	0	0	0	0	0	-20	-16
1986	-13	-13	0	-22	-27	-56	-229	-8	0	0	41	0
1987	0	-11	0	-15	0	0	0	0	0	0	-31	-12
1988	-8	-10	0	0	0	0	0	0	0	0	-31	-12
1989	-113	-182	-56	-145	0	0	-1	0	0	0	-19	-125
1990	-65	-39	-34	0	-37	0	-1	0	28	-113	-81	-72
1991	-57	-39	-34	-35	-13	-42	-22	0	0	-83	-81	-72
1992	0	-39	-34	-35	-36	0	0	0	-46	0	-54	-72
1993	-57	-39	-34	0	0	17	17	0	0	0	0	0
1994	-11	-9	-34	-16	-23	0	0	0	0	-22	-12	-175
Mean	-32	-35	-10	-17	-12	-20	-9	-2	0	-7	-22	-27
Max	0	0	0	0	129	38	27	7	28	0	41	0
Min	-183	-182	-56	-145	-102	-115	-229	-52	-46	-113	-86	-209

Appendix C-5 CCWD Operations Modeling

Alt Future Alt Desal Total Alternative Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	0
1923	0	0	0	0	0	0	0	0	0	0	0	0
1924	0	0	0	0	0	0	0	0	0	0	0	0
1925	0	0	0	0	0	0	0	0	0	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-5 CCWD Operations Modeling

Alt Future Alt Desal Total Alternative Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0
Mean	0	0	0	0	0	0	0	0	0	0	0	0
Max	0	0	0	0	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-5 CCWD Operations Modeling

Year	Base Existing Base Total Alternate Intake CCWD Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	0
1923	0	0	0	0	0	0	0	0	0	0	0	0
1924	0	0	0	0	0	0	0	0	0	0	0	0
1925	0	0	0	0	0	0	0	0	0	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-5 CCWD Operations Modeling

Base Existing Base Total Alternate Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0
Mean	0	0	0	0	0	0	0	0	0	0	0	0
Max	0	0	0	0	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-5 CCWD Operations Modeling

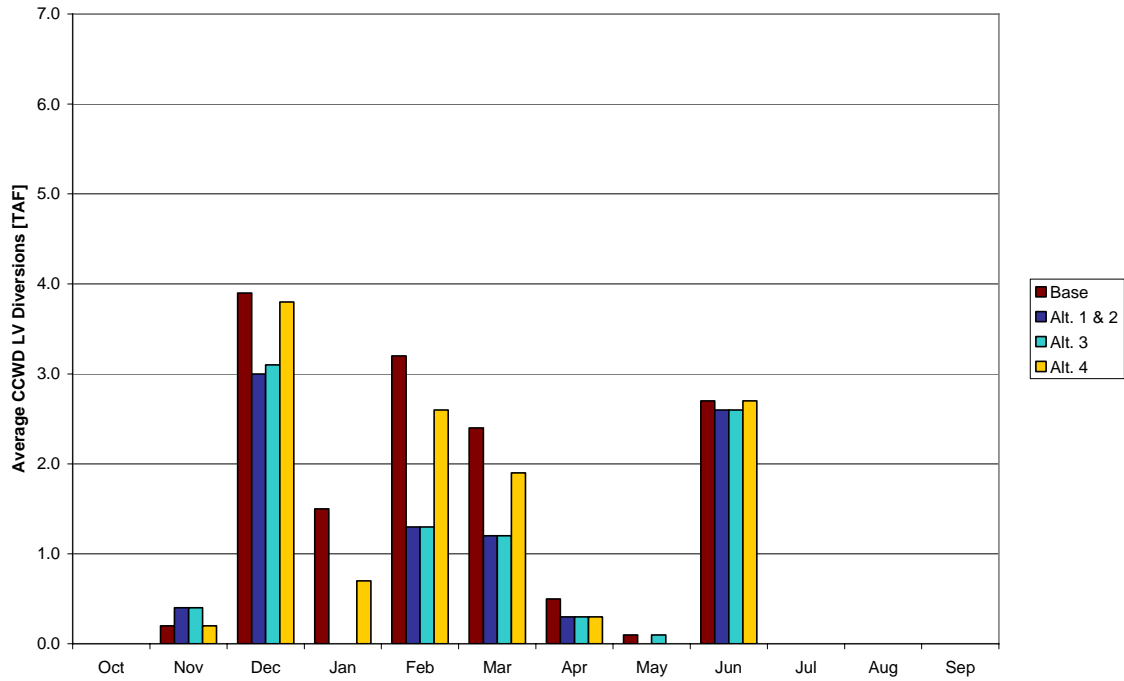
Difference Future Alt Desal minus Existing Base Total Alternate Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	0
1923	0	0	0	0	0	0	0	0	0	0	0	0
1924	0	0	0	0	0	0	0	0	0	0	0	0
1925	0	0	0	0	0	0	0	0	0	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-5 CCWD Operations Modeling

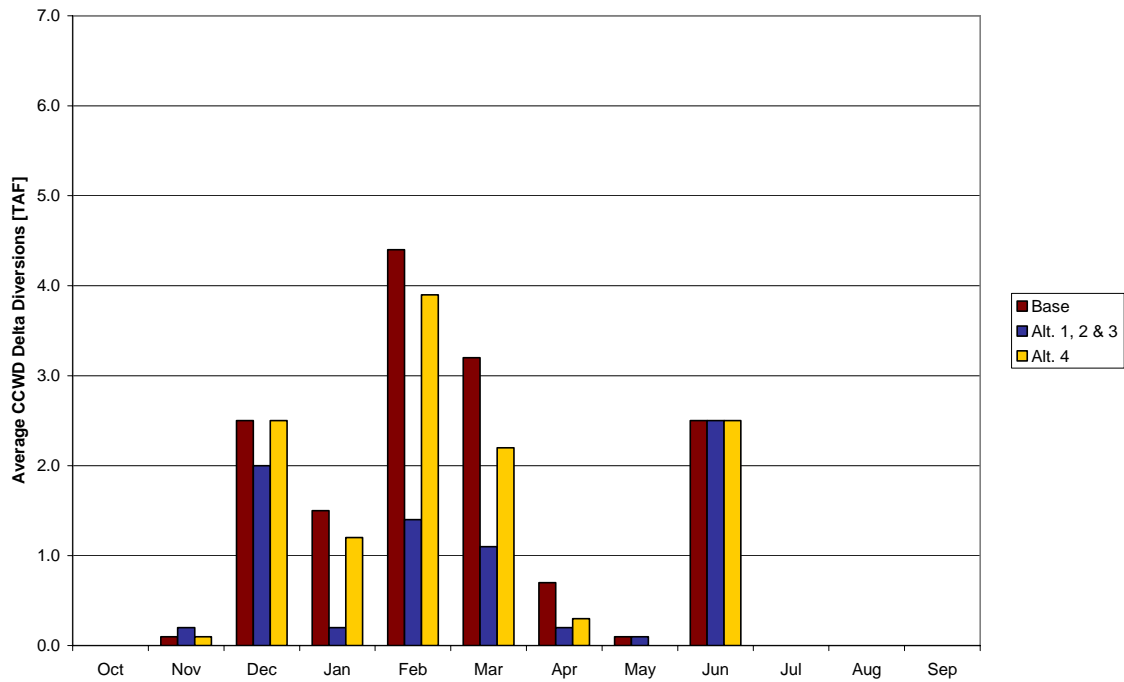
Difference												
Future Alt Desal minus Existing Base												
Total Alternate Intake CCWD Diversion (CFS)												
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0
Mean	0	0	0	0	0	0	0	0	0	0	0	0
Max	0	0	0	0	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C-5 CCWD Operations Modeling

AIP: Los Vaqueros Water Right Diversions - Existing Case Alternatives



AIP: Los Vaqueros Water Right Diversions - Future Case Alternatives

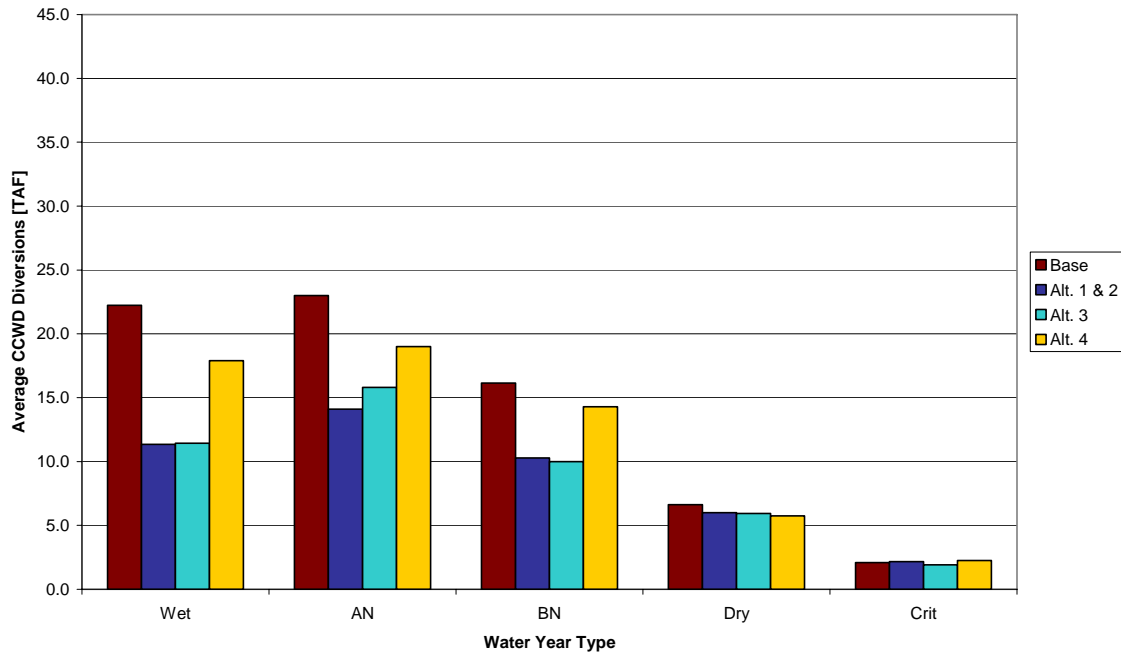


Appendix C-5 CCWD Operations Modeling

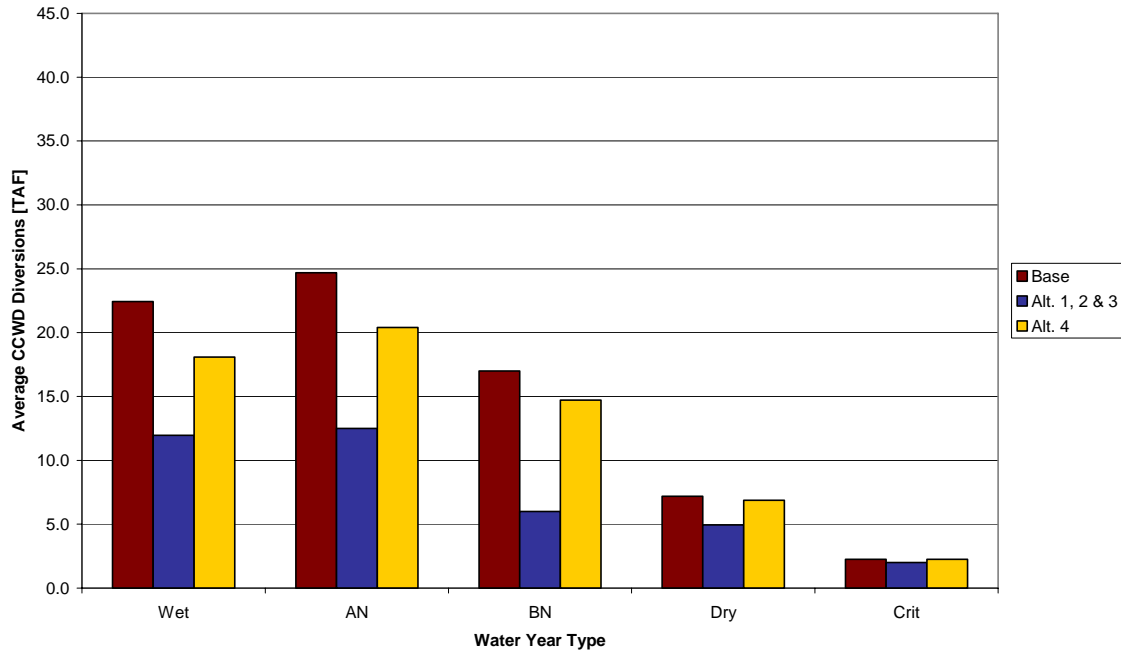
Average Los Vaqueros Water Right Diversions [TAF]							
	Existing Conditions				Future Conditions		
	Base	Alt. 1 & 2	Alt. 3	Alt. 4	Base	Alt. 1, 2 & 3	Alt. 4
Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nov	0.2	0.4	0.4	0.2	0.1	0.2	0.1
Dec	3.9	3.0	3.1	3.8	2.5	2.0	2.5
Jan	1.5	0.0	0.0	0.7	1.5	0.2	1.2
Feb	3.2	1.3	1.3	2.6	4.4	1.4	3.9
Mar	2.4	1.2	1.2	1.9	3.2	1.1	2.0
Apr	0.5	0.3	0.3	0.3	0.7	0.2	0.3
May	0.1	0.0	0.1	0.0	0.1	0.1	0.0
Jun	2.7	2.6	2.6	2.7	2.5	2.5	2.5
Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aug	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Totals	14.5	8.8	9.0	12.2	15.0	7.7	12.7

Appendix C-5 CCWD Operations Modeling

Average CCWD Los Vaqueros Water Right Diversions by Year Type
Existing Conditions



Average CCWD Los Vaqueros Water Right Diversions by Year Type
Future Conditions

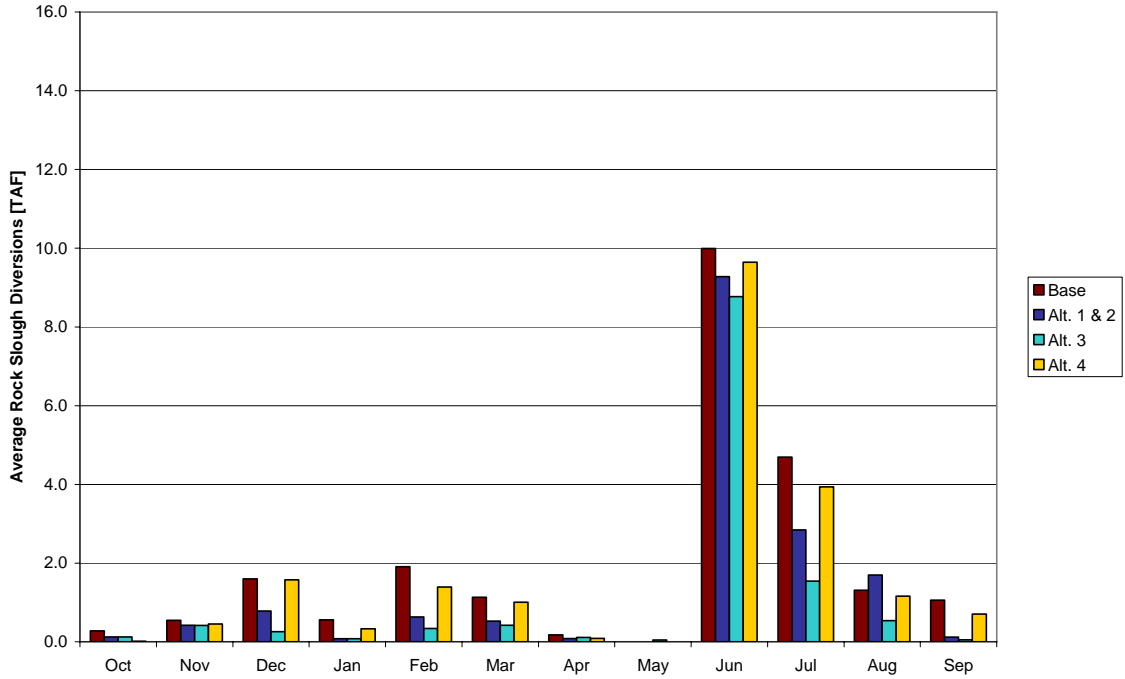


Appendix C-5 CCWD Operations Modeling

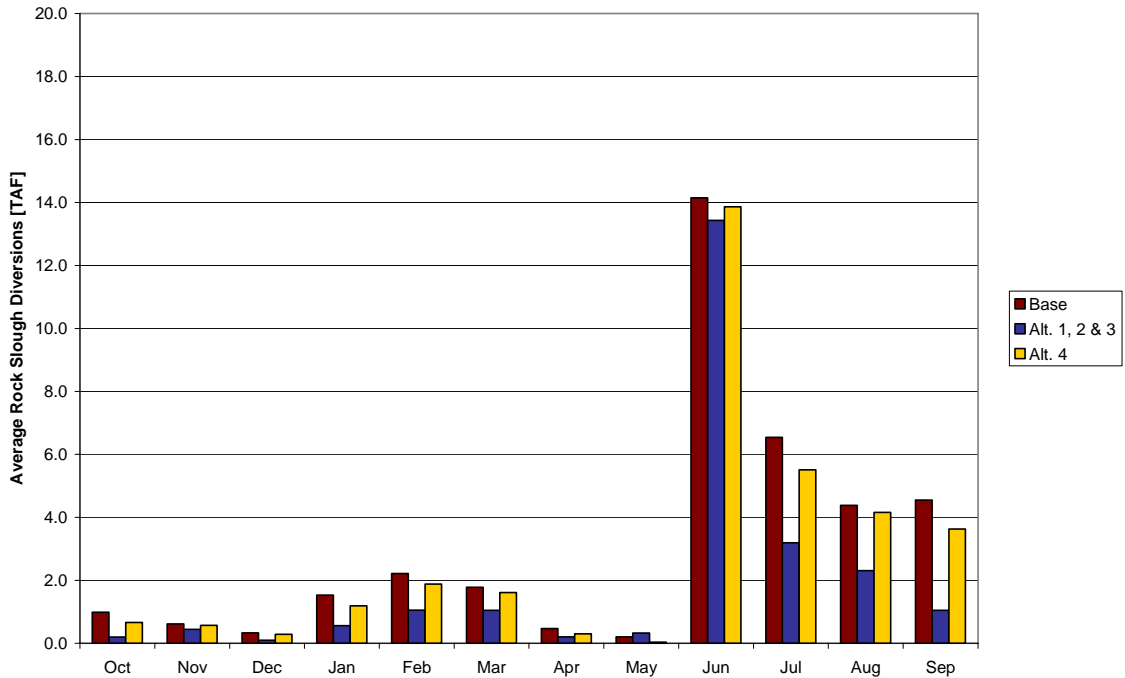
Average CCWD Los Vaqueros Water Right Diversions by Year Type [TAF]					
	Wet	Above Normal	Below Normal	Dry	Critical
Existing Base	22.2	23.0	16.1	6.6	2.1
Alt. 1 & 2	11.3	14.1	10.3	6.0	2.2
Alt. 3	11.4	15.8	10.0	5.9	1.9
Alt. 4	17.9	19.0	14.3	5.8	2.3
Future Base	22.4	24.7	17.0	7.2	2.3
Alt. 1, 2 & 3	12.0	12.5	6.0	4.9	2.0
Alt. 4	18.1	20.4	14.7	6.9	2.3
Note: updated to include freeport and veale in future runs					

Appendix C-5 CCWD Operations Modeling

AIP: Rock Slough Diversions - Existing Conditions

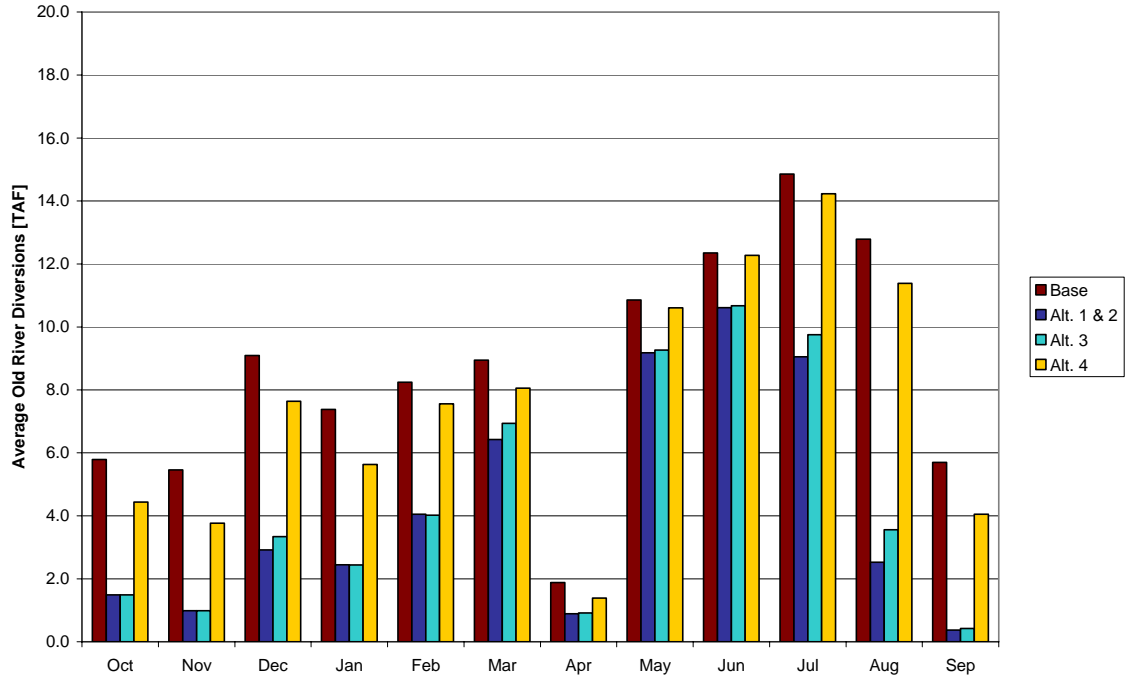


AIP: Rock Slough Diversions - Future Conditions

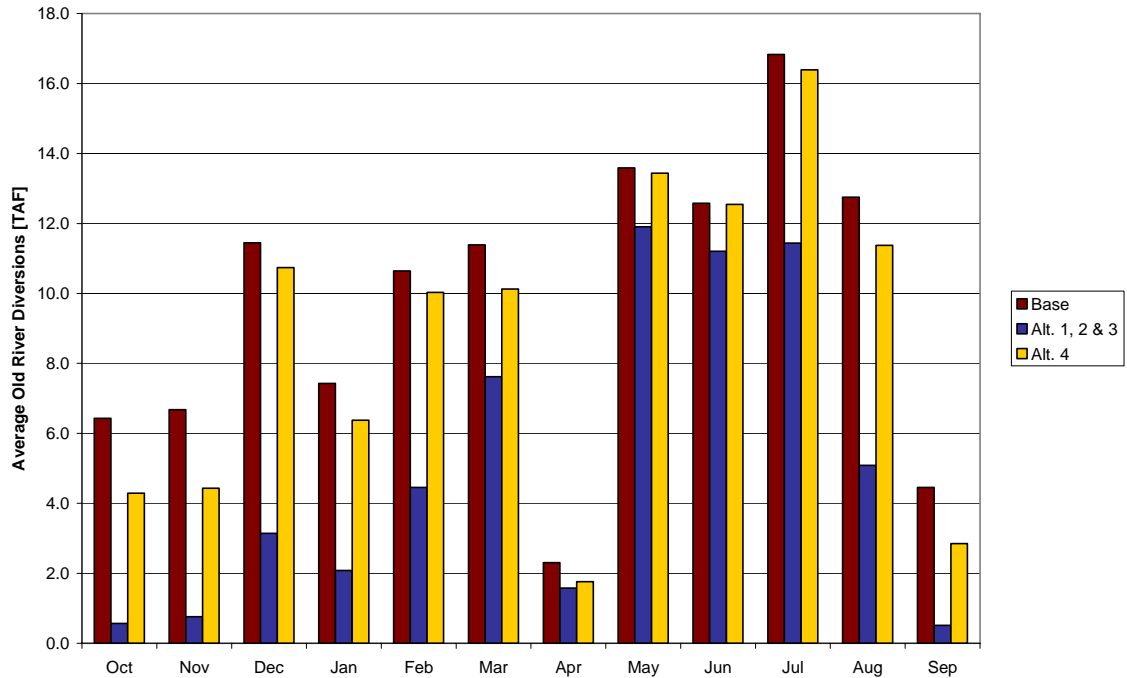


Appendix C-5 CCWD Operations Modeling

AIP: Old River Diversions - Existing Conditions

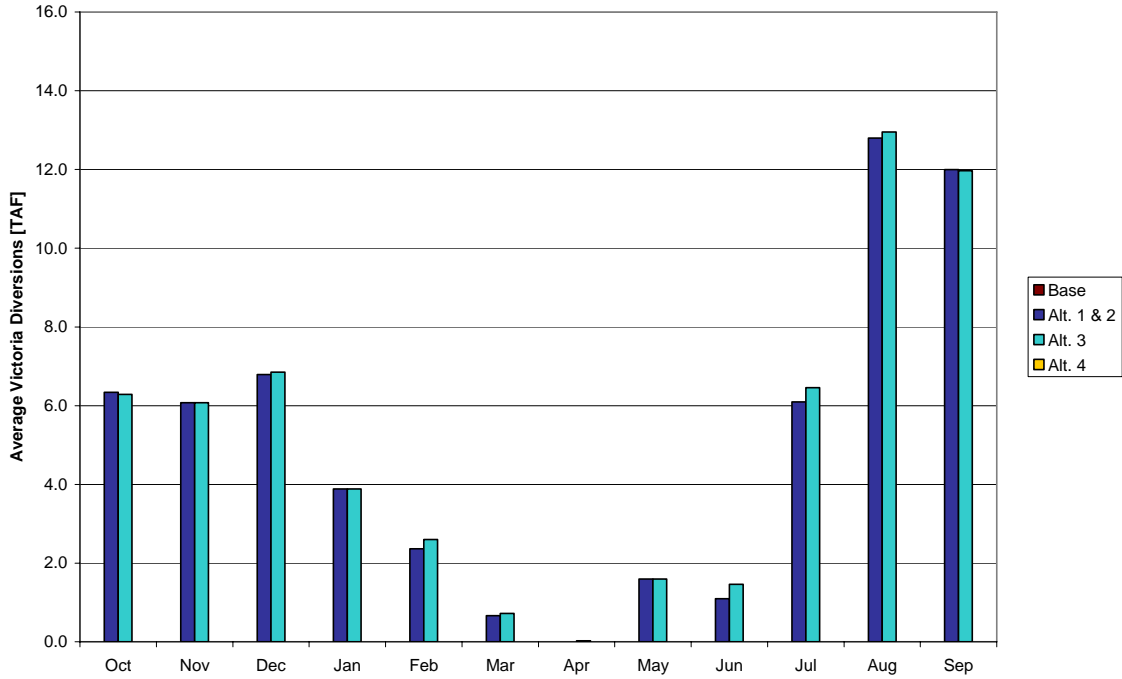


AIP: Old River Diversions - Future Conditions

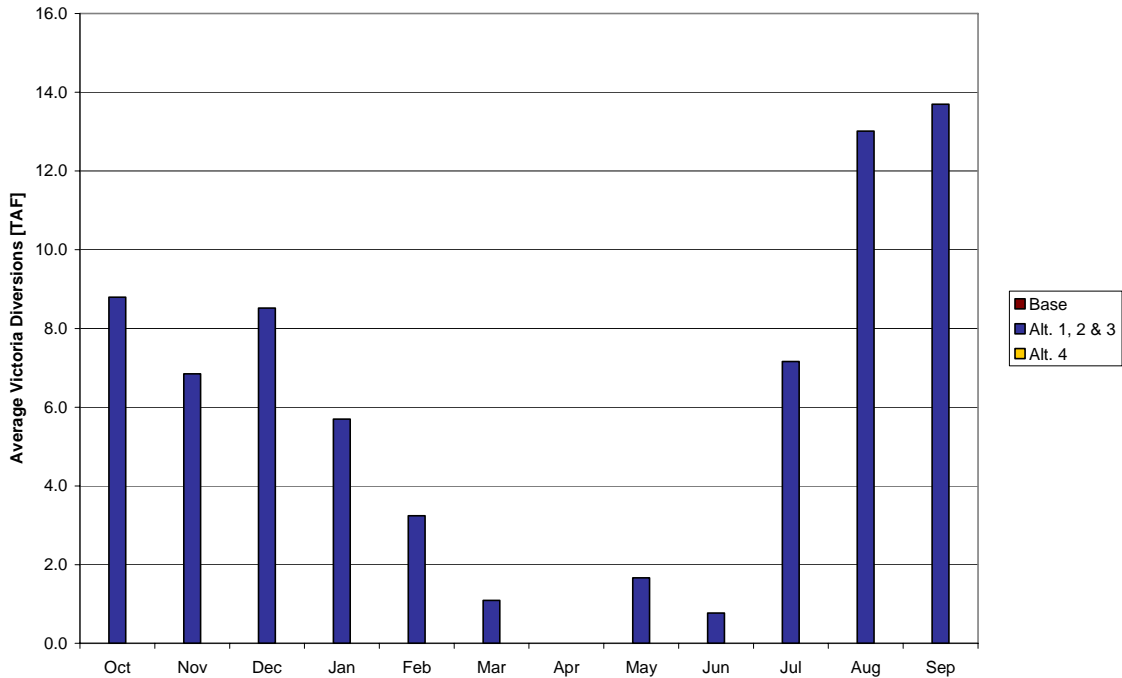


Appendix C-5 CCWD Operations Modeling

AIP: Victoria Diversions - Existing Conditions

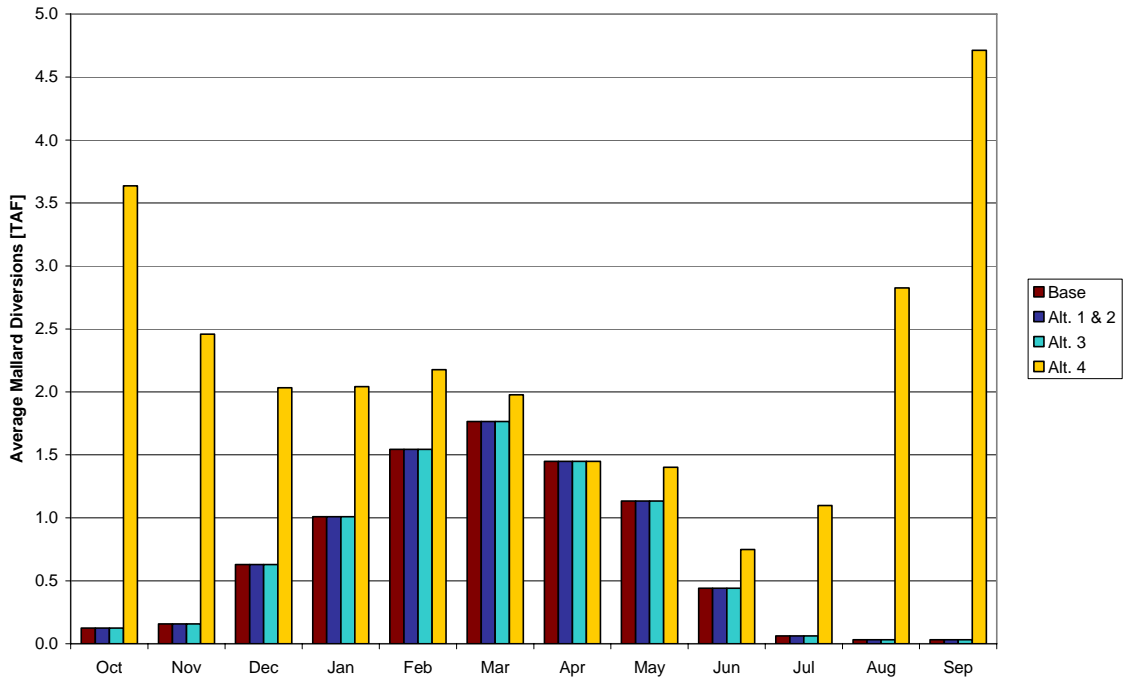


AIP: Victoria Diversions - Future Conditions

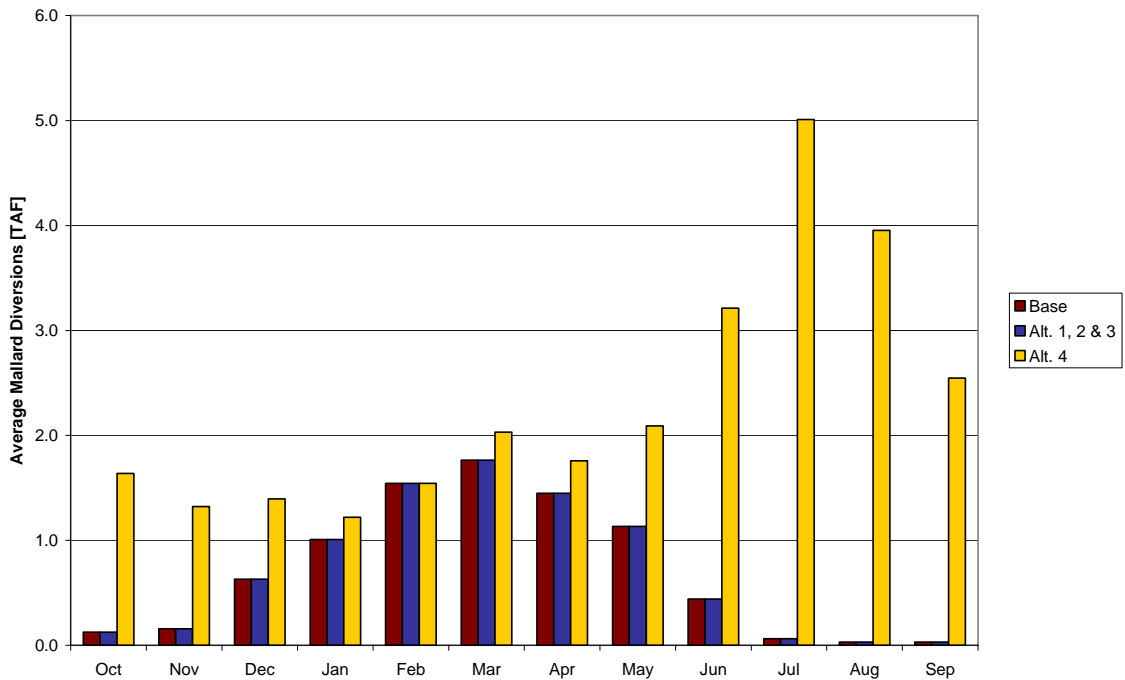


Appendix C-5 CCWD Operations Modeling

AIP: Mallard Diversions - Existing Conditions

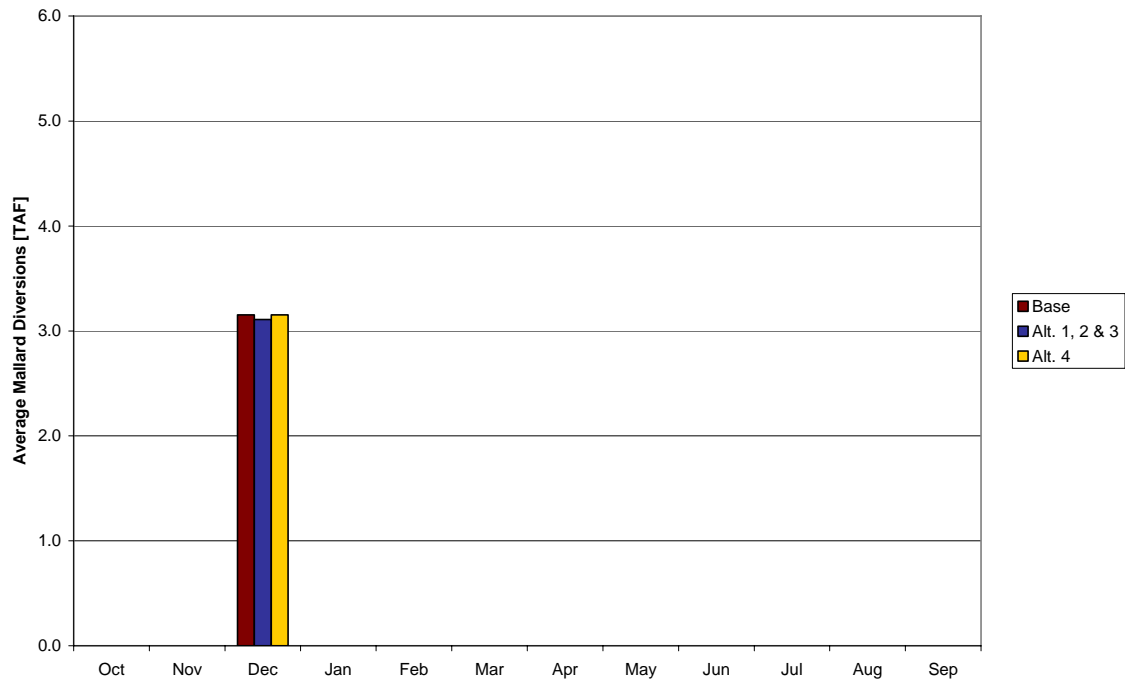


AIP: Mallard Diversions - Future Conditions



Appendix C-5 CCWD Operations Modeling

AIP: Freeport Diversions - Future Conditions



Appendix C-5 CCWD Operations Modeling

Average Monthly Diversion by Intake							
Average Total CCWD Diversions [in thousand acre-feet (TAF)]							
Month	Existing Conditions				Future Conditions		
	Base Case	Alt. 1 & 2	Alt. 3	Alt. 4	Base Case	Alt. 1, 2 & 3	Alt. 4
Oct	6.2	8.1	8.0	8.1	7.5	9.7	6.6
Nov	6.2	7.6	7.6	6.7	7.5	8.2	6.3
Dec	11.3	11.1	11.1	11.2	15.6	15.5	15.6
Jan	9.0	7.4	7.4	8.0	10.0	9.3	8.8
Feb	11.7	8.6	8.5	11.1	14.4	10.3	13.5
Mar	11.9	9.4	9.8	11.1	14.9	11.5	13.8
Apr	3.5	2.4	2.5	2.9	4.2	3.2	3.8
May	12.0	11.9	12.0	12.0	14.9	15.0	15.6
Jun	22.8	21.4	21.3	22.7	27.2	25.8	29.6
Jul	19.6	18.1	17.8	19.3	23.4	21.9	26.9
Aug	14.1	17.1	17.1	15.4	17.2	20.4	19.5
Sep	6.8	12.5	12.5	9.5	9.0	15.3	9.0
Totals*	135.0	135.6	135.8	137.9	165.9	166.3	169.0

Source: CCWD Operational Modeling (see Appendix C-5 for additional detail)

* The minor differences in average annual diversion between the base, Alternatives 1 & 2, and Alternative 3 are caused by differences in reservoir storage at the end of the study period and differences in evaporation from the reservoir due to differing storage levels throughout the study period. These three alternatives meet the same service area demand. Alternative 4 includes an additional 20% diversion for all water treated with desalination, to account for the desalination waste stream.

Average Monthly Diversion by Intake							
Average Rock Slough Diversions [TAF]							
Month	Existing Conditions				Future Conditions		
	Base Case	Alt. 1 & 2	Alt. 3	Alt. 4	Base Case	Alt. 1, 2 & 3	Alt. 4
Oct	0.3	0.1	0.1	0.0	1.0	0.2	0.7
Nov	0.5	0.4	0.4	0.5	0.6	0.4	0.6
Dec	1.6	0.8	0.3	1.6	0.3	0.1	0.3
Jan	0.6	0.1	0.1	0.3	1.5	0.6	1.2
Feb	1.9	0.6	0.3	1.4	2.2	1.1	1.9
Mar	1.1	0.5	0.4	1.0	1.8	1.0	1.6
Apr	0.2	0.1	0.1	0.1	0.5	0.2	0.3
May	0.0	0.0	0.0	0.0	0.2	0.3	0.0
Jun	10.0	9.3	8.8	9.6	14.1	13.4	13.9
Jul	4.7	2.8	1.5	3.9	6.5	3.2	5.5
Aug	1.3	1.7	0.5	1.2	4.4	2.3	4.2
Sep	1.1	0.1	0.0	0.7	4.6	1.0	3.6
Totals*	23.3	16.6	12.7	20.3	37.8	23.9	33.7

Source: CCWD Operational Modeling (see Appendix C-5 for additional detail)

Appendix C-5 CCWD Operations Modeling

Average Monthly Diversion by Intake Average Old River Intake Diversions [TAF]							
Month	Existing Conditions				Future Conditions		
	Base Case	Alt. 1 & 2	Alt. 3	Alt. 4	Base Case	Alt. 1, 2 & 3	Alt. 4
Oct	5.8	1.5	1.5	4.4	6.4	0.6	4.3
Nov	5.5	1.0	1.0	3.8	6.7	0.8	4.4
Dec	9.1	2.9	3.3	7.6	11.4	3.1	10.7
Jan	7.4	2.4	2.4	5.6	7.4	2.1	6.4
Feb	8.2	4.1	4.0	7.6	10.6	4.5	10.0
Mar	8.9	6.4	6.9	8.1	11.4	7.6	10.1
Apr	1.9	0.9	0.9	1.4	2.3	1.6	1.8
May	10.9	9.2	9.3	10.6	13.6	11.9	13.4
Jun	12.3	10.6	10.7	12.3	12.6	11.2	12.5
Jul	14.9	9.1	9.8	14.2	16.8	11.4	16.4
Aug	12.8	2.5	3.6	11.4	12.7	5.1	11.4
Sep	5.7	0.4	0.4	4.1	4.5	0.5	2.8
Totals*	103.3	51.0	53.8	91.0	116.5	60.4	104.4

Source: CCWD Operational Modeling (see Appendix C-5 for additional detail)

Average Monthly Diversion by Intake Average Victoria Canal Intake Diversions [TAF]							
Month	Existing Conditions				Future Conditions		
	Base Case	Alt. 1 & 2	Alt. 3	Alt. 4	Base Case	Alt. 1, 2 & 3	Alt. 4
Oct	0.0	6.3	6.3	0.0	0.0	8.8	0.0
Nov	0.0	6.1	6.1	0.0	0.0	6.8	0.0
Dec	0.0	6.8	6.9	0.0	0.0	8.5	0.0
Jan	0.0	3.9	3.9	0.0	0.0	5.7	0.0
Feb	0.0	2.4	2.6	0.0	0.0	3.2	0.0
Mar	0.0	0.7	0.7	0.0	0.0	1.1	0.0
Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0
May	0.0	1.6	1.6	0.0	0.0	1.7	0.0
Jun	0.0	1.1	1.5	0.0	0.0	0.8	0.0
Jul	0.0	6.1	6.5	0.0	0.0	7.2	0.0
Aug	0.0	12.8	13.0	0.0	0.0	13.0	0.0
Sep	0.0	12.0	12.0	0.0	0.0	13.7	0.0
Totals*	0.0	59.7	60.9	0.0	0.0	70.5	0.0

Source: CCWD Operational Modeling (see Appendix C-5 for additional detail)

Appendix C-5 CCWD Operations Modeling

Average Monthly Diversion by Intake Average Mallard Slough Intake Diversions [TAF]							
Month	Existing Conditions				Future Conditions		
	Base Case	Alt. 1 & 2	Alt. 3	Alt. 4	Base Case	Alt. 1, 2 & 3	Alt. 4
Oct	0.1	0.1	0.1	3.6	0.1	0.1	1.6
Nov	0.2	0.2	0.2	2.5	0.2	0.2	1.3
Dec	0.6	0.6	0.6	2.0	0.6	0.6	1.4
Jan	1.0	1.0	1.0	2.0	1.0	1.0	1.2
Feb	1.5	1.5	1.5	2.2	1.5	1.5	1.5
Mar	1.8	1.8	1.8	2.0	1.8	1.8	2.0
Apr	1.4	1.4	1.4	1.4	1.4	1.4	1.8
May	1.1	1.1	1.1	1.4	1.1	1.1	2.1
Jun	0.4	0.4	0.4	0.7	0.4	0.4	3.2
Jul	0.1	0.1	0.1	1.1	0.1	0.1	5.0
Aug	0.0	0.0	0.0	2.8	0.0	0.0	4.0
Sep	0.0	0.0	0.0	4.7	0.0	0.0	2.5
Totals*	8.4	8.4	8.4	26.6	8.4	8.4	27.7
Source: CCWD Operational Modeling (see Appendix C-5 for additional detail)							

Average Monthly Diversion by Intake Average Freeport Intertie Diversions [TAF]							
Month	Existing Conditions				Future Conditions		
	Base Case	Alt. 1 & 2	Alt. 3	Alt. 4	Base Case	Alt. 1, 2 & 3	Alt. 4
Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nov	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dec	0.0	0.0	0.0	0.0	3.2	3.1	3.2
Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0
May	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aug	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Totals*	0.0	0.0	0.0	0.0	3.2	3.1	3.2
Source: CCWD Operational Modeling (see Appendix C-5 for additional detail)							

Appendix C-5 CCWD Operations Modeling

Mallard Diversions by Water Type Alternative 4, Existing Conditions (in TAF)							
Year	Existing Base			Existing Alt. 4 minus Base			
	CVP	LV	Mallard	CVP	LV	Mallard	Diversions Requiring Expanded Mallard Water Right or Added Point of Diversion for CVP Water*
1922	129	12	11.5	-26	-3	5.1	2.9
1923	108	12	11.5	-8	0	12.1	5.2
1924	94	0	0	-44	0	45.6	19.4
1925	153	6	9.2	-13	0	17.2	5.4
1926	132	8	4.6	-14	0	17.2	5.4
1927	107	42	11.5	-10	0	12.1	5.2
1928	97	22	11.5	-4	-6	12.1	5.1
1929	113	0	0	-11	0	25.6	9.1
1930	121	8	2.3	-5	0	20.6	8.7
1931	129	0	0	-59	0	45.6	19.4
1932	166	0	2.3	-5	0	14.6	5.2
1933	106	14	0	-8	2	23.2	8.9
1934	132	11	0	-40	0	23.2	8.9
1935	144	36	6.9	-11	0	17.2	5.3
1936	98	30	9.2	-16	0	17.2	5.3
1937	120	8	9.2	-18	0	19.6	7.8
1938	97	28	16.1	-6	-6	12.1	5.2
1939	103	0	0	-7	0	17.5	10.3
1940	118	18	9.2	-12	0	17.2	5.3
1941	90	31	13.8	-4	-10	12.1	5.2
1942	92	20	16.1	-10	-4	17	9.9
1943	101	8	13.8	-4	0	5.1	2.9
1944	101	0	4.6	-8	0	25.7	11.4
1945	122	22	6.9	-21	0	18.1	8.7
1946	119	12	9.2	-19	0	18.1	8.7
1947	120	0	2.3	-11	0	23.2	8.9
1948	116	26	4.6	-18	-14	25.7	9.1
1949	117	8	4.6	-15	0	25.6	9.1
1950	119	25	6.9	-18	-2	23.2	9.0

Appendix C-5 CCWD Operations Modeling

Mallard Diversions by Water Type Alternative 4, Existing Conditions (in TAF)							
Year	Existing Base			Existing Alt. 4 minus Base			
	CVP	LV	Mallard	CVP	LV	Mallard	Diversions Requiring Expanded Mallard Water Right or Added Point of Diversion for CVP Water*
1951	104	26	16.1	-5	-10	12.1	7.5
1952	97	30	16.1	-2	-6	7	2.3
1953	98	8	16.1	-2	0	5.1	2.9
1954	100	16	11.5	-6	-5	14.6	5.2
1955	119	9	2.3	-15	0	18.1	8.6
1956	100	35	16.1	-6	-8	12.1	5.1
1957	105	4	9.2	-4	-2	10.2	3.2
1958	102	22	13.8	-3	-6	7	2.4
1959	107	0	6.9	-8	0	13.6	6.6
1960	99	0	2.3	-22	0	32	13.0
1961	126	0	4.6	-24	0	23	11.2
1962	144	14	4.6	-13	0	20.6	8.8
1963	109	29	13.8	-8	-3	9.3	4.7
1964	89	21	2.3	-9	-6	24.5	14.8
1965	117	23	13.8	-16	0	12.1	5.2
1966	95	18	6.9	-8	-6	18.1	8.7
1967	103	32	18.4	-4	-7	7	3.5
1968	102	0	9.2	-4	0	11.1	6.4
1969	102	34	13.8	-4	-7	7	2.4
1970	104	0	13.8	-1	0	5.1	2.9
1971	97	20	13.8	-5	-7	12.1	7.5
1972	105	4	13.8	-10	-4	23.2	13.5
1973	102	26	4.6	-6	-6	12.1	5.2
1974	91	30	11.5	-4	-7	12.1	5.2
1975	104	11	18.4	-8	-1	10.2	7.8
1976	91	0	11.5	-16	0	32.7	24.5
1977	132	0	0	-47	0	45.6	19.4
1978	139	36	0	-10	0	14.6	5.1
1979	99	19	11.5	-18	0	23.2	11.3
1980	94	35	9.2	-4	-8	12.1	5.1

Appendix C-5 CCWD Operations Modeling

Mallard Diversions by Water Type Alternative 4, Existing Conditions (in TAF)							
Year	Existing Base			Existing Alt. 4 minus Base			
	CVP	LV	Mallard	CVP	LV	Mallard	Diversions Requiring Expanded Mallard Water Right or Added Point of Diversion for CVP Water*
1981	102	8	11.5	-13	-1	27	12.7
1982	106	45	6.9	-3	-14	7	2.4
1983	99	7	16.1	0	0	0	0.1
1984	105	0	27.6	-2	0	5.1	6.3
1985	88	22	18.4	-10	-7	24.5	18.2
1986	131	12	4.6	-13	-5	17	7.6
1987	98	8	9.2	-11	0	25.6	11.4
1988	135	0	2.3	-6	0	20.6	8.7
1989	113	8	0	-26	0	25.6	9.1
1990	142	0	4.6	-43	0	31.9	13.0
1991	145	0	0	-30	0	35	13.7
1992	145	0	4.6	-21	0	25.7	9.1
1993	140	35	2.3	-10	0	14.6	5.1
1994	90	0	0	-15	0	31.9	13.0

*Alternative 4 would relocate CCWD diversions from Rock Slough and Old River intakes to Mallard Slough intake for desalination. This shifting of pumping location would require either expanding existing Mallard Slough Water Rights or adding Mallard Slough as a point of diversion for CVP water. Alternative 4 would increase total annual average diversions about 3 TAF/yr on average due to losses in the desalination process. The remaining increases at Mallard Slough would be offset by decreases in use of Rock Slough and Old River intakes.

Appendix C-5 CCWD Operations Modeling

Mallard Diversions by Water Year Alternative 4, Future Conditions (in TAF)							
Year	Future Base			Existing Alt. 4 minus Base			
	CVP	LV	Mallard	CVP	LV	Mallard	Diversions Requiring Expanded Mallard Water Right or Added Point of Diversion for CVP Water*
1922	160	19	11.5	-29	-8	12.3	5.2
1923	133	9	11.5	-12	0	18.1	8.7
1924	130	0	0	-40	0	45.7	19.4
1925	189	10	9.2	-14	0	20.4	6.2
1926	171	11	4.6	-11	0	17.3	5.5
1927	128	33	11.5	-3	-9	12.3	5.2
1928	124	27	11.5	-4	-8	12.3	5.2
1929	137	0	0	-20	0	25.8	9.1
1930	149	10	2.3	-18	0	23.1	8.8
1931	174	0	0	-43	0	45.7	19.4
1932	200	0	2.3	-3	0	14.8	5.3
1933	128	21	0	-10	0	23.1	8.8
1934	178	0	0	-37	0	25.8	9.1
1935	175	36	6.9	-11	0	17.3	5.4
1936	138	22	9.2	-13	0	14.8	5.3
1937	135	21	9.2	-12	-3	17.3	5.5
1938	121	31	16.1	-7	-5	9.5	6.0
1939	128	0	0	-18	0	32.1	13.0
1940	143	28	9.2	-18	-6	23.1	8.9
1941	137	21	13.8	-10	0	12.3	6.5
1942	109	24	16.1	-4	-5	12.3	6.5
1943	113	26	13.8	-9	-4	14.8	5.3
1944	140	0	4.6	-13	0	25.8	9.1
1945	145	30	6.9	-24	0	23.1	8.9
1946	141	9	9.2	-17	0	18.1	8.7
1947	147	9	2.3	-20	0	25.8	9.1
1948	155	17	4.6	-15	-9	25.8	9.1
1949	141	10	4.6	-15	0	25.8	9.1
1950	173	17	6.9	-20	-6	17.3	5.5

Appendix C-5 CCWD Operations Modeling

Mallard Diversions by Water Year Alternative 4, Future Conditions (in TAF)							
Year	Future Base			Existing Alt. 4 minus Base			
	CVP	LV	Mallard	CVP	LV	Mallard	Diversions Requiring Expanded Mallard Water Right or Added Point of Diversion for CVP Water*
1951	132	20	16.1	-5	-2	12.3	5.2
1952	122	36	16.1	-8	-7	5.3	4.2
1953	136	0	16.1	-2	0	12.3	6.5
1954	121	24	11.5	-5	-7	14.8	5.3
1955	155	9	2.3	-15	0	18.1	8.6
1956	119	38	16.1	-4	-8	12.3	6.5
1957	122	21	9.2	-11	-2	17.3	5.5
1958	118	30	13.8	-8	-4	12.3	6.5
1959	131	8	6.9	-11	-4	20.6	8.8
1960	153	0	2.3	-22	0	25.8	9.1
1961	133	9	4.6	-26	0	32.1	13.1
1962	156	32	4.6	-15	0	15.3	8.2
1963	155	13	13.8	-7	0	12.3	5.2
1964	113	21	2.3	-6	-3	18.1	8.6
1965	154	20	13.8	-16	0	12.3	5.2
1966	117	21	6.9	-7	-5	18.1	8.7
1967	134	32	18.4	-16	0	7.8	6.6
1968	131	0	9.2	-4	0	18.1	8.6
1969	134	32	13.8	-10	-1	4.2	1.9
1970	122	10	13.8	-5	-1	12.3	5.2
1971	130	13	13.8	-7	-4	12.3	5.2
1972	121	10	13.8	-11	0	25.8	12.7
1973	144	23	4.6	-21	0	14.8	5.3
1974	124	24	11.5	-4	-7	12.3	5.2
1975	115	27	18.4	-8	-7	17.3	9.0
1976	119	0	11.5	-30	0	36.8	23.5
1977	177	0	0	-41	0	45.7	19.4
1978	174	39	0	-10	-1	14.8	5.2
1979	124	21	11.5	-12	-5	23.1	10.2
1980	139	23	9.2	-4	-6	7	2.3

Appendix C-5 CCWD Operations Modeling

Mallard Diversions by Water Year Alternative 4, Future Conditions (in TAF)							
Year	Future Base			Existing Alt. 4 minus Base			
	CVP	LV	Mallard	CVP	LV	Mallard	Diversions Requiring Expanded Mallard Water Right or Added Point of Diversion for CVP Water*
1981	129	0	11.5	-19	0	29.4	16.6
1982	130	54	6.9	-4	-10	0	0.1
1983	124	9	16.1	0	0	0	0.1
1984	131	0	27.6	-2	0	12.3	13.4
1985	111	21	18.4	-12	-2	24.4	17.3
1986	153	40	4.6	-11	-13	14.7	6.4
1987	118	10	9.2	-12	0	25.8	9.2
1988	158	0	2.3	-4	0	20.6	8.7
1989	156	10	0	-42	0	25.8	9.1
1990	174	0	4.6	-25	0	32.1	13.0
1991	180	0	0	-29	0	35.2	13.7
1992	179	0	4.6	-21	0	25.8	9.1
1993	170	35	2.3	-8	0	14.8	5.2
1994	113	9	0	-19	0	28	11.3

*Alternative 4 would relocate CCWD diversions from Rock Slough and Old River intakes to Mallard Slough intake for desalination. This shifting of pumping location would require either expanding existing Mallard Slough Water Rights or adding Mallard Slough as a point of diversion for CVP water. Alternative 4 would increase total annual average diversions about 3 TAF/yr on average due to losses in the desalination process. The remaining increases at Mallard Slough would be offset by decreases in use of Rock Slough and Old River intakes.