

State Water Board Statewide  
Emergency Regulations  
Appendices 1-9.

## Appendix 1: State Water Board Curtailment Notices

As of June 10, 2014, the State Water Board has announced the following notices of curtailment in California watersheds:

### **Sacramento and San Joaquin River Watershed**

The State Water Resources Control Board sent out curtailment notices to junior water right holders in the Sacramento River and San Joaquin River watersheds on May 27 and 29, 2014, to protect senior water rights.

[Sacramento & San Joaquin River Watershed Curtailment Letter](#) - May 27, 2014  
[Curtailment Certification Form](#)

### **Russian River Watershed**

The State Water Resources Control Board sent curtailment notices to water right holders in the Russian River Watershed upstream of the Russian River's confluence with Dry Creek on May 27, 2014 to protect senior water rights. With this notice, the State Water Board notified holders of post-1914 appropriative water rights within the Russian River watershed upstream of the confluence of Dry Creek with a priority date of February 19, 1954 or later (Application A015743 or higher), of the need to immediately stop diverting under their junior post-1914 water rights.

[Russian River Watershed Curtailment Letter](#) - May 27, 2014  
[Curtailment Certification Form](#)

### **Scott River Watershed**

The State Water Resources Control Board sent out curtailment notices to junior water right holders in the Scott River watershed on May 16, 2014, to protect the senior water rights of the U.S. Forest Service as identified in Scott River Adjudication Decree No. 30662. The priorities of the junior class water right holders were determined by the Superior Court of Siskiyou County and have been identified as either Surplus Class rights, Post-1914 water rights in Schedule E, or junior priority rights in Schedule D4.

[Scott River Watershed Curtailment Letter](#) - May 16, 2014  
[Scott River Adjudication Decree No. 30662](#)  
[Curtailment Certification Form](#)

**APPENDIX 2: CURTAILMENT CERTIFICATION FORM**

**Please return within 7 days of receipt of the Notice of Curtailment of Water Diversion to:**

State Water Resources Control Board  
Division of Water Rights  
P.O. Box 2000  
Sacramento, CA 95814-2000

Email completed Curtailment Certification form to:  
SWRCB-curtailment-certification@waterboards.ca.gov  
Fax: 916-341-5400

**WATER RIGHT SUBJECT TO THE 2014 WATER DIVERSION CURTAILMENT:**

**Please update Water Right Owner Information (if different from addressed):**

Water Right Application or Statement No(s): \_\_\_\_\_  
Owner: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

**CURTAILMENT CERTIFICATION**

**Please check the applicable boxes below:**

- NO DIVERSION** – I hereby certify that I will not be diverting any water under the above specified water right during the 2014 water diversion curtailment period.
- ALTERNATE SOURCE** – I hereby certify that I will not be diverting any water under the specified water right during the 2014 curtailment period. However, I will be serving all or a portion of its place of use with my alternate source(s) of water, as specified below:
  - Ground (well) water
  - Senior Post-1914 Appropriative Water Right (specify Permit/License No.): \_\_\_\_\_
  - Riparian water right(s) and/or pre-1914 appropriative water right(s)\*
    - Water use is reported under Statement of Water Diversion and Use No(s): \_\_\_\_\_
    - My use is excluded from filing a Statement of Water Diversion and Use under California Water Code section 5101 (generally, because the use included in other sufficient reports, or is from a spring that does not flow off your property).
    - None of the above.
  - Contract (purchased) water from \_\_\_\_\_
  - Will serve the place of use by withdrawing water stored under Permit/License No. \_\_\_\_ prior to start of this curtailment period.
  - Other source (specify) \_\_\_\_\_
- SOLE SOURCE OF WATER FOR HUMAN HEALTH & SAFETY** –
  - I hereby certify that the water right being curtailed is the only source of water available for human health & safety needs.
  - I also certify that I have looked into alternative water supplies from the following:
    - Groundwater Well
    - Bottled Water
    - Purchase Supply
    - Other \_\_\_\_\_
- HYDROELECTRIC POWER GENERATION** – I hereby certify that I am directly diverting water for hydroelectric power generation or other non-consumptive use and all water diverted is returned to the stream.
- OTHER** – I have attached an additional sheet explaining how much water I am diverting, the use of that water, the measures being undertaken to reduce use, and the basis on which I contend that the diversion and use is legally authorized notwithstanding the very limited amounts of water available during this drought emergency. \_\_\_\_\_

\* Please note that only limited natural or abandoned water is available during a curtailment period. Water released from upstream storage projects is not available to divert under a riparian or pre-1914 right.

**I declare that the information in this certification is true to the best of my knowledge.**

Name: _____	Phone No.: _____
Signature: _____	Email: _____
	Date: _____

## Appendix 3: Real-Time Stream Flow Gage Information Sources

Five on-line data sources used by staff to analyze stream and reservoir conditions include the [California Data Exchange Center \(CDEC\)](#), the [U.S. Geological Survey \(USGS\) National Water Information System \(NWIS\) Surface Water Data for California](#), the [USGS California Water Science Center](#), the [U.S. Bureau of Reclamation \(USBR\) Mid Pacific Region Central Valley Operations Office](#), and the [U.S. Army Corps of Engineers \(USACE\) Water Control Data System \(WCDS\)](#).

While some stream gage data are reported by multiple agencies such as CDEC, USGS, and USBR in slightly different formats, each agency also publishes gage data typically found only on its site. For example, CDEC includes some gages that are not USGS gages. The USACE publishes daily reservoir data not found on CDEC or USGS. USBR publishes data that can be found nowhere else, and so on.

### CDEC

The CDEC installs, maintains, and operates an extensive hydrologic data collection network, including automatic snow reporting gages for the California Cooperative Snow Surveys Program and precipitation and river stage sensors for the flood forecasting program.

In addition, CDEC provides a centralized location to store and process real-time hydrologic information gathered by various cooperators throughout the State; and then disseminates this information to support forecasting and flood operation activities and to meet the data reporting needs of various cooperators, public and private agencies, the news media, and the public.

### CDEC Database

The CDEC collects, stores, disseminates, and exchanges hydrometeorological data and related information. The data collection began as a small system designed to obtain data urgently needed to provide river stage forecasts and flood warnings for the North Coastal area and for the Central Valley. In the beginning, data was obtained from less than 100 telemetered precipitation and stream gage stations.

Since then, real-time hydrometeorological data needs have continuously grown. Currently, numerous federal, State, and local agencies collect data from hundreds of rain, snow, temperature, wind, atmospheric pressure, humidity, and stream stage sensors. The data enable forecasters to prepare flood forecasts and water supply forecasts; reservoir and hydroelectric operators to schedule reservoir releases; and water suppliers to anticipate water availability.

Currently, over one hundred and forty (140) agencies provide data to CDEC and also obtain data through CDEC's cooperative hydrologic database. The CDEC cooperative database contains information collected by:

1. Eighty-nine (89) remote data stations that have six hundred and forty-nine (649) sensors transmitting over the State microwave system. Real-time data include river stages, precipitation amounts, snow water content, temperature, and water quality.
2. Eight hundred and three (803) remote data stations that have 6,591 sensors transmitting via the GOES satellite.
3. There are two hundred and eleven stations (211) that have 1,270 sensors which are transmitted via network from federal, State, and other agencies via an automated data exchange program.

### **Data Exchange Program**

CDEC operates a data exchange program with various federal and State agencies and other public agencies. This data exchange program involves the automated transfer and receipt of data and information via network connections. Following are the major agencies involved in data exchange:

- National Weather Service ([NWS](#)): weather forecasts, river bulletins, full weather data
- U.S. Bureau of Reclamation ([USBR](#)): reservoir operations, reservoir summary reports
- U.S. Army Corps of Engineers ([USACE](#)): precipitation, snow water content, reservoir operations, reservoir summary reports
- Pacific Gas & Electric ([PG&E](#)): precipitation, snow water content
- Sacramento Municipal Utility District ([SMUD](#)): precipitation, reservoir operations
- U.S. Geological Survey ([USGS](#)): river gage data, river flow rating tables and shifts

### **USGS Surface Water Data for California**

The USGS NWIS is a comprehensive and distributed application that supports the acquisition, processing, and long-term storage of water data. NWISWeb serves as the publicly available portal to a geographically seamless set of much of the water data maintained within NWIS. The Surface-Water Data set for California includes comprehensive historical daily data information for 2,460 gaged sites in California, 492 of which are “real-time” gages.

### **USGS California Water Science Center**

The California Water Science Center is the repository for the Water Resources Data for California, Vols. 1 – 4, annual report series of USGS stream gage data in California. Among other functions, the reports themselves are an index to all historical and currently active gaged streams operated or cooperatively operated by the USGS. These reports also include helpful stream and gage schematics that are indispensable. The California Water Science Center also has useful links to USGS NWIS real time data.

### **USBR Mid Pacific Region Central Valley Operations Office (CVO)**

USBR-CVO maintains real time (or one-day lagged) stream and Central Valley Project reservoir data as well as various water accounting reports required by the State Water Project-Central Valley Project Coordinated Operating Agreement and other agencies including the State Water Resources Control Board and U.S. Fish and Wildlife Service. Some of the USBR’s accounting reports include pumping and or depletion data not obtainable elsewhere, including CDEC and USGS

### **USACE WCDS**

The Sacramento District’s WCDS collects data necessary for the management of USACE reservoirs and flood control space in Non-USACE Reservoirs (i.e., Section 7 projects). The following information is available on the USGS WCDS:

- Midnight Reservoir Status for USACE and Section 7 projects.
- Monthly Reservoir Reports for USACE projects.
- California plots and Tabulations of Storage, Inflow, and Outflow for USACE and Section 7 Reservoirs.
- Great Basin/Upper Colorado River Basin plots and Tabulations of Storage, Inflow, and Outflow for Section 7 Reservoirs.
- Hourly Time Series Reports with the latest 48 hourly reservoir and flow values.
- Release Change Notifications for USACE and a select number of Section 7 projects.

- Average Reservoir Status for USACE and Section 7 projects.
- Special Reports
- Archived Reports and Plots

## Appendix 4: CDEC Gages: Full Natural / Unimpaired Flow Data

Name	Gauge ID	Type
SAN JOAQUIN RIVER AT FRIANT DAM (MILLERTON)	<a href="#">MIL</a>	FNF
STANISLAUS RIVER AT GOODWIN DAM	<a href="#">GDW</a>	FNF
STANISLAUS RIVER AT NEW MELONES RESERVOIR	<a href="#">NML</a>	FNF
TUOLUMNE R-LA GRANGE DAM	<a href="#">TLG</a>	FNF
MERCED R NR MERCED FALLS	<a href="#">MRC</a>	FNF
SACRAMENTO RIVER AT BEND BRIDGE	<a href="#">BND</a>	FNF
SACRAMENTO RIVER AT SHASTA DAM	<a href="#">SHA</a>	FNF
AMERICAN RIVER AT FOLSOM	<a href="#">AMF</a>	FNF
AMERICAN RIVER AT FOLSOM DAM	<a href="#">FOL</a>	FNF
INDIAN CREEK AT ANTELOPE LAKE	<a href="#">ANT</a>	FNF
MF FEATHER RIVER AT LAKE DAVIS (DWR)	<a href="#">DAV</a>	FNF
LITTLE LAST CHANCE CREEK AT FRENCHMAN DAM	<a href="#">FRD</a>	FNF
FEATHER RIVER AT OROVILLE	<a href="#">FTO</a>	FNF
FEATHER RIVER AT OROVILLE DAM	<a href="#">ORO</a>	FNF
ARROYO SECO (SALINAS RIVER) NEAR SOLEDAD	<a href="#">ASS</a>	FNF
KINGS NF NR CLIFF CAMP	<a href="#">KGC</a>	FNF
KINGS R-PINE FLAT DAM	<a href="#">KGF</a>	FNF
KINGS PRE-PROJECT PIEDRA	<a href="#">KGP</a>	FNF
SAN JOAQUIN RIVER AT PINE FLAT DAM	<a href="#">PNF</a>	FNF
KAWEAH R-TERMINUS DM	<a href="#">KWT</a>	FNF
TERMINUS DAM	<a href="#">TRM</a>	FNF
KERN RIVER AT ISABELLA DAM	<a href="#">ISB</a>	FNF
KERN RIVER-BAKERSFIELD	<a href="#">KRB</a>	FNF
KERN RIVER-BLW ISABELLA	<a href="#">KRI</a>	FNF
KERN RIVER NEAR KERNVILLE	<a href="#">KRK</a>	FNF
TULE RIVER AT SUCCESS DAM	<a href="#">SCC</a>	FNF
COSUMNES RIVER AT MICHIGAN BAR	<a href="#">CSN</a>	FNF
COSUMNES RIVER AT MICHIGAN BAR	<a href="#">MHB</a>	FNF
MOKELUMNE RIVER-MOKELUMNE HILL	<a href="#">MKM</a>	FNF
MOKELUMNE RIVER AT WEST POINT	<a href="#">MKW</a>	FNF
CALAVERAS RIVER AT NEW HOGAN LAKE	<a href="#">NHG</a>	FNF
KLAMATH RIVER AT ORLEANS	<a href="#">KLO</a>	FNF
SCOTT RIVER NEAR FORT JONES	<a href="#">SFJ</a>	FNF
TRINITY RIVER AT TRINITY LAKE	<a href="#">CLE</a>	FNF
TRINITY RIVER AT LEWISTON	<a href="#">TNL</a>	FNF
YUBA RIVER NEAR SMARTVILLE	<a href="#">YRS</a>	FNF
EEL RIVER AT SCOTIA	<a href="#">ERS</a>	FNF
RUSSIAN RIVER NEAR HEALDSBURG	<a href="#">RRH</a>	FNF

## Appendix 5: Unimpaired Flows from the California Data Exchange Center

Unimpaired flow estimates (also described as the “full natural flow” estimate by the Department of Water Resources (DWR)) can be compared to reported water diversion values to determine if water is available to divert under a post-1914, pre-1914 and riparian water rights or claims of water right.

"Full Natural Flow" or "Unimpaired Runoff" represents the natural water production of a river basin, unaltered by upstream diversions, storage, or by export or import of water to or from other watersheds. Gauged flows at the given measurement points are increased or decreased to account for these upstream operations. Where no diversion, storage, or consumptive use exists in the watershed, the historical gage data is often assumed to represent unimpaired flow.

DWR provides access to the state’s operational hydrological data at its California Data Exchange Center<sup>1</sup> (CDEC) at: <http://www.cdec.water.ca.gov/>. CDEC provides a centralized database to store, process, and exchange real-time hydrologic information gather by various cooperators throughout the State. Currently, over 140 agencies provide data to CDEC and also obtain data through CDEC's cooperative hydrologic database. The data collected by CDEC enables forecasters to prepare water supply forecasts. DWR’s Bulletin 120 is a publication issued four times a year, in the second week of February, March, April, and May by DWR. It contains forecasts of the volume of seasonal runoff from the state’s major watersheds, and summaries of precipitation, snowpack, reservoir storage, and runoff in various regions of the State.

DWR’s May 1, 2014 forecast of monthly unimpaired runoff (in thousands of acre-feet) for 26 California locations is shown at: <http://www.cdec.water.ca.gov/cgi-progs/iodir/B120>.

DWR also estimates the daily Full Natural Flow (FNF) for 16 locations. The daily FNF calculations are based on less data than is available at the completion of each month. The sum of daily FNF reported here will not exactly match the calculated monthly FNF reported on the seasonal and water year reports. Due to the lag between the effect of upstream operations and downstream flow measurements, calculated daily FNF will fluctuate from day to day. DWR reports the daily FNF based on calculations done by project operators on the respective rivers, the U.S. Army Corps of Engineers and/or Snow Surveys at: <http://cdec.water.ca.gov/cgi-progs/stages/FNF>.

DWR provides tables comparing the April and seasonal October-April measured flow to the 50-year average and seasonal total unimpaired runoff at: <http://cdec.water.ca.gov/cgi-progs/stages/FLOWOUT> and shown below. The table was updated on May 12, 2014. The next update will be issued about June 12, 2014, unless there are significant hydrologic changes.

---

<sup>1</sup> DWR periodically updates and publishes unimpaired flow estimates for various rivers in the Central Valley on a monthly basis. The latest edition is *California Central Valley Unimpaired Flow Data, Fourth Edition, Draft* (UF Report; DWR 2007a) provides unimpaired data for the 83-year period October 1920 through September 2003. The UF Report contains monthly estimates of the volume of unimpaired flow for all sub-basins within the Central Valley divided into 24 sub-basins, identified as sub-basins UF-1 through UF-24. [http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/bay\\_delta\\_plan/water\\_quality\\_control\\_planning/docs/sjrf\\_spptinfo/dwr\\_2007a.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/bay_delta_plan/water_quality_control_planning/docs/sjrf_spptinfo/dwr_2007a.pdf).



## Runoff Data for Water Year 2014

Report generated: 05/12/2014 14:32

Runoff Data for Water Year 2014								
NORTH COAST								
APRIL				OCTOBER - APRIL				
Unimpaired Runoff				Unimpaired Runoff				
Area, Stream, and Station (1)	Measured Flow (2)	50-Year Ave (3)	Monthly Total	% Ave	Measured Flow (2)	50-Year Ave (3)	Seasonal Total	% Ave
	1000 AF	1000 AF	1000 AF		1000 AF	1000 AF	1000 AF	
KLAMATH R, COPCO TO ORLEANS (4)	338.1	602.5	272.2	45	2001.7	3671.3	1584.2	43
* SALMON R AT SOMES BAR	94.9	171.0	94.9	55	511.6	967.0	511.6	53
TRINITY R AT LEWISTON LK	36.1	203.4	79.5	39	152.0	907.6	320.7	35
EEL R AT SCOTIA	339.2	556.0	341.3	61	1527.4	5429.4	1587.9	29
RUSSIAN R AT HEALDSBURG	53.3	74.4	56.0	75	213.5	869.5	213.6	25
<b>SUBTOTAL</b>	766.6	1436.3	749.0	52	3894.6	10877.8	3706.3	34
SAN FRANCISCO BAY								
APRIL				OCTOBER - APRIL				
Unimpaired Runoff				Unimpaired Runoff				
Area, Stream, and Station (1)	Measured Flow (2)	50-Year Ave (3)	Monthly Total	% Ave	Measured Flow (2)	50-Year Ave (3)	Seasonal Total	% Ave
	1000 AF	1000 AF	1000 AF		1000 AF	1000 AF	1000 AF	
NAPA R NEAR ST HELENA	5.6	5.6	5.6	100	14.0	71.0	14.0	20
<b>SUBTOTAL</b>	5.6	5.6	5.6	100	14.0	71.0	14.0	20
CENTRAL COAST								
APRIL				OCTOBER - APRIL				
Unimpaired Runoff				Unimpaired Runoff				
Area, Stream, and Station (1)	Measured Flow (2)	50-Year Ave (3)	Monthly Total	% Ave	Measured Flow (2)	50-Year Ave (3)	Seasonal Total	% Ave
	1000 AF	1000 AF	1000 AF		1000 AF	1000 AF	1000 AF	
ARROYO SECO NEAR SOLEDAD	1.9	14.4	1.9	13	11.2	113.3	11.2	10
NACIMIENTO BELOW NACIMIENTO DAM	3.6	16.3	1.5	9	35.2	199.1	10.7	5
<b>SUBTOTAL</b>	5.5	30.6	3.4	11	46.4	312.3	21.9	7
SOUTH COAST								
APRIL				OCTOBER - APRIL				

Area, Stream, and Station (1)	Unimpaired Runoff				Unimpaired Runoff			
	Measured Flow (2)	50-Year Ave (3)	Monthly Total	% Ave	Measured Flow (2)	50-Year Ave (3)	Seasonal Total	% Ave
	1000 AF	1000 AF	1000 AF		1000 AF	1000 AF	1000 AF	
ARROYO SECO NEAR PASADENA	0.1	0.8	0.1	11	1.2	7.0	0.8	11
SANTA ANA R NEAR MENTONE	2.5	7.8	2.7	35	8.4	40.4	7.3	18
<b>SUBTOTAL</b>	2.6	8.6	2.8	33	9.6	47.4	8.1	17

**SACRAMENTO RIVER**

APRIL

OCTOBER - APRIL

Area, Stream, and Station (1)	Unimpaired Runoff				Unimpaired Runoff			
	Measured Flow (2)	50-Year Ave (3)	Monthly Total	% Ave	Measured Flow (2)	50-Year Ave (3)	Seasonal Total	% Ave
	1000 AF	1000 AF	1000 AF		1000 AF	1000 AF	1000 AF	
* SACRAMENTO R AT DELTA	47.6	119.6	47.6	40	213.8	664.8	213.8	32
* MCCLOUD R ABOVE SHASTA LAKE	33.0	131.5	81.8	62	196.5	819.6	482.5	59
* PIT R NR MONTGOMERY & SQUAW CR	223.5	362.1	206.4	57	1308.3	2105.1	1173.6	56
* SHASTA LAKE TOTAL INFLOW	359.5	683.7	356.7	52	1913.8	4419.9	1925.3	44
SACRAMENTO R ABOVE BEND BRIDGE	313.0	976.1	528.5	54	2309.5	6666.4	2746.9	41
FEATHER R AT OROVILLE	49.2	650.9	289.9	45	490.0	3227.1	1317.8	41
YUBA R NR SMARTVILLE & DEER CR	49.0	340.3	192.4	57	360.3	1632.5	716.3	44
AMERICAN R BLW FOLSOM LAKE	41.1	421.6	233.6	55	398.2	1845.3	750.1	41
<b>SUBTOTAL</b>	452.3	2389.0	1244.4	52	3558.0	13371.3	5531.1	41

**SAN JOAQUIN RIVER**

APRIL

OCTOBER - APRIL

Area, Stream, and Station (1)	Unimpaired Runoff				Unimpaired Runoff			
	Measured Flow (2)	50-Year Ave (3)	Monthly Total	% Ave	Measured Flow (2)	50-Year Ave (3)	Seasonal Total	% Ave
	1000 AF	1000 AF	1000 AF		1000 AF	1000 AF	1000 AF	
COSUMNES R AT MICHIGAN BAR	15.6	63.3	18.4	29	60.5	317.7	73.4	23
MOKELUMNE R, INFL TO PARDEE RES	17.5	121.6	76.1	63	130.7	403.1	164.7	41
STANISLAUS R BELOW GOODWIN RES	92.4	189.0	111.2	59	212.9	635.2	234.7	37
TUOLUMNE R BELOW LA GRANGE RES	---	269.5	169.2	63	16.5	942.6	335.6	36
MERCED R BELOW	27.4	147.5	74.7	51	142.2	495.3	131.0	26

MERCED FALLS									
SAN JOAQUIN R BELOW MILLERTON L	73.5	237.8	111.6	47	138.4	723.7	225.3	31	
<b>SUBTOTAL</b>	226.4	1028.6	561.2	55	701.1	3517.5	1164.8	33	
<b>TULARE LAKE</b>									
<b>APRIL</b>					<b>OCTOBER - APRIL</b>				
<b>Unimpaired Runoff</b>					<b>Unimpaired Runoff</b>				
Area, Stream, and Station (1)	Measured Flow (2)	50-Year Ave (3)	Monthly Total	% Ave	Measured Flow (2)	50-Year Ave (3)	Seasonal Total	% Ave	
	1000 AF	1000 AF	1000 AF		1000 AF	1000 AF	1000 AF		
KINGS R BELOW PINE FLAT RES	13.4	216.8	125.9	58	95.5	626.0	229.5	37	
KAWEAH R BLW TERMINUS RES	1.7	65.4	27.4	42	12.5	215.6	53.5	25	
TULE R BLW LAKE SUCCESS	0.2	24.3	3.9	16	3.8	104.2	12.4	12	
* KERN R BLW LAKE ISABELLA	19.2	93.8	26.4	28	75.3	309.9	91.1	29	
KERN R NEAR BAKERSFIELD	19.2	98.2	26.4	27	76.7	330.0	92.2	28	
<b>SUBTOTAL</b>	34.5	404.7	183.6	45	188.4	1275.7	387.6	30	
<b>NORTH LAHONTAN</b>									
<b>APRIL</b>					<b>OCTOBER - APRIL</b>				
<b>Unimpaired Runoff</b>					<b>Unimpaired Runoff</b>				
Area, Stream, and Station (1)	Measured Flow (2)	50-Year Ave (3)	Monthly Total	% Ave	Measured Flow (2)	50-Year Ave (3)	Seasonal Total	% Ave	
	1000 AF	1000 AF	1000 AF		1000 AF	1000 AF	1000 AF		
TRUCKEE R FROM TAHOE TO FARAD (4)	35.3	68.4	27.4	40	163.1	209.0	95.9	46	
WEST FK CARSON AT WOODFORDS	7.4	11.5	7.4	65	16.4	28.3	16.4	58	
EAST FK CARSON NR GARDNERVILLE	22.9	33.5	22.9	68	56.6	96.9	56.4	58	
WEST WALKER BLW LITTLE WALKER	13.2	17.5	13.2	76	24.1	45.2	24.1	53	
EAST WALKER NEAR BRIDGEPORT	2.0	8.1	1.2	14	13.1	47.1	17.0	36	
<b>SUBTOTAL</b>	80.9	139.0	72.1	52	273.3	426.5	209.7	49	
<b>SOUTH LAHONTAN</b>									
<b>APRIL</b>					<b>OCTOBER - APRIL</b>				
<b>Unimpaired Runoff</b>					<b>Unimpaired Runoff</b>				
Area, Stream, and Station (1)	Measured Flow (2)	50-Year Ave (3)	Monthly Total	% Ave	Measured Flow (2)	50-Year Ave (3)	Seasonal Total	% Ave	
	1000 AF	1000 AF	1000 AF		1000 AF	1000 AF	1000 AF		
OWENS R BELOW LONG	7.1	10.5	4.3	41	23.3	75.9	44.5	59	

VALLEY DAM									
<b>SUBTOTAL</b>	7.1	10.5	4.3	41	23.3	75.9	44.5	59	
<b>COLORADO RIVER</b>									
<b>APRIL</b>					<b>OCTOBER - APRIL</b>				
<b>Unimpaired Runoff</b>					<b>Unimpaired Runoff</b>				
Area, Stream, and Station (1)	Measured Flow (2)	50-Year Ave (3)	Monthly Total	% Av e	Measured Flow (2)	50-Year Ave (3)	Seasonal Total	% Av e	
	1000 AF	1000 AF	1000 AF		1000 AF	1000 AF	1000 AF		
* COLORADO R INFL TO LAKE POWELL	774.1	1038.6	964.4	93	2995.7	3789.0	3376.9	89	
<b>SUBTOTAL</b>	---	---	---	---	---	---	---	---	
<b>SUBTOTAL</b>	---	---	---	---	---	---	---	---	
<b>STATEWIDE</b>									
<b>TOTAL</b>	1581.5	5453	2826.4	51	8708.9	29975.7	11088.1	36	

\* THESE STATIONS ARE NOT INCLUDED IN AREA OR STATEWIDE TOTALS.

(1) AREA AND STATEWIDE TOTALS DO NOT INCLUDE MISSING DATA DENOTED BY '---'. IF THE MONTHLY UNIMPAIRED RUNOFF IS MISSING, THE SUBTOTAL'S PERCENT AVERAGE UNDERESTIMATES THE TRUE PERCENT AVERAGE. THE 50-YEAR AVERAGE CONSIDERS ALL SITES WHETHER OR NOT AN UNIMPAIRED RUNOFF VALUE EXISTS FOR A RIVER IN THE BASIN.

(2) MEASURED FLOW IS THE OBSERVED FLOW AT THE SITE.

(3) UNIMPAIRED RUNOFF AVERAGE BASED ON DATA YEARS 1961-2010.

(4) ACCRETIONS BETWEEN STATIONS.

## Appendix 6: California Real-Time Gage Data

The [U.S. Geological Survey \(USGS\) National Water Information System Surface Water Data for California web page](#) lists approximately 770 active stream and reservoir gages in California shown on the following map: <http://ca.water.usgs.gov/data/waterconditionsmap.html>. In addition, there are about 130 additional cooperating agency gages published on California Data Exchange Center (CDEC) that are not USGS stream gages, for a total of approximately 900 active stream and reservoir discharge gages throughout the State.

The table below lists 380 stream and reservoir discharge gages compiled from USGS, CDEC, and cooperating agency websites for the following key watersheds:

- Sacramento River (175)
- Mokelumne River/Eastside Streams (23)
- San Joaquin River (84)
- Tulare Basin (32)
- Klamath River (33)
- Eel River (9)
- Napa River (2)
- Russian River (12)
- Salinas River (10)

The remaining 520 (900 minus 380) stream gages are located in watersheds such as the Truckee River, Santa Ana River, Pescadero River, Owens River, Carmel River, and many other streams.

### Sacramento River Watershed

#### Sacramento River

Gage Name	Gage ID CDEC	Gage ID USGS	Type
Sacramento River at Freeport	<a href="#">FPT</a>	<a href="#">11447650</a>	Flow
Sacramento R ab Bend Bridge	<a href="#">BND</a>	<a href="#">11377100</a>	Flow
Sacramento River at Butte City	<a href="#">BTC</a>	-	Flow
Sacramento R at Colusa Weir	<a href="#">CLW</a>	-	Flow
Sacramento River at Colusa	<a href="#">COL</a>	<a href="#">11389500</a>	Flow
Sacramento River at Delta	<a href="#">DLT</a>	<a href="#">11342000</a>	Flow
Sacramento Deep Water Shipping Channel	<a href="#">DWS</a>	-	Flow
Sacramento River at Fremont Weir	<a href="#">FRE</a>	-	Flow
Sacramento River below Georgiana Slough	<a href="#">GES</a>	-	Flow
Sacramento R at Hamilton City - Main Ch	<a href="#">HMC</a>	-	Flow
Sacramento River at I Street Bridge	<a href="#">IST</a>	-	Flow
Keswick Reservoir	<a href="#">KES</a>	-	Inflow
Keswick Reservoir	<a href="#">KES</a>	-	Outflow
Keswick	<a href="#">KWK</a>	-	Flow
Sacramento R at Keswick	-	<a href="#">11370500</a>	Flow
Sacramento R at Moulton Wier	<a href="#">MLW</a>	-	Flow

Sacramento R at Ord Ferry - Main Channel	<a href="#">ORD</a>	-	Flow
Sacramento R at Red Bluff Diversion Dam	<a href="#">RDB</a>	-	Flow
Sacramento River at Butte Slough	<a href="#">SBS</a>	-	Flow
Sacramento R above Delta Cross Channel	<a href="#">SDC</a>	-	Flow
Shasta Dam	<a href="#">SHA</a>	-	Inflow
Shasta Dam	<a href="#">SHA</a>	-	Outflow
Spring Creek Debris Dam	<a href="#">SPC</a>	-	Inflow
Spring Creek Debris Dam	<a href="#">SPC</a>	-	Outflow
Sac Regional Wastewater Treatment Plant	<a href="#">SPE</a>	-	Flow
Sacramento River at Hood	<a href="#">SRD</a>	-	Flow
Sacramento River at Rio Vista	<a href="#">SRV</a>	-	Flow
Sacramento River at Tisdale Weir	<a href="#">TIS</a>	-	Flow
Sacramento River at Vina Bridge-Main ch	<a href="#">VIN</a>	-	Flow
Sacramento River at Vina East Bank	<a href="#">VNO</a>	-	Flow
Sacramento River at Verona	<a href="#">VON</a>	<a href="#">11425500</a>	Flow
Whiskeytown Dam (USBR)	<a href="#">WHI</a>	-	Inflow
Whiskeytown Dam (USBR)	<a href="#">WHI</a>	-	Outflow
Sacramento River below Wilkins Slough	<a href="#">WLK</a>	<a href="#">11390500</a>	Flow
Sutter Bypass at Rd 1500 Pump	<a href="#">SBP</a>	-	Flow
Willow Slough at sb West Burrow Pit	<a href="#">WSL</a>	-	Flow
Yolo Bypass at Lisbon	<a href="#">LIS</a>	-	Flow
Yolo Bypass near Woodland	<a href="#">YBY</a>	<a href="#">11453000</a>	Flow

#### **Creeks Tributary to the Sacramento River**

Big Chico Creek near Chico	<a href="#">BIC</a>	-	Flow
Black Butte Generator	<a href="#">BBG</a>	-	Flow
Butte Slough near Meridan	<a href="#">BSL</a>	-	Flow
Clear Creek nr Igo	<a href="#">IGO</a>	<a href="#">11372000</a>	Flow
Colusa Drain nr Hwy 20	<a href="#">CDR</a>	-	Flow
Cow Creek near Millville	<a href="#">COW</a>	<a href="#">11374000</a>	Flow
Elder Creek near Paskenta	<a href="#">ECP</a>	<a href="#">11379500</a>	Flow
Kelsey Ck Blw Kelseyville	<a href="#">KCK</a>	-	Flow
Laguna C nr Elk Grove	-	<a href="#">11336585</a>	Flow
Lindo Channel Nr Chico	<a href="#">LCH</a>	-	Flow
Meridan Pumps	<a href="#">MPS</a>	-	Flow
Middle Creek Nr Upper Lake	<a href="#">MCU</a>	-	Flow
Morrison Creek at Florin Road	<a href="#">MRF</a>	<a href="#">11336580</a>	Flow
Mud Creek near Chico	<a href="#">MUC</a>	-	Flow
Ridge Cut at Knights Landing	<a href="#">RCS</a>	-	Flow
Thomes Creek at Paskenta	<a href="#">THO</a>	-	Flow
Battle Creek near Manton	<a href="#">BAS</a>	-	Flow

Battle Creek	<a href="#">BAT</a>	<a href="#">11376550</a>	Flow
North Fork Battle Creek near Manton	<a href="#">BNF</a>	-	Flow
Deer Creek below Stanford Vina Dam	<a href="#">DVD</a>	<a href="#">11383500</a>	Flow
Deer Creek nr Vina	<a href="#">DCV</a>	-	Flow
Mill Creek Below HWY 99	<a href="#">MCH</a>	-	Flow
Mill Creek Nr Los Molinos	<a href="#">MLM</a>	<a href="#">11381500</a>	Flow
Cottonwood Creek Auxiliary Gage	<a href="#">CWA</a>	<a href="#">11376000</a>	Flow
N Fk Cottonwood Ck abv Lk at Brdg nr Ono	<a href="#">NCO</a>	-	Flow
Cherokee Canal Nr Richvale	<a href="#">CHC</a>	-	Flow
BW-12 Import to Butte Creek	<a href="#">BBW</a>	-	Flow
Butte Creek nr Durham	<a href="#">BCD</a>	-	Flow
Butte Creek near Chico	<a href="#">BCK</a>	<a href="#">11390000</a>	Flow
Parrot Div from Butte Creek	<a href="#">BPD</a>	-	Flow

### Cache Creek & Tributary Creeks

Cache Creek at Yolo	<a href="#">CCY</a>	<a href="#">11452500</a>	Flow
Indian Valley	<a href="#">INV</a>	-	Flow
NF Cache Creek at Hough Springs	<a href="#">NFC</a>	<a href="#">11451100</a>	Flow
Cache Creek at Rumsey Bridge	<a href="#">RUM</a>	-	Flow
Cache C nr Lower Lake	-	<a href="#">11451000</a>	Flow
Bear Ck at Holsten Cyn nr Rumsey	<a href="#">BRK</a>	<a href="#">11451715</a>	Flow
Kelsey C nr Kelseyville	-	<a href="#">11449500</a>	Flow

### Putah Creek

Putah Creek near Guenoc	<a href="#">PCG</a>	<a href="#">11453500</a>	Flow
Putah Creek near Winters	<a href="#">PUT</a>	<a href="#">11454000</a>	Flow
Berryessa	<a href="#">BER</a>	-	Inflow
Berryessa	<a href="#">BER</a>	-	Outflow

### Pit River & Tributary Creeks

Pit River near Canby	<a href="#">PCN</a>	<a href="#">11348500</a>	Flow
SF Pit R nr Likely	<a href="#">PLK</a>	<a href="#">11345500</a>	Flow
Pit R Bl Pit No 1 PH nr Fall River Mills	<a href="#">PP1</a>	<a href="#">11355010</a>	Flow
Hat Creek Blw Hat Creek	<a href="#">HCB</a>	-	Flow
Hat Creek nr Hat Creek	<a href="#">HCN</a>	-	Flow

### McCloud River

McCloud River below McCloud Dam	<a href="#">MC7</a>	-	Flow
McCloud R at Ah-di-Na	<a href="#">MCA</a>	-	Flow
McCloud River near McCloud	<a href="#">MCD</a>	-	Flow
McCloud River above Shasta Lake	<a href="#">MSS</a>	-	Flow

**Delta**

Delta Cross Channel	<a href="#">DLC</a>	-	Flow
Georgiana Slough at Sacramento River	<a href="#">GSS</a>	-	Flow
Miner Slough at Hwy 44 Bridge	<a href="#">HWB</a>	-	Flow
Liberty Island @ Approx Cntr S end	<a href="#">LIB</a>	-	Flow
National Steel	<a href="#">NSL</a>	-	Flow
Cache Slough at Ryder Island	<a href="#">RYI</a>	-	Flow
Steamboat Slough btw Sac R and Sutter SI	<a href="#">SSS</a>	-	Flow
Sutter Slough at Courtland	<a href="#">SUT</a>	-	Flow
Three Mile Slough at San Joaquin River	<a href="#">TSL</a>	-	Flow
False River	<a href="#">FAL</a>	-	Flow
Jones Tract	<a href="#">JTR</a>	-	Flow
Middle River at Middle River	<a href="#">MDM</a>	-	Flow
Old River at Bacon Island (USGS)	<a href="#">OBI</a>	-	Flow
Old River at Delta Mendota Canal	<a href="#">ODM</a>	-	Flow
Old River at Highway 4	<a href="#">OH4</a>	-	Flow
Old River Near Tracy	<a href="#">OLD</a>	-	Flow
Old & Middle Rvrs, tidally Filtered est	<a href="#">OMR</a>	-	Flow
Old River at Franks Tract near Terminous	<a href="#">OSJ</a>	-	Flow
Victoria Canal near Byron	<a href="#">VCU</a>	-	Flow
DUTCH SLOUGH AT JERSEY ISLAND	<a href="#">DSJ</a>	-	Flow
GRANTLINE CANAL (USGS)	<a href="#">GLC</a>	-	Flow
GRANT LINE CANAL EAST	<a href="#">GLE</a>	-	Flow
MIDDLE RIVER NEAR HOLT	<a href="#">HLT</a>	-	Flow
HOLLAND CUT NEAR BETHEL ISLAND	<a href="#">HOL</a>	-	Flow
LITTLE POTATO SLOUGH AT TERMINOUS	<a href="#">LPS</a>	-	Flow
MIDDLE RIVER ABOVE BARRIER	<a href="#">MAB</a>	-	Flow
MIDDLE RIVER AT UNDINE ROAD	<a href="#">MRU</a>	-	Flow
OLD RIVER AT HEAD	<a href="#">OH1</a>	-	Flow
OLD RIVER AT CLIFTON COURT INTAKE	<a href="#">ORI</a>	-	Flow
OLD RIVER @ QUIMBLY IS NEAR BETHEL IS	<a href="#">ORQ</a>	-	Flow
OLD RIVER ABOVE DOUGHTY CUT	<a href="#">ORX</a>	-	Flow
PARADISE CUT	<a href="#">PDC</a>	-	Flow
SUGAR CUT	<a href="#">SGA</a>	-	Flow
TURNER CUT NEAR HOLT	<a href="#">TRN</a>	-	Flow
WEST CANAL AT CLIFTON COURT INTAKE	<a href="#">WCI</a>	-	Flow



**Feather, Yuba, Bear & American River Watersheds**

**Feather River & Tributary Creeks**

N Fork Feather River below Grizzly Creek	<a href="#">F56</a>	-	Flow
N Fork Feather River below Rock Cr Div Dam	<a href="#">F57</a>	-	Flow
Feather River at Boyd's Landing	<a href="#">FBL</a>	-	Flow
Feather River above Star Bend	<a href="#">FSB</a>	-	Flow
Feather River near Gridley	<a href="#">GRL</a>	-	Flow
Hendricks Canal Diversion	<a href="#">HDC</a>	-	Flow
Indian Creek below Indian Falls	<a href="#">ICR</a>	-	Flow
Kelly Ridge Powerplant	<a href="#">KLL</a>	-	Flow
Feather River at Merrimac	<a href="#">MER</a>	-	Flow
Middle Fork Feather River near Portola	<a href="#">MFP</a>	-	Flow
Miocene Canal Diversion	<a href="#">MIC</a>	-	Flow
North Fork Feather River at Pulga	<a href="#">NFP</a>	-	Flow
Oroville Dam	<a href="#">ORO</a>	-	Inflow
Oroville Dam	<a href="#">ORO</a>	-	Outflow
South Honcut Creek near Bangor	<a href="#">SFH</a>	-	Flow
Spanish Ck above Blackhawk Ck at Keddie	<a href="#">SPK</a>	<a href="#">11402000</a>	Flow
Spanish C at Quincy	-	<a href="#">11401920</a>	Flow
Total Release-Feather R blw Thermalito	<a href="#">THA</a>	-	Flow
West Branch Feather R near Magalia	<a href="#">WFR</a>	-	Flow

**Yuba River**

North Yuba - blw Goodyears Bar	<a href="#">GYB</a>	<a href="#">11413000</a>	Flow
Oregon Creek - blw Log Cabin	<a href="#">LCB</a>	-	Flow
Middle Yuba - blw Our House Dam	<a href="#">ORH</a>	-	Flow
South Yuba - at Jones Bar	<a href="#">JBR</a>	-	Flow
Yuba River - abv New Bullards Bar	<a href="#">BUL</a>	-	Flow
Yuba River - blw New Bullards Bar	<a href="#">BUL</a>	-	Flow
Yuba River - nr Smartville	<a href="#">YRS</a>	-	Flow
Deer Creek - nr Smartville	<a href="#">DCS</a>	<a href="#">11418500</a>	Flow
Yuba River - nr Marysville	<a href="#">MRY</a>	<a href="#">11421000</a>	Flow

**Bear River & Tributary Creeks**

South Canal from Bear River	<a href="#">BEV</a>	-	Flow
Bear River at Pleasant Cove Rd	<a href="#">BPG</a>	-	Flow
Bear River at Rollins Reservoir	<a href="#">BRE</a>	-	Flow
Bear River at Wheatland	<a href="#">BRW</a>	<a href="#">11424000</a>	Flow
Bear River at Camp Far West	<a href="#">CFW</a>	-	Flow
Dry Creek near Wheatland	<a href="#">DCW</a>	-	Flow

### American River & Tributary Creeks

American River at Fair Oaks	<a href="#">AFO</a>	<a href="#">11446500</a>	Flow
American R at Folsom	<a href="#">AMF</a>	-	Flow
American SF nr Kyburz	<a href="#">AMK</a>	-	Flow
American River at Chili Bar	<a href="#">CBR</a>	-	Flow
Echo Lake Conduit	<a href="#">ECH</a>	-	Flow
Folsom Dam	<a href="#">FOL</a>	-	Inflow
Folsom Dam	<a href="#">FOL</a>	-	Outflow
Folsom South Canal	<a href="#">FSC</a>	-	Flow
Lake Valley Canal	<a href="#">LVC</a>	-	Flow
Lake Natoma	<a href="#">NAT</a>	-	Inflow
Lake Natoma	<a href="#">NAT</a>	-	Outflow
Loon Lake (SMUD)	<a href="#">LON</a>	-	Flow
NF American R at North Fork Dam	<a href="#">NFD</a>	<a href="#">11427000</a>	Flow
Middle Fk American R nr Oxbow PH	<a href="#">OXB</a>	-	Flow
Arcade Ck nr Del Paso Hts	<a href="#">ACK</a>	<a href="#">11447360</a>	Flow
Silver Cr blw Camino Dam	<a href="#">SVC</a>	-	Flow
Rainbow Diversion Dam	<a href="#">RBW</a>	-	Flow
Black Butte	<a href="#">BLB</a>	-	Inflow
Black Butte	<a href="#">BLB</a>	-	Outflow

### Mokelumne River/Eastside Streams Watersheds

#### Cosumnes River

COSUMNES R, NO. FK. NR EL DORADO	<a href="#">CNF</a>		Flow
COSUMNES R AT MICHIGAN BAR	<a href="#">CSN</a>		Flow
DRY CREEK NEAR GALT	<a href="#">DCG</a>		Flow
COSUMNES RIVER AT MICHIGAN BAR	<a href="#">MHB</a>		Flow
COSUMNES R, MID FK. NR SOMERSET	<a href="#">CMF</a>		Flow
COSUMNES RIVER AT MICHIGAN BAR	<a href="#">MHB</a>	<a href="#">11335000</a>	Flow

#### Mokelumne River

CAMANCHE RESERVOIR	<a href="#">CMN</a>		Inflow
CAMANCHE RESERVOIR	<a href="#">CMN</a>		Outflow
NF MOKELUMNE R BL SALT SPRINGS DAM	<a href="#">M11</a>		Flow
NF MOKELUMNE R AB TIGER CREEK	<a href="#">M38</a>		Flow
NF MOKELUMNE R BL ELECTRA DIVERSION	<a href="#">M46</a>		Flow
NF MOKELUMNE R BL TIGER CREEK AFTERBAY	<a href="#">MBT</a>		Flow
MOKELUMNE R @ SAN JOAQUIN RIVER	<a href="#">MOK</a>		Flow
NORTH MOKELUNME R @ W WALNUT GROVE RD	<a href="#">NMR</a>		Flow
PARDEE	<a href="#">PAR</a>		Inflow
PARDEE	<a href="#">PAR</a>		Outflow

SOUTH MOKELUMNE R @ W WALNUT GROVE RD	<a href="#">SMR</a>		Flow
MOKELUMNE RIVER AT WOODBRIDGE	<a href="#">WBR</a>		Flow
USGS 11336930 MOKELUMNE R A ANDRUS ISLAND NR TERMINOUS CA		<a href="#">11336930</a>	Flow

**Calaveras River**

MORMON SLOUGH AT BELLOTA (USACE)	<a href="#">MRS</a>		Flow
NEW HOGAN LAKE	<a href="#">NHG</a>		Inflow
NEW HOGAN LAKE	<a href="#">NHG</a>		Outflow
SOUTH SAN JOAQUIN CANAL	<a href="#">SSJ</a>		Outflow

**San Joaquin River Watersheds**

<b>San Joaquin River</b>	<b>CDEC</b>	<b>USGS</b>	
SAN JOAQUIN RIVER NEAR VERNALIS	<a href="#">VNS</a>	<a href="#">11303500</a>	Flow
SAN JOAQUIN R AT MAZE RD BRIDGE	<a href="#">MRB</a>	-	Flow
SAN JOAQUIN RIVER NEAR PATTERSON	<a href="#">SJP</a>	-	Flow
ORESTIMBA CREEK NR NEWMAN	<a href="#">ORE</a>	<a href="#">11274500</a>	Flow
SAN JOAQUIN R NR CROWS LANDING	<a href="#">SCL</a>	<a href="#">11274550</a>	Flow
ORESTIMBA CK AT RIVER RD NR CROWS LNDG	<a href="#">OCL</a>	<a href="#">11274538</a>	Flow
SAN JOAQUIN RIVER NEAR NEWMAN	<a href="#">NEW</a>	<a href="#">11274000</a>	Flow
SAN JOAQUIN R ABV MERCED R NR NEWMAN	<a href="#">SMN</a>	<a href="#">11273400</a>	Flow
SAN JOAQUIN R AT FREMONT FORD BRIDGE	<a href="#">FFB</a>	<a href="#">11261500</a>	Flow
SAN JOAQUIN RIVER NEAR STEVINSON	<a href="#">SJS</a>		Flow
SAN JOAQUIN RIVER NEAR MENDOTA	<a href="#">MEN</a>	<a href="#">11254000</a>	Flow
SAN JOAQUIN R AT SAN MATEO RD NR MENDOTA	<a href="#">SJM</a>	<a href="#">11253130</a>	Flow
SAN JOAQUIN RIVER BELOW BIFURCATION	<a href="#">SJB</a>	-	Flow
SAN JOAQUIN RIVER AT GRAVELLY FORD	<a href="#">GRF</a>	-	Flow
SAN JOAQUIN R BLW HWY 145 (SKAGGS BR)	<a href="#">SKB</a>	-	Flow
SAN JOAQUIN R AT DONNY BRIDGE	<a href="#">DNB</a>	-	Flow
SAN JOAQUIN R AT HWY 41	<a href="#">H41</a>	-	Flow
SAN JOAQUIN RIVER BELOW FRIANT	<a href="#">SJF</a>	<a href="#">11251000</a>	Flow
FRIANT DAM (MILLERTON)	<a href="#">MIL</a>	-	Inflow
FRIANT DAM (MILLERTON)	<a href="#">MIL</a>	-	Outflow
SAN JOAQUIN RIVER NEAR AUBERRY	<a href="#">SJA</a>	-	Flow
SAN JOAQUIN R AT BRANDT BRIDGE	<a href="#">BDT</a>	-	Flow
CHOWCHILLA BYPASS	<a href="#">CBP</a>	-	Flow
COTTONWOOD CREEK NEAR FRIANT	<a href="#">CTK</a>	-	Flow
EASTSIDE BYPASS BLW MARIPOSA BYPASS	<a href="#">EBM</a>	-	Flow
EASTSIDE BYPASS NEAR EL NIDO	<a href="#">ELN</a>	-	Flow
JAMES BYPASS	<a href="#">JBP</a>	-	Flow
LITTLE DRY CREEK (USBR)	<a href="#">LDC</a>	-	Flow

BEAR CREEK AT MC KEE ROAD	<a href="#">MCK</a>	-	Flow
SAN JOAQUIN RIVER AT MOSSDALE BRIDGE	<a href="#">MSD</a>	-	Flow
MUD SLOUGH NR GUSTINE	<a href="#">MSG</a>	-	Flow
N FK WILLOW CK NR SUGAR PINE	<a href="#">NFW</a>	-	Flow
SAN JOAQUIN RIVER ABOVE DOS REIS	<a href="#">SJD</a>	-	Flow
SAN JOAQUIN RIVER AT GARWOOD BRIDGE	<a href="#">SJG</a>	-	Flow
SAN JOAQUIN RIVER AT JERSEY POINT (USGS)	<a href="#">SJJ</a>	-	Flow
SALT SLOUGH AT HWY 165 NR STEVINSON	<a href="#">SSH</a>	-	Flow

### Stanislaus River

STANISLAUS RIVER AT RIPON	<a href="#">RIP</a>	<a href="#">11303000</a>	Flow
STANISLAUS R AT ORANGE BLOSSOM BRIDGE	<a href="#">OBB</a>	-	Flow
BLACK CREEK NR COPPEROPOLIS	<a href="#">BCC</a>	<a href="#">11299600</a>	Flow
NEW MELONES RESERVOIR	<a href="#">NML</a>	-	Inflow
NEW MELONES RESERVOIR	<a href="#">NML</a>	-	Outflow
SF STANISLAUS R NR STRAWBERRY DIV DAM	<a href="#">S83</a>	-	Flow
MF STANISLAUS R BEARDSLEY LAKE	<a href="#">BRD</a>	-	Outflow
MF STANISLAUS R BL SANDBAR DIV DAM	<a href="#">S12</a>	-	Flow
MF STANISLAUS R AT KENNEDY MEADOWS	<a href="#">S52</a>	-	Flow
NORTH FORK STANISLAUS RIVER NEAR AVERY	<a href="#">NSA</a>	-	Flow
SF STANISLAUS R AT STRAWBERRY	<a href="#">S61</a>	-	Flow
SF STANISLAUS R NR STRAWBERRY DIV DAM	<a href="#">S83</a>	-	Flow

### Tuolumne River

TUOLUMNE RIVER AT MODESTO	<a href="#">MOD</a>	<a href="#">11290000</a>	Flow
TUOLUMNE R AT WATERFORD	<a href="#">TRW</a>	-	Flow
TUOLUMNE R BLW LA GRANGE DAM NR LA GRANG	<a href="#">LGN</a>	<a href="#">11289650</a>	Flow
TUOLUMNE R ABV EARLY INTAKE NEAR MATHER	<a href="#">TAI</a>	<a href="#">11276600</a>	Flow
TUOLUMNE R BL EARLY INTAKE NEAR MATHER	<a href="#">TBI</a>	<a href="#">11276900</a>	Flow
CHERRY CK BL DION R PH NR MATHER	<a href="#">CBD</a>	<a href="#">11278400</a>	Flow
CHERRY CREEK NEAR EARLY INTAKE	<a href="#">CEI</a>	<a href="#">11278300</a>	Flow
TUOLUMNE R AT THE GRAND CYN OF TUOLUMNE	<a href="#">TGC</a>	<a href="#">11274790</a>	Flow
TUOLUMNE RIVER NEAR HETCH HETCHY	<a href="#">TRH</a>	<a href="#">11276500</a>	Flow
CHERRY CK BL VALLEY DAM NR HETCH HETCHY	<a href="#">CBV</a>	<a href="#">11277300</a>	Flow
ELEANOR CK NR HETCH HETCHY	<a href="#">ECK</a>	<a href="#">11278000</a>	Flow
CHERRY CK BL VALLEY DAM NR HETCH HETCHY	<a href="#">CBV</a>	<a href="#">11277300</a>	Flow
ELEANOR CK NR HETCH HETCHY	<a href="#">ECK</a>	<a href="#">11278000</a>	Flow
DRY CREEK AT MODESTO AT CLAUS ROAD	<a href="#">DCM</a>	-	Flow
LAKE ELEANOR DIV TUNNEL	<a href="#">EDT</a>	-	Flow
FALLS CK NR HETCH HETCHY	<a href="#">FHH</a>	-	Flow
MID CANAL AT LA GRANGE	<a href="#">MID</a>	-	Flow

MF TUOLUMNE R NR OAKLAND REC CAMP	<a href="#">MTO</a>	-	Flow
SF TUOLUMNE R NR OAKLAND REC CAMP	<a href="#">STO</a>	-	Flow
TID CANAL AT LA GRANGE	<a href="#">TIL</a>	-	Flow
TUOLUMNE MEADOWS	<a href="#">TUM</a>	-	Flow
UPPER CHERRY CK	<a href="#">UCC</a>	-	Flow

### **Merced River**

MERCED RIVER NEAR STEVINSON	<a href="#">MST</a>		Flow
MERCED RIVER AT CRESSY	<a href="#">CRS</a>	-	Flow
MERCED R AT SHAFFER BRIDGE NR CRESSY	<a href="#">MBN</a>	-	Flow
MERCED RIVER NEAR SNELLING	<a href="#">MSN</a>	-	Flow
MERCED R BLW CROCKER-HUFFMAN DAM	<a href="#">MBH</a>	-	Flow
MERCED RIVER BELOW MERCED FALLS	<a href="#">MMF</a>	-	Flow
NEW EXCHEQUER-LK MCCLURE	<a href="#">EXC</a>	-	Inflow
NEW EXCHEQUER-LK MCCLURE	<a href="#">EXC</a>	-	Outflow
MERCED RIVER NEAR BRICEBURG	<a href="#">MBB</a>	-	Flow
MERCED R AT POHONO BR NR YOSEMITE	<a href="#">POH</a>	<a href="#">11266500</a>	Flow
MERCED R AT HAPPY ISLES BR NR YOSEMITE	<a href="#">HIB</a>	<a href="#">11264500</a>	Flow
BIG CK DIVERSION NR FISH CAMP	<a href="#">BFG</a>		Flow
DRY CREEK NR SNELLING	<a href="#">DSN</a>		Flow
SOUTH FORK MERCED RIVER AT WAWONA	<a href="#">SMW</a>		Flow

### **Tulare Watershed**

#### **Kings River**

KINGS RIVER BELOW ARMY WEIR	<a href="#">AMW</a>		Flow
KINGS RIVER BELOW CRESCENT WEIR	<a href="#">CSW</a>		Flow
KINGS R NR TRIMMER	<a href="#">KRT</a>		Flow
KINGS RIVER AT MEADOWBROOK	<a href="#">MBK</a>		Flow
NF KINGS RIVER BLW DINKEY CREEK	<a href="#">NKD</a>		Flow
MILL CREEK NEAR PIEDRA	<a href="#">PDR</a>		Flow
PINE FLAT DAM	<a href="#">PNF</a>		Inflow
PINE FLAT DAM	<a href="#">PNF</a>		Outflow

#### **Kaweah River**

DRY CREEK NEAR LEMONCOVE	<a href="#">LCV</a>		Flow
TERMINUS DAM	<a href="#">TRM</a>		Inflow
TERMINUS DAM	<a href="#">TRM</a>		Outflow
KAWEAH RIVER AT THREE RIVERS	<a href="#">TRR</a>		Flow

#### **Kern River**

BOREL CANAL SIPHON	<a href="#">BOS</a>		Flow
--------------------	---------------------	--	------

ISABELLA DAM	<a href="#">ISB</a>		Inflow
ISABELLA DAM	<a href="#">ISB</a>		Outflow
KERN R AT KERNVILLE	<a href="#">KKV</a>		Flow
KERN R BL KERN CYN PH DIV DAM, KE-16	<a href="#">KRD</a>		Flow
SOUTH FORK KERN RIVER NEAR ONYX	<a href="#">SKO</a>	<a href="#">11189500</a>	Flow

### **Fresno River**

FRESNO R ABV HENLEY LAKE	<a href="#">FHL</a>		Flow
FRESNO R LEWIS FORK NR OAKHURST	<a href="#">FRU</a>		Flow
HIDDEN DAM (HENSLEY)	<a href="#">HID</a>		Inflow
HIDDEN DAM (HENSLEY)	<a href="#">HID</a>		Outflow

### **Tule River**

ELK BAYOU	<a href="#">EBY</a>		Flow
SUCCESS DAM	<a href="#">SCC</a>		Inflow
SUCCESS DAM	<a href="#">SCC</a>		Outflow
USGS 11204100 SF TULE R NR RESERVATION BNDRY NR PORTERVILLE CA		<a href="#">11204100</a>	Flow
USGS 11203580 SF TULE R NR CHOLOLLO CAMPGROUND NR PORTERVILLE CA		<a href="#">11203580</a>	Flow

### **Tributary to Tulare Basin**

LOS GATOS CREEK NEAR COALINGA	<a href="#">LGC</a>	<a href="#">11224500</a>	Flow
USGS 11253310 CANTUA C NR CANTUA CREEK CA		<a href="#">11253310</a>	Flow
USGS 11255575 PANOCHE C A I-5 NR SILVER CREEK CA		<a href="#">11255575</a>	Flow
USGS 11200800 DEER C NR FOUNTAIN SPRINGS CA		<a href="#">11200800</a>	Flow
WHITE RIVER AT ROAD 208	<a href="#">WRV</a>		Flow

### **Klamath River Watershed**

#### **Klamath River**

Indian Crk Nr Happy Camp	<a href="#">IHC</a>	<a href="#">11521500</a>	Flow
Klamath R. blw Iron Gate	<a href="#">KIG</a>	<a href="#">11516530</a>	Flow
Klamath R at Orleans	<a href="#">KLO</a>		Flow
Klamath R. nr Klamath	<a href="#">KNK</a>	<a href="#">11530500</a>	Flow
Klamath R. nr Seiad Valley	<a href="#">KSV</a>	<a href="#">11520500</a>	Flow
Klamath R. at Orleans	<a href="#">OLS</a>	<a href="#">11523000</a>	Flow
Salmon River at Somes Bar	<a href="#">SMS</a>	<a href="#">11522500</a>	Flow
Shasta River nr Montague	<a href="#">SRM</a>	<a href="#">11517000</a>	Flow
Shasta River nr Yreka	<a href="#">SRY</a>	<a href="#">11517500</a>	Flow

#### **Trinity River**

Trinity Lake	<a href="#">CLE</a>		Inflow
Trinity Lake	<a href="#">CLE</a>		Outflow
Trinity River at Douglas City	<a href="#">DGC</a>	<a href="#">11525854</a>	Flow
Trinity River at Douglas City	<a href="#">DGC</a>		Flow
Grass Valley Crk nr Lewiston	<a href="#">GVC</a>	<a href="#">11525630</a>	Flow
Trinity River at Hoopa	<a href="#">HPA</a>	<a href="#">11530000</a>	Flow
Indian Crk nr Douglas City	<a href="#">ICD</a>	<a href="#">11525670</a>	Flow
Lewiston	<a href="#">LEW</a>		Inflow
Lewiston	<a href="#">LEW</a>		Outflow
Lewiston (Water Quality)	<a href="#">LWS</a>	<a href="#">11525500</a>	Flow
Trinity R abv NF Trinity nr Helena	<a href="#">NFH</a>	<a href="#">11526400</a>	Flow
NF Trinity River at Helena	<a href="#">NTR</a>	<a href="#">11526500</a>	Flow
Rush Creek nr Lewiston	<a href="#">RCL</a>	<a href="#">11525530</a>	Flow
Trinity River blw Hyampom	<a href="#">TBH</a>	<a href="#">11528700</a>	Flow
Trinity River nr Burnt Ranch	<a href="#">TBR</a>	<a href="#">11527000</a>	Flow
Trinity River at Junction City	<a href="#">TJC</a>	<a href="#">11526250</a>	Flow
Trinity River blw Limekiln Gulch	<a href="#">TLK</a>	<a href="#">11525655</a>	Flow
Trinity River at Lewiston	<a href="#">TNL</a>		Flow
Trinity River abv Coffee Crk nr Trinity Ctr	<a href="#">TRC</a>	<a href="#">11523200</a>	Flow

### **Scott River**

Darbee Ditch nr Callahan	<a href="#">DDC</a>		Flow
Sugar Crk blw Darbee Ditch nr Callahan	<a href="#">SDA</a>		Flow
Scott R. nr Fort Jones	<a href="#">SFJ</a>	<a href="#">11519500</a>	Flow
Scott R. nr Fort Jones	<a href="#">SFJ</a>		Flow

### **Miscellaneous Rivers**

#### **Smith River**

Smith River nr Crescent City	<a href="#">JED</a>	<a href="#">11532500</a>	Flow
------------------------------	---------------------	--------------------------	------

#### **Eel River**

Van Duzen - Bridgeville		<a href="#">11478500</a>	Flow
Middle Eel - Dos Rios	<a href="#">DOS</a>	<a href="#">11473900</a>	Flow
South Eel - Leggett	<a href="#">LEG</a>	<a href="#">11475800</a>	Flow
South Eel - nr Miranda	<a href="#">MRD</a>	<a href="#">11476500</a>	Flow
Eel River blw Lake Pillsbury	<a href="#">ELP</a>		Outflow
Eel River blw Van Arsdale Dam	<a href="#">EVA</a>		Flow
Eel River - at Fort Seward	<a href="#">FSW</a>	<a href="#">11475000</a>	Flow
Eel River - Scotia	<a href="#">SCO</a>	<a href="#">11477000</a>	Flow
Bull Creek - nr Weott	<a href="#">BCW</a>	<a href="#">11476600</a>	Flow

**Napa River**

Napa River near Napa	<a href="#">NAP</a>	<a href="#">11458000</a>	Flow
Napa River near St Helena	<a href="#">STH</a>	<a href="#">11456000</a>	Flow

**Russian River**

East Russian - abv Lake Mendocino		<a href="#">11461500</a>	Flow
Russian River - Below Lake Mendocino	<a href="#">COY</a>	-	Outflow
Big Sulphur Cr - at Geysers Resort		<a href="#">11463170</a>	Flow
Big Sulphur Cr - nr Cloverdale		<a href="#">11463200</a>	Flow
Russian River - nr Ukiah	<a href="#">RRU</a>	<a href="#">11461000</a>	Flow
Russian River - at Hopland	<a href="#">HOP</a>	<a href="#">11462500</a>	Flow
Russian River -nr Cloverdale	<a href="#">CLV</a>	<a href="#">11463000</a>	Flow
Russian River - blw Warm Springs	<a href="#">WRS</a>	-	Outflow
Russian River - nr Healdsburg		<a href="#">11464000</a>	Flow
Dry Creek - nr Healdsburg	<a href="#">DRY</a>	-	Flow
Russian River - nr Hacienda Bridge	<a href="#">HAC</a>	-	Flow
Russian River - nr Hopland	<a href="#">HOP</a>	-	Flow

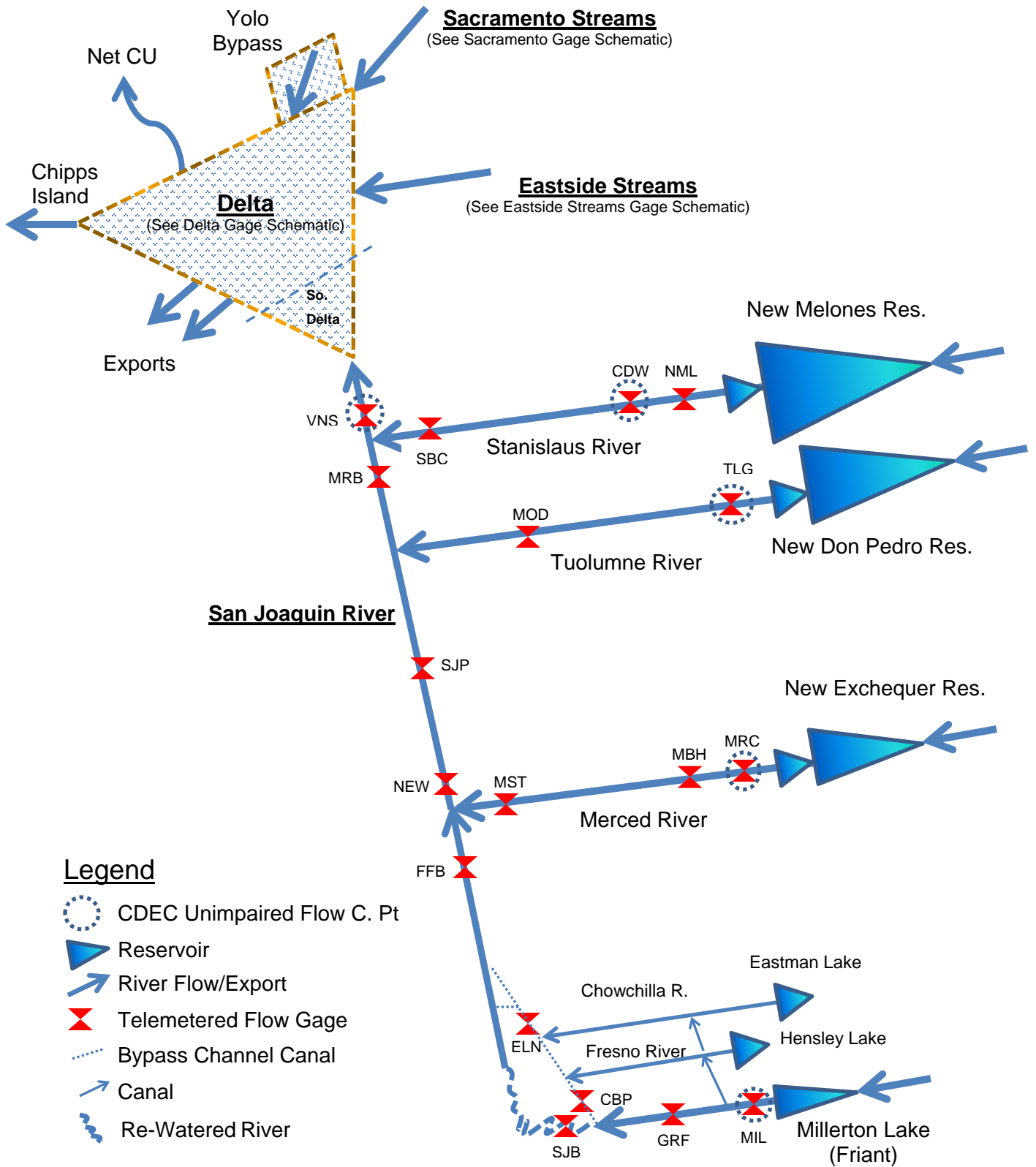
**Salinas River**

Arroyo Seco near Soledad	<a href="#">ASS</a>	<a href="#">11152000</a>	Flow
Arroyo Seco bl Reliz near Soledad		<a href="#">11152050</a>	Flow
Gabilan Creek near Salinas		<a href="#">11152600</a>	Flow
Reclamation Ditch near Salinas		<a href="#">11152650</a>	Flow
Salinas River at Soledad		<a href="#">11151700</a>	Flow
Salinas River near Bradley	<a href="#">BRA</a>	<a href="#">11150500</a>	Flow
Salinas River near Chualar		<a href="#">11152300</a>	Flow
Estrella River near Estrella	<a href="#">EST</a>	-	Flow
Salinas River at Paso Robles	<a href="#">PAS</a>	<a href="#">11147500</a>	Flow
Salinas River near Spreckels	<a href="#">SPR</a>	<a href="#">11152500</a>	Flow





# Appendix 8: Delta Watershed Hydrology Schematic



# Appendix 9: Sacramento-San Joaquin Basin Supply/Demand Plot

## Sacramento-San Joaquin Basin Supply/Demand

- Combined Sac-SJ Supply, 50% DWR Supply Projection
- Combined Sac-SJ Statement Demand, af
- Combined Sac-SJ 1920-1929 Demand, af
- - Combined Sac-SJ Supply, 90% DWR Supply Projection
- Combined Sac-SJ post-1914-1919 Demand, af

UPDATED: May 9, 2014

**Notes:**  
 The source of the forecasted supply data is  
 the Department of Water Resources Bulletin  
 120 update dated May 8, 2014

