

**United States Bureau of Reclamation - Mid Pacific Region, Central Valley Operations Office**  
**Forecast of CVP Generation with Uncertainty Bounds Bracketing a Randomly Distributed Population**  
**Based on USBR 50 Pct Forecast -B2, Dated 4/20/2018**  
**Losses are Estimated per WAPA Contractual Provisions**  
**Uncertainty Bounded Energy Generation (All values in GWh)**

Month	Trinity	JF Carr	Spring Creek	Shasta	Keswick	Folsom	Nimbus	New Melones	Federal San Luis	O'Neill	At Plant Total	Total Losses	Total Energy at Tracy			
													Expected Proj Use	Exp Est Net CVP	Low Est Net CVP	High Est Net CVP
APR	26	18	8	110	20	138	9	81	11	0	421	7	65	350	270	400
MAY	43	12	13	191	34	45	5	97	48	3	491	8	70	410	320	470
JUN	43	36	31	243	45	56	6	82	46	1	589	10	90	490	430	520
JUL	40	43	38	302	57	72	9	55	26	0	642	11	160	470	410	510
AUG	47	43	38	229	47	51	6	47	11	0	519	9	150	360	260	420
SEP	42	39	38	156	35	39	5	37	0	0	391	7	120	260	190	310
OCT	16	13	20	126	28	31	4	35	0	0	273	5	130	140	80	170
NOV	14	13	10	95	20	30	4	8	0	0	194	3	140	50	0	100
DEC	9	4	6	73	15	30	4	7	0	0	148	3	160	-20	0	20
JAN	6	0	10	72	15	30	4	8	0	0	145	3	125	20	0	50
FEB	6	1	17	101	21	52	7	12	0	0	217	4	125	90	0	140
MAR	18	18	30	107	23	63	8	61	0	0	328	6	115	210	80	280
Total	310	240	259	1805	360	637	71	530	142	4	4358	76	1450	2830	2040	3390

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**Forecast of CVP Generation**  
**Based on USBR 50 Pct Forecast -B2, Dated 4/20/2018**  
**Losses are Estimated per WAPA Contractual Provisions**  
**Expected Capacity Based on Estimated Gross Head (All values in MW)**

Month	Trinity	JF Carr	Spring Creek	Shasta	Keswick	Folsom	Nimbus	New Melones	Federal San Luis	O'Neill	At Plant Total	Total Losses	Total Capacity at Tracy			
													Expected CVP	Schd. Out	Expected Proj Use	Expected Net CVP
APR	64	75	91	568	29	195	6	192	153	0	1373	23	1350	340	110	1240
MAY	64	147	91	710	46	201	7	192	133	3	1596	27	1570	300	110	1460
JUN	64	147	182	710	65	205	9	383	103	2	1870	32	1840	55	145	1695
JUL	126	147	182	710	82	194	12	382	74	0	1908	33	1875	0	240	1635
AUG	124	147	182	677	66	181	9	379	55	0	1819	31	1790	0	230	1560
SEP	121	148	182	520	50	57	4	376	0	0	1458	25	1435	155	175	1260
OCT	119	150	182	382	37	55	6	374	0	0	1306	22	1285	255	150	1135
NOV	118	154	182	508	29	108	6	373	0	0	1478	26	1455	170	130	1325
DEC	119	154	182	516	21	107	3	374	0	0	1476	26	1450	150	165	1285
JAN	60	154	182	402	21	161	3	376	0	0	1360	23	1335	210	110	1225
FEB	61	154	182	567	32	165	5	378	0	0	1545	27	1520	175	135	1385
MAR	62	154	182	568	32	171	12	189	0	0	1370	24	1345	240	140	1205

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**Forecast of CVP Generation**  
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**Project Use Pumping**

**Expected Project Energy Use at Tracy Load Center (All values in GWh)**

Month	Tracy	Federal Banks	Contra Costa	O'Neill	Federal	San Felipe	Dos Amigos	Other Uses	Total at Tracy		
					San Luis				Exp CVP PU	Expected On Peak	Expected Off Peak
APR	27	0	2	4	0	2	11	19	65	35	30
MAY	18	0	2	0	0	3	16	31	70	40	30
JUN	37	0	2	0	0	5	23	23	90	50	40
JUL	65	7	2	2	0	7	30	49	160	90	70
AUG	65	7	2	4	0	7	23	42	150	90	60
SEP	62	7	2	6	13	4	8	18	120	60	60
OCT	63	0	3	9	29	3	3	18	130	60	70
NOV	58	0	3	13	47	2	3	12	140	50	90
DEC	62	0	3	15	66	2	3	9	160	55	105
JAN	49	0	2	11	49	1	5	9	125	45	85
FEB	51	0	2	10	41	1	6	14	125	50	75
MAR	52	0	2	9	28	2	9	13	115	50	65
Total	608	22	28	83	274	38	141	257	1450	675	780

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**Forecast of CVP Generation**  
**Based on USBR 50 Pct Forecast -B2, Dated 4/20/2018**  
**Project Use Pumping**

**Expected Project Capacity Use at Tracy Load Center (All values in MW)**

Month	Tracy		Federal Banks		Contra Costa		O'Neill		Federal San Luis		San Felipe		Dos Amigos		Other On/Off
	On	Off	On	Off	On	Off	On	Off	On	Off	On	Off	On	Off	
APR	51	51	0	0	3	3	8	8	0	0	3	3	18	18	26
MAY	36	36	0	0	3	3	0	0	0	0	4	4	24	24	42
JUN	66	66	0	0	2	2	0	0	0	0	7	7	36	36	32
JUL	96	96	20	0	2	2	4	4	0	0	9	9	42	42	66
AUG	96	96	20	0	3	3	8	8	0	0	9	9	36	36	56
SEP	96	96	20	0	3	3	12	12	0	42	6	6	12	12	25
OCT	96	96	0	0	4	4	16	16	0	95	4	4	6	6	24
NOV	81	81	0	0	4	4	20	20	0	160	3	3	6	6	16
DEC	96	96	0	0	4	4	20	20	22	178	2	2	6	6	12
JAN	66	66	0	0	3	3	16	16	0	154	1	1	12	12	13
FEB	81	81	0	0	3	3	16	16	0	154	1	1	12	12	20
MAR	81	81	0	0	3	3	16	16	0	88	2	2	18	18	18

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**Forecast of CVP Generation**  
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**Losses are Estimated per WAPA Contractual Provisions**  
**Energy Generation (All values in GWh)**

Month	Trinity	JF Carr	Spring Creek	Shasta	Keswick	Folsom	Nimbus	New Melones	Federal San Luis	O'Neill	Total Losses	Total at Tracy		
												CVP	Proj Use	Net CVP
APR	26	18	8	110	20	138	9	81	11	0	7	410	65	345
MAY	43	12	13	191	34	45	5	97	48	3	8	480	70	410
JUN	43	36	31	243	45	56	6	82	46	1	10	580	90	490
JUL	40	43	38	302	57	72	9	55	26	0	11	630	160	470
AUG	47	43	38	229	47	51	6	47	11	0	9	510	150	360
SEP	42	39	38	156	35	39	5	37	0	0	7	380	120	260
OCT	16	13	20	126	28	31	4	35	0	0	5	270	130	140
NOV	14	13	10	95	20	30	4	8	0	0	3	190	140	50
DEC	9	4	6	73	15	30	4	7	0	0	3	150	160	-10
JAN	6	0	10	72	15	30	4	8	0	0	3	140	125	15
FEB	6	1	17	101	21	52	7	12	0	0	4	210	125	85
MAR	18	18	30	107	23	63	8	61	0	0	6	320	115	205
Total	311	240	259	1804	361	638	72	530	141	4	76	4270	1450	2820

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**Losses are Estimated per WAPA Contractual Provisions**  
**Capacity Based on Estimated Gross Head (All values in MW)**

Month	Trinity	JF Carr	Spring Creek	Shasta	Keswick	Folsom	Nimbus	New Melones	Federal San Luis	O'Neill	Tot. Cap. at Plant	Total Losses	Total Capacity at Tracy			
													CVP	Sch. Out	PU	Net CVP
APR	64	75	91	568	29	195	6	192	153	0	1373	23	1350	340	110	1240
MAY	64	147	91	710	46	201	7	192	133	3	1596	27	1570	300	110	1460
JUN	64	147	182	710	65	205	9	383	103	2	1870	32	1840	55	145	1695
JUL	126	147	182	710	82	194	12	382	74	0	1908	33	1875	0	240	1635
AUG	124	147	182	677	66	181	9	379	55	0	1819	31	1790	0	230	1560
SEP	121	148	182	520	50	57	4	376	0	0	1458	25	1435	155	175	1260
OCT	119	150	182	382	37	55	6	374	0	0	1306	22	1285	255	150	1135
NOV	118	154	182	508	29	108	6	373	0	0	1478	26	1455	170	130	1325
DEC	119	154	182	516	21	107	3	374	0	0	1476	26	1450	150	165	1285
JAN	60	154	182	402	21	161	3	376	0	0	1360	23	1335	210	110	1225
FEB	61	154	182	567	32	165	5	378	0	0	1545	27	1520	175	135	1385
MAR	62	154	182	568	32	171	12	189	0	0	1370	24	1345	240	140	1205

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**Project Use Pumping**

**Project Energy Use at Tracy Load Center (All values in GWh)**

Month	Tracy	Federal Banks	Contra Costa	O'Neill	Federal San Luis	San Felipe	Dos Amigos	Other Uses	Total at Tracy		
									CVP	On Peak	Off Peak
APR	27	0	2	4	0	2	11	19	65	35	30
MAY	18	0	2	0	0	3	16	31	70	40	30
JUN	37	0	2	0	0	5	23	23	90	50	40
JUL	65	7	2	2	0	7	30	49	160	90	70
AUG	65	7	2	4	0	7	23	42	150	90	60
SEP	62	7	2	6	13	4	8	18	120	60	60
OCT	63	0	3	9	29	3	3	18	130	60	70
NOV	58	0	3	13	47	2	3	12	140	50	90
DEC	62	0	3	15	66	2	3	9	160	55	105
JAN	49	0	2	11	49	1	5	9	125	45	85
FEB	51	0	2	10	41	1	6	14	125	50	75
MAR	52	0	2	9	28	2	9	13	115	50	65
Total	608	22	28	83	274	38	141	257	1450	675	780

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**Project Capacity Use at Tracy Load Center (All values in MW)**

Month	Tracy		Federal Banks		Contra Costa		O'Neill		Federal San Luis		San Felipe		Dos Amigos		Other On/Off
	On	Off	On	Off	On	Off	On	Off	On	Off	On	Off	On	Off	
APR	51	51	0	0	3	3	8	8	0	0	3	3	18	18	26
MAY	36	36	0	0	3	3	0	0	0	0	4	4	24	24	42
JUN	66	66	0	0	2	2	0	0	0	0	7	7	36	36	32
JUL	96	96	20	0	2	2	4	4	0	0	9	9	42	42	66
AUG	96	96	20	0	3	3	8	8	0	0	9	9	36	36	56
SEP	96	96	20	0	3	3	12	12	0	42	6	6	12	12	25
OCT	96	96	0	0	4	4	16	16	0	95	4	4	6	6	24
NOV	81	81	0	0	4	4	20	20	0	160	3	3	6	6	16
DEC	96	96	0	0	4	4	20	20	22	178	2	2	6	6	12
JAN	66	66	0	0	3	3	16	16	0	154	1	1	12	12	13
FEB	81	81	0	0	3	3	16	16	0	154	1	1	12	12	20
MAR	81	81	0	0	3	3	16	16	0	88	2	2	18	18	18