

CALIFORNIA DEPARTMENT OF WATER RESOURCES

O&M South Delta Branch

Salinity Barriers Briefing, June 24, 2021



Jacob McQuirk, Chief

Agenda

- **Overview and Update: 2021 Salinity Barrier**
 - Drought Conditions and Emergency Proclamations
 - Need and Expected Benefits
 - 2021 Temporary Urgent Change Petition
 - 2021 Monitoring Plan
 - Current Long-Term Planning

- **Discussion**



Drought Conditions & Emergency Proclamations

State of emergency exists in a majority of California

Governor Newsom Emergency Proclamations

May 10, 2021, paragraph 4 & 8

- State Board should consider modifications to requirements to conserve upstream storage
- DWR to implement measures from April 21, 2021, paragraph 13

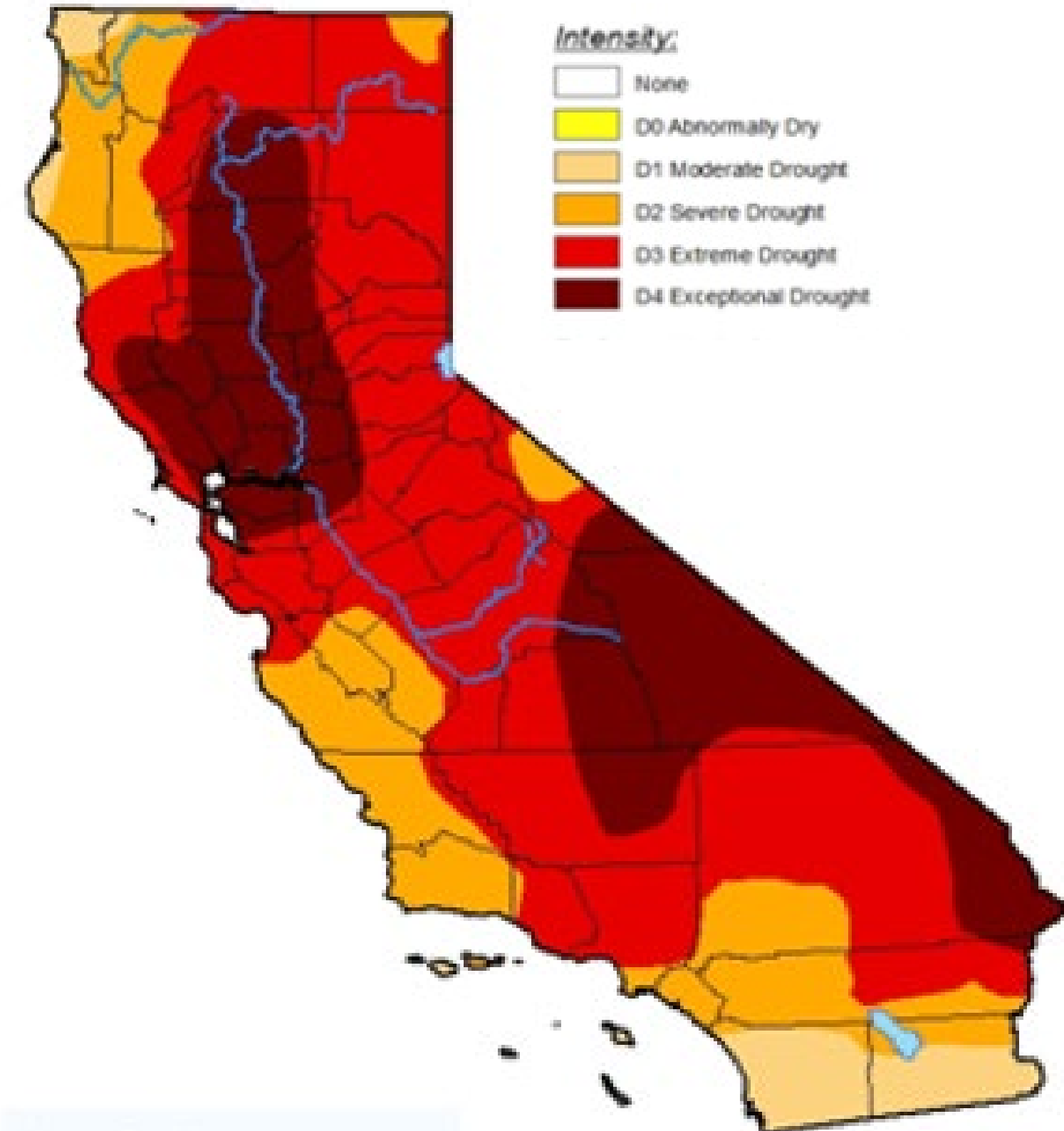
April 21, 2021, paragraph 13

- DWR to initiate and prepare measures to limit salinity intrusion into the Delta



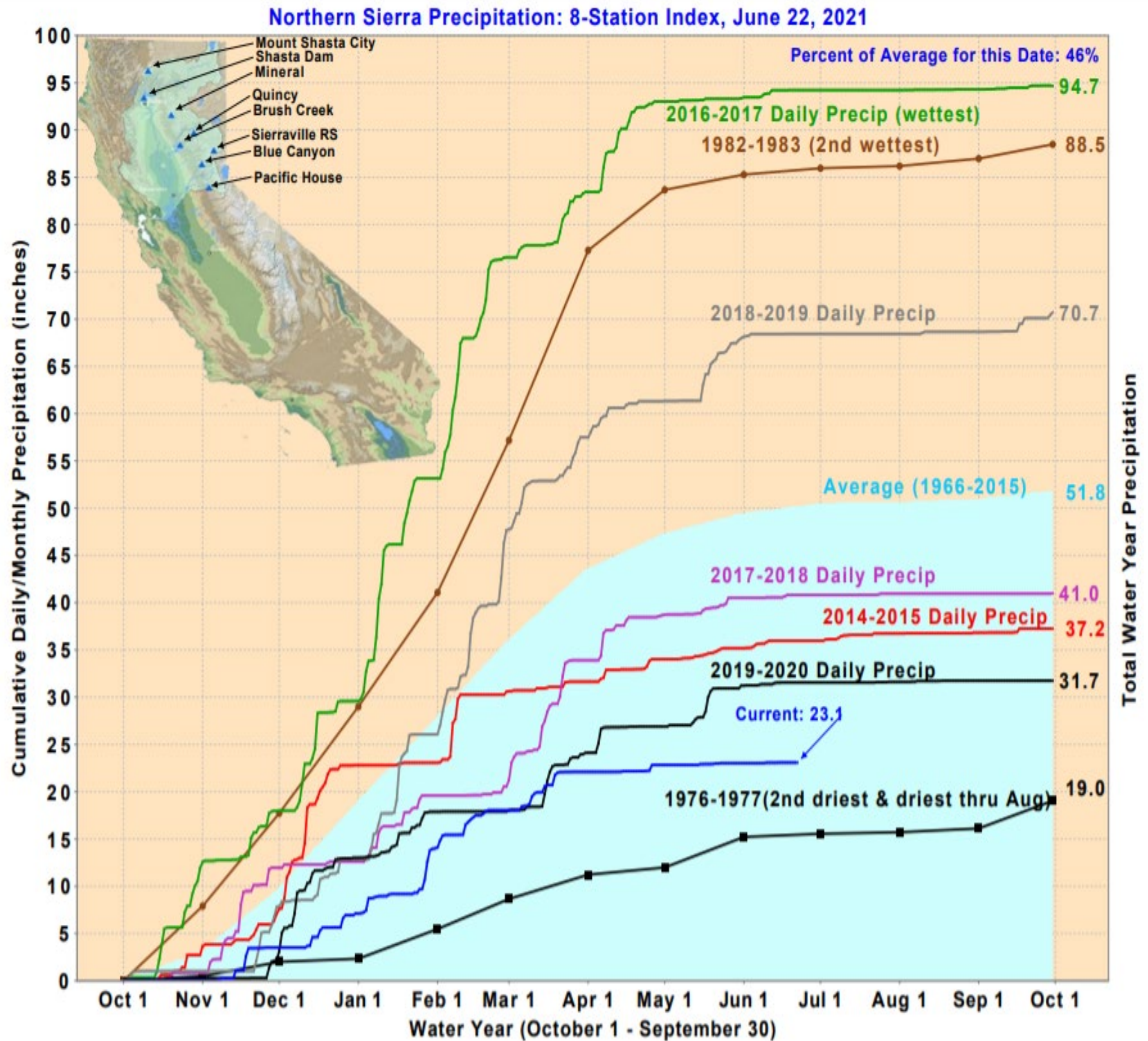
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U.S. Drought Monitor California



ular Snip

Northern Sierra Sierra Precipitation 8-Station Index



Need and Expected Benefits

- **Drought Contingency Plan**
 - Prepared by DWR and Reclamation (owners and operators of the SWP and CVP) to outline areas of potential concern given current dry hydrology
- **Temporary Urgency Change Petition (TUCP)**
 - Joint request from DWR and Reclamation to State Water Board to change water right requirements included in D-1641 to allow management of reservoir releases that conserves upstream storage for fish and wildlife protection and Delta salinity control while providing critical water supply needs
- **Drought Barrier Installation**
 - Allows the SWP and CVP to operate with reduced Delta outflow, as approved by temporary urgency change orders issued by State Water Board, while controlling water quality in the central Delta

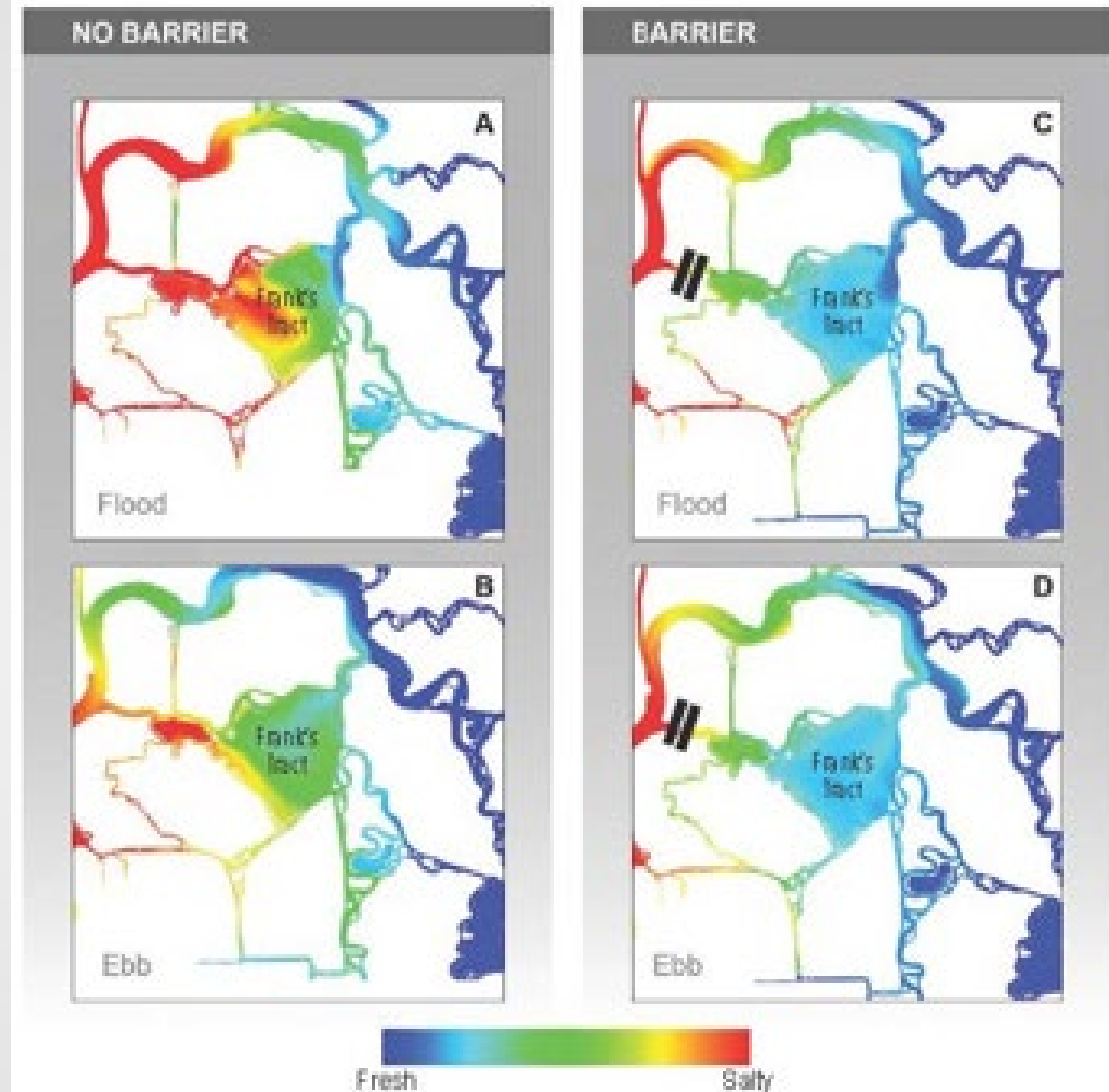


Figure 1-1
Conceptual Illustration of Salinity Near Franks Tract (Center) On Flood and Ebb Tide
for No Barrier and a West False River Barrier, Based on the Bay-Delta
SCHISM Model for a Low Net Delta Outflow Index Forecast



2021 TUCP Timeline & Summary

- June 1, 2021 – State Water Board Order issued to DWR (public comment accepted on TUCP until June 4)
- May 17, 2021 – Temporary Urgency Change Petition filed

Table 1. Reductions in Flows and Water Supply/Storage Savings Under the TUCP Order June Through August*

D-1641 Requirements	June	July	August 1-15
Delta Outflows (cfs)	4,000	4,000	3,000
Salinity Compliance Location	Emmaton	Emmaton	Emmaton
TUCP Requirements (cfs)	June	July	August
Delta Outflows	3,000	3,000	3,000
Salinity Compliance Location	Threemile Sl.	Threemile Sl.	Threemile Sl.
Maximum Savings (TAF)	June	July	August
Delta Outflows	59.4	61.4	0*
Expected Savings (TAF)	June	July	August
Delta Outflows*	50.5	30.7	0*
Total Expected Savings	50.5	30.7	0*

*Notes: Expected savings of Delta outflow are based on computed outflow reported in Appendix 3 of the TUCP. This includes June outflow of 3,150 cfs, July outflow of 3,500 cfs, and August outflow of 3,000 cfs. Appendix 3 does not identify water saving from changes to salinity requirements in August; however, it is not clear that this is actually the case.



2021 TUCP Language

- Change minimum Delta outflow objective (NDOI) in **June and July from 4,000 cfs to 3,000 cfs**. June measured as a 14-day running average, and July measured as a monthly average. The 7-day running average shall be no less than 1,000 cfs below 3,000 cfs;
- Change Western Delta agricultural salinity objective compliance location on the **Sacramento River at Emmaton to Threemile Slough on the Sacramento River**;
- Combined maximum exports at SWP Banks Pumping Plant and the CVP Jones Pumping Plant, excluding transfers, **shall be limited to pumping no greater than 1,500 cfs**, as a 3-day running average. Combined exports may be increased above 1,500 cfs when in full compliance with D-1641 Delta outflow and Sacramento River at Emmaton salinity requirements, **but exports other than transfers shall be limited to natural and abandoned flow.**

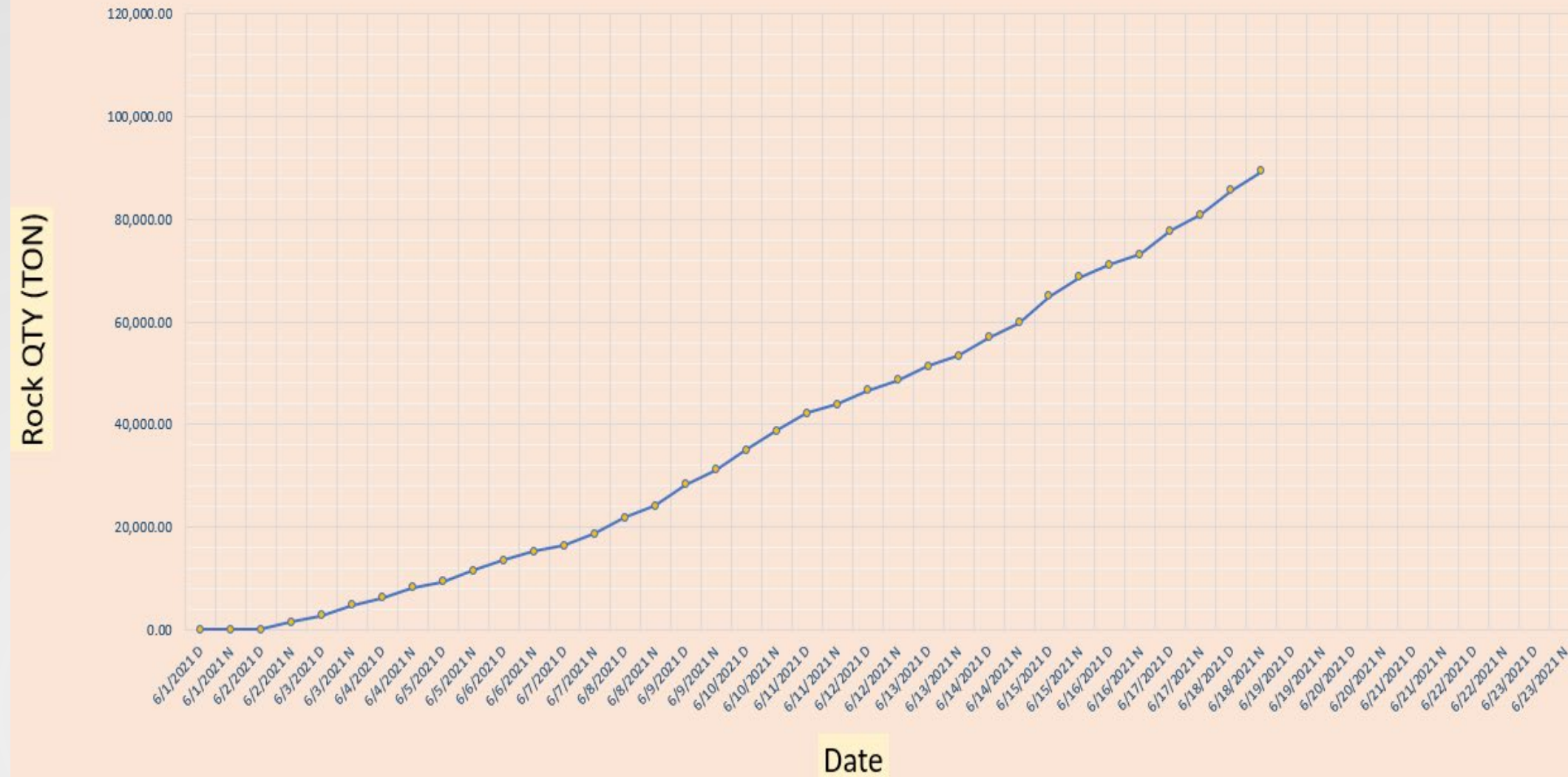


2021 Drought Barrier Timeline & Production

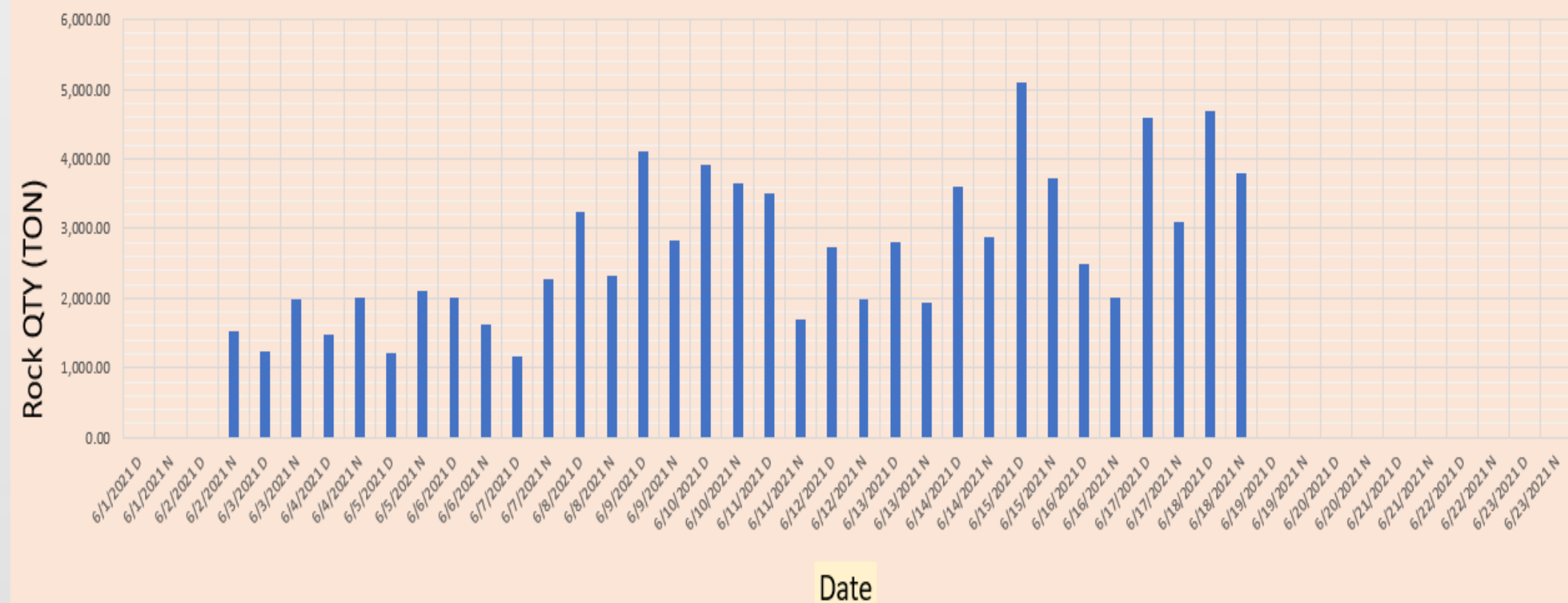
- June 3, 2021 – Barrier construction begins
- June 18, 2021 – West False River channel closure
- June 23, 2021 – Barrier construction complete



21-07: Estimated Cumulative Production for Rock Installation



21-07: Estimated Daily Production for Rock Installation



2021 Monitoring Plan

- TUCP and barrier – separate authorizations, overlapping benefits

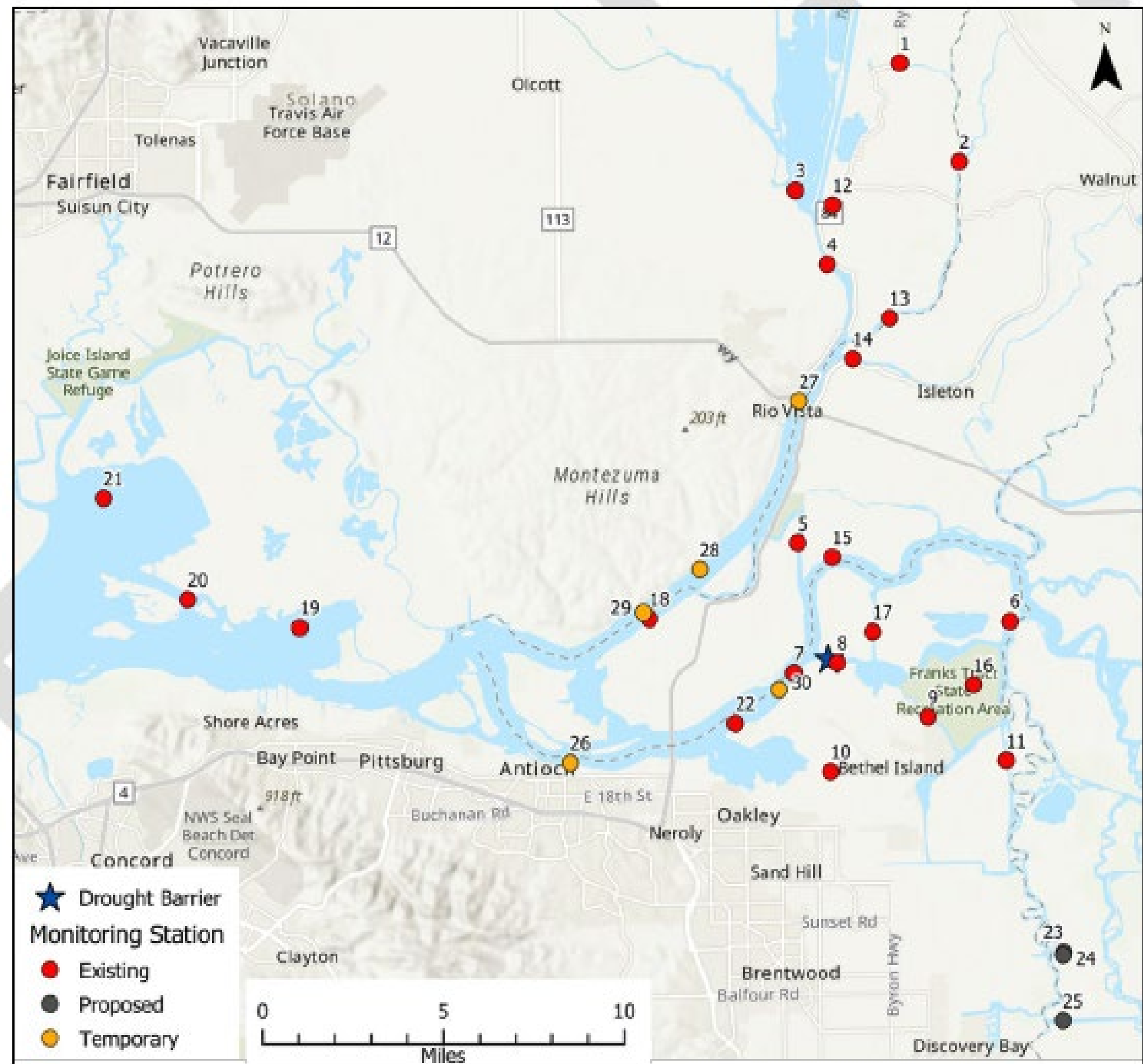


Figure 4
Existing and Proposed Water Quality Monitoring Stations and Temporary Monitoring Locations



2021 Monitoring Plan

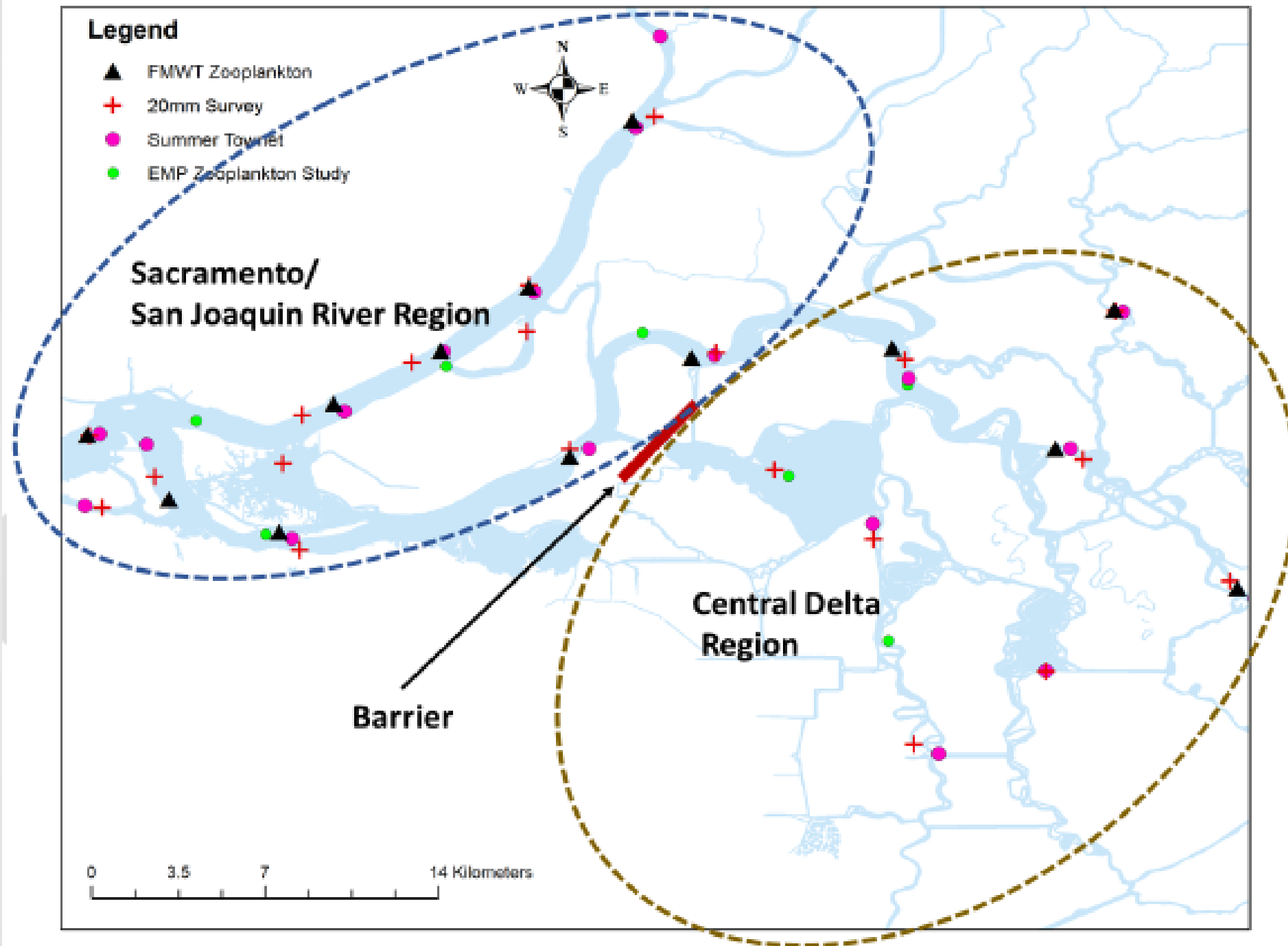


Figure 5

Interagency Ecological Program Zooplankton Sampling Stations in the Delta
Fall Midwater Trawl (FMWT) zooplankton are collected monthly, Sept-December, 20mm area collected twice per month, March-June, Summer Townet samples are collected twice per month June-August, and Environmental Monitoring Program (EMP) samples are collected once per month year round. The two regions used for comparisons are circled.



2021 Monitoring Plan

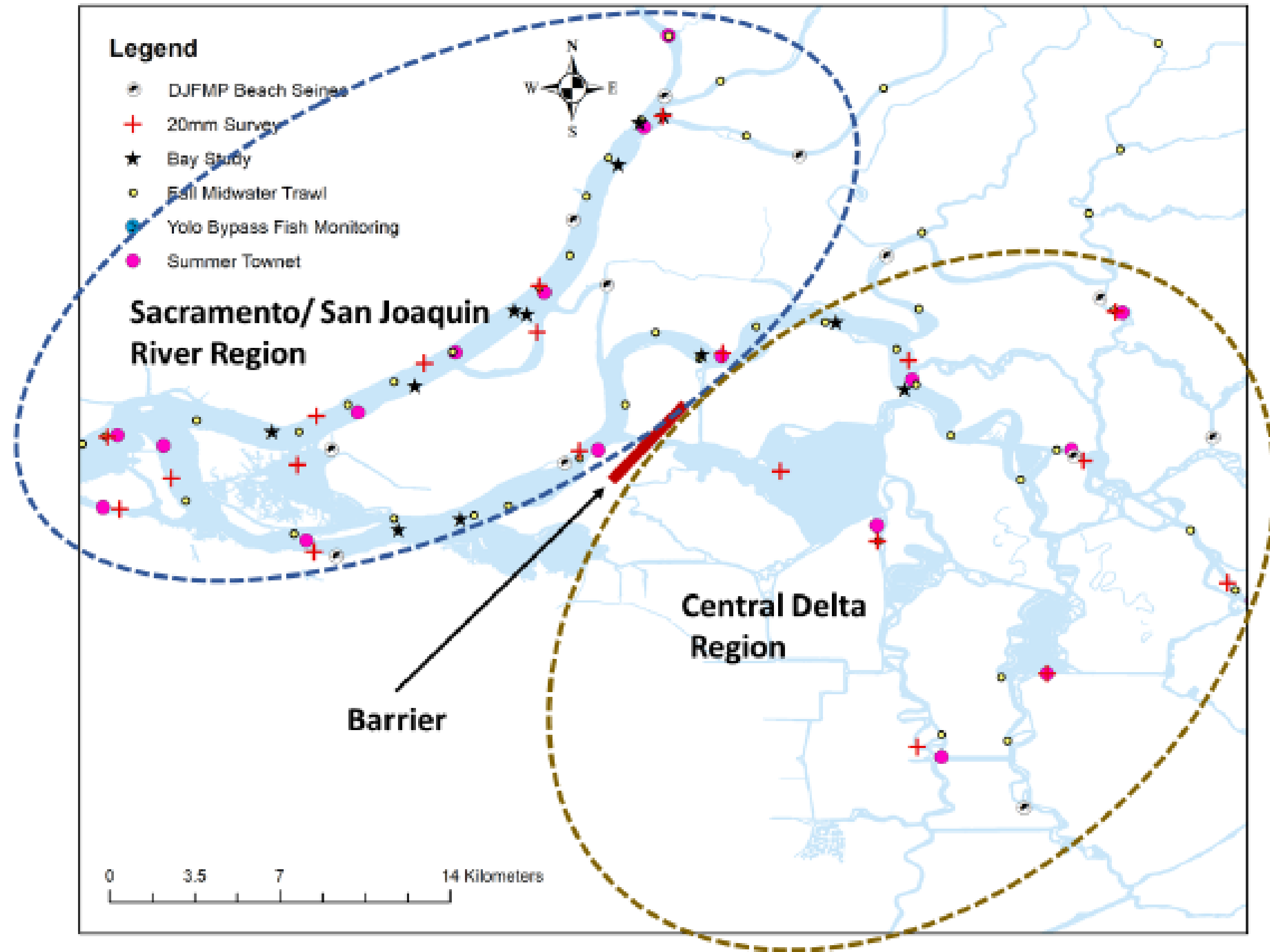


Figure 6
Interagency Ecological Program Fish Sampling Stations in the Delta
The Enhanced Delta Smelt Monitoring Survey does not have fixed sites, so is not shown here.
The two regions used for comparisons are circled.



Current Long-Term Planning

- Acquire 10-year standard permits for a WFR barrier installation twice within the permit timeframe.
 - Permit expected to be in place by spring 2022
 - Completed AB52 Tribal consultation April 2021
 - Circulate CEQA document and submit permit apps summer 2021
 - Flexible permit terms without the need for multiple applications
- Develop scoping report outlining strategy for northern barrier(s) in conjunction with WFR barrier
 - Work to begin ASAP with stakeholder involvement
 - Soonest install 2022 under extreme drought conditions
- Outreach efforts
 - Delta Stewardship Council involvement – Delta Plan consistency determination
 - USGS and IEP collaboration
 - State Water Board coordination
 - Public participation – communication and outreach



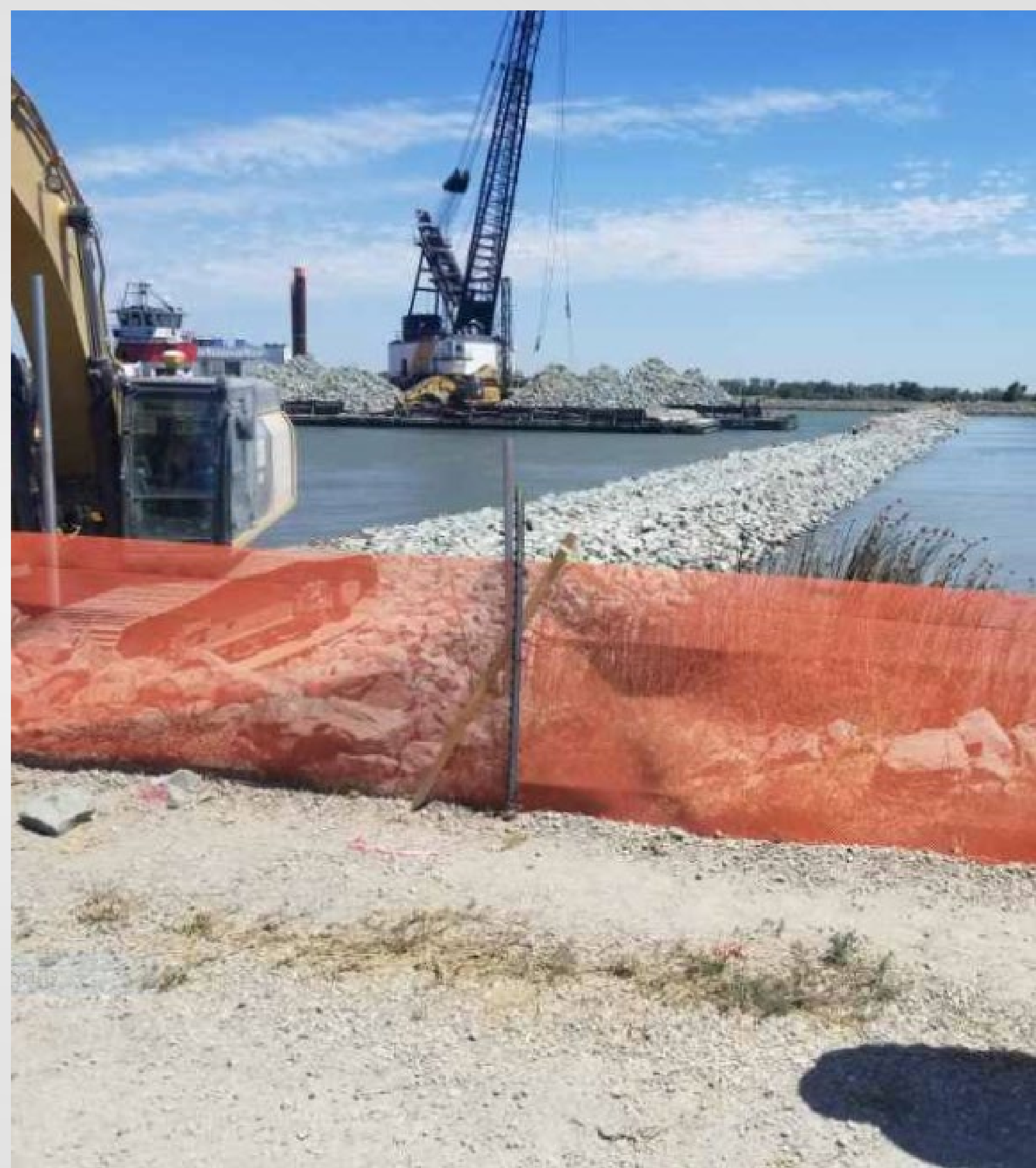
2021 Emergency Drought Barrier



Q&A and Discussion

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