

**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 1/18/2018**  
**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
JAN	7	0	10	93	19	64	7	39	0	0	239	4	95	140	90	170
FEB	7	1	17	126	25	72	5	32	0	0	285	5	45	240	150	290
MAR	20	18	30	148	30	81	6	62	0	0	395	7	50	340	220	410
APR	27	19	8	179	31	50	6	80	12	0	412	7	35	370	250	440
MAY	48	12	13	209	36	54	6	94	44	1	517	9	60	450	350	510
JUN	46	36	31	211	39	61	7	78	39	0	548	9	130	410	360	440
JUL	45	45	41	258	49	68	8	52	48	0	614	11	160	440	380	480
AUG	54	48	44	223	44	43	5	45	10	0	516	9	140	370	270	430
SEP	51	46	46	183	39	49	6	34	0	0	454	8	115	330	240	380
OCT	17	13	20	157	32	44	6	34	0	0	323	6	115	200	140	240
NOV	15	13	10	135	27	30	4	6	0	0	240	4	115	120	30	180
DEC	10	4	6	118	23	31	4	6	0	0	202	4	135	60	0	110
Total	347	255	276	2040	394	647	70	562	153	1	4745	83	1195	3470	2480	4080

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**Forecast of CVP Generation**  
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**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
JAN	0	154	182	557	26	172	5	382	0	0	1477	26	1450	180	110	1340
FEB	64	77	182	568	38	173	4	382	0	0	1488	26	1460	205	70	1390
MAR	65	77	182	710	40	176	4	191	0	0	1446	26	1420	290	70	1350
APR	67	75	91	710	43	186	4	191	178	0	1545	26	1520	305	55	1465
MAY	67	147	91	710	50	201	9	190	147	1	1612	27	1585	170	90	1495
JUN	67	147	182	710	56	207	10	379	118	0	1876	32	1845	55	200	1645
JUL	132	147	182	710	69	198	11	378	88	0	1914	33	1880	0	230	1650
AUG	130	147	182	710	62	188	7	374	70	0	1871	32	1840	0	200	1640
SEP	127	148	182	420	56	60	4	371	0	0	1369	24	1345	260	160	1185
OCT	126	150	182	409	43	57	8	367	0	0	1342	23	1320	270	155	1165
NOV	125	154	182	538	37	110	6	366	0	0	1519	26	1495	175	130	1365
DEC	125	154	182	674	32	109	3	369	0	0	1648	29	1620	25	160	1460

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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 Luis	San Felipe	Dos Amigos	Other Uses	Total at Tracy		
									Exp CVP PU	Expected On Peak	Expected Off Peak
JAN	46	0	2	10	24	1	6	7	95	40	55
FEB	23	0	2	4	3	1	8	5	45	25	20
MAR	22	0	2	4	6	2	8	6	50	25	25
APR	11	0	2	1	0	3	8	10	35	20	15
MAY	12	0	2	0	0	4	17	28	60	35	30
JUN	62	0	2	1	0	6	27	35	130	75	55
JUL	64	0	2	0	0	9	37	48	160	85	75
AUG	64	0	2	6	0	9	21	39	140	80	60
SEP	62	0	2	7	10	6	10	17	115	55	60
OCT	62	0	3	9	14	4	10	16	115	60	55
NOV	52	0	3	11	27	3	7	10	115	50	65
DEC	62	0	3	14	41	3	7	8	135	55	85
Total	541	0	28	67	126	50	165	229	1195	605	600

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**Forecast of CVP Generation**  
**Based on USBR 50 Pct Forecast -B2, Dated 1/18/2018**  
**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	
JAN	66	66	0	0	3	3	16	16	0	76	1	1	12	12	10
FEB	36	36	0	0	3	3	8	8	0	25	1	1	12	12	8
MAR	36	36	0	0	3	3	8	8	0	24	2	2	12	12	8
APR	18	18	0	0	3	3	4	4	0	0	4	4	12	12	14
MAY	18	18	0	0	3	3	0	0	0	0	5	5	24	24	38
JUN	96	96	0	0	2	2	4	4	0	0	8	8	42	42	48
JUL	96	96	0	0	2	2	0	0	0	0	12	12	54	54	65
AUG	96	96	0	0	3	3	8	8	0	0	12	12	30	30	52
SEP	96	96	0	0	3	3	12	12	0	41	8	8	18	18	24
OCT	96	96	0	0	4	4	12	12	0	61	6	6	18	18	22
NOV	81	81	0	0	4	4	16	16	0	98	4	4	12	12	13
DEC	96	96	0	0	4	4	20	20	14	114	4	4	12	12	10

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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
JAN	7	0	10	93	19	64	7	39	0	0	4	230	95	135
FEB	7	1	17	126	25	72	5	32	0	0	5	280	45	235
MAR	20	18	30	148	30	81	6	62	0	0	7	390	50	340
APR	27	19	8	179	31	50	6	80	12	0	7	400	35	365
MAY	48	12	13	209	36	54	6	94	44	1	9	510	60	450
JUN	46	36	31	211	39	61	7	78	39	0	9	540	130	410
JUL	45	45	41	258	49	68	8	52	48	0	11	600	160	440
AUG	54	48	44	223	44	43	5	45	10	0	9	510	140	370
SEP	51	46	46	183	39	49	6	34	0	0	8	450	115	335
OCT	17	13	20	157	32	44	6	34	0	0	6	320	115	205
NOV	15	13	10	135	27	30	4	6	0	0	4	240	115	125
DEC	10	4	6	118	23	31	4	6	0	0	4	200	135	65
Total	349	256	274	2039	393	646	71	560	153	1	83	4670	1195	3475

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**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
JAN	0	154	182	557	26	172	5	382	0	0	1477	26	1450	180	110	1340
FEB	64	77	182	568	38	173	4	382	0	0	1488	26	1460	205	70	1390
MAR	65	77	182	710	40	176	4	191	0	0	1446	26	1420	290	70	1350
APR	67	75	91	710	43	186	4	191	178	0	1545	26	1520	305	55	1465
MAY	67	147	91	710	50	201	9	190	147	1	1612	27	1585	170	90	1495
JUN	67	147	182	710	56	207	10	379	118	0	1876	32	1845	55	200	1645
JUL	132	147	182	710	69	198	11	378	88	0	1914	33	1880	0	230	1650
AUG	130	147	182	710	62	188	7	374	70	0	1871	32	1840	0	200	1640
SEP	127	148	182	420	56	60	4	371	0	0	1369	24	1345	260	160	1185
OCT	126	150	182	409	43	57	8	367	0	0	1342	23	1320	270	155	1165
NOV	125	154	182	538	37	110	6	366	0	0	1519	26	1495	175	130	1365
DEC	125	154	182	674	32	109	3	369	0	0	1648	29	1620	25	160	1460

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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
JAN	46	0	2	10	24	1	6	7	95	40	55
FEB	23	0	2	4	3	1	8	5	45	25	20
MAR	22	0	2	4	6	2	8	6	50	25	25
APR	11	0	2	1	0	3	8	10	35	20	15
MAY	12	0	2	0	0	4	17	28	60	35	30
JUN	62	0	2	1	0	6	27	35	130	75	55
JUL	64	0	2	0	0	9	37	48	160	85	75
AUG	64	0	2	6	0	9	21	39	140	80	60
SEP	62	0	2	7	10	6	10	17	115	55	60
OCT	62	0	3	9	14	4	10	16	115	60	55
NOV	52	0	3	11	27	3	7	10	115	50	65
DEC	62	0	3	14	41	3	7	8	135	55	85
Total	541	0	28	67	126	50	165	229	1195	605	600

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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	
JAN	66	66	0	0	3	3	16	16	0	76	1	1	12	12	10
FEB	36	36	0	0	3	3	8	8	0	25	1	1	12	12	8
MAR	36	36	0	0	3	3	8	8	0	24	2	2	12	12	8
APR	18	18	0	0	3	3	4	4	0	0	4	4	12	12	14
MAY	18	18	0	0	3	3	0	0	0	0	5	5	24	24	38
JUN	96	96	0	0	2	2	4	4	0	0	8	8	42	42	48
JUL	96	96	0	0	2	2	0	0	0	0	12	12	54	54	65
AUG	96	96	0	0	3	3	8	8	0	0	12	12	30	30	52
SEP	96	96	0	0	3	3	12	12	0	41	8	8	18	18	24
OCT	96	96	0	0	4	4	12	12	0	61	6	6	18	18	22
NOV	81	81	0	0	4	4	16	16	0	98	4	4	12	12	13
DEC	96	96	0	0	4	4	20	20	14	114	4	4	12	12	10