Bay-Delta & WaterFix Update

Regional Water Authority Board of Directors November 8, 2018

Ryan Bezerra



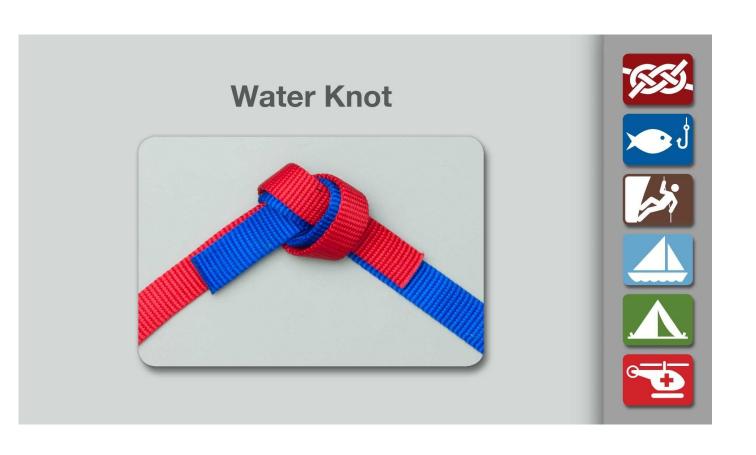
The Sacramento-San Joaquin Delta Sacramento and San Joaquin Rivers Delta waterways and other rivers -- Suisun Marsh Legal Delta boundary (as per 1959 Delta Protection Act) Dry Creek MOKELUMNE R Lodi e Harvey O. Banks -

It's Complicated





State Board Delta Proceedings



- Bay-Delta Water
 Quality Control
 Plan
 - San Joaquin Basin Amendments
 - Sacramento/Delta Basin Proceeding
- California WaterFix
 - State Board Hearing

Bay-Delta — San Joaquin Basin

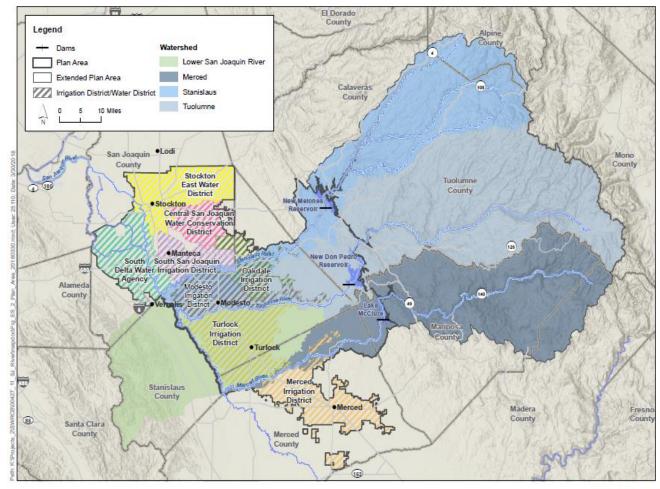


Figure ES-2 Plan Area

New flow standards to support salmon

- 40% of unimpaired runoff as minimum flows in Merced, Tuolumne & Stanislaus Rivers
- Later rules on carryover reservoir storage so no harm to salmon
- Stakeholder groups/SWRCB involved in ongoing management

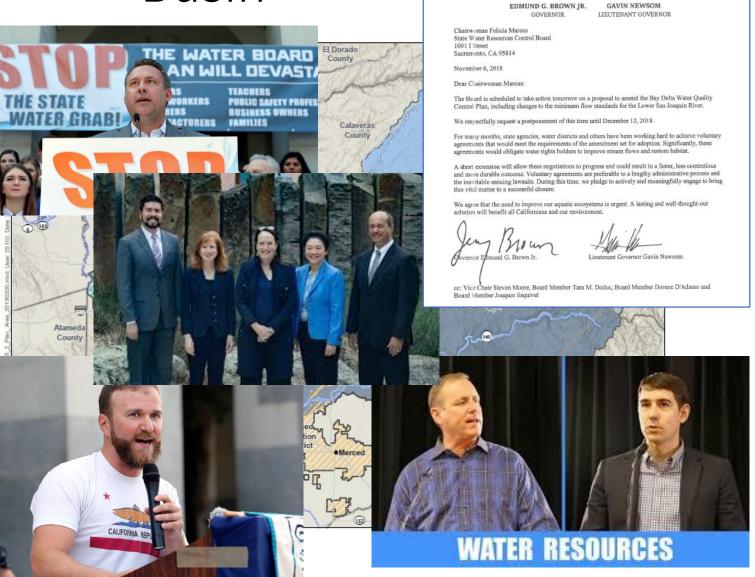
Basis of new standards

- 2010 State Board report fish need more water on an unimpaired flow patterns – 60% in San Joaquin basin
- Standards at 40% to "balance" fish and other needs

Effects of new standards

- More groundwater pumping in overdrafted basins
- Reduced agricultural acreage
- Reduced hydroelectric generation
- Significant impacts on Bay-Area water supplies

San Joaquin Basin



Very political

- Issue in congressional campaign
- Dueling Capitol rallies
- SFPUC opposes, SF Board of Supervisors supports, SF Mayor vetoes

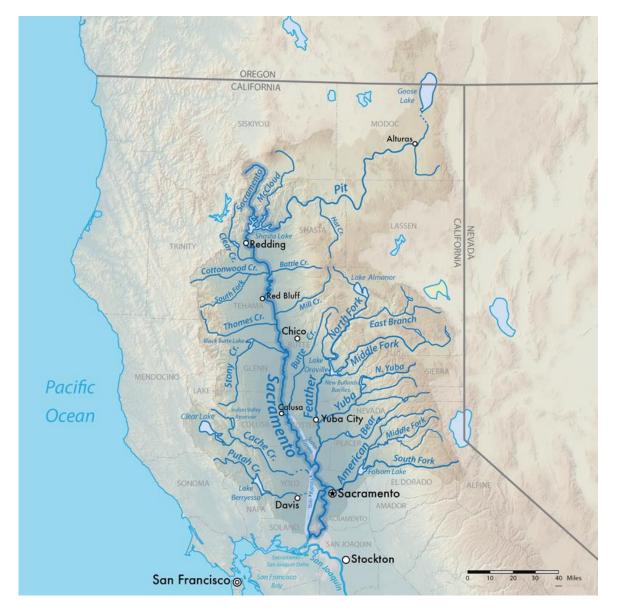
State Board

- Approval was set for Nov. 7
- Nov. 6 letter from Governor & Governor-Elect
- Nov. 7 3-0 vote to extend to December, 2 abstentions

What happens next?

- Intense settlement negotiations?
- Litigation almost immediately on adoption – including by US?
- US EPA consideration?

Sacramento/Delta Basin



State Board July 6, 2018 framework's upstream proposals

Sacramento/Delta Inflow Objectives

The proposed objective is as follows:

Maintain inflow conditions from the Sacramento River/Delta tributaries sufficient to support and maintain the natural production of viable native fish populations and to contribute to Delta outflows. Inflow conditions that reasonably contribute toward maintaining viable native fish populations include, but may not be limited to, flows that more closely mimic the natural hydrographic conditions to which native fish species are adapted, including the relative magnitude, duration, timing, quality and spatial extent of flows as they would naturally occur.

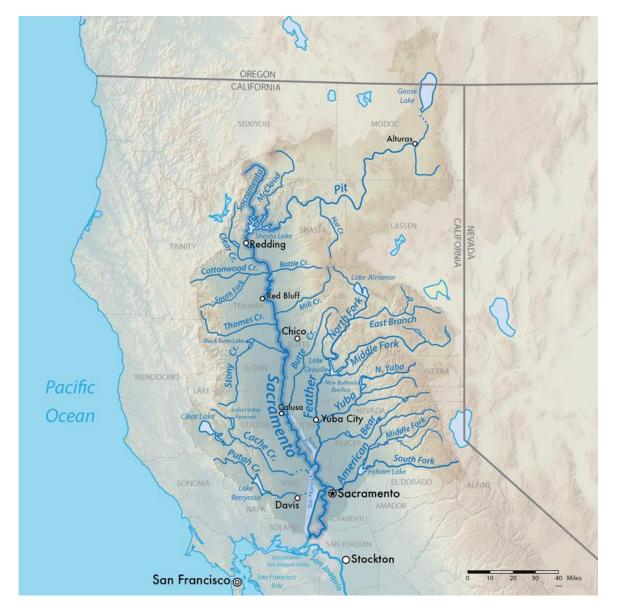
Maintain inflows from the Sacramento/Delta tributaries at 55% of unimpaired flow, within an allowed adaptive range between 45 and 65% of unimpaired flow.

Cold Water Habitat Objective

The proposed narrative objective is as follows:

Maintain stream flows and reservoir storage conditions on Sacramento River/Delta tributaries to protect cold water habitat for sensitive native fish species, including Chinook salmon, steelhead, and sturgeon. Cold water habitat conditions to be protected include maintaining sufficient quantities of habitat with suitable temperatures on streams to support passage, holding, spawning, incubation, and rearing while preventing stranding and dewatering due to flow fluctuations.

Sacramento/Delta Basin



State Board July 6, 2018 framework's Delta proposals

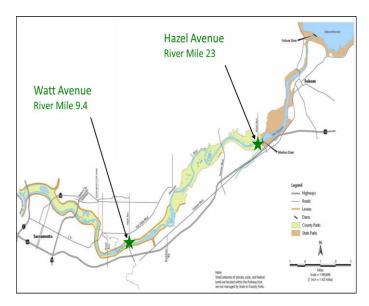
Narrative Delta Outflow Objective

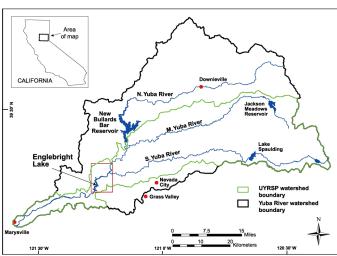
Maintain Delta outflows sufficient to support and maintain the natural production of viable native anadromous fish, estuarine fish, and aquatic species populations rearing in or migrating through the Bay-Delta estuary. Delta outflows that reasonably contributes toward maintaining viable native fish and aquatic species populations include, but may not be limited to, flows that connect low salinity pelagic waters to productive tidal wetlands and flows that produce salinity distributions that more closely mimic the natural hydrographic conditions to which these species are adapted, including the relative magnitude, duration, timing, quality and spatial extent of flows as they would naturally occur. Indicators of viability include population abundance, spatial extent, distribution, productivity and genetic and life history diversity. Viability is dependent on maintaining migratory pathways, sufficient quantities of high quality spawning and rearing habitat, and a productive food web.

Inflow-Based Delta Outflow Objective

The inflows required above, including for the Sacramento/Delta tributaries and San Joaquin River are required as outflows with adjustments for downstream natural depletions and accretions.

Sacramento/Delta Basin





July 2018 framework's proposed implementation program

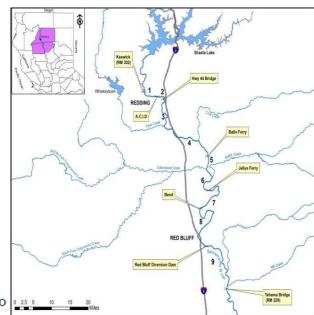
Implementation Options

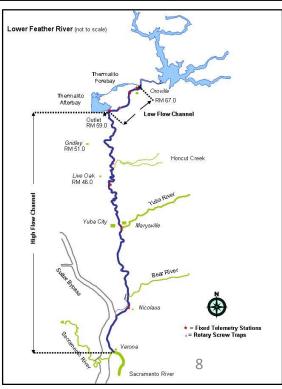
Voluntary Agreements Facilitated by Other State Agencies

At a minimum, to be considered by the State Water Board, voluntary agreements would need to include provisions for transparency and accountability, monitoring and reporting, and for planning, adaptive management, and periodic evaluation. Voluntary agreements would also need to be supported by DFW. In evaluating any proposal, the Board will need to make an independent finding to determine whether the agreement will be enforceable and will contribute to achieving the water quality objectives and protection of fish and wildlife beneficial uses.

Default Implementation

The hearing for D-1641, implementing the latest major revisions to the Bay-Delta Plan, took several years to complete. Because agreements were largely reached on implementation activities, those hearings were much shorter than they would have been otherwise and implementation occurred sooner than it would have otherwise. An all-encompassing, comprehensive adjudicative hearing may not be the most effective or efficient procedure for implementation of Bay-Delta Plan updates. Alternatives exist; for example, the Board may structure a set of smaller hearings for each tributary. The Board may also consider rulemaking to impose some of the approaches listed above that are applicable across a broad group of water users (such as Term 917), or impose a regulation with the opportunity for a hearing for those who object for specific reasons or otherwise require an individual investigation into a specific water right. The State Water Board will determine specific implementation provisions at a later date and will provide opportunity for public review and comment on the proposal.

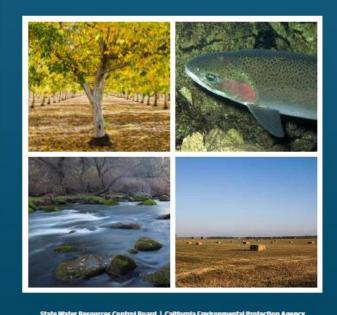




FINAL

Substitute Environmental Document in Support of Potential Changes to the Water Quality Control Plan for the San Francisco Bay-Sacramento San Joaquin Delta Estuary

San Joaquin River Flows and Southern Delta Water Quality





Sacramento/Delta Basin - Next Steps

November-December 2018

- Settlement negotiations with Governor/Governor-Elect combined with San Joaquin negotiations?
- State Board releases <u>draft</u> staff report/SED for <u>draft</u> Sacramento/Delta standards?
- Based on SacWAM modeling brand-new model

January 2019

- State Board chair Felicia Marcus's term ends reappointed???
- New appointment to fill empty seat???

Spring-summer 2019???

Comments on draft staff report/SED due

Fall 2019-winter 2020???

State Board adopts new Sacramento/Delta standards

Winter 2020-???

Implementation negotiations and measures

• Winter 2020-∞

Litigation

California WaterFix

California WaterFix - Generally

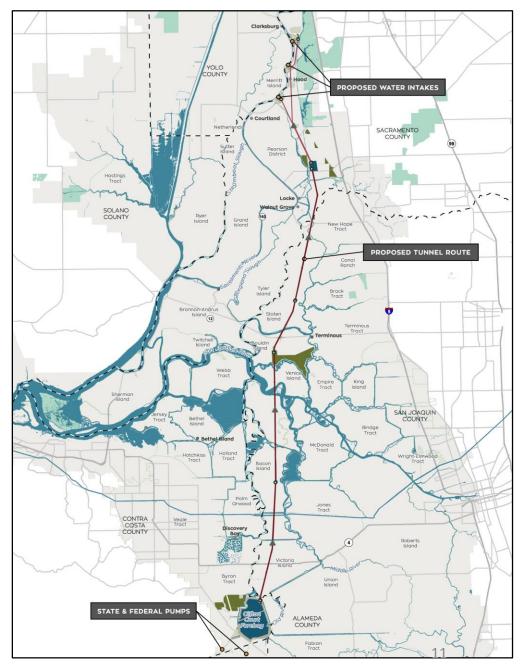
- Delta tunnels to convey water from Sac. River water to south Delta export pumps
 - 3 diversions
 - 2 35-foot tunnels
 - 9,000-cfs total capacity

Goals

- Restore SWP/CVP capacity to divert winter flows
- Move more water from upstream storage?
- More natural flow pattern through Delta

Status aside from State Board hearing

- EIR certified, supplemental EIR this fall litigation ongoing
- Most state/federal permits granted
- Uncertain capacity allocation and cost split between SWP and CVP



State Board Hearing

Three years so far

- 106 hearing days
- 1000's of exhibits
- At least 1 production baby





State Water Resources Control Board

NOTICE OF PETITION

REQUESTING CHANGES IN WATER RIGHTS OF THE DEPARTMENT OF WATER RESOURCES AND U.S. BUREAU OF RECLAMATION FOR THE CALLED BURILD WATER BY PROJECT!

ANI

NOTICE OF PUBLIC HEARING AND PRE-HEARING CONFERENCE TO CONSIDER THE ABOVE PETITION

A Pre-hearing Conference will commence on Thursday, January 28, 2016 at 9:00 a.m. and continue, if necessary, on Friday, January 29, 2016

Joe Serna Jr.-CalEPA Building, Byron Sher Auditorium 1001 I Street, Second Floor, Sacramento, CA

PAR

of this Hearing will commence on Thursday, April 7, 2016 at 9:00 a.m.

Joe Serna Jr.-CalEPA Building, Byron Sher Auditorium 1001 | Street, Second Floor, Sacramento, CA and continue, as necessary, as indicated on the dates and at the locations shown on Enclosure A

PART II

DWR - 1008

DWR/Reclamation position

- No possibility of injury to other water users will use "real time operations" to avoid that
- No possibility of unreasonable impacts to fish and wildlife – will develop measures to avoid between now and operation and also adaptively manage

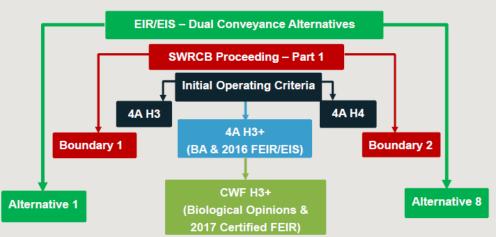
DWR/Reclamation modeling of operations

- EIR certified, supplemental EIR this fall
- Most state/federal permits granted
- Uncertain capacity allocation between SWP and CVP

RANGE OF ALTERNATIVES IN PARTS 1 AND 2

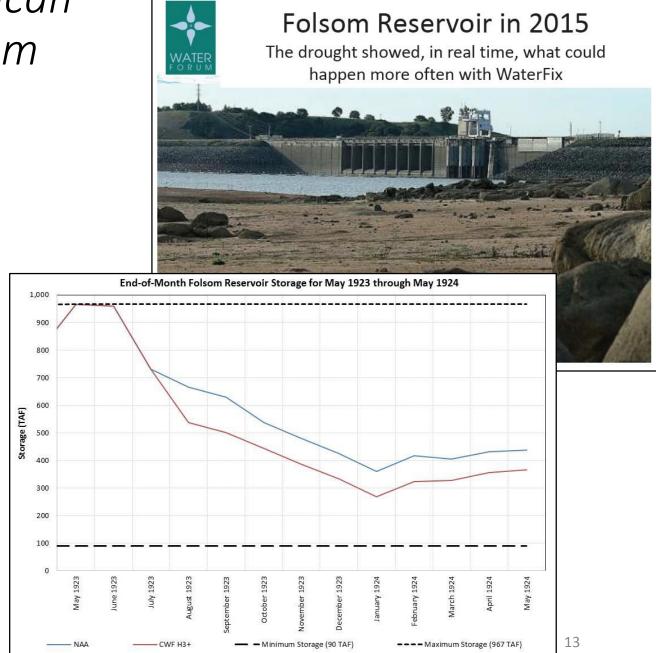
Similar to Existing Delta Outflow Requirements

Higher Delta Outflow Requirements



State Board Hearing — American River Agencies/Water Forum

- WaterFix would worsen existing dry-year risks at Folsom and in the river
 - More drawdown in modeled dry years
 - Modeling shows severe temperatures in river
 - DWR/Reclamation modeling underestimates impacts
- Proposal Modified Flow Management Standard as conditions on project
 - Minimum carryover storage requirement 300,000 AF in most years; 230,000 AF in very dry years
 - Minimum river flows
 - Temperature management program



State Board Hearing – American River/Water Forum Position

Steelhead Juvenile Rearing

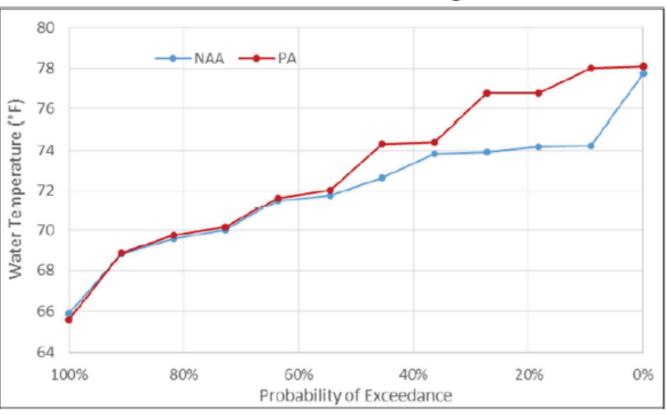
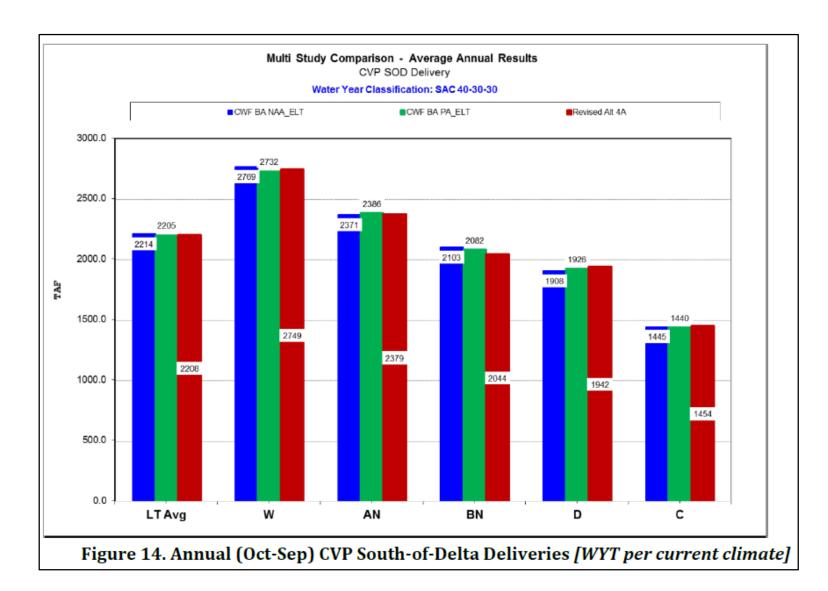
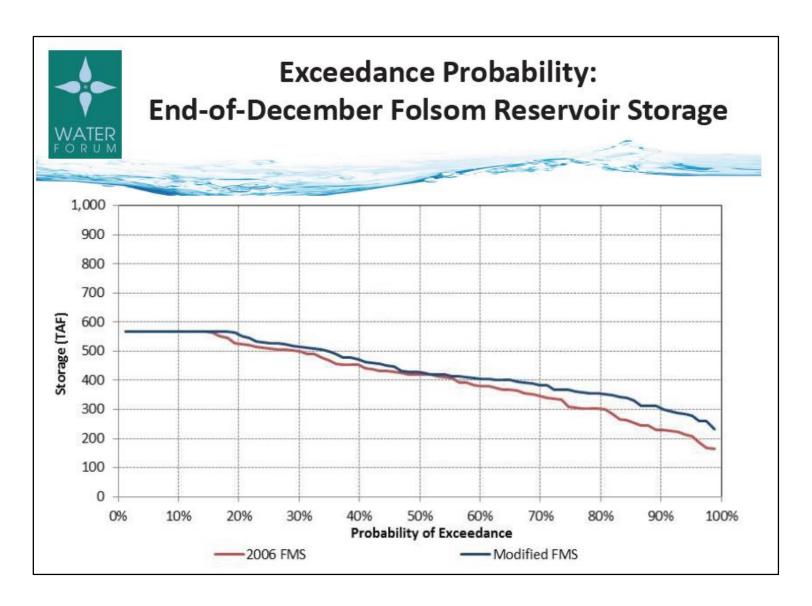


Exhibit ARWA-703. Figure 2-35. Exceedance Plot of Mean Monthly Water Temperatures (°F) in the American River at Watt Avenue in August of Critical Water Years. (Source: NMFS 2017 BO)

State Board Hearing — American River/Water Forum Position



State Board Hearing — American River/Water Forum Position



State Board Hearing – Next Steps

Hearing itself

- Testimony is finished
- Closing briefs/draft order?

Effect of politics

- A legacy project for Governor Brown
 SWRCB decision before he leaves office?
- Governor-elect Newsom one tunnel?
- Federal actions?

Further litigation certain

- Water users possible
- County of Sacramento probable
- Environmental group/Delta interests
 certain

