

# North Delta Water Agency



Informational Meeting  
August 25, 2021

Presented by:  
Gary Kienlen – MBK Engineers  
Kevin O'Brien – Downey Brand

# Topics for Discussion

## A. Current Hydrologic Conditions

- Water Supply
- Water Quality

## B. Drought Related Actions

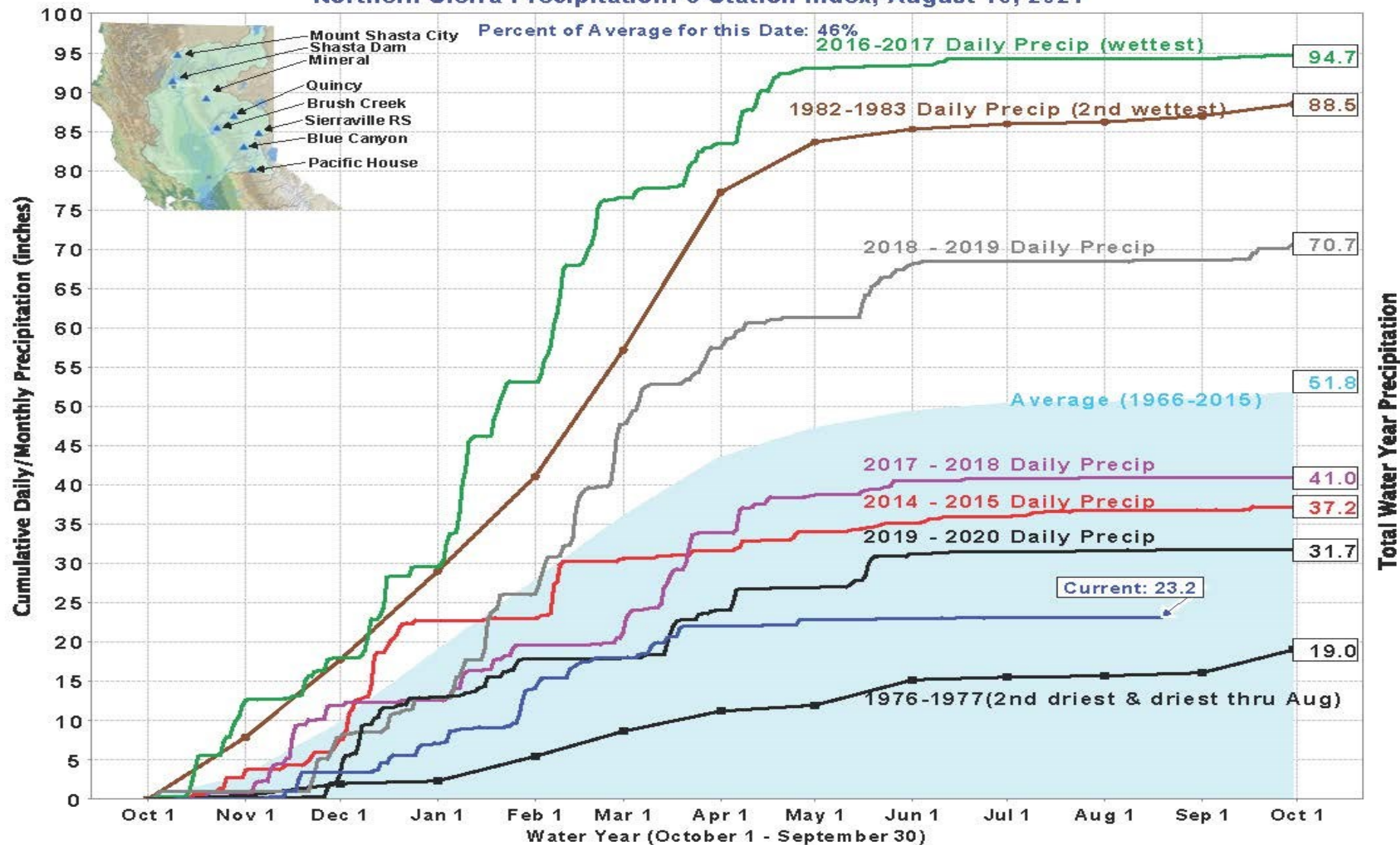
## C. 1981 Contract

- Criteria
- Current Conditions
- Exceedances at Rio Vista and Three Mile Slough
- Monitoring
- Drought Emergency Provisions (Art. 4(b)(i))
- Other

## D. Questions

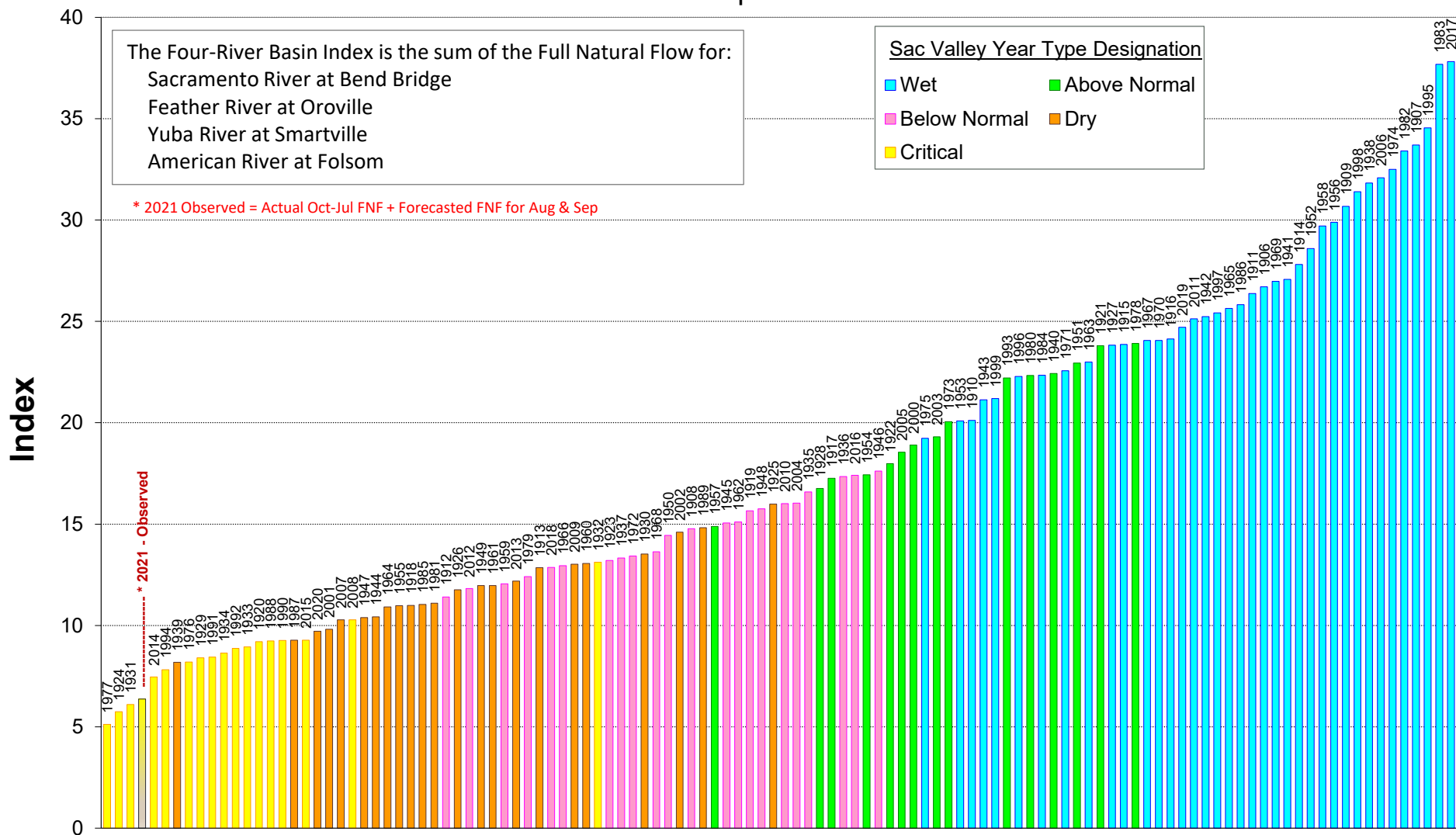
# Water Supply Conditions

Northern Sierra Precipitation: 8-Station Index, August 19, 2021



# Four-River Basin Index 1906-2021 Sorted

Based on Observed Unimpaired Runoff

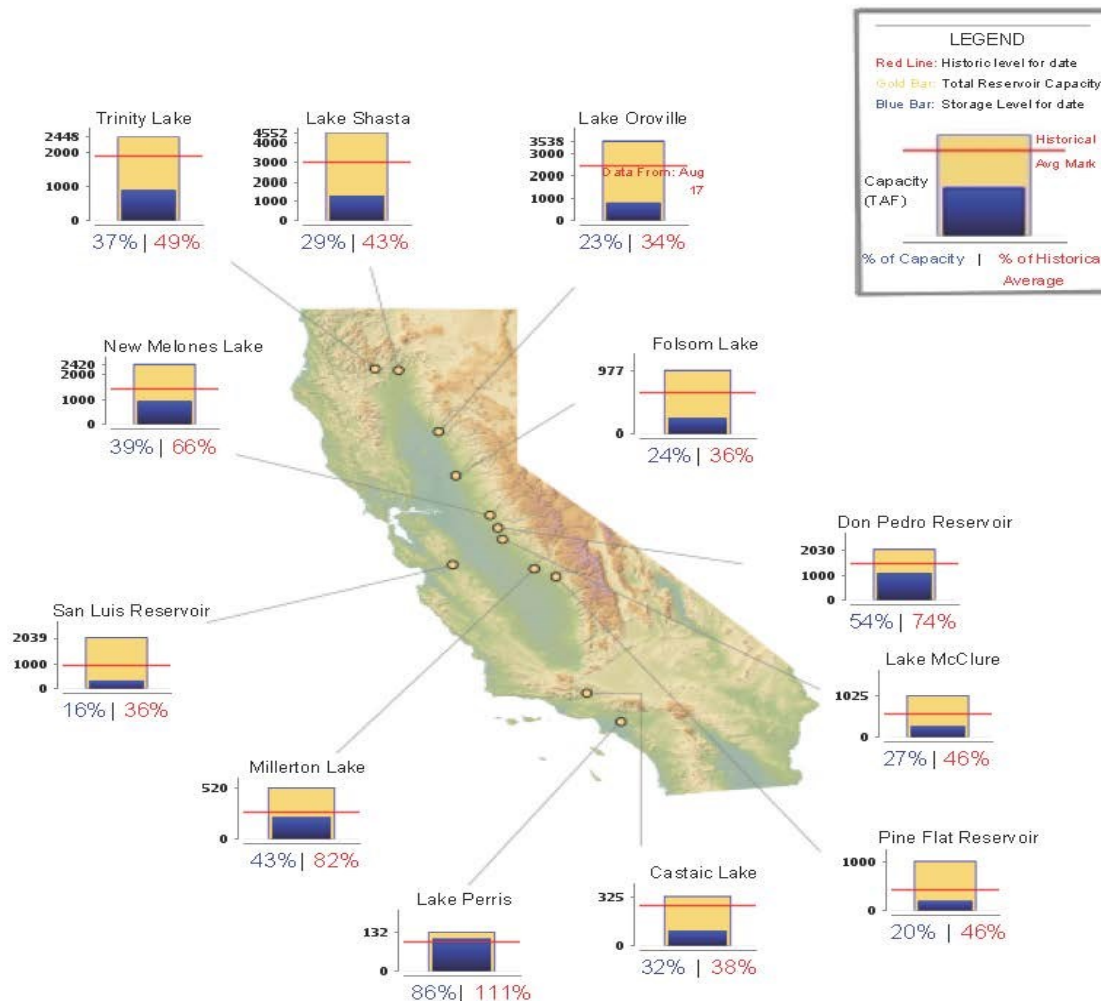




## CURRENT RESERVOIR CONDITIONS

### SELECTED WATER SUPPLY RESERVOIRS

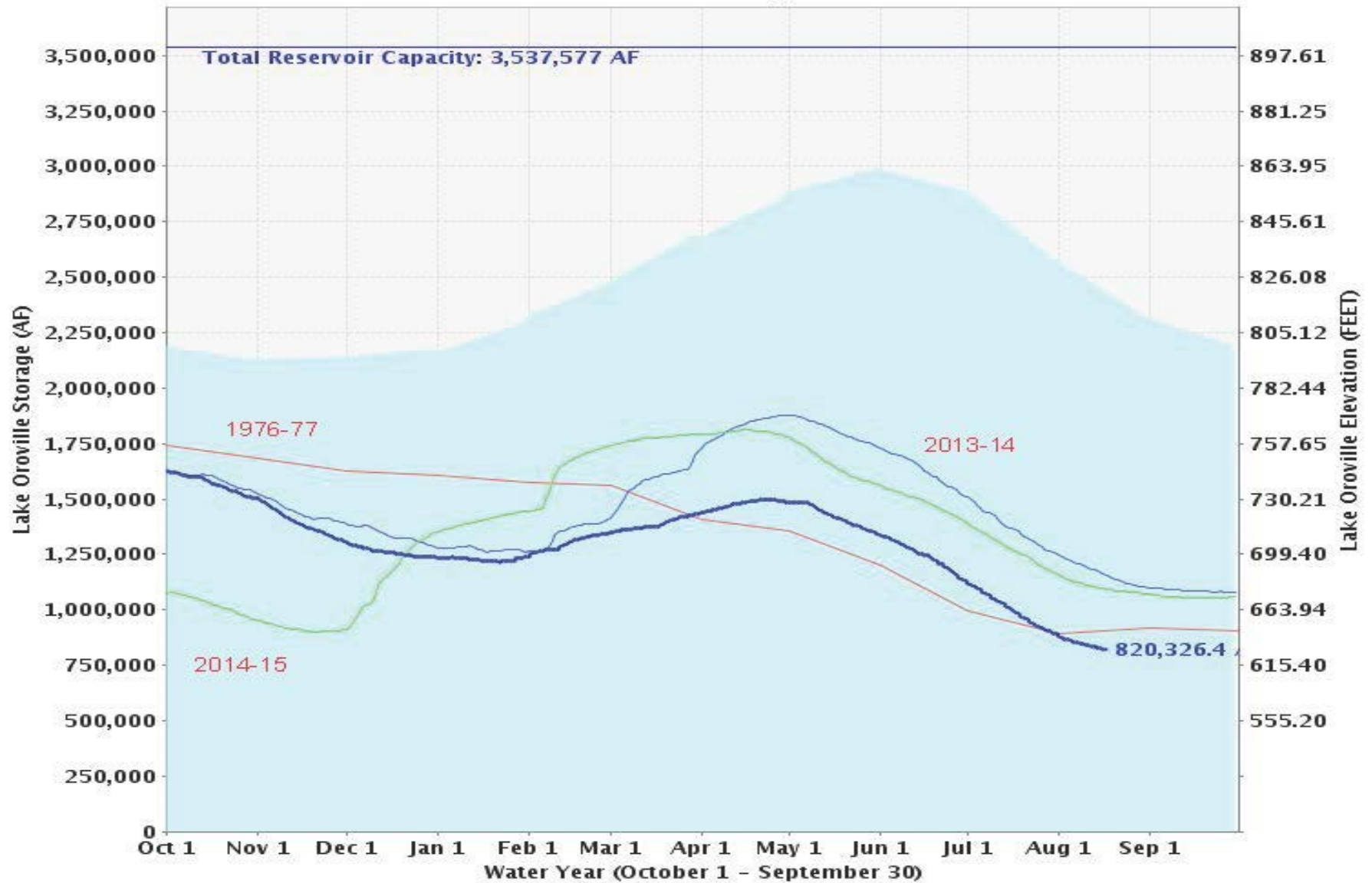
Midnight: August 18, 2021



Updated 08/19/2021 11:48 AM



## Lake Oroville Storage Levels



# Water Supply Conditions

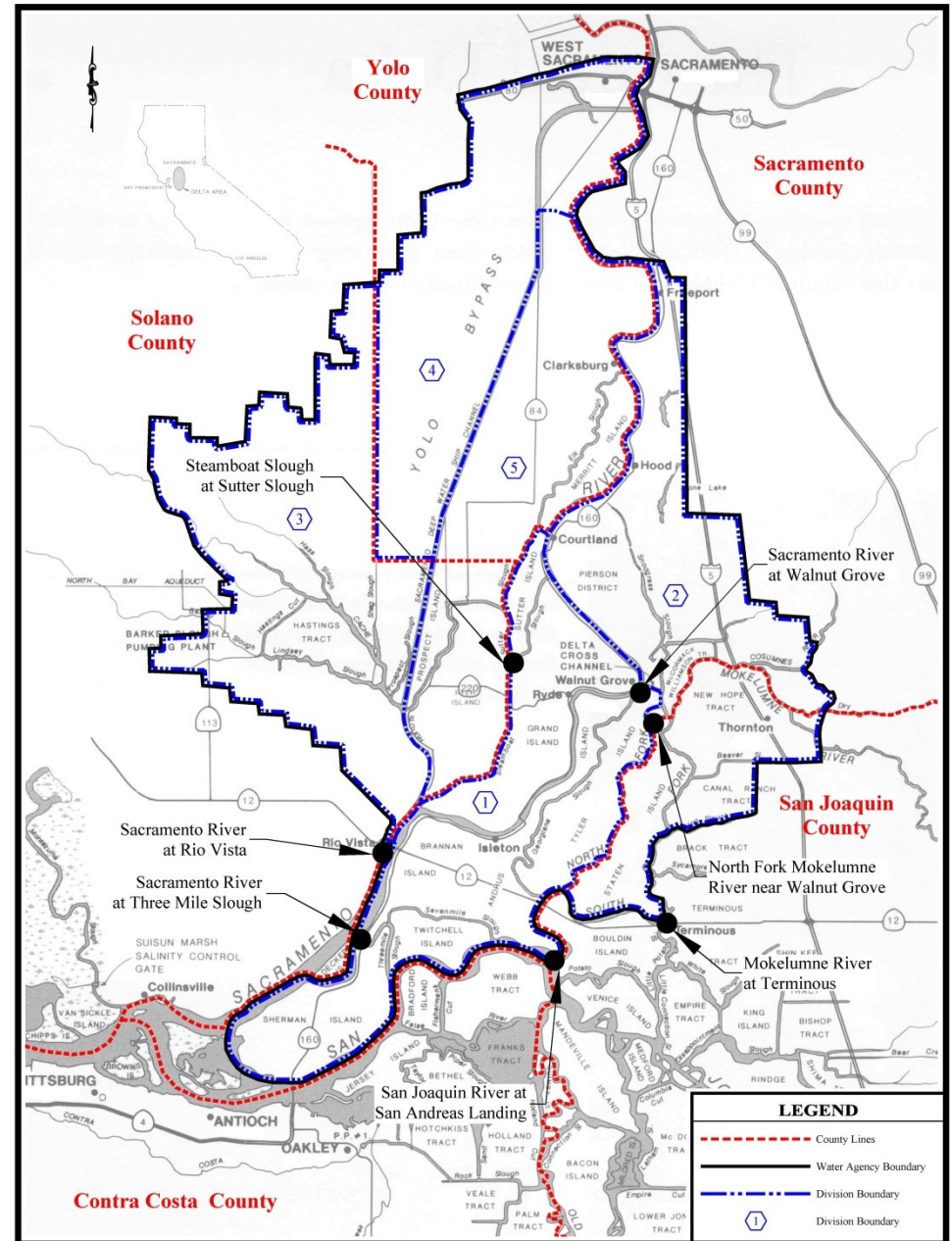
- State Water Project (SWP) Allocations
  - FRSA – 50% reduction per Agreements
  - 0% of Table A
- Central Valley Project (CVP) Allocations
  - Settlement Contractors – Shasta Critical Year (75%)
  - Discretionary Contracts
    - NOD AG = 0%                      SOD Ag = 0%
    - M&I = 25%

# Drought Related Actions

- March 22 – SWRCB sent warning notices to water right holders “prepare for drought impacts statewide”
- April 29 – SWRCB issued Term 91 Curtailments
- May 10 – Governor’s Drought Emergency Proclamation
- June 1 – SWRCB Issues Order approving TUCP
  - Allowed reduction in D-1641 Delta Outflow requirement
  - Allowed D-1641 salinity requirements to be moved to Three Mile Sl
- June 15 – SWRCB Issued Notices of Water Unavailability for the Delta Watershed
- August 3 – SWRCB Adopted Emergency Regulation
  - Authorizes Deputy Director of Division of Water Rights to issue Curtailment Orders
- August 20 – Curtailment Orders Issued to Water Right Holders in the Delta Watershed

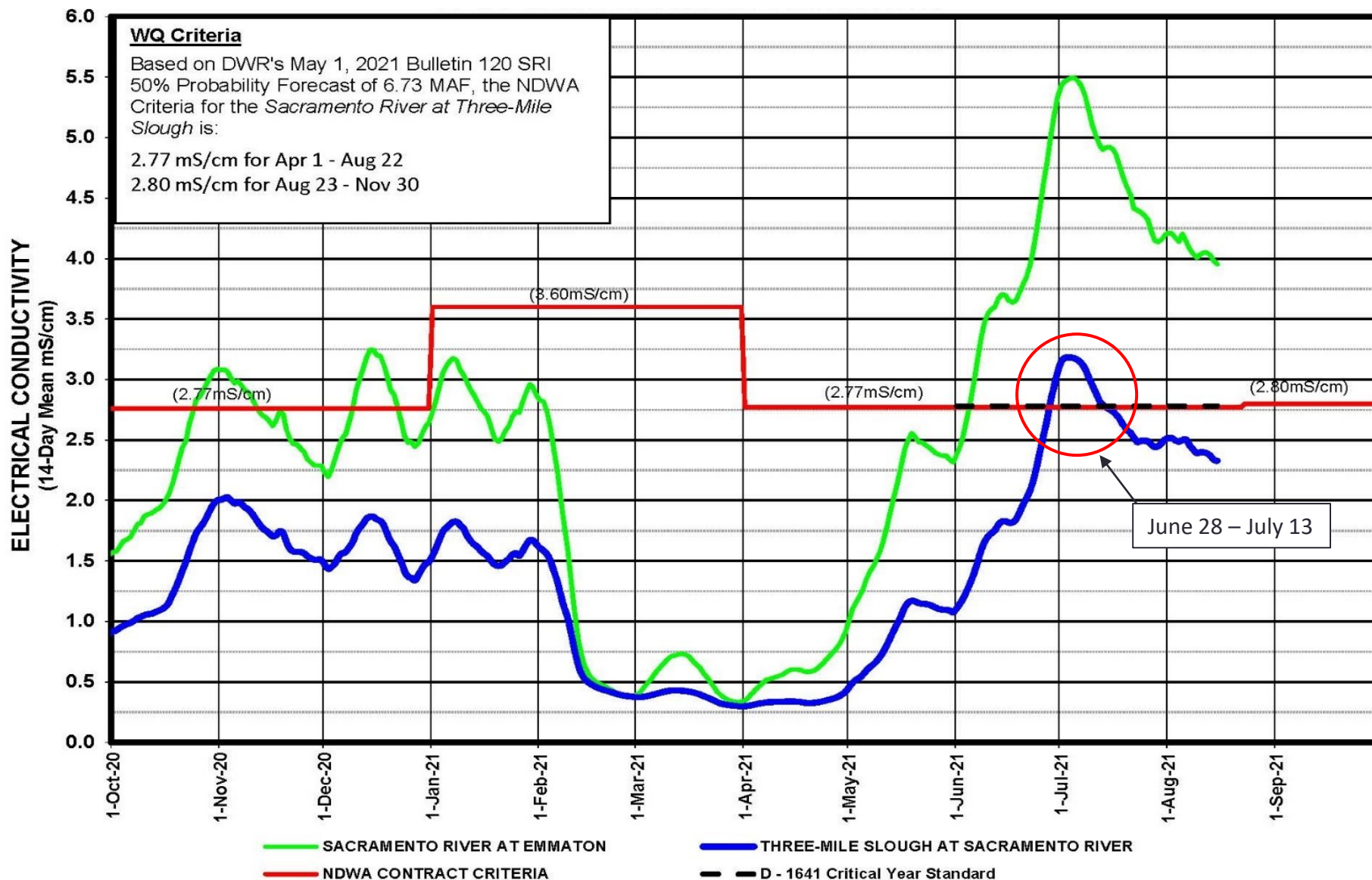


# NDWA Contract WQ Criteria Compliance Locations



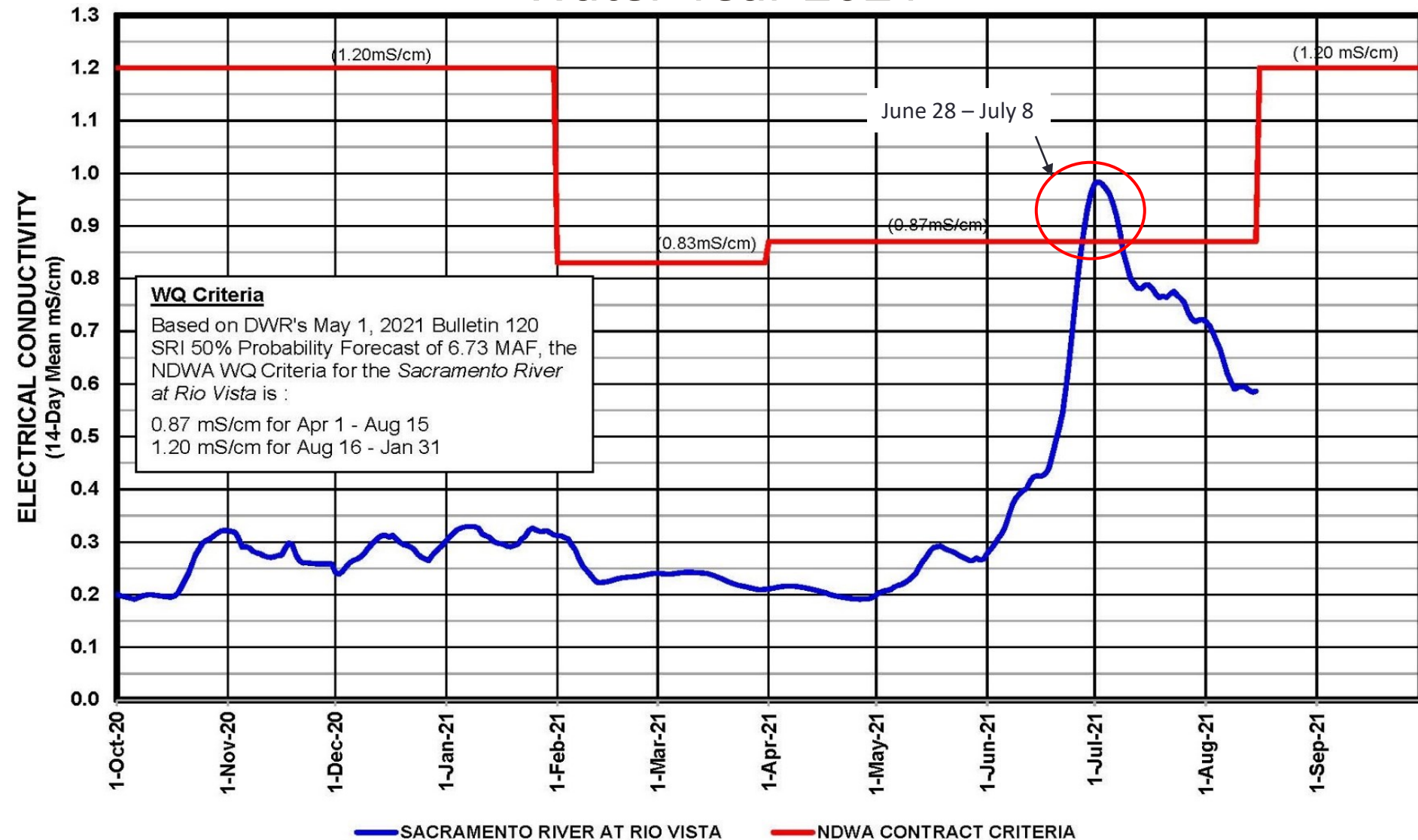
# Sacramento River at Three Mile Slough

## Water Year 2021



# Sacramento River at Rio Vista

## Water Year 2021



# Water Quality Monitoring

- NDWA Contract Criteria is based on 14-day mean electrical conductivity (EC)
- EC fluctuates with tides in the Delta
- Suggest conditions be monitored closely as levels rise



## → EMMATON (USBR) (EMM)

Elevation: 0' - DELTA basin - Operator: US Bureau of Reclamation

Query executed Monday at 11:17:15

Provisional data, subject to change.  
Select a sensor type for a plot of data.

## HOURLY DATA

Earlier

DATE / TIME PDT	EL COND uS/cm	EL CONDB uS/cm	TEMP W DEG F	BAT VOL VOLTS
04/26/2021 00:00	343	345	62.8	13.9
04/26/2021 01:00	433	435	62.6	13.9
04/26/2021 02:00	469	458	62.4	13.9
04/26/2021 03:00	1,450	1,650	62.2	13.9
04/26/2021 04:00	2,221	2,302	62.0	13.9
04/26/2021 05:00	2,752	2,893	61.8	13.9
04/26/2021 06:00	2,291	2,405	61.7	13.9
04/26/2021 07:00	1,449	1,502	61.8	13.9
04/26/2021 08:00	756	808	61.9	13.9
04/26/2021 09:00	687	733	61.9	13.8
04/26/2021 10:00	580	612	62.2	13.8
04/26/2021 11:00	--	--	--	--

Showing 1 to 12 of 12 entries

Copy

Excel

CSV

Print

PDF

Later | Latest

## 15 MINUTE DATA

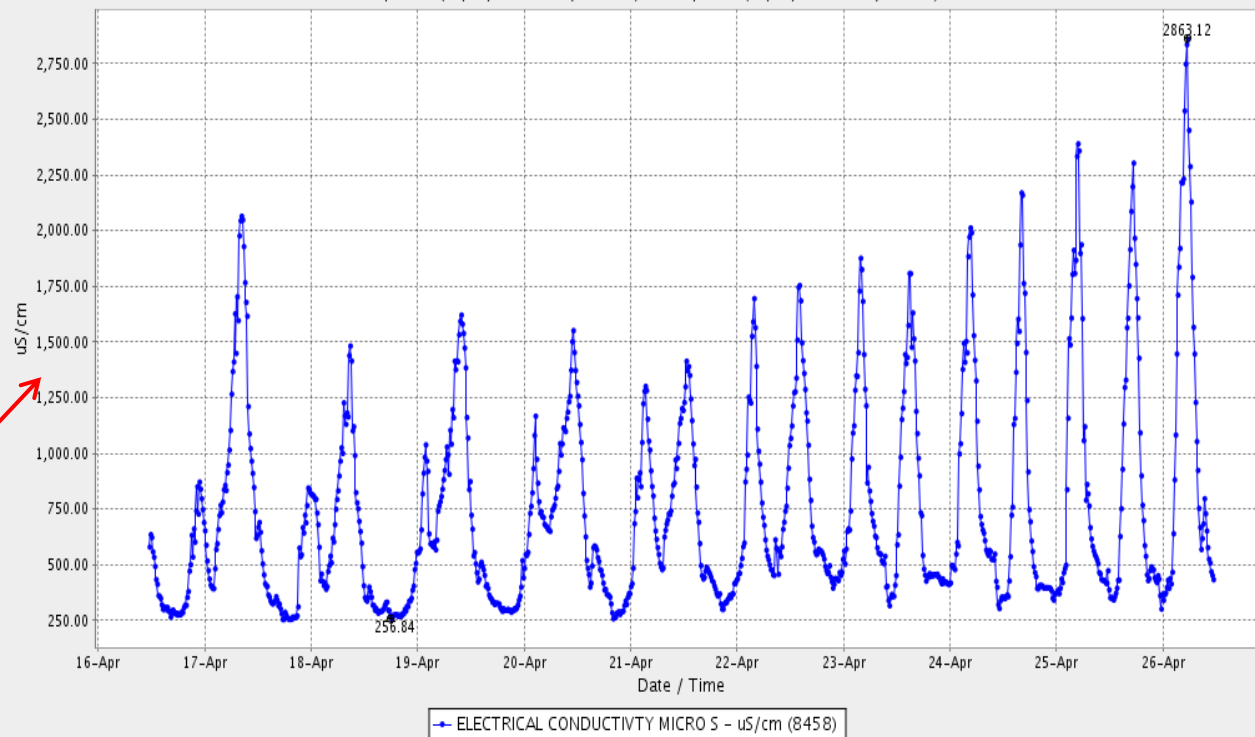
Earlier

DATE / TIME PDT	EL COND uS/cm	EL CONDB uS/cm
04/25/2021 23:30	304	316
04/25/2021 23:45	372	372
04/26/2021 00:00	343	345
04/26/2021 00:15	368	371
04/26/2021 00:30	376	376
04/26/2021 00:45	401	407
04/26/2021 01:00	433	435
04/26/2021 01:15	397	407
04/26/2021 01:30	441	444

## EMMATON (USBR) ( EMM )

Date from 04/16/2021 11:17 through 04/26/2021 11:17 Duration : 10 days

Max of period : (04/26/2021 05:30, 2863.12) Min of period : (04/18/2021 18:00, 256.84)



# Water Quality Monitoring

- Available water monitoring data
  - Water quality
  - Flow
  - Water elevation or Stage
  - Velocity
  - Other
- Data available through
  - California Data Exchange Center (CDEC)
    - <http://cdec.water.ca.gov/>
    - <http://cdec.water.ca.gov/queryQuick.html>
  - Water Data Library (WDL)
    - <http://www.water.ca.gov/waterdatalibrary/>
  - US Geological Survey (USGS)
    - [http://waterdata.usgs.gov/ca/nwis/current/?type=all&group\\_key=NONE](http://waterdata.usgs.gov/ca/nwis/current/?type=all&group_key=NONE)



# NDWA Contract

- Assures a dependable water supply of suitable quality
  - Protections from ocean salinity intrusion
  - Year round salinity standards at 7 locations
  - Supplements water rights during curtailment periods
- Other protections
  - Changes in natural flows, flow directions, and water surface elevations
  - Erosion and seepage
- Drought Emergency Provision – Article 4

# NDWA Contract

## Drought Emergency Provisions

- A drought emergency exists when all of the following occur:
  - The Four River Index is less than an average of 9.0 MAF in two consecutive years
  - Water Supplies for SWP agricultural contractors are less than 50% supply; or water supplies to all SWP Contractors are reduced by more than 15%
  - An SWRCB Emergency Regulation is in effect providing for SWP operations to maintain water quality different than provided under the NDWA Contract

# NDWA Contract

## Drought Emergency Provisions (cont.)

- Article 4(b)(iv) states that when a drought emergency exists and an alternative water supply is not available “a special contract claims procedure shall be established by the State” to expedite and facilitate the payment of such compensation for loss of net income for each acre which was:
  - Planted to a more salt-tolerant crop,
  - Not planted to any crop, or
  - Crops which had reduced yields

# NDWA Contract

## Drought Emergency Provisions (cont.)

- Special claims procedure requires significant records and information to be provided to the State including but not limited to:
  - Current year crop type, acreage, date planted, date harvested
  - Receipts/invoices
  - Yields
  - Timing and quantity of irrigations
  - Soil salinity data
  - Water quality data
  - 5-year crop history for fields involved
  - Crop insurance information

# NDWA Contract

## Drought Emergency Provisions (cont.)

- Claims procedure takes time
  - Claims submitted in 2015 took > 1-year to process and pay
  - Any disputes regarding claims settled through binding arbitration

# NDWA Contract

“This contract shall constitute the full and sole agreement between the State and the Agency as to (1) the quality of water which shall be in the Delta channels, and (2) the payment for the assurance given that water of such quality shall be in the Delta channels for reasonable and beneficial uses on lands within the Agency, and said diversions and uses shall not be disturbed or challenged by the State so long as this contract is in full force and effect.”



# NDWA Contract

“The State recognizes the right of the water users of the Agency to divert from the Delta channels for reasonable and beneficial uses for agricultural, municipal and industrial purposes on Lands within the Agency, and said diversions and uses shall not be disturbed or challenged by the State so long as this contract is in full force and effect, and the State shall furnish such water as may be required within the Agency to the extent not otherwise available under the water rights of water users.”

# Drought Planning for 2022

- Proposed Temporary Drought Barriers – Sutter and Steamboat Sloughs
- Delta Dry-Year Response Plan – Incentives for Voluntary Conservation
- Special Contract Claims Procedure

# Questions & Discussion

