

General Assumptions		
Model Configuration		
Model Scenario:	Base Case	RP080713
Water Balance/Operations Model Version:	1.14	1.15
Scenario Run Date:	8/8/2013	8/20/2013
Level of Development?	Present Level of Development	Present Level of Development
Narrows 1/2 Preference?	Narrows 1	Narrows 1
Slate Creek Operations?	Historical Flows	Historical Flows
Basis of Hydrologic Index Calculation?	Perfect Foresight	Perfect Foresight
Groundwater Substitution Transfers?	No	No
Use Weekly Power Generation Factors?	No	No
Temperature Model Run Date?	4/10/2014	
Date printed:	10/10/2014	10/10/2014

Minimum Flow Requirement Assumptions		
Water-Year Classification below Our House Dam:	Existing FERC License	Existing FERC License
Water-Year Classification below Log Cabin Dam:	Existing FERC License	Existing FERC License
Water-Year Classification below New Bullards Bar Dam:	Existing FERC License	Existing FERC License
Water-Year Classification below Englebright Dam:	North Yuba Index	North Yuba Index
Flow Requirements below Our House Dam:	Existing FERC License	RP080713
Flow Requirements below Log Cabin Dam:	Existing FERC License	RP080713
Flow Requirements below New Bullards Bar Dam:	Existing FERC License	Existing FERC License
Flow Requirements below Englebright Dam:	Yuba River Accord	Yuba River Accord
Our House Dam Release Buffer:	3 cfs	3 cfs
Log Cabin Dam Release Buffer:	1 cfs	1 cfs
Minimum Flow Powerhouse Release Buffer:	2 cfs	2 cfs

New Bullards Bar Reservoir Storage Assumptions		
New Bullards Bar Reservoir Target Operating Line:	Yuba River Accord	Yuba River Accord
New Bullards Bar Reservoir Carryover Storage Protection Level:	99% Exceedance Drought (294,000 AF)	99% Exceedance Drought (294,000 AF)
Agricultural Delivery Deficiency for Carryover Storage Calculation:	50%	50%
Maximum Agricultural Delivery Deficiency for Carryover Storage:	50%	50%

Other Operational Requirements		
Englebright Release Flow Fluctuation Criteria:	Existing FERC License	Existing FERC License
New Bullards Bar Reservoir Flood Operations:	1972 Flood Control Manual	1972 Flood Control Manual
Englebright Reservoir Low-Storage Restriction:	PG&E Agreement with Marina Operator	PG&E Agreement with Marina Operator

**Notes:**

Includes:  
a pulse flow of 3,000 cfs for 10 days on the Middle Yuba and 1,000 cfs on Oregon Creek.

Timeseries Assumptions														
Flow Requirements below Our House Dam (cfs)														
Base Case														
WY Classification	Oct	Nov	Dec	Jan	Feb	Mar	Apr 1-Apr 15	Apr 16-30	May	Jun 1-15	Jun 16-30	July	August	Sep
100% Unimp	30	30	30	30	30	30	30	50	50	50	30	30	30	30
50% Unimp	25.5	25.5	25.5	25.5	25.5	25.5	25.5	42.5	42.5	42.5	25.5	25.5	25.5	25.5
45% Unimp	24	24	24	24	24	24	24	40	40	40	24	24	24	24
40% Unimp	21	21	21	21	21	21	21	35	35	35	21	21	21	21
RP080713														
WY Classification	Oct	Nov	Dec	Jan	Feb	Mar	Apr 1-Apr 15	Apr 16-30	May	Jun	Jul 1-15	Jul 16-31	Aug	Sep
100% Unimp	30	30	30	30	30	30	30	50	1,500	1,500	1,500	30	30	30
50% Unimp	25.5	25.5	25.5	25.5	25.5	25.5	25.5	42.5	1,500	1,500	1,500	25.5	25.5	25.5
45% Unimp	24	24	24	24	24	24	24	40	1,500	1,500	1,500	24	24	24
40% Unimp	21	21	21	21	21	21	21	35	1,500	1,500	1,500	21	21	21

Flow Requirements below Log Cabin Dam (cfs)														
Base Case														
WY Classification	Oct	Nov	Dec	Jan	Feb	Mar	Apr 1-Apr 15	Apr 16-30	May	Jun 1-15	Jun 16-30	July	August	Sep
100% Unimp	8	8	8	8	8	8	8	12	12	12	8	8	8	8
50% Unimp	6.8	6.8	6.8	6.8	6.8	6.8	6.8	10.2	10.2	10.2	6.8	6.8	6.8	6.8
45% Unimp	6.4	6.4	6.4	6.4	6.4	6.4	6.4	9.6	9.6	9.6	6.4	6.4	6.4	6.4
40% Unimp	5.6	5.6	5.6	5.6	5.6	5.6	5.6	8.4	8.4	8.4	5.6	5.6	5.6	5.6
RP080713														
WY Classification	Oct	Nov	Dec	Jan	Feb	Mar 1-14	Mar 15-30	Apr	May	Jun	Jul	Aug	Sep	
100% Unimp	8	8	8	8	8	8	1,000	1,000	1,000	1,000	1,000	1,000	1,000	
50% Unimp	6.8	6.8	6.8	6.8	6.8	6.8	1,000	1,000	1,000	1,000	1,000	1,000	1,000	
45% Unimp	6.4	6.4	6.4	6.4	6.4	6.4	1,000	1,000	1,000	1,000	1,000	1,000	1,000	
40% Unimp	5.6	5.6	5.6	5.6	5.6	5.6	1,000	1,000	1,000	1,000	1,000	1,000	1,000	

Flow Requirements below New Bullards Bar Dam (cfs)														
Base Case														
WY Classification	Oct	Nov	Dec	Jan	Feb	Mar	Apr 1-Apr 15	Apr 16-30	May	Jun 1-15	Jun 16-30	July	August	Sep
100% Unimp	5	5	5	5	5	5	5	5	5	5	5	5	5	5
50% Unimp	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25
45% Unimp	4	4	4	4	4	4	4	4	4	4	4	4	4	4
40% Unimp	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Existing FERC License														
WY Classification	Oct	Nov	Dec	Jan	Feb	Mar	Apr 1-Apr 15	Apr 16-30	May	Jun 1-15	Jun 16-30	July	August	Sep
100% Unimp	5	5	5	5	5	5	5	5	5	5	5	5	5	5
50% Unimp	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25
45% Unimp	4	4	4	4	4	4	4	4	4	4	4	4	4	4
40% Unimp	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5

**Timeseries Assumptions**  
**Flow Requirements at Smartsville (cfs)**

<b>Base Case</b>																
WY Classification	Oct 1-15	Oct 16-31	Nov	Dec	Jan	Feb	Mar	Apr 1-15	Apr 16-30	May 1-15	May 16-31	June 1-15	June 16-30	Jul	Aug	Sep
1	700	700	700	700	700	700	700	700	0	0	0	0	0	0	0	700
2	700	700	700	700	700	700	700	700	0	0	0	0	0	0	0	700
3	700	700	700	700	700	700	700	700	0	0	0	0	0	0	0	700
4	700	700	700	700	700	700	700	700	0	0	0	0	0	0	0	700
5	600	600	600	550	550	550	550	600	0	0	0	0	0	0	0	500
6	600	600	600	550	550	550	550	600	0	0	0	0	0	0	0	500
Conference	600	600	600	600	600	600	600	0	0	0	0	0	0	0	0	0
<b>Yuba River Accord</b>																
WY Classification	Oct 1-15	Oct 16-31	Nov	Dec	Jan	Feb	Mar	Apr 1-15	Apr 16-30	May 1-15	May 16-31	June 1-15	June 16-30	Jul	Aug	Sep
1	700	700	700	700	700	700	700	700	0	0	0	0	0	0	0	700
2	700	700	700	700	700	700	700	700	0	0	0	0	0	0	0	700
3	700	700	700	700	700	700	700	700	0	0	0	0	0	0	0	700
4	700	700	700	700	700	700	700	700	0	0	0	0	0	0	0	700
5	600	600	600	550	550	550	550	600	0	0	0	0	0	0	0	500
6	600	600	600	550	550	550	550	600	0	0	0	0	0	0	0	500
Conference	600	600	600	600	600	600	600	0	0	0	0	0	0	0	0	0

**Yuba Accord Flow Requirements at Marysville (cfs)**

<b>Base Case</b>																
WY Classification	Oct 1-15	Oct 16-31	Nov	Dec	Jan	Feb	Mar	Apr 1-15	Apr 16-30	May 1-15	May 16-31	June 1-15	June 16-30	Jul	Aug	Sep
1	500	500	500	500	500	500	700	1000	1000	2000	2000	1500	1500	700	600	500
2	500	500	500	500	500	500	700	700	800	1000	1000	800	500	500	500	500
3	500	500	500	500	500	500	500	700	700	900	900	500	500	500	500	500
4	400	400	500	500	500	500	500	600	900	900	600	400	400	400	400	400
5	400	400	500	500	500	500	500	500	600	600	400	400	400	400	400	400
6	350	350	350	350	350	350	350	350	500	500	400	300	150	150	150	350
Conference	400	400	400	400	245	245	245	245	245	245	245	245	245	70	70	70
<b>Yuba River Accord</b>																
WY Classification	Oct 1-15	Oct 16-31	Nov	Dec	Jan	Feb	Mar	Apr 1-15	Apr 16-30	May 1-15	May 16-31	June 1-15	June 16-30	Jul	Aug	Sep
1	500	500	500	500	500	500	700	1000	1000	2000	2000	1500	1500	700	600	500
2	500	500	500	500	500	500	700	700	800	1000	1000	800	500	500	500	500
3	500	500	500	500	500	500	500	700	700	900	900	500	500	500	500	500
4	400	400	500	500	500	500	500	600	900	900	600	400	400	400	400	400
5	400	400	500	500	500	500	500	500	600	600	400	400	400	400	400	400
6	350	350	350	350	350	350	350	350	500	500	400	300	150	150	150	350
Conference	400	400	400	400	245	245	245	245	245	245	245	245	245	70	70	70

**New Bullards Bar Reservoir Storage Targets**

<b>Yuba River Accord</b>																
Operating Line	31-Oct	30-Nov	31-Dec	31-Jan	28-Feb	31-Mar	30-Apr	31-May	30-Jun	15-Jul	31-Jul	15-Aug	31-Aug	15-Sep	30-Sep	
Upper Buffer	20,000	30,000	30,000	80,000	30,000	30,000	30,000	26,000	0	5,000	10,000	10,000	10,000	90,000	200,000	
Target Line	660,000	660,000	650,000	600,000	650,000	750,000	850,000	940,000	920,000	875,000	825,000	770,000	715,000	682,500	650,000	
Lower Buffer	10,000	30,000	30,000	30,000	30,000	30,000	30,000	100,000	80,000	60,000	40,000	35,000	15,000	5,000	2,000	
<b>Yuba River Accord</b>																
Operating Line	31-Oct	30-Nov	31-Dec	31-Jan	28-Feb	31-Mar	30-Apr	31-May	30-Jun	15-Jul	31-Jul	15-Aug	31-Aug	15-Sep	30-Sep	
Upper Buffer	20,000	30,000	30,000	80,000	30,000	30,000	30,000	26,000	0	5,000	10,000	10,000	10,000	90,000	200,000	
Target Line	660,000	660,000	650,000	600,000	650,000	750,000	850,000	940,000	920,000	875,000	825,000	770,000	715,000	682,500	650,000	
Lower Buffer	10,000	30,000	30,000	30,000	30,000	30,000	30,000	100,000	80,000	60,000	40,000	35,000	15,000	5,000	2,000	

Overview - Model Output Generation Summary																						
Water Year Classification:	Wet			Above Normal			Below Normal			Dry			Critical			Extremely Critical			Average All Years			
Model case:	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	
New Colgate Powerhouse Generation (Average MWh/yr)	1,734,439	1,664,453	-4.0%	1,338,132	1,257,728	-6.0%	1,199,390	1,135,625	-5.3%	856,367	814,879	-4.8%	789,957	769,694	-2.6%	500,059	487,472	-2.5%	1,242,413	1,181,028	-61,385	-4.9%
Narrows 2 Powerhouse Generation (Average MWh/yr)	263,358	260,688	-1.0%	191,247	188,786	-1.3%	162,914	162,389	-0.3%	100,544	100,279	-0.3%	75,640	75,640	0.0%	88,577	88,700	0.0%	172,730	171,182	-1,548	-0.9%
Total YRDP Generation (Average MWh/yr)	1,997,797	1,925,141	-3.6%	1,529,379	1,446,514	-5.4%	1,362,304	1,298,014	-4.7%	956,911	915,159	-4.4%	865,597	845,334	-2.3%	588,636	576,171	-2.1%	1,415,143	1,352,209	-62,934	-4.4%
Overview - Model Output Flows Summary																						
Water Year Classification:	Wet			Above Normal			Below Normal			Dry			Critical			Extremely Critical			Average All Years			
Model case:	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	
Middle Yuba River																						
MYR below Our House Dam (Avg. AF/yr)	138,636	210,646	51.9%	50,773	112,955	122.5%	52,119	89,034	70.8%	62,765	80,906	28.9%	51,401	62,111	20.8%	45,949	50,144	9.1%	73,689	119,556	45,867	62.2%
MYR Near Confluence with NYR (Avg. AF/yr)	263,946	360,921	36.7%	115,910	195,581	68.7%	126,094	178,424	41.5%	132,428	162,010	22.3%	105,417	121,870	15.6%	128,087	142,256	11.1%	154,660	217,019	62,359	40.3%
Oregon Creek and North Yuba River																						
Oregon Creek below Log Cabin Dam (Avg. AF/yr)	34,871	59,835	71.6%	12,931	30,420	135.3%	16,530	31,944	93.3%	18,561	30,002	61.6%	15,903	21,648	36.1%	20,306	30,281	49.1%	20,211	36,703	16,492	81.6%
NYR below New Bullards Bar Dam (Avg. AF/yr)	323,956	292,638	-9.7%	69,044	58,483	-15.3%	79,702	82,405	3.4%	117,294	120,784	3.0%	84,466	85,148	0.8%	4,108	4,093	-0.3%	138,937	129,895	-9,042	-6.5%
Yuba River																						
Yuba River above New Colgate PH (Avg. AF/yr)	623,271	688,927	10.5%	205,371	274,481	33.7%	228,262	283,293	24.1%	269,707	302,778	12.3%	204,787	221,922	8.4%	156,375	170,530	9.1%	317,358	370,675	53,317	16.8%
Yuba River near Smartsville (Avg. AF/yr)	2,823,908	2,827,122	0.1%	1,702,676	1,701,673	-0.1%	1,611,037	1,613,393	0.1%	1,320,265	1,317,678	-0.2%	1,141,016	1,140,927	0.0%	958,919	960,830	0.2%	1,802,258	1,802,261	3	0.0%
Yuba River near Marysville (Avg. AF/yr)	2,755,475	2,758,689	0.1%	1,516,852	1,515,849	-0.1%	1,437,230	1,439,586	0.2%	1,133,123	1,130,536	-0.2%	936,949	936,860	0.0%	967,609	969,520	0.2%	1,648,250	1,648,253	3	0.0%
Average Agricultural Water Supply																						
Water Year Classification:	Wet			Above Normal			Below Normal			Dry			Critical			Extremely Critical			Average All Years			
Model case:	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	
Total (% of requested)	100%	100%	0%	100%	100%	0%	100%	100%	0%	100%	100%	0%	49%	49%	0%	49%	49%	0%	99%	99%	0%	
End of September Reservoir Storage																						
Water Year Classification:	Wet			Above Normal			Below Normal			Dry			Critical			Extremely Critical			Average All Years			
Model case:	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	
Reservoir Storage (AF)	652,111	651,135	-0.1%	643,499	645,890	0.4%	647,587	654,827	1.1%	575,007	578,088	0.5%	243,527	243,528	0.0%	243,527	243,528	0.0%	610,381	612,584	2,203	0.4%

\*Water Year Classifications based on Smartsville Index

Model Output Summary - Generation

New Colgate Powerhouse Generation (Average Monthly MWh)																					
Month	Wet			Above Normal			Below Normal			Dry			Critical			Extremely Critical			Average All Years		
	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change
October	53,916	53,831	-0.2%	51,558	52,118	1.1%	50,800	52,140	2.6%	47,421	47,221	-0.4%	45,398	45,477	0.2%	12,869	12,870	0.0%	49,738	50,021	0.6%
November	63,447	63,385	-0.1%	54,834	54,354	-0.9%	40,424	47,615	17.8%	49,439	49,861	0.9%	44,120	44,193	0.2%	10,722	10,731	0.1%	52,133	52,941	1.5%
December	101,825	97,778	-4.0%	65,067	65,662	0.9%	57,033	59,049	3.5%	54,390	52,706	-3.1%	29,393	29,401	0.0%	10,671	10,723	0.5%	66,772	65,852	-1.4%
January	145,562	137,562	-5.5%	97,712	99,445	1.8%	133,817	136,434	2.0%	63,981	66,258	3.6%	59,241	57,846	-2.4%	6,639	5,059	-23.8%	101,345	100,622	-0.7%
February	164,112	163,912	-0.1%	92,947	93,873	1.0%	142,133	139,934	-1.5%	77,234	72,455	-6.2%	87,525	87,535	0.0%	117,397	114,484	-2.5%	113,013	111,873	-1.0%
March	167,720	165,868	-1.1%	98,898	95,405	-3.5%	111,040	98,249	-11.5%	120,882	118,089	-2.3%	100,380	94,719	-5.6%	214,026	210,815	-1.5%	124,907	120,682	-3.4%
April	191,344	181,593	-5.1%	131,513	119,588	-9.1%	75,507	66,935	-11.4%	41,266	35,572	-13.8%	51,568	49,700	-3.6%	15,354	15,679	2.1%	107,958	99,403	-7.9%
May	219,400	195,316	-11.0%	199,748	164,022	-17.9%	165,206	131,376	-20.5%	93,711	74,803	-20.2%	91,713	81,781	-10.8%	22,931	18,407	-19.7%	163,513	136,960	-16.2%
June	218,176	206,040	-5.6%	204,643	183,375	-10.4%	150,482	131,589	-12.6%	89,690	82,433	-8.1%	80,585	79,069	-1.9%	33,172	32,419	-2.3%	161,194	147,300	-8.6%
July	193,272	184,803	-4.4%	165,191	156,205	-5.4%	124,480	119,676	-3.9%	95,053	94,612	-0.5%	89,798	89,688	-0.1%	28,563	28,563	0.0%	141,152	135,636	-3.9%
August	155,643	154,501	-0.7%	120,461	117,083	-2.8%	95,085	96,956	2.0%	76,952	75,824	-1.5%	68,378	68,401	0.0%	20,161	20,161	0.0%	108,662	107,368	-1.2%
September	60,024	59,864	-0.3%	55,561	56,598	1.9%	53,383	55,672	4.3%	46,350	45,044	-2.8%	41,858	41,884	0.1%	7,554	7,560	0.1%	52,026	52,370	0.7%
Average MWh/	1,734,439	1,664,453	-4.0%	1,338,132	1,257,728	-6.0%	1,199,390	1,135,625	-5.3%	856,367	814,879	-4.8%	789,957	769,694	-2.6%	500,059	487,472	-2.5%	1,242,413	1,181,028	-4.9%

Narrows 2 Powerhouse Generation (Average Monthly MWh)																					
Month	Wet			Above Normal			Below Normal			Dry			Critical			Extremely Critical			Average All Years		
	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change
October	4,803	4,748	-1.1%	3,674	3,989	8.6%	2,893	3,657	26.4%	1,425	1,334	-6.4%	0	0	0.0%	0	0	0.0%	3,002	3,162	5.3%
November	5,080	5,078	0.0%	4,092	4,167	1.8%	382	1,624	325.1%	2,338	2,299	-1.7%	0	0	0.0%	0	0	0.0%	3,096	3,262	5.4%
December	15,428	15,408	-0.1%	7,791	7,896	1.3%	7,735	8,623	11.5%	5,572	5,572	0.0%	1,847	1,847	0.0%	4,744	4,744	0.0%	8,651	8,787	1.6%
January	23,957	23,844	-0.5%	15,371	15,692	2.1%	24,883	24,593	-1.2%	10,543	10,967	4.0%	11,525	11,525	0.0%	20,264	20,574	1.5%	17,404	17,543	0.8%
February	28,802	28,661	-0.5%	16,275	16,276	0.0%	23,341	23,337	0.0%	14,687	14,725	0.3%	11,473	11,473	0.0%	27,211	27,007	-0.7%	19,750	19,719	-0.2%
March	30,074	29,977	-0.3%	18,722	18,884	0.9%	20,904	19,928	-4.7%	23,950	24,287	1.4%	13,018	13,018	0.0%	36,356	36,373	0.0%	22,917	22,900	-0.1%
April	33,770	33,871	0.3%	24,221	23,639	-2.4%	13,295	13,059	-1.8%	6,553	6,085	-7.1%	5,095	5,095	0.0%	0	0	0.0%	18,850	18,550	-1.6%
May	36,478	36,482	0.0%	34,083	34,280	0.6%	26,259	25,488	-2.9%	9,640	9,556	-0.9%	8,662	8,662	0.0%	0	0	0.0%	25,407	25,339	-0.3%
June	33,746	33,519	-0.7%	30,823	29,993	-2.7%	18,836	17,303	-8.1%	8,458	8,319	-1.6%	8,188	8,188	0.0%	0	0	0.0%	22,393	21,825	-2.5%
July	26,123	24,931	-4.6%	19,658	17,939	-8.7%	12,131	11,774	-2.9%	8,461	8,461	0.0%	8,461	8,461	0.0%	0	0	0.0%	16,219	15,360	-5.3%
August	18,536	17,624	-4.9%	11,539	10,698	-7.3%	9,206	9,133	-0.8%	7,976	7,976	0.0%	7,369	7,369	0.0%	0	0	0.0%	11,365	10,888	-4.2%
September	6,561	6,545	-0.2%	4,997	5,333	6.7%	3,048	3,867	26.9%	940	698	-25.8%	0	0	0.0%	0	0	0.0%	3,677	3,847	4.6%
Average MWh/	263,358	260,688	-1.0%	191,247	188,786	-1.3%	162,914	162,389	-0.3%	100,544	100,279	-0.3%	75,640	75,640	0.0%	88,577	88,700	0.1%	172,730	171,182	-0.9%

Model Output Summary - Miscellaneous Values

End of September New Bullards Bar Reservoir Storage (AF)			
WY Classification	Base	Alt	Change
Wet	652,111	651,135	-0.1%
Above Normal	643,499	645,890	0.4%
Below Normal	647,587	654,827	1.1%
Dry	575,007	578,088	0.5%
Critical	495,674	494,622	-0.2%
Extremely Critical	243,527	243,528	0.0%
Average All Years	610,381	612,584	0.4%

Average Agricultural Water Supply Allocation for April through September (%)			
WY Classification	Base	Alt	Change
Wet	100%	100%	0.0%
Above Normal	100%	100%	0.0%
Below Normal	100%	100%	0.0%
Dry	100%	100%	0.0%
Critical	100%	100%	0.0%
Extremely Critical	49%	49%	0.0%
Average All Years	99%	99%	0.0%

Number of Days Narrows 2 PH Releases Controlled by Flow Fluctuation Criteria			
WY Classification	Base	Alt	Change
Wet	14	23	64.3%
Above Normal	162	182	12.3%
Below Normal	0	0	0.0%
Dry	147	147	0.0%
Critical	97	97	0.0%
Extremely Critical	2	3	50.0%
Total All Years	422	452	7.1%

Recurrence of North Yuba Index Year Types (Years)			
Flow Sched.	Base	Alt	Change
Sched. 1	23	21	-2
Sched. 2	8	10	2
Sched. 3	2	2	0
Sched. 4	6	5	-1
Sched. 5	1	2	1
Sched. 6	0	0	0
Conference	1	1	0

Average New Bullards Bar Reservoir Water-Surface Elevation on Sept. 10 (ft)			
WY Classification	Base	Alt	Change
Wet	1,887	1,887	0.0%
Above Normal	1,885	1,886	0.0%
Below Normal	1,887	1,889	0.1%
Dry	1,866	1,866	0.0%
Critical	1,842	1,842	0.0%
Extremely Critical	1,738	1,738	0.0%
Average All Years	1,875	1,876	0.0%

Average Number of Days per Year Dark Day Boat Ramp is Available (Water Level >= 1,758 ft) (days)			
WY Classification	Base	Alt	Change
Wet	365	365	0
Above Normal	365	365	0
Below Normal	365	365	0
Dry	365	365	0
Critical	365	365	0
Extremely Critical	190	190	0
Average All Years	361	361	0

Average Number of Days per Year Cottage Creek Boat Ramp is Available (Water Level >= 1,853 ft) (Days)			
WY Classification	Base	Alt	Change
Wet	347	347	0
Above Normal	355	354	-1
Below Normal	365	365	0
Dry	290	292	2
Critical	188	187	-1
Extremely Critical	69	68	-1
Average All Years	321	321	0

\*Water Year (WY) Classifications based on Smartsville Index

Model Output Summary - Flows

Middle Yuba River below Our House Dam (Average monthly flow, cfs)																					
Month	Wet			Above Normal			Below Normal			Dry			Critical			Extremely Critical			Average All Years		
	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change
October	34	34	0.0%	33	33	0.0%	31	31	0.0%	27	27	0.0%	24	24	0.0%	17	17	0.0%	30	30	0.0%
November	70	80	13.7%	57	65	14.9%	33	33	0.0%	86	96	12.3%	24	24	0.0%	22	22	0.0%	60	68	12.2%
December	259	281	8.8%	106	112	5.4%	48	48	0.0%	142	145	1.9%	32	32	0.0%	38	38	0.0%	137	145	5.8%
January	472	472	0.0%	111	111	0.0%	273	306	12.1%	63	63	0.0%	230	259	12.6%	302	302	0.0%	222	228	2.8%
February	179	209	16.9%	84	97	16.2%	148	148	0.0%	312	316	1.3%	26	26	0.0%	57	57	0.0%	160	172	7.9%
March	157	179	14.3%	98	104	6.2%	48	48	0.0%	222	241	8.5%	336	336	0.0%	173	173	0.0%	153	164	7.6%
April	374	374	0.0%	57	58	2.3%	47	37	-21.0%	38	29	-22.8%	31	24	-22.6%	31	24	-22.6%	118	115	-3.1%
May	457	1029	125.4%	129	701	441.4%	99	515	418.5%	47	247	426.4%	38	163	329.8%	38	98	158.2%	170	592	248.6%
June	189	607	221.2%	68	437	544.9%	44	192	334.6%	38	99	159.5%	31	54	72.8%	31	47	48.6%	81	327	304.0%
July	38	151	298.9%	33	83	150.1%	33	51	55.4%	29	38	30.1%	24	28	18.7%	17	17	0.4%	32	77	141.5%
August	33	33	0.0%	33	33	0.0%	32	32	0.0%	27	27	0.0%	23	23	0.0%	13	13	0.0%	30	30	0.0%
September	33	33	0.0%	33	33	0.0%	30	30	0.0%	26	26	0.0%	23	23	0.0%	15	15	0.0%	30	30	0.0%
Average AF/yr	138,636	210,646	51.9%	50,773	112,955	122.5%	52,119	89,034	70.8%	62,765	80,906	28.9%	51,401	62,111	20.8%	45,949	50,144	9.1%	73,689	119,556	62.2%

Middle Yuba River Near Confluence with North Yuba River (Average monthly flow, cfs)																					
Month	Wet			Above Normal			Below Normal			Dry			Critical			Extremely Critical			Average All Years		
	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change
October	50	46	-7.1%	46	44	-5.3%	43	41	-3.4%	38	38	-1.7%	30	28	-5.4%	21	21	0.0%	43	41	-4.8%
November	135	141	5.1%	117	123	4.6%	64	63	-2.7%	141	155	9.3%	37	35	-4.4%	38	38	0.0%	113	118	5.3%
December	531	569	7.2%	216	222	2.8%	132	131	-0.7%	275	278	1.0%	93	93	0.0%	138	137	-0.7%	285	296	4.1%
January	906	920	1.6%	259	266	2.7%	654	705	7.9%	192	197	2.8%	554	595	7.4%	840	915	9.0%	486	504	3.7%
February	546	580	6.3%	249	269	8.0%	403	403	0.0%	657	664	1.0%	105	104	-0.4%	303	303	0.0%	420	436	3.9%
March	451	552	22.4%	334	420	25.8%	224	292	30.3%	526	628	19.5%	625	674	7.9%	557	632	13.5%	418	506	21.1%
April	721	883	22.5%	215	339	57.9%	182	278	52.6%	132	192	45.4%	82	108	31.2%	49	44	-10.8%	289	393	35.9%
May	645	1332	106.6%	239	880	268.9%	198	678	241.7%	97	321	231.3%	69	205	197.5%	72	146	102.5%	274	760	177.0%
June	246	695	183.0%	110	497	352.4%	77	234	203.8%	65	132	103.4%	47	68	46.1%	44	57	28.4%	119	379	219.8%
July	60	177	193.4%	50	97	96.1%	48	63	32.0%	41	47	15.7%	33	34	2.9%	20	20	0.0%	48	92	92.8%
August	47	44	-7.5%	46	41	-10.3%	41	38	-6.3%	33	32	-3.8%	29	28	-2.9%	15	15	0.0%	41	38	-7.4%
September	46	44	-6.4%	44	40	-9.3%	36	36	-2.2%	32	31	-0.9%	28	27	-2.7%	19	19	-0.5%	39	37	-5.6%
Average AF/yr	263,946	360,921	36.7%	115,910	195,581	68.7%	126,094	178,424	41.5%	132,428	162,010	22.3%	105,417	121,870	15.6%	128,087	142,256	11.1%	154,660	217,019	40.3%

Oregon Creek below Log Cabin Dam (Average monthly flow, cfs)																					
Month	Wet			Above Normal			Below Normal			Dry			Critical			Extremely Critical			Average All Years		
	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change
October	9	5	-41.3%	7	5	-34.8%	6	4	-25.6%	4	4	-14.4%	4	2	-42.7%	2	2	0.0%	6	4	-32.9%
November	19	17	-14.5%	17	14	-17.8%	8	7	-20.6%	18	21	13.9%	6	4	-27.0%	4	4	-3.8%	16	14	-9.0%
December	91	107	17.2%	29	29	1.2%	16	15	-6.0%	44	44	0.5%	11	10	-3.4%	11	10	-8.4%	44	48	8.7%
January	153	168	9.4%	32	39	22.1%	118	137	15.9%	25	30	21.4%	103	115	11.9%	157	232	48.1%	79	91	15.2%
February	93	98	4.6%	29	35	22.5%	55	55	0.0%	108	110	2.4%	7	7	0.0%	36	36	0.0%	64	67	5.7%
March	63	142	124.6%	35	115	227.2%	17	85	397.8%	69	153	120.8%	92	141	53.4%	94	170	79.5%	53	130	144.9%
April	83	245	195.9%	13	136	949.5%	11	117	943.7%	10	79	669.3%	8	41	409.4%	8	10	20.8%	27	134	399.1%
May	31	146	368.1%	16	87	427.9%	15	79	421.0%	12	36	208.4%	9	20	114.6%	9	23	148.9%	18	81	356.6%
June	11	43	283.1%	11	29	160.6%	11	20	82.7%	10	16	60.1%	8	7	-17.5%	8	5	-34.9%	11	26	143.0%
July	9	13	40.5%	9	7	-20.4%	9	6	-34.5%	7	5	-32.1%	6	3	-57.4%	1	1	-4.6%	8	7	-12.0%
August	9	5	-40.7%	9	4	-55.1%	5	3	-47.8%	4	2	-35.1%	3	2	-27.8%	1	1	0.0%	6	3	-46.4%
September	8	5	-36.5%	7	3	-54.6%	3	2	-24.4%	3	2	-9.7%	3	2	-27.6%	2	2	-5.7%	5	3	-39.8%
Average AF/yr	34,871	59,835	71.6%	12,931	30,420	135.3%	16,530	31,944	93.3%	18,561	30,002	61.6%	15,903	21,648	36.1%	20,306	30,281	49.1%	20,211	36,703	81.6%

\*Water Year Classifications based on Smartsville Index

Model Output Summary - Flows

North Yuba River below New Bullards Bar Dam (Average monthly flow, cfs)																					
Month	Wet			Above Normal			Below Normal			Dry			Critical			Extremely Critical			Average All Years		
	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change
October	7	7	0.0%	7	7	0.0%	7	7	0.0%	6	6	0.0%	6	6	0.0%	6	6	0.0%	7	7	0.0%
November	7	7	0.0%	7	7	-0.6%	7	7	0.0%	6	6	0.2%	6	6	0.0%	6	6	0.0%	7	7	-0.1%
December	479	507	5.9%	68	53	-21.7%	7	7	0.6%	383	413	7.8%	6	6	0.0%	6	6	0.0%	224	233	3.9%
January	1,409	1,506	6.8%	391	390	-0.2%	678	725	6.9%	70	70	0.0%	6	6	-1.4%	6	6	0.0%	566	595	5.1%
February	244	210	-13.9%	60	60	0.0%	457	481	5.3%	934	1,008	7.9%	35	12	-66.1%	6	6	0.0%	342	351	2.7%
March	613	566	-7.6%	227	220	-3.1%	120	118	-1.5%	561	521	-7.1%	1,288	1,320	2.5%	7	7	-3.1%	454	433	-4.5%
April	658	622	-5.5%	32	24	-22.8%	7	7	0.0%	6	6	0.0%	6	6	0.0%	6	6	0.0%	157	147	-6.5%
May	1,139	873	-23.3%	181	116	-35.8%	7	7	-0.3%	6	6	0.0%	6	6	0.0%	6	6	0.0%	310	232	-25.4%
June	737	493	-33.1%	141	61	-56.5%	31	7	-76.3%	6	6	0.0%	6	6	0.0%	6	6	0.0%	213	131	-38.6%
July	28	8	-70.2%	8	7	-3.5%	7	7	-0.7%	6	6	0.0%	6	6	0.0%	6	6	0.0%	12	7	-38.2%
August	8	8	0.3%	7	7	0.0%	7	7	0.0%	6	6	0.0%	6	6	0.0%	6	6	0.0%	7	7	0.1%
September	7	7	0.0%	7	7	0.0%	7	7	0.0%	6	6	0.0%	6	6	0.0%	6	6	0.0%	7	7	0.0%
Average AF/yr	323,956	292,638	-9.7%	69,044	58,483	-15.3%	79,702	82,405	3.4%	117,294	120,784	3.0%	84,466	85,148	0.8%	4,108	4,093	-0.3%	138,937	129,895	-6.5%

Yuba River above New Colgate Power House (Average monthly flow, cfs)																					
Month	Wet			Above Normal			Below Normal			Dry			Critical			Extremely Critical			Average All Years		
	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change
October	60	56	-5.9%	56	53	-4.4%	52	51	-2.8%	47	46	-1.4%	36	35	-4.4%	27	27	0.0%	52	50	-4.0%
November	159	166	4.3%	142	147	3.8%	80	79	-2.1%	162	176	8.1%	45	43	-3.6%	48	48	0.0%	134	140	4.4%
December	1,081	1,147	6.1%	316	307	-2.7%	165	164	-0.6%	693	725	4.7%	118	118	-0.3%	178	177	-0.5%	549	570	3.7%
January	2,425	2,535	4.6%	696	702	0.9%	1,434	1,533	6.9%	303	308	1.8%	646	687	6.4%	995	1,070	7.6%	1,125	1,172	4.2%
February	897	897	0.1%	362	382	5.5%	938	962	2.6%	1,684	1,764	4.8%	167	144	-13.9%	391	391	0.0%	839	864	3.0%
March	1,154	1,209	4.7%	640	719	12.4%	406	472	16.3%	1,179	1,241	5.3%	1,990	2,071	4.1%	678	753	11.0%	955	1,023	7.1%
April	1,482	1,608	8.5%	303	420	38.6%	238	333	40.3%	172	232	35.0%	105	131	24.5%	59	53	-9.1%	503	597	18.8%
May	1,845	2,267	22.8%	456	1,033	126.5%	238	718	201.3%	118	343	189.6%	83	219	164.4%	88	162	84.6%	619	1,025	65.7%
June	1,000	1,206	20.6%	263	570	117.0%	116	249	114.4%	78	144	86.2%	55	76	39.1%	52	65	24.3%	342	521	52.2%
July	94	191	102.7%	60	108	78.6%	58	73	26.5%	49	56	13.0%	40	40	2.4%	26	26	0.0%	63	102	63.9%
August	57	54	-6.2%	54	49	-8.7%	49	46	-5.3%	41	39	-3.1%	35	34	-2.4%	21	21	0.0%	49	46	-6.1%
September	56	53	-5.3%	52	48	-7.8%	44	44	-1.8%	39	39	-0.7%	34	33	-2.2%	25	25	-0.4%	47	45	-4.6%
Average AF/yr	623,271	688,927	10.5%	205,371	274,481	33.7%	228,262	283,293	24.1%	269,707	302,778	12.3%	204,787	221,922	8.4%	156,375	170,530	9.1%	317,358	370,675	16.8%

Yuba River near Smartsville (Average monthly flow, cfs)																					
Month	Wet			Above Normal			Below Normal			Dry			Critical			Extremely Critical			Average All Years		
	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change
October	914	910	-0.5%	873	878	0.6%	859	874	1.8%	805	801	-0.6%	769	769	0.0%	291	291	0.0%	844	846	0.2%
November	1,437	1,443	0.4%	1,229	1,226	-0.3%	852	954	12.0%	1,205	1,224	1.6%	841	841	0.0%	332	332	0.0%	1,178	1,195	1.4%
December	3,532	3,541	0.3%	1,756	1,758	0.1%	1,410	1,438	2.0%	2,004	2,013	0.4%	879	879	0.0%	860	860	0.0%	2,115	2,124	0.4%
January	6,194	6,191	-0.1%	2,748	2,779	1.1%	4,737	4,894	3.3%	1,839	1,876	2.1%	2,701	2,720	0.7%	3,029	3,085	1.8%	3,635	3,674	1.1%
February	5,014	5,013	0.0%	2,584	2,619	1.4%	4,270	4,269	0.0%	4,283	4,288	0.1%	2,030	2,007	-1.1%	3,433	3,380	-1.6%	3,733	3,743	0.2%
March	4,809	4,850	0.9%	3,017	3,051	1.1%	2,912	2,798	-3.9%	4,318	4,332	0.3%	4,671	4,671	0.0%	5,191	5,215	0.5%	3,901	3,912	0.3%
April	6,168	6,128	-0.7%	2,991	2,931	-2.0%	1,917	1,897	-1.1%	1,172	1,147	-2.2%	1,071	1,071	0.0%	415	415	0.0%	2,929	2,892	-1.2%
May	6,893	6,984	1.3%	4,060	4,138	1.9%	3,168	3,186	0.6%	1,610	1,581	-1.8%	1,479	1,479	0.0%	606	606	0.0%	3,740	3,781	1.1%
June	5,510	5,528	0.3%	3,868	3,878	0.3%	2,606	2,467	-5.3%	1,441	1,408	-2.3%	1,277	1,277	0.0%	676	676	0.0%	3,243	3,223	-0.6%
July	3,088	3,067	-0.7%	2,420	2,316	-4.3%	1,815	1,759	-3.1%	1,416	1,416	0.0%	1,363	1,363	0.0%	543	543	0.0%	2,135	2,089	-2.1%
August	2,312	2,273	-1.7%	1,769	1,715	-3.0%	1,402	1,420	1.3%	1,168	1,151	-1.5%	1,079	1,079	0.0%	402	402	0.0%	1,619	1,592	-1.7%
September	994	989	-0.5%	918	928	1.1%	866	896	3.5%	774	754	-2.6%	720	720	0.0%	201	201	0.0%	863	866	0.3%
Average AF/yr	2,823,908	2,827,122	0.1%	1,702,676	1,701,673	-0.1%	1,611,037	1,613,393	0.1%	1,320,265	1,317,678	-0.2%	1,141,016	1,140,927	0.0%	958,919	960,830	0.2%	1,802,258	1,802,261	0.0%

\*Water Year Classifications based on Smartsville Index

Model Output Summary - Flows

Yuba River near Marysville (Average monthly flow, cfs)																					
Month	Wet			Above Normal			Below Normal			Dry			Critical			Extremely Critical			Average All Years		
	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change	Base	Alt	Change
October	588	584	-0.7%	539	544	0.9%	516	531	2.9%	469	465	-1.0%	412	412	0.0%	243	243	0.0%	516	518	0.3%
November	1,147	1,153	0.5%	931	927	-0.4%	534	636	19.1%	913	932	2.1%	500	500	0.0%	289	289	0.0%	884	901	1.9%
December	3,573	3,582	0.3%	1,670	1,672	0.1%	1,361	1,389	2.1%	1,927	1,936	0.4%	774	774	0.0%	951	951	0.0%	2,070	2,078	0.4%
January	6,837	6,833	0.0%	2,919	2,950	1.0%	5,172	5,329	3.0%	2,029	2,067	1.9%	3,115	3,134	0.6%	4,077	4,132	1.4%	3,997	4,036	1.0%
February	5,884	5,883	0.0%	2,941	2,976	1.2%	4,827	4,827	0.0%	4,872	4,878	0.1%	2,167	2,144	-1.1%	3,810	3,756	-1.4%	4,275	4,284	0.2%
March	5,491	5,533	0.8%	3,499	3,533	1.0%	3,428	3,313	-3.3%	4,988	5,003	0.3%	5,383	5,383	0.0%	5,808	5,832	0.4%	4,497	4,508	0.2%
April	6,885	6,845	-0.6%	3,196	3,136	-1.9%	1,738	1,718	-1.2%	895	869	-2.9%	770	770	0.0%	256	256	0.0%	3,038	3,002	-1.2%
May	6,512	6,602	1.4%	3,553	3,631	2.2%	2,498	2,516	0.7%	883	854	-3.3%	745	745	0.0%	245	245	0.0%	3,176	3,217	1.3%
June	4,723	4,741	0.4%	3,051	3,062	0.3%	1,737	1,598	-8.0%	567	534	-5.8%	400	400	0.0%	245	245	0.0%	2,418	2,398	-0.8%
July	2,075	2,054	-1.0%	1,406	1,302	-7.4%	855	799	-6.6%	456	456	0.0%	400	400	0.0%	70	70	0.0%	1,157	1,112	-3.9%
August	1,425	1,385	-2.8%	897	844	-5.9%	725	743	2.5%	490	473	-3.5%	400	400	0.0%	70	70	0.0%	842	815	-3.2%
September	676	671	-0.7%	604	614	1.7%	598	628	5.0%	505	485	-4.0%	450	450	0.0%	70	70	0.0%	573	575	0.4%
Average AF/yr	2,755,475	2,758,689	0.1%	1,516,852	1,515,849	-0.1%	1,437,230	1,439,586	0.2%	1,133,123	1,130,536	-0.2%	936,949	936,860	0.0%	967,609	969,520	0.2%	1,648,250	1,648,253	0.0%

\*Water Year Classifications based on Smartsville Index