CALSIM II Assumptions for Interim Common Baseline

The Future No-Action Condition is used as the interim Common Assumptions baseline for model runs to be included in the next surface storage program progress report update.

	Existing Condition[1]	Future No-Action Condition [2]	Alternative Future No-Action Condition
Period of Simulation	73 years (1922-1994)	Same	Same
HYDROLOGY			
Level of Development (Land Use)	2001 Level, DWR Bulletin 160-98[3]	2020[4] Level	2020 Level
Demands			May be adjusted as a result of conservation, recycling, desalination, and other factors (local supply projects)
North of Delta (exc American R)			
CVP (non-settlement)	Land Use based, limited by Full Contract	Same	
(Settlement)	Land Use based, historical	Same	
SWP (FRSA)	Land Use based, limited by Full Contract	Same	
Non-Project	Land Use based	Same	
CVP Refuges	Firm Level 2[5]	Same	
American River Basin			
Water rights	2001[6]	2020[7], Sacramento Water Forum	
CVP	2001[8]	2020[9], Sacramento Water Forum (modified, PCWA 35 TAF CVP contract supply diverted at the new American River PCWA Pump Station)	
San Joaquin River Basin			
Friant Unit	Regression of historical	Same	
Lower Basin	Fixed annual demands	Same	
Stanislaus River Basin	New Melones Interim Operations Plan	Same	
South of Delta			
CVP	Full Contract	Same	
CCWD	140 TAF/YR[10]	195 TAF/YR	
SWP (w/ North Bay Aqueduct)	3.0-4.1 MAF/YR	3.9-4.1 MAF/YR	
SWP Article 21 Demand	MWDSC up to 100	MWDSC up to 100 TAF/month,	

1 This represents the CEQA condition of "existing conditions" as assumed by the Common Assumptions Work Group.

2 This represents the NEPA condition of "future with no-action" as assumed by the Common Assumptions Work Group.

3 2001 Level of Development defined by linearly interpolated values from the 1995 Level of Development and 2020 Level of Development from DWR Bulletin 160-98

4 The Common Assumptions will adopt the 2030 hydrology as it becomes available (to be coordinated with the schedule of the storage investigations).

5 It is assumed that Level 4 supplies are obtained through water transfers and are not part of the basic operating demands in CALSIM.

6 1998 Level Demands defined in Sacramento Water Forum's EIR with a few updated entries

7 Sacramento Water Forum 2025 Level Demands defined in Sacramento Water Forum's EIR

8 Same as footnote 6

9 Same as footnote 7

10 Delta diversions include operations of Los Vaqueros Reservoir

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	Existing Condition[1]	Future No-Action Condition [2]	Alternative Future No-Action Condition
	TAF/month, Dec-Mar, others up to 84 TAF/month	Dec-Mar, others up to 84 TAF/month	
FACILITIES			
System-wide	Existing Facilities (2001)		
Upper American River	PCWA pumps[11]	Same	Same
Freeport Regional Water Project	None	Included (includes modified EBMUD operations on the Mokelumne River)	Included
Delta Export Conveyance			
SWP Banks Pumping Plant	6,680 cfs, can increase up to 8,500 cfs Dec15-Mar15	8500 cfs year round (500 cfs reserved for EWA Jul, Aug, Sep)	Same
CVP Tracy Pumping Plant	4,200 cfs + deliveries upstream of DMC constriction	4,600 cfs (allowed by intertie)	same
REGULATORY STANDARDS			
Trinity River			
Minimum Flow below Lewiston Dam	Interim (369-453 TAF/YR)	Trinity EIS Preferred Alternative (369-815 TAF/YR)	Same
Trinity Reservoir End-of-September Minimum Storage	Trinity EIS Preferred Alternative (600 TAF as able)	Same	Same
Clear Creek			
Minimum Flow below Whiskeytown Dam	Downstream water rights, 1963 USBR Proposal to USFWS and NPS, and USFWS discretionary use of CVPIA 3406(b)(2)	Same	Same
Upper Sacramento River			
Shasta Lake End-of-September Minimum Storage	SWRCB WR 1993 Winter-run Biological Opinion (1900 TAF)	Same	Same
Minimum Flow below Keswick Dam	Flows for SWRCB WR 90-5 and 1993 Winter-run Biological Opinion temperature control, and USFWS discretionary use of CVPIA 3406(b)(2)	Same	Same
Feather River			
Minimum Flow below Thermalito Diversion Dam	1983 DWR, DFG Agreement (600 CFS)	Same	Same
Minimum Flow below Thermalito Afterbay outlet	1983 DWR, DFG Agreement (1000 – 1700 CFS)	Same	Same
Yuba River			
Minimum Flow below Daguerre Point Dam	Existing instream flow requirement[12]	Same	Same

[11] The Placer County Water Agency pumping facility upstream of Folsom Lake is just about to begin construction

[12] D1644 in some form will be modeled in the future when SWRCB and YCWA resolve the Decision.

	Existing Condition[1]	Future No-Action Condition [2]	Alternative Future No-Action Condition
American River			
Minimum Flow below Nimbus Dam	SWRCB D-893 (see accompanying Operations Criteria), and USFWS discretionary use of CVPIA 3406(b)(2)	Same	Same
Minimum Flow at H Street Bridge	SWRCB D-893		
Lower Sacramento River			
Minimum Flow near Rio Vista	SWRCB D-1641	Same	Same
Mokelumne River			
Minimum Flow below Camanche Dam	FERC 2916-029, 1996 (Joint Settlement Agreement) (100 – 325 CFS)	Same	Same
Minimum Flow below Woodbridge Diversion Dam	FERC 2916-029, 1996 (Joint Settlement Agreement) (25 – 300 CFS)	Same	Same
Stanislaus River			
Minimum Flow below Goodwin Dam	1987 USBR, DFG agreement, and USFWS discretionary use of CVPIA 3406(b)(2)	Same	Same
Minimum Dissolved Oxygen	SWRCB D-1422	Same	Same
Merced River			
Minimum Flow below Crocker-Huffman Diversion Dam	Davis-Grunsky (180 – 220 CFS, Nov – Mar), Cowell Agreement, and FERC 2179 (25 – 100 CFS)	Same	Same
Tuolumne River			
Minimum Flow at Lagrange Bridge	FERC 2299-024, 1995 (Settlement Agreement) (94 – 301 TAF/YR)	Same	Same
San Joaquin River			
Maximum Salinity near Vernalis	SWRCB D-1641	Same	Same
Minimum Flow near Vernalis	SWRCB D-1641, and Vernalis Adaptive Management Plan per San Joaquin River Agreement	Same[13]	Same
Sacramento River-San Joaquin River Delta			
Delta Outflow Index (Flow and Salinity)	SWRCB D-1641	Same	Same
Delta Cross Channel Gate Operation	SWRCB D-1641	Same	Same

[13] It is assumed that either VAMP, a functional equivalent, or D1641 requirements would be in place in 2020

	Existing Condition[1]	Future No-Action Condition [2]	Alternative Future No-Action Condition
Delta Exports	SWRCB D-1641, USFWS discretionary use of CVPIA 3406(b)(2), and CALFED Fisheries Agencies discretionary use of EWA actions	Same	Same
OPERATIONS CRITERIA			
Subsystem			
Upper Sacramento River			
Flow Objective for Navigation (Wilkins Slough)	Discretionary 3,500 – 5,000 CFS based on CVP water supply condition	Same	Same
American River			
Folsom Dam Flood Control	Variable 400/670 flood control diagram (without outlet modifications)	Same	Same
Flow below Nimbus Dam	Discretionary operations criteria corresponding to SWRCB D-893 required minimum flow	Same	Same
Sacramento Water Forum Mitigation Water	None	Sacramento Water Forum (up to 47 taf/yr in dry years)[14]	Same
Stanislaus River			
Flow below Goodwin Dam	1997 New Melones Interim Operations Plan	Same	Same
System-wide			
CVP Water Allocation			
CVP Settlement and Exchange	100% (75% in Shasta Critical years)	Same	Same
CVP Refuges	100% (75% in Shasta Critical years)	Same	Same
CVP Agriculture	100% - 0% based on supply (SOD allocations are reduced due to D1641 and 3406(b)(2) allocation related export restrictions)	Same	Same
CVP Municipal & Industrial	100% - 50% based on supply (SOD allocations are reduced due to D1641 and 3406(b)(2) allocation related export restrictions)	Same	Same
SWP Water Allocation			
North of Delta (FRSA)	Contract specific	Same	Same

[14] This is implemented only in the PCWA Middle Fork Project releases used in defining the CALSIM II inflows into Folsom Lake

	Existing Condition[1]	Future No-Action Condition [2]	Alternative Future No-Action Condition
South of Delta (including North Bay Aqueduct)	Based on supply; Equal prioritization between Ag and M&I based on Monterey Agreement	Same	Same
CVP/SWP Coordinated Operations			
Sharing of Responsibility for In-Basin-Use	1986 Coordinated Operations Agreement (FRWP EBMUD and 2/3 of the North Bay Aqueduct diversions are considered as Delta Export, 1/3 of the North Bay Aqueduct diversion is considered as In-Basin-Use)	Same	Same
Sharing of Surplus Flows	1986 Coordinated Operations Agreement	Same	Same
Sharing of Restricted Export Capacity for Project Specific Priority Pumping	Equal sharing of export capacity under SWRCB D-1641; use of CVPIA 3406(b)(2) only restricts CVP exports; EWA use restricts CVP and/or SWP as directed by CALFED Fisheries Agencies	Same	Same
Dedicated CVP Conveyance at Banks	None	SWP to convey 100,000 af/year of Level 2 refuge water at Banks P.P. (Jul & Aug)	Same
North of Delta Accounting Adjustments	None	CVP to provide the SWP a maximum of 75,000 af of water to meet in-basin requirements through adjustments in COA accounting (released from Shasta)	Same
Sharing of Export Capacity for Lesser Priority and Wheeling Related Pumping	Cross Valley Canal wheeling (max of 128 TAF/Yr), CALFED ROD defined Joint-Point-of-Diversion	Same	Same
San Luis Low Point	San Luis Reservoir is allowed to operate to a minimum storage of 100 TAF	Same	Same
Transfers			
Dry Year Program	To Be Determined	To Be Determined	To Be Determined
Phase 8	To Be Determined	To Be Determined	To Be Determined

	Existing Condition[1]	Future No-Action Condition [2]	Alternative Future No-Action Condition
MWDSC/CVP Settlement Contractors	To Be Determined	To Be Determined	To Be Determined
CVPIA 3406(b)(2)	Per May 2003 Dept of Interior Decision:		
Allocation	800 taf/yr, 700 taf/yr in 40-30-30 dry years, and 600 taf/year in 40-30-30 critical years	Same	Same
Actions	1995 WQCP, Fish flow objectives (Oct-Jan), VAMP (Apr 15- May 15) CVP export restriction, 3000 CFS CVP export limit in May and June (D1485 Striped Bass cont.), Post (May 16-31) VAMP CVP export restriction, Ramping of CVP export (Jun), Upstream Releases (Feb-Sep)	Same	Same
Accounting Adjustments	Per May 2003 Interior Decision, no limit on responsibility for non-discretionary D1641 requirements with 500 taf target, no Reset with the Storage metric and no Offset with the Release and Export metrics, 200 taf target on costs from Oct-Jan	Same	Same
CALFED Environmental Water Account			
Actions	Exports cuts of 50 taf Dec-Mar, VAMP (Apr 15- May 15) export restriction, Post (May 16-31) VAMP export restriction, Ramping of export (Jun)	Same	Same
Assets	50% of use of JPOD, 50% of any CVPIA 3406(b)(2) releases pumped by SWP, flexing of Delta Export/Inflow Ratio (not explicitly modeled), dedicated 500 CFS of Banks PP capacity (Jul, Aug, Sep), north-of-Delta (0 - 153 TAF/Yr) and south-of-Delta purchases (57 - 250 TAF/Yr)	Same	Same
Debt	Allow up to 100 taf of EWA debt and asset to be carried over to the next wateryear past September (this is exceeded in some years)	Same	Same