Appendix D: Contractors Water Needs Assessments

Division: **Delta/Cross Valley**

Water Needs Assessment

District: 202235

Date: 12/27/2017

Agricultural Water Supply

ALPAUGH ID

Contractor's Water Supply Sources and Quantities (acre-feet)

Timeframe 1	Surface Water Supply: Reference Delivery 2	USBR Total Deliv/Max 3	SWP 4	Local 5	Local Source	Trsfr/Rtrn /Recycle In 7	Trsfr/ Out 8	Groundwater Supply: District 9	Private 10	Safe Yield 11	Recharge 12	Total Supply 13
2016	100	0	0	0	6	0	0	9,555	0		0	9,555
2050	100	100	0	0		0	0	0	0		0	100

Contractor's Agricultural Water Demands

Maximum ProductiveAcres= 5,160

Timeframe 1	Crop Water Requirement (acre-feet) 15	District Irrig. Efficiency (%) 16	Effective Precip (acre-feet) 17	Reference Effective Precip (acre-ft) 18	Calculated Net Crop Water Req (acre-feet) 19	USBR Net Crop Water Req (acre-feet) 20	Average Irrigated Acres (acres) 21	Reference Irrigated Acres (acres) 22	Calculated FDR (AF/acre) 23	USBR FDR (AF/acre) 24	Conveyance Loss (acre-feet) 25	Total Ag Demand (acre-feet) 26
2016	7,514	78	416	1,458	9,100	13,073	3,781	3,781	2.41	3.37	455	9,555
2050	18,810	85	2,009	2,009	19,766	18,810	5,160	5,160	3.83	3.43	1,139	20,905

Contractor's M&I Water Demands

Timeframe 1	Residential Water Demand: Population 28	Per Capita Demand (gpcd) 29	Total Demand (acre-feet) 30	Nonresidential Water Demand: Industrial (acre-feet) 31	Comm/ Institt (acre-feet) 32	Total Demand (acre-feet) 33	Loss: Unacc /Distr (acre-feet) 34	Ref Urban Per Capita Dmd (gpcd) 35	Calc Urban Per Capita Dmd (gpcd) 36	Total M&I Demand (acre-feet) 37	Total Ag+ M&I Dmd (acre-feet) 38	Unmet Demand (acre-feet) 39
2016						0	0			0	9,555	0
2050						0	0			0	20,905	20,805

* Represents Maximum Contract Amount

Notes:

DRAFT

Division: **Delta/Cross Valley**

Water Needs Assessment

District: 202245 Date: 1/3/2018

Agricultural Water Supply

ATWELL ISLAND WD

Contractor's Water Supply Sources and Quantities (acre-feet)

Timeframe 1	Surface Water Supply: Reference Delivery 2	USBR Total Deliv/Max 3	SWP 4	Local 5	Local Source	Trsfr/Rtrn /Recycle In 7	Trsfr/ Out 8	Groundwater Supply: District 9	Private 10	Safe Yield 11	Recharge 12	Total Supply 13
2015 - 2016	50	0	0	0	6	0	0	214	6,809		0	7,023
2050	50	50	0	0		0	0	0	0		0	50

Contractor's Agricultural Water Demands

Maximum ProductiveAcres= 7,059

Timeframe 1	Crop Water Requirement (acre-feet) 15	District Irrig. Efficiency (%) 16	Effective Precip (acre-feet) 17	Reference Effective Precip (acre-ft) 18	Calculated Net Crop Water Req (acre-feet) 19	USBR Net Crop Water Req (acre-feet) 20	Average Irrigated Acres (acres) 21	Reference Irrigated Acres (acres) 22	Calculated FDR (AF/acre) 23	USBR FDR (AF/acre) 24	Conveyance Loss (acre-feet) 25	Total Ag Demand (acre-feet) 26
2015 - 2016	6,004	75	495	468	7,345	5,103	7,023	7,023	1.05	5.3	146	7,491
2050	6,130	80	3,284	3,284	3,558	3,558	7,059	7,059	0.50	0.50	754	4,312

Contractor's M&I Water Demands

Timeframe 1	Residential Water Demand: Population 28	Per Capita Demand (gpcd) 29	Total Demand (acre-feet) 30	Nonresidential Water Demand: Industrial (acre-feet) 31	Comm/ Institt (acre-feet) 32	Total Demand (acre-feet) 33	Loss: Unacc /Distr (acre-feet) 34	Ref Urban Per Capita Dmd (gpcd) 35	Calc Urban Per Capita Dmd (gpcd) 36	Total M&I Demand (acre-feet) 37	Total Ag+ M&I Dmd (acre-feet) 38	Unmet Demand (acre-feet) 39
						0	0			0	7,491	468
						0	0			0	4,312	4,262

Represents Maximum Contract Amount

Notes: As a result of limited data, water usage was supplied by the District in 2016 and crop data from SCCAO for 2015 was used.

DRAFT v1.1

Division: **Delta/Cross Valley**

Water Needs Assessment

District: 202325

Date: 10/31/2017

M&I Water Supply

FRESNO, COUNTY OF

Contractor's Water Supply Sources and Quantities (acre-feet)

Timeframe 1	Surface Water Supply: Reference Delivery 2		USBR Total Deliv/Max 3	SWP 4	Local 5	Local Source	Trsfr/Rtrn /Recycle In 7	Trsfr/ Out 8	Groundwater Supply: District 9	Private 10	Safe Yield 11	Recharge 12	Total Supply 13
2016	3,000	*	3,000	0	0	6	0	0	0	0		0	3,000
2050	3,000	*	3,000	0	0		0	0	0	0		0	3,000

Contractor's Agricultural Water Demands

Maximum ProductiveAcres=

Timeframe 1	Crop Water Requirement (acre-feet) 15	District Irrig. Efficiency (%) 16	Effective Precip (acre-feet) 17	Reference Effective Precip (acre-ft) 18	Calculated Net Crop Water Req (acre-feet) 19	USBR Net Crop Water Req (acre-feet) 20	Average Irrigated Acres (acres) 21	Reference Irrigated Acres (acres) 22	Calculated FDR (AF/acre) 23	USBR FDR (AF/acre) 24	Conveyance Loss (acre-feet) 25	Total Ag Demand (acre-feet) 26
2016												
2050												

Contractor's M&I Water Demands

Timeframe 1	Residential Water Demand: Population 28	Per Capita Demand (gpcd) 29	Total Demand (acre-feet) 30	Nonresidential Water Demand: Industrial (acre-feet) 31	Comm/ Institt (acre-feet) 32	Total Demand (acre-feet) 33	Loss: Unacc /Distr (acre-feet) 34	Ref Urban Per Capita Dmd (gpcd) 35	Calc Urban Per Capita Dmd (gpcd) 36	Total M&I Demand (acre-feet) 37	Total Ag+ M&I Dmd (acre-feet) 38	Unmet Demand (acre-feet) 39
2016	729	195.9	160	0	362	362	39	257.0	686.6	561	561	-2,439
2050	9,800	166.6	1,829	0	930	930	99	166.0	260.4	2,858	2,858	-142

* Represents Maximum Contract Amount

Notes:

DRAFT V3

Division: **Delta/Cross Valley**

Water Needs Assessment

District: 202350

Date: 1/17/2018

Agricultural Water Supply

HILLS VALLEY ID

Contractor's Water Supply Sources and Quantities (acre-feet)

Timeframe 1	Surface Water Supply: Reference Delivery 2		USBR Total Deliv/Max 3	SWP 4	Local 5	Local Source	Trsfr/Rtrn /Recycle In 7	Trsfr/ Out 8	Groundwater Supply: District 9	Private 10	Safe Yield 11	Recharge 12	Total Supply 13
2016	3,346	*	814	0	0	6	3,720	0	0	4,590		0	9,124
2050	3,346	*	3,346	0	0		1,250	0	0	0		0	4,596

Contractor's Agricultural Water Demands

Maximum ProductiveAcres= 4,314

Timeframe 1	Crop Water Requirement (acre-feet) 15	District Irrig. Efficiency (%) 16	Effective Precip (acre-feet) 17	Reference Effective Precip (acre-ft) 18	Calculated Net Crop Water Req (acre-feet) 19	USBR Net Crop Water Req (acre-feet) 20	Average Irrigated Acres (acres) 21	Reference Irrigated Acres (acres) 22	Calculated FDR (AF/acre) 23	USBR FDR (AF/acre) 24	Conveyance Loss (acre-feet) 25	Total Ag Demand (acre-feet) 26
2016	9,396	85	1,800	1,704	8,936	10,316	3,407	3,407	2.62	3.20	470	9,406
2050	13,063	95	2,157	2,157	11,480	13,063	4,314	4,314	2.66	3.20	521	12,001

Contractor's M&I Water Demands

Timeframe 1	Residential Water Demand: Population 28	Per Capita Demand (gpcd) 29	Total Demand (acre-feet) 30	Nonresidential Water Demand: Industrial (acre-feet) 31	Comm/ Institt (acre-feet) 32	Total Demand (acre-feet) 33	Loss: Unacc /Distr (acre-feet) 34	Ref Urban Per Capita Dmd (gpcd) 35	Calc Urban Per Capita Dmd (gpcd) 36	Total M&I Demand (acre-feet) 37	Total Ag+ M&I Dmd (acre-feet) 38	Unmet Demand (acre-feet) 39
2016						0	0			0	9,406	282
2050						0	0			0	12,001	7,405

* Represents Maximum Contract Amount

Notes: This contractor has two Friant Division CVP contracts (Contract No. 14-06-200-191E and I75r-4309E) with Class 1 allocations for up to 250 AF and 1,000, respectively. As Class 1 allocations are considered a dependable water supply as opposed to Class 2 allocations, they have been included as “transfers-in” in Column 7 for the benchmark year 2050. Also the contractor has a partial assignment (Contract No. 14-06-200-1911E) for 250 AF of Class 1 water.

DRAFT v3.1

Division: **Delta/Cross Valley**

Water Needs Assessment

District: 202385

Date: 11/13/2017

Agricultural Water Supply

KERN-TULARE WD

Contractor's Water Supply Sources and Quantities (acre-feet)

Timeframe 1	Surface Water Supply: Reference Delivery 2		USBR Total Deliv/Max 3	SWP 4	Local 5	Local Source 6	Trsfr/Rtrn /Recycle In 7	Trsfr/ Out 8	Groundwater Supply: District 9	Private 10	Safe Yield 11	Recharge 12	Total Supply 13
2014 Mgmt. Plan	53,300	*	15,320	0	6,685		0	0	0	24,667		0	46,672
2050	53,300	*	53,300	0	0		0	0	0	0		0	53,300

Contractor's Agricultural Water Demands

Maximum ProductiveAcres= 20,259

Timeframe 1	Crop Water Requirement (acre-feet) 15	District Irrig. Efficiency (%) 16	Effective Precip (acre-feet) 17	Reference Effective Precip (acre-ft) 18	Calculated Net Crop Water Req (acre-feet) 19	USBR Net Crop Water Req (acre-feet) 20	Average Irrigated Acres (acres) 21	Reference Irrigated Acres (acres) 22	Calculated FDR (AF/acre) 23	USBR FDR (AF/acre) 24	Conveyance Loss (acre-feet) 25	Total Ag Demand (acre-feet) 26
2014	46,672	95	15	5,222	49,113	56,997	17,406	20,259	2.82	3.73	0	49,113
2050	65,745	95	6,078	6,078	65,745	65,745	20,259	20,259	3.10	3.73	0	62,807

Contractor's M&I Water Demands

Timeframe 1	Residential Water Demand: Population 28	Per Capita Demand (gpcd) 29	Total Demand (acre-feet) 30	Nonresidential Water Demand: Industrial (acre-feet) 31	Comm/ Institt (acre-feet) 32	Total Demand (acre-feet) 33	Loss: Unacc /Distr (acre-feet) 34	Ref Urban Per Capita Dmd (gpcd) 35	Calc Urban Per Capita Dmd (gpcd) 36	Total M&I Demand (acre-feet) 37	Total Ag+ M&I Dmd (acre-feet) 38	Unmet Demand (acre-feet) 39
2014						0	0			0	49,113	2,441
2050						0	0			0	62,807	9,507

* Represents Maximum Contract Amount

Notes: 14-06-200-8601A water service contract for 40,000 AF
14-06-200-8367A assignment contract for 13,300 AF

This contractor has a Friant Division CVP contract (Contract No. I1r-1460A) with a Class 2 allocation for up to 5,000 AF. As Class 2 water supplies are considered undependable and furnished only they can be made available by Reclamation after all Class 1 allocations have been met, this amount is not included as a source of water supply for the benchmark year 2050. Maximum productive acres includes contracts 14-06-200-8601A and 14-06-20-8367A combined acreage.

DRAFT v3.2

Division: **Delta/Cross Valley**

Water Needs Assessment

District: 202445 Date: 1/3/2018

M&I Water Supply

LINDSAY, CITY OF

Contractor's Water Supply Sources and Quantities (acre-feet)

Timeframe 1	Surface Water Supply: Reference Delivery 2		USBR Total Deliv/Max 3	SWP 4	Local 5	Local Source	Trsfr/Rtrn /Recycle In 7	Trsfr/ Out 8	Groundwater Supply: District 9	Private 10	Safe Yield 11	Recharge 12	Total Supply 13
2016	50	*	1,324	0	0	6	0	0	1,110	0		0	2,434
2050	50	*	50	0	0		2,500	0	0	0		0	2,550

Contractor's Agricultural Water Demands

Maximum ProductiveAcres= 0

Timeframe 1	Crop Water Requirement (acre-feet) 15	District Irrig. Efficiency (%) 16	Effective Precip (acre-feet) 17	Reference Effective Precip (acre-ft) 18	Calculated Net Crop Water Req (acre-feet) 19	USBR Net Crop Water Req (acre-feet) 20	Average Irrigated Acres (acres) 21	Reference Irrigated Acres (acres) 22	Calculated FDR (AF/acre) 23	USBR FDR (AF/acre) 24	Conveyance Loss (acre-feet) 25	Total Ag Demand (acre-feet) 26
2016												
2050												

Contractor's M&I Water Demands

Timeframe 1	Residential Water Demand: Population 28	Per Capita Demand (gpcd) 29	Total Demand (acre-feet) 30	Nonresidential Water Demand: Industrial (acre-feet) 31	Comm/ Institt (acre-feet) 32	Total Demand (acre-feet) 33	Loss: Unacc /Distr (acre-feet) 34	Ref Urban Per Capita Dmd (gpcd) 35	Calc Urban Per Capita Dmd (gpcd) 36	Total M&I Demand (acre-feet) 37	Total Ag+ M&I Dmd (acre-feet) 38	Unmet Demand (acre-feet) 39
2016	14,200	253.9	4,038	186	329	515	0	257.0	286.2	4,553	4,553	2,119
2050	22,029	166.0	4,095	289	510	799	0	166.0	198.3	4,894	4,894	2,344

* Represents Maximum Contract Amount

Notes: This contractor has a Friant Division CVP contract (Contract No. 5-07-20-W0428) with a Class 1 allocation for up to 2,500 AF. As Class 1 allocations are considered a dependable water supply as opposed to Class 2 allocations, they have been included as “transfers-in” in Column 7 for the benchmark year 2050.

DRAFT 2.1

Division: **Delta/Cross Valley**

Water Needs Assessment

District: 202460 Date: 1/8/2018

Agricultural Water Supply

LOWER TULE RIVER ID

Contractor's Water Supply Sources and Quantities (acre-feet)

Timeframe 1	Surface Water Supply: Reference Delivery 2	USBR Total Deliv/Max 3	SWP 4	Local 5	Local Source	Trsfr/Rtrn /Recycle In 7	Trsfr/ Out 8	Groundwater Supply: District 9	Private 10	Safe Yield 11	Recharge 12	Total Supply 13
2010 Mgmt. Plan	31,102	171,428	0	89,215	6	0	8,111	0	192,184		23,044	421,672
2050	31,102	31,102	0	70,000	Pre-1914	61,200	0	0	0		0	162,302

Contractor's Agricultural Water Demands

Maximum ProductiveAcres= 103,086

Timeframe 1	Crop Water Requirement (acre-feet) 15	District Irrig. Efficiency (%) 16	Effective Precip (acre-feet) 17	Reference Effective Precip (acre-ft) 18	Calculated Net Crop Water Req (acre-feet) 19	USBR Net Crop Water Req (acre-feet) 20	Average Irrigated Acres (acres) 21	Reference Irrigated Acres (acres) 22	Calculated FDR (AF/acre) 23	USBR FDR (AF/acre) 24	Conveyance Loss (acre-feet) 25	Total Ag Demand (acre-feet) 26
2010	367,038	95	1	36,602	386,355	440,362	111,938	103,086	3.45	5.12	105,259	491,614
2050	414,443	95	32,761	32,761	401,771	414,443	103,086	103,086	3.90	5.12	7,542	409,313

Contractor's M&I Water Demands

Timeframe 1	Residential Water Demand: Population 28	Per Capita Demand (gpcd) 29	Total Demand (acre-feet) 30	Nonresidential Water Demand: Industrial (acre-feet) 31	Comm/ Institt (acre-feet) 32	Total Demand (acre-feet) 33	Loss: Unacc /Distr (acre-feet) 34	Ref Urban Per Capita Dmd (gpcd) 35	Calc Urban Per Capita Dmd (gpcd) 36	Total M&I Demand (acre-feet) 37	Total Ag+ M&I Dmd (acre-feet) 38	Unmet Demand (acre-feet) 39
2010						0	0			0	491,614	69,942
2050						0	0			0	409,313	247,011

* Represents Maximum Contract Amount

Notes: This contractor has a Friant Division CVP contract (Contract No. 175r-2771D) with Class 1 and Class 2 allocations for up to 61,200 AF and 238,000 AF, respectively. As Class 1 allocations are considered a dependable water supply as opposed to Class 2 allocations, they have been included as "transfers-in" in Column 7 for the benchmark year 2050.

DRAFT v3

Division: **Delta/Cross Valley**

Water Needs Assessment

District: 202500

Agricultural Water Supply

PIXLEY ID

Contractor's Water Supply Sources and Quantities (acre-feet)

Timeframe 1	Surface Water Supply: Reference Delivery 2		USBR Total Deliv/Max 3	SWP 4	Local 5	Local Source	Trsfr/Rtrn /Recycle In 7	Trsfr/ Out 8	Groundwater Supply: District 9	Private 10	Safe Yield 11	Recharge 12	Total Supply 13
2008 Mgmt. Plan	31,102	*	0	0	1,000	6	30,296	0	0	117,333		0	148,629
2050	31,102	*	31,102	0	0		0	0	0	0		0	31,102

Contractor's Agricultural Water Demands

Maximum ProductiveAcres= 69,571

Timeframe 1	Crop Water Requirement (acre-feet) 15	District Irrig. Efficiency (%) 16	Effective Precip (acre-feet) 17	Reference Effective Precip (acre-ft) 18	Calculated Net Crop Water Req (acre-feet) 19	USBR Net Crop Water Req (acre-feet) 20	Average Irrigated Acres (acres) 21	Reference Irrigated Acres (acres) 22	Calculated FDR (AF/acre) 23	USBR FDR (AF/acre) 24	Conveyance Loss (acre-feet) 25	Total Ag Demand (acre-feet) 26
2008	158,160	95	16,962	16,962	148,629	158,160	53,274	69,571	2.79	3.5	0	148,629
2050	262,411	95	21,104	21,104	254,007	262,411	69,571	69,571	3.65	4.12	0	254,007

Contractor's M&I Water Demands

Timeframe 1	Residential Water Demand: Population 28	Per Capita Demand (gpcd) 29	Total Demand (acre-feet) 30	Nonresidential Water Demand: Industrial (acre-feet) 31	Comm/ Institt (acre-feet) 32	Total Demand (acre-feet) 33	Loss: Unacc /Distr (acre-feet) 34	Ref Urban Per Capita Dmd (gpcd) 35	Calc Urban Per Capita Dmd (gpcd) 36	Total M&I Demand (acre-feet) 37	Total Ag+ M&I Dmd (acre-feet) 38	Unmet Demand (acre-feet) 39
2008						0	0			0	148,629	0
2050						0	0			0	254,007	222,905

* Represents Maximum Contract Amount

Notes:

DRAFT v1.1

Division: **Delta/Cross Valley**

Water Needs Assessment

District: 202540

Date: 1/4/2018

Agricultural Water Supply

SAUCELITO ID

Contractor's Water Supply Sources and Quantities (acre-feet)

Timeframe 1	Surface Water Supply: Reference Delivery 2		USBR Total Deliv/Max 3	SWP 4	Local 5	Local Source	Trsfr/Rtrn /Recycle In 7	Trsfr/ Out 8	Groundwater Supply: District 9	Private 10	Safe Yield 11	Recharge 12	Total Supply 13
2016	100	*	19,219	0	2,623	6	5,210	0	0	40,413		0	67,465
2050	100	*	100	0	0		21,500	0	0	0		0	21,600

Contractor's Agricultural Water Demands

Maximum ProductiveAcres= 19,737

Timeframe 1	Crop Water Requirement (acre-feet) 15	District Irrig. Efficiency (%) 16	Effective Precip (acre-feet) 17	Reference Effective Precip (acre-ft) 18	Calculated Net Crop Water Req (acre-feet) 19	USBR Net Crop Water Req (acre-feet) 20	Average Irrigated Acres (acres) 21	Reference Irrigated Acres (acres) 22	Calculated FDR (AF/acre) 23	USBR FDR (AF/acre) 24	Conveyance Loss (acre-feet) 25	Total Ag Demand (acre-feet) 26
2016	59,850	85	2,965	6,969	66,924	25,465	18,425	18,425	3.63	3.07	541	67,465
2050	57,076	90	7,494	7,494	55,091	57,076	19,737	19,737	2.79	3.05	802	55,893

Contractor's M&I Water Demands

Timeframe 1	Residential Water Demand: Population 28	Per Capita Demand (gpcd) 29	Total Demand (acre-feet) 30	Nonresidential Water Demand: Industrial (acre-feet) 31	Comm/ Institt (acre-feet) 32	Total Demand (acre-feet) 33	Loss: Unacc /Distr (acre-feet) 34	Ref Urban Per Capita Dmd (gpcd) 35	Calc Urban Per Capita Dmd (gpcd) 36	Total M&I Demand (acre-feet) 37	Total Ag+ M&I Dmd (acre-feet) 38	Unmet Demand (acre-feet) 39
2016						0	0			0	67,465	0
2050						0	0			0	55,893	34,293

* Represents Maximum Contract Amount

Notes: This contractor has a Friant Division CVP contract (Contract No. I75r-2771D) with Class 1 and Class 2 allocations for up to 21,200 AF and 32,800 AF, respectively also a partial assignment for 300 AF (Contract No. 14-06-200-7430E). As Class 1 allocations are considered a dependable water supply as opposed to Class 2 allocations, they have been included as "transfers-in" in Column 7 for the benchmark year 2050.

DRAFT v2.3

Division: **Delta/Cross Valley**

Water Needs Assessment

District: 202570

Date: 12/21/2017

Agricultural Water Supply

STONE CORRAL ID

Contractor's Water Supply Sources and Quantities (acre-feet)

Timeframe 1	Surface Water Supply: Reference Delivery 2	USBR Total Deliv/Max 3	SWP 4	Local 5	Local Source	Trsfr/Rtrn /Recycle In 7	Trsfr/ Out 8	Groundwater Supply: District 9	Private 10	Safe Yield 11	Recharge 12	Total Supply 13
2016	950	6,171	0	0	6	1,120	424	0	8,651		0	15,518
2050	950	950	0	0		10,000	0	0	0		0	10,950

Contractor's Agricultural Water Demands

Maximum ProductiveAcres= 5,904

Timeframe 1	Crop Water Requirement (acre-feet) 15	District Irrig. Efficiency (%) 16	Effective Precip (acre-feet) 17	Reference Effective Precip (acre-ft) 18	Calculated Net Crop Water Req (acre-feet) 19	USBR Net Crop Water Req (acre-feet) 20	Average Irrigated Acres (acres) 21	Reference Irrigated Acres (acres) 22	Calculated FDR (AF/acre) 23	USBR FDR (AF/acre) 24	Conveyance Loss (acre-feet) 25	Total Ag Demand (acre-feet) 26
2016	14,046	85	750	1,107	15,642	16,450	5,160	5,160	3.03	2.6	300	15,942
2050	18,832	90	1,256	1,256	19,529	19,529	5,904	5,904	3.31	2.96	343	19,872

Contractor's M&I Water Demands

Timeframe 1	Residential Water Demand: Population 28	Per Capita Demand (gpcd) 29	Total Demand (acre-feet) 30	Nonresidential Water Demand: Industrial (acre-feet) 31	Comm/ Institt (acre-feet) 32	Total Demand (acre-feet) 33	Loss: Unacc /Distr (acre-feet) 34	Ref Urban Per Capita Dmd (gpcd) 35	Calc Urban Per Capita Dmd (gpcd) 36	Total M&I Demand (acre-feet) 37	Total Ag+ M&I Dmd (acre-feet) 38	Unmet Demand (acre-feet) 39
2016						0	0			0	15,942	424
2050						0	0			0	19,872	8,922

* Represents Maximum Contract Amount

Notes:

This contractor has a Friant Division CVP contract (Contract No. 175r-2555D) with a Class 1 allocation for up to 10,000 AF. As Class 1 allocations are considered a dependable water supply as opposed to Class 2 allocations, they have been included as “transfers-in” in Column 7 for the benchmark year 2050.

DRAFT V2

Division: **Delta/Cross Valley**

Water Needs Assessment

District: 202575

Date: 12/20/2017

M&I Water Supply

STRATHMORE PUD

Contractor's Water Supply Sources and Quantities (acre-feet)

Timeframe 1	Surface Water Supply: Reference Delivery 2	USBR Total Deliv/Max 3	SWP 4	Local 5	Local Source	Trsfr/Rtrn /Recycle In 7	Trsfr/ Out 8	Groundwater Supply: District 9	Private 10	Safe Yield 11	Recharge 12	Total Supply 13
2016	400	0	0	0	6	275	0	0	0		0	275
2050	400	400	0	0		0	0	0	0		0	400

Contractor's Agricultural Water Demands

Maximum ProductiveAcres= 0

Timeframe 1	Crop Water Requirement (acre-feet) 15	District Irrig. Efficiency (%) 16	Effective Precip (acre-feet) 17	Reference Effective Precip (acre-ft) 18	Calculated Net Crop Water Req (acre-feet) 19	USBR Net Crop Water Req (acre-feet) 20	Average Irrigated Acres (acres) 21	Reference Irrigated Acres (acres) 22	Calculated FDR (AF/acre) 23	USBR FDR (AF/acre) 24	Conveyance Loss (acre-feet) 25	Total Ag Demand (acre-feet) 26
2016												
2050												

Contractor's M&I Water Demands

Timeframe 1	Residential Water Demand: Population 28	Per Capita Demand (gpcd) 29	Total Demand (acre-feet) 30	Nonresidential Water Demand: Industrial (acre-feet) 31	Comm/ Institt (acre-feet) 32	Total Demand (acre-feet) 33	Loss: Unacc /Distr (acre-feet) 34	Ref Urban Per Capita Dmd (gpcd) 35	Calc Urban Per Capita Dmd (gpcd) 36	Total M&I Demand (acre-feet) 37	Total Ag+ M&I Dmd (acre-feet) 38	Unmet Demand (acre-feet) 39
2016	2,684	109.8	330	70	28	98	2	257.0	143.0	430	430	155
2050	3,765	166.0	700	98	39	137	3	166.0	199.2	840	840	440

* Represents Maximum Contract Amount

Notes:

DRAFT

Division: **Delta/Cross Valley**

Water Needs Assessment

District: 290008

Date: 1/3/2018

M&I Water Supply

STYRO-TEK

Contractor's Water Supply Sources and Quantities (acre-feet)

Timeframe 1	Surface Water Supply: Reference Delivery 2	USBR Total Deliv/Max 3	SWP 4	Local 5	Local Source	Trsfr/Rtrn /Recycle In 7	Trsfr/ Out 8	Groundwater Supply: District 9	Private 10	Safe Yield 11	Recharge 12	Total Supply 13
2016	45	0	0	0	6	45	0	0	0	0	0	45
2050	45	45	0	0			0	0	0	0	0	45

Contractor's Agricultural Water Demands

Maximum ProductiveAcres= 0

Timeframe 1	Crop Water Requirement (acre-feet) 15	District Irrig. Efficiency (%) 16	Effective Precip (acre-feet) 17	Reference Effective Precip (acre-ft) 18	Calculated Net Crop Water Req (acre-feet) 19	USBR Net Crop Water Req (acre-feet) 20	Average Irrigated Acres (acres) 21	Reference Irrigated Acres (acres) 22	Calculated FDR (AF/acre) 23	USBR FDR (AF/acre) 24	Conveyance Loss (acre-feet) 25	Total Ag Demand (acre-feet) 26
2016												
2050												

Contractor's M&I Water Demands

Timeframe 1	Residential Water Demand: Population 28	Per Capita Demand (gpcd) 29	Total Demand (acre-feet) 30	Nonresidential Water Demand: Industrial (acre-feet) 31	Comm/ Institt (acre-feet) 32	Total Demand (acre-feet) 33	Loss: Unacc /Distr (acre-feet) 34	Ref Urban Per Capita Dmd (gpcd) 35	Calc Urban Per Capita Dmd (gpcd) 36	Total M&I Demand (acre-feet) 37	Total Ag+ M&I Dmd (acre-feet) 38	Unmet Demand (acre-feet) 39
2016	0	0.0	0	45	0	45	0	0.0	0.0	45	45	0
2050	0	0.0	0	45	0	45	0	0.0	0.0	45	45	0

* Represents Maximum Contract Amount

Notes:

In 2016 CVC supply was unavailable to the Contractor. Water was purchased for use from Friant Division CVP contractor as a transfer in. This does not apply to 2050.

DRAFT v1.1

Division: **Delta/Cross Valley**

Water Needs Assessment

District: 202600

Date: 1/4/2018

Agricultural Water Supply

TRI-VALLEY WD

Contractor's Water Supply Sources and Quantities (acre-feet)

Timeframe 1	Surface Water Supply: Reference Delivery 2	USBR Total Deliv/Max 3	SWP 4	Local 5	Local Source	Trsfr/Rtrn /Recycle In 7	Trsfr/ Out 8	Groundwater Supply: District 9	Private 10	Safe Yield 11	Recharge 12	Total Supply 13
2014-2016	1,142	215	0	0	6	730	0	0	1,551		0	2,496
2050	1,142 *	1,142	0	0		400	0	0	0		0	1,542

Contractor's Agricultural Water Demands

Maximum ProductiveAcres= 2,284

Timeframe 1	Crop Water Requirement (acre-feet) 15	District Irrig. Efficiency (%) 16	Effective Precip (acre-feet) 17	Reference Effective Precip (acre-ft) 18	Calculated Net Crop Water Req (acre-feet) 19	USBR Net Crop Water Req (acre-feet) 20	Average Irrigated Acres (acres) 21	Reference Irrigated Acres (acres) 22	Calculated FDR (AF/acre) 23	USBR FDR (AF/acre) 24	Conveyance Loss (acre-feet) 25	Total Ag Demand (acre-feet) 26
2014-2016	2,607	85	515	368	2,461	6,502	973	1,840	2.53	3.53	35	2,496
2050	7,317	90	457	457	7,622	7,622	2,284	2,284	3.34	3.34	732	8,354

Contractor's M&I Water Demands

Timeframe 1	Residential Water Demand: Population 28	Per Capita Demand (gpcd) 29	Total Demand (acre-feet) 30	Nonresidential Water Demand: Industrial (acre-feet) 31	Comm/ Institt (acre-feet) 32	Total Demand (acre-feet) 33	Loss: Unacc /Distr (acre-feet) 34	Ref Urban Per Capita Dmd (gpcd) 35	Calc Urban Per Capita Dmd (gpcd) 36	Total M&I Demand (acre-feet) 37	Total Ag+ M&I Dmd (acre-feet) 38	Unmet Demand (acre-feet) 39
2014-2016						0	0			0	2,496	0
2050						0	0			0	8,354	6,812

* Represents Maximum Contract Amount

Notes: As a result of limited data, water usage was supplied by the Contractor in 2016 and crop data from SCCAO for 2014 was used.

This contractor has a Friant Division CVP contract (Contract No. I75r-2508e) with Class 1 allocation for up to 400 AF. As Class 1 allocations are considered a dependable water supply as opposed to Class 2 allocations, they have been included as “transfers-in” in Column 7 for the benchmark year 2050.

DRAFT v3.1

Division: **Delta/Cross Valley**

Water Needs Assessment

District: 290009

Date: 12/21/2017

M&I Water Supply

VISALIA, CITY OF

Contractor's Water Supply Sources and Quantities (acre-feet)

Timeframe 1	Surface Water Supply: Reference Delivery 2	USBR Total Deliv/Max 3	SWP 4	Local 5	Local Source	Trsfr/Rtrn /Recycle In 7	Trsfr/ Out 8	Groundwater Supply: District 9	Private 10	Safe Yield 11	Recharge 12	Total Supply 13
2016	300	0	0	0	6	0	0	24,853	0		0	24,853
2050	300	300	0	0		0	0	0	0		0	300

Contractor's Agricultural Water Demands

Maximum ProductiveAcres= 0

Timeframe 1	Crop Water Requirement (acre-feet) 15	District Irrig. Efficiency (%) 16	Effective Precip (acre-feet) 17	Reference Effective Precip (acre-ft) 18	Calculated Net Crop Water Req (acre-feet) 19	USBR Net Crop Water Req (acre-feet) 20	Average Irrigated Acres (acres) 21	Reference Irrigated Acres (acres) 22	Calculated FDR (AF/acre) 23	USBR FDR (AF/acre) 24	Conveyance Loss (acre-feet) 25	Total Ag Demand (acre-feet) 26
2016												
2050												

Contractor's M&I Water Demands

Timeframe 1	Residential Water Demand: Population 28	Per Capita Demand (gpcd) 29	Total Demand (acre-feet) 30	Nonresidential Water Demand: Industrial (acre-feet) 31	Comm/ Institt (acre-feet) 32	Total Demand (acre-feet) 33	Loss: Unacc /Distr (acre-feet) 34	Ref Urban Per Capita Dmd (gpcd) 35	Calc Urban Per Capita Dmd (gpcd) 36	Total M&I Demand (acre-feet) 37	Total Ag+ M&I Dmd (acre-feet) 38	Unmet Demand (acre-feet) 39
2016	130,231	115.3	16,817	2,367	4,526	6,893	1,144	257.0	170.4	24,854	24,854	1
2050	208,931	166.0	38,842	3,797	7,261	11,058	1,835	166.0	221.1	51,735	51,735	51,435

* Represents Maximum Contract Amount

Notes:

DRAFT