

California Water Law and the District's Water Rights: Challenges and Opportunities

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Overview

- California's water rights system and the District's water rights portfolio are both complex. This complexity, along with other factors, creates both challenges and opportunities for the District in managing District water supplies to meet customer demands now and into the future in a fiscally and environmentally responsible manner.



Overview

- ▶ CVP = Central Valley Project
- ▶ SWP = State Water Program
- ▶ SWRCB = State Water Resources Control Board
- ▶ R-GPCD = Residential Gallons Per Capita Day
- ▶ DWR = Department of Water Resources
- ▶ Reclamation = US Bureau of Reclamation
- ▶ AF = Acre Feet

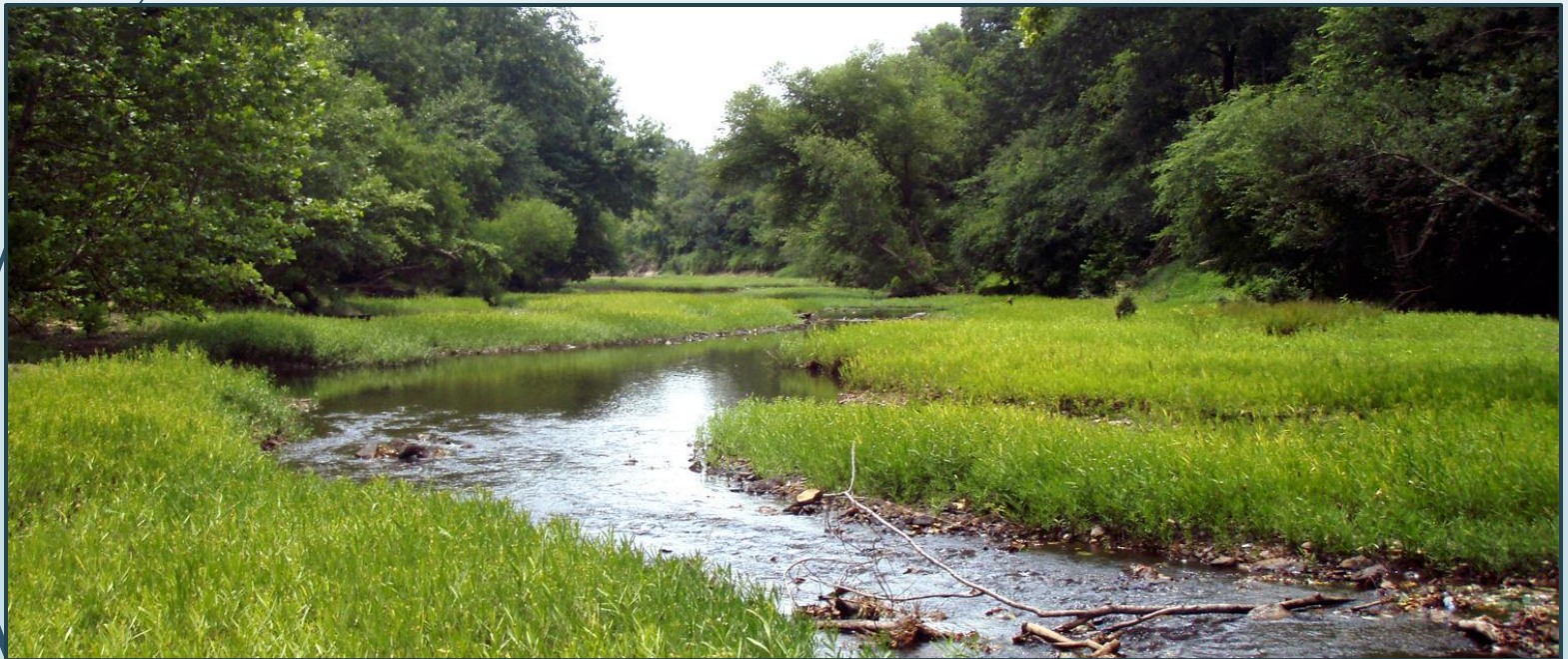
California Water Law 101

- All water belongs to the people of the state.
- Water rights are a right to the use of water.
- There are two main classifications of surface water rights in California:
 - Riparian
 - Appropriative



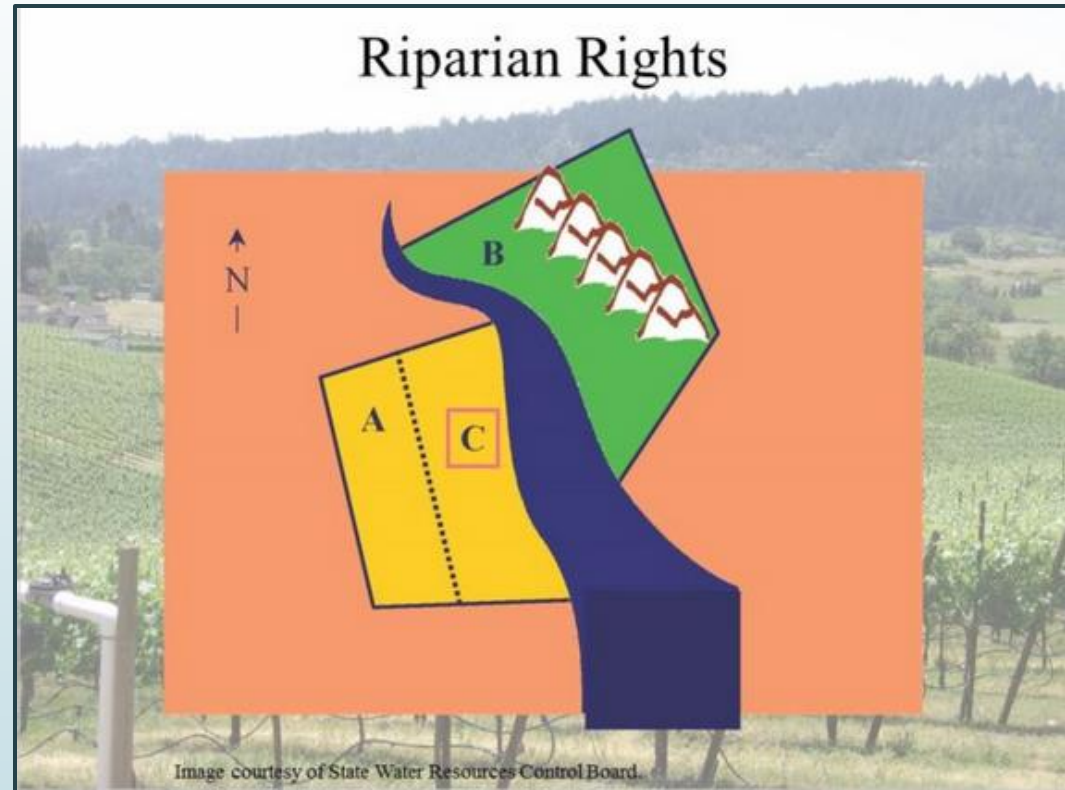
Riparian Rights

- Under Riparian Rights, landowners have the right to the water that runs through or adjacent to their property for beneficial purposes as long as their use does not interfere with the rights of other riparian land owners.

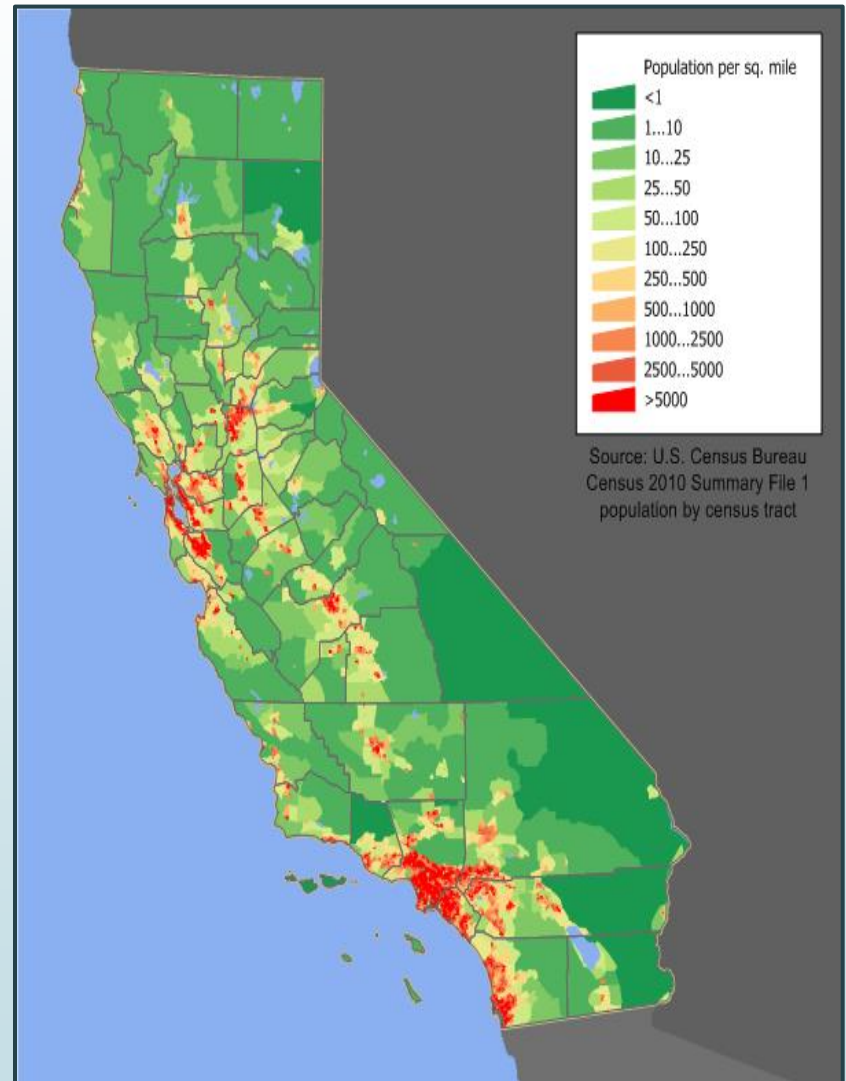
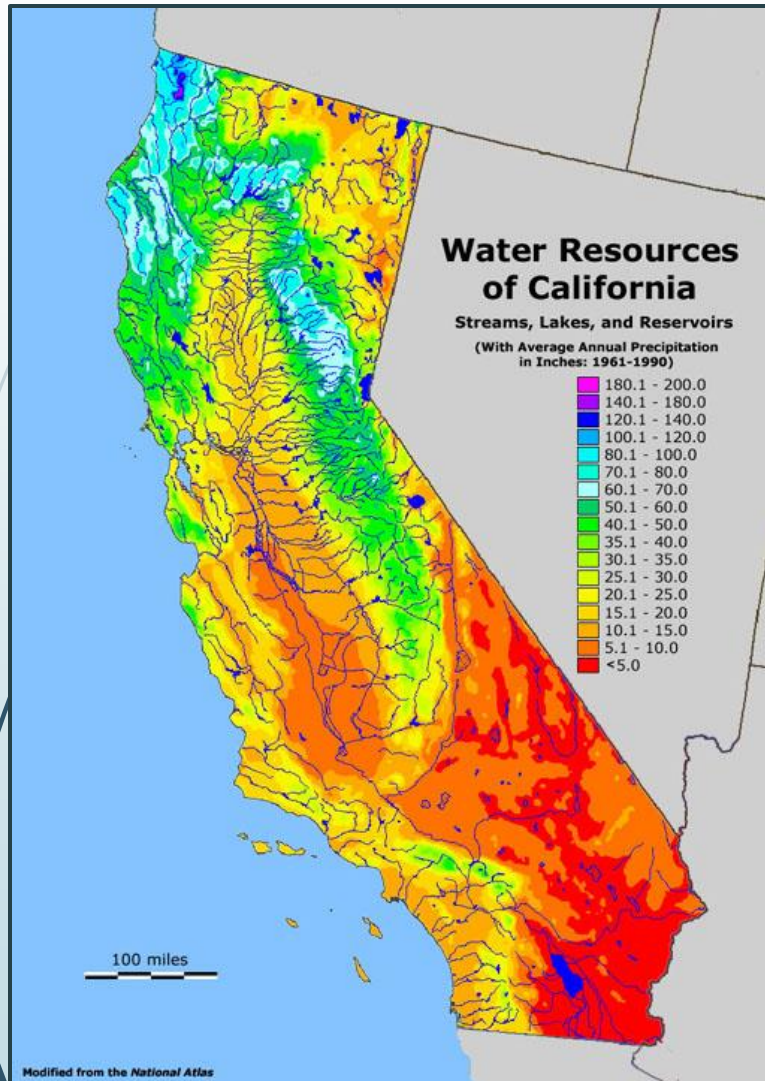


Riparian Rights continued

- Exist through **ownership of land** abutting stream
- For **reasonable, beneficial use** on **riparian property**
- Riparian rights are correlative— all riparian right holders have **co-equal** priority



Appropriative Rights



Appropriative Rights continued

- In 1855, California adopted the doctrine of prior appropriation in *Irwin v. Phillips* (1855) 5 Cal. 140



Appropriative Rights continued

- “[H]owever much the policy of the State, as indicated by her legislation, has conferred the privilege to work the mines, it has equally conferred the right to divert the streams from their natural channels, and as these two rights stand upon an equal footing, when they conflict, they must be decided by the fact of priority upon the maxim of equity, *qui prior est in tempore potior est injure*.”

Irwin v. Phillips (1855) 5 Cal. 140, 147

- Civil Code section 1414: “As between appropriators, the one first in time is the first in right.”

Appropriative Rights continued

- Basic principle: First in time, first in right (**Priority**)
- Established by **beneficial use** (domestic, irrigation, power)
- Not correlative—in times of scarcity, the junior priority must yield entirely to fully satisfy the senior priority
- Prevailing rule in more arid states (Western US)
- Limited to **amount** historically used (can't increase it)
- **Use it or lose it**: can lose the right due to non-use (more than 5 years)
- **Transferable** - would not result in injury; and would not unreasonably affect fish, wildlife or other instream beneficial uses.

Modern Administration of Water Rights

- Water Commission Act of 1914
- Established process acquiring rights
- Application-Permit-License
- Established an administrative body to oversee administration of water rights, including conflicts, protests, changes, etc.
- Responsible for collecting annual water use reports from riparian and appropriative users

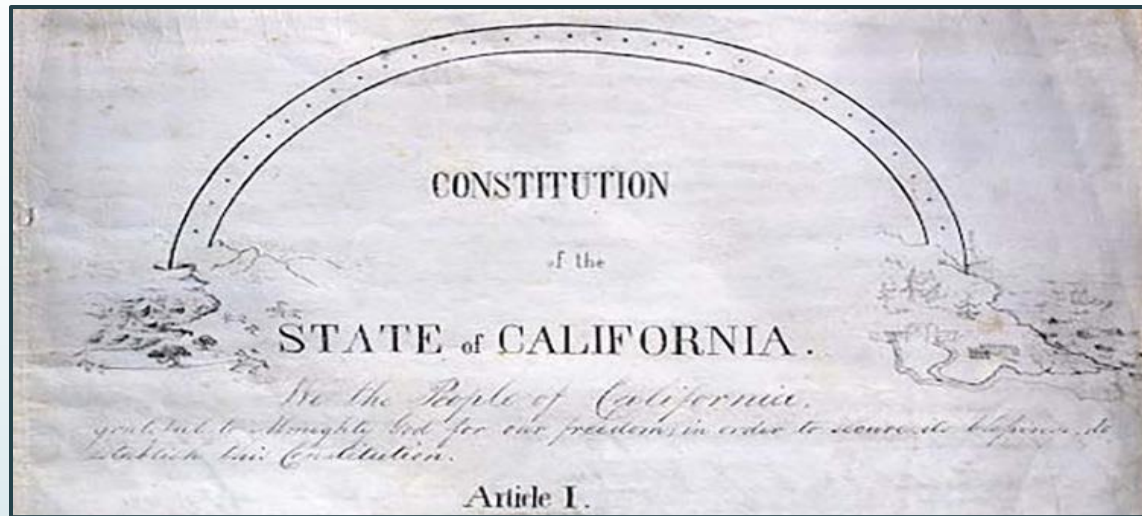


Important Characteristics of Water Rights

- Priority date
- Purpose of use
- Place of use
- Point of diversion
- Season of diversion

REPORT OF LICENSEE FOR 2018			
Primary Owner: EL DORADO IRRIGATION DISTRICT Primary Contact: BRIAN MUELLER			
Date Submitted: 04/01/2019			
Application Number: A000654 License Number: 000438			
Source(s) of Water	POD Parcel Number	County	
CAPLES LAKE		Alpine	
MEDLEY LAKE		El Dorado	
MAX Direct Diversion Rate: 0 GPD MAX Collection to Storage: 13000 AC-FT Face Value: 13000 AC-FT			
Permitted Use(s)	Acres	Direct Diversion Season	Storage Season
Power	0		01/01 to 12/31
1. Project Abandoned			
The project has been abandoned and I request revocation of my water right license			No
2. Compliance with License Terms and Conditions			
I have currently reviewed my water right license and I am complying with all terms and conditions			Yes
Description of noncompliance with terms and conditions			
3. Changes to the Project			
Intake location has been changed			
Description of intake location changes			
Type of use has changed			
Description of type of use changes			
Place of use has changed			
Description of place of use changes			
Other changes			
Description of other changes			
4. Purpose of Use			
Power		21 MW	

Reasonable Use



“It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to **beneficial use to the fullest extent of which they are capable**, and that the **waste or unreasonable use or unreasonable method of use of water be prevented**, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare.” Cal. Const., art. X, § 2

Public Trust Doctrine

- Certain resources (such as navigable waters) are too valuable to be privately owned and must remain available for public use.
- The State has trustee responsibility to protect these resources.
- Judicial recognition of the public trust doctrine has been established for tidelands and navigable waterways, submerged land (such as lake beds) and the waters above them, and preservation of a public interest (such as recreation, swimming, access and sport fishing).



Area/County of Origin Protections

- ▶ County of Origin Statute

- ▶ The State Board shall “not authorize the use of any water outside of the county of origin which is necessary for the development of the county.” WC 10505.5

- ▶ Watershed of Origin Statute

- ▶ SWP and CVP may not be operated in a manner that deprives a “watershed or area wherein water originates . . .Of water reasonably required to adequately supply the beneficial needs of the watershed, area, or any of the inhabitants or property owners therein.” WC 11460

- ▶ Area of Origin Statute

- ▶ Expands the export restraint contained in Watershed of Origin Statute



California Water Law 101 Recap

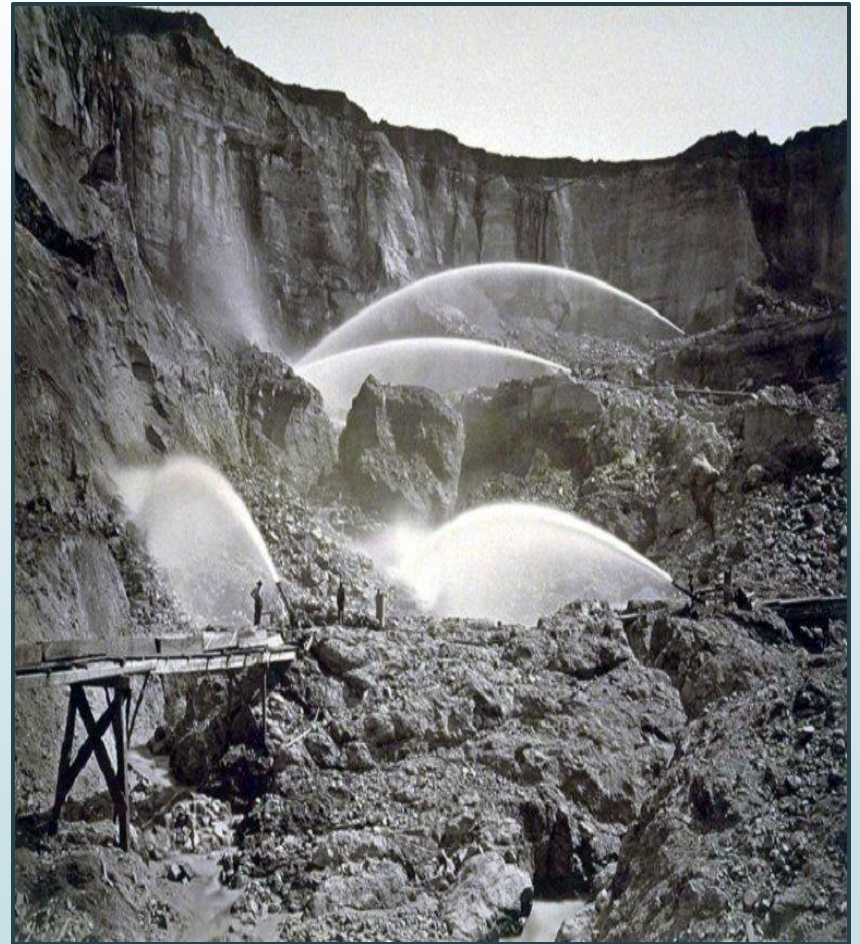
- Water belongs to the people of the State
- Water rights are for use only
- Defined by beneficial use
- Appropriative rights have priority, not correlative; transferable; subject to forfeiture for nonuse
- All water rights limited to reasonable amount and method
- All water rights subject to public trust balancing
- Area/County's of origin protected
- SWRCB administers water rights

District Water Rights



District Water Rights

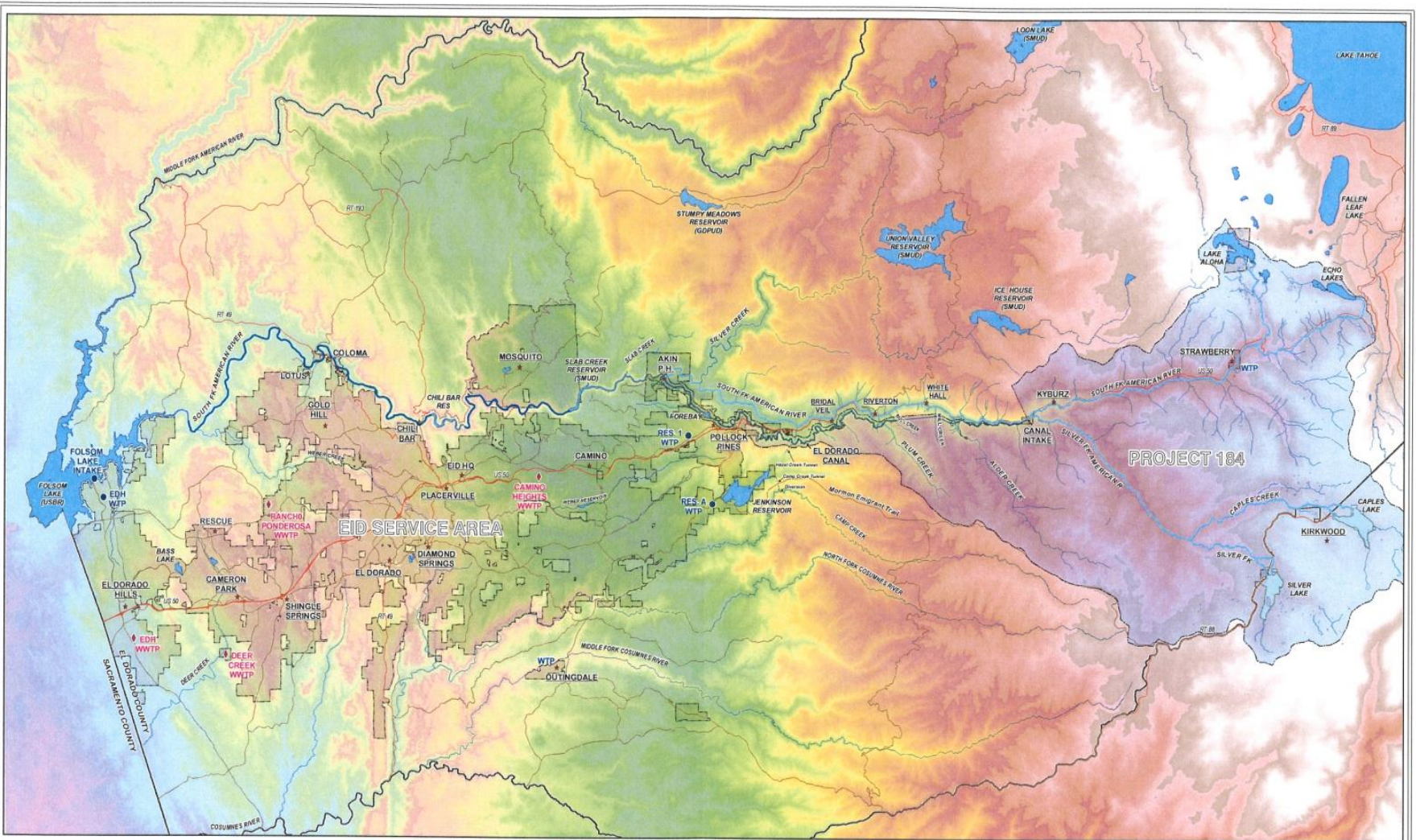
- South Fork American River, 1856
- Weber Creek, 1855
- North Fork Cosumnes, 1854
- Hangtown Creek, 1852
- Squaw Hollow Creek, 1855
- Slab Creek, 1854
- Clear Creek, 1852



Simplified EID Water Rights Portfolio

Water Right	Amount (Acre-Foot/Year)
Pre-14 South Fork American	15,080
Sly Park Reservoir	23,000
CVP (Folsom)	7,550
Ditch/Weber Dam (Folsom)	4,560
Permit 21112 (Folsom)	<u>17,000</u>
	67,190

CVP = Central Valley Project



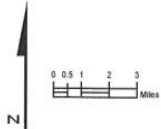
M:\EID_0818\mnm\Projects\EID\PM_02\Drawings\PM_02_0068\02EID_Compound\Facilities_Shade\Bldg_11.11.17.mxd

Map production and data management by:



**PRICE
GEOGRAPHIC
CONSULTING**

2004 Adobe Trail - Placerville, California 95667
(530) 626-1964 - at_price@pacbell.net



El Dorado Irrigation District Facilities



El Dorado Irrigation District
David Witter, Director of Water Policy and
Environmental Compliance
(530) 642-4103

**EID Facilities:
Water, Wastewater,
Recycled, Hydroelectric
& Recreation**

Date: August 25, 2008

Lake Aloha



Echo Lake



Caples Lake



Silver Lake



Sly Park



Folsom Reservoir

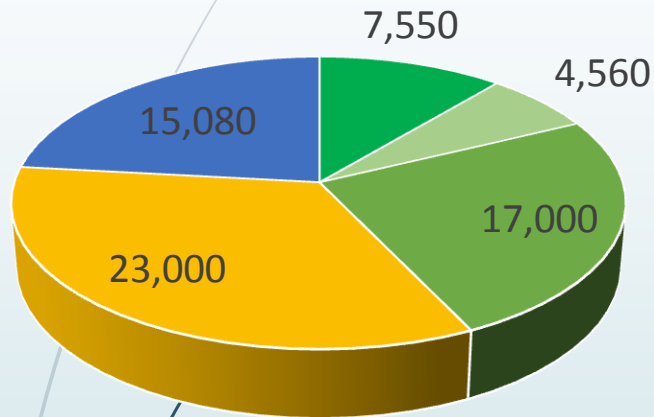


Water Supply Planning

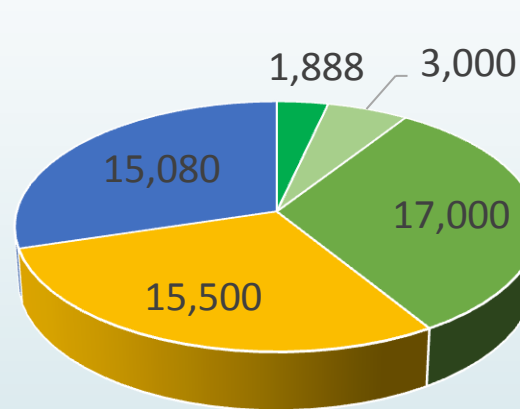
Water Asset	Normal Year	Single Dry Year	Multi-Dry Year		
			Year 1	Year 2	Year 3
Existing Supplies					
License 2184 and Pre-14 rights	4,560	3,000	3,000	3,000	3,000
Licenses 11835 and 11836	23,000	20,920	20,920	17,000	15,500
CVP Contract	7,550	3,775	3,775	3,775	1,888
Project 184	15,080	15,080	15,080	15,080	15,080
Permit 21112	17,000	17,000	17,000	17,000	17,000
Subtotal Existing	67,190	59,775	59,775	55,855	52,468
Planned Supplies					
CVP Fazio water	7,500	3,750	3,750	3,750	1,875
Applications 5645X12, 5644X02 (El Dorado-SMUD Agreement)	30,000	5,000	5,000	5,000	5,000
Subtotal Planned	37,500	8,750	8,750	8,750	6,875
Recycled Water	3,500	3,500	3,500	3,500	3,500
Total Supplies	108,190	72,025	72,025	68,105	62,843

Supply Availability

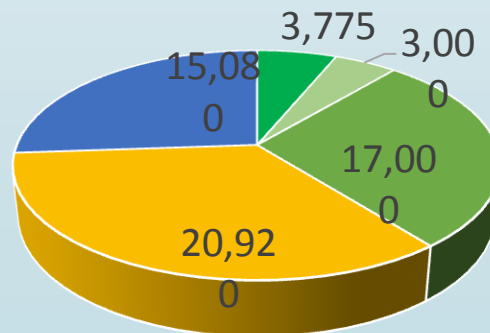
Normal Year



Multi Year Drought



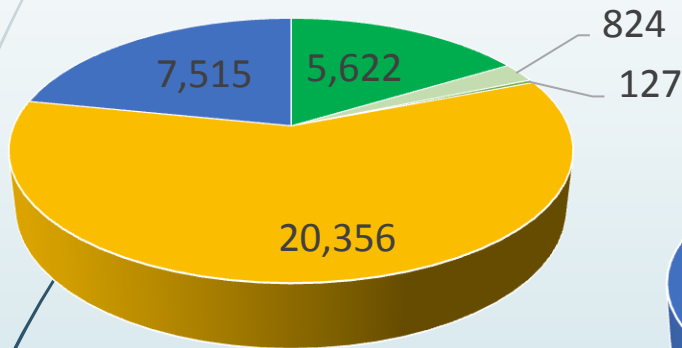
Single Year Drought



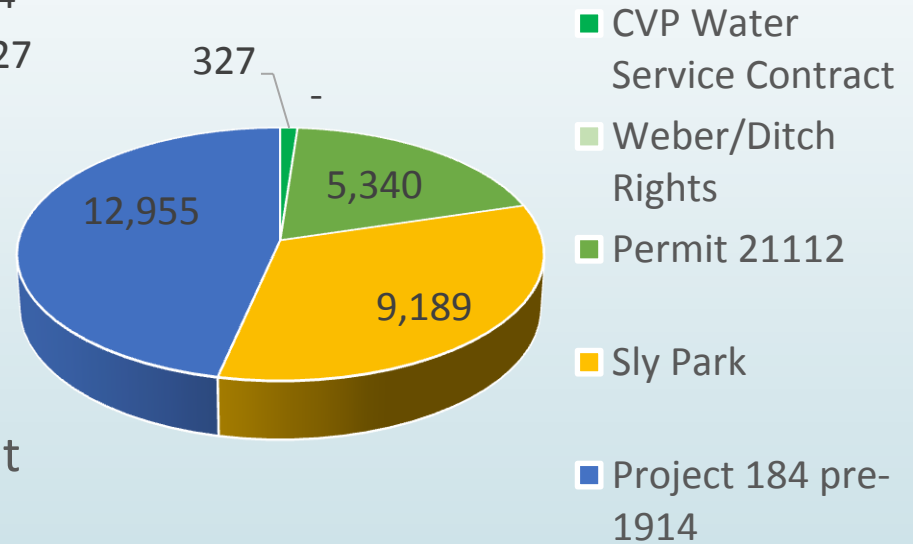
- CVP Water Service Contract
- Weber/Ditch Rights
- Permit 21112
- Sly Park
- Project 184 pre-1914

Meeting Demand

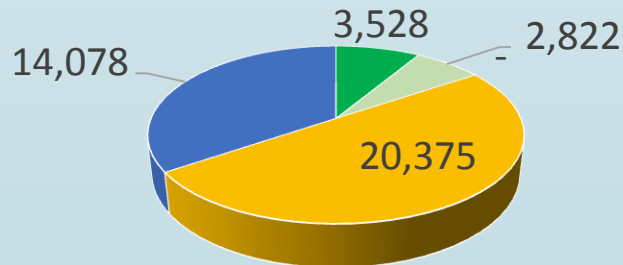
Normal Year
(avg 2005,2010, 2016,2018)



Multi Year Drought (2015)



Single Year Drought
(avg 2007,2013)



- CVP Water Service Contract
- Weber/Ditch Rights
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- Sly Park
- Project 184 pre-1914

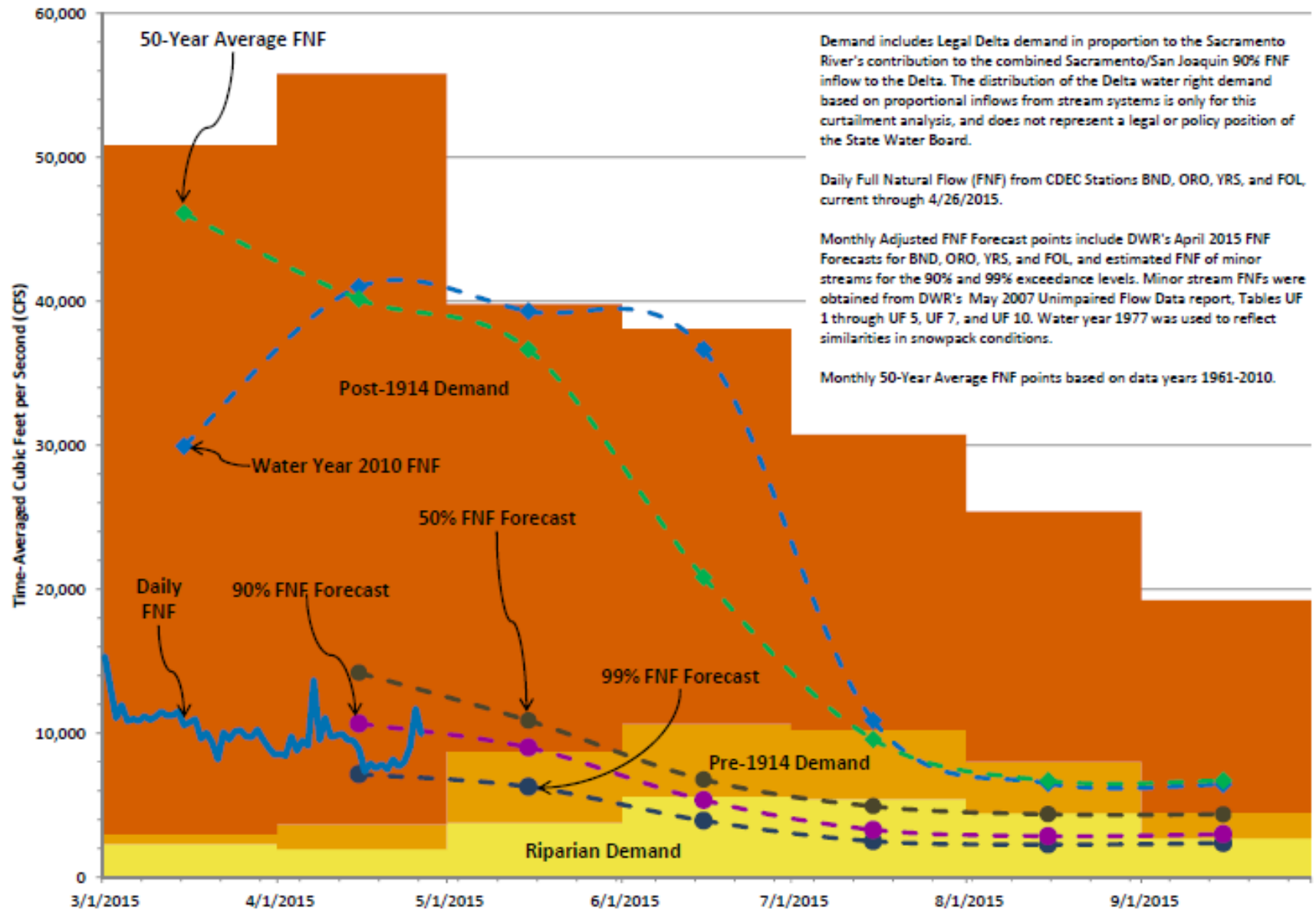
Challenges and Opportunities



Drought



2015 Sacramento River Basin Supply/Demand



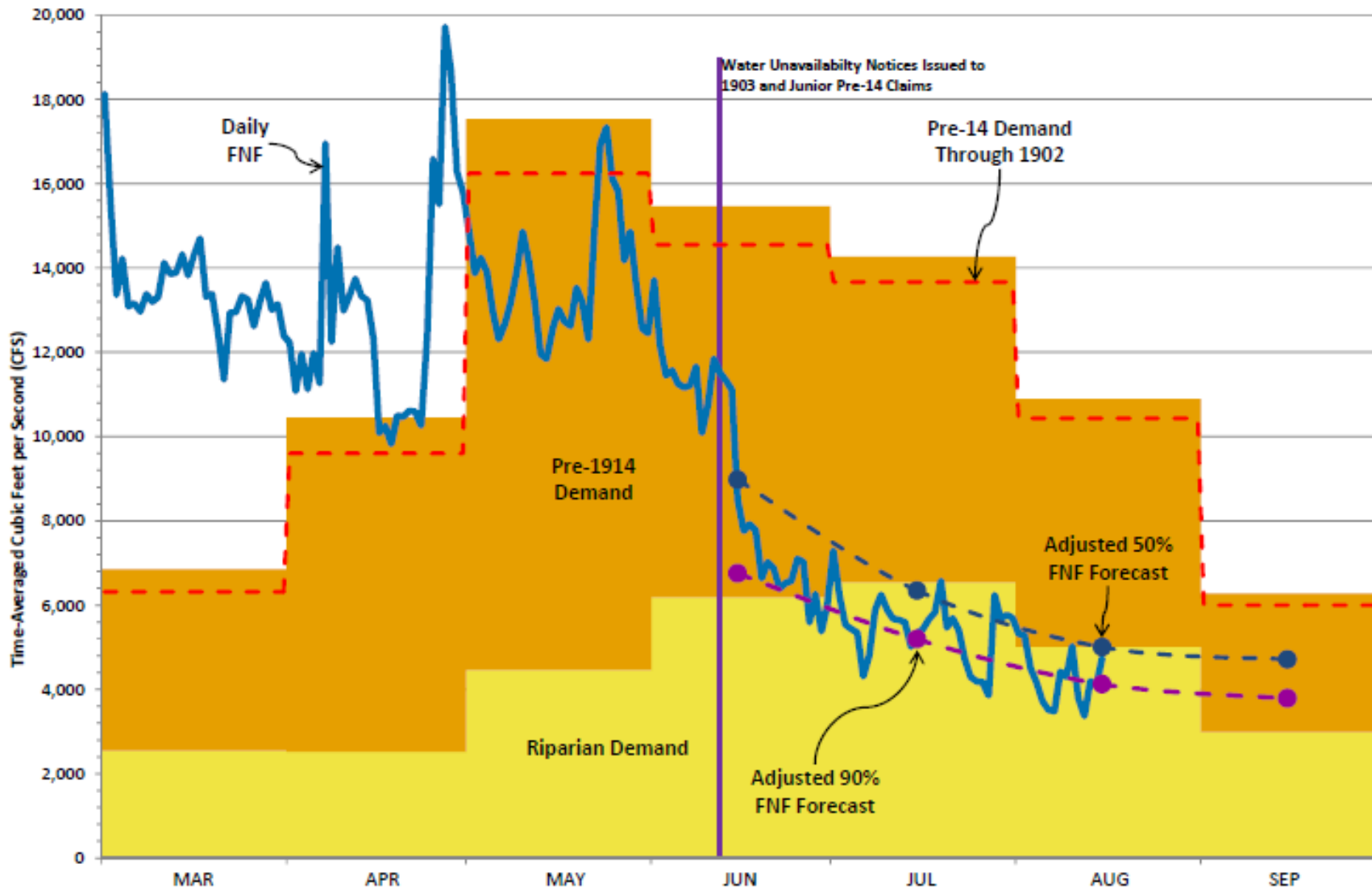
Demand includes Legal Delta demand in proportion to the Sacramento River's contribution to the combined Sacramento/San Joaquin 90% FNF inflow to the Delta. The distribution of the Delta water right demand based on proportional inflows from stream systems is only for this curtailment analysis, and does not represent a legal or policy position of the State Water Board.

Daily Full Natural Flow (FNF) from CDEC Stations BND, ORO, YRS, and FOL, current through 4/26/2015.

Monthly Adjusted FNF Forecast points include DWR's April 2015 FNF Forecasts for BND, ORO, YRS, and FOL, and estimated FNF of minor streams for the 90% and 99% exceedance levels. Minor stream FNFs were obtained from DWR's May 2007 Unimpaired Flow Data report, Tables UF 1 through UF 5, UF 7, and UF 10. Water year 1977 was used to reflect similarities in snowpack conditions.

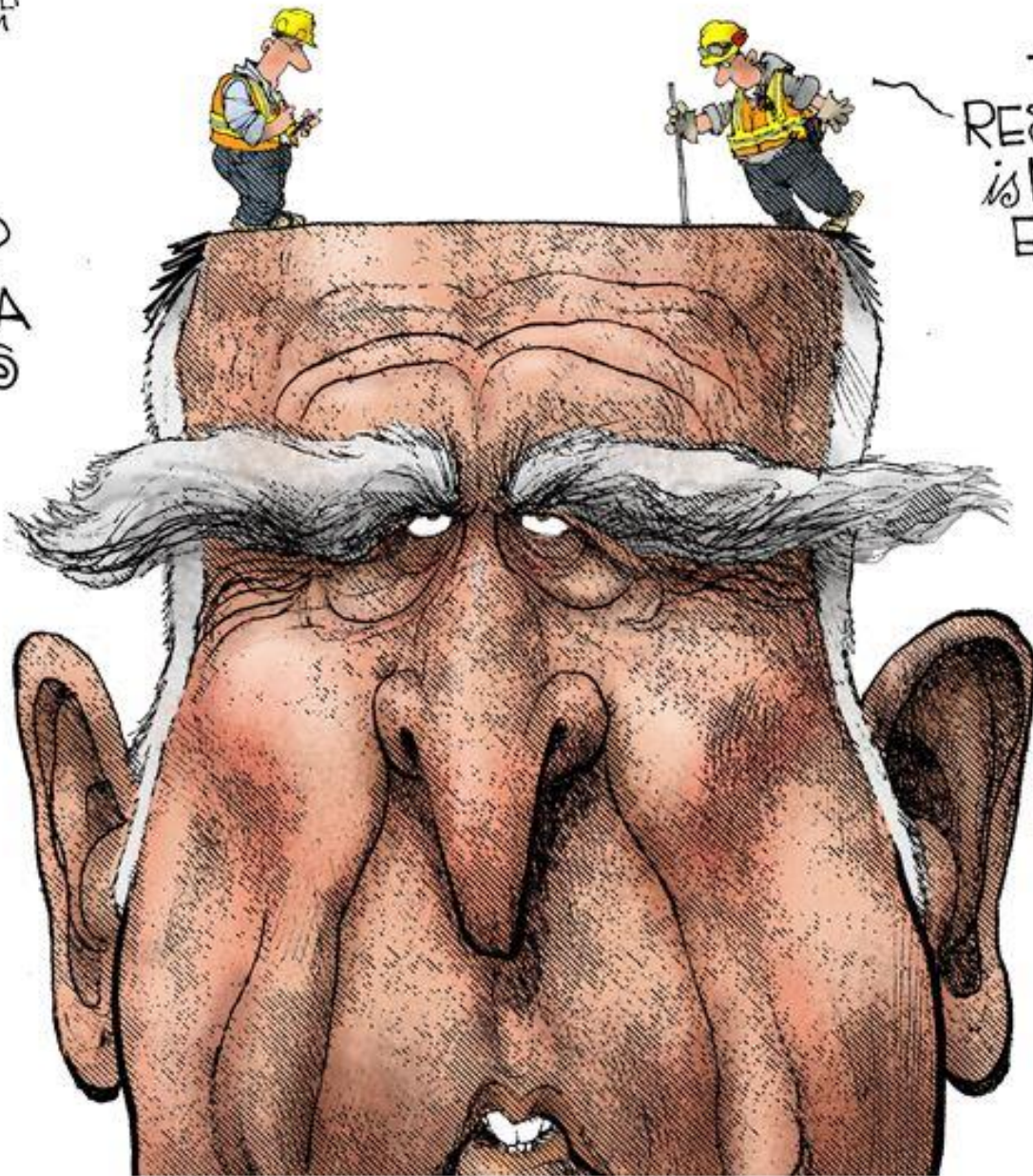
Monthly 50-Year Average FNF points based on data years 1961-2010.

2015 Combined Sacramento/San Joaquin River Basin Senior Supply/Demand Analysis



See following page for additional information.

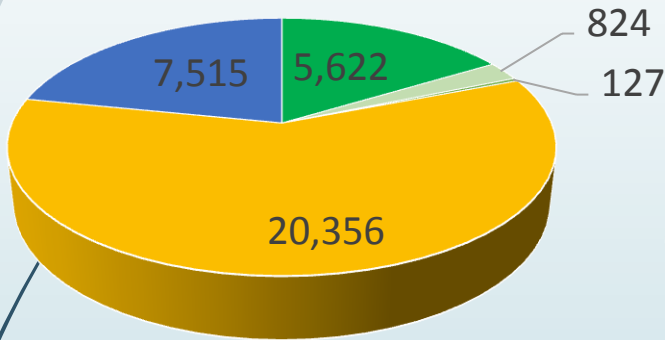
RESERVOIRS?
What CALIFORNIA
OBVIOUSLY NEEDS
are SHORTER
SHOWERS and
HIGH-SPEED
RAIL...



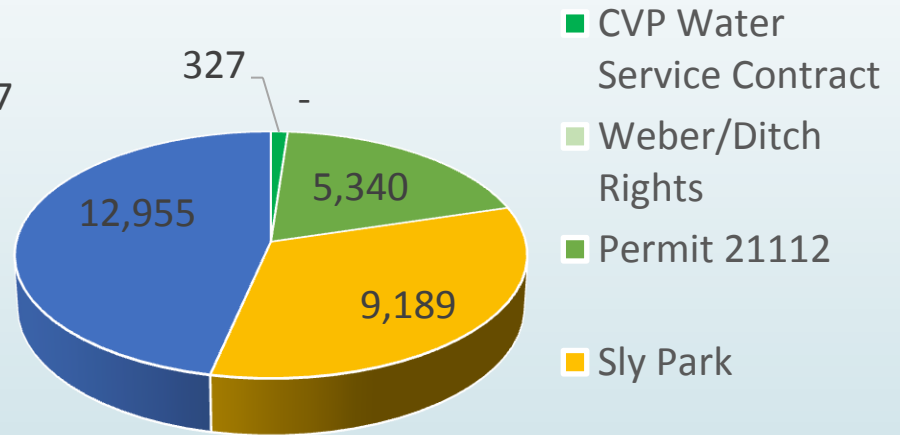
This
RESERVOIR
is NEARLY
EMPTY.

Operational Response to Drought

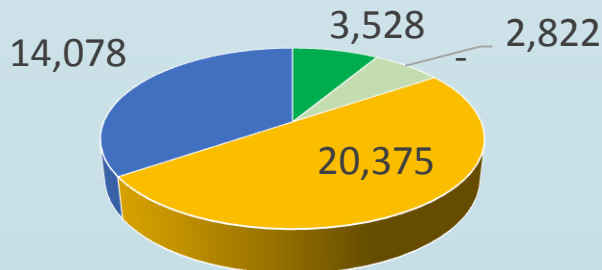
Normal Year
(avg 2005,2010, 2016,2018)



Multi Year Drought (2015)



Single Year Drought
(avg 2007,2013)



- CVP Water Service Contract
- Weber/Ditch Rights
- Permit 21112
- Sly Park
- Project 184 pre-1914



Bridal Veil Falls

50

Lincoln Hwy

Fresh Pond

Pacific
Pacific House

Sly Park Rd

Sly Park Rd

E16

Sly Park Recreation Area

Mormon Emigrant Trail (Closed winters)

ark

Sly Park Rd

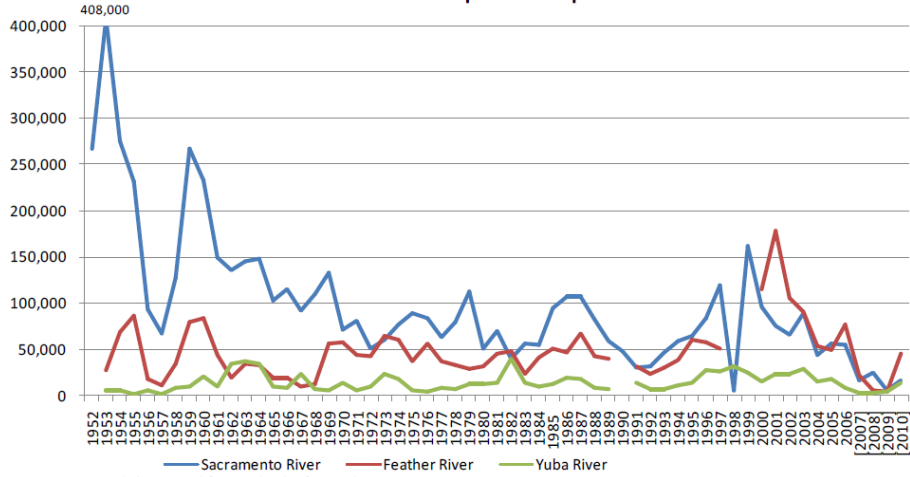
3500

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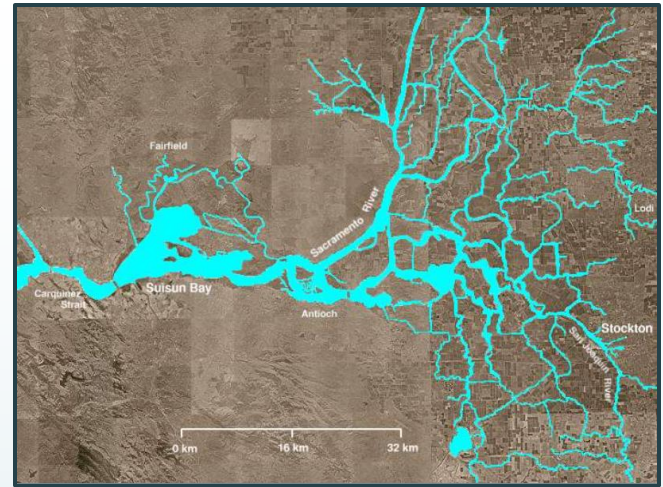
Bay-Delta



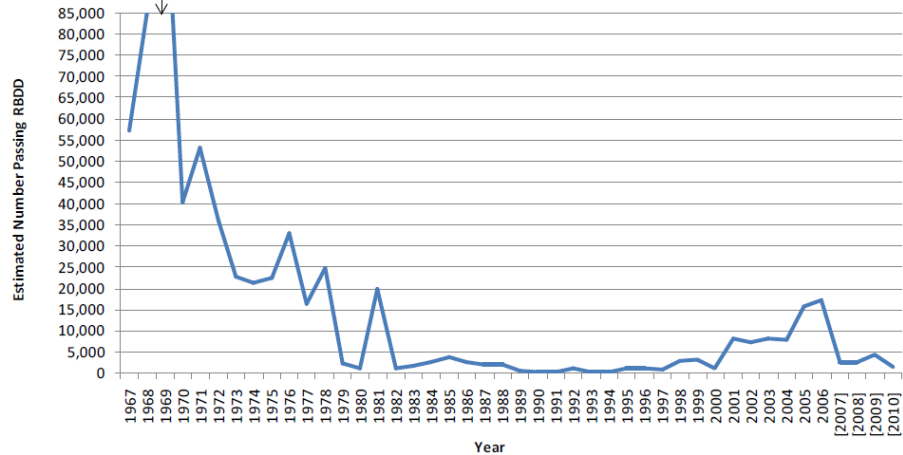
Fall Chinook Salmon Spawner Populations



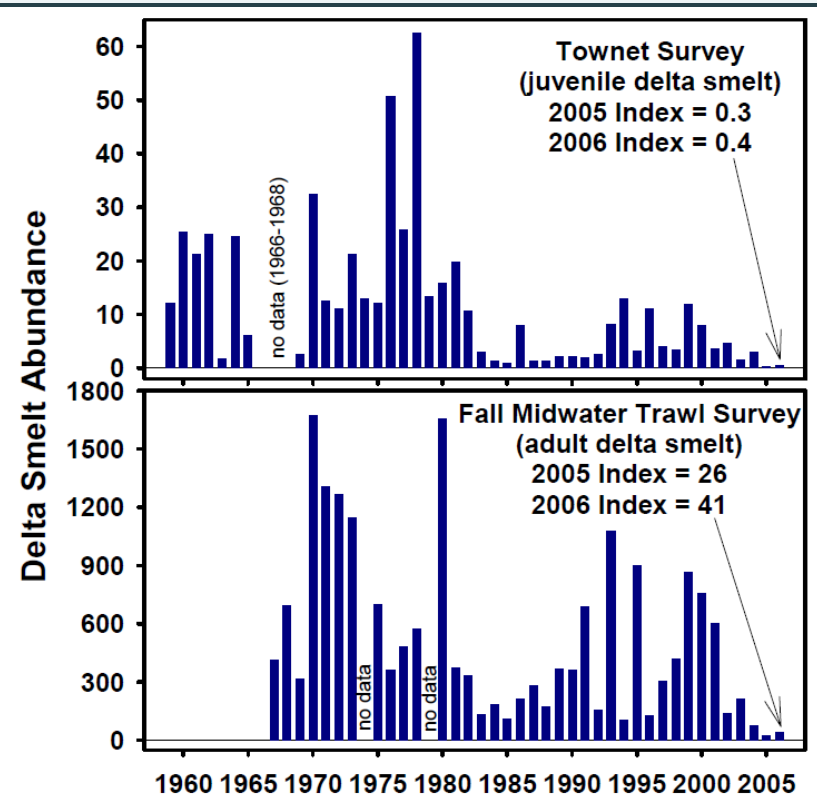
Note: From Grandtab. Data with [years in brackets] are preliminary. Blank entry indicates that no estimate was made.



Sacramento Winter-Run Chinook Salmon



Note: From Grandtab. Estimated from fish counts at RBDD. Data for [years in brackets] are preliminary.



Towner Survey (juvenile delta smelt)
2005 Index = 0.3
2006 Index = 0.4

Fall Midwater Trawl Survey (adult delta smelt)
2005 Index = 26
2006 Index = 41

Bay-Delta

California Waterfix
(tunnels project)

Bay-Delta Water Quality
Control Plan Update



Bay-Delta Plan Update

- “[M]ost of the water users in the watershed other than DWR and Reclamation have not been directly responsible for implementing the Bay-Delta Plan and have had little to no limitations on their diversions of water to protect fish and wildlife beneficial uses. **The proposed updates to the Bay-Delta Plan would bring all water users to the table with responsibility to protect fish and wildlife beneficial uses and contribute toward achieving the [unimpaired flow] objectives included in the Bay-Delta Plan in a biologically meaningful and equitable way.**”
- P.30 July 2018 Framework for the Sacramento/Delta Update to the Bay-Delta Plan

Regulatory Mandates











An aerial photograph of a winding river in a dry, hilly landscape. The river is a vibrant blue, contrasting with the brownish, arid terrain. The hills are rounded and the overall scene suggests a semi-arid environment. On the left side of the image, there is a dark blue vertical bar with a white arrow pointing right, and several thin, curved lines in shades of blue and white.

Opportunities: Transfers

- ▶ Voluntary sale of the right to use water from one user to another.
 - ▶ Transfers can be temporary or permanent
 - ▶ Transfers can be short-term (one-year or less) or long-term (more than one year)
 - ▶ Transferrable water normally made available through:
 - ▶ Cropland idling and crop shifting (conservation)
 - ▶ Groundwater substitution
 - ▶ Reservoir storage releases

Transfers continued

- ▶ Transfers can be a significant source of one-time non-rate revenue
- ▶ Ex: 2015 – approximately 2,500 acre-feet of water at \$700 per acre-foot yielding approximately **\$1.8 million**.
- ▶ 2018 – approximately 1,500 acre-feet of water at \$350 per acre-foot yielding approximately **\$556,000**.

Transfers continued

- ▶ All transfers subject to the “No Injury” Rule:
 - ▶ Short-term transfers must not injure any legal user of water. Water Code §§ 1435(b)(2), 1702, 1706, 1725; Cal. Code Regs., tit. 23, §791(a).
 - ▶ Long-term transfers (more than one year) must not result in “substantial injury” to any legal user of water. Water Code § 1736.
 - ▶ No injury rule applies to permitted and licensed rights (Water Code § 1702) and pre-1914 rights (§1706).
- ▶ All transfers must avoid significant impacts to instream beneficial uses (i.e. fish and aquatic resources). E.g. §§ 1435(b)(3), 1701.2(c) 1725.

Transfers continued

- ▶ Transfers must involve “wet water” not just paper water.
 - ▶ A water right is a property right; but title to the property does not vest until the right is perfected through beneficial use of water. *Silver Lake Power & Irr. Co. v. Los Angeles* (1917) 176 Cal. 96, 101-102.
 - ▶ Until perfected, rights are inchoate, because title has not vested. This is referred to as “paper water.”

Transfers continued

- Use of others' facilities requires permission
 - Ex: Delivering water to Folsom Reservoir for transfer to another entity requires a Warren Act Contract.
 - Ex: Moving water through the Delta, using the Jones Pumping Plant or the Banks Pumping Plant, requires a conveyance agreement with BOR or DWR respectively.
- When BOR is involved, either through a Warren Act Contract, or conveyance agreement, it must comply with the National Environmental Policy Act (NEPA).
- When transfer involves releases of stored water, must demonstrate that releases will not harm downstream users. Normally done by negotiate a re-fill agreement.

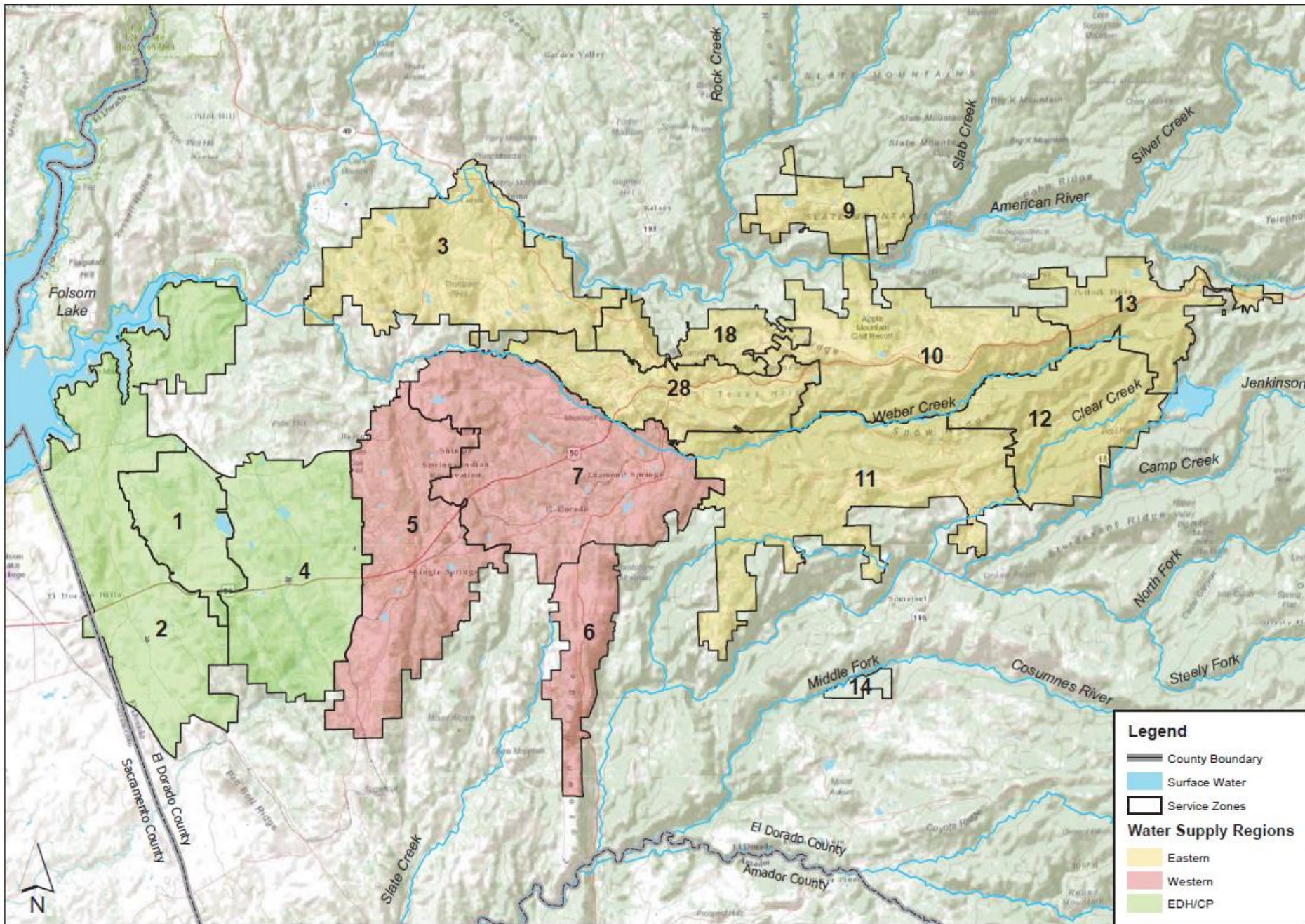
Transfers continued

- ▶ Statutory Protections for water transfers:
 - ▶ Water put to beneficial use through a transfer not subject to forfeiture. Water Code §§ 1014, 1017.
 - ▶ “At the conclusion of the term of a water transfer agreement, all rights in, and the use of, the water subject to the agreement revert back to the transferor.” Water Code § 1016(a).

Permit 21112

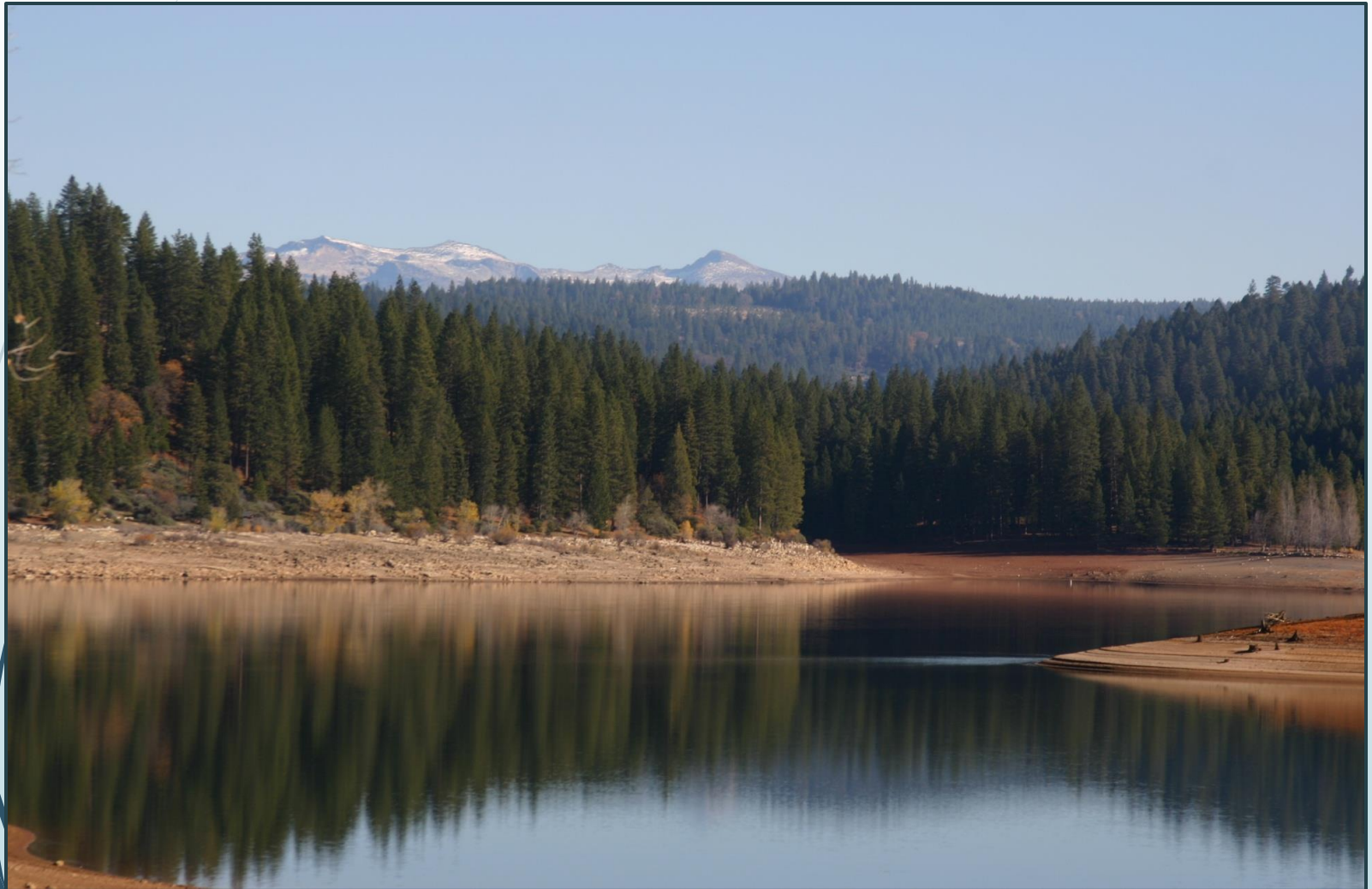
- District currently has approximately 20,610 AF of supply from Folsom Reservoir available for El Dorado Hills (CVP Contract for 7,550, Ditch/Weber Contract for 4,560 and Permit 21112 Contract for 8,500)



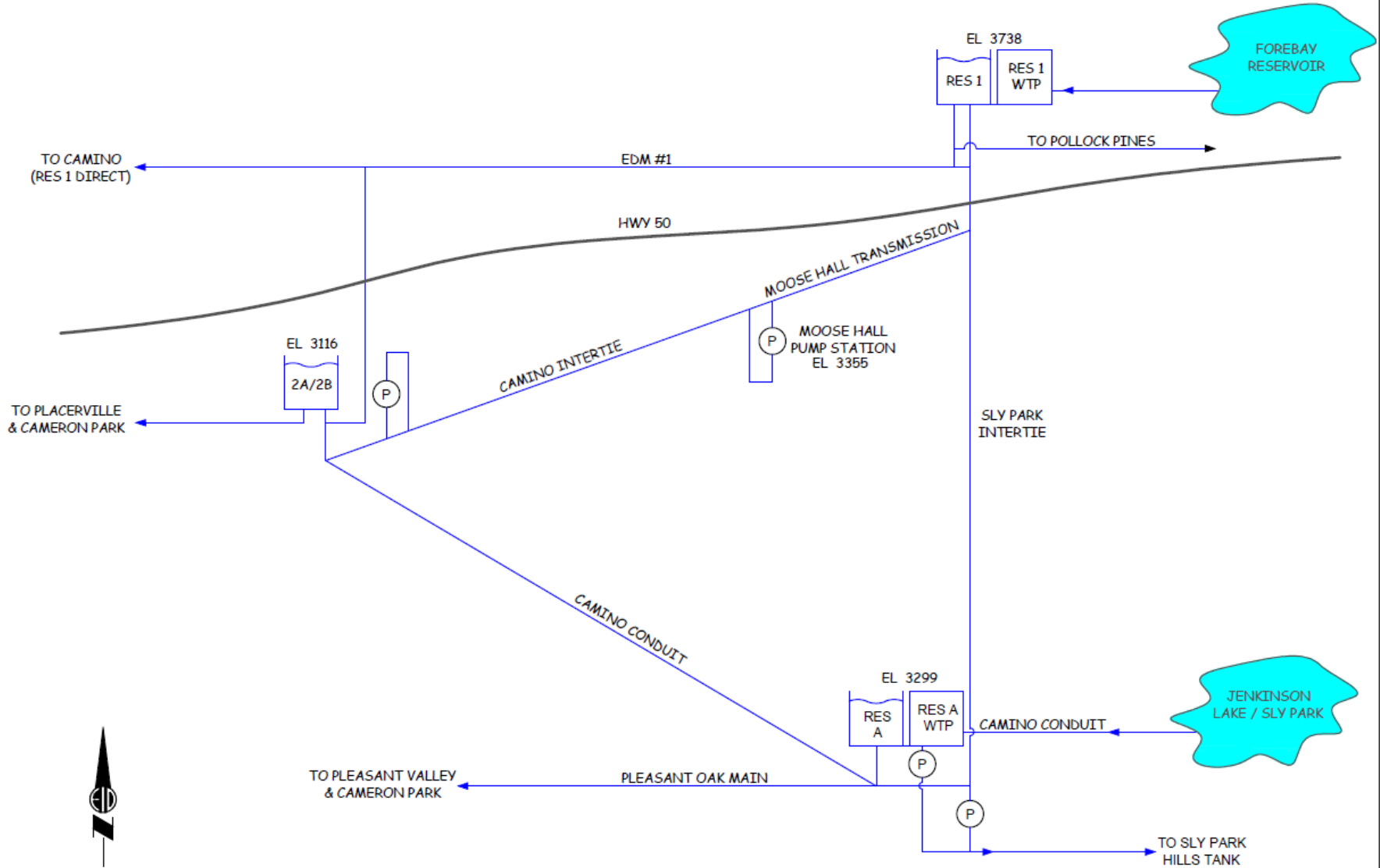


Water Supply Regions and Service Zones

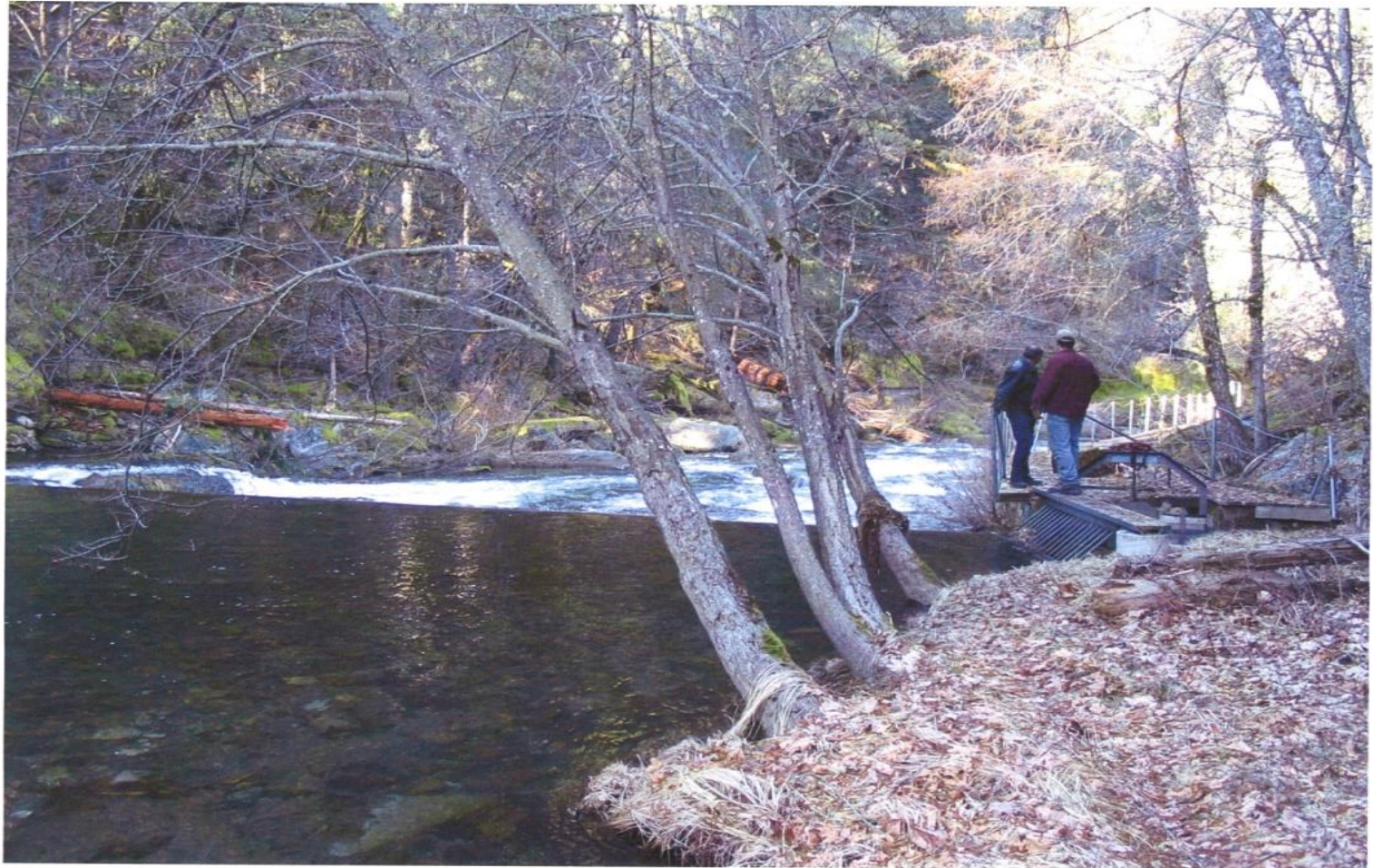
Sly Park Intertie



SLY PARK INTERTIE SCHEMATIC



North Fork Cosumnes Diversion – Crawford Ditch

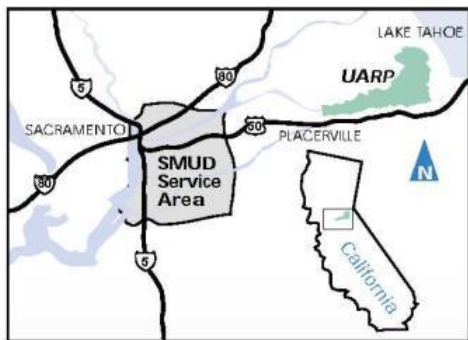


SMUD Water

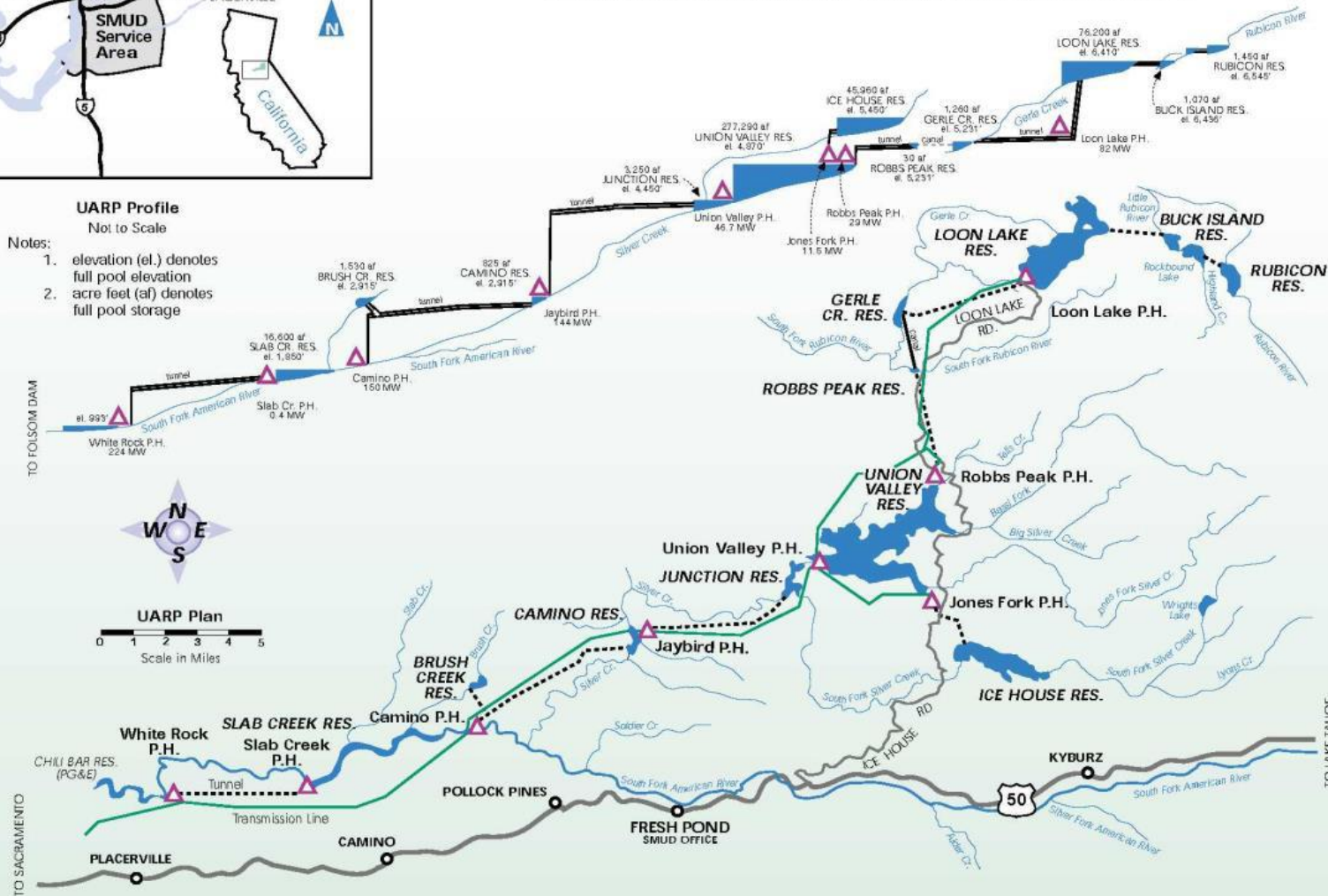


SACRAMENTO MUNICIPAL UTILITY DISTRICT Upper American River Project

Federal Energy Regulatory Commission Project No. 2101



- UARP Profile**
Not to Scale
- Notes:
1. elevation (el.) denotes full pool elevation
 2. acre feet (af) denotes full pool storage



Each powerhouse serves as a step on the UARP power stairway as the water drops one mile in elevation over a 53-mile course, beginning at Rubicon Reservoir (6,545 feet elevation) and ending at White Rock Powerhouse (993 feet elevation).



SMUD
SACRAMENTO MUNICIPAL UTILITY DISTRICT
The Power To Do More.™



Questions?