

1 **Appendix 8A**

2 **Power Model Documentation**

3 Appendix 8A provides information about the assumptions, modeling tools, and  
 4 methods used for the Coordinated Long-Term Operation of the Central Valley  
 5 Project (CVP) and State Water Project (SWP) Environmental Impact Statement  
 6 (EIS) Environmental Consequences. The appendix also provides model result  
 7 processing and interpretation methods used for the impacts analysis and  
 8 descriptions. Additional information pertaining to the development of the  
 9 analytical tools and the use of input data from other models, is also provided.

10 Appendix 8A is organized into two main sections that are briefly described below:

- 11 • Section 8A.1: Power Modeling Methodology and Assumptions
  - 12 – The power impacts analysis uses the LTGen and SWP Power spreadsheet
  - 13 models to assess and quantify effects of the alternatives on the long-term
  - 14 operations and the environment. This section provides information about
  - 15 the modeling approach, equations, and assumptions used by the two power
  - 16 models.
- 17 • Section 8A.2: Power Modeling Results
  - 18 – This section provides a detailed description of the model simulation output
  - 19 formats used in the analysis and interpretation of modeling results for the
  - 20 alternatives impacts assessment.

21 **8A.1 Power Model Methodology and Assumptions**

22 This section summarizes the power modeling methodology used for the EIS No  
 23 Action Alternative, Second Basis of Comparison, and other alternatives. There  
 24 are two spreadsheet tools that are used to estimate average annual peaking power  
 25 capacity, energy generation, and energy use at CVP and SWP facilities:

- 26 • LTGen (LTGen\_BenchmarkBO\_04-01-2015): analyzes CVP facilities
- 27 • SWP\_Power (SWP\_Gen\_J604\_02-23-2015): analyzes SWP facilities

28 The sections below describe the equations that are used to estimate energy use,  
 29 generation, peaking power capacity, and transmission losses.

30 **8A.1.1 Energy Use at Pumping Facilities**

31 Energy use at CVP and SWP pumping facilities are determined using empirical  
 32 energy factors provided by the Western Area Power Authority (Western) for CVP  
 33 facilities and by the Department of Water Resources (DWR) Operations Control  
 34 Office (OCO) for SWP facilities. For these facilities, energy use is estimated  
 35 using the following equation:

1 Energy Use (in Megawatt-hour [MWh]) =

2  $Energy\_Factor * (Q \text{ in cubic feet/second})$

3 The tools also estimate whether user-defined off-peak energy use targets can be  
4 met. For example, if it is desired that 90 percent of required pumping energy use  
5 during a particular month occur during off-peak hours, the tools determine  
6 whether this is feasible given power and flow capacity limits.

### 7 **8A.1.2 Energy Generation**

8 Energy generation at CVP and SWP power facilities are determined using  
9 empirical energy factors provided by Western for CVP facilities and by the OCO  
10 for SWP facilities. For these facilities, energy generation is estimated using the  
11 following equation:

12 Energy Generation (MWh) =

13  $Energy\_Factor * (Q \text{ in cubic feet/second})$

### 14 **8A.1.3 Energy Generation**

15 Energy generation is limited on a monthly basis by an average power capacity at  
16 each facility. At any one time, power capacity can be higher or lower, depending  
17 upon reservoir levels and scheduled water releases. Power production in general  
18 will be high during summer months when reservoir levels are higher and water is  
19 being released to meet delivery requirements, and power operations are optimized  
20 to provide the greatest benefit to taxpayers.

21 Average monthly power capacity for CVP facilities is estimated using empirical  
22 equations provided by Western. The approach used to estimate average monthly  
23 power capacity for SWP facilities assumes that peak capacity is a function of total  
24 head and average power plant flow. The average monthly power capacity is  
25 estimated using the following equation:

26 Power Capacity (in megawatt [MW]) =

27  $(0.7457 \text{ kilowatt/horsepower}) * (62.4 \text{ pounds/cubic foot}) * (1 \text{ MW}/1000 \text{ kilowatt}) *$   
28  $(1 \text{ horsepower}/(550 \text{ pounds per foot/second})) * (1/\eta) * (\text{Head in feet}) * (\text{Average}$   
29  $\text{Power Plant Flow Rate in cubic feet/second})$

### 30 **8A.1.4 Transmission Losses**

31 Transmission losses are estimated to estimate energy use and generation at load  
32 center, as a percentage of energy use or generation.

### 33 **8A.1.5 Assumptions Tables**

34 Tables 8A.1 and 8A.2 show assumptions that are used to estimate energy use and  
35 transmission losses at CVP and SWP pumping facilities. Tables 8A.3 and 8A.4  
36 show assumptions that are used to estimate energy generation, power capacity,  
37 and transmission losses at CVP and SWP generation facilities.

1    **8A.1.6    Flow and Storage Inputs**

2    CalSim II results are used as flow and storage inputs for the power models for  
3    each alternative, using the entire October 1921 to September 2003 simulation  
4    period. Climate change and sea-level rise are inherently represented through  
5    CalSim II outputs. As mentioned in Appendix 5A, the CalSim II simulations do  
6    not consider future climate change adaptation that may manage the CVP and SWP  
7    system in a different manner than today to reduce climate impacts.

8    **8A.2      Power Model Results**

9    Power Model results were processed individually for each alternative simulation.  
10   Tables for total monthly generation capacity, energy generation, energy use, and  
11   net energy use for both the CVP and SWP are presented in this section in the  
12   following order:

- 13   • B.1. CVP Total Generating Capacity
- 14   • B.2. CVP Total Energy Generation
- 15   • B.3. CVP Total Energy Use
- 16   • B.4. CVP Net Energy Generation
- 17   • B.5. SWP Total Generating Capacity
- 18   • B.6. SWP Total Energy Generation
- 19   • B.7. SWP Total Energy Use
- 20   • B.8. SWP Net Energy Generation

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1 **B.1. CVP Total Generating Capacity**

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**Table B-1-1. CVP Total Capacity, Monthly Capacity**

**No Action Alternative**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,688	1,743	1,810	1,854	1,883	1,895	1,877	1,848	1,785	1,749	1,670	1,647
20%	1,638	1,724	1,772	1,829	1,858	1,872	1,842	1,806	1,719	1,695	1,623	1,615
30%	1,600	1,694	1,744	1,802	1,837	1,842	1,825	1,782	1,671	1,623	1,585	1,599
40%	1,579	1,635	1,710	1,776	1,811	1,812	1,793	1,736	1,634	1,583	1,545	1,553
50%	1,550	1,611	1,681	1,732	1,778	1,782	1,757	1,711	1,607	1,543	1,510	1,516
60%	1,529	1,556	1,622	1,700	1,749	1,752	1,725	1,652	1,564	1,504	1,481	1,473
70%	1,465	1,519	1,588	1,661	1,712	1,714	1,685	1,618	1,524	1,457	1,433	1,432
80%	1,354	1,428	1,521	1,584	1,666	1,675	1,637	1,578	1,440	1,353	1,332	1,342
90%	1,137	1,293	1,403	1,455	1,476	1,502	1,454	1,384	1,203	1,120	1,085	1,103
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	1,476	1,542	1,612	1,685	1,727	1,734	1,705	1,648	1,542	1,468	1,429	1,430
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	1,621	1,696	1,761	1,824	1,860	1,877	1,859	1,831	1,753	1,717	1,645	1,628
Above Normal (16%)	1,465	1,580	1,676	1,762	1,814	1,814	1,793	1,741	1,633	1,590	1,545	1,541
Below Normal (13%)	1,530	1,580	1,669	1,719	1,764	1,757	1,728	1,665	1,559	1,491	1,478	1,483
Dry (24%)	1,441	1,491	1,556	1,637	1,690	1,709	1,680	1,607	1,508	1,434	1,418	1,433
Critical (15%)	1,180	1,221	1,264	1,348	1,374	1,355	1,299	1,205	1,025	832	808	825

**Alternative 1**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,767	1,807	1,854	1,883	1,910	1,941	1,942	1,899	1,825	1,767	1,751	1,733
20%	1,731	1,790	1,829	1,862	1,891	1,923	1,907	1,856	1,739	1,676	1,669	1,677
30%	1,687	1,768	1,809	1,849	1,876	1,899	1,890	1,808	1,695	1,620	1,608	1,647
40%	1,645	1,727	1,787	1,832	1,865	1,879	1,857	1,770	1,654	1,590	1,571	1,574
50%	1,583	1,686	1,750	1,811	1,846	1,855	1,832	1,745	1,612	1,550	1,541	1,544
60%	1,561	1,629	1,710	1,768	1,811	1,831	1,788	1,701	1,584	1,509	1,487	1,488
70%	1,482	1,568	1,650	1,714	1,771	1,786	1,760	1,669	1,550	1,471	1,439	1,448
80%	1,379	1,450	1,576	1,644	1,719	1,747	1,713	1,616	1,490	1,391	1,387	1,375
90%	1,197	1,360	1,427	1,535	1,569	1,552	1,523	1,429	1,335	1,222	1,183	1,134
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	1,532	1,606	1,675	1,735	1,780	1,795	1,772	1,693	1,574	1,492	1,469	1,474
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	1,679	1,756	1,811	1,857	1,892	1,926	1,920	1,871	1,773	1,717	1,694	1,701
Above Normal (16%)	1,522	1,652	1,747	1,810	1,856	1,877	1,860	1,778	1,653	1,584	1,567	1,564
Below Normal (13%)	1,606	1,671	1,754	1,792	1,830	1,838	1,807	1,718	1,593	1,496	1,481	1,487
Dry (24%)	1,476	1,536	1,607	1,689	1,746	1,771	1,746	1,652	1,533	1,463	1,445	1,456
Critical (15%)	1,250	1,290	1,342	1,416	1,466	1,419	1,366	1,262	1,106	948	902	904

**Alternative 1 minus No Action Alternative**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	78	64	44	29	27	46	65	50	39	18	81	86
20%	92	66	57	33	33	52	64	50	20	-19	46	62
30%	87	74	66	47	39	57	65	26	24	-3	23	48
40%	66	92	76	56	54	67	64	34	20	6	27	21
50%	32	76	69	78	68	73	74	35	5	7	30	28
60%	32	73	88	68	61	79	62	49	20	6	6	16
70%	17	49	62	53	59	72	75	50	27	14	7	16
80%	25	23	55	60	53	72	75	37	51	38	55	33
90%	60	67	25	80	93	50	68	46	132	102	97	31
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	56	64	62	50	53	61	66	45	32	24	40	45
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	58	60	50	33	32	50	60	40	20	0	48	73
Above Normal (16%)	56	72	70	48	42	63	67	36	20	-6	22	23
Below Normal (13%)	75	92	86	72	66	81	79	53	34	5	3	4
Dry (24%)	35	45	52	52	56	63	66	45	25	29	28	23
Critical (15%)	70	69	79	69	91	64	68	57	80	116	94	79

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Second Basis of Comparison and Alternative 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-1-2. CVP Total Capacity, Monthly Capacity**

**No Action Alternative**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,688	1,743	1,810	1,854	1,883	1,895	1,877	1,848	1,785	1,749	1,670	1,647
20%	1,638	1,724	1,772	1,829	1,858	1,872	1,842	1,806	1,719	1,695	1,623	1,615
30%	1,600	1,694	1,744	1,802	1,837	1,842	1,825	1,782	1,671	1,623	1,585	1,599
40%	1,579	1,635	1,710	1,776	1,811	1,812	1,793	1,736	1,634	1,583	1,545	1,553
50%	1,550	1,611	1,681	1,732	1,778	1,782	1,757	1,711	1,607	1,543	1,510	1,516
60%	1,529	1,556	1,622	1,700	1,749	1,752	1,725	1,652	1,564	1,504	1,481	1,473
70%	1,465	1,519	1,588	1,661	1,712	1,714	1,685	1,618	1,524	1,457	1,433	1,432
80%	1,354	1,428	1,521	1,584	1,666	1,675	1,637	1,578	1,440	1,353	1,332	1,342
90%	1,137	1,293	1,403	1,455	1,476	1,502	1,454	1,384	1,203	1,120	1,085	1,103
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	1,476	1,542	1,612	1,685	1,727	1,734	1,705	1,648	1,542	1,468	1,429	1,430
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	1,621	1,696	1,761	1,824	1,860	1,877	1,859	1,831	1,753	1,717	1,645	1,628
Above Normal (16%)	1,465	1,580	1,676	1,762	1,814	1,814	1,793	1,741	1,633	1,590	1,545	1,541
Below Normal (13%)	1,530	1,580	1,669	1,719	1,764	1,757	1,728	1,665	1,559	1,491	1,478	1,483
Dry (24%)	1,441	1,491	1,556	1,637	1,690	1,709	1,680	1,607	1,508	1,434	1,418	1,433
Critical (15%)	1,180	1,221	1,264	1,348	1,374	1,355	1,299	1,205	1,025	832	808	825

**Alternative 3**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,778	1,818	1,852	1,884	1,910	1,945	1,947	1,910	1,837	1,777	1,759	1,753
20%	1,749	1,789	1,828	1,860	1,894	1,930	1,930	1,883	1,766	1,692	1,687	1,696
30%	1,708	1,772	1,814	1,851	1,884	1,900	1,895	1,828	1,717	1,654	1,633	1,659
40%	1,663	1,741	1,781	1,838	1,866	1,882	1,849	1,777	1,670	1,601	1,604	1,600
50%	1,609	1,689	1,744	1,800	1,840	1,851	1,821	1,760	1,644	1,572	1,554	1,569
60%	1,579	1,639	1,695	1,748	1,797	1,814	1,781	1,711	1,603	1,542	1,511	1,510
70%	1,499	1,557	1,632	1,703	1,768	1,784	1,755	1,665	1,567	1,487	1,453	1,465
80%	1,394	1,457	1,570	1,624	1,708	1,738	1,707	1,620	1,506	1,408	1,378	1,372
90%	1,231	1,365	1,434	1,496	1,518	1,545	1,519	1,453	1,343	1,229	1,190	1,181
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	1,551	1,613	1,676	1,732	1,777	1,794	1,775	1,705	1,592	1,512	1,486	1,493
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	1,690	1,756	1,806	1,856	1,894	1,929	1,928	1,885	1,791	1,730	1,713	1,716
Above Normal (16%)	1,527	1,640	1,746	1,802	1,852	1,875	1,862	1,786	1,679	1,615	1,591	1,589
Below Normal (13%)	1,629	1,676	1,751	1,790	1,829	1,832	1,788	1,718	1,607	1,529	1,504	1,501
Dry (24%)	1,504	1,551	1,612	1,686	1,748	1,768	1,745	1,660	1,555	1,479	1,459	1,475
Critical (15%)	1,283	1,319	1,355	1,411	1,444	1,422	1,386	1,288	1,113	967	909	930

**Alternative 3 minus No Action Alternative**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	90	76	43	30	27	50	70	62	51	28	89	106
20%	111	65	55	31	36	58	88	77	46	-3	64	81
30%	109	79	70	49	47	57	70	46	46	32	48	60
40%	84	106	70	62	54	70	56	41	36	18	60	47
50%	58	78	63	67	62	68	63	49	37	29	44	53
60%	49	83	73	48	47	62	56	59	39	38	30	37
70%	34	38	44	42	56	69	71	47	43	31	20	33
80%	39	29	49	40	42	63	69	42	66	55	46	30
90%	94	72	31	41	42	42	64	70	140	109	104	78
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	75	71	64	47	50	61	69	56	50	44	57	64
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	69	60	45	32	34	52	68	54	37	13	68	88
Above Normal (16%)	61	60	70	40	38	62	69	45	45	25	45	48
Below Normal (13%)	99	97	82	70	65	75	60	54	49	39	26	18
Dry (24%)	63	61	57	49	58	59	66	53	46	45	42	42
Critical (15%)	103	98	92	64	70	67	87	83	88	136	101	104

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-1-3. CVP Total Capacity, Monthly Capacity**

**No Action Alternative**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,688	1,743	1,810	1,854	1,883	1,895	1,877	1,848	1,785	1,749	1,670	1,647
20%	1,638	1,724	1,772	1,829	1,858	1,872	1,842	1,806	1,719	1,695	1,623	1,615
30%	1,600	1,694	1,744	1,802	1,837	1,842	1,825	1,782	1,671	1,623	1,585	1,599
40%	1,579	1,635	1,710	1,776	1,811	1,812	1,793	1,736	1,634	1,583	1,545	1,553
50%	1,550	1,611	1,681	1,732	1,778	1,782	1,757	1,711	1,607	1,543	1,510	1,516
60%	1,529	1,556	1,622	1,700	1,749	1,752	1,725	1,652	1,564	1,504	1,481	1,473
70%	1,465	1,519	1,588	1,661	1,712	1,714	1,685	1,618	1,524	1,457	1,433	1,432
80%	1,354	1,428	1,521	1,584	1,666	1,675	1,637	1,578	1,440	1,353	1,332	1,342
90%	1,137	1,293	1,403	1,455	1,476	1,502	1,454	1,384	1,203	1,120	1,085	1,103
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	1,476	1,542	1,612	1,685	1,727	1,734	1,705	1,648	1,542	1,468	1,429	1,430
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	1,621	1,696	1,761	1,824	1,860	1,877	1,859	1,831	1,753	1,717	1,645	1,628
Above Normal (16%)	1,465	1,580	1,676	1,762	1,814	1,814	1,793	1,741	1,633	1,590	1,545	1,541
Below Normal (13%)	1,530	1,580	1,669	1,719	1,764	1,757	1,728	1,665	1,559	1,491	1,478	1,483
Dry (24%)	1,441	1,491	1,556	1,637	1,690	1,709	1,680	1,607	1,508	1,434	1,418	1,433
Critical (15%)	1,180	1,221	1,264	1,348	1,374	1,355	1,299	1,205	1,025	832	808	825

**Alternative 5**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,693	1,746	1,805	1,849	1,882	1,891	1,879	1,849	1,777	1,748	1,671	1,650
20%	1,635	1,721	1,772	1,829	1,859	1,867	1,843	1,806	1,725	1,690	1,624	1,612
30%	1,599	1,680	1,744	1,797	1,836	1,839	1,816	1,766	1,655	1,616	1,576	1,579
40%	1,566	1,638	1,710	1,767	1,801	1,801	1,785	1,732	1,619	1,571	1,538	1,547
50%	1,538	1,596	1,668	1,726	1,775	1,774	1,737	1,700	1,598	1,555	1,504	1,510
60%	1,516	1,552	1,617	1,687	1,737	1,733	1,701	1,643	1,537	1,484	1,460	1,457
70%	1,458	1,512	1,571	1,650	1,694	1,699	1,673	1,596	1,506	1,415	1,413	1,413
80%	1,327	1,399	1,504	1,574	1,644	1,639	1,616	1,532	1,439	1,324	1,302	1,310
90%	1,044	1,242	1,372	1,427	1,440	1,483	1,450	1,351	1,173	1,061	1,046	1,029
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	1,460	1,532	1,603	1,672	1,716	1,717	1,692	1,633	1,525	1,450	1,410	1,410
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	1,609	1,690	1,755	1,819	1,856	1,873	1,858	1,830	1,748	1,715	1,641	1,625
Above Normal (16%)	1,458	1,576	1,671	1,757	1,808	1,806	1,785	1,735	1,624	1,577	1,536	1,532
Below Normal (13%)	1,504	1,559	1,648	1,712	1,755	1,743	1,710	1,653	1,546	1,474	1,465	1,468
Dry (24%)	1,428	1,478	1,545	1,622	1,676	1,686	1,657	1,585	1,485	1,403	1,383	1,391
Critical (15%)	1,152	1,205	1,253	1,308	1,344	1,310	1,274	1,159	985	793	768	794

**Alternative 5 minus No Action Alternative**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	5	4	-5	-5	-1	-4	2	1	-8	0	0	3
20%	-4	-4	0	-1	1	-5	0	0	6	-5	1	-3
30%	-1	-14	1	-4	-1	-3	-9	-17	-16	-7	-9	-20
40%	-12	2	-1	-9	-10	-11	-8	-4	-15	-12	-6	-7
50%	-13	-15	-13	-6	-3	-8	-20	-11	-9	11	-7	-6
60%	-13	-4	-5	-13	-12	-19	-24	-9	-27	-20	-21	-15
70%	-7	-6	-17	-11	-19	-16	-11	-23	-17	-41	-20	-19
80%	-27	-29	-16	-10	-22	-36	-21	-46	-1	-29	-30	-31
90%	-93	-51	-31	-28	-36	-19	-5	-33	-29	-59	-39	-74
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-16	-11	-10	-13	-11	-16	-13	-15	-17	-18	-19	-19
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-12	-5	-6	-6	-4	-4	-2	-1	-6	-2	-4	-3
Above Normal (16%)	-7	-4	-5	-5	-5	-7	-8	-6	-10	-13	-9	-9
Below Normal (13%)	-26	-21	-21	-8	-9	-14	-17	-12	-13	-16	-13	-15
Dry (24%)	-14	-12	-10	-14	-14	-23	-23	-22	-23	-30	-35	-42
Critical (15%)	-28	-17	-11	-40	-30	-46	-24	-46	-40	-39	-40	-31

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-1-4. CVP Total Capacity, Monthly Capacity**

**Second Basis of Comparison**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,767	1,807	1,854	1,883	1,910	1,941	1,942	1,899	1,825	1,767	1,751	1,733
20%	1,731	1,790	1,829	1,862	1,891	1,923	1,907	1,856	1,739	1,676	1,669	1,677
30%	1,687	1,768	1,809	1,849	1,876	1,899	1,890	1,808	1,695	1,620	1,608	1,647
40%	1,645	1,727	1,787	1,832	1,865	1,879	1,857	1,770	1,654	1,590	1,571	1,574
50%	1,583	1,686	1,750	1,811	1,846	1,855	1,832	1,745	1,612	1,550	1,541	1,544
60%	1,561	1,629	1,710	1,768	1,811	1,831	1,788	1,701	1,584	1,509	1,487	1,488
70%	1,482	1,568	1,650	1,714	1,771	1,786	1,760	1,669	1,550	1,471	1,439	1,448
80%	1,379	1,450	1,576	1,644	1,719	1,747	1,713	1,616	1,490	1,391	1,387	1,375
90%	1,197	1,360	1,427	1,535	1,569	1,552	1,523	1,429	1,335	1,222	1,183	1,134
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	1,532	1,606	1,675	1,735	1,780	1,795	1,772	1,693	1,574	1,492	1,469	1,474
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	1,679	1,756	1,811	1,857	1,892	1,926	1,920	1,871	1,773	1,717	1,694	1,701
Above Normal (16%)	1,522	1,652	1,747	1,810	1,856	1,877	1,860	1,778	1,653	1,584	1,567	1,564
Below Normal (13%)	1,606	1,671	1,754	1,792	1,830	1,838	1,807	1,718	1,593	1,496	1,481	1,487
Dry (24%)	1,476	1,536	1,607	1,689	1,746	1,771	1,746	1,652	1,533	1,463	1,445	1,456
Critical (15%)	1,250	1,290	1,342	1,416	1,466	1,419	1,366	1,262	1,106	948	902	904

**No Action Alternative**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,688	1,743	1,810	1,854	1,883	1,895	1,877	1,848	1,785	1,749	1,670	1,647
20%	1,638	1,724	1,772	1,829	1,858	1,872	1,842	1,806	1,719	1,695	1,623	1,615
30%	1,600	1,694	1,744	1,802	1,837	1,842	1,825	1,782	1,671	1,623	1,585	1,599
40%	1,579	1,635	1,710	1,776	1,811	1,812	1,793	1,736	1,634	1,583	1,545	1,553
50%	1,550	1,611	1,681	1,732	1,778	1,782	1,757	1,711	1,607	1,543	1,510	1,516
60%	1,529	1,556	1,622	1,700	1,749	1,752	1,725	1,652	1,564	1,504	1,481	1,473
70%	1,465	1,519	1,588	1,661	1,712	1,714	1,685	1,618	1,524	1,457	1,433	1,432
80%	1,354	1,428	1,521	1,584	1,666	1,675	1,637	1,578	1,440	1,353	1,332	1,342
90%	1,137	1,293	1,403	1,455	1,476	1,502	1,454	1,384	1,203	1,120	1,085	1,103
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	1,476	1,542	1,612	1,685	1,727	1,734	1,705	1,648	1,542	1,468	1,429	1,430
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	1,621	1,696	1,761	1,824	1,860	1,877	1,859	1,831	1,753	1,717	1,645	1,628
Above Normal (16%)	1,465	1,580	1,676	1,762	1,814	1,814	1,793	1,741	1,633	1,590	1,545	1,541
Below Normal (13%)	1,530	1,580	1,669	1,719	1,764	1,757	1,728	1,665	1,559	1,491	1,478	1,483
Dry (24%)	1,441	1,491	1,556	1,637	1,690	1,709	1,680	1,607	1,508	1,434	1,418	1,433
Critical (15%)	1,180	1,221	1,264	1,348	1,374	1,355	1,299	1,205	1,025	832	808	825

**No Action Alternative minus Second Basis of Comparison**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-78	-64	-44	-29	-27	-46	-65	-50	-39	-18	-81	-86
20%	-92	-66	-57	-33	-33	-52	-64	-50	-20	19	-46	-62
30%	-87	-74	-66	-47	-39	-57	-65	-26	-24	3	-23	-48
40%	-66	-92	-76	-56	-54	-67	-64	-34	-20	-6	-27	-21
50%	-32	-76	-69	-78	-68	-73	-74	-35	-5	-7	-30	-28
60%	-32	-73	-88	-68	-61	-79	-62	-49	-20	-6	-6	-16
70%	-17	-49	-62	-53	-59	-72	-75	-50	-27	-14	-7	-16
80%	-25	-23	-55	-60	-53	-72	-75	-37	-51	-38	-55	-33
90%	-60	-67	-25	-80	-93	-50	-68	-46	-132	-102	-97	-31
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-56	-64	-62	-50	-53	-61	-66	-45	-32	-24	-40	-45
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-58	-60	-50	-33	-32	-50	-60	-40	-20	0	-48	-73
Above Normal (16%)	-56	-72	-70	-48	-42	-63	-67	-36	-20	6	-22	-23
Below Normal (13%)	-75	-92	-86	-72	-66	-81	-79	-53	-34	-5	-3	-4
Dry (24%)	-35	-45	-52	-52	-56	-63	-66	-45	-25	-29	-28	-23
Critical (15%)	-70	-69	-79	-69	-91	-64	-68	-57	-80	-116	-94	-79

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-1-5. CVP Total Capacity, Monthly Capacity**

**Second Basis of Comparison**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,767	1,807	1,854	1,883	1,910	1,941	1,942	1,899	1,825	1,767	1,751	1,733
20%	1,731	1,790	1,829	1,862	1,891	1,923	1,907	1,856	1,739	1,676	1,669	1,677
30%	1,687	1,768	1,809	1,849	1,876	1,899	1,890	1,808	1,695	1,620	1,608	1,647
40%	1,645	1,727	1,787	1,832	1,865	1,879	1,857	1,770	1,654	1,590	1,571	1,574
50%	1,583	1,686	1,750	1,811	1,846	1,855	1,832	1,745	1,612	1,550	1,541	1,544
60%	1,561	1,629	1,710	1,768	1,811	1,831	1,788	1,701	1,584	1,509	1,487	1,488
70%	1,482	1,568	1,650	1,714	1,771	1,786	1,760	1,669	1,550	1,471	1,439	1,448
80%	1,379	1,450	1,576	1,644	1,719	1,747	1,713	1,616	1,490	1,391	1,387	1,375
90%	1,197	1,360	1,427	1,535	1,569	1,552	1,523	1,429	1,335	1,222	1,183	1,134
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	1,532	1,606	1,675	1,735	1,780	1,795	1,772	1,693	1,574	1,492	1,469	1,474
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	1,679	1,756	1,811	1,857	1,892	1,926	1,920	1,871	1,773	1,717	1,694	1,701
Above Normal (16%)	1,522	1,652	1,747	1,810	1,856	1,877	1,860	1,778	1,653	1,584	1,567	1,564
Below Normal (13%)	1,606	1,671	1,754	1,792	1,830	1,838	1,807	1,718	1,593	1,496	1,481	1,487
Dry (24%)	1,476	1,536	1,607	1,689	1,746	1,771	1,746	1,652	1,533	1,463	1,445	1,456
Critical (15%)	1,250	1,290	1,342	1,416	1,466	1,419	1,366	1,262	1,106	948	902	904

**Alternative 3**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,778	1,818	1,852	1,884	1,910	1,945	1,947	1,910	1,837	1,777	1,759	1,753
20%	1,749	1,789	1,828	1,860	1,894	1,930	1,930	1,883	1,766	1,692	1,687	1,696
30%	1,708	1,772	1,814	1,851	1,884	1,900	1,895	1,828	1,717	1,654	1,633	1,659
40%	1,663	1,741	1,781	1,838	1,866	1,882	1,849	1,777	1,670	1,601	1,604	1,600
50%	1,609	1,689	1,744	1,800	1,840	1,851	1,821	1,760	1,644	1,572	1,554	1,569
60%	1,579	1,639	1,695	1,748	1,797	1,814	1,781	1,711	1,603	1,542	1,511	1,510
70%	1,499	1,557	1,632	1,703	1,768	1,784	1,755	1,665	1,567	1,487	1,453	1,465
80%	1,394	1,457	1,570	1,624	1,708	1,738	1,707	1,620	1,506	1,408	1,378	1,372
90%	1,231	1,365	1,434	1,496	1,518	1,545	1,519	1,453	1,343	1,229	1,190	1,181
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	1,551	1,613	1,676	1,732	1,777	1,794	1,775	1,705	1,592	1,512	1,486	1,493
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	1,690	1,756	1,806	1,856	1,894	1,929	1,928	1,885	1,791	1,730	1,713	1,716
Above Normal (16%)	1,527	1,640	1,746	1,802	1,852	1,875	1,862	1,786	1,679	1,615	1,591	1,589
Below Normal (13%)	1,629	1,676	1,751	1,790	1,829	1,832	1,788	1,718	1,607	1,529	1,504	1,501
Dry (24%)	1,504	1,551	1,612	1,686	1,748	1,768	1,745	1,660	1,555	1,479	1,459	1,475
Critical (15%)	1,283	1,319	1,355	1,411	1,444	1,422	1,386	1,288	1,113	967	909	930

**Alternative 3 minus Second Basis of Comparison**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	12	12	-2	1	-1	5	5	11	12	10	8	20
20%	18	-2	-2	-2	3	7	24	27	27	16	18	19
30%	22	5	5	3	8	0	5	20	23	35	25	12
40%	18	14	-6	5	0	3	-7	7	16	11	33	26
50%	26	3	-6	-11	-6	-4	-11	14	31	22	14	25
60%	17	9	-15	-20	-14	-17	-7	10	19	32	24	21
70%	17	-11	-18	-10	-3	-3	-4	-4	17	17	13	17
80%	14	7	-6	-20	-11	-9	-6	5	15	17	-9	-3
90%	34	5	7	-40	-51	-8	-4	24	8	7	7	47
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	19	7	1	-3	-2	-1	3	12	18	20	17	19
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	11	0	-5	-1	3	3	8	14	17	13	19	15
Above Normal (16%)	5	-11	-1	-7	-4	-2	1	8	25	31	23	24
Below Normal (13%)	23	5	-3	-2	-2	-6	-19	1	14	34	23	14
Dry (24%)	28	15	5	-3	3	-3	0	9	22	16	14	19
Critical (15%)	33	29	13	-5	-22	3	20	26	7	19	7	26

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-1-6. CVP Total Capacity, Monthly Capacity**

**Second Basis of Comparison**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,767	1,807	1,854	1,883	1,910	1,941	1,942	1,899	1,825	1,767	1,751	1,733
20%	1,731	1,790	1,829	1,862	1,891	1,923	1,907	1,856	1,739	1,676	1,669	1,677
30%	1,687	1,768	1,809	1,849	1,876	1,899	1,890	1,808	1,695	1,620	1,608	1,647
40%	1,645	1,727	1,787	1,832	1,865	1,879	1,857	1,770	1,654	1,590	1,571	1,574
50%	1,583	1,686	1,750	1,811	1,846	1,855	1,832	1,745	1,612	1,550	1,541	1,544
60%	1,561	1,629	1,710	1,768	1,811	1,831	1,788	1,701	1,584	1,509	1,487	1,488
70%	1,482	1,568	1,650	1,714	1,771	1,786	1,760	1,669	1,550	1,471	1,439	1,448
80%	1,379	1,450	1,576	1,644	1,719	1,747	1,713	1,616	1,490	1,391	1,387	1,375
90%	1,197	1,360	1,427	1,535	1,569	1,552	1,523	1,429	1,335	1,222	1,183	1,134
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	1,532	1,606	1,675	1,735	1,780	1,795	1,772	1,693	1,574	1,492	1,469	1,474
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	1,679	1,756	1,811	1,857	1,892	1,926	1,920	1,871	1,773	1,717	1,694	1,701
Above Normal (16%)	1,522	1,652	1,747	1,810	1,856	1,877	1,860	1,778	1,653	1,584	1,567	1,564
Below Normal (13%)	1,606	1,671	1,754	1,792	1,830	1,838	1,807	1,718	1,593	1,496	1,481	1,487
Dry (24%)	1,476	1,536	1,607	1,689	1,746	1,771	1,746	1,652	1,533	1,463	1,445	1,456
Critical (15%)	1,250	1,290	1,342	1,416	1,466	1,419	1,366	1,262	1,106	948	902	904

**Alternative 5**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,693	1,746	1,805	1,849	1,882	1,891	1,879	1,849	1,777	1,748	1,671	1,650
20%	1,635	1,721	1,772	1,829	1,859	1,867	1,843	1,806	1,725	1,690	1,624	1,612
30%	1,599	1,680	1,744	1,797	1,836	1,839	1,816	1,766	1,655	1,616	1,576	1,579
40%	1,566	1,638	1,710	1,767	1,801	1,801	1,785	1,732	1,619	1,571	1,538	1,547
50%	1,538	1,596	1,668	1,726	1,775	1,774	1,737	1,700	1,598	1,555	1,504	1,510
60%	1,516	1,552	1,617	1,687	1,737	1,733	1,701	1,643	1,537	1,484	1,460	1,457
70%	1,458	1,512	1,571	1,650	1,694	1,699	1,673	1,596	1,506	1,415	1,413	1,413
80%	1,327	1,399	1,504	1,574	1,644	1,639	1,616	1,532	1,439	1,324	1,302	1,310
90%	1,044	1,242	1,372	1,427	1,440	1,483	1,450	1,351	1,173	1,061	1,046	1,029
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	1,460	1,532	1,603	1,672	1,716	1,717	1,692	1,633	1,525	1,450	1,410	1,410
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	1,609	1,690	1,755	1,819	1,856	1,873	1,858	1,830	1,748	1,715	1,641	1,625
Above Normal (16%)	1,458	1,576	1,671	1,757	1,808	1,806	1,785	1,735	1,624	1,577	1,536	1,532
Below Normal (13%)	1,504	1,559	1,648	1,712	1,755	1,743	1,710	1,653	1,546	1,474	1,465	1,468
Dry (24%)	1,428	1,478	1,545	1,622	1,676	1,686	1,657	1,585	1,485	1,403	1,383	1,391
Critical (15%)	1,152	1,205	1,253	1,308	1,344	1,310	1,274	1,159	985	793	768	794

**Alternative 5 minus Second Basis of Comparison**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-74	-61	-49	-34	-28	-50	-63	-49	-48	-18	-81	-84
20%	-96	-70	-57	-33	-32	-56	-64	-50	-14	14	-44	-65
30%	-88	-88	-65	-51	-40	-60	-75	-43	-40	-4	-32	-68
40%	-79	-89	-77	-65	-64	-78	-72	-39	-35	-19	-33	-27
50%	-45	-90	-82	-84	-72	-81	-95	-46	-15	5	-37	-34
60%	-45	-77	-93	-81	-73	-98	-87	-58	-47	-26	-27	-31
70%	-24	-55	-79	-64	-78	-88	-86	-73	-44	-55	-27	-35
80%	-52	-51	-72	-70	-75	-108	-97	-84	-51	-67	-85	-64
90%	-153	-118	-56	-108	-129	-69	-73	-79	-161	-161	-136	-106
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-72	-74	-72	-63	-64	-78	-80	-60	-48	-42	-59	-64
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-70	-65	-56	-38	-36	-53	-62	-41	-26	-2	-53	-76
Above Normal (16%)	-64	-75	-76	-53	-47	-70	-75	-43	-30	-8	-31	-32
Below Normal (13%)	-101	-113	-107	-80	-75	-95	-96	-65	-47	-22	-16	-19
Dry (24%)	-48	-58	-62	-67	-70	-86	-89	-66	-48	-60	-62	-66
Critical (15%)	-97	-85	-89	-109	-121	-110	-92	-103	-121	-155	-133	-110

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

1 **B.2. CVP Total Energy Generation**

2

**Table B-2-1. CVP Total Generation, Monthly Generation**

**No Action Alternative**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	409	413	641	689	671	696	492	616	619	756	585	630
20%	372	380	338	490	622	569	397	549	577	729	549	597
30%	329	310	240	381	471	363	358	514	561	705	536	469
40%	292	274	190	235	245	267	334	478	544	662	511	414
50%	270	231	175	201	205	229	318	464	527	644	496	342
60%	239	183	167	179	173	194	302	442	495	630	476	285
70%	210	162	146	152	141	171	282	415	479	598	451	250
80%	186	140	131	137	130	151	249	350	435	551	421	215
90%	159	118	105	120	110	141	217	291	350	474	359	184
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	273	255	260	317	322	329	343	461	514	631	487	376
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	317	318	441	558	513	557	447	580	568	683	542	598
Above Normal (16%)	268	263	259	320	454	367	370	484	544	708	527	421
Below Normal (13%)	310	258	175	186	266	220	318	455	540	679	529	289
Dry (24%)	254	232	154	183	145	183	263	406	511	607	457	246
Critical (15%)	184	149	123	134	111	135	242	271	345	431	333	145

**Alternative 1**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	415	295	659	692	684	702	486	626	696	779	637	441
20%	339	256	436	584	637	584	393	572	655	757	588	370
30%	303	233	242	439	446	357	350	535	623	732	569	334
40%	268	220	194	266	287	256	325	507	602	711	549	315
50%	236	204	182	211	220	232	313	493	577	683	525	297
60%	212	180	169	177	175	194	289	470	553	654	501	278
70%	201	168	148	156	141	177	276	445	530	627	477	258
80%	172	138	134	143	133	154	248	372	481	571	436	225
90%	152	125	112	121	115	141	217	318	390	470	389	186
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	256	215	278	336	331	334	334	481	569	655	514	305
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	297	269	491	582	521	549	428	586	636	697	573	399
Above Normal (16%)	245	215	245	362	479	396	341	513	618	740	571	341
Below Normal (13%)	282	221	188	231	280	246	323	496	612	724	575	306
Dry (24%)	243	183	158	179	150	181	262	433	542	637	463	251
Critical (15%)	180	145	134	134	107	140	253	286	376	442	357	154

**Alternative 1 minus No Action Alternative**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	6	-118	18	2	14	6	-6	9	77	23	52	-189
20%	-33	-124	98	94	16	14	-5	22	78	28	38	-227
30%	-25	-77	2	58	-25	-6	-8	21	62	27	33	-135
40%	-24	-55	4	30	41	-11	-9	29	58	49	38	-99
50%	-34	-27	7	11	15	3	-5	29	49	39	29	-45
60%	-28	-3	2	-2	2	0	-13	28	58	24	25	-7
70%	-9	6	2	4	0	7	-7	30	51	29	26	8
80%	-14	-3	3	5	3	3	-1	22	46	20	15	9
90%	-7	7	7	1	5	0	1	27	40	-5	30	2
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-17	-40	18	19	9	6	-9	21	55	24	28	-71
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-20	-49	50	24	8	-8	-19	5	67	14	31	-199
Above Normal (16%)	-23	-47	-15	43	26	28	-29	30	74	33	43	-80
Below Normal (13%)	-28	-37	12	45	14	26	5	41	73	45	47	16
Dry (24%)	-11	-49	4	-4	5	-2	-1	27	31	29	6	5
Critical (15%)	-4	-4	11	1	-4	5	11	15	31	11	24	9

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Second Basis of Comparison and Alternative 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-2-2. CVP Total Generation, Monthly Generation**

**No Action Alternative**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	409	413	641	689	671	696	492	616	619	756	585	630
20%	372	380	338	490	622	569	397	549	577	729	549	597
30%	329	310	240	381	471	363	358	514	561	705	536	469
40%	292	274	190	235	245	267	334	478	544	662	511	414
50%	270	231	175	201	205	229	318	464	527	644	496	342
60%	239	183	167	179	173	194	302	442	495	630	476	285
70%	210	162	146	152	141	171	282	415	479	598	451	250
80%	186	140	131	137	130	151	249	350	435	551	421	215
90%	159	118	105	120	110	141	217	291	350	474	359	184
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	273	255	260	317	322	329	343	461	514	631	487	376
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	317	318	441	558	513	557	447	580	568	683	542	598
Above Normal (16%)	268	263	259	320	454	367	370	484	544	708	527	421
Below Normal (13%)	310	258	175	186	266	220	318	455	540	679	529	289
Dry (24%)	254	232	154	183	145	183	263	406	511	607	457	246
Critical (15%)	184	149	123	134	111	135	242	271	345	431	333	145

**Alternative 3**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	415	306	662	691	701	710	489	598	648	775	610	459
20%	342	256	426	590	650	583	393	551	635	759	578	387
30%	314	227	242	427	458	367	360	507	590	741	557	358
40%	275	216	199	254	283	258	330	493	564	720	538	328
50%	245	204	181	203	220	223	314	469	548	678	525	302
60%	222	180	170	173	179	192	291	442	518	657	513	279
70%	202	164	149	156	142	171	271	421	511	624	482	257
80%	176	145	133	134	128	153	250	363	453	561	445	227
90%	158	124	113	122	109	136	222	300	381	474	387	191
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	262	215	279	333	336	335	338	462	542	658	512	314
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	298	268	493	584	537	551	430	562	593	712	576	407
Above Normal (16%)	249	222	245	350	477	401	346	482	580	736	550	341
Below Normal (13%)	284	211	187	228	283	245	332	476	580	711	557	347
Dry (24%)	256	184	162	175	146	180	265	416	532	635	471	251
Critical (15%)	189	150	132	130	113	139	253	285	373	445	360	160

**Alternative 3 minus No Action Alternative**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	6	-107	21	2	31	14	-3	-19	30	19	25	-171
20%	-29	-124	88	100	29	14	-4	1	58	30	29	-210
30%	-14	-83	3	46	-13	4	3	-7	29	36	21	-111
40%	-18	-58	9	18	37	-8	-4	15	20	58	27	-85
50%	-25	-27	6	3	15	-7	-5	5	21	34	29	-40
60%	-17	-3	3	-6	6	-1	-10	-1	23	27	36	-6
70%	-8	2	3	4	0	0	-11	6	32	25	32	7
80%	-11	4	2	-3	-2	2	0	12	18	11	24	11
90%	-1	6	9	2	-1	-5	5	9	31	-1	27	7
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-11	-40	19	17	14	7	-5	1	28	27	26	-62
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-19	-50	53	27	23	-6	-17	-18	24	29	34	-191
Above Normal (16%)	-18	-41	-14	30	24	33	-24	-1	36	29	23	-80
Below Normal (13%)	-25	-47	12	42	18	25	14	21	40	32	28	58
Dry (24%)	2	-47	8	-7	1	-2	2	10	21	28	14	5
Critical (15%)	6	1	9	-4	1	4	11	14	28	14	28	14

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-2-3. CVP Total Generation, Monthly Generation**

**No Action Alternative**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	409	413	641	689	671	696	492	616	619	756	585	630
20%	372	380	338	490	622	569	397	549	577	729	549	597
30%	329	310	240	381	471	363	358	514	561	705	536	469
40%	292	274	190	235	245	267	334	478	544	662	511	414
50%	270	231	175	201	205	229	318	464	527	644	496	342
60%	239	183	167	179	173	194	302	442	495	630	476	285
70%	210	162	146	152	141	171	282	415	479	598	451	250
80%	186	140	131	137	130	151	249	350	435	551	421	215
90%	159	118	105	120	110	141	217	291	350	474	359	184
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	273	255	260	317	322	329	343	461	514	631	487	376
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	317	318	441	558	513	557	447	580	568	683	542	598
Above Normal (16%)	268	263	259	320	454	367	370	484	544	708	527	421
Below Normal (13%)	310	258	175	186	266	220	318	455	540	679	529	289
Dry (24%)	254	232	154	183	145	183	263	406	511	607	457	246
Critical (15%)	184	149	123	134	111	135	242	271	345	431	333	145

**Alternative 5**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	404	410	647	689	671	694	491	627	618	752	574	628
20%	365	380	341	486	622	563	404	562	578	722	553	598
30%	328	316	236	381	459	362	368	513	557	705	534	468
40%	284	281	188	233	245	266	334	482	541	660	514	418
50%	269	226	173	201	205	229	327	460	525	648	498	351
60%	244	182	163	178	173	199	304	439	493	634	471	277
70%	220	161	145	153	139	170	281	412	472	601	451	248
80%	183	140	131	137	127	151	258	343	432	548	416	217
90%	155	113	102	120	108	136	233	308	350	463	365	184
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	273	254	258	317	321	328	348	463	509	628	485	378
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	313	320	438	558	512	554	446	585	567	685	538	598
Above Normal (16%)	266	254	259	321	454	368	370	489	542	708	523	419
Below Normal (13%)	307	257	173	186	265	221	334	458	533	675	520	294
Dry (24%)	254	231	153	183	145	183	273	404	505	604	459	247
Critical (15%)	192	149	120	135	110	132	250	270	336	414	337	153

**Alternative 5 minus No Action Alternative**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-5	-3	6	0	0	-2	-1	10	-1	-4	-11	-1
20%	-6	0	3	-4	0	-6	7	13	1	-6	4	1
30%	-1	6	-3	0	-13	-1	10	-1	-4	0	-2	-1
40%	-8	6	-2	-2	0	-1	0	5	-3	-2	3	4
50%	-1	-5	-2	0	0	0	9	-4	-2	3	2	9
60%	4	-1	-4	0	0	5	2	-3	-2	4	-5	-8
70%	11	-1	-1	1	-3	0	-2	-3	-7	2	1	-2
80%	-3	-1	0	0	-3	0	9	-7	-3	-3	-5	1
90%	-4	-5	-2	0	-2	-5	16	17	0	-12	6	0
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-1	-1	-2	1	-1	-1	5	2	-5	-3	-2	2
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-4	2	-3	1	-1	-3	-1	5	-1	2	-4	1
Above Normal (16%)	-2	-8	-1	1	0	1	-1	5	-2	0	-5	-2
Below Normal (13%)	-3	-1	-2	-1	-1	1	15	3	-7	-4	-9	4
Dry (24%)	-1	-1	-1	0	0	0	9	-2	-6	-3	2	1
Critical (15%)	8	0	-3	1	-1	-3	8	-1	-9	-17	4	8

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-2-4. CVP Total Generation, Monthly Generation**

**Second Basis of Comparison**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	415	295	659	692	684	702	486	626	696	779	637	441
20%	339	256	436	584	637	584	393	572	655	757	588	370
30%	303	233	242	439	446	357	350	535	623	732	569	334
40%	268	220	194	266	287	256	325	507	602	711	549	315
50%	236	204	182	211	220	232	313	493	577	683	525	297
60%	212	180	169	177	175	194	289	470	553	654	501	278
70%	201	168	148	156	141	177	276	445	530	627	477	258
80%	172	138	134	143	133	154	248	372	481	571	436	225
90%	152	125	112	121	115	141	217	318	390	470	389	186
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	256	215	278	336	331	334	334	481	569	655	514	305
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	297	269	491	582	521	549	428	586	636	697	573	399
Above Normal (16%)	245	215	245	362	479	396	341	513	618	740	571	341
Below Normal (13%)	282	221	188	231	280	246	323	496	612	724	575	306
Dry (24%)	243	183	158	179	150	181	262	433	542	637	463	251
Critical (15%)	180	145	134	134	107	140	253	286	376	442	357	154

**No Action Alternative**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	409	413	641	689	671	696	492	616	619	756	585	630
20%	372	380	338	490	622	569	397	549	577	729	549	597
30%	329	310	240	381	471	363	358	514	561	705	536	469
40%	292	274	190	235	245	267	334	478	544	662	511	414
50%	270	231	175	201	205	229	318	464	527	644	496	342
60%	239	183	167	179	173	194	302	442	495	630	476	285
70%	210	162	146	152	141	171	282	415	479	598	451	250
80%	186	140	131	137	130	151	249	350	435	551	421	215
90%	159	118	105	120	110	141	217	291	350	474	359	184
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	273	255	260	317	322	329	343	461	514	631	487	376
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	317	318	441	558	513	557	447	580	568	683	542	598
Above Normal (16%)	268	263	259	320	454	367	370	484	544	708	527	421
Below Normal (13%)	310	258	175	186	266	220	318	455	540	679	529	289
Dry (24%)	254	232	154	183	145	183	263	406	511	607	457	246
Critical (15%)	184	149	123	134	111	135	242	271	345	431	333	145

**No Action Alternative minus Second Basis of Comparison**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-6	118	-18	-2	-14	-6	6	-9	-77	-23	-52	189
20%	33	124	-98	-94	-16	-14	5	-22	-78	-28	-38	227
30%	25	77	-2	-58	25	6	8	-21	-62	-27	-33	135
40%	24	55	-4	-30	-41	11	9	-29	-58	-49	-38	99
50%	34	27	-7	-11	-15	-3	5	-29	-49	-39	-29	45
60%	28	3	-2	2	-2	0	13	-28	-58	-24	-25	7
70%	9	-6	-2	-4	0	-7	7	-30	-51	-29	-26	-8
80%	14	3	-3	-5	-3	-3	1	-22	-46	-20	-15	-9
90%	7	-7	-7	-1	-5	0	-1	-27	-40	5	-30	-2
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	17	40	-18	-19	-9	-6	9	-21	-55	-24	-28	71
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	20	49	-50	-24	-8	8	19	-5	-67	-14	-31	199
Above Normal (16%)	23	47	15	-43	-26	-28	29	-30	-74	-33	-43	80
Below Normal (13%)	28	37	-12	-45	-14	-26	-5	-41	-73	-45	-47	-16
Dry (24%)	11	49	-4	4	-5	2	1	-27	-31	-29	-6	-5
Critical (15%)	4	4	-11	-1	4	-5	-11	-15	-31	-11	-24	-9

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-2-5. CVP Total Generation, Monthly Generation**

**Second Basis of Comparison**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	415	295	659	692	684	702	486	626	696	779	637	441
20%	339	256	436	584	637	584	393	572	655	757	588	370
30%	303	233	242	439	446	357	350	535	623	732	569	334
40%	268	220	194	266	287	256	325	507	602	711	549	315
50%	236	204	182	211	220	232	313	493	577	683	525	297
60%	212	180	169	177	175	194	289	470	553	654	501	278
70%	201	168	148	156	141	177	276	445	530	627	477	258
80%	172	138	134	143	133	154	248	372	481	571	436	225
90%	152	125	112	121	115	141	217	318	390	470	389	186
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	256	215	278	336	331	334	334	481	569	655	514	305
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	297	269	491	582	521	549	428	586	636	697	573	399
Above Normal (16%)	245	215	245	362	479	396	341	513	618	740	571	341
Below Normal (13%)	282	221	188	231	280	246	323	496	612	724	575	306
Dry (24%)	243	183	158	179	150	181	262	433	542	637	463	251
Critical (15%)	180	145	134	134	107	140	253	286	376	442	357	154

**Alternative 3**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	415	306	662	691	701	710	489	598	648	775	610	459
20%	342	256	426	590	650	583	393	551	635	759	578	387
30%	314	227	242	427	458	367	360	507	590	741	557	358
40%	275	216	199	254	283	258	330	493	564	720	538	328
50%	245	204	181	203	220	223	314	469	548	678	525	302
60%	222	180	170	173	179	192	291	442	518	657	513	279
70%	202	164	149	156	142	171	271	421	511	624	482	257
80%	176	145	133	134	128	153	250	363	453	561	445	227
90%	158	124	113	122	109	136	222	300	381	474	387	191
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	262	215	279	333	336	335	338	462	542	658	512	314
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	298	268	493	584	537	551	430	562	593	712	576	407
Above Normal (16%)	249	222	245	350	477	401	346	482	580	736	550	341
Below Normal (13%)	284	211	187	228	283	245	332	476	580	711	557	347
Dry (24%)	256	184	162	175	146	180	265	416	532	635	471	251
Critical (15%)	189	150	132	130	113	139	253	285	373	445	360	160

**Alternative 3 minus Second Basis of Comparison**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-1	11	3	-1	17	8	3	-28	-48	-4	-27	17
20%	4	0	-9	5	13	0	0	-21	-21	2	-10	17
30%	11	-6	0	-12	13	10	10	-28	-33	10	-12	24
40%	7	-3	6	-12	-4	3	6	-14	-38	9	-11	13
50%	9	-1	-2	-8	0	-9	0	-24	-28	-5	0	5
60%	10	1	1	-4	4	-1	3	-28	-35	3	12	1
70%	2	-3	1	0	1	-6	-4	-24	-19	-4	6	-1
80%	4	7	-1	-8	-5	-1	1	-9	-28	-9	9	2
90%	7	-1	1	0	-6	-5	4	-18	-8	4	-2	5
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	6	0	1	-3	5	1	3	-19	-27	2	-2	9
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	1	-2	2	3	16	2	2	-24	-43	15	3	8
Above Normal (16%)	4	6	0	-12	-2	5	5	-31	-38	-4	-21	0
Below Normal (13%)	3	-10	-1	-3	3	-1	9	-20	-33	-12	-18	42
Dry (24%)	13	1	4	-3	-4	0	3	-17	-10	-2	8	0
Critical (15%)	9	5	-2	-4	6	-1	0	-1	-3	3	4	6

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-2-6. CVP Total Generation, Monthly Generation**

**Second Basis of Comparison**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	415	295	659	692	684	702	486	626	696	779	637	441
20%	339	256	436	584	637	584	393	572	655	757	588	370
30%	303	233	242	439	446	357	350	535	623	732	569	334
40%	268	220	194	266	287	256	325	507	602	711	549	315
50%	236	204	182	211	220	232	313	493	577	683	525	297
60%	212	180	169	177	175	194	289	470	553	654	501	278
70%	201	168	148	156	141	177	276	445	530	627	477	258
80%	172	138	134	143	133	154	248	372	481	571	436	225
90%	152	125	112	121	115	141	217	318	390	470	389	186
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	256	215	278	336	331	334	334	481	569	655	514	305
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	297	269	491	582	521	549	428	586	636	697	573	399
Above Normal (16%)	245	215	245	362	479	396	341	513	618	740	571	341
Below Normal (13%)	282	221	188	231	280	246	323	496	612	724	575	306
Dry (24%)	243	183	158	179	150	181	262	433	542	637	463	251
Critical (15%)	180	145	134	134	107	140	253	286	376	442	357	154

**Alternative 5**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	404	410	647	689	671	694	491	627	618	752	574	628
20%	365	380	341	486	622	563	404	562	578	722	553	598
30%	328	316	236	381	459	362	368	513	557	705	534	468
40%	284	281	188	233	245	266	334	482	541	660	514	418
50%	269	226	173	201	205	229	327	460	525	648	498	351
60%	244	182	163	178	173	199	304	439	493	634	471	277
70%	220	161	145	153	139	170	281	412	472	601	451	248
80%	183	140	131	137	127	151	258	343	432	548	416	217
90%	155	113	102	120	108	136	233	308	350	463	365	184
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	273	254	258	317	321	328	348	463	509	628	485	378
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	313	320	438	558	512	554	446	585	567	685	538	598
Above Normal (16%)	266	254	259	321	454	368	370	489	542	708	523	419
Below Normal (13%)	307	257	173	186	265	221	334	458	533	675	520	294
Dry (24%)	254	231	153	183	145	183	273	404	505	604	459	247
Critical (15%)	192	149	120	135	110	132	250	270	336	414	337	153

**Alternative 5 minus Second Basis of Comparison**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-11	115	-11	-2	-14	-9	4	1	-78	-27	-63	187
20%	27	124	-95	-99	-15	-21	11	-10	-77	-35	-35	228
30%	24	83	-5	-58	13	5	18	-23	-67	-27	-35	134
40%	16	61	-6	-33	-41	10	9	-25	-61	-51	-36	103
50%	33	22	-9	-11	-15	-3	14	-32	-51	-35	-27	55
60%	32	3	-6	2	-2	5	15	-31	-60	-20	-30	-1
70%	20	-6	-3	-3	-2	-7	5	-33	-58	-26	-25	-10
80%	11	2	-3	-5	-6	-3	10	-29	-49	-23	-20	-8
90%	3	-12	-10	-1	-7	-5	16	-10	-40	-7	-24	-2
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	16	39	-20	-19	-10	-7	14	-19	-59	-28	-30	73
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	16	51	-53	-23	-9	5	18	-1	-69	-12	-35	199
Above Normal (16%)	21	39	14	-41	-25	-28	28	-24	-76	-33	-48	78
Below Normal (13%)	25	36	-14	-45	-15	-25	11	-38	-80	-49	-56	-12
Dry (24%)	10	48	-4	5	-5	2	10	-29	-37	-33	-4	-4
Critical (15%)	12	5	-14	1	3	-8	-3	-16	-40	-28	-20	-1

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

1 **B.3. CVP Total Energy Use**

2

**Table B-3-1. CVP Total Energy Use, Monthly Energy Use**

**No Action Alternative**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	111	171	154	153	146	149	60	69	128	153	133	106
20%	95	150	149	131	133	138	43	46	103	139	122	105
30%	85	139	142	118	115	109	37	41	88	122	114	103
40%	76	129	134	113	99	98	35	39	78	114	109	96
50%	72	105	129	110	94	75	32	36	65	104	102	87
60%	67	93	123	105	85	65	31	33	58	93	94	76
70%	62	81	115	95	72	61	29	30	44	84	79	68
80%	57	65	96	83	47	46	25	26	34	69	59	58
90%	54	58	74	71	31	22	21	21	21	42	36	45
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	76	111	121	108	92	86	36	40	71	101	93	82
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	81	125	130	124	125	122	50	58	113	132	119	94
Above Normal (16%)	74	120	123	97	91	104	36	40	85	99	108	87
Below Normal (13%)	79	122	132	107	84	76	30	33	61	106	106	92
Dry (24%)	76	103	120	108	77	64	30	30	42	90	65	72
Critical (15%)	65	73	89	85	52	31	21	22	22	51	56	57

**Alternative 1**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	137	151	163	173	183	144	83	90	114	161	182	109
20%	121	141	160	167	149	127	81	65	105	156	154	108
30%	117	139	157	164	143	101	80	59	96	145	132	107
40%	96	134	156	162	139	80	75	54	91	140	128	106
50%	74	124	152	160	135	69	69	47	88	131	124	104
60%	67	109	144	158	116	67	59	45	78	119	109	90
70%	57	96	127	151	84	62	49	38	65	98	86	81
80%	46	80	111	124	55	52	36	29	43	85	63	68
90%	34	66	87	81	27	30	22	23	26	43	39	49
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	85	115	136	149	115	84	60	51	78	119	113	93
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	100	132	154	168	139	94	77	69	102	145	150	110
Above Normal (16%)	76	116	136	151	128	94	78	58	100	129	135	117
Below Normal (13%)	92	134	148	158	104	85	61	52	85	146	137	94
Dry (24%)	86	103	124	143	104	83	44	36	55	107	68	75
Critical (15%)	53	78	106	105	79	50	30	26	30	46	63	56

**Alternative 1 minus No Action Alternative**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	26	-21	9	20	37	-5	23	21	-14	9	49	3
20%	26	-9	11	36	16	-11	38	19	2	17	32	3
30%	33	-1	16	47	28	-7	42	18	8	23	19	4
40%	20	6	21	49	40	-18	40	15	14	27	19	9
50%	3	19	23	50	41	-6	36	12	23	27	22	17
60%	0	16	21	52	30	2	28	12	20	26	15	13
70%	-5	15	12	55	12	1	20	8	20	14	7	13
80%	-12	15	15	42	8	6	11	3	9	16	3	10
90%	-21	8	13	10	-4	8	1	2	5	1	3	4
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	8	4	15	40	24	-2	24	11	7	18	20	11
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	18	7	25	44	15	-28	27	10	-11	12	31	16
Above Normal (16%)	1	-3	13	54	38	-11	42	17	16	30	27	30
Below Normal (13%)	13	12	16	51	20	9	31	18	23	41	32	2
Dry (24%)	9	0	4	35	27	19	13	6	13	17	3	3
Critical (15%)	-12	5	17	19	27	20	10	3	8	-5	7	-1

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Second Basis of Comparison and Alternative 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-3-2. CVP Total Energy Use, Monthly Energy Use**

**No Action Alternative**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	111	171	154	153	146	149	60	69	128	153	133	106
20%	95	150	149	131	133	138	43	46	103	139	122	105
30%	85	139	142	118	115	109	37	41	88	122	114	103
40%	76	129	134	113	99	98	35	39	78	114	109	96
50%	72	105	129	110	94	75	32	36	65	104	102	87
60%	67	93	123	105	85	65	31	33	58	93	94	76
70%	62	81	115	95	72	61	29	30	44	84	79	68
80%	57	65	96	83	47	46	25	26	34	69	59	58
90%	54	58	74	71	31	22	21	21	21	42	36	45
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	76	111	121	108	92	86	36	40	71	101	93	82
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	81	125	130	124	125	122	50	58	113	132	119	94
Above Normal (16%)	74	120	123	97	91	104	36	40	85	99	108	87
Below Normal (13%)	79	122	132	107	84	76	30	33	61	106	106	92
Dry (24%)	76	103	120	108	77	64	30	30	42	90	65	72
Critical (15%)	65	73	89	85	52	31	21	22	22	51	56	57

**Alternative 3**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	143	149	161	165	151	147	87	99	142	154	156	139
20%	124	140	157	131	142	139	82	89	122	146	134	112
30%	119	138	154	120	126	100	81	79	106	139	132	107
40%	108	128	143	117	105	78	79	72	100	128	128	106
50%	86	118	140	110	91	72	72	66	91	118	113	105
60%	70	107	131	104	75	64	64	53	80	103	99	95
70%	63	95	122	93	65	62	46	40	59	87	83	85
80%	52	82	102	84	54	51	35	30	41	71	62	63
90%	46	66	73	76	31	24	23	23	24	46	41	45
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	91	113	129	109	95	85	62	62	85	109	106	97
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	101	130	144	128	135	108	83	87	125	139	140	113
Above Normal (16%)	83	113	122	93	96	125	77	74	105	115	121	111
Below Normal (13%)	94	130	144	111	85	78	56	58	86	123	117	126
Dry (24%)	97	104	126	108	75	65	49	44	54	98	75	74
Critical (15%)	64	78	97	85	53	31	30	25	27	43	55	58

**Alternative 3 minus No Action Alternative**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	31	-23	7	12	5	-2	27	31	14	1	23	33
20%	29	-10	8	0	9	0	39	43	20	7	12	7
30%	34	-1	13	2	11	-9	44	38	19	17	18	4
40%	32	-1	8	4	6	-20	45	33	22	14	19	10
50%	14	13	11	1	-3	-3	39	31	25	14	12	18
60%	3	14	8	-1	-10	-1	33	20	22	10	5	19
70%	1	14	8	-3	-7	1	17	10	14	3	4	17
80%	-5	18	6	2	7	5	10	4	8	2	3	5
90%	-9	8	-2	5	-1	1	2	2	3	4	5	1
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	14	2	9	1	4	-1	26	22	14	8	13	15
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	20	5	14	4	10	-14	33	29	12	7	21	19
Above Normal (16%)	9	-7	-1	-4	6	20	41	34	20	16	13	24
Below Normal (13%)	15	9	12	4	1	2	26	25	25	17	11	34
Dry (24%)	21	0	6	0	-2	2	18	13	12	8	10	2
Critical (15%)	-1	4	8	0	1	0	9	3	4	-8	-1	2

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-3-3. CVP Total Energy Use, Monthly Energy Use**

**No Action Alternative**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	111	171	154	153	146	149	60	69	128	153	133	106
20%	95	150	149	131	133	138	43	46	103	139	122	105
30%	85	139	142	118	115	109	37	41	88	122	114	103
40%	76	129	134	113	99	98	35	39	78	114	109	96
50%	72	105	129	110	94	75	32	36	65	104	102	87
60%	67	93	123	105	85	65	31	33	58	93	94	76
70%	62	81	115	95	72	61	29	30	44	84	79	68
80%	57	65	96	83	47	46	25	26	34	69	59	58
90%	54	58	74	71	31	22	21	21	21	42	36	45
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	76	111	121	108	92	86	36	40	71	101	93	82
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	81	125	130	124	125	122	50	58	113	132	119	94
Above Normal (16%)	74	120	123	97	91	104	36	40	85	99	108	87
Below Normal (13%)	79	122	132	107	84	76	30	33	61	106	106	92
Dry (24%)	76	103	120	108	77	64	30	30	42	90	65	72
Critical (15%)	65	73	89	85	52	31	21	22	22	51	56	57

**Alternative 5**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	106	174	154	153	146	153	59	68	128	155	132	106
20%	94	153	151	134	134	138	41	44	103	140	121	105
30%	85	140	142	120	116	109	35	40	86	122	113	102
40%	75	126	135	114	104	99	32	37	77	115	110	95
50%	72	106	128	110	94	75	30	33	65	105	102	90
60%	69	92	123	104	86	65	29	30	57	94	94	76
70%	63	74	115	95	71	61	24	22	46	88	80	70
80%	59	65	92	83	46	48	18	16	32	74	63	58
90%	54	56	68	71	32	22	13	12	24	50	49	47
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	76	110	121	109	92	86	33	36	71	103	95	82
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	81	129	131	125	124	123	50	58	113	132	119	93
Above Normal (16%)	75	112	122	100	90	104	35	40	84	100	107	86
Below Normal (13%)	76	122	132	107	90	77	28	30	62	106	100	96
Dry (24%)	74	101	121	108	77	64	23	21	43	96	71	74
Critical (15%)	69	73	86	88	54	30	13	13	22	56	64	56

**Alternative 5 minus No Action Alternative**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-5	3	0	0	1	4	-1	-1	0	2	-1	0
20%	-1	3	2	2	1	-1	-1	-2	1	1	-1	0
30%	0	0	0	2	1	0	-2	-1	-1	1	-1	-1
40%	-1	-3	1	1	5	0	-2	-2	-1	1	1	-1
50%	0	1	0	0	0	0	-2	-3	0	1	1	2
60%	3	-2	0	-2	1	0	-2	-3	-1	1	0	0
70%	1	-7	1	0	-1	0	-5	-8	2	4	1	2
80%	1	0	-4	0	-1	2	-6	-10	-2	5	4	0
90%	0	-2	-6	0	1	0	-8	-10	3	8	13	2
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	0	-1	0	1	1	0	-3	-4	0	2	2	0
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-1	4	1	1	-1	0	0	0	0	0	0	-1
Above Normal (16%)	1	-8	-1	3	0	0	-1	-1	-1	0	-1	-1
Below Normal (13%)	-3	0	0	0	6	1	-2	-4	0	0	-6	4
Dry (24%)	-2	-3	1	-1	0	0	-8	-9	1	6	6	2
Critical (15%)	4	0	-3	3	2	0	-8	-9	0	5	8	-1

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-3-4. CVP Total Energy Use, Monthly Energy Use**

**Second Basis of Comparison**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	137	151	163	173	183	144	83	90	114	161	182	109
20%	121	141	160	167	149	127	81	65	105	156	154	108
30%	117	139	157	164	143	101	80	59	96	145	132	107
40%	96	134	156	162	139	80	75	54	91	140	128	106
50%	74	124	152	160	135	69	69	47	88	131	124	104
60%	67	109	144	158	116	67	59	45	78	119	109	90
70%	57	96	127	151	84	62	49	38	65	98	86	81
80%	46	80	111	124	55	52	36	29	43	85	63	68
90%	34	66	87	81	27	30	22	23	26	43	39	49
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	85	115	136	149	115	84	60	51	78	119	113	93
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	100	132	154	168	139	94	77	69	102	145	150	110
Above Normal (16%)	76	116	136	151	128	94	78	58	100	129	135	117
Below Normal (13%)	92	134	148	158	104	85	61	52	85	146	137	94
Dry (24%)	86	103	124	143	104	83	44	36	55	107	68	75
Critical (15%)	53	78	106	105	79	50	30	26	30	46	63	56

**No Action Alternative**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	111	171	154	153	146	149	60	69	128	153	133	106
20%	95	150	149	131	133	138	43	46	103	139	122	105
30%	85	139	142	118	115	109	37	41	88	122	114	103
40%	76	129	134	113	99	98	35	39	78	114	109	96
50%	72	105	129	110	94	75	32	36	65	104	102	87
60%	67	93	123	105	85	65	31	33	58	93	94	76
70%	62	81	115	95	72	61	29	30	44	84	79	68
80%	57	65	96	83	47	46	25	26	34	69	59	58
90%	54	58	74	71	31	22	21	21	21	42	36	45
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	76	111	121	108	92	86	36	40	71	101	93	82
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	81	125	130	124	125	122	50	58	113	132	119	94
Above Normal (16%)	74	120	123	97	91	104	36	40	85	99	108	87
Below Normal (13%)	79	122	132	107	84	76	30	33	61	106	106	92
Dry (24%)	76	103	120	108	77	64	30	30	42	90	65	72
Critical (15%)	65	73	89	85	52	31	21	22	22	51	56	57

**No Action Alternative minus Second Basis of Comparison**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-26	21	-9	-20	-37	5	-23	-21	14	-9	-49	-3
20%	-26	9	-11	-36	-16	11	-38	-19	-2	-17	-32	-3
30%	-33	1	-16	-47	-28	7	-42	-18	-8	-23	-19	-4
40%	-20	-6	-21	-49	-40	18	-40	-15	-14	-27	-19	-9
50%	-3	-19	-23	-50	-41	6	-36	-12	-23	-27	-22	-17
60%	0	-16	-21	-52	-30	-2	-28	-12	-20	-26	-15	-13
70%	5	-15	-12	-55	-12	-1	-20	-8	-20	-14	-7	-13
80%	12	-15	-15	-42	-8	-6	-11	-3	-9	-16	-3	-10
90%	21	-8	-13	-10	4	-8	-1	-2	-5	-1	-3	-4
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-8	-4	-15	-40	-24	2	-24	-11	-7	-18	-20	-11
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-18	-7	-25	-44	-15	28	-27	-10	11	-12	-31	-16
Above Normal (16%)	-1	3	-13	-54	-38	11	-42	-17	-16	-30	-27	-30
Below Normal (13%)	-13	-12	-16	-51	-20	-9	-31	-18	-23	-41	-32	-2
Dry (24%)	-9	0	-4	-35	-27	-19	-13	-6	-13	-17	-3	-3
Critical (15%)	12	-5	-17	-19	-27	-20	-10	-3	-8	5	-7	1

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-3-5. CVP Total Energy Use, Monthly Energy Use**

**Second Basis of Comparison**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	137	151	163	173	183	144	83	90	114	161	182	109
20%	121	141	160	167	149	127	81	65	105	156	154	108
30%	117	139	157	164	143	101	80	59	96	145	132	107
40%	96	134	156	162	139	80	75	54	91	140	128	106
50%	74	124	152	160	135	69	69	47	88	131	124	104
60%	67	109	144	158	116	67	59	45	78	119	109	90
70%	57	96	127	151	84	62	49	38	65	98	86	81
80%	46	80	111	124	55	52	36	29	43	85	63	68
90%	34	66	87	81	27	30	22	23	26	43	39	49
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	85	115	136	149	115	84	60	51	78	119	113	93
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	100	132	154	168	139	94	77	69	102	145	150	110
Above Normal (16%)	76	116	136	151	128	94	78	58	100	129	135	117
Below Normal (13%)	92	134	148	158	104	85	61	52	85	146	137	94
Dry (24%)	86	103	124	143	104	83	44	36	55	107	68	75
Critical (15%)	53	78	106	105	79	50	30	26	30	46	63	56

**Alternative 3**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	143	149	161	165	151	147	87	99	142	154	156	139
20%	124	140	157	131	142	139	82	89	122	146	134	112
30%	119	138	154	120	126	100	81	79	106	139	132	107
40%	108	128	143	117	105	78	79	72	100	128	128	106
50%	86	118	140	110	91	72	72	66	91	118	113	105
60%	70	107	131	104	75	64	64	53	80	103	99	95
70%	63	95	122	93	65	62	46	40	59	87	83	85
80%	52	82	102	84	54	51	35	30	41	71	62	63
90%	46	66	73	76	31	24	23	23	24	46	41	45
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	91	113	129	109	95	85	62	62	85	109	106	97
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	101	130	144	128	135	108	83	87	125	139	140	113
Above Normal (16%)	83	113	122	93	96	125	77	74	105	115	121	111
Below Normal (13%)	94	130	144	111	85	78	56	58	86	123	117	126
Dry (24%)	97	104	126	108	75	65	49	44	54	98	75	74
Critical (15%)	64	78	97	85	53	31	30	25	27	43	55	58

**Alternative 3 minus Second Basis of Comparison**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	6	-2	-2	-8	-32	3	4	10	28	-7	-26	30
20%	3	-1	-2	-36	-7	11	1	24	18	-10	-21	4
30%	2	0	-3	-44	-17	-1	2	20	10	-6	-1	1
40%	12	-6	-13	-45	-34	-2	4	18	9	-13	0	0
50%	11	-5	-13	-49	-44	3	3	19	3	-13	-10	0
60%	3	-2	-13	-54	-40	-3	5	9	2	-17	-10	6
70%	6	-1	-4	-58	-19	0	-3	2	-6	-11	-4	4
80%	6	2	-9	-40	-1	-1	-1	2	-2	-14	0	-5
90%	12	0	-14	-6	3	-6	1	0	-2	3	3	-4
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	6	-1	-7	-40	-20	1	2	11	7	-10	-7	4
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	1	-1	-10	-40	-5	14	6	18	23	-6	-10	3
Above Normal (16%)	7	-4	-14	-58	-32	31	-2	17	5	-14	-13	-6
Below Normal (13%)	2	-4	-3	-47	-19	-7	-6	7	1	-23	-20	32
Dry (24%)	11	1	2	-35	-29	-18	5	7	-1	-9	7	-1
Critical (15%)	11	0	-9	-19	-26	-20	0	0	-3	-3	-7	2

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-3-6. CVP Total Energy Use, Monthly Energy Use**

**Second Basis of Comparison**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	137	151	163	173	183	144	83	90	114	161	182	109
20%	121	141	160	167	149	127	81	65	105	156	154	108
30%	117	139	157	164	143	101	80	59	96	145	132	107
40%	96	134	156	162	139	80	75	54	91	140	128	106
50%	74	124	152	160	135	69	69	47	88	131	124	104
60%	67	109	144	158	116	67	59	45	78	119	109	90
70%	57	96	127	151	84	62	49	38	65	98	86	81
80%	46	80	111	124	55	52	36	29	43	85	63	68
90%	34	66	87	81	27	30	22	23	26	43	39	49
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	85	115	136	149	115	84	60	51	78	119	113	93
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	100	132	154	168	139	94	77	69	102	145	150	110
Above Normal (16%)	76	116	136	151	128	94	78	58	100	129	135	117
Below Normal (13%)	92	134	148	158	104	85	61	52	85	146	137	94
Dry (24%)	86	103	124	143	104	83	44	36	55	107	68	75
Critical (15%)	53	78	106	105	79	50	30	26	30	46	63	56

**Alternative 5**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	106	174	154	153	146	153	59	68	128	155	132	106
20%	94	153	151	134	134	138	41	44	103	140	121	105
30%	85	140	142	120	116	109	35	40	86	122	113	102
40%	75	126	135	114	104	99	32	37	77	115	110	95
50%	72	106	128	110	94	75	30	33	65	105	102	90
60%	69	92	123	104	86	65	29	30	57	94	94	76
70%	63	74	115	95	71	61	24	22	46	88	80	70
80%	59	65	92	83	46	48	18	16	32	74	63	58
90%	54	56	68	71	32	22	13	12	24	50	49	47
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	76	110	121	109	92	86	33	36	71	103	95	82
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	81	129	131	125	124	123	50	58	113	132	119	93
Above Normal (16%)	75	112	122	100	90	104	35	40	84	100	107	86
Below Normal (13%)	76	122	132	107	90	77	28	30	62	106	100	96
Dry (24%)	74	101	121	108	77	64	23	21	43	96	71	74
Critical (15%)	69	73	86	88	54	30	13	13	22	56	64	56

**Alternative 5 minus Second Basis of Comparison**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-31	24	-8	-21	-36	9	-24	-22	13	-7	-50	-3
20%	-27	12	-8	-34	-15	10	-40	-20	-1	-16	-33	-3
30%	-32	1	-15	-45	-27	8	-44	-19	-10	-22	-20	-4
40%	-20	-9	-21	-48	-35	18	-42	-17	-15	-26	-18	-11
50%	-2	-18	-24	-50	-41	6	-39	-15	-22	-26	-22	-15
60%	3	-18	-21	-54	-30	-2	-30	-15	-20	-25	-15	-13
70%	6	-22	-11	-55	-13	-2	-26	-16	-19	-10	-6	-11
80%	13	-16	-19	-42	-9	-4	-17	-13	-11	-11	0	-11
90%	20	-10	-18	-10	5	-8	-9	-11	-2	7	11	-2
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-9	-5	-15	-40	-23	2	-28	-15	-6	-15	-18	-10
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-19	-3	-24	-43	-16	29	-27	-11	11	-13	-30	-17
Above Normal (16%)	0	-4	-14	-51	-38	11	-43	-18	-17	-29	-28	-31
Below Normal (13%)	-16	-12	-16	-51	-14	-8	-33	-22	-23	-41	-38	2
Dry (24%)	-11	-2	-2	-35	-27	-19	-21	-15	-12	-11	3	-1
Critical (15%)	16	-5	-20	-16	-25	-20	-17	-12	-8	10	1	0

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

1 **B.4. CVP Net Energy Generation**

2

**Table B-4-1. CVP Net Generation, Monthly Net Generation**

**No Action Alternative**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	324	257	523	556	567	564	449	560	543	664	474	528
20%	283	220	218	372	491	444	355	513	500	624	446	491
30%	249	195	116	257	358	262	325	468	476	596	427	366
40%	216	162	72	147	163	169	304	441	452	558	418	344
50%	200	112	49	104	110	150	285	424	438	537	405	246
60%	154	96	42	71	94	133	270	404	426	508	381	198
70%	134	71	30	50	71	109	248	383	410	480	366	183
80%	119	56	18	37	54	95	225	327	377	450	347	150
90%	86	40	-1	24	36	72	198	262	332	400	302	104
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	197	145	139	209	230	243	307	420	443	530	393	295
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	236	193	311	433	389	435	397	522	455	551	423	504
Above Normal (16%)	193	143	136	223	363	263	334	443	459	608	419	334
Below Normal (13%)	231	137	43	79	181	144	288	422	478	573	423	198
Dry (24%)	178	128	34	74	67	119	233	376	469	518	391	174
Critical (15%)	118	76	34	48	59	104	221	249	323	380	276	89

**Alternative 1**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	285	162	524	558	567	562	404	561	600	638	480	291
20%	239	132	272	412	486	482	324	519	577	622	463	256
30%	195	103	114	288	296	288	297	481	531	602	438	227
40%	173	87	72	135	208	188	273	461	517	579	422	217
50%	162	81	43	78	114	155	255	444	488	547	405	205
60%	152	75	33	30	74	132	238	413	469	518	393	189
70%	138	58	24	18	53	108	214	384	454	493	369	179
80%	106	50	12	6	20	86	194	343	407	463	356	155
90%	92	32	-10	-8	-7	65	162	292	363	398	321	98
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	172	100	142	187	215	251	274	431	491	537	401	213
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	197	138	336	414	382	455	351	517	533	552	423	289
Above Normal (16%)	169	99	109	211	351	302	263	456	517	611	436	224
Below Normal (13%)	189	87	40	73	176	161	262	444	527	577	438	212
Dry (24%)	158	80	34	35	46	98	219	397	487	530	395	176
Critical (15%)	126	67	28	30	28	90	223	261	346	395	294	98

**Alternative 1 minus No Action Alternative**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-39	-95	2	1	0	-3	-45	2	58	-26	6	-237
20%	-44	-88	55	40	-5	38	-32	6	76	-2	17	-236
30%	-54	-92	-2	31	-61	26	-28	13	55	6	11	-139
40%	-43	-75	0	-11	45	19	-32	20	65	21	4	-126
50%	-38	-31	-6	-27	4	5	-30	20	50	11	0	-42
60%	-3	-22	-9	-40	-20	-1	-32	9	42	10	12	-9
70%	4	-12	-6	-32	-18	-1	-34	1	44	13	3	-4
80%	-13	-6	-6	-31	-34	-9	-32	15	30	13	8	5
90%	6	-8	-10	-32	-43	-7	-35	30	31	-2	19	-6
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-25	-44	2	-21	-15	8	-33	10	48	7	8	-82
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-38	-55	25	-20	-7	20	-46	-5	78	1	0	-215
Above Normal (16%)	-24	-44	-28	-11	-12	39	-71	13	58	3	17	-110
Below Normal (13%)	-41	-49	-3	-6	-6	17	-27	22	49	4	15	14
Dry (24%)	-20	-48	0	-39	-21	-21	-14	21	18	12	3	2
Critical (15%)	8	-9	-6	-18	-31	-15	2	12	23	16	17	9

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Second Basis of Comparison and Alternative 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-4-2. CVP Net Generation, Monthly Net Generation**

**No Action Alternative**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	324	257	523	556	567	564	449	560	543	664	474	528
20%	283	220	218	372	491	444	355	513	500	624	446	491
30%	249	195	116	257	358	262	325	468	476	596	427	366
40%	216	162	72	147	163	169	304	441	452	558	418	344
50%	200	112	49	104	110	150	285	424	438	537	405	246
60%	154	96	42	71	94	133	270	404	426	508	381	198
70%	134	71	30	50	71	109	248	383	410	480	366	183
80%	119	56	18	37	54	95	225	327	377	450	347	150
90%	86	40	-1	24	36	72	198	262	332	400	302	104
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	197	145	139	209	230	243	307	420	443	530	393	295
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	236	193	311	433	389	435	397	522	455	551	423	504
Above Normal (16%)	193	143	136	223	363	263	334	443	459	608	419	334
Below Normal (13%)	231	137	43	79	181	144	288	422	478	573	423	198
Dry (24%)	178	128	34	74	67	119	233	376	469	518	391	174
Critical (15%)	118	76	34	48	59	104	221	249	323	380	276	89

**Alternative 3**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	291	182	530	558	606	583	437	534	563	674	481	336
20%	235	125	266	480	511	511	316	479	531	638	465	266
30%	193	104	114	332	334	287	298	459	508	622	441	246
40%	173	91	74	160	183	189	268	439	473	596	424	216
50%	158	77	52	112	122	150	251	392	448	544	409	205
60%	147	66	39	72	84	122	229	374	433	528	387	195
70%	133	60	25	51	71	106	216	348	411	506	374	181
80%	113	52	12	36	56	92	200	316	387	469	362	155
90%	88	31	-6	18	41	71	174	260	340	397	326	104
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	172	102	150	224	241	250	275	400	457	549	406	217
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	197	137	349	456	402	443	347	475	467	572	436	294
Above Normal (16%)	166	109	123	257	381	276	269	408	475	621	429	230
Below Normal (13%)	190	81	42	117	198	167	276	418	493	588	440	221
Dry (24%)	160	81	36	67	71	115	217	372	478	537	396	177
Critical (15%)	125	73	35	45	60	108	223	260	346	402	305	101

**Alternative 3 minus No Action Alternative**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-33	-74	7	1	39	19	-13	-25	21	10	7	-192
20%	-48	-95	48	108	20	67	-39	-34	31	14	19	-226
30%	-56	-91	-2	76	-23	25	-27	-9	31	26	14	-120
40%	-43	-71	2	13	20	21	-36	-2	21	37	7	-128
50%	-42	-34	2	7	12	0	-34	-32	11	7	4	-41
60%	-8	-30	-4	1	-11	-11	-41	-30	7	20	6	-3
70%	-2	-11	-5	1	1	-4	-32	-35	1	26	8	-2
80%	-6	-4	-6	-1	1	-3	-26	-11	9	19	14	5
90%	3	-9	-5	-6	5	-1	-23	-3	8	-3	24	0
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-25	-43	10	16	10	7	-32	-20	14	19	13	-77
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-39	-56	38	23	13	8	-50	-47	12	22	13	-210
Above Normal (16%)	-27	-34	-13	35	18	13	-65	-35	16	13	10	-104
Below Normal (13%)	-40	-56	-1	38	17	23	-12	-4	15	15	17	23
Dry (24%)	-19	-48	2	-7	4	-4	-16	-3	9	20	4	3
Critical (15%)	7	-4	1	-3	1	4	1	11	24	22	28	13

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-4-3. CVP Net Generation, Monthly Net Generation**

**No Action Alternative**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	324	257	523	556	567	564	449	560	543	664	474	528
20%	283	220	218	372	491	444	355	513	500	624	446	491
30%	249	195	116	257	358	262	325	468	476	596	427	366
40%	216	162	72	147	163	169	304	441	452	558	418	344
50%	200	112	49	104	110	150	285	424	438	537	405	246
60%	154	96	42	71	94	133	270	404	426	508	381	198
70%	134	71	30	50	71	109	248	383	410	480	366	183
80%	119	56	18	37	54	95	225	327	377	450	347	150
90%	86	40	-1	24	36	72	198	262	332	400	302	104
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	197	145	139	209	230	243	307	420	443	530	393	295
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	236	193	311	433	389	435	397	522	455	551	423	504
Above Normal (16%)	193	143	136	223	363	263	334	443	459	608	419	334
Below Normal (13%)	231	137	43	79	181	144	288	422	478	573	423	198
Dry (24%)	178	128	34	74	67	119	233	376	469	518	391	174
Critical (15%)	118	76	34	48	59	104	221	249	323	380	276	89

**Alternative 5**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	323	255	511	557	567	559	451	559	528	654	468	527
20%	285	219	219	356	495	444	360	514	496	620	442	495
30%	233	186	113	253	363	270	330	469	475	589	426	365
40%	217	160	72	146	159	168	310	447	450	551	415	343
50%	194	116	48	104	107	148	294	426	437	531	402	243
60%	158	99	39	72	92	131	274	409	424	509	377	199
70%	134	71	28	52	67	105	254	389	404	485	366	177
80%	110	57	18	38	52	84	237	323	368	425	346	146
90%	84	31	-2	25	35	72	210	288	322	396	304	107
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	197	144	137	208	229	242	315	427	438	524	390	296
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	233	191	307	433	388	431	397	527	454	553	419	506
Above Normal (16%)	190	142	136	221	364	264	335	449	458	608	416	333
Below Normal (13%)	230	135	42	79	175	144	305	428	471	569	420	198
Dry (24%)	179	130	32	75	67	119	250	383	461	508	388	173
Critical (15%)	123	76	34	47	56	102	237	257	314	358	273	97

**Alternative 5 minus No Action Alternative**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-1	-1	-12	1	0	-5	1	-1	-14	-9	-6	-1
20%	2	-1	1	-16	4	1	5	1	-5	-4	-4	4
30%	-16	-9	-2	-4	6	8	5	1	-1	-8	-1	-1
40%	1	-2	-1	-1	-3	-1	5	6	-2	-7	-3	-1
50%	-7	4	-2	-1	-3	-2	9	2	-1	-5	-3	-3
60%	3	2	-3	1	-3	-2	4	5	-2	1	-4	1
70%	0	0	-2	1	-4	-4	6	6	-6	5	0	-6
80%	-9	1	0	1	-2	-11	12	-5	-9	-25	-1	-4
90%	-1	-9	-1	1	0	-1	12	26	-10	-4	2	3
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	0	0	-2	0	-1	-1	9	6	-5	-5	-4	1
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-3	-2	-4	0	0	-3	-1	5	-1	2	-4	2
Above Normal (16%)	-3	-1	0	-2	1	1	0	6	-1	0	-3	-2
Below Normal (13%)	0	-2	-1	-1	-6	0	17	6	-7	-4	-3	0
Dry (24%)	1	2	-2	1	0	0	17	7	-8	-9	-4	-1
Critical (15%)	5	0	0	-1	-3	-2	15	8	-8	-22	-3	8

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-4-4. CVP Net Generation, Monthly Net Generation**

**Second Basis of Comparison**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	285	162	524	558	567	562	404	561	600	638	480	291
20%	239	132	272	412	486	482	324	519	577	622	463	256
30%	195	103	114	288	296	288	297	481	531	602	438	227
40%	173	87	72	135	208	188	273	461	517	579	422	217
50%	162	81	43	78	114	155	255	444	488	547	405	205
60%	152	75	33	30	74	132	238	413	469	518	393	189
70%	138	58	24	18	53	108	214	384	454	493	369	179
80%	106	50	12	6	20	86	194	343	407	463	356	155
90%	92	32	-10	-8	-7	65	162	292	363	398	321	98
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	172	100	142	187	215	251	274	431	491	537	401	213
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	197	138	336	414	382	455	351	517	533	552	423	289
Above Normal (16%)	169	99	109	211	351	302	263	456	517	611	436	224
Below Normal (13%)	189	87	40	73	176	161	262	444	527	577	438	212
Dry (24%)	158	80	34	35	46	98	219	397	487	530	395	176
Critical (15%)	126	67	28	30	28	90	223	261	346	395	294	98

**No Action Alternative**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	324	257	523	556	567	564	449	560	543	664	474	528
20%	283	220	218	372	491	444	355	513	500	624	446	491
30%	249	195	116	257	358	262	325	468	476	596	427	366
40%	216	162	72	147	163	169	304	441	452	558	418	344
50%	200	112	49	104	110	150	285	424	438	537	405	246
60%	154	96	42	71	94	133	270	404	426	508	381	198
70%	134	71	30	50	71	109	248	383	410	480	366	183
80%	119	56	18	37	54	95	225	327	377	450	347	150
90%	86	40	-1	24	36	72	198	262	332	400	302	104
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	197	145	139	209	230	243	307	420	443	530	393	295
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	236	193	311	433	389	435	397	522	455	551	423	504
Above Normal (16%)	193	143	136	223	363	263	334	443	459	608	419	334
Below Normal (13%)	231	137	43	79	181	144	288	422	478	573	423	198
Dry (24%)	178	128	34	74	67	119	233	376	469	518	391	174
Critical (15%)	118	76	34	48	59	104	221	249	323	380	276	89

**No Action Alternative minus Second Basis of Comparison**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	39	95	-2	-1	0	3	45	-2	-58	26	-6	237
20%	44	88	-55	-40	5	-38	32	-6	-76	2	-17	236
30%	54	92	2	-31	61	-26	28	-13	-55	-6	-11	139
40%	43	75	0	11	-45	-19	32	-20	-65	-21	-4	126
50%	38	31	6	27	-4	-5	30	-20	-50	-11	0	42
60%	3	22	9	40	20	1	32	-9	-42	-10	-12	9
70%	-4	12	6	32	18	1	34	-1	-44	-13	-3	4
80%	13	6	6	31	34	9	32	-15	-30	-13	-8	-5
90%	-6	8	10	32	43	7	35	-30	-31	2	-19	6
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	25	44	-2	21	15	-8	33	-10	-48	-7	-8	82
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	38	55	-25	20	7	-20	46	5	-78	-1	0	215
Above Normal (16%)	24	44	28	11	12	-39	71	-13	-58	-3	-17	110
Below Normal (13%)	41	49	3	6	6	-17	27	-22	-49	-4	-15	-14
Dry (24%)	20	48	0	39	21	21	14	-21	-18	-12	-3	-2
Critical (15%)	-8	9	6	18	31	15	-2	-12	-23	-16	-17	-9

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-4-5. CVP Net Generation, Monthly Net Generation**

**Second Basis of Comparison**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	285	162	524	558	567	562	404	561	600	638	480	291
20%	239	132	272	412	486	482	324	519	577	622	463	256
30%	195	103	114	288	296	288	297	481	531	602	438	227
40%	173	87	72	135	208	188	273	461	517	579	422	217
50%	162	81	43	78	114	155	255	444	488	547	405	205
60%	152	75	33	30	74	132	238	413	469	518	393	189
70%	138	58	24	18	53	108	214	384	454	493	369	179
80%	106	50	12	6	20	86	194	343	407	463	356	155
90%	92	32	-10	-8	-7	65	162	292	363	398	321	98
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	172	100	142	187	215	251	274	431	491	537	401	213
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	197	138	336	414	382	455	351	517	533	552	423	289
Above Normal (16%)	169	99	109	211	351	302	263	456	517	611	436	224
Below Normal (13%)	189	87	40	73	176	161	262	444	527	577	438	212
Dry (24%)	158	80	34	35	46	98	219	397	487	530	395	176
Critical (15%)	126	67	28	30	28	90	223	261	346	395	294	98

**Alternative 3**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	291	182	530	558	606	583	437	534	563	674	481	336
20%	235	125	266	480	511	511	316	479	531	638	465	266
30%	193	104	114	332	334	287	298	459	508	622	441	246
40%	173	91	74	160	183	189	268	439	473	596	424	216
50%	158	77	52	112	122	150	251	392	448	544	409	205
60%	147	66	39	72	84	122	229	374	433	528	387	195
70%	133	60	25	51	71	106	216	348	411	506	374	181
80%	113	52	12	36	56	92	200	316	387	469	362	155
90%	88	31	-6	18	41	71	174	260	340	397	326	104
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	172	102	150	224	241	250	275	400	457	549	406	217
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	197	137	349	456	402	443	347	475	467	572	436	294
Above Normal (16%)	166	109	123	257	381	276	269	408	475	621	429	230
Below Normal (13%)	190	81	42	117	198	167	276	418	493	588	440	221
Dry (24%)	160	81	36	67	71	115	217	372	478	537	396	177
Critical (15%)	125	73	35	45	60	108	223	260	346	402	305	101

**Alternative 3 minus Second Basis of Comparison**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	6	21	6	0	39	22	32	-27	-37	36	1	45
20%	-4	-7	-6	68	26	29	-7	-40	-45	16	2	10
30%	-2	2	0	45	38	-2	1	-22	-23	20	3	19
40%	-1	4	2	24	-25	1	-5	-22	-44	16	3	-1
50%	-4	-3	8	34	8	-5	-5	-52	-39	-4	5	1
60%	-5	-9	6	42	10	-10	-9	-39	-36	10	-6	6
70%	-5	1	1	33	19	-3	2	-36	-44	13	5	3
80%	6	2	-1	30	35	6	6	-26	-21	6	6	0
90%	-4	-1	5	26	48	6	12	-32	-23	-1	6	6
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	0	2	8	37	25	0	1	-30	-34	12	5	4
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	0	0	13	43	20	-12	-4	-42	-66	21	13	5
Above Normal (16%)	-3	10	14	46	30	-26	6	-48	-43	10	-7	6
Below Normal (13%)	1	-6	3	44	22	5	15	-26	-34	11	2	9
Dry (24%)	2	1	2	32	25	17	-2	-24	-9	7	1	1
Critical (15%)	-1	6	7	15	32	19	0	-1	0	6	11	3

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-4-6. CVP Net Generation, Monthly Net Generation**

**Second Basis of Comparison**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	285	162	524	558	567	562	404	561	600	638	480	291
20%	239	132	272	412	486	482	324	519	577	622	463	256
30%	195	103	114	288	296	288	297	481	531	602	438	227
40%	173	87	72	135	208	188	273	461	517	579	422	217
50%	162	81	43	78	114	155	255	444	488	547	405	205
60%	152	75	33	30	74	132	238	413	469	518	393	189
70%	138	58	24	18	53	108	214	384	454	493	369	179
80%	106	50	12	6	20	86	194	343	407	463	356	155
90%	92	32	-10	-8	-7	65	162	292	363	398	321	98
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	172	100	142	187	215	251	274	431	491	537	401	213
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	197	138	336	414	382	455	351	517	533	552	423	289
Above Normal (16%)	169	99	109	211	351	302	263	456	517	611	436	224
Below Normal (13%)	189	87	40	73	176	161	262	444	527	577	438	212
Dry (24%)	158	80	34	35	46	98	219	397	487	530	395	176
Critical (15%)	126	67	28	30	28	90	223	261	346	395	294	98

**Alternative 5**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	323	255	511	557	567	559	451	559	528	654	468	527
20%	285	219	219	356	495	444	360	514	496	620	442	495
30%	233	186	113	253	363	270	330	469	475	589	426	365
40%	217	160	72	146	159	168	310	447	450	551	415	343
50%	194	116	48	104	107	148	294	426	437	531	402	243
60%	158	99	39	72	92	131	274	409	424	509	377	199
70%	134	71	28	52	67	105	254	389	404	485	366	177
80%	110	57	18	38	52	84	237	323	368	425	346	146
90%	84	31	-2	25	35	72	210	288	322	396	304	107
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	197	144	137	208	229	242	315	427	438	524	390	296
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	233	191	307	433	388	431	397	527	454	553	419	506
Above Normal (16%)	190	142	136	221	364	264	335	449	458	608	416	333
Below Normal (13%)	230	135	42	79	175	144	305	428	471	569	420	198
Dry (24%)	179	130	32	75	67	119	250	383	461	508	388	173
Critical (15%)	123	76	34	47	56	102	237	257	314	358	273	97

**Alternative 5 minus Second Basis of Comparison**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	38	94	-13	0	-1	-3	47	-2	-72	16	-12	236
20%	46	87	-54	-56	9	-38	37	-5	-81	-2	-21	240
30%	38	83	-1	-35	67	-18	33	-12	-56	-14	-12	137
40%	43	72	-1	11	-48	-20	37	-14	-67	-28	-7	125
50%	32	35	4	26	-6	-7	39	-18	-51	-16	-2	39
60%	6	24	6	42	18	-1	36	-4	-44	-9	-16	10
70%	-4	12	3	33	14	-3	41	5	-51	-8	-3	-2
80%	3	7	6	32	32	-2	44	-20	-39	-38	-10	-9
90%	-8	-1	8	33	43	7	48	-4	-41	-2	-17	8
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	25	44	-4	21	13	-9	41	-4	-53	-12	-12	83
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	35	54	-29	20	7	-23	46	10	-79	1	-4	217
Above Normal (16%)	21	43	27	9	13	-38	72	-7	-59	-3	-20	108
Below Normal (13%)	41	48	2	6	-1	-17	44	-16	-57	-8	-18	-14
Dry (24%)	22	50	-2	40	22	21	31	-14	-26	-22	-7	-2
Critical (15%)	-3	10	6	17	28	12	14	-4	-32	-38	-20	-1

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

1 **B.5. SWP Total Generating Capacity**

2

**Table B-5-1. SWP Total Capacity, Monthly Capacity**

**No Action Alternative**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,222	1,091	1,204	1,178	1,332	1,441	1,351	1,367	1,325	1,331	1,293	1,306
20%	1,074	1,027	1,036	1,033	1,201	1,281	1,297	1,310	1,235	1,282	1,275	1,226
30%	1,037	966	990	940	1,097	1,238	1,263	1,278	1,205	1,270	1,244	1,176
40%	983	879	914	861	989	1,143	1,242	1,236	1,184	1,262	1,212	1,115
50%	887	657	871	797	927	999	1,153	1,178	1,163	1,244	1,174	1,064
60%	642	595	627	664	860	932	1,100	1,101	1,146	1,182	1,072	951
70%	499	425	477	521	747	847	930	1,018	1,090	1,065	908	678
80%	374	351	357	294	651	759	840	964	989	927	591	501
90%	247	223	289	210	399	682	727	803	779	541	393	324
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	764	700	754	734	907	1,016	1,082	1,119	1,089	1,089	995	911
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	920	894	1,000	1,060	1,226	1,313	1,315	1,320	1,245	1,294	1,274	1,252
Above Normal (16%)	708	682	792	827	1,030	1,170	1,217	1,218	1,196	1,270	1,226	1,142
Below Normal (13%)	883	791	814	710	924	998	1,105	1,135	1,146	1,171	1,060	905
Dry (24%)	696	573	575	509	706	829	962	1,047	1,056	985	812	694
Critical (15%)	493	430	423	321	406	534	612	681	636	545	384	286

**Alternative 1**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,302	1,326	1,345	1,457	1,480	1,513	1,420	1,432	1,380	1,380	1,341	1,305
20%	1,225	1,200	1,244	1,340	1,469	1,484	1,393	1,408	1,355	1,362	1,289	1,276
30%	1,166	1,148	1,151	1,248	1,420	1,468	1,373	1,386	1,340	1,345	1,243	1,226
40%	1,093	1,085	1,098	1,111	1,293	1,444	1,323	1,357	1,304	1,311	1,218	1,153
50%	1,035	957	998	1,025	1,209	1,373	1,312	1,327	1,294	1,284	1,186	1,097
60%	881	603	768	819	1,116	1,263	1,251	1,293	1,270	1,214	1,113	1,048
70%	621	510	547	512	911	1,044	1,127	1,165	1,186	1,139	1,057	976
80%	496	398	466	355	667	851	912	1,026	1,090	1,068	977	689
90%	299	302	338	233	432	720	809	928	954	624	458	410
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	878	832	878	891	1,086	1,202	1,181	1,224	1,200	1,164	1,071	1,001
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	1,055	1,041	1,136	1,264	1,426	1,488	1,383	1,394	1,334	1,345	1,291	1,280
Above Normal (16%)	793	761	907	1,015	1,283	1,436	1,364	1,380	1,338	1,336	1,235	1,170
Below Normal (13%)	990	954	945	934	1,150	1,263	1,252	1,316	1,294	1,244	1,105	1,000
Dry (24%)	786	721	713	621	859	1,006	1,074	1,140	1,167	1,124	1,004	888
Critical (15%)	640	529	504	357	457	602	659	740	727	579	497	402

**Alternative 1 minus No Action Alternative**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	80	235	140	279	148	72	69	65	55	50	48	-1
20%	151	173	209	307	268	202	96	98	120	80	14	50
30%	130	182	161	308	323	230	110	108	135	74	-1	50
40%	110	206	184	251	304	301	81	121	120	49	6	38
50%	148	299	127	229	282	374	158	148	130	40	12	33
60%	239	8	141	155	256	331	151	192	124	31	41	98
70%	122	85	70	-9	164	197	198	147	96	74	149	298
80%	121	48	109	60	16	92	72	61	101	141	386	187
90%	52	79	48	23	33	38	82	125	175	83	64	86
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	114	131	124	157	179	186	99	105	111	75	76	90
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	134	147	136	204	200	175	68	74	89	52	17	28
Above Normal (16%)	86	79	115	188	253	267	147	161	143	65	9	28
Below Normal (13%)	106	163	131	225	226	265	147	181	147	72	45	95
Dry (24%)	90	148	137	112	153	177	112	93	111	139	192	194
Critical (15%)	147	99	81	36	51	68	47	59	92	34	114	116

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Second Basis of Comparison and Alternative 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-5-2. SWP Total Capacity, Monthly Capacity**

**No Action Alternative**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,222	1,091	1,204	1,178	1,332	1,441	1,351	1,367	1,325	1,331	1,293	1,306
20%	1,074	1,027	1,036	1,033	1,201	1,281	1,297	1,310	1,235	1,282	1,275	1,226
30%	1,037	966	990	940	1,097	1,238	1,263	1,278	1,205	1,270	1,244	1,176
40%	983	879	914	861	989	1,143	1,242	1,236	1,184	1,262	1,212	1,115
50%	887	657	871	797	927	999	1,153	1,178	1,163	1,244	1,174	1,064
60%	642	595	627	664	860	932	1,100	1,101	1,146	1,182	1,072	951
70%	499	425	477	521	747	847	930	1,018	1,090	1,065	908	678
80%	374	351	357	294	651	759	840	964	989	927	591	501
90%	247	223	289	210	399	682	727	803	779	541	393	324
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	764	700	754	734	907	1,016	1,082	1,119	1,089	1,089	995	911
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	920	894	1,000	1,060	1,226	1,313	1,315	1,320	1,245	1,294	1,274	1,252
Above Normal (16%)	708	682	792	827	1,030	1,170	1,217	1,218	1,196	1,270	1,226	1,142
Below Normal (13%)	883	791	814	710	924	998	1,105	1,135	1,146	1,171	1,060	905
Dry (24%)	696	573	575	509	706	829	962	1,047	1,056	985	812	694
Critical (15%)	493	430	423	321	406	534	612	681	636	545	384	286

**Alternative 3**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,319	1,361	1,353	1,424	1,478	1,483	1,401	1,435	1,387	1,388	1,348	1,320
20%	1,221	1,188	1,208	1,246	1,420	1,463	1,366	1,395	1,343	1,370	1,309	1,250
30%	1,150	1,128	1,125	1,098	1,297	1,407	1,340	1,365	1,330	1,345	1,242	1,204
40%	1,052	1,057	1,062	1,042	1,180	1,307	1,315	1,342	1,293	1,299	1,214	1,130
50%	988	821	1,003	966	1,096	1,266	1,293	1,301	1,256	1,272	1,162	1,083
60%	827	631	767	767	960	1,075	1,254	1,259	1,211	1,218	1,105	1,016
70%	555	514	545	579	806	919	1,078	1,131	1,163	1,118	1,028	914
80%	427	375	431	309	681	823	929	995	1,033	992	907	609
90%	244	241	345	264	412	676	727	813	793	550	422	352
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	850	810	859	846	1,022	1,127	1,158	1,201	1,168	1,143	1,041	955
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	1,023	1,020	1,119	1,200	1,365	1,444	1,373	1,397	1,341	1,360	1,297	1,267
Above Normal (16%)	764	775	900	909	1,145	1,327	1,312	1,336	1,294	1,318	1,236	1,156
Below Normal (13%)	985	953	950	886	1,094	1,196	1,248	1,294	1,240	1,236	1,110	1,007
Dry (24%)	770	674	660	608	799	885	1,043	1,110	1,129	1,063	921	789
Critical (15%)	579	488	500	372	456	562	636	698	658	529	412	287

**Alternative 3 minus No Action Alternative**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	97	270	148	246	146	42	50	67	62	57	55	13
20%	147	161	173	213	219	182	69	85	108	88	34	24
30%	114	162	135	157	200	169	77	87	125	75	-2	28
40%	69	178	148	181	191	164	74	106	109	37	2	14
50%	101	164	133	169	169	267	139	123	93	28	-12	19
60%	185	37	140	103	100	143	154	159	65	36	34	65
70%	56	89	68	57	60	71	148	113	73	53	120	236
80%	52	24	73	14	31	64	88	31	44	65	317	108
90%	-4	19	55	54	13	-7	0	10	15	10	28	28
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	86	110	105	113	115	111	76	82	80	54	46	44
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	102	127	119	140	139	132	58	77	96	66	23	15
Above Normal (16%)	56	94	108	81	115	157	95	118	99	48	10	14
Below Normal (13%)	102	162	136	177	170	198	143	159	94	65	50	101
Dry (24%)	75	101	85	99	93	56	81	63	73	79	109	95
Critical (15%)	86	58	77	51	49	29	24	17	23	-17	28	1

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-5-3. SWP Total Capacity, Monthly Capacity**

**No Action Alternative**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,222	1,091	1,204	1,178	1,332	1,441	1,351	1,367	1,325	1,331	1,293	1,306
20%	1,074	1,027	1,036	1,033	1,201	1,281	1,297	1,310	1,235	1,282	1,275	1,226
30%	1,037	966	990	940	1,097	1,238	1,263	1,278	1,205	1,270	1,244	1,176
40%	983	879	914	861	989	1,143	1,242	1,236	1,184	1,262	1,212	1,115
50%	887	657	871	797	927	999	1,153	1,178	1,163	1,244	1,174	1,064
60%	642	595	627	664	860	932	1,100	1,101	1,146	1,182	1,072	951
70%	499	425	477	521	747	847	930	1,018	1,090	1,065	908	678
80%	374	351	357	294	651	759	840	964	989	927	591	501
90%	247	223	289	210	399	682	727	803	779	541	393	324
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	764	700	754	734	907	1,016	1,082	1,119	1,089	1,089	995	911
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	920	894	1,000	1,060	1,226	1,313	1,315	1,320	1,245	1,294	1,274	1,252
Above Normal (16%)	708	682	792	827	1,030	1,170	1,217	1,218	1,196	1,270	1,226	1,142
Below Normal (13%)	883	791	814	710	924	998	1,105	1,135	1,146	1,171	1,060	905
Dry (24%)	696	573	575	509	706	829	962	1,047	1,056	985	812	694
Critical (15%)	493	430	423	321	406	534	612	681	636	545	384	286

**Alternative 5**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,193	1,103	1,143	1,240	1,347	1,439	1,337	1,354	1,274	1,303	1,291	1,289
20%	1,082	1,023	1,032	1,039	1,215	1,303	1,285	1,298	1,235	1,285	1,271	1,225
30%	1,039	966	977	949	1,104	1,239	1,253	1,275	1,203	1,268	1,242	1,183
40%	991	880	932	860	990	1,106	1,237	1,239	1,181	1,262	1,215	1,117
50%	922	706	875	805	939	1,020	1,152	1,180	1,167	1,245	1,175	1,071
60%	639	594	677	656	836	937	1,106	1,081	1,139	1,174	1,068	958
70%	492	431	475	534	750	851	982	1,014	1,083	1,055	938	707
80%	370	349	357	293	645	760	830	963	984	919	591	492
90%	227	222	326	200	364	658	722	788	776	526	393	294
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	761	704	754	740	909	1,016	1,079	1,111	1,085	1,088	993	907
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	909	888	999	1,081	1,229	1,310	1,303	1,316	1,241	1,294	1,273	1,249
Above Normal (16%)	692	666	783	816	1,028	1,170	1,211	1,214	1,194	1,272	1,227	1,139
Below Normal (13%)	882	821	798	717	932	1,005	1,108	1,121	1,143	1,180	1,074	912
Dry (24%)	699	589	585	514	708	829	966	1,031	1,046	982	808	697
Critical (15%)	504	434	432	317	401	533	615	684	636	535	369	257

**Alternative 5 minus No Action Alternative**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-29	12	-61	62	15	-2	-14	-13	-51	-27	-2	-17
20%	8	-4	-3	7	13	22	-12	-13	0	3	-5	-1
30%	3	0	-12	9	7	1	-9	-3	-2	-3	-2	7
40%	9	1	18	0	1	-37	-5	3	-2	0	3	1
50%	35	48	4	8	12	21	-1	1	4	1	1	7
60%	-3	0	50	-8	-24	5	6	-19	-7	-9	-3	7
70%	-7	6	-2	12	3	4	52	-4	-7	-10	30	29
80%	-4	-2	0	-2	-5	1	-10	-1	-4	-8	0	-9
90%	-21	0	37	-10	-35	-25	-5	-15	-3	-15	0	-30
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-4	4	0	6	1	0	-3	-7	-4	0	-1	-4
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-11	-5	0	21	3	-3	-13	-4	-4	0	-1	-3
Above Normal (16%)	-16	-16	-9	-12	-2	1	-6	-5	-1	2	1	-4
Below Normal (13%)	-1	30	-17	7	8	8	3	-14	-4	9	14	7
Dry (24%)	4	15	9	5	2	0	4	-16	-10	-2	-3	3
Critical (15%)	11	4	9	-4	-5	-1	3	3	0	-10	-15	-28

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-5-4. SWP Total Capacity, Monthly Capacity**

**Second Basis of Comparison**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,302	1,326	1,345	1,457	1,480	1,513	1,420	1,432	1,380	1,380	1,341	1,305
20%	1,225	1,200	1,244	1,340	1,469	1,484	1,393	1,408	1,355	1,362	1,289	1,276
30%	1,166	1,148	1,151	1,248	1,420	1,468	1,373	1,386	1,340	1,345	1,243	1,226
40%	1,093	1,085	1,098	1,111	1,293	1,444	1,323	1,357	1,304	1,311	1,218	1,153
50%	1,035	957	998	1,025	1,209	1,373	1,312	1,327	1,294	1,284	1,186	1,097
60%	881	603	768	819	1,116	1,263	1,251	1,293	1,270	1,214	1,113	1,048
70%	621	510	547	512	911	1,044	1,127	1,165	1,186	1,139	1,057	976
80%	496	398	466	355	667	851	912	1,026	1,090	1,068	977	689
90%	299	302	338	233	432	720	809	928	954	624	458	410
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	878	832	878	891	1,086	1,202	1,181	1,224	1,200	1,164	1,071	1,001
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	1,055	1,041	1,136	1,264	1,426	1,488	1,383	1,394	1,334	1,345	1,291	1,280
Above Normal (16%)	793	761	907	1,015	1,283	1,436	1,364	1,380	1,338	1,336	1,235	1,170
Below Normal (13%)	990	954	945	934	1,150	1,263	1,252	1,316	1,294	1,244	1,105	1,000
Dry (24%)	786	721	713	621	859	1,006	1,074	1,140	1,167	1,124	1,004	888
Critical (15%)	640	529	504	357	457	602	659	740	727	579	497	402

**No Action Alternative**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,222	1,091	1,204	1,178	1,332	1,441	1,351	1,367	1,325	1,331	1,293	1,306
20%	1,074	1,027	1,036	1,033	1,201	1,281	1,297	1,310	1,235	1,282	1,275	1,226
30%	1,037	966	990	940	1,097	1,238	1,263	1,278	1,205	1,270	1,244	1,176
40%	983	879	914	861	989	1,143	1,242	1,236	1,184	1,262	1,212	1,115
50%	887	657	871	797	927	999	1,153	1,178	1,163	1,244	1,174	1,064
60%	642	595	627	664	860	932	1,100	1,101	1,146	1,182	1,072	951
70%	499	425	477	521	747	847	930	1,018	1,090	1,065	908	678
80%	374	351	357	294	651	759	840	964	989	927	591	501
90%	247	223	289	210	399	682	727	803	779	541	393	324
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	764	700	754	734	907	1,016	1,082	1,119	1,089	1,089	995	911
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	920	894	1,000	1,060	1,226	1,313	1,315	1,320	1,245	1,294	1,274	1,252
Above Normal (16%)	708	682	792	827	1,030	1,170	1,217	1,218	1,196	1,270	1,226	1,142
Below Normal (13%)	883	791	814	710	924	998	1,105	1,135	1,146	1,171	1,060	905
Dry (24%)	696	573	575	509	706	829	962	1,047	1,056	985	812	694
Critical (15%)	493	430	423	321	406	534	612	681	636	545	384	286

**No Action Alternative minus Second Basis of Comparison**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-80	-235	-140	-279	-148	-72	-69	-65	-55	-50	-48	1
20%	-151	-173	-209	-307	-268	-202	-96	-98	-120	-80	-14	-50
30%	-130	-182	-161	-308	-323	-230	-110	-108	-135	-74	1	-50
40%	-110	-206	-184	-251	-304	-301	-81	-121	-120	-49	-6	-38
50%	-148	-299	-127	-229	-282	-374	-158	-148	-130	-40	-12	-33
60%	-239	-8	-141	-155	-256	-331	-151	-192	-124	-31	-41	-98
70%	-122	-85	-70	9	-164	-197	-198	-147	-96	-74	-149	-298
80%	-121	-48	-109	-60	-16	-92	-72	-61	-101	-141	-386	-187
90%	-52	-79	-48	-23	-33	-38	-82	-125	-175	-83	-64	-86
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-114	-131	-124	-157	-179	-186	-99	-105	-111	-75	-76	-90
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-134	-147	-136	-204	-200	-175	-68	-74	-89	-52	-17	-28
Above Normal (16%)	-86	-79	-115	-188	-253	-267	-147	-161	-143	-65	-9	-28
Below Normal (13%)	-106	-163	-131	-225	-226	-265	-147	-181	-147	-72	-45	-95
Dry (24%)	-90	-148	-137	-112	-153	-177	-112	-93	-111	-139	-192	-194
Critical (15%)	-147	-99	-81	-36	-51	-68	-47	-59	-92	-34	-114	-116

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-5-5. SWP Total Capacity, Monthly Capacity**

**Second Basis of Comparison**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,302	1,326	1,345	1,457	1,480	1,513	1,420	1,432	1,380	1,380	1,341	1,305
20%	1,225	1,200	1,244	1,340	1,469	1,484	1,393	1,408	1,355	1,362	1,289	1,276
30%	1,166	1,148	1,151	1,248	1,420	1,468	1,373	1,386	1,340	1,345	1,243	1,226
40%	1,093	1,085	1,098	1,111	1,293	1,444	1,323	1,357	1,304	1,311	1,218	1,153
50%	1,035	957	998	1,025	1,209	1,373	1,312	1,327	1,294	1,284	1,186	1,097
60%	881	603	768	819	1,116	1,263	1,251	1,293	1,270	1,214	1,113	1,048
70%	621	510	547	512	911	1,044	1,127	1,165	1,186	1,139	1,057	976
80%	496	398	466	355	667	851	912	1,026	1,090	1,068	977	689
90%	299	302	338	233	432	720	809	928	954	624	458	410
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	878	832	878	891	1,086	1,202	1,181	1,224	1,200	1,164	1,071	1,001
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	1,055	1,041	1,136	1,264	1,426	1,488	1,383	1,394	1,334	1,345	1,291	1,280
Above Normal (16%)	793	761	907	1,015	1,283	1,436	1,364	1,380	1,338	1,336	1,235	1,170
Below Normal (13%)	990	954	945	934	1,150	1,263	1,252	1,316	1,294	1,244	1,105	1,000
Dry (24%)	786	721	713	621	859	1,006	1,074	1,140	1,167	1,124	1,004	888
Critical (15%)	640	529	504	357	457	602	659	740	727	579	497	402

**Alternative 3**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,319	1,361	1,353	1,424	1,478	1,483	1,401	1,435	1,387	1,388	1,348	1,320
20%	1,221	1,188	1,208	1,246	1,420	1,463	1,366	1,395	1,343	1,370	1,309	1,250
30%	1,150	1,128	1,125	1,098	1,297	1,407	1,340	1,365	1,330	1,345	1,242	1,204
40%	1,052	1,057	1,062	1,042	1,180	1,307	1,315	1,342	1,293	1,299	1,214	1,130
50%	988	821	1,003	966	1,096	1,266	1,293	1,301	1,256	1,272	1,162	1,083
60%	827	631	767	767	960	1,075	1,254	1,259	1,211	1,218	1,105	1,016
70%	555	514	545	579	806	919	1,078	1,131	1,163	1,118	1,028	914
80%	427	375	431	309	681	823	929	995	1,033	992	907	609
90%	244	241	345	264	412	676	727	813	793	550	422	352
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	850	810	859	846	1,022	1,127	1,158	1,201	1,168	1,143	1,041	955
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	1,023	1,020	1,119	1,200	1,365	1,444	1,373	1,397	1,341	1,360	1,297	1,267
Above Normal (16%)	764	775	900	909	1,145	1,327	1,312	1,336	1,294	1,318	1,236	1,156
Below Normal (13%)	985	953	950	886	1,094	1,196	1,248	1,294	1,240	1,236	1,110	1,007
Dry (24%)	770	674	660	608	799	885	1,043	1,110	1,129	1,063	921	789
Critical (15%)	579	488	500	372	456	562	636	698	658	529	412	287

**Alternative 3 minus Second Basis of Comparison**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	17	35	8	-33	-2	-30	-19	2	7	8	8	15
20%	-4	-12	-36	-94	-49	-20	-27	-13	-12	8	20	-26
30%	-16	-20	-26	-150	-123	-61	-33	-21	-10	0	-1	-22
40%	-41	-28	-36	-70	-113	-137	-7	-15	-11	-12	-4	-23
50%	-46	-136	5	-60	-113	-107	-19	-25	-38	-12	-24	-14
60%	-53	28	-2	-52	-156	-187	3	-34	-59	4	-8	-33
70%	-66	4	-2	67	-104	-126	-49	-34	-23	-21	-29	-62
80%	-69	-23	-35	-46	15	-28	16	-31	-57	-76	-70	-80
90%	-56	-60	7	32	-20	-45	-82	-115	-160	-73	-36	-58
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-28	-21	-19	-44	-64	-75	-23	-22	-31	-21	-30	-46
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-32	-20	-17	-64	-61	-43	-10	3	7	15	6	-13
Above Normal (16%)	-30	15	-7	-106	-138	-109	-52	-43	-44	-17	1	-14
Below Normal (13%)	-4	0	5	-48	-56	-67	-4	-22	-53	-7	5	6
Dry (24%)	-16	-47	-53	-12	-60	-121	-30	-30	-38	-61	-83	-98
Critical (15%)	-61	-41	-4	15	-1	-39	-23	-42	-69	-50	-86	-115

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-5-6. SWP Total Capacity, Monthly Capacity**

**Second Basis of Comparison**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,302	1,326	1,345	1,457	1,480	1,513	1,420	1,432	1,380	1,380	1,341	1,305
20%	1,225	1,200	1,244	1,340	1,469	1,484	1,393	1,408	1,355	1,362	1,289	1,276
30%	1,166	1,148	1,151	1,248	1,420	1,468	1,373	1,386	1,340	1,345	1,243	1,226
40%	1,093	1,085	1,098	1,111	1,293	1,444	1,323	1,357	1,304	1,311	1,218	1,153
50%	1,035	957	998	1,025	1,209	1,373	1,312	1,327	1,294	1,284	1,186	1,097
60%	881	603	768	819	1,116	1,263	1,251	1,293	1,270	1,214	1,113	1,048
70%	621	510	547	512	911	1,044	1,127	1,165	1,186	1,139	1,057	976
80%	496	398	466	355	667	851	912	1,026	1,090	1,068	977	689
90%	299	302	338	233	432	720	809	928	954	624	458	410
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	878	832	878	891	1,086	1,202	1,181	1,224	1,200	1,164	1,071	1,001
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	1,055	1,041	1,136	1,264	1,426	1,488	1,383	1,394	1,334	1,345	1,291	1,280
Above Normal (16%)	793	761	907	1,015	1,283	1,436	1,364	1,380	1,338	1,336	1,235	1,170
Below Normal (13%)	990	954	945	934	1,150	1,263	1,252	1,316	1,294	1,244	1,105	1,000
Dry (24%)	786	721	713	621	859	1,006	1,074	1,140	1,167	1,124	1,004	888
Critical (15%)	640	529	504	357	457	602	659	740	727	579	497	402

**Alternative 5**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,193	1,103	1,143	1,240	1,347	1,439	1,337	1,354	1,274	1,303	1,291	1,289
20%	1,082	1,023	1,032	1,039	1,215	1,303	1,285	1,298	1,235	1,285	1,271	1,225
30%	1,039	966	977	949	1,104	1,239	1,253	1,275	1,203	1,268	1,242	1,183
40%	991	880	932	860	990	1,106	1,237	1,239	1,181	1,262	1,215	1,117
50%	922	706	875	805	939	1,020	1,152	1,180	1,167	1,245	1,175	1,071
60%	639	594	677	656	836	937	1,106	1,081	1,139	1,174	1,068	958
70%	492	431	475	534	750	851	982	1,014	1,083	1,055	938	707
80%	370	349	357	293	645	760	830	963	984	919	591	492
90%	227	222	326	200	364	658	722	788	776	526	393	294
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	761	704	754	740	909	1,016	1,079	1,111	1,085	1,088	993	907
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	909	888	999	1,081	1,229	1,310	1,303	1,316	1,241	1,294	1,273	1,249
Above Normal (16%)	692	666	783	816	1,028	1,170	1,211	1,214	1,194	1,272	1,227	1,139
Below Normal (13%)	882	821	798	717	932	1,005	1,108	1,121	1,143	1,180	1,074	912
Dry (24%)	699	589	585	514	708	829	966	1,031	1,046	982	808	697
Critical (15%)	504	434	432	317	401	533	615	684	636	535	369	257

**Alternative 5 minus Second Basis of Comparison**

Statistic	Monthly Capacity (MW)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-109	-223	-201	-217	-134	-74	-84	-78	-105	-77	-49	-15
20%	-143	-177	-212	-301	-254	-181	-108	-111	-120	-77	-19	-51
30%	-127	-182	-174	-299	-316	-229	-119	-111	-138	-77	-1	-43
40%	-101	-205	-165	-251	-304	-338	-85	-118	-122	-49	-3	-36
50%	-113	-251	-123	-221	-270	-354	-159	-147	-126	-38	-11	-26
60%	-241	-9	-91	-164	-280	-325	-145	-212	-131	-40	-44	-91
70%	-129	-79	-72	22	-161	-194	-146	-151	-103	-83	-119	-269
80%	-125	-50	-108	-62	-21	-91	-82	-63	-106	-149	-386	-197
90%	-72	-79	-11	-33	-68	-63	-87	-139	-178	-98	-64	-116
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-118	-127	-125	-151	-177	-186	-102	-112	-115	-76	-78	-94
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-146	-152	-137	-183	-197	-178	-81	-78	-92	-51	-18	-31
Above Normal (16%)	-102	-95	-124	-199	-255	-266	-153	-166	-144	-63	-8	-31
Below Normal (13%)	-107	-133	-148	-217	-218	-258	-144	-195	-151	-63	-31	-88
Dry (24%)	-87	-132	-128	-107	-151	-177	-107	-109	-121	-142	-195	-191
Critical (15%)	-136	-95	-73	-40	-56	-69	-44	-56	-91	-44	-128	-144

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

1 **B.6. SWP Total Energy Generation**

2

**Table B-6-1. SWP Total Generation, Monthly Generation**

<b>No Action Alternative</b>												
Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	501	396	434	660	675	759	602	704	535	712	619	662
20%	429	355	376	261	551	569	419	532	483	691	605	621
30%	408	328	300	190	238	425	361	443	470	677	581	593
40%	388	311	282	171	169	299	337	411	439	662	553	534
50%	340	285	270	139	131	161	315	380	413	645	518	486
60%	302	255	246	94	110	114	247	329	398	579	481	374
70%	228	199	200	59	72	88	185	272	382	497	374	304
80%	197	158	156	44	55	63	126	247	344	407	295	256
90%	124	85	87	36	45	47	99	207	277	231	195	170
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	321	272	275	208	245	298	313	408	414	556	458	438
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	378	342	347	414	506	592	521	622	487	647	551	630
Above Normal (16%)	290	261	276	172	217	370	331	410	443	697	606	556
Below Normal (13%)	383	295	294	141	138	156	260	343	417	633	516	388
Dry (24%)	294	223	226	96	92	81	183	300	402	483	366	313
Critical (15%)	220	191	182	52	60	72	108	184	243	256	199	145

<b>Alternative 1</b>												
Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	483	422	475	810	779	852	601	673	636	740	638	505
20%	467	401	396	393	640	698	442	603	591	719	590	481
30%	450	379	355	319	468	596	379	542	557	680	554	470
40%	433	356	338	237	298	492	351	453	533	643	510	434
50%	401	338	303	208	239	330	325	410	496	591	488	402
60%	372	315	285	191	201	281	298	363	458	538	452	387
70%	307	227	261	95	168	165	235	324	421	477	428	362
80%	262	193	197	51	95	125	137	267	384	432	401	328
90%	157	155	151	39	39	51	117	223	356	368	299	244
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	360	311	325	285	336	409	335	441	489	565	479	395
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	405	371	422	542	611	716	517	608	524	638	524	442
Above Normal (16%)	323	265	309	250	370	572	384	486	566	712	588	479
Below Normal (13%)	408	340	305	227	272	291	313	460	558	629	509	418
Dry (24%)	346	291	284	127	147	164	210	327	466	498	456	377
Critical (15%)	281	235	222	80	79	85	117	207	304	300	275	210

<b>Alternative 1 minus No Action Alternative</b>												
Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-18	26	40	150	104	93	-1	-31	101	27	18	-158
20%	38	46	20	132	89	130	23	72	108	28	-15	-140
30%	43	51	55	129	230	171	18	99	87	3	-27	-123
40%	45	46	55	66	129	194	14	42	94	-19	-43	-100
50%	61	53	33	69	108	169	10	30	83	-55	-30	-84
60%	71	60	38	97	91	167	50	34	60	-41	-29	13
70%	79	28	62	36	96	77	49	52	39	-20	54	58
80%	65	35	41	6	40	63	11	20	40	25	106	72
90%	33	70	64	4	-6	4	18	16	78	137	104	74
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	39	39	50	76	92	112	22	33	75	9	21	-43
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	27	29	74	129	105	124	-4	-14	37	-9	-27	-189
Above Normal (16%)	33	4	33	78	152	201	53	76	123	15	-18	-77
Below Normal (13%)	25	45	11	86	134	135	53	116	141	-4	-7	30
Dry (24%)	52	69	58	31	55	83	27	27	64	15	90	63
Critical (15%)	61	44	40	28	19	13	8	23	60	44	76	66

<sup>a</sup> Exceedance probability is defined as the probability a given value will be exceeded in any one year.

<sup>b</sup> Based on the 82-year simulation period.

<sup>c</sup> As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Second Basis of Comparison and Alternative 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-6-2. SWP Total Generation, Monthly Generation**

**No Action Alternative**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	501	396	434	660	675	759	602	704	535	712	619	662
20%	429	355	376	261	551	569	419	532	483	691	605	621
30%	408	328	300	190	238	425	361	443	470	677	581	593
40%	388	311	282	171	169	299	337	411	439	662	553	534
50%	340	285	270	139	131	161	315	380	413	645	518	486
60%	302	255	246	94	110	114	247	329	398	579	481	374
70%	228	199	200	59	72	88	185	272	382	497	374	304
80%	197	158	156	44	55	63	126	247	344	407	295	256
90%	124	85	87	36	45	47	99	207	277	231	195	170
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	321	272	275	208	245	298	313	408	414	556	458	438
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	378	342	347	414	506	592	521	622	487	647	551	630
Above Normal (16%)	290	261	276	172	217	370	331	410	443	697	606	556
Below Normal (13%)	383	295	294	141	138	156	260	343	417	633	516	388
Dry (24%)	294	223	226	96	92	81	183	300	402	483	366	313
Critical (15%)	220	191	182	52	60	72	108	184	243	256	199	145

**Alternative 3**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	484	425	486	779	741	795	601	682	597	727	623	493
20%	461	400	385	335	617	641	425	578	567	714	592	474
30%	434	382	356	238	357	550	395	499	534	698	570	448
40%	401	354	317	207	268	435	343	454	513	678	539	408
50%	384	333	295	189	187	293	328	419	496	656	509	391
60%	346	301	280	166	156	196	313	382	475	615	470	375
70%	275	261	257	79	120	114	242	346	448	520	416	344
80%	209	187	189	44	69	88	131	247	381	424	363	286
90%	129	91	131	35	46	49	111	216	295	264	217	176
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	339	305	313	258	303	367	333	437	476	571	468	368
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	398	375	421	507	583	682	514	616	543	659	534	428
Above Normal (16%)	305	284	310	191	284	497	363	463	532	717	596	467
Below Normal (13%)	397	336	306	198	244	263	330	451	503	664	552	383
Dry (24%)	312	266	246	121	119	99	212	332	460	505	411	348
Critical (15%)	244	213	203	76	79	85	114	184	271	251	205	148

**Alternative 3 minus No Action Alternative**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-17	29	52	119	66	36	-1	-21	62	15	4	-169
20%	32	45	9	74	65	72	5	46	84	22	-13	-148
30%	26	54	56	48	120	126	34	56	64	21	-11	-145
40%	13	44	34	36	99	136	7	42	74	16	-14	-126
50%	43	47	25	51	56	131	13	39	83	11	-9	-95
60%	44	46	34	72	46	82	66	53	77	36	-11	1
70%	47	62	57	20	47	27	56	74	66	23	42	40
80%	12	29	33	-1	14	25	5	1	37	17	67	30
90%	5	6	44	-1	1	2	12	9	17	33	21	6
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	18	34	38	50	58	69	20	29	62	16	10	-70
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	19	33	73	93	76	89	-7	-6	57	12	-17	-203
Above Normal (16%)	15	23	35	20	67	127	32	53	90	20	-10	-89
Below Normal (13%)	15	41	12	57	106	106	70	108	86	31	36	-5
Dry (24%)	18	43	20	25	27	18	29	31	58	22	45	35
Critical (15%)	24	22	21	24	19	12	5	0	28	-5	6	3

<sup>a</sup> Exceedance probability is defined as the probability a given value will be exceeded in any one year.

<sup>b</sup> Based on the 82-year simulation period.

<sup>c</sup> As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-6-3. SWP Total Generation, Monthly Generation**

**No Action Alternative**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	501	396	434	660	675	759	602	704	535	712	619	662
20%	429	355	376	261	551	569	419	532	483	691	605	621
30%	408	328	300	190	238	425	361	443	470	677	581	593
40%	388	311	282	171	169	299	337	411	439	662	553	534
50%	340	285	270	139	131	161	315	380	413	645	518	486
60%	302	255	246	94	110	114	247	329	398	579	481	374
70%	228	199	200	59	72	88	185	272	382	497	374	304
80%	197	158	156	44	55	63	126	247	344	407	295	256
90%	124	85	87	36	45	47	99	207	277	231	195	170
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	321	272	275	208	245	298	313	408	414	556	458	438
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	378	342	347	414	506	592	521	622	487	647	551	630
Above Normal (16%)	290	261	276	172	217	370	331	410	443	697	606	556
Below Normal (13%)	383	295	294	141	138	156	260	343	417	633	516	388
Dry (24%)	294	223	226	96	92	81	183	300	402	483	366	313
Critical (15%)	220	191	182	52	60	72	108	184	243	256	199	145

**Alternative 5**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	475	413	406	652	685	727	587	692	517	714	622	651
20%	435	357	365	284	538	573	414	532	484	699	607	622
30%	410	329	300	190	221	448	362	434	464	681	589	590
40%	391	314	278	177	184	301	333	406	435	663	561	535
50%	331	291	267	130	153	168	311	380	412	651	535	491
60%	303	252	254	87	93	116	256	308	400	589	468	391
70%	222	205	218	58	72	89	192	266	376	486	380	302
80%	190	171	163	44	54	62	132	244	353	411	307	254
90%	120	90	96	36	44	47	103	202	259	234	197	159
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	317	275	274	211	244	297	312	401	409	557	462	436
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	372	339	344	426	507	590	510	618	479	645	554	624
Above Normal (16%)	280	264	276	162	215	368	326	404	440	698	607	557
Below Normal (13%)	369	316	281	142	141	160	265	328	412	639	534	393
Dry (24%)	298	227	227	96	93	81	194	288	398	490	370	313
Critical (15%)	219	192	189	51	54	73	108	183	239	249	196	140

**Alternative 5 minus No Action Alternative**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-26	17	-28	-8	11	-32	-15	-11	-18	2	3	-12
20%	6	1	-11	23	-13	4	-5	0	0	8	2	1
30%	2	1	0	0	-17	23	1	-9	-6	4	8	-4
40%	3	4	-4	6	14	2	-4	-5	-5	1	8	1
50%	-9	5	-3	-9	22	6	-4	0	-2	5	18	5
60%	1	-3	7	-7	-17	2	9	-21	2	10	-13	17
70%	-6	6	18	-1	-1	1	6	-6	-5	-11	6	-3
80%	-7	13	7	0	-1	-1	6	-3	9	4	11	-2
90%	-4	6	9	0	-2	0	3	-5	-18	4	1	-11
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-4	4	-2	3	0	-1	-1	-8	-5	1	4	-2
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-6	-2	-3	13	1	-2	-11	-5	-8	-1	3	-7
Above Normal (16%)	-9	3	0	-9	-2	-3	-5	-6	-2	1	1	1
Below Normal (13%)	-14	21	-13	1	2	3	5	-16	-5	6	18	5
Dry (24%)	4	5	1	1	1	0	10	-12	-4	7	3	0
Critical (15%)	0	1	8	-1	-6	1	-1	-1	-5	-7	-3	-5

<sup>a</sup> Exceedance probability is defined as the probability a given value will be exceeded in any one year.

<sup>b</sup> Based on the 82-year simulation period.

<sup>c</sup> As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-6-4. SWP Total Generation, Monthly Generation**

**Second Basis of Comparison**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	483	422	475	810	779	852	601	673	636	740	638	505
20%	467	401	396	393	640	698	442	603	591	719	590	481
30%	450	379	355	319	468	596	379	542	557	680	554	470
40%	433	356	338	237	298	492	351	453	533	643	510	434
50%	401	338	303	208	239	330	325	410	496	591	488	402
60%	372	315	285	191	201	281	298	363	458	538	452	387
70%	307	227	261	95	168	165	235	324	421	477	428	362
80%	262	193	197	51	95	125	137	267	384	432	401	328
90%	157	155	151	39	39	51	117	223	356	368	299	244
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	360	311	325	285	336	409	335	441	489	565	479	395
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	405	371	422	542	611	716	517	608	524	638	524	442
Above Normal (16%)	323	265	309	250	370	572	384	486	566	712	588	479
Below Normal (13%)	408	340	305	227	272	291	313	460	558	629	509	418
Dry (24%)	346	291	284	127	147	164	210	327	466	498	456	377
Critical (15%)	281	235	222	80	79	85	117	207	304	300	275	210

**No Action Alternative**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	501	396	434	660	675	759	602	704	535	712	619	662
20%	429	355	376	261	551	569	419	532	483	691	605	621
30%	408	328	300	190	238	425	361	443	470	677	581	593
40%	388	311	282	171	169	299	337	411	439	662	553	534
50%	340	285	270	139	131	161	315	380	413	645	518	486
60%	302	255	246	94	110	114	247	329	398	579	481	374
70%	228	199	200	59	72	88	185	272	382	497	374	304
80%	197	158	156	44	55	63	126	247	344	407	295	256
90%	124	85	87	36	45	47	99	207	277	231	195	170
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	321	272	275	208	245	298	313	408	414	556	458	438
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	378	342	347	414	506	592	521	622	487	647	551	630
Above Normal (16%)	290	261	276	172	217	370	331	410	443	697	606	556
Below Normal (13%)	383	295	294	141	138	156	260	343	417	633	516	388
Dry (24%)	294	223	226	96	92	81	183	300	402	483	366	313
Critical (15%)	220	191	182	52	60	72	108	184	243	256	199	145

**No Action Alternative minus Second Basis of Comparison**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	18	-26	-40	-150	-104	-93	1	31	-101	-27	-18	158
20%	-38	-46	-20	-132	-89	-130	-23	-72	-108	-28	15	140
30%	-43	-51	-55	-129	-230	-171	-18	-99	-87	-3	27	123
40%	-45	-46	-55	-66	-129	-194	-14	-42	-94	19	43	100
50%	-61	-53	-33	-69	-108	-169	-10	-30	-83	55	30	84
60%	-71	-60	-38	-97	-91	-167	-50	-34	-60	41	29	-13
70%	-79	-28	-62	-36	-96	-77	-49	-52	-39	20	-54	-58
80%	-65	-35	-41	-6	-40	-63	-11	-20	-40	-25	-106	-72
90%	-33	-70	-64	-4	6	-4	-18	-16	-78	-137	-104	-74
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-39	-39	-50	-76	-92	-112	-22	-33	-75	-9	-21	43
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-27	-29	-74	-129	-105	-124	4	14	-37	9	27	189
Above Normal (16%)	-33	-4	-33	-78	-152	-201	-53	-76	-123	-15	18	77
Below Normal (13%)	-25	-45	-11	-86	-134	-135	-53	-116	-141	4	7	-30
Dry (24%)	-52	-69	-58	-31	-55	-83	-27	-27	-64	-15	-90	-63
Critical (15%)	-61	-44	-40	-28	-19	-13	-8	-23	-60	-44	-76	-66

<sup>a</sup> Exceedance probability is defined as the probability a given value will be exceeded in any one year.

<sup>b</sup> Based on the 82-year simulation period.

<sup>c</sup> As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-6-5. SWP Total Generation, Monthly Generation**

**Second Basis of Comparison**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	483	422	475	810	779	852	601	673	636	740	638	505
20%	467	401	396	393	640	698	442	603	591	719	590	481
30%	450	379	355	319	468	596	379	542	557	680	554	470
40%	433	356	338	237	298	492	351	453	533	643	510	434
50%	401	338	303	208	239	330	325	410	496	591	488	402
60%	372	315	285	191	201	281	298	363	458	538	452	387
70%	307	227	261	95	168	165	235	324	421	477	428	362
80%	262	193	197	51	95	125	137	267	384	432	401	328
90%	157	155	151	39	39	51	117	223	356	368	299	244
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	360	311	325	285	336	409	335	441	489	565	479	395
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	405	371	422	542	611	716	517	608	524	638	524	442
Above Normal (16%)	323	265	309	250	370	572	384	486	566	712	588	479
Below Normal (13%)	408	340	305	227	272	291	313	460	558	629	509	418
Dry (24%)	346	291	284	127	147	164	210	327	466	498	456	377
Critical (15%)	281	235	222	80	79	85	117	207	304	300	275	210

**Alternative 3**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	484	425	486	779	741	795	601	682	597	727	623	493
20%	461	400	385	335	617	641	425	578	567	714	592	474
30%	434	382	356	238	357	550	395	499	534	698	570	448
40%	401	354	317	207	268	435	343	454	513	678	539	408
50%	384	333	295	189	187	293	328	419	496	656	509	391
60%	346	301	280	166	156	196	313	382	475	615	470	375
70%	275	261	257	79	120	114	242	346	448	520	416	344
80%	209	187	189	44	69	88	131	247	381	424	363	286
90%	129	91	131	35	46	49	111	216	295	264	217	176
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	339	305	313	258	303	367	333	437	476	571	468	368
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	398	375	421	507	583	682	514	616	543	659	534	428
Above Normal (16%)	305	284	310	191	284	497	363	463	532	717	596	467
Below Normal (13%)	397	336	306	198	244	263	330	451	503	664	552	383
Dry (24%)	312	266	246	121	119	99	212	332	460	505	411	348
Critical (15%)	244	213	203	76	79	85	114	184	271	251	205	148

**Alternative 3 minus Second Basis of Comparison**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	2	3	12	-31	-38	-57	0	10	-40	-13	-15	-12
20%	-6	-2	-11	-59	-24	-58	-18	-25	-24	-6	2	-7
30%	-16	3	0	-82	-110	-46	16	-43	-22	19	16	-22
40%	-32	-2	-21	-29	-30	-58	-7	1	-20	35	28	-26
50%	-18	-6	-8	-18	-52	-37	3	8	0	66	21	-12
60%	-26	-14	-4	-25	-45	-85	16	19	16	77	18	-12
70%	-32	35	-4	-16	-49	-50	7	22	27	43	-13	-18
80%	-52	-7	-8	-7	-26	-38	-6	-20	-2	-8	-39	-42
90%	-28	-64	-20	-4	7	-2	-6	-7	-61	-104	-83	-68
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-20	-5	-12	-26	-33	-43	-2	-4	-12	7	-11	-27
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-7	4	-1	-35	-28	-35	-3	8	20	21	10	-14
Above Normal (16%)	-18	19	2	-59	-85	-75	-21	-23	-33	5	8	-12
Below Normal (13%)	-11	-4	1	-29	-28	-29	17	-8	-54	35	43	-35
Dry (24%)	-34	-26	-38	-5	-29	-66	2	5	-6	7	-45	-29
Critical (15%)	-37	-21	-20	-4	0	-1	-3	-23	-32	-49	-70	-63

<sup>a</sup> Exceedance probability is defined as the probability a given value will be exceeded in any one year.

<sup>b</sup> Based on the 82-year simulation period.

<sup>c</sup> As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-6-6. SWP Total Generation, Monthly Generation**

**Second Basis of Comparison**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	483	422	475	810	779	852	601	673	636	740	638	505
20%	467	401	396	393	640	698	442	603	591	719	590	481
30%	450	379	355	319	468	596	379	542	557	680	554	470
40%	433	356	338	237	298	492	351	453	533	643	510	434
50%	401	338	303	208	239	330	325	410	496	591	488	402
60%	372	315	285	191	201	281	298	363	458	538	452	387
70%	307	227	261	95	168	165	235	324	421	477	428	362
80%	262	193	197	51	95	125	137	267	384	432	401	328
90%	157	155	151	39	39	51	117	223	356	368	299	244
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	360	311	325	285	336	409	335	441	489	565	479	395
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	405	371	422	542	611	716	517	608	524	638	524	442
Above Normal (16%)	323	265	309	250	370	572	384	486	566	712	588	479
Below Normal (13%)	408	340	305	227	272	291	313	460	558	629	509	418
Dry (24%)	346	291	284	127	147	164	210	327	466	498	456	377
Critical (15%)	281	235	222	80	79	85	117	207	304	300	275	210

**Alternative 5**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	475	413	406	652	685	727	587	692	517	714	622	651
20%	435	357	365	284	538	573	414	532	484	699	607	622
30%	410	329	300	190	221	448	362	434	464	681	589	590
40%	391	314	278	177	184	301	333	406	435	663	561	535
50%	331	291	267	130	153	168	311	380	412	651	535	491
60%	303	252	254	87	93	116	256	308	400	589	468	391
70%	222	205	218	58	72	89	192	266	376	486	380	302
80%	190	171	163	44	54	62	132	244	353	411	307	254
90%	120	90	96	36	44	47	103	202	259	234	197	159
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	317	275	274	211	244	297	312	401	409	557	462	436
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	372	339	344	426	507	590	510	618	479	645	554	624
Above Normal (16%)	280	264	276	162	215	368	326	404	440	698	607	557
Below Normal (13%)	369	316	281	142	141	160	265	328	412	639	534	393
Dry (24%)	298	227	227	96	93	81	194	288	398	490	370	313
Critical (15%)	219	192	189	51	54	73	108	183	239	249	196	140

**Alternative 5 minus Second Basis of Comparison**

Statistic	Monthly Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-8	-9	-68	-158	-94	-125	-14	19	-120	-25	-16	146
20%	-32	-45	-31	-110	-102	-126	-28	-71	-108	-20	17	141
30%	-40	-50	-55	-129	-247	-148	-17	-108	-92	1	35	119
40%	-42	-42	-59	-60	-114	-191	-18	-47	-99	20	51	101
50%	-70	-48	-35	-78	-86	-162	-14	-30	-85	60	47	88
60%	-69	-63	-31	-104	-108	-166	-41	-55	-58	51	16	4
70%	-85	-22	-44	-37	-97	-76	-43	-58	-45	9	-49	-60
80%	-72	-22	-33	-6	-41	-63	-5	-23	-30	-21	-95	-74
90%	-37	-65	-55	-3	5	-4	-14	-21	-97	-133	-102	-85
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-43	-35	-52	-74	-92	-112	-23	-41	-80	-8	-17	41
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-33	-31	-77	-116	-104	-126	-7	10	-45	8	30	182
Above Normal (16%)	-42	-1	-33	-87	-154	-204	-58	-82	-125	-14	19	78
Below Normal (13%)	-39	-24	-24	-85	-132	-132	-48	-132	-146	11	26	-25
Dry (24%)	-48	-64	-57	-30	-55	-83	-16	-39	-68	-8	-86	-63
Critical (15%)	-62	-43	-33	-29	-25	-12	-9	-24	-65	-51	-79	-70

<sup>a</sup> Exceedance probability is defined as the probability a given value will be exceeded in any one year.

<sup>b</sup> Based on the 82-year simulation period.

<sup>c</sup> As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

1 **B.7. SWP Total Energy Use**

2

**Table B-7-1. SWP Total Energy Use, Monthly Energy Use**

**No Action Alternative**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,039	953	1,062	785	833	1,001	844	1,019	986	1,124	1,133	1,126
20%	968	879	934	516	639	831	746	883	856	1,062	1,112	1,099
30%	917	836	869	453	501	741	699	814	798	1,017	1,078	1,067
40%	871	769	806	365	405	499	636	769	763	991	1,054	1,003
50%	812	716	759	312	321	304	516	681	736	965	1,038	971
60%	744	587	680	165	290	232	413	495	697	926	991	943
70%	595	497	550	139	166	199	223	416	579	803	804	780
80%	497	443	413	128	129	160	151	403	549	681	641	669
90%	298	270	309	102	82	123	107	285	384	400	402	379
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	738	657	705	359	397	474	486	644	701	874	900	868
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	858	796	802	552	638	810	737	877	866	1,036	1,081	1,048
Above Normal (16%)	693	660	718	366	432	568	595	735	776	993	1,073	1,031
Below Normal (13%)	835	715	806	333	364	398	465	607	704	962	993	943
Dry (24%)	676	556	628	239	224	223	320	507	619	785	765	775
Critical (15%)	541	471	515	156	155	133	121	300	394	463	461	384

**Alternative 1**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,148	1,119	1,145	1,102	1,006	1,103	990	1,106	1,055	1,146	1,146	1,140
20%	1,133	1,091	1,078	1,036	976	1,101	956	1,082	1,008	1,131	1,130	1,135
30%	1,101	1,061	1,052	885	954	1,091	908	1,048	981	1,122	1,120	1,124
40%	1,030	999	971	696	921	1,041	848	977	926	1,049	1,029	1,064
50%	983	947	906	628	757	1,012	786	908	863	988	1,011	1,030
60%	890	867	868	474	619	833	715	838	794	945	976	985
70%	740	636	759	320	498	623	418	530	672	861	950	948
80%	599	536	632	279	318	318	239	423	582	765	875	845
90%	488	486	491	181	233	195	147	396	565	704	742	712
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	871	840	864	625	678	781	652	801	820	951	975	966
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	987	969	966	901	936	1,078	902	1,006	946	1,064	1,075	1,079
Above Normal (16%)	793	746	867	710	824	1,045	910	1,039	973	1,094	1,102	1,103
Below Normal (13%)	981	941	914	698	681	824	700	888	893	1,032	1,034	1,035
Dry (24%)	827	807	815	400	489	540	437	590	702	875	932	934
Critical (15%)	679	627	676	248	271	216	145	371	510	600	640	564

**Alternative 1 minus No Action Alternative**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	108	167	83	317	173	102	146	87	70	22	13	14
20%	165	211	144	520	337	270	210	199	152	69	18	36
30%	183	225	183	432	453	350	209	234	183	105	41	57
40%	158	229	165	331	516	542	212	208	163	57	-25	60
50%	170	231	147	316	436	708	270	227	127	23	-27	59
60%	147	280	188	309	330	601	302	343	97	19	-15	42
70%	145	138	209	181	331	424	194	114	92	58	146	168
80%	102	93	219	151	189	158	88	20	33	84	234	176
90%	190	215	183	79	150	72	40	111	181	304	340	332
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	134	183	159	267	281	307	166	157	119	76	75	99
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	130	172	164	348	298	268	165	129	79	28	-5	31
Above Normal (16%)	100	86	149	344	393	477	315	304	197	102	29	71
Below Normal (13%)	145	226	108	365	317	426	234	282	188	69	41	92
Dry (24%)	151	251	187	161	265	317	117	83	83	90	166	159
Critical (15%)	139	157	160	92	116	83	24	70	116	137	179	180

<sup>a</sup> Exceedance probability is defined as the probability a given value will be exceeded in any one year.

<sup>b</sup> Based on the 82-year simulation period.

<sup>c</sup> As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Second Basis of Comparison and Alternative 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-7-2. SWP Total Energy Use, Monthly Energy Use**

**No Action Alternative**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,039	953	1,062	785	833	1,001	844	1,019	986	1,124	1,133	1,126
20%	968	879	934	516	639	831	746	883	856	1,062	1,112	1,099
30%	917	836	869	453	501	741	699	814	798	1,017	1,078	1,067
40%	871	769	806	365	405	499	636	769	763	991	1,054	1,003
50%	812	716	759	312	321	304	516	681	736	965	1,038	971
60%	744	587	680	165	290	232	413	495	697	926	991	943
70%	595	497	550	139	166	199	223	416	579	803	804	780
80%	497	443	413	128	129	160	151	403	549	681	641	669
90%	298	270	309	102	82	123	107	285	384	400	402	379
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	738	657	705	359	397	474	486	644	701	874	900	868
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	858	796	802	552	638	810	737	877	866	1,036	1,081	1,048
Above Normal (16%)	693	660	718	366	432	568	595	735	776	993	1,073	1,031
Below Normal (13%)	835	715	806	333	364	398	465	607	704	962	993	943
Dry (24%)	676	556	628	239	224	223	320	507	619	785	765	775
Critical (15%)	541	471	515	156	155	133	121	300	394	463	461	384

**Alternative 3**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,138	1,105	1,067	983	981	1,101	942	1,098	1,018	1,137	1,130	1,135
20%	1,091	1,087	1,029	857	895	1,093	910	1,047	970	1,124	1,118	1,126
30%	1,052	1,047	986	585	804	995	873	999	920	1,101	1,089	1,096
40%	1,026	1,006	956	513	633	871	845	952	891	1,063	1,066	1,065
50%	974	932	887	470	513	780	774	882	834	1,018	1,049	1,030
60%	883	856	830	416	438	520	727	831	796	981	1,018	983
70%	700	700	694	170	338	276	423	542	705	926	992	925
80%	523	518	581	134	160	199	196	423	590	741	760	764
90%	282	333	376	111	108	142	136	323	438	426	454	425
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	831	817	798	482	541	653	643	780	785	926	940	919
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	975	971	902	754	855	1,037	896	1,014	948	1,084	1,091	1,087
Above Normal (16%)	756	797	844	444	603	863	838	966	894	1,063	1,086	1,074
Below Normal (13%)	961	921	891	499	529	719	730	879	837	1,026	1,056	993
Dry (24%)	764	733	706	308	299	281	444	587	696	859	865	877
Critical (15%)	592	551	593	212	207	156	135	300	415	456	475	393

**Alternative 3 minus No Action Alternative**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	99	152	5	197	148	100	98	79	32	14	-3	10
20%	123	208	95	341	257	262	164	165	114	62	6	27
30%	135	211	117	133	303	254	175	186	121	84	10	29
40%	154	236	150	148	228	372	209	184	128	71	12	62
50%	162	216	128	159	192	476	258	201	98	53	10	59
60%	139	268	149	251	148	288	314	336	100	55	27	41
70%	105	202	144	30	172	77	200	126	126	123	189	145
80%	26	75	168	5	31	39	45	20	41	60	119	95
90%	-16	62	67	9	26	19	28	38	53	26	52	45
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	93	159	94	124	144	179	157	136	84	52	40	52
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	117	175	101	201	217	227	159	137	81	48	11	39
Above Normal (16%)	63	136	127	78	172	295	243	232	119	70	13	42
Below Normal (13%)	126	206	85	166	165	322	265	273	133	63	63	49
Dry (24%)	88	177	78	70	75	58	124	79	77	74	100	101
Critical (15%)	51	80	77	56	52	23	14	-1	21	-8	14	10

<sup>a</sup> Exceedance probability is defined as the probability a given value will be exceeded in any one year.

<sup>b</sup> Based on the 82-year simulation period.

<sup>c</sup> As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-7-3. SWP Total Energy Use, Monthly Energy Use**

**No Action Alternative**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,039	953	1,062	785	833	1,001	844	1,019	986	1,124	1,133	1,126
20%	968	879	934	516	639	831	746	883	856	1,062	1,112	1,099
30%	917	836	869	453	501	741	699	814	798	1,017	1,078	1,067
40%	871	769	806	365	405	499	636	769	763	991	1,054	1,003
50%	812	716	759	312	321	304	516	681	736	965	1,038	971
60%	744	587	680	165	290	232	413	495	697	926	991	943
70%	595	497	550	139	166	199	223	416	579	803	804	780
80%	497	443	413	128	129	160	151	403	549	681	641	669
90%	298	270	309	102	82	123	107	285	384	400	402	379
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	738	657	705	359	397	474	486	644	701	874	900	868
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	858	796	802	552	638	810	737	877	866	1,036	1,081	1,048
Above Normal (16%)	693	660	718	366	432	568	595	735	776	993	1,073	1,031
Below Normal (13%)	835	715	806	333	364	398	465	607	704	962	993	943
Dry (24%)	676	556	628	239	224	223	320	507	619	785	765	775
Critical (15%)	541	471	515	156	155	133	121	300	394	463	461	384

**Alternative 5**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	995	932	982	856	881	1,018	786	943	905	1,082	1,137	1,112
20%	950	869	887	518	621	830	726	846	833	1,043	1,101	1,081
30%	910	847	840	461	541	702	681	809	789	1,024	1,075	1,049
40%	875	787	795	390	425	519	626	769	765	990	1,052	1,005
50%	828	723	768	279	341	316	484	638	731	974	1,036	980
60%	750	654	708	168	218	237	423	518	704	926	1,000	915
70%	590	518	542	140	172	197	270	399	579	839	809	782
80%	449	457	433	130	133	155	118	380	545	700	637	655
90%	317	265	315	102	80	123	91	261	351	405	381	395
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	726	668	696	366	396	473	468	622	690	869	900	861
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	845	802	792	588	638	799	703	857	847	1,023	1,074	1,035
Above Normal (16%)	665	651	714	342	436	572	579	719	772	994	1,074	1,033
Below Normal (13%)	796	770	767	334	372	407	456	572	697	970	1,017	952
Dry (24%)	683	568	621	240	225	224	313	482	612	788	769	772
Critical (15%)	543	472	529	152	136	132	105	285	385	445	446	365

**Alternative 5 minus No Action Alternative**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-44	-21	-80	71	48	17	-58	-76	-81	-42	4	-14
20%	-18	-11	-47	1	-17	-1	-20	-37	-23	-19	-11	-18
30%	-7	11	-30	9	40	-39	-17	-5	-9	7	-4	-18
40%	4	17	-11	25	20	19	-10	1	2	-2	-2	2
50%	15	6	9	-33	20	12	-32	-43	-5	9	-3	9
60%	6	66	28	3	-72	4	10	23	7	0	9	-28
70%	-5	21	-8	0	5	-2	47	-17	0	35	6	2
80%	-48	15	20	1	5	-5	-33	-23	-4	19	-4	-13
90%	19	-5	6	0	-2	0	-16	-24	-33	5	-21	15
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-12	11	-9	8	-1	-1	-19	-22	-11	-5	0	-6
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-13	6	-9	36	0	-10	-34	-20	-20	-13	-7	-13
Above Normal (16%)	-27	-9	-4	-24	4	3	-16	-16	-4	1	1	1
Below Normal (13%)	-39	55	-39	1	8	9	-9	-34	-7	8	25	8
Dry (24%)	7	12	-7	2	1	1	-7	-25	-7	3	3	-3
Critical (15%)	2	1	13	-3	-19	0	-16	-15	-9	-19	-15	-19

<sup>a</sup> Exceedance probability is defined as the probability a given value will be exceeded in any one year.

<sup>b</sup> Based on the 82-year simulation period.

<sup>c</sup> As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-7-4. SWP Total Energy Use, Monthly Energy Use**

**Second Basis of Comparison**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,148	1,119	1,145	1,102	1,006	1,103	990	1,106	1,055	1,146	1,146	1,140
20%	1,133	1,091	1,078	1,036	976	1,101	956	1,082	1,008	1,131	1,130	1,135
30%	1,101	1,061	1,052	885	954	1,091	908	1,048	981	1,122	1,120	1,124
40%	1,030	999	971	696	921	1,041	848	977	926	1,049	1,029	1,064
50%	983	947	906	628	757	1,012	786	908	863	988	1,011	1,030
60%	890	867	868	474	619	833	715	838	794	945	976	985
70%	740	636	759	320	498	623	418	530	672	861	950	948
80%	599	536	632	279	318	318	239	423	582	765	875	845
90%	488	486	491	181	233	195	147	396	565	704	742	712
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	871	840	864	625	678	781	652	801	820	951	975	966
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	987	969	966	901	936	1,078	902	1,006	946	1,064	1,075	1,079
Above Normal (16%)	793	746	867	710	824	1,045	910	1,039	973	1,094	1,102	1,103
Below Normal (13%)	981	941	914	698	681	824	700	888	893	1,032	1,034	1,035
Dry (24%)	827	807	815	400	489	540	437	590	702	875	932	934
Critical (15%)	679	627	676	248	271	216	145	371	510	600	640	564

**No Action Alternative**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,039	953	1,062	785	833	1,001	844	1,019	986	1,124	1,133	1,126
20%	968	879	934	516	639	831	746	883	856	1,062	1,112	1,099
30%	917	836	869	453	501	741	699	814	798	1,017	1,078	1,067
40%	871	769	806	365	405	499	636	769	763	991	1,054	1,003
50%	812	716	759	312	321	304	516	681	736	965	1,038	971
60%	744	587	680	165	290	232	413	495	697	926	991	943
70%	595	497	550	139	166	199	223	416	579	803	804	780
80%	497	443	413	128	129	160	151	403	549	681	641	669
90%	298	270	309	102	82	123	107	285	384	400	402	379
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	738	657	705	359	397	474	486	644	701	874	900	868
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	858	796	802	552	638	810	737	877	866	1,036	1,081	1,048
Above Normal (16%)	693	660	718	366	432	568	595	735	776	993	1,073	1,031
Below Normal (13%)	835	715	806	333	364	398	465	607	704	962	993	943
Dry (24%)	676	556	628	239	224	223	320	507	619	785	765	775
Critical (15%)	541	471	515	156	155	133	121	300	394	463	461	384

**No Action Alternative minus Second Basis of Comparison**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-108	-167	-83	-317	-173	-102	-146	-87	-70	-22	-13	-14
20%	-165	-211	-144	-520	-337	-270	-210	-199	-152	-69	-18	-36
30%	-183	-225	-183	-432	-453	-350	-209	-234	-183	-105	-41	-57
40%	-158	-229	-165	-331	-516	-542	-212	-208	-163	-57	25	-60
50%	-170	-231	-147	-316	-436	-708	-270	-227	-127	-23	27	-59
60%	-147	-280	-188	-309	-330	-601	-302	-343	-97	-19	15	-42
70%	-145	-138	-209	-181	-331	-424	-194	-114	-92	-58	-146	-168
80%	-102	-93	-219	-151	-189	-158	-88	-20	-33	-84	-234	-176
90%	-190	-215	-183	-79	-150	-72	-40	-111	-181	-304	-340	-332
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-134	-183	-159	-267	-281	-307	-166	-157	-119	-76	-75	-99
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-130	-172	-164	-348	-298	-268	-165	-129	-79	-28	5	-31
Above Normal (16%)	-100	-86	-149	-344	-393	-477	-315	-304	-197	-102	-29	-71
Below Normal (13%)	-145	-226	-108	-365	-317	-426	-234	-282	-188	-69	-41	-92
Dry (24%)	-151	-251	-187	-161	-265	-317	-117	-83	-83	-90	-166	-159
Critical (15%)	-139	-157	-160	-92	-116	-83	-24	-70	-116	-137	-179	-180

<sup>a</sup> Exceedance probability is defined as the probability a given value will be exceeded in any one year.

<sup>b</sup> Based on the 82-year simulation period.

<sup>c</sup> As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-7-5. SWP Total Energy Use, Monthly Energy Use**

**Second Basis of Comparison**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,148	1,119	1,145	1,102	1,006	1,103	990	1,106	1,055	1,146	1,146	1,140
20%	1,133	1,091	1,078	1,036	976	1,101	956	1,082	1,008	1,131	1,130	1,135
30%	1,101	1,061	1,052	885	954	1,091	908	1,048	981	1,122	1,120	1,124
40%	1,030	999	971	696	921	1,041	848	977	926	1,049	1,029	1,064
50%	983	947	906	628	757	1,012	786	908	863	988	1,011	1,030
60%	890	867	868	474	619	833	715	838	794	945	976	985
70%	740	636	759	320	498	623	418	530	672	861	950	948
80%	599	536	632	279	318	318	239	423	582	765	875	845
90%	488	486	491	181	233	195	147	396	565	704	742	712
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	871	840	864	625	678	781	652	801	820	951	975	966
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	987	969	966	901	936	1,078	902	1,006	946	1,064	1,075	1,079
Above Normal (16%)	793	746	867	710	824	1,045	910	1,039	973	1,094	1,102	1,103
Below Normal (13%)	981	941	914	698	681	824	700	888	893	1,032	1,034	1,035
Dry (24%)	827	807	815	400	489	540	437	590	702	875	932	934
Critical (15%)	679	627	676	248	271	216	145	371	510	600	640	564

**Alternative 3**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,138	1,105	1,067	983	981	1,101	942	1,098	1,018	1,137	1,130	1,135
20%	1,091	1,087	1,029	857	895	1,093	910	1,047	970	1,124	1,118	1,126
30%	1,052	1,047	986	585	804	995	873	999	920	1,101	1,089	1,096
40%	1,026	1,006	956	513	633	871	845	952	891	1,063	1,066	1,065
50%	974	932	887	470	513	780	774	882	834	1,018	1,049	1,030
60%	883	856	830	416	438	520	727	831	796	981	1,018	983
70%	700	700	694	170	338	276	423	542	705	926	992	925
80%	523	518	581	134	160	199	196	423	590	741	760	764
90%	282	333	376	111	108	142	136	323	438	426	454	425
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	831	817	798	482	541	653	643	780	785	926	940	919
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	975	971	902	754	855	1,037	896	1,014	948	1,084	1,091	1,087
Above Normal (16%)	756	797	844	444	603	863	838	966	894	1,063	1,086	1,074
Below Normal (13%)	961	921	891	499	529	719	730	879	837	1,026	1,056	993
Dry (24%)	764	733	706	308	299	281	444	587	696	859	865	877
Critical (15%)	592	551	593	212	207	156	135	300	415	456	475	393

**Alternative 3 minus Second Basis of Comparison**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-10	-14	-78	-120	-26	-2	-48	-9	-38	-9	-16	-4
20%	-42	-4	-50	-179	-80	-8	-46	-35	-38	-7	-12	-9
30%	-48	-14	-67	-299	-150	-95	-35	-48	-61	-21	-31	-28
40%	-4	7	-15	-183	-288	-170	-3	-25	-35	14	37	2
50%	-8	-15	-20	-157	-244	-233	-11	-26	-29	30	37	0
60%	-7	-11	-38	-58	-182	-313	12	-7	3	35	42	-2
70%	-40	64	-65	-151	-159	-347	5	12	33	65	43	-23
80%	-77	-18	-51	-145	-157	-119	-43	0	8	-24	-115	-81
90%	-206	-153	-115	-70	-124	-53	-11	-73	-127	-277	-289	-287
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-41	-23	-66	-143	-137	-128	-9	-21	-35	-24	-35	-47
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-12	3	-64	-147	-81	-41	-7	8	2	21	16	7
Above Normal (16%)	-37	51	-23	-266	-221	-182	-72	-72	-79	-31	-16	-29
Below Normal (13%)	-20	-20	-23	-199	-152	-104	30	-9	-56	-6	22	-43
Dry (24%)	-63	-74	-109	-91	-190	-259	7	-4	-6	-16	-66	-57
Critical (15%)	-88	-77	-83	-36	-64	-60	-10	-71	-95	-145	-165	-171

<sup>a</sup> Exceedance probability is defined as the probability a given value will be exceeded in any one year.

<sup>b</sup> Based on the 82-year simulation period.

<sup>c</sup> As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-7-6. SWP Total Energy Use, Monthly Energy Use**

**Second Basis of Comparison**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	1,148	1,119	1,145	1,102	1,006	1,103	990	1,106	1,055	1,146	1,146	1,140
20%	1,133	1,091	1,078	1,036	976	1,101	956	1,082	1,008	1,131	1,130	1,135
30%	1,101	1,061	1,052	885	954	1,091	908	1,048	981	1,122	1,120	1,124
40%	1,030	999	971	696	921	1,041	848	977	926	1,049	1,029	1,064
50%	983	947	906	628	757	1,012	786	908	863	988	1,011	1,030
60%	890	867	868	474	619	833	715	838	794	945	976	985
70%	740	636	759	320	498	623	418	530	672	861	950	948
80%	599	536	632	279	318	318	239	423	582	765	875	845
90%	488	486	491	181	233	195	147	396	565	704	742	712
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	871	840	864	625	678	781	652	801	820	951	975	966
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	987	969	966	901	936	1,078	902	1,006	946	1,064	1,075	1,079
Above Normal (16%)	793	746	867	710	824	1,045	910	1,039	973	1,094	1,102	1,103
Below Normal (13%)	981	941	914	698	681	824	700	888	893	1,032	1,034	1,035
Dry (24%)	827	807	815	400	489	540	437	590	702	875	932	934
Critical (15%)	679	627	676	248	271	216	145	371	510	600	640	564

**Alternative 5**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	995	932	982	856	881	1,018	786	943	905	1,082	1,137	1,112
20%	950	869	887	518	621	830	726	846	833	1,043	1,101	1,081
30%	910	847	840	461	541	702	681	809	789	1,024	1,075	1,049
40%	875	787	795	390	425	519	626	769	765	990	1,052	1,005
50%	828	723	768	279	341	316	484	638	731	974	1,036	980
60%	750	654	708	168	218	237	423	518	704	926	1,000	915
70%	590	518	542	140	172	197	270	399	579	839	809	782
80%	449	457	433	130	133	155	118	380	545	700	637	655
90%	317	265	315	102	80	123	91	261	351	405	381	395
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	726	668	696	366	396	473	468	622	690	869	900	861
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	845	802	792	588	638	799	703	857	847	1,023	1,074	1,035
Above Normal (16%)	665	651	714	342	436	572	579	719	772	994	1,074	1,033
Below Normal (13%)	796	770	767	334	372	407	456	572	697	970	1,017	952
Dry (24%)	683	568	621	240	225	224	313	482	612	788	769	772
Critical (15%)	543	472	529	152	136	132	105	285	385	445	446	365

**Alternative 5 minus Second Basis of Comparison**

Statistic	Monthly Energy Use (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-153	-187	-163	-246	-126	-85	-204	-164	-151	-64	-9	-28
20%	-182	-222	-191	-519	-355	-270	-230	-237	-175	-88	-29	-54
30%	-190	-214	-213	-424	-413	-389	-227	-239	-192	-98	-45	-75
40%	-155	-212	-175	-306	-496	-523	-222	-208	-160	-59	22	-58
50%	-155	-224	-139	-349	-416	-696	-302	-269	-131	-14	25	-49
60%	-140	-213	-160	-306	-402	-597	-292	-320	-90	-19	24	-70
70%	-150	-117	-217	-181	-326	-426	-147	-131	-92	-22	-140	-165
80%	-150	-79	-200	-149	-184	-163	-121	-44	-37	-65	-238	-190
90%	-171	-220	-177	-79	-152	-72	-55	-135	-214	-298	-362	-317
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-145	-172	-168	-259	-282	-308	-184	-179	-130	-81	-75	-105
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-143	-167	-174	-312	-298	-278	-199	-149	-99	-41	-2	-44
Above Normal (16%)	-127	-95	-153	-368	-388	-473	-331	-320	-201	-100	-27	-70
Below Normal (13%)	-185	-172	-146	-364	-309	-416	-244	-316	-195	-62	-16	-84
Dry (24%)	-144	-239	-194	-159	-264	-315	-124	-108	-90	-87	-163	-162
Critical (15%)	-137	-155	-147	-95	-135	-84	-40	-86	-125	-155	-194	-199

<sup>a</sup> Exceedance probability is defined as the probability a given value will be exceeded in any one year.

<sup>b</sup> Based on the 82-year simulation period.

<sup>c</sup> As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

1 **B.8. SWP Net Energy Generation**

2

**Table B-8-1. SWP Net Generation, Monthly Net Generation**

**No Action Alternative**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-174	-168	-177	-9	6	-11	8	-82	-120	-197	-242	-253
20%	-291	-247	-254	-55	-36	-53	-34	-109	-183	-235	-325	-333
30%	-352	-294	-338	-67	-68	-82	-58	-145	-217	-252	-402	-392
40%	-400	-345	-422	-88	-103	-104	-86	-166	-254	-281	-435	-413
50%	-450	-382	-463	-115	-134	-131	-133	-193	-284	-297	-474	-437
60%	-476	-451	-498	-187	-180	-157	-222	-254	-311	-321	-494	-454
70%	-506	-497	-535	-221	-221	-193	-293	-333	-343	-360	-514	-496
80%	-540	-541	-592	-260	-292	-353	-341	-394	-377	-405	-539	-523
90%	-591	-561	-620	-312	-367	-452	-387	-420	-448	-456	-577	-618
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-417	-386	-430	-150	-152	-176	-173	-235	-287	-318	-442	-430
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-479	-454	-454	-138	-132	-217	-216	-255	-380	-389	-530	-417
Above Normal (16%)	-403	-400	-442	-194	-214	-198	-264	-325	-333	-296	-467	-476
Below Normal (13%)	-453	-420	-512	-191	-225	-241	-205	-263	-287	-330	-477	-555
Dry (24%)	-381	-333	-402	-143	-132	-142	-137	-207	-217	-302	-399	-462
Critical (15%)	-321	-280	-333	-104	-95	-60	-13	-117	-151	-207	-263	-239

**Alternative 1**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-326	-290	-313	-118	-84	-102	-35	-139	-185	-301	-403	-450
20%	-347	-349	-388	-161	-139	-162	-79	-167	-220	-315	-447	-496
30%	-414	-427	-450	-230	-244	-224	-142	-201	-238	-341	-484	-529
40%	-498	-521	-513	-252	-284	-311	-259	-304	-267	-367	-500	-569
50%	-571	-587	-579	-274	-336	-392	-339	-374	-315	-382	-509	-603
60%	-602	-632	-616	-354	-376	-445	-409	-415	-361	-399	-516	-615
70%	-630	-663	-640	-443	-452	-510	-486	-471	-399	-414	-533	-635
80%	-664	-686	-685	-503	-525	-550	-537	-529	-433	-430	-554	-661
90%	-680	-711	-738	-695	-603	-655	-572	-572	-526	-458	-584	-690
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-512	-530	-539	-341	-341	-372	-317	-360	-331	-386	-496	-572
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-582	-598	-544	-358	-325	-362	-385	-398	-422	-426	-551	-638
Above Normal (16%)	-470	-481	-558	-460	-455	-473	-526	-553	-407	-382	-514	-624
Below Normal (13%)	-573	-601	-609	-470	-409	-532	-387	-429	-335	-403	-525	-617
Dry (24%)	-481	-516	-531	-273	-341	-375	-227	-263	-236	-378	-476	-557
Critical (15%)	-398	-393	-453	-168	-192	-131	-28	-164	-207	-300	-366	-354

**Alternative 1 minus No Action Alternative**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-151	-122	-136	-109	-90	-90	-42	-57	-64	-104	-160	-197
20%	-56	-102	-134	-106	-103	-110	-46	-58	-36	-80	-122	-163
30%	-63	-134	-112	-163	-176	-141	-84	-57	-21	-89	-82	-137
40%	-97	-176	-91	-165	-181	-207	-173	-138	-13	-86	-65	-156
50%	-121	-205	-116	-159	-202	-261	-206	-181	-31	-85	-35	-166
60%	-127	-181	-118	-167	-196	-288	-187	-161	-49	-78	-22	-161
70%	-124	-166	-105	-222	-231	-317	-193	-138	-56	-54	-18	-139
80%	-124	-145	-93	-243	-233	-197	-196	-135	-56	-25	-15	-137
90%	-89	-151	-118	-383	-236	-203	-185	-152	-78	-2	-7	-71
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-95	-144	-109	-190	-189	-195	-144	-124	-44	-67	-54	-142
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-103	-143	-90	-220	-193	-144	-169	-143	-42	-37	-21	-220
Above Normal (16%)	-67	-82	-116	-265	-240	-275	-261	-228	-74	-87	-47	-149
Below Normal (13%)	-120	-181	-97	-279	-183	-291	-182	-165	-48	-74	-48	-62
Dry (24%)	-99	-183	-130	-130	-210	-233	-90	-56	-19	-76	-77	-95
Critical (15%)	-77	-113	-120	-64	-97	-70	-16	-48	-56	-93	-103	-115

<sup>a</sup> Exceedance probability is defined as the probability a given value will be exceeded in any one year.

<sup>b</sup> Based on the 82-year simulation period.

<sup>c</sup> As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Second Basis of Comparison and Alternative 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-8-2. SWP Net Generation, Monthly Net Generation**

**No Action Alternative**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-174	-168	-177	-9	6	-11	8	-82	-120	-197	-242	-253
20%	-291	-247	-254	-55	-36	-53	-34	-109	-183	-235	-325	-333
30%	-352	-294	-338	-67	-68	-82	-58	-145	-217	-252	-402	-392
40%	-400	-345	-422	-88	-103	-104	-86	-166	-254	-281	-435	-413
50%	-450	-382	-463	-115	-134	-131	-133	-193	-284	-297	-474	-437
60%	-476	-451	-498	-187	-180	-157	-222	-254	-311	-321	-494	-454
70%	-506	-497	-535	-221	-221	-193	-293	-333	-343	-360	-514	-496
80%	-540	-541	-592	-260	-292	-353	-341	-394	-377	-405	-539	-523
90%	-591	-561	-620	-312	-367	-452	-387	-420	-448	-456	-577	-618
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-417	-386	-430	-150	-152	-176	-173	-235	-287	-318	-442	-430
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-479	-454	-454	-138	-132	-217	-216	-255	-380	-389	-530	-417
Above Normal (16%)	-403	-400	-442	-194	-214	-198	-264	-325	-333	-296	-467	-476
Below Normal (13%)	-453	-420	-512	-191	-225	-241	-205	-263	-287	-330	-477	-555
Dry (24%)	-381	-333	-402	-143	-132	-142	-137	-207	-217	-302	-399	-462
Critical (15%)	-321	-280	-333	-104	-95	-60	-13	-117	-151	-207	-263	-239

**Alternative 3**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-171	-220	-216	-62	-33	-52	-26	-98	-147	-201	-261	-257
20%	-302	-317	-305	-74	-72	-84	-65	-142	-203	-265	-385	-465
30%	-425	-427	-414	-100	-116	-142	-129	-186	-229	-308	-458	-532
40%	-524	-540	-480	-132	-174	-176	-262	-286	-282	-333	-487	-582
50%	-566	-574	-539	-211	-230	-256	-353	-372	-307	-362	-504	-605
60%	-589	-627	-590	-246	-273	-354	-419	-423	-327	-387	-515	-628
70%	-628	-655	-620	-285	-323	-411	-463	-453	-357	-404	-544	-646
80%	-661	-680	-643	-316	-391	-481	-509	-501	-422	-431	-561	-666
90%	-675	-703	-678	-475	-492	-540	-555	-578	-506	-453	-583	-702
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-491	-512	-485	-224	-238	-287	-310	-342	-309	-355	-472	-552
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-577	-596	-482	-246	-272	-355	-382	-398	-405	-426	-557	-659
Above Normal (16%)	-451	-512	-534	-253	-319	-366	-474	-503	-362	-346	-490	-607
Below Normal (13%)	-564	-585	-585	-301	-285	-457	-400	-428	-334	-362	-504	-609
Dry (24%)	-452	-467	-460	-187	-180	-182	-232	-255	-236	-354	-454	-529
Critical (15%)	-348	-337	-390	-136	-128	-71	-22	-116	-144	-205	-271	-246

**Alternative 3 minus No Action Alternative**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	3	-52	-39	-52	-39	-41	-34	-16	-27	-3	-18	-4
20%	-11	-70	-51	-18	-37	-31	-33	-20	-31	-60	-132	-140
30%	-73	-133	-76	-33	-48	-60	-71	-41	-12	-57	-56	-48
40%	-124	-195	-58	-45	-71	-72	-176	-120	-29	-52	-52	-169
50%	-115	-191	-76	-96	-95	-125	-220	-179	-23	-65	-30	-167
60%	-113	-176	-92	-59	-93	-196	-197	-169	-15	-66	-22	-175
70%	-122	-158	-85	-63	-102	-218	-170	-120	-14	-44	-30	-150
80%	-120	-139	-51	-56	-99	-128	-168	-108	-45	-27	-23	-142
90%	-83	-142	-57	-164	-126	-88	-168	-158	-58	3	-6	-84
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-75	-126	-56	-74	-86	-111	-136	-107	-22	-36	-31	-122
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-98	-142	-27	-108	-140	-138	-165	-143	-25	-37	-27	-241
Above Normal (16%)	-48	-113	-92	-58	-105	-168	-210	-179	-29	-50	-22	-131
Below Normal (13%)	-111	-165	-73	-110	-60	-216	-195	-165	-47	-32	-27	-54
Dry (24%)	-71	-134	-58	-44	-49	-40	-95	-48	-19	-52	-56	-67
Critical (15%)	-27	-57	-56	-32	-33	-11	-9	1	7	2	-8	-7

<sup>a</sup> Exceedance probability is defined as the probability a given value will be exceeded in any one year.

<sup>b</sup> Based on the 82-year simulation period.

<sup>c</sup> As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-8-3. SWP Net Generation, Monthly Net Generation**

**No Action Alternative**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-174	-168	-177	-9	6	-11	8	-82	-120	-197	-242	-253
20%	-291	-247	-254	-55	-36	-53	-34	-109	-183	-235	-325	-333
30%	-352	-294	-338	-67	-68	-82	-58	-145	-217	-252	-402	-392
40%	-400	-345	-422	-88	-103	-104	-86	-166	-254	-281	-435	-413
50%	-450	-382	-463	-115	-134	-131	-133	-193	-284	-297	-474	-437
60%	-476	-451	-498	-187	-180	-157	-222	-254	-311	-321	-494	-454
70%	-506	-497	-535	-221	-221	-193	-293	-333	-343	-360	-514	-496
80%	-540	-541	-592	-260	-292	-353	-341	-394	-377	-405	-539	-523
90%	-591	-561	-620	-312	-367	-452	-387	-420	-448	-456	-577	-618
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-417	-386	-430	-150	-152	-176	-173	-235	-287	-318	-442	-430
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-479	-454	-454	-138	-132	-217	-216	-255	-380	-389	-530	-417
Above Normal (16%)	-403	-400	-442	-194	-214	-198	-264	-325	-333	-296	-467	-476
Below Normal (13%)	-453	-420	-512	-191	-225	-241	-205	-263	-287	-330	-477	-555
Dry (24%)	-381	-333	-402	-143	-132	-142	-137	-207	-217	-302	-399	-462
Critical (15%)	-321	-280	-333	-104	-95	-60	-13	-117	-151	-207	-263	-239

**Alternative 5**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-181	-165	-196	-39	6	-25	23	-69	-136	-190	-220	-247
20%	-264	-265	-252	-62	-32	-58	-4	-105	-186	-230	-326	-339
30%	-356	-315	-322	-72	-66	-85	-39	-129	-209	-247	-413	-379
40%	-406	-351	-411	-89	-103	-101	-60	-150	-256	-280	-447	-401
50%	-442	-407	-464	-113	-120	-122	-124	-178	-289	-299	-472	-424
60%	-469	-454	-507	-178	-162	-156	-193	-234	-305	-321	-490	-459
70%	-496	-502	-529	-214	-238	-189	-277	-306	-330	-363	-515	-492
80%	-534	-532	-573	-263	-301	-349	-330	-374	-368	-393	-525	-554
90%	-583	-552	-611	-303	-364	-449	-371	-419	-431	-425	-554	-599
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-409	-393	-423	-155	-152	-176	-156	-221	-281	-312	-438	-426
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-472	-462	-448	-162	-131	-210	-194	-239	-368	-377	-520	-411
Above Normal (16%)	-385	-387	-438	-179	-221	-204	-253	-315	-331	-296	-468	-476
Below Normal (13%)	-427	-453	-487	-192	-231	-247	-191	-245	-286	-331	-483	-558
Dry (24%)	-384	-341	-395	-144	-132	-143	-119	-194	-213	-298	-399	-459
Critical (15%)	-324	-281	-339	-102	-81	-59	3	-102	-147	-196	-250	-226

**Alternative 5 minus No Action Alternative**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-7	3	-19	-30	0	-13	15	12	-16	8	23	7
20%	26	-18	2	-7	4	-5	29	5	-3	4	-1	-5
30%	-4	-21	16	-4	2	-3	18	15	8	4	-11	13
40%	-6	-7	11	-1	0	2	26	15	-3	1	-12	12
50%	9	-25	-2	2	15	9	8	15	-5	-1	2	13
60%	7	-3	-8	9	19	1	29	20	6	0	4	-5
70%	10	-5	6	7	-17	3	16	27	13	-3	0	4
80%	6	8	19	-3	-9	4	11	20	9	12	14	-31
90%	8	9	9	9	2	3	15	1	17	31	24	20
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	7	-7	7	-5	0	1	17	14	6	6	4	4
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	7	-8	6	-24	1	8	23	15	12	12	10	6
Above Normal (16%)	18	12	4	15	-6	-6	11	10	2	0	-1	0
Below Normal (13%)	25	-33	26	0	-5	-6	14	19	2	-1	-6	-3
Dry (24%)	-3	-7	7	-1	-1	-1	18	13	4	4	0	3
Critical (15%)	-3	-1	-6	2	14	1	16	15	4	11	12	14

<sup>a</sup> Exceedance probability is defined as the probability a given value will be exceeded in any one year.

<sup>b</sup> Based on the 82-year simulation period.

<sup>c</sup> As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-8-4. SWP Net Generation, Monthly Net Generation**

**Second Basis of Comparison**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-326	-290	-313	-118	-84	-102	-35	-139	-185	-301	-403	-450
20%	-347	-349	-388	-161	-139	-162	-79	-167	-220	-315	-447	-496
30%	-414	-427	-450	-230	-244	-224	-142	-201	-238	-341	-484	-529
40%	-498	-521	-513	-252	-284	-311	-259	-304	-267	-367	-500	-569
50%	-571	-587	-579	-274	-336	-392	-339	-374	-315	-382	-509	-603
60%	-602	-632	-616	-354	-376	-445	-409	-415	-361	-399	-516	-615
70%	-630	-663	-640	-443	-452	-510	-486	-471	-399	-414	-533	-635
80%	-664	-686	-685	-503	-525	-550	-537	-529	-433	-430	-554	-661
90%	-680	-711	-738	-695	-603	-655	-572	-572	-526	-458	-584	-690
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-512	-530	-539	-341	-341	-372	-317	-360	-331	-386	-496	-572
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-582	-598	-544	-358	-325	-362	-385	-398	-422	-426	-551	-638
Above Normal (16%)	-470	-481	-558	-460	-455	-473	-526	-553	-407	-382	-514	-624
Below Normal (13%)	-573	-601	-609	-470	-409	-532	-387	-429	-335	-403	-525	-617
Dry (24%)	-481	-516	-531	-273	-341	-375	-227	-263	-236	-378	-476	-557
Critical (15%)	-398	-393	-453	-168	-192	-131	-28	-164	-207	-300	-366	-354

**No Action Alternative**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-174	-168	-177	-9	6	-11	8	-82	-120	-197	-242	-253
20%	-291	-247	-254	-55	-36	-53	-34	-109	-183	-235	-325	-333
30%	-352	-294	-338	-67	-68	-82	-58	-145	-217	-252	-402	-392
40%	-400	-345	-422	-88	-103	-104	-86	-166	-254	-281	-435	-413
50%	-450	-382	-463	-115	-134	-131	-133	-193	-284	-297	-474	-437
60%	-476	-451	-498	-187	-180	-157	-222	-254	-311	-321	-494	-454
70%	-506	-497	-535	-221	-221	-193	-293	-333	-343	-360	-514	-496
80%	-540	-541	-592	-260	-292	-353	-341	-394	-377	-405	-539	-523
90%	-591	-561	-620	-312	-367	-452	-387	-420	-448	-456	-577	-618
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-417	-386	-430	-150	-152	-176	-173	-235	-287	-318	-442	-430
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-479	-454	-454	-138	-132	-217	-216	-255	-380	-389	-530	-417
Above Normal (16%)	-403	-400	-442	-194	-214	-198	-264	-325	-333	-296	-467	-476
Below Normal (13%)	-453	-420	-512	-191	-225	-241	-205	-263	-287	-330	-477	-555
Dry (24%)	-381	-333	-402	-143	-132	-142	-137	-207	-217	-302	-399	-462
Critical (15%)	-321	-280	-333	-104	-95	-60	-13	-117	-151	-207	-263	-239

**No Action Alternative minus Second Basis of Comparison**

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	151	122	136	109	90	90	42	57	64	104	160	197
20%	56	102	134	106	103	110	46	58	36	80	122	163
30%	63	134	112	163	176	141	84	57	21	89	82	137
40%	97	176	91	165	181	207	173	138	13	86	65	156
50%	121	205	116	159	202	261	206	181	31	85	35	166
60%	127	181	118	167	196	288	187	161	49	78	22	161
70%	124	166	105	222	231	317	193	138	56	54	18	139
80%	124	145	93	243	233	197	196	135	56	25	15	137
90%	89	151	118	383	236	203	185	152	78	2	7	71
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	95	144	109	190	189	195	144	124	44	67	54	142
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	103	143	90	220	193	144	169	143	42	37	21	220
Above Normal (16%)	67	82	116	265	240	275	261	228	74	87	47	149
Below Normal (13%)	120	181	97	279	183	291	182	165	48	74	48	62
Dry (24%)	99	183	130	130	210	233	90	56	19	76	77	95
Critical (15%)	77	113	120	64	97	70	16	48	56	93	103	115

<sup>a</sup> Exceedance probability is defined as the probability a given value will be exceeded in any one year.

<sup>b</sup> Based on the 82-year simulation period.

<sup>c</sup> As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table B-8-5. SWP Net Generation, Monthly Net Generation

Second Basis of Comparison

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance <sup>a</sup>												
10%	-326	-290	-313	-118	-84	-102	-35	-139	-185	-301	-403	-450
20%	-347	-349	-388	-161	-139	-162	-79	-167	-220	-315	-447	-496
30%	-414	-427	-450	-230	-244	-224	-142	-201	-238	-341	-484	-529
40%	-498	-521	-513	-252	-284	-311	-259	-304	-267	-367	-500	-569
50%	-571	-587	-579	-274	-336	-392	-339	-374	-315	-382	-509	-603
60%	-602	-632	-616	-354	-376	-445	-409	-415	-361	-399	-516	-615
70%	-630	-663	-640	-443	-452	-510	-486	-471	-399	-414	-533	-635
80%	-664	-686	-685	-503	-525	-550	-537	-529	-433	-430	-554	-661
90%	-680	-711	-738	-695	-603	-655	-572	-572	-526	-458	-584	-690
Long Term												
Full Simulation Period <sup>b</sup>	-512	-530	-539	-341	-341	-372	-317	-360	-331	-386	-496	-572
Water Year Types <sup>c</sup>												
Wet (32%)	-582	-598	-544	-358	-325	-362	-385	-398	-422	-426	-551	-638
Above Normal (16%)	-470	-481	-558	-460	-455	-473	-526	-553	-407	-382	-514	-624
Below Normal (13%)	-573	-601	-609	-470	-409	-532	-387	-429	-335	-403	-525	-617
Dry (24%)	-481	-516	-531	-273	-341	-375	-227	-263	-236	-378	-476	-557
Critical (15%)	-398	-393	-453	-168	-192	-131	-28	-164	-207	-300	-366	-354

Alternative 3

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance <sup>a</sup>												
10%	-171	-220	-216	-62	-33	-52	-26	-98	-147	-201	-261	-257
20%	-302	-317	-305	-74	-72	-84	-65	-142	-203	-265	-385	-465
30%	-425	-427	-414	-100	-116	-142	-129	-186	-229	-308	-458	-532
40%	-524	-540	-480	-132	-174	-176	-262	-286	-282	-333	-487	-582
50%	-566	-574	-539	-211	-230	-256	-353	-372	-307	-362	-504	-605
60%	-589	-627	-590	-246	-273	-354	-419	-423	-327	-387	-515	-628
70%	-628	-655	-620	-285	-323	-411	-463	-453	-357	-404	-544	-646
80%	-661	-680	-643	-316	-391	-481	-509	-501	-422	-431	-561	-666
90%	-675	-703	-678	-475	-492	-540	-555	-578	-506	-453	-583	-702
Long Term												
Full Simulation Period <sup>b</sup>	-491	-512	-485	-224	-238	-287	-310	-342	-309	-355	-472	-552
Water Year Types <sup>c</sup>												
Wet (32%)	-577	-596	-482	-246	-272	-355	-382	-398	-405	-426	-557	-659
Above Normal (16%)	-451	-512	-534	-253	-319	-366	-474	-503	-362	-346	-490	-607
Below Normal (13%)	-564	-585	-585	-301	-285	-457	-400	-428	-334	-362	-504	-609
Dry (24%)	-452	-467	-460	-187	-180	-182	-232	-255	-236	-354	-454	-529
Critical (15%)	-348	-337	-390	-136	-128	-71	-22	-116	-144	-205	-271	-246

Alternative 3 minus Second Basis of Comparison

Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance <sup>a</sup>												
10%	154	70	97	57	51	50	9	41	37	100	142	193
20%	45	32	83	88	67	78	14	25	16	50	62	31
30%	-10	0	36	130	127	81	13	16	9	33	26	-3
40%	-26	-20	33	120	110	135	-3	18	-16	34	13	-13
50%	6	13	40	63	107	136	-14	2	8	20	5	-2
60%	14	5	26	108	103	91	-10	-8	34	12	0	-13
70%	2	8	20	159	128	99	23	18	42	10	-11	-11
80%	4	6	42	187	134	69	28	27	11	-1	-7	-5
90%	6	9	61	219	110	115	17	-6	20	5	2	-12
Long Term												
Full Simulation Period <sup>b</sup>	20	18	54	117	103	85	7	17	22	31	24	20
Water Year Types <sup>c</sup>												
Wet (32%)	5	2	63	112	53	6	4	0	17	0	-6	-21
Above Normal (16%)	19	-31	24	207	136	107	51	49	45	36	24	17
Below Normal (13%)	9	16	24	170	123	75	-13	1	1	41	21	8
Dry (24%)	29	49	71	86	161	193	-5	8	0	23	21	29
Critical (15%)	51	56	63	32	64	59	7	49	63	95	95	108

<sup>a</sup> Exceedance probability is defined as the probability a given value will be exceeded in any one year.

<sup>b</sup> Based on the 82-year simulation period.

<sup>c</sup> As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

**Table B-8-6. SWP Net Generation, Monthly Net Generation**

<b>Second Basis of Comparison</b>												
Statistic	Monthly Net Generation (GWh)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-326	-290	-313	-118	-84	-102	-35	-139	-185	-301	-403	-450
20%	-347	-349	-388	-161	-139	-162	-79	-167	-220	-315	-447	-496
30%	-414	-427	-450	-230	-244	-224	-142	-201	-238	-341	-484	-529
40%	-498	-521	-513	-252	-284	-311	-259	-304	-267	-367	-500	-569
50%	-571	-587	-579	-274	-336	-392	-339	-374	-315	-382	-509	-603
60%	-602	-632	-616	-354	-376	-445	-409	-415	-361	-399	-516	-615
70%	-630	-663	-640	-443	-452	-510	-486	-471	-399	-414	-533	-635
80%	-664	-686	-685	-503	-525	-550	-537	-529	-433	-430	-554	-661
90%	-680	-711	-738	-695	-603	-655	-572	-572	-526	-458	-584	-690
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-512	-530	-539	-341	-341	-372	-317	-360	-331	-386	-496	-572
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-582	-598	-544	-358	-325	-362	-385	-398	-422	-426	-551	-638
Above Normal (16%)	-470	-481	-558	-460	-455	-473	-526	-553	-407	-382	-514	-624
Below Normal (13%)	-573	-601	-609	-470	-409	-532	-387	-429	-335	-403	-525	-617
Dry (24%)	-481	-516	-531	-273	-341	-375	-227	-263	-236	-378	-476	-557
Critical (15%)	-398	-393	-453	-168	-192	-131	-28	-164	-207	-300	-366	-354

**Alternative 5**

<b>Monthly Net Generation (GWh)</b>												
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	-181	-165	-196	-39	6	-25	23	-69	-136	-190	-220	-247
20%	-264	-265	-252	-62	-32	-58	-4	-105	-186	-230	-326	-339
30%	-356	-315	-322	-72	-66	-85	-39	-129	-209	-247	-413	-379
40%	-406	-351	-411	-89	-103	-101	-60	-150	-256	-280	-447	-401
50%	-442	-407	-464	-113	-120	-122	-124	-178	-289	-299	-472	-424
60%	-469	-454	-507	-178	-162	-156	-193	-234	-305	-321	-490	-459
70%	-496	-502	-529	-214	-238	-189	-277	-306	-330	-363	-515	-492
80%	-534	-532	-573	-263	-301	-349	-330	-374	-368	-393	-525	-554
90%	-583	-552	-611	-303	-364	-449	-371	-419	-431	-425	-554	-599
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	-409	-393	-423	-155	-152	-176	-156	-221	-281	-312	-438	-426
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	-472	-462	-448	-162	-131	-210	-194	-239	-368	-377	-520	-411
Above Normal (16%)	-385	-387	-438	-179	-221	-204	-253	-315	-331	-296	-468	-476
Below Normal (13%)	-427	-453	-487	-192	-231	-247	-191	-245	-286	-331	-483	-558
Dry (24%)	-384	-341	-395	-144	-132	-143	-119	-194	-213	-298	-399	-459
Critical (15%)	-324	-281	-339	-102	-81	-59	3	-102	-147	-196	-250	-226

**Alternative 5 minus Second Basis of Comparison**

<b>Monthly Net Generation (GWh)</b>												
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Probability of Exceedance<sup>a</sup></b>												
10%	144	125	117	79	90	77	57	70	48	111	183	204
20%	82	84	136	99	107	105	75	62	33	85	122	158
30%	59	112	128	158	178	138	103	72	29	94	71	150
40%	92	169	101	164	181	209	199	153	10	86	53	168
50%	130	180	115	161	217	270	214	196	26	83	37	178
60%	134	178	109	176	214	289	216	181	56	78	26	156
70%	133	161	111	229	214	320	209	165	69	51	18	143
80%	130	154	112	240	223	200	207	155	65	37	29	106
90%	97	159	127	392	238	206	200	153	95	33	31	91
<b>Long Term</b>												
Full Simulation Period <sup>b</sup>	102	137	116	185	190	196	161	139	50	74	58	146
<b>Water Year Types<sup>c</sup></b>												
Wet (32%)	110	136	96	196	194	152	192	159	54	49	31	226
Above Normal (16%)	85	94	120	280	234	269	272	238	76	87	46	148
Below Normal (13%)	145	148	122	279	178	285	196	184	49	72	42	59
Dry (24%)	96	175	137	129	209	232	108	69	23	79	77	99
Critical (15%)	75	112	114	66	110	71	32	62	60	104	115	128

<sup>a</sup> Exceedance probability is defined as the probability a given value will be exceeded in any one year.

<sup>b</sup> Based on the 82-year simulation period.

<sup>c</sup> As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.

Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.