

Alternative Detail		Base Case	Alternative Scenario									
			L06082013	RP062713	RP080713	RP081513	L092313	RP092413	DLA Proposal	DLA Future Condition	RP111413	FLA Proposal
Narrative Description: MY = Middle Yuba, OC = Oregon Creek, NY = North Yuba		--	YCWA proposed min flows for MY OC	Ag/NGO min flows MY and OC, base case on NY; close MY and OC tunnels in Apr-Jun	Base case min flows; spring recession & winter sediment pulse flows on MY and OC	Ag/NGO min flows MY and OC, base case on NY	YCWA proposed min flows for MY, OC and NY	Ag/NGO min flows MY, OC and NY	YCWA proposed min flows for MY, OC, NY and Lower Yuba; included YCWA spill recession at OHD and NBB	YCWA DLA proposal, plus YB/DS and Slate Creek proposed license flows	Ag/NGO min flows MY, OC and NY; spring recession & winter sediment pulse flows on MY and OC; MYR recreation flows	YCWA proposed min flows for MY, OC, NY and Lower Yuba; included YCWA spill recession at OHD and NBB
Model Configuration												
Water Balance/Operations Model Version		1.29	1.12	1.12	1.15	1.16.2	1.17	1.17	1.18	1.18	1.19	1.23
Scenario Run Date		8/14/2014	7/1/2013	7/1/2013	8/20/2013	9/23/2013	10/1/2013	9/27/2013	10/10/2013	11/14/2013	12/10/2013	11/18/2014
Level of Development		Present	Present	Present	Present	Present	Present	Present	Present	Future	Present	Present
Basis of Hydrologic Index Calculation		Bulletin 120	Perfect Foresight	Perfect Foresight	Perfect Foresight	Perfect Foresight	Perfect Foresight	Perfect Foresight	Perfect Foresight	Perfect Foresight	Perfect Foresight	Perfect Foresight
Temperature Model Run		Yes	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Minimum Flow Requirement Assumptions												
Water-Year Classification	Our House Dam (OHD); SVI = Smartsville Index	Existing FERC License	SVI	SVI	Existing FERC License	SVI	SVI	SVI	SVI	SVI	SVI	SVI
	Log Cabin Dam (LCD)	Existing FERC License	SVI	SVI	Existing FERC License	SVI	SVI	SVI	SVI	SVI	SVI	SVI
	New Bullards Bar (NBB) Dam	Existing FERC License	Existing FERC License	Existing FERC License	Existing FERC License	Existing FERC License	SVI	SVI	SVI	SVI	SVI	SVI
	Englebright (ENG) Dam; NYI=North Yuba Index	NYI	NYI	NYI	NYI	NYI	NYI	NYI	NYI	NYI	NYI	NYI
Flow Requirement	Below OHD	Existing FERC License	L060813	RP062713	RP080713	RP081513	L060813	RP081513	L060813	L060813	RP111413	L060813
	Below LCD	Existing FERC License	L060813	RP062713	RP080713	RP081513	L060813	RP081513	L060813	L060813	RP111413	L060813
	Below NBB Dam	Existing FERC License	Existing FERC License	Existing FERC License	Existing FERC License	Existing FERC License	L092313	RP092413	L092313	L092313	RP092413	L092313
	Below ENG Dam	Yuba River Accord	Yuba River Accord	Yuba River Accord	Yuba River Accord	Yuba River Accord	Yuba River Accord	Yuba River Accord	DLA Proposal	DLA Proposal	Yuba River Accord	FLA Proposal
Other Operational Requirements												
ENG Release Flow Fluctuation Criteria:		Existing FERC License	Existing FERC License	Existing FERC License	Existing FERC License	Existing FERC License	Existing FERC License	Existing FERC License	Existing FERC License	Existing FERC License	Existing FERC License	FLA-Proposed
Spill Cessation	OHD	No	No	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes
	LCD	No	No	Yes	Yes	No	No	No	No	No	Yes	No
	NBB Dam	No	No	No	No	No	No	No	Yes	Yes	No	Yes
Other		--	--	Fall sediment mobilization flows on MYR and OC, tunnels closed 4/1 to 6/30	Fall sediment mobilization flows on MYR and OC, spill cessation: 1,500 cfs in MYR and 1,000 cfs in OC	--	--	--	Low-level flood control outlet, tailwater depression system	DLA, plus YB/DS and Slate Creek proposed license flows	Fall sediment Mobilization flows on MYR and OC, MYR recreation flows	Low-level flood control outlet, tailwater depression system
Results Summary												
Generation Impacts by SVI Water-Year Classification												
YRDP Percent Difference by Water Year Relative to the Base Case	Wet Years	--	-1.0%	-5.0%	-3.6%	-2.1%	-1.1%	-6.7%	-0.8%	-0.8%	-11.7%	-0.8%
	Above Normal Years	--	-1.1%	-8.0%	-5.4%	-2.9%	-1.3%	-9.1%	-1.6%	-2.5%	-15.8%	-1.7%
	Below Normal Years	--	-0.7%	-7.1%	-4.7%	-2.0%	-1.1%	-7.9%	-0.7%	2.6%	-14.7%	-0.9%
	Dry Years	--	-1.1%	-5.8%	-4.4%	-1.8%	-1.9%	-10.6%	-1.1%	1.8%	-16.1%	-0.7%
	Critical Years	--	-0.2%	-5.5%	-2.3%	-1.5%	-0.7%	-10.7%	-0.1%	-0.2%	-17.3%	-0.5%
	Extremely Critical Years	--	-0.1%	-3.0%	-2.1%	-1.6%	0.1%	-14.4%	-2.1%	-5.1%	-8.4%	0.4%
	All Years	--	-1.0%	-6.5%	-4.4%	-2.3%	-1.3%	-8.5%	-1.1%	-0.5%	-14.4%	-1.1%
Water Year Types												
Change in Number of NYI Years Relative to the Base Case	Schedule 1 Years	--	-1	-2	-2	-2	-2	-2	-2	0	-2	-1
	Schedule 2 Years	--	0	0	2	2	2	2	2	1	0	0
	Schedule 3 Years	--	1	2	0	0	0	0	0	-1	2	1
	Schedule 4 Years	--	0	-2	-1	-1	0	-1	0	0	-3	0
	Schedule 5 Years	--	0	2	1	1	0	1	0	0	3	0
	Schedule 6 Years	--	0	0	0	0	0	0	0	0	0	0
	Conference Years	--	0	0	0	0	0	0	0	0	0	0
Recreation Metrics by SVI Water-Year Classification												
Average NBB Water-Surface Elevation on September 10	Wet Years	1,888	1,887	1,887	1,887	1,887	1,887	1,887	1,887	1,888	1,887	1,887
	Above Normal Years	1,886	1,885	1,886	1,886	1,886	1,886	1,886	1,886	1,889	1,886	1,885
	Below Normal Years	1,887	1,889	1,889	1,889	1,889	1,889	1,889	1,889	1,889	1,889	1,889
	Dry Years	1,868	1,866	1,869	1,866	1,866	1,866	1,865	1,866	1,871	1,868	1,868
	Critical Years	1,843	1,842	1,845	1,842	1,842	1,842	1,840	1,842	1,844	1,845	1,843
	Extremely Critical Years	1,737	1,738	1,738	1,738	1,738	1,737	1,736	1,726	1,733	1,759	1,731
Difference in the Average Number of Days Per Year Dark Day Boat Ramp is Available Relative to the Base Case	Wet Years	--	0	0	0	0	0	0	0	0	0	0
	Above Normal Years	--	0	0	0	0	0	0	0	0	0	0
	Below Normal Years	--	0	0	0	0	0	0	0	0	0	0
	Dry Years	--	0	0	0	0	0	0	0	0	0	0
	Critical Years	--	0	0	0	0	0	0	0	0	0	0
	Extremely Critical Years	--	0	0	0	-1	0	-2	-8	7	95	4
Difference in the Average Number of Days Per Year Cottage Cr. Boat Ramp is Available Relative to the Base Case	Wet Years	--	0	-1	0	0	-1	0	10	1	0	0
	Above Normal Years	--	-1	-1	-1	-1	-1	-1	5	-1	0	0
	Below Normal Years	--	0	0	0	0	0	0	0	0	0	0
	Dry Years	--	-1	7	2	2	-2	-6	-2	23	4	-2
	Critical Years	--	0	11	-1	-3	-1	-14	-1	9	3	0
	Extremely Critical Years	--	0	0	-1	0	0	-4	-5	-2	7	-3

Alternative Detail	Base Case	Alternative Scenario											
		FLA Future Condition	RP072414	RP081514A	RP081514B	RP090914	RP111314	RP022715	L062415	RP081115	RP102815	USFWS-CDFW100915	
<p>Narrative Description: MY = Middle Yuba, OC = Oregon Creek, NY = North Yuba</p>	--	YCWA FLA proposal, plus YB/DS and Slate Creek proposed license flows	Base case min flows, stop diverting at MY and OC tunnels 4/1 through 9/30 if/when NBB has spilled	Base case min flows, stop diverting at MY and OC tunnels 4/1 through 9/30 when NYI >= 1787 on 4/1	Ag/NGO min flows on MY, OC, NY; stop diverting at MY and OC tunnels 4/1 through 9/30 when NYI >= 1787 on 4/1	Ag/NGO min flows MY, OC and NY; spring recession via tunnel closure or managed spill cessation & winter sediment pulse flows on MY, OC, and NY; MYR recreation flows	Ag/NGO min flows on MY, OC, NY; stop diverting at MY and OC tunnels 4/1 through 9/30 when NBB Storage >= 780 TAF on 3/31; 31 spill cessation at MY and OC from 4/1 to 9/30 in other years; winter sediment pulse flows on MY, OC; MYR recreation flows	Ag/NGO min flows on MY, OC, NY; stop diverting at MY and OC tunnels 4/1 through 9/30 when NBB Storage >= 780 TAF on 3/31; spill cessation at MY and OC from 4/1 to 9/30 in other years; winter sediment pulse flows on MY, OC; MYR recreation flows	Ag/NGO min flows on MY, OC, NY; stop diverting at MY and OC tunnels 4/1 through 9/30 when NBB Storage >= 780 TAF on 3/31; spill cessation at MY and OC from 4/1 to 9/30 in other years; winter sediment pulse flows on MY, OC; MYR recreation flows	YCWA proposed min flows for MY, OC, NY and Lower Yuba; YCWA proposed spill cessation at OHD and NBB; Close Lohman Ridge Tunnel 4/11-9/30 when NBB storage > 780 TAF on Mar-31 and April 1 B120 WY Runoff Forecast > 3,600 TAF	Ag/NGO min flows on MY, OC, NY; stop diverting at MY 4/1 through 9/30 when NBB Storage >= 775 TAF on 3/31 and Mar-1 B120 WY runoff forecast >2,191 TAF; Open Log Cabin Dam Sluice Gate when Lohman Ridge Tunnel is closed; Table spill cessation at MY and OC from 4/1 to 7/31 in other	Ag/NGO min flows on MY, OC, NY; stop diverting at MY 4/1 through 9/30 when NBB Storage >= 775 TAF on 3/31 and Mar-1 B120 WY runoff forecast >2,191 TAF; Open Log Cabin Dam Sluice Gate when Lohman Ridge Tunnel is closed; Table spill cessation at MY and OC from 4/1 to 7/31 in other	USFWS/CDFW Lower Yuba River flow proposal, including ramping rates winter pulse flows spring target flows. Assumes Base Case above Englebright.
Model Configuration													
Water Balance/Operations Model Version	1.29	1.23	1.21	1.21.2	1.21.2	1.22	1.28	1.27	1.29	1.29	1.30	1.31	
Scenario Run Date	8/14/2014	11/18/2014	8/1/2014	8/20/2014	8/20/2014	9/17/2014	6/25/2015	3/3/2015	8/17/2015	8/17/2015	11/13/2015	12/21/2015	
Level of Development	Present	Future	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	
Basis of Hydrologic Index Calculation	Bulletin 120	Perfect Foresight	Perfect Foresight	Bulletin 120	Bulletin 120	Perfect Foresight	Bulletin 120	Perfect Foresight	Bulletin 120	Bulletin 120	Bulletin 120	Bulletin 120	
Temperature Model Run	Yes	Yes	No	No	No	No	Yes	No	No	No	No	Yes	
Minimum Flow Requirement Assumptions													
Water-Year Classification	Our House Dam (OHD); SVI = Smartsville Index	Existing FERC License	SVI	Existing FERC License	Existing FERC License	SVI	SVI	SVI	SVI	SVI	SVI	SVI	Existing FERC License
	Log Cabin Dam (LCD)	Existing FERC License	SVI	Existing FERC License	Existing FERC License	SVI	SVI	SVI	SVI	SVI	SVI	SVI	Existing FERC License
	New Bullards Bar (NBB) Dam	Existing FERC License	SVI	Existing FERC License	Existing FERC License	SVI	SVI	SVI	SVI	SVI	SVI	SVI	Existing FERC License
	Englebright (ENG) Dam; NYI=North Yuba Index	NYI	NYI	NYI	NYI	NYI	NYI	NYI	NYI	NYI	NYI	NYI	NYI
Flow Requirement	Below OHD	Existing FERC License	L060813	Existing FERC License	Existing FERC License	RP081513	RP081513	RP081513	RP081513	L060813	RP081513	RP102815	Existing FERC License
	Below LCD	Existing FERC License	L060813	Existing FERC License	Existing FERC License	RP081513	RP081513	RP081513	RP081513	L060813	RP081513	RP102815	Existing FERC License
	Below NBB Dam	Existing FERC License	L092313	Existing FERC License	Existing FERC License	RP092413	RP092413	RP092413	RP022715	L092313	RP022715	RP022715	Existing FERC License
	Below ENG Dam	Yuba River Accord	FLA Proposal	Yuba River Accord	Yuba River Accord	Yuba River Accord	Yuba River Accord	Yuba River Accord	Yuba River Accord	FLA Proposal	Yuba River Accord	Yuba River Accord	USFWS/CDFW 100915
Other Operational Requirements													
ENG Release Flow Fluctuation Criteria:	Existing FERC License	FLA-Proposed	Existing FERC License	Existing FERC License	Existing FERC License	Existing FERC License	Existing FERC License	Existing FERC License	Existing FERC License	FLA Proposed	Existing FERC License	Existing FERC License	USFWS/CDFW 100915
Spill Cessa- tion	OHD	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
	LCD	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No
	NBB Dam	No	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No
Other	--	FLA, plus YB/DS and Slate Creek proposed license flows	Tunnels closed after 4/1 through 9/30 when NBB spills	Tunnels closed 4/1 to 9/30 when April 1 NYI > 1,787 TAF	Tunnels closed 4/1 to 9/30 when April 1 NYI > 1,787 TAF	Tunnels closed 4/1 to 9/30 when NBB Storage on 4/1 > 780 TAF, RP090914 OHD and LCD spill cessation, FLA NBB spill cessation, Fall sediment mobilization flows on MYR and OC, RP090914 OHD rec flows	Tunnels closed 4/1 to 9/30 when March 31 NBB Storage >= 780 TAF, RP090914 OHD and LCD spill cessation, FLA NBB spill cessation, Fall sediment mobilization flows on MYR and OC, RP090914 OHD rec flows	Tunnels closed 4/1 to 9/30 when March 31 NBB Storage >= 780 TAF, RP090914 OHD and LCD spill cessation, FLA NBB spill cessation, Fall sediment mobilization flows on MYR and OC, RP090914 OHD rec flows	Low-level flood control outlet, tailwater depression system, agreed upon measures: rec & sediment transport flows	Low-level flood control outlet, tailwater depression system, agreed upon measures: rec & sediment transport flows	Low-level flood control outlet, tailwater depression system, agreed upon measures: rec & sediment transport flows	USFWS/CDFW 100915 Ramping Rates Winter Pulse Flows Spring Target Flows	
Generation Impacts by SVI Water-Year Classification													
YRDP Percent Difference by Water Year Relative to the Base Case	Wet Years	--	-1.0%	-2.4%	-4.8%	-10.6%	-11.3%	-9.6%	-7.3%	-3.0%	-5.7%	-5.5%	1.6%
	Above Normal Years	--	-2.7%	-1.2%	-3.3%	-10.3%	-11.9%	-9.8%	-7.4%	-1.2%	-5.5%	-4.9%	-0.8%
	Below Normal Years	--	2.3%	-0.2%	0.0%	-8.1%	-8.3%	-7.8%	-4.4%	-1.3%	-4.0%	-3.7%	-2.6%
	Dry Years	--	2.0%	0.0%	-0.1%	-11.4%	-10.7%	-11.4%	-4.8%	-1.5%	-5.2%	-5.2%	-3.3%
	Critical Years	--	-0.5%	0.0%	0.0%	-15.2%	-10.8%	-14.6%	-6.5%	-2.7%	-7.5%	-8.0%	-3.0%
	Extremely Critical Years	--	0.1%	0.0%	0.0%	-24.5%	-15.7%	-23.6%	-7.0%	3.8%	-10.7%		
	All Years	--	-0.6%	-1.3%	-2.7%	-10.6%	-11.0%	-10.0%	-6.5%	-1.9%	-5.5%	-5.1%	-0.3%
Water Year Types													
Change in Number of NYI Years Relative to the Base Case	Schedule 1 Years	--	0	0	0	0	-2	0	-1	0	0	0	0
	Schedule 2 Years	--	1	0	0	0	2	-1	0	-1	-1	-1	-2
	Schedule 3 Years	--	-1	0	0	-1	0	0	1	0	0	0	-2
	Schedule 4 Years	--	0	0	0	1	-1	1	-2	1	1	1	2
	Schedule 5 Years	--	0	0	0	0	1	0	2	0	0	0	2
	Schedule 6 Years	--	0	0	0	0	0	0	0	0	0	0	0
	Conference Years	--	0	0	0	0	0	0	0	0	0	0	0
Recreation Metrics by SVI Water-Year Classification													
Average NBB Water-Surface Elevation on September 10	Wet Years	1,888	1,888	1,888	1,887	1,887	1,887	1,887	1,887	1,887	1,887	1,887	1,876
	Above Normal Years	1,886	1,889	1,886	1,885	1,885	1,886	1,885	1,885	1,884	1,885	1,885	1,868
	Below Normal Years	1,887	1,889	1,887	1,888	1,884	1,889	1,883	1,889	1,883	1,883	1,883	1,856
	Dry Years	1,868	1,872	1,868	1,871	1,867	1,868	1,865	1,869	1,865	1,866	1,866	1,827
	Critical Years	1,843	1,845	1,843	1,835	1,838	1,841	1,834	1,845	1,835	1,834	1,811	1,799
	Extremely Critical Years	1,737	1,738	1,737	1,737	1,747	1,736	1,743	1,737	1,743	1,742		
Difference in the Average Number of Days Per Year Dark Day Boat Ramp is Available Relative to the Base Case	Wet Years	--	0	0	0	0	0	0	0	0	0	0	0
	Above Normal Years	--	0	0	0	0	0	0	0	0	0	0	0
	Below Normal Years	--	0	0	0	0	0	0	0	0	0	0	0
	Dry Years	--	0	0	0	0	0	0	0	0	0	0	0
	Critical Years	--	0	0	0	0	0	0	0	0	0	-1	-3
	Extremely Critical Years	--	20	0	-30	-2	-2	-3	-1	11	-3		
Difference in the Average Number of Days Per Year Cottage Cr. Boat Ramp is Available Relative to the Base Case	Wet Years	--	10	0	-1	-1	0	0	0	0	0	0	-32
	Above Normal Years	--	4	0	0	-1	0	0	-1	-1	0	0	-55
	Below Normal Years	--	0	0	20	1	0	3	0	2	3	3	-75
	Dry Years	--	21	0	12	-2	0	-4	5	-6	-1	-1	-138
	Critical Years	--	12	0	9	17	-6	10	11	14	11	8	-19
	Extremely Critical Years	--	2	0	-5	-2	-5	-3	-3	0	0		