

**From:** William Jennings [<mailto:deltakeep@me.com>]

**Sent:** Monday, August 03, 2015 5:26 AM

**To:** Satkowski, Rich@Waterboards; Carr, Chris@Waterboards

**Cc:** Grober, Les@Waterboards; Riddle, Diane@Waterboards; Carolee Krieger; Barbara Vlamis; Mike Jackson; Chris Shutes; [crenshaw@cal.net](mailto:crenshaw@cal.net); [Tccannon@comcast.net](mailto:Tccannon@comcast.net); Tom Stokely; Mike Lozeau; Andrew Packard; Rebecca Davis; Megan Truxillo; Jason Flanders; Matthew Maclear; [ngmplcs@pacbell.net](mailto:ngmplcs@pacbell.net); Herrick, John @aol.com; Tom Keeling; Barbara Barrigan; Tim Stroschan; Meserve, [Osha@semlawyers.com](mailto:Osha@semlawyers.com); Patty Schifferle; Steve Volker; Bob Wright; Denise Zitnik; Ara Marderosian; Todd Shuman; Tim Sloan

**Subject:** Protest and Request for Reconsideration of 3 July 2015 Order Approving TUCP of DWR and USBR

Dear Messrs. Satkowski and Carr,

Please find attached a Protest, Objection, Petition for Reconsideration and Petition for Hearing (Protest) respectfully submitted by the California Sportfishing Protection Alliance, California Water Impact Network and AquAlliance regarding the 21 May 2015 Temporary Urgency Change Petition (TUCP) submitted by the Department of Water Resources and U. S. Bureau of Reclamation (USBR) and the 3 July 2015 responding Order by the State Water Resources Control Board (SWRCB).

This Protest is composed of the cover Petition and Attachments 1, 2 and 3, which cumulatively demonstrate that the TUCP Order are not within the SWRCB's jurisdiction, will not best serve the public interest, are contrary to law and will have an adverse environmental impact. The conditions under which this Protest may be disregarded and dismissed are identified in Attachment 1.

This Protest/Petition for Reconsideration should not to be confused with the specific Complaint against the SWRCB and USBR that was sent earlier today.

The 30-day response period concluded on Sunday 2 August 2015 and this Protest is submitted the first following business day. We would appreciate a receipt of timely submission. If you have questions, please don't hesitate to contact me. Thank you.

Bill Jennings  
Executive Director  
California Sportfishing Protection Alliance  
3536 Rainier Avenue  
Stockton, CA 95204  
p: 209-464-5067  
c: 209-938-9053  
e: [deltakeep@me.com](mailto:deltakeep@me.com)  
[www.calsport.org](http://www.calsport.org)

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**State of California**  
**State Water Resources Control Board**  
**DIVISION OF WATER RIGHTS**  
**P.O. Box 2000, Sacramento, CA 95812-2000**  
**Info: (916) 341-5300, FAX: (916) 341-5400**  
**Web: <http://www.waterboards.ca.gov/waterrights>**  
**[Rich.Satkowski@waterboards.ca.gov](mailto:Rich.Satkowski@waterboards.ca.gov)**

**PROTEST – (Petitions)**  
**OBJECTION**  
**PETITION FOR RECONSIDERATION**  
**PETITION FOR HEARING**

Temporary Urgency Change Petitions and Responding Order for Permits 16478, 16479, 16481, 16482 and 16483 (Applications 5630, 14443, 14445A, 17512 and 17514A, respectively) of the Department of Water Resources for the State Water Project and License 1986 and Permits 11315, 11316, 11885, 11886, 11887, 11967, 11968, 11969, 11970, 11971, 11972, 11973, 12364, 12721, 12722, 12723, 12725, 12726, 12727, 12860, 15735, 16597, 20245, and 16600 (Applications 23, 234, 1465, 5638, 13370, 13371, 5628, 15374, 15375, 15376, 16767, 16768, 17374, 17376, 5626, 9363, 9364, 9366, 9367, 9368, 15764, 22316, 14858A, 14858B, and 19304, respectively) of the United States Bureau of Reclamation for the Central Valley Project.

We, Bill Jennings, Executive Director, California Sportfishing Protection Alliance (CSPA), 3536 Rainier Ave, Stockton CA 95204, [deltakeep@me.com](mailto:deltakeep@me.com), (209) 464-5067; Chris Shutes, Water Rights Advocate, CSPA, 1608 Francisco St., Berkeley, CA 94703, [blancapaloma@msn.com](mailto:blancapaloma@msn.com), (510) 421-2405; Barbara Vlamis, Executive Director, AquAlliance, P.O. Box 4024, Chico, CA 95927, [barbarav@aqualliance.net](mailto:barbarav@aqualliance.net), (530) 895-9420; Carolee Krieger, Executive Director, California Water Impact Network (CWIN), 808 Romero Canyon Rd., Santa Barbara, CA 93108, [caroleekrieger7@gmail.com](mailto:caroleekrieger7@gmail.com), (805) 969-0824; and Michael Jackson, counsel to CSPA, CWIN and AquAlliance, P.O. Box 207, 429 W. Main St., Quincy, CA 95971, [mjatty@sbcglobal.net](mailto:mjatty@sbcglobal.net), (530) 283-0712 (Protestants)

have read carefully the petitions for Temporary Urgency Change (TUCP) by the Department of Water Resources (DWR) and the Bureau of Reclamation (Bureau), dated 23 January, 24 March and 21 May 2015 and the responding Orders of 3 February, 5 March, 6 April and 3 July 2015. The 3 July TUCP Order addresses modification of water quality objectives between 1 July and 30 November 2015.

**The proposed TUCP and Order will:**

- Not be within the State Water Resources Control Board's (SWRCB) jurisdiction,
- Not best serve the public interest,
- Be contrary to law, and
- Have an adverse environmental impact.

We protest and object to the 21 May 2015 TUCP and 3 July 2015 Order and petition for a public hearing and reconsideration of the order for the reasons described below.

**State facts, which support the foregoing allegations:**

We incorporate by reference the:

- A. 22 July 2015 Protest and Petition for Reconsideration submitted by Restore the Delta regarding the 21 May TUCP and 3 July SWRCB Order;
- B. 6 July 2015 Objection/Protest to the TUCP Order submitted by Sequoia ForestKeeper and Wasteful UnReasonable Use and the 6 July 2015 comment letter by Sequoia ForestKeeper et al. on the TUCP;
- C. 6 July 2015 Comments by California Water Research;
- D. Presentations and exhibits presented by CSPA, CWIN, AquAlliance and Restore the Delta at the 24 June 2015 SWRCB workshop on Summer and Fall drought-related State Water Project and Central Valley Project operations in the Sacramento-San Joaquin Delta watershed.
- E. 17 May 2015 Objection to the 21 May 2015 TUCP submitted by the Restore the Delta;
- F. 6 May 2015 Protest, Objection, Petition for Hearing and Petition for Reconsideration submitted by CSPA et al. regarding the 24 March 2015 TUCP and 6 April 2015 SWRCB Order;
- G. 5 May 2015 Protest submitted by Restore the Delta regarding the 6 April 2015 TUCP and Order;
- H. Presentations and exhibits presented by CSPA, CWIN, AquAlliance, Restore the Delta, NRDC and the Bay Institute at the 20 May 2015 SWRCB workshop on the March TUCP and April SWRCB Order.
- I. 13 February 2015 Protest, Objection, Petition for Reconsideration, Petition for Public Hearing and exhibits submitted the CSPA et al. regarding 3 February 2015 SWRCB Order;
- J. 12 February Protest and petition submitted by South and Central Delta Water Agencies of the 23 January 2015 TUCP and 3 February 2015 Order;
- K. 13 February 2015 Protest and Objection submitted by the Bay Institute regarding 3 February 2015 SWRCB Order;
- L. Presentation and exhibits presented by Bill Jennings, Chris Shutes and Tom Cannon representing CSPA et al. at the 18 February 2015 SWRCB workshop on the TUCP;
- M. Presentation and exhibits presented by Gary Bobker and Jonathan Rosenfield representing the Bay Institute at the 18 February 2015 workshop on the TUCP;
- N. 26 February 2015 letter from Bill Jennings of CSPA regarding the economic impacts of drought in reference to the TUCP;
- O. 26 February 2015 letter from Bill Jennings of CSPA to Tom Howard regarding the 20 February 2015 letter by the State Water Contractors;
- P. 26 February 2015 letter from Chris Shutes of CSPA regarding clarification of oral comments made at the 18 February 2015 workshop;
- Q. 30 March 2015 Protest and Objections submitted by the Natural Resources Defense Council and Bay Institute regarding the 24 March 2015 TUCP filed by the Department of Water Resources and U.S. Bureau of Reclamation;

- R. 2 March 2015 supplemental comments submitted by Gary Bobker of the Bay Institute regarding responses to 1/23/15 TUCP and 3/2/15 Executive Director's Order;
- S. 31 March email from John Herrick, with exhibit, to Diane Riddle regarding how changes to Vernalis standard will affect the 0.7 EC standard in the south Delta; and
- T. 24 April 2015 request for public hearing or workshop on proposed 2015 Shasta operations and associated exhibits submitted by Kate Poole on behalf of NRDC, Bay Institute, Defenders of Wildlife and Golden Gate Salmon Association in so far as the comments are consistent with this protest.
- U. We also incorporate the Protests, Objections and Petitions for Reconsideration and Public Hearing, including exhibits, submitted by CSPA et al. on 3 March 2014, 28 April 2014 and 13 May 2014.

The facts and supporting arguments demonstrating that the 21 May 2015 TUCP and 3 July 2015 TUCP Order are not within the SWRCB's jurisdiction, will not best serve the public interest, are contrary to law and will have an adverse environmental impact and the conditions under which this protest may be disregarded and dismissed are fully described in the three attached documents submitted as part of this protest. These include:

- Attachment 1 comprising the 17 June 2015 CSPA Objection and Petition for Hearing regarding the 21 May TUCP that was submitted to the SWRCB on 15 May 2015, during the TUCP comment period.
- Attachment 2 comprising the 21 July 2015 CSPA Complaint against the SWRCB, USBR and DWR for violations of the Bay-Delta Plan, D-1641 Bay-Delta Plan Requirements, Clean Water Act, Endangered Species Act, Public Trust Doctrine and the California Constitution.
- Attachment 3 comprising the 2 August 2015 CSPA Complaint against the SWRCB and USBR for violations of the Central Valley Basin Plan, SWRCB WR Order 90-05, Clean Water Act, Endangered Species Act, Public Trust Doctrine and the California Constitution.

We believe these documents conclusively demonstrate that the TUCP and TUCP Order are not in the public interest, are contrary to law and have caused and will continue to cause grave environmental harm. The specific conditions under which this Protest may be disregarded and dismissed are described in 17 June 2015 Objection and Petition for Hearing.

We do note that, subsequent to the 17 June 2015 CSPA comments on the 21 May TUCP, the California Department of Fish and Wildlife (CDFW) posted the 29-mm Survey results for Delta smelt. The survey monitors postlarval-juvenile Delta smelt distribution and abundance throughout their historical spring range. The 2015 index was 0.3 and represented a 70% decline from the next lowest index in history.

The 2015 index was calculated from surveys 3 through 6. Subsequent surveys demonstrate that conditions are further deteriorating. Survey 8 collected only a single Delta smelt at Threemile Slough and Survey 9 found only a single Delta smelt in the Sacramento Ship Channel. Never

have so few smelt been collected in these surveys. Additionally, Surveys 8 and 9 failed to collect a single longfin smelt, which are also unprecedented lows.

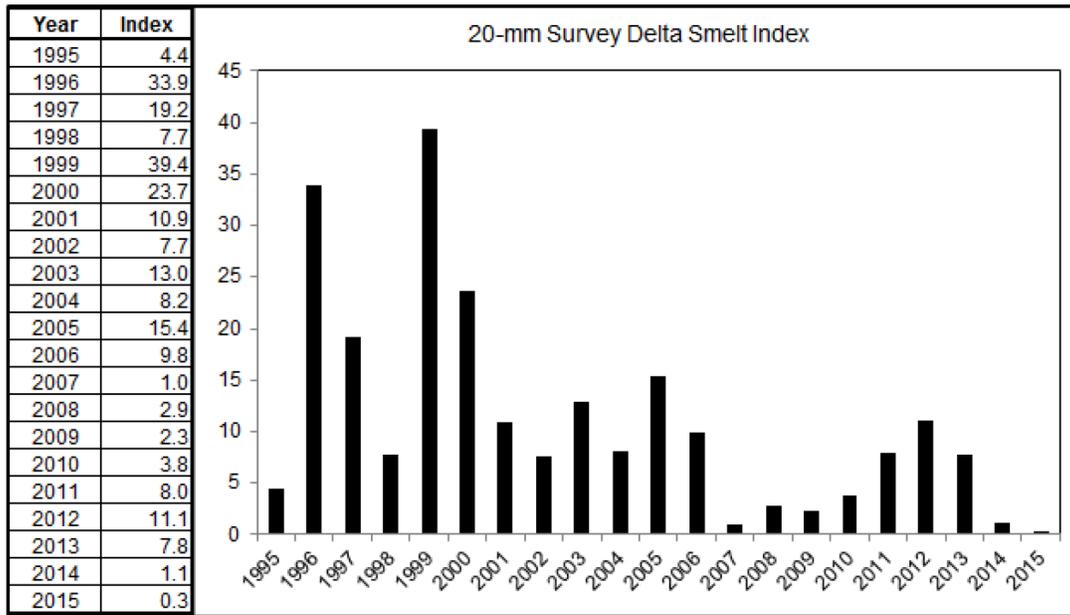


Figure 1. Delta Smelt index of abundance from CDFW's 20-mm Survey, 1995-2015.

The SWRCB's weakening of outflow and salinity standards established to protect pelagic species has drawn the low salinity zone deeper into the Central Delta and severely degraded habitat conditions during a period of historically low population abundances and exposed species to near-lethal and lethal temperatures. Should Delta and longfin smelt and potentially other species that have evolved and thrived over millennia go extinct, it will not be because of drought. It will be because the SWRCB has refused to comply with its responsibilities under the Water Code, Clean Water Act, Endangered Species Act, Public Trust Doctrine and California Constitution.

A true copy of this objection has been served upon the petitioners by e-mail (see below).

Date: 2 August 2015

Bill Jennings, Executive Director  
 California Sportfishing Protection Alliance

Chris Shutes, Water Rights Advocate  
 California Sportfishing Protection Alliance

Barbara Vlamis, Executive Director  
AquAlliance



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Carolee Krieger, Executive Director  
California Water Impact Network



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Michael Jackson  
Counsel to California Sportfishing Protection Alliance,  
AquAlliance, and  
California Water Impact Network

/s/ Michael Jackson

Pursuant to requirements that all protests must be served on the petitioner, we have filed this protest, objection, petition for reconsideration and petition for hearing via e-mail to: Rich.Satkowski@waterboards.ca.gov, Chris.Carr@waterboards.ca.gov; Department of Water Resources, James.Mizell@water.ca.gov; Regional Solicitor's Office, Amy.Aufdemberge@sol.doi.gov; U.S. Bureau of Reclamation, pfujitani@usbr.gov.

Attachments 1, 2 and 3.

# **Attachment 1**

**State of California**  
**State Water Resources Control Board**  
**DIVISION OF WATER RIGHTS**  
**P.O. Box 2000, Sacramento, CA 95812-2000**  
**Info: (916) 341-5300, FAX: (916) 341-5400**  
**Web: <http://www.waterboards.ca.gov/waterrights>**  
**[Rich.Satkowski@waterboards.ca.gov](mailto:Rich.Satkowski@waterboards.ca.gov)**

**PROTEST – (Petitions)**  
**OBJECTION**  
**PETITION FOR HEARING**

Temporary Urgency Change Petition for  
Permits 16478, 16479, 16481, 16482 and 16483 (Applications 5630, 14443, 14445A, 17512 and 17514A, respectively) of the Department of Water Resources for the State Water Project and License 1986 and Permits 11315, 11316, 11885, 11886, 11887, 11967, 11968, 11969, 11970, 11971, 11972, 11973, 12364, 12721, 12722, 12723, 12725, 12726, 12727, 12860, 15735, 16597, 20245, and 16600 (Applications 23, 234, 1465, 5638, 13370, 13371, 5628, 15374, 15375, 15376, 16767, 16768, 17374, 17376, 5626, 9363, 9364, 9366, 9367, 9368, 15764, 22316, 14858A, 14858B, and 19304, respectively) of the United States Bureau of Reclamation for the Central Valley Project.

We, Bill Jennings, Executive Director, California Sportfishing Protection Alliance (CSPA), 3536 Rainier Ave, Stockton CA 95204, [deltakeep@me.com](mailto:deltakeep@me.com), (209) 464-5067; Chris Shutes, Water Rights Advocate, CSPA, 1608 Francisco St., Berkeley, CA 94703, [blancapaloma@msn.com](mailto:blancapaloma@msn.com), (510) 421-2405; Barbara Vlamis, Executive Director, AquAlliance, P.O. Box 4024, Chico, CA 95927, [barbarav@aqualliance.net](mailto:barbarav@aqualliance.net), (530) 895-9420; Carolee Krieger, Executive Director, California Water Impact Network (CWIN), 808 Romero Canyon Rd., Santa Barbara, CA 93108, [caroleekrieger7@gmail.com](mailto:caroleekrieger7@gmail.com), (805) 969-0824; and Michael Jackson, counsel to CSPA, CWIN and AquAlliance, P.O. Box 207, 429 W. Main St., Quincy, CA 95971, [mjatty@sbcglobal.net](mailto:mjatty@sbcglobal.net), (530) 283-0712 (Protestants)

have read carefully an 8 June 2015 notice relative to a petition for Temporary Urgency Change (TUCP) of the Department of Water Resources (DWR) and the Bureau of Reclamation (Bureau), dated 21 May 2015. The 21 May TUCP request replaces a request made on 24 March 2015 for the 1 July through 30 November period that was not yet acted upon.

**The proposed TUCP will:**

- Not be within the State Water Resources Control Board's (SWRCB) jurisdiction,
- Not best serve the public interest,
- Be contrary to law, and
- Have an adverse environmental impact.

We object to the TUCP and petition for a public hearing for the reasons described below.

**State facts, which support the foregoing allegations:**

We incorporate by reference the:

- A. 17 May 2015 Objection to the 21 May 2015 TUCP submitted the Restore the Delta;
- B. 6 May 2015 Protest, Objection, Petition for Hearing and Petition for Reconsideration submitted by CSPA et al. regarding the 24 March 2015 TUCP and 6 April 2015 SWRCB Order;
- C. 5 May 2015 Protest submitted by Restore the Delta regarding the 6 April 2015 TUCP and Order;
- D. Presentation and exhibits presented by CSPA, CWIN, AquAlliance, Restore the Delta, NRDC and the Bay Institute at the 20 May 2015 SWRCB workshop on the March TUCP and April SWRCB Order.
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- Q. We also incorporate the Protests, Objections and Petitions for Reconsideration and Public Hearing, including exhibits, submitted by CSPA et al. on 3 March 2014, 28 April 2014 and 13 May 2014.

The SWRCB's 8 June 2015 TUCP Notice stated, "In order to be fully considered before the State Water Board takes action on the TUCP, objections filed in response to this notice should be submitted by 17 June 2015. Objections submitted after that date will be accepted, but should be received by the State Water Board no later than Monday, July 6, 2015." Nine days is an unreasonably inadequate period for the public to be able to provide comments on a matter as important as the TUCP before the SWRCB takes action. In the interest of providing comments prior to the SWRCB taking action on the TUCP, CSPA et al. submits these comments, under protest. We reserve the right to submit additional comments by 6 July 2015.

### **Summary of Temporary Urgency Change Petitions and Orders 2015**

The Department of Water Resources (DWR) and U.S. Bureau of Reclamation (USBR) filed a Temporary Urgency Change Petition (TUCP) on 27 January 2015 to change water right conditions requiring the state and federal water projects to meet Bay-Delta flow and water quality objectives during February and March of this year. On 3 February 2015, the Executive Director of the SWRCB issued an order temporarily weakening Bay-Delta objectives; he modified the 3 February order on 5 March 2015. DWR and USBR submitted another TUCP on 24 March 2015 requesting approval of additional changes to flow and water quality requirements through September 2015. The Executive Director issued a modified Order on 6 April 2015 based on this request that approved changes through June. The 6 April 2015 Order included a requirement that USBR submit and, upon approval, implement a Temperature Management Plan for the Sacramento River to provide for reasonable protection of winter-run and other salmonids and also a requirement that USBR submit and, upon approval, implement a plan for operations of New Melones Reservoir that reasonably protects fish and wildlife on the Stanislaus River. The Executive Director has provisionally approved preliminary drafts of both the Sacramento and Stanislaus River plans but, on 29 May 2015, suspended his approval of the Sacramento River Temperature Management Plan pending further discussion.

The 21 May 2015 TUCP includes modifications to D-1641 that, if approved, will: (1) change the minimum Net Delta Outflow Index (NDOI) to a monthly average of 3,000 cfs for July, with a seven-day running average of no less than 2,000 cfs; (2) change the minimum Sacramento River Flow requirements at Rio Vista for the months of September, October, and November to a monthly average of no less than 2,500 cfs on average, with a seven-day running average of no less than 2,000 cfs; and (3) extend the change of the Western Delta agricultural salinity requirement at Emmaton to a compliance location at Threemile Slough on the Sacramento River through August 15.

### **Central Valley Pelagic and Anadromous Fisheries are in a State of Collapse**

The precipitous collapse of the Central Valley's pelagic and anadromous fish populations since construction of the State Water Project (SWP) in 1967 has been documented at considerable length. Since the SWP began exporting water from the Delta, the Department of Fish and Wildlife's (DFW) Fall Midwater Trawl indices for striped bass, Delta smelt, longfin smelt, American shad, splittail and threadfin shad have declined by 99.7, 97.8, 99.9, 91.9, 98.5 and 97.8 percent, respectively. The U.S. Fish & Wildlife Service's (USFWS) Anadromous Fisheries Restoration Program (AFRP) documents that, since 1967, in-river natural production of

Sacramento winter-run Chinook salmon and spring-run Chinook salmon have decline by 98.2 and 99.3 percent, respectively, and are only at 5.5 and 1.2 percent, respectively, of doubling levels mandated by the Central Valley Project Improvement Act, California Water Code and California Fish & Game Code. Numerous species have been listed pursuant to state and federal endangered species acts.<sup>1</sup>

The SWRCB's failure to enforce water quality standards during the present drought and its waiver of compliance with these standards has greatly exacerbated conditions. Several fish species are now facing extinction. According to the 2014 Fall Midwater Trawl abundance indices (Figures 1-5), compiled from monthly trawls between September and December, abundance of Delta smelt, longfin smelt, striped bass, threadfin shad, American shad and splittail were the lowest, second lowest, third lowest, sixth lowest, second lowest and lowest, respectively, since 1967.

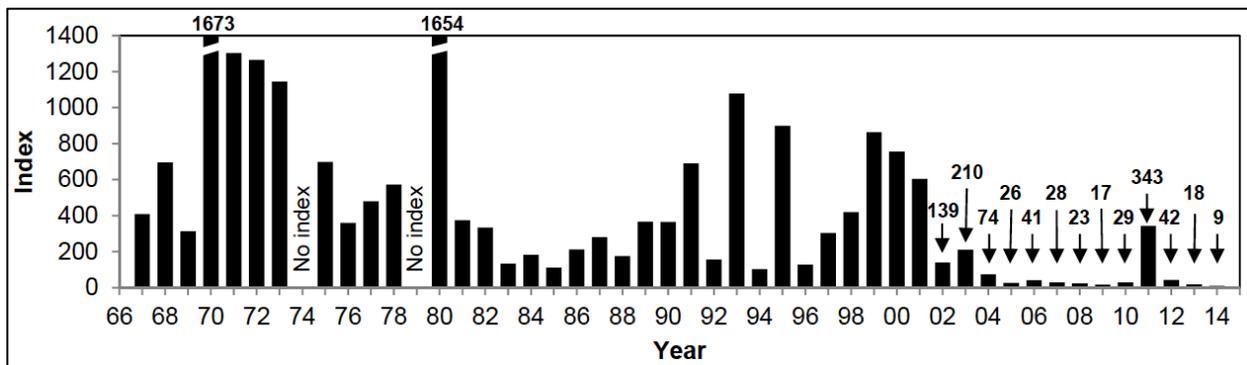
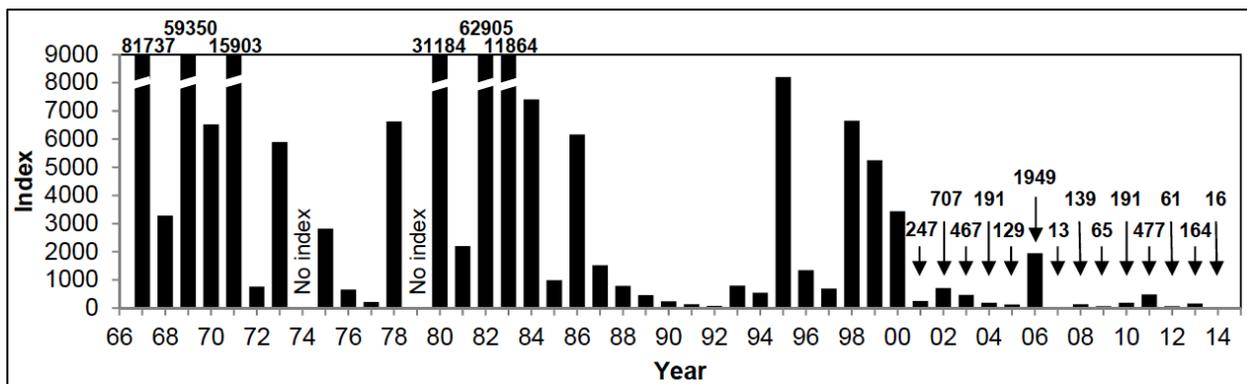


Figure 1, CDFW FMWT Delta Smelt annual abundance indices, 1967-2014.



<sup>1</sup> Southern DPS green sturgeon (*Acipenser medirostris*), federal threatened, candidate for federal endangered; Delta smelt (*Hypomesus transpacificus*), state endangered, federal threatened, Longfin smelt (*Spirinchus thaleichthys*), state threatened; Central Valley steelhead (*Oncorhynchus mykiss*), federal threatened; Sacramento winter-run Chinook salmon (*Oncorhynchus tshawytscha*), state endangered, federal endangered; Central Valley spring-run Chinook salmon (*Oncorhynchus tshawytscha*), state threatened, federal threatened; Central Valley fall/late-fall-run Chinook salmon (*Oncorhynchus tshawytscha*), federal species of concern, state species of special concern; Sacramento splittail (*Pogonichthys macrolepedotus*), state species of special concern; Pacific lamprey (*Entosphenus tridentate*), federal species of concern and river lamprey (*Lampetra ayresi*), state species of special concern. The Project also has potential to adversely affect Killer whales or Orcas (Southern Resident DPS) (*Orcinus orca*), federal listed as endangered because they are dependent upon Chinook salmon for 70% of diet and reduced quantity and quality of diet is one of the major identified causes of their decline.

Figure 2, CDFW FMWT Longfin Smelt annual abundance indices, 1967-2014.

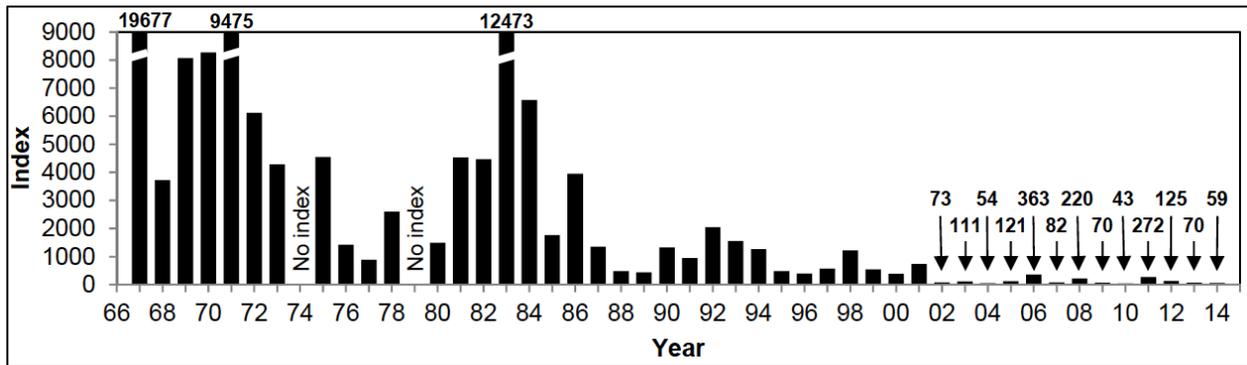


Figure 3, CDFW FMWT Striped Bass annual abundance indices, 1967-2014.

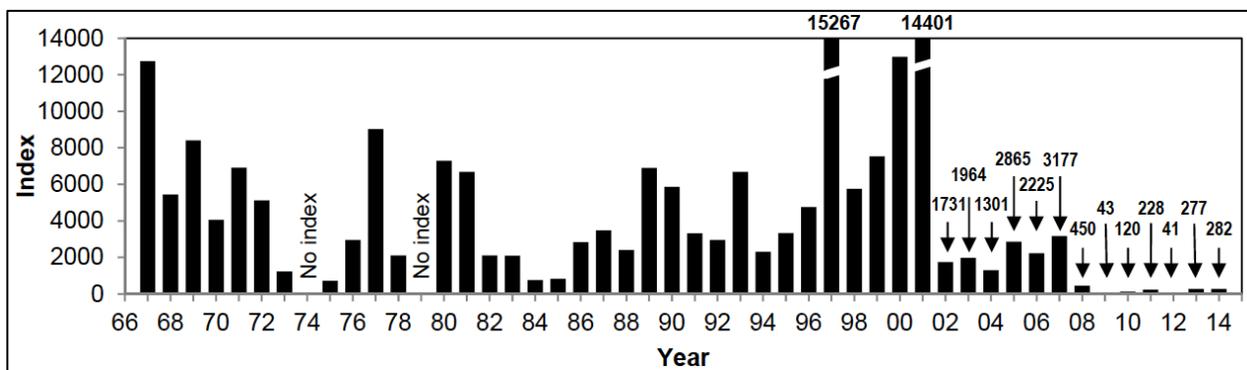


Figure 4, CDFW FMWT Threadfin Shad annual abundance indices, 1967-2014.

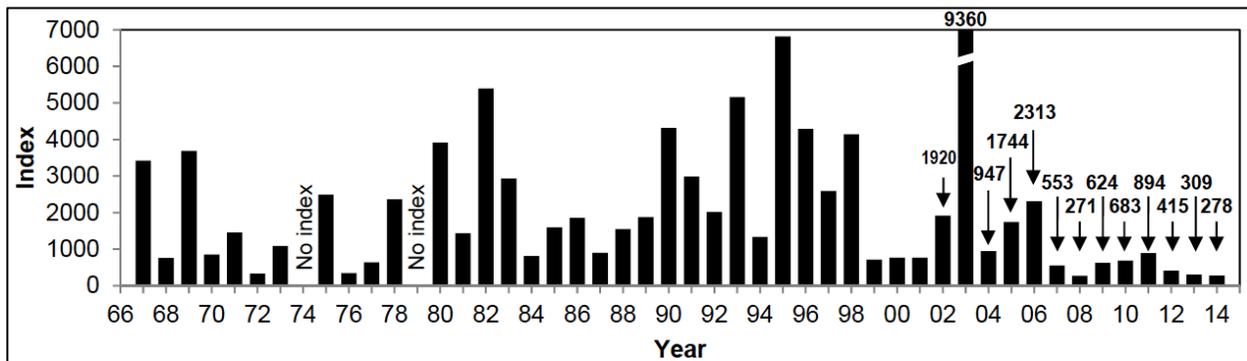


Figure 5, CDFW FMWT American Shad annual abundance indices, 1967-2014.

### Spring Kodiak Trawl

The 2015 abundance index of DFW’s Kodiak Trawl for adult Delta smelt, which was initiated following the 2000-2004 Pelagic Species Decline, was the lowest in history and reflected an 86% decline from 2004. This was significantly lower than any previous trawl and led fisheries scientist Peter Moyle to declare impending extinction of Delta smelt.

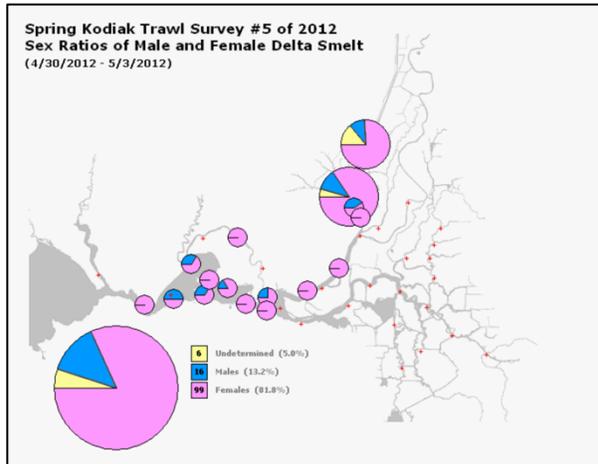


Figure 6, DFW Kodiak Trawl #5 Delta Smelt 2012.

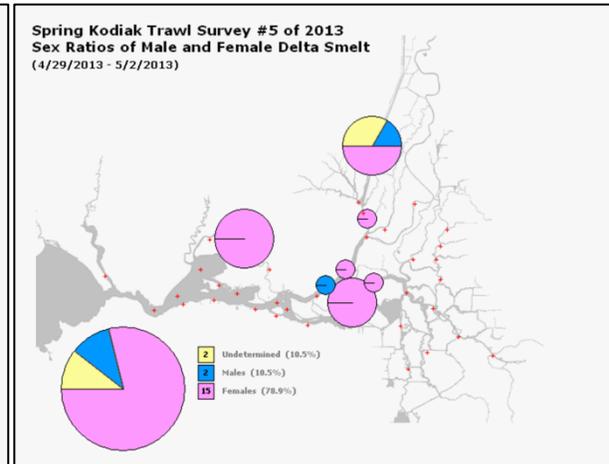


Figure 7, DFW Kodiak Trawl #5 Delta Smelt 2013.

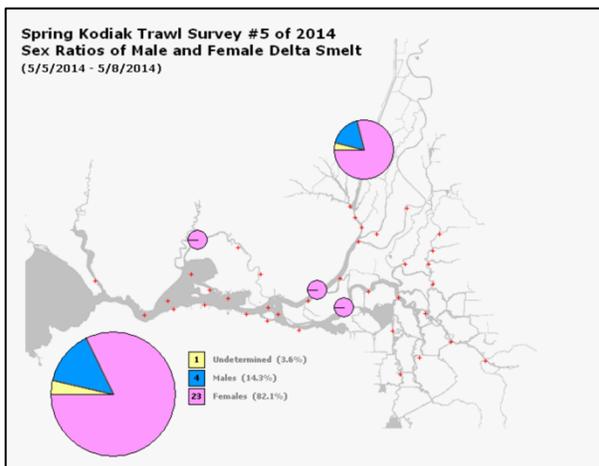


Figure 8, DFW Kodiak Trawl #5 Delta Smelt 2012.

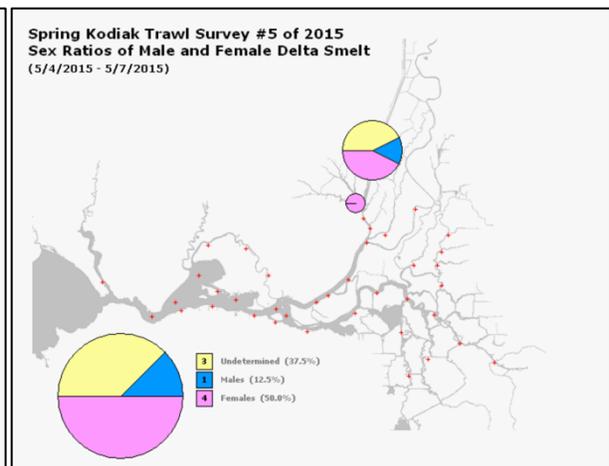


Figure 9, DFW Kodiak Trawl #5 Delta Smelt 2013.

## Smelt Larva Survey

DFW's Smelt Larva Survey was initiated in 2009 to provide near real-time distribution data for longfin smelt and Delta smelt larvae in the Delta, Suisun Bay and Suisun Marsh. Survey #6 is conducted in late March. The total catch-per-unit-effort (CPUE) of the Smelt Larva Survey #6 for longfin smelt was 18,065.5 in 2013, 930.5 in 2014 and 606.3 in 2015; a 96.6% decline between 2013 and 2015. The total CPUE of the Smelt Larva Survey #6 for Delta smelt was 633.7 in 2013, 70.3 in 2014 and 25.4 in 2015; a 92.0% decline between 2013 and 2015.

Figures 10 through 13 below demonstrate the loss in range and numbers of larva Delta smelt over the last four years.

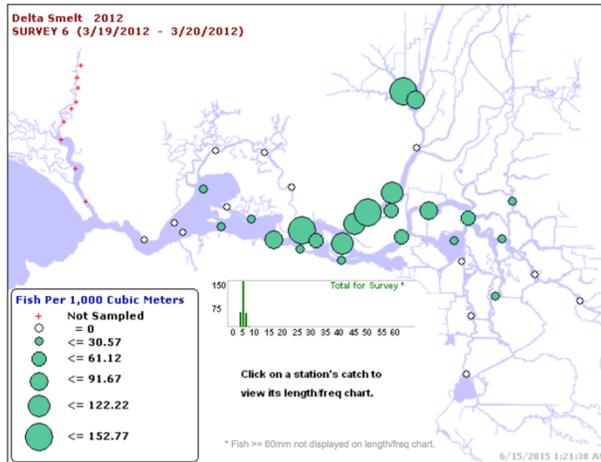


Figure 10, DFW Larva Survey #6 Delta Smelt 2012.

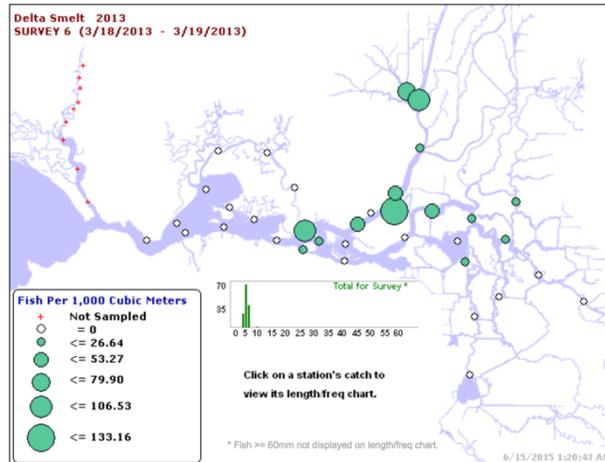


Figure 11, DFW Larva Survey #6 Delta Smelt 2013.

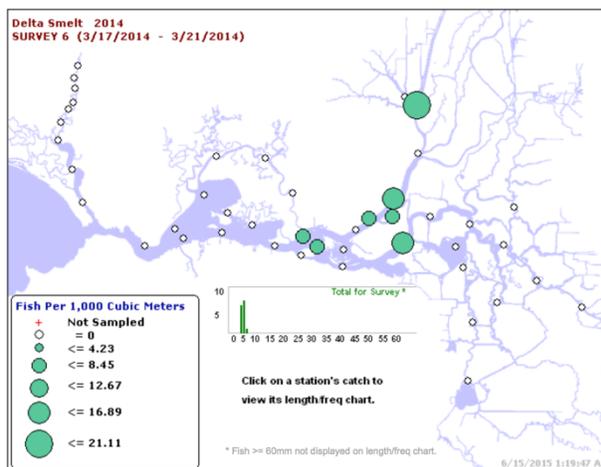


Figure 12, DFW Larva Survey #6 Delta Smelt 2014.

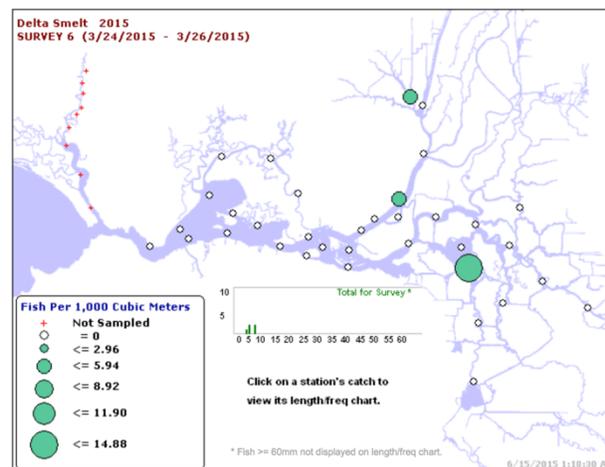


Figure 13, DFW Larva Survey #6 Delta Smelt 2015.

## 20 mm Survey for Delta Smelt

DFW's 20 mm Survey was initiated in 1995 to monitor postlarval-juvenile Delta smelt throughout their historical range. The 20 mm Survey #6 in late May of 2012 (Figure 14), 2013 (Figure 15), 2014 (Figure 16) and 2015 (Figure 17) demonstrates the progressive decline of Delta smelt during the present drought. In May of 2012 and 2013, smelt were collected throughout Suisun Marsh, Central Delta and Cache Slough/Sacramento Ship Channel. In May of 2014, reduced numbers of Delta smelt were identified in Cache Slough/Sacramento Ship Channel and only a few scattered smelt found in the Central Delta. In May 2015, fewer smelt were found in the Sacramento Ship Channel and none in the Central Delta. It should be remembered that DFW studies indicate that Delta smelt in the Sacramento Ship Channel are likely to perish should high summer temperatures de-stratify the channel. DFW's 2014 20mm abundance index was the second lowest in history. The 2015 index has not yet been released, but over the last few years, the index has been computed from Surveys 3 through 6 (April/May). However, the numbers of fish collected in Surveys 1-6 are the lowest in history.

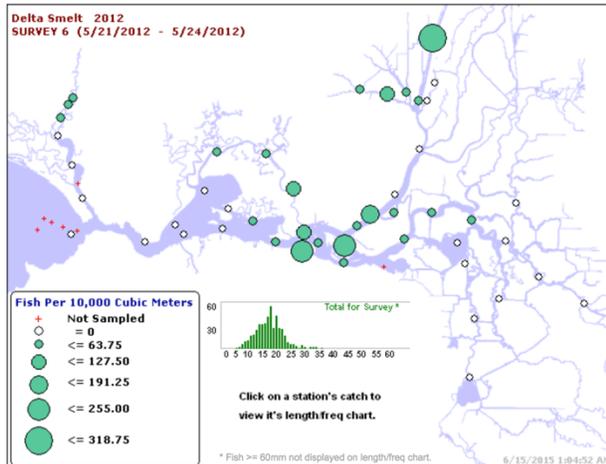


Figure 14, DFW 20mm Survey #6 Delta Smelt 2012.

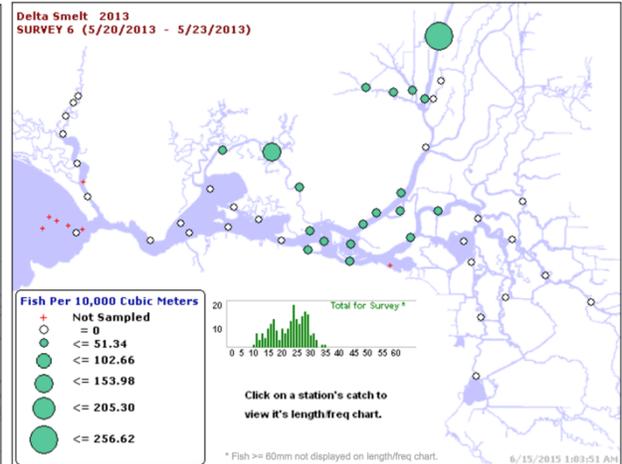


Figure 15, DFW 20mm Survey #6 Delta Smelt 2013.

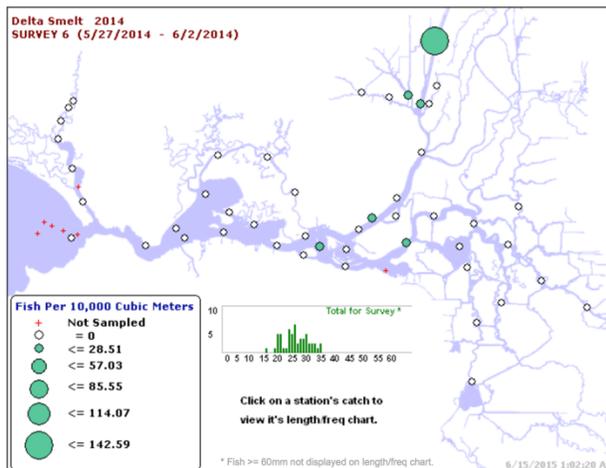


Figure 16, DFW 20mm Survey #6 Delta Smelt 2014.

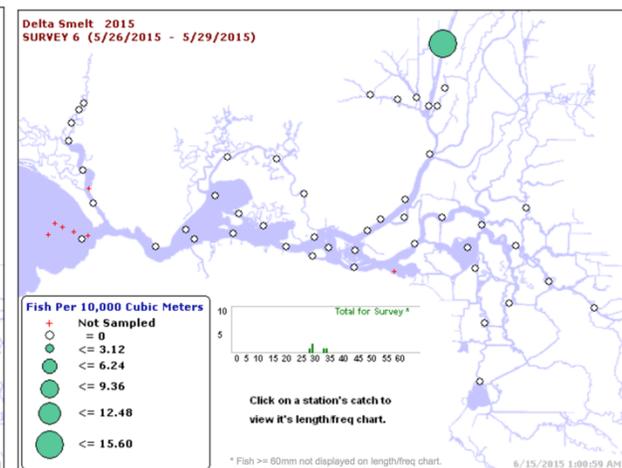


Figure 17, DFW 20mm Survey #6 Delta Smelt 2015.

## Anadromous Fisheries

The Central Valley Project Improvement Act (CVPIA) was enacted in 1992 in response to declining salmon and steelhead fisheries in the Central Valley. The purposes of the Act included: protecting restoring and enhancing fish, wildlife and associated habitats in the Central Valley and Trinity River basins; addressing impacts of the Central Valley Project on fish, wildlife and associated habitats and improving the operational flexibility of the Central Valley Project; contributing to the State of California's interim and long-term efforts to protect the San Francisco Bay/Sacramento-San Joaquin Delta Estuary and achieving a reasonable balance among competing demands for use of Central Valley Project water.

Among the specific requirements of the Act was to develop and implement a program to double natural production of anadromous fish at levels twice the average levels attained between 1967-1991. The CVPIA's fish doubling requirement has been incorporated into the California Fish & Game Code and the Water Quality Control Plan for the Bay-Delta. Unfortunately, anadromous

fisheries have continued to decline, as evidenced by the USFWS's AFRP charts for the Sacramento River (Figures 18-20).

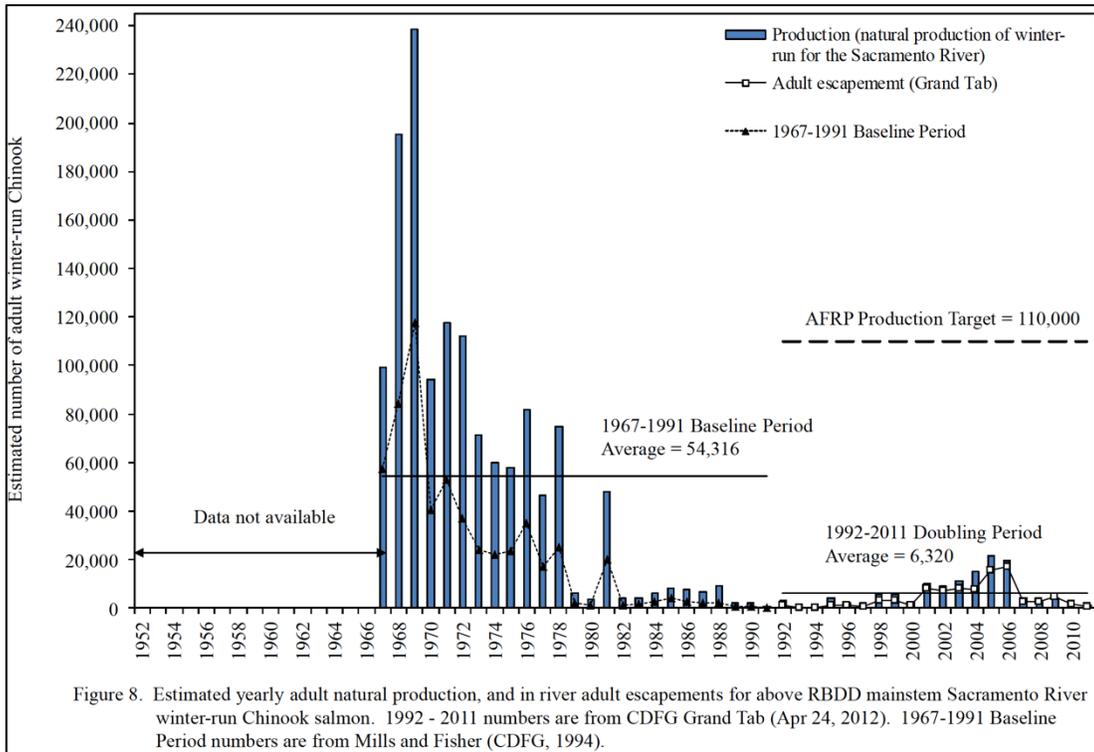


Figure 18, CVPIA AFRP Doubling Goals, Sacramento River Natural Production of Winter-run Chinook Salmon.

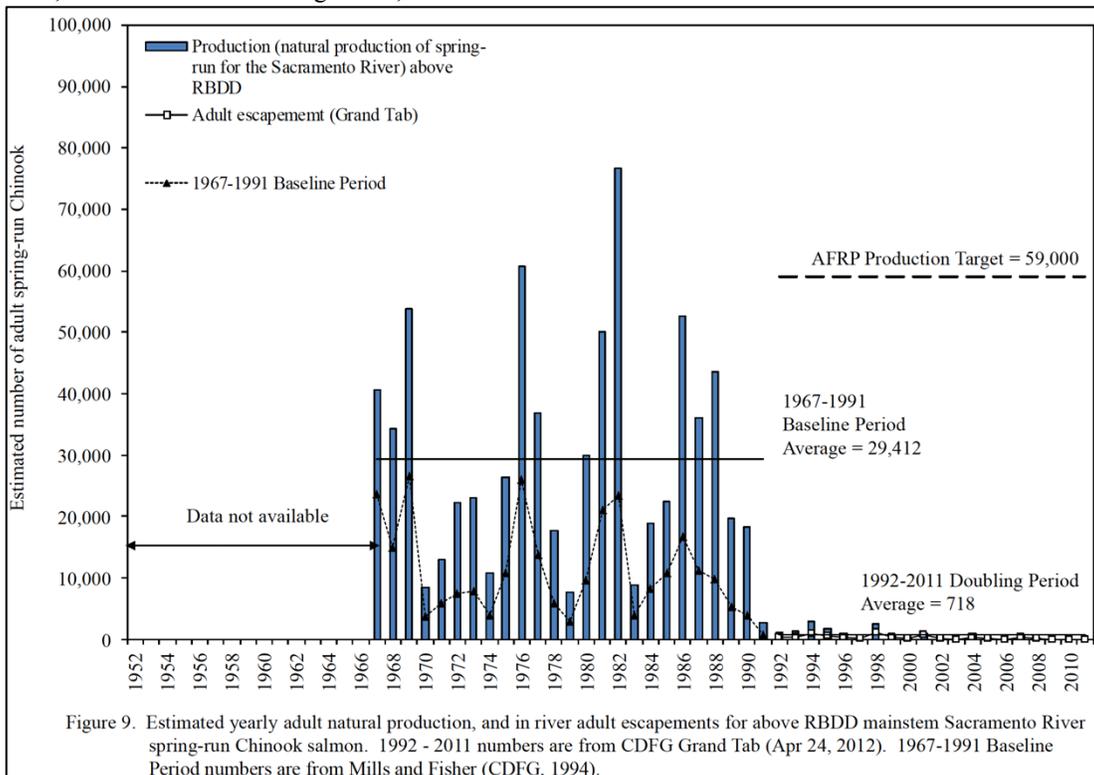


Figure 19, CVPIA AFRP Doubling Goals, Sacramento River Natural Production of Spring-run Chinook Salmon.

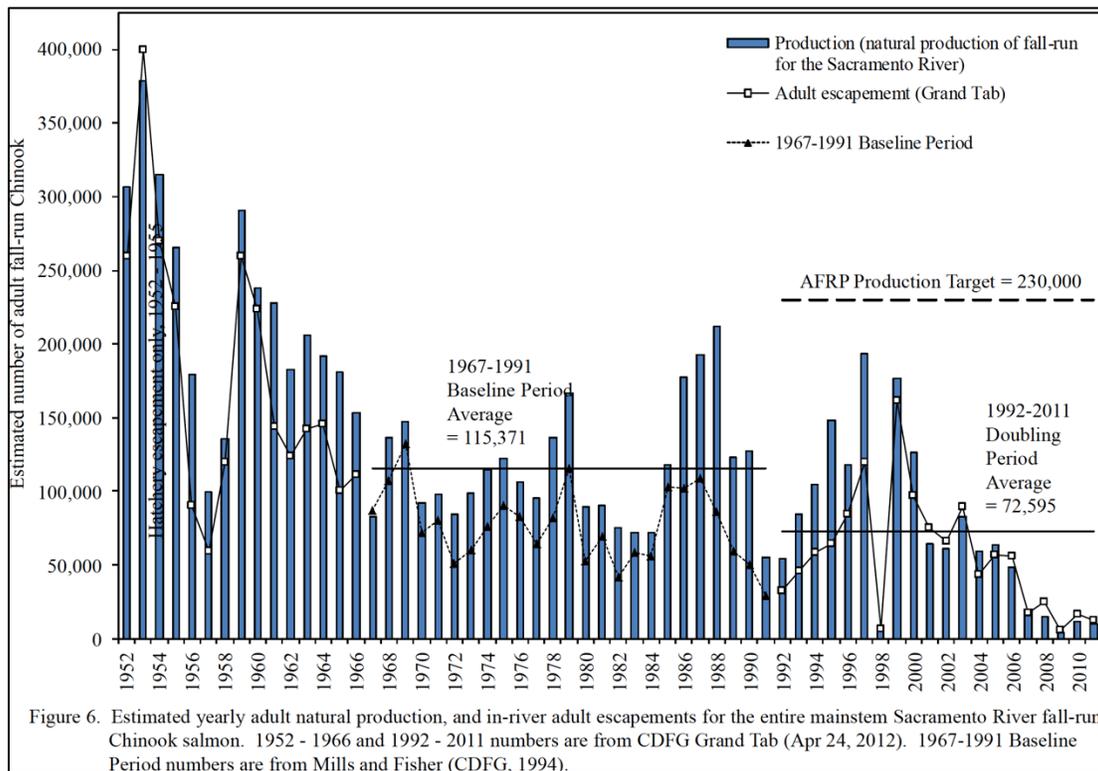


Figure 20, CVPIA AFRP Doubling Goals, Sacramento River Natural Production of Fall-run Chinook Salmon.

If anything, San Joaquin River fisheries are in worse shape. USFWS’s AFRP documents that, since 1967, in-river natural production of fall-run Chinook salmon on the Stanislaus and Tuolumne Rivers have declined by 92.6 and 93.6 percent, respectively, and are 76.6 and 81.8 percent, respectively, below the doubling levels mandated by the Central Valley Project Improvement Act, California Water Code and California Fish & Game Code. According to DFW’s Grand Tab Central Valley Chinook Population Database Report, escapement of fall-run Chinook salmon back to the Stanislaus and Tuolumne Rivers, between 1967 and 2014, declined by 74.3 and 93.6 percent, respectively. During the present drought, the SWRCB has allowed export pumping to exceed San Joaquin River flow during the spring migration period. Consequently, the vast majority of fish migrating out of the San Joaquin River have been drawn to the export pumps and few, if any, have reached San Francisco Bay.

### Fisheries Endure Super Critical Drought Conditions 50% of the Time

Fishery resources have been disproportionately impacted by drought because of increased consumptive use of water and the failure of the SWRCB to adjudicate water right claims that exceed average unimpaired flow in the Delta and tributary streams fivefold. In fact, Fisheries dependent on Delta outflow have endured the functional flow equivalent of super critical drought conditions in half of all years since 1975.

In reality, Delta pelagic fisheries have suffered proportionally greater flow reductions than evidenced by the bottom row in Figure 21. While the unimpaired flow, as represented in the top

row is accurately gaged, the percent of unimpaired flow reaching San Francisco Bay is significantly less because Delta outflow is an inflated calculated guess.

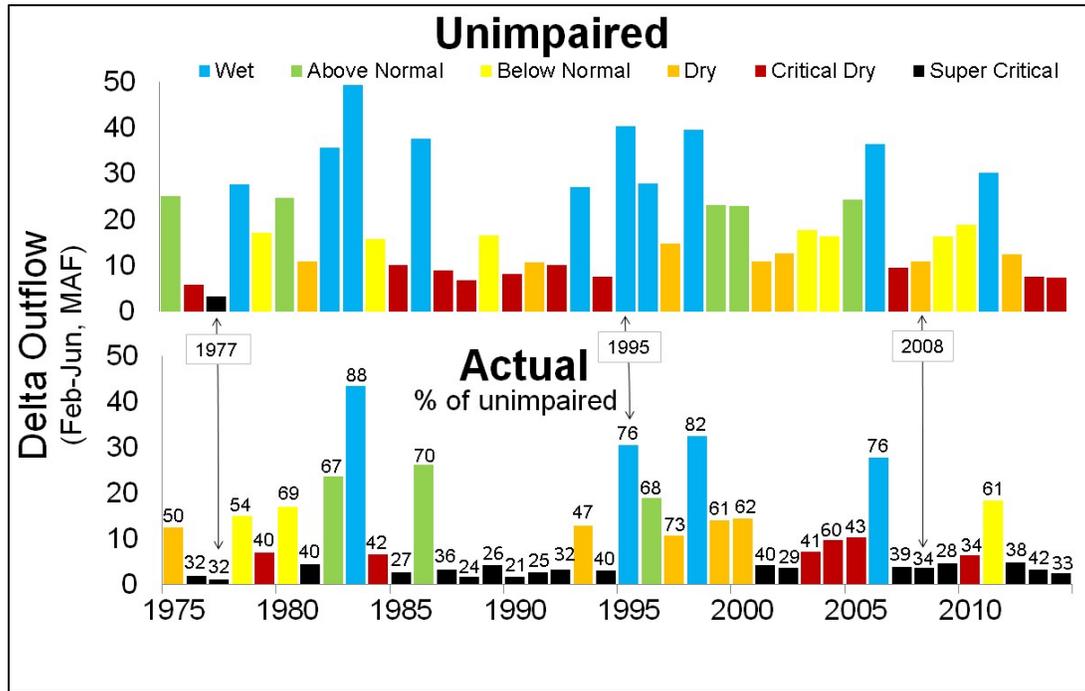


Figure 21, Actual Flow to the Bay vs. Unimpaired Flow. Bay Institute, 2015.

### Actual Delta Outflows Are Less Than Reported

As discussed at greater length in our 6 May 2015 Protest, the Net Delta Outflow Index (NDOI) used by the SWRCB for Bay-Delta Plan water quality standards is based upon a number of estimates and assumptions and doesn't account for tides. The U.S. Geological Survey (USGS) maintains four state-of-the-art gages that capture all Delta outflow and accounts for tides. The spring and neap tides that regularly occur transport enormous quantities of water into and out of the Delta. Examination of the data reveals substantial differences between NDOI and the USGS gages during drier periods.

CSPA fishery consultant and biostatistician Thomas Cannon compared the differences between the SWRCB's NDOI with the USGS measured Net Delta Outflow (NDO) and discovered that the SWRCB is seriously overestimating actual Delta outflow. The measured NDO in July 2013 averaged 1,169 cfs instead of the estimated NDOI's 5,360 cfs and in May 2014 NDO averaged a minus 45 cfs while NDOI averaged 3,805 cfs.<sup>2</sup> Recently, he compared NDO with NDOI for March (Figure 22) and April 2015 (Figure 23). NDO for March 2015 was 3,523 cfs while calculated NDOI was 4,975 cfs; for April, NDO was 3,034 and NDOI was 5,362. The NDOI over estimated Delta outflow by 1,452 cfs March 2015 and 2,328 cfs in April 2015. That is a considerable difference for salinity dependent species.

<sup>2</sup> <http://calsport.org/news/wp-content/uploads/CSPA-NDO-v-NDOI-2.pdf>

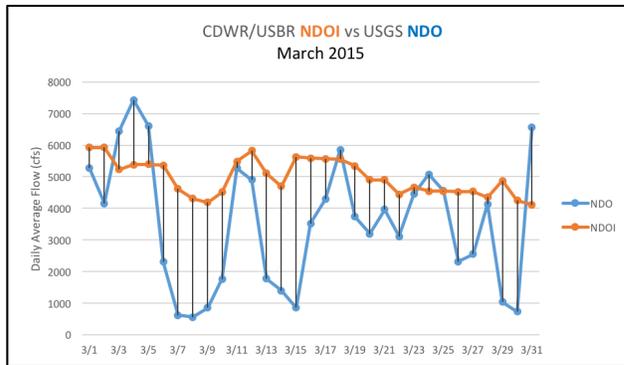


Figure 22, USGS vs. NDOI, March 2015.

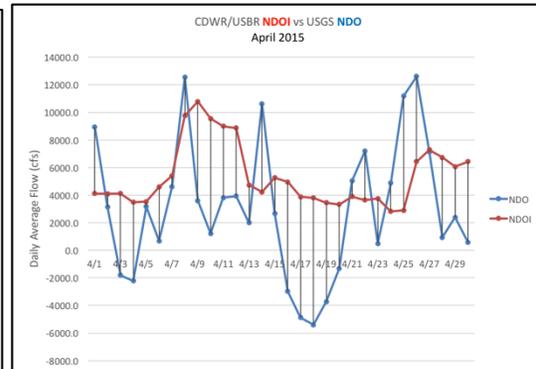


Figure 23, USGS vs. NDOI, April 2015.

### **If Approved, the TUCP Will Likely Result in the Extinction of One or More Species**

Given the already depleted populations of Central Valley fisheries, the series of orders issued by the SWRCB's Executive Director over the last two years weakening Bay-Delta water quality standards and last year's grievously inadequate Temperature Management Plan for the Sacramento River have had a devastating impact on both pelagic and anadromous fisheries.

Delta smelt are facing impending extinction, with longfin smelt not far behind. Abundance levels of all of the Delta's native pelagic species are at or near historic lows and further population losses over the coming months have a high probability of sending one or more species into the abyss.

The 2013 brood year of Sacramento River winter-run, spring-run and fall-run Chinook salmon was hammered, the 2014 brood year of all three species was decimated and there is a real possibility that the 2015 brood year could experience similar losses if Upper Sacramento River water temperature cannot be maintained at 56 degrees Fahrenheit later this year. The loss of a third brood year would likely jeopardize the continued existence of these species.

A similar story is unfolding on the San Joaquin River. Approval of the proposed TUCP will aggravate existing conditions and compound existing problems facing species already facing a high risk of extirpation.

The proposed TUCP would modify D-1641 standards for July through November. Specifically, it would: reduce Delta outflow by 25% in July; reduce Sacramento River flows at Rio Vista during September, October and November by 17%, 17% and 29%, respectively (7-day running averages could be significantly less); and extend the change in the salinity compliance point from Emmaton upstream to Threemile Slough until 15 August. If approved, these changes would seriously worsen an already grave situation.

These changes to the existing critical-year standards in D-1641 will draw the low salinity zone (LSZ) into the Central Delta where Delta smelt will be exposed to higher and potentially lethal temperatures this summer. The center of the LSZ is X2 (two parts per thousand salinity or 2.64 ummhos/cm EC). Under D-1641 critical year standards of 7,00 cfs outflow, X2 would normally

be located in the vicinity of Collinsville. Under the existing TUCP, X2 has moved upstream between Emmaton and Threemile Slough.

Temperatures of 70-73°F are stressful to Delta smelt; temperatures of 73-77°F are highly stressful to lethal; and 77°F is generally regarded as a lethal endpoint. Given the multiple stressors existing in the Delta, temperature tolerances developed in laboratory studies are optimistic.

Water temperatures at Emmaton and Threemile Slough in early June 2015, with Delta outflows averaging 4,500 cfs, have reached 73.3°F and 73.7°F, respectively. These temperatures will almost certainly be higher in July/August, especially considering that both the current NOAA one-month and three-month temperature probability predictions are for significant higher than normal temperatures. A reduction in outflow to 3,000 cfs, combined with the shift of the agricultural salinity compliance point to Threemile Slough, will move the LSZ and X2 further upstream where, based upon examination of temperature/salinity/flow data from previous years, temperatures are likely to reach lethal levels.

A conservative prediction based upon historical data is that the proposed reduction in outflow, coupled with the relocation of the salinity compliance point to Threemile Slough will likely lead to near-lethal or lethal temperatures in the Central Delta. This will further stress the small number of Delta smelt remaining in the Delta and jeopardize the existence of the species. We believe outflows should be significantly increased or, at the very minimum, be maintained at D-1641 critical year levels.

The situation facing Sacramento River Chinook salmon is equally dire. Despite the fact that it has long been known that USBR's temperature model is flawed and underestimates temperature impacts to salmon, the SWRCB Executive Director, with the concurrence of NMFS, USFWS and DFW approved USBR's 2014 Sacramento River Temperature Management Plan. That plan moved the 56°F temperature compliance point upstream from Red Bluff to Clear Creek thus eliminating much of the historical spawning habitat. Nonetheless, USBR still lost control of water temperature at Shasta Reservoir in the fall of 2014 led to the catastrophic loss of the majority of the brood year of winter-run, spring-run and fall-run Chinook salmon that spawned in the Sacramento River. In early 2015, the Executive Director acknowledged that a mistake was made.

In April, USBR submitted a proposed Temperature Management Plan for 2015. Projected releases from Shasta Reservoir far exceeded levels necessary for temperature control and were designed to accommodate the delivery of approximately 1.6 MAF of water to Sacramento River Settlement Contractors. CSPA, TBI, NRDC and others urged the SWRCB to reduce Shasta Reservoir water releases in April and May because excessive water deliveries would deplete cold-water storage in Shasta Reservoir and likely result in significant mortality of salmon in 2015. Nevertheless, the SWRCB Executive Director, again with the concurrence of the fishery agencies, approved the Temperature Management Plan on 14 May 2015.

USBR subsequently notified the Executive Director that it would be impossible to maintain temperatures at the 56°F temperature requirement throughout the temperature control season.

The Executive Director suspended his approval of the Temperature Management Plan and directed USBR to maintain Shasta Reservoir water releases at less than 7,500 cfs until further notice on 29 May 2015. A 56°F temperature requirement is not fully protective of salmon as it is on the upper limit of sublethal temperature impacts and results in significant indirect effects on juvenile salmon experiencing multiple stressors.

On 16 June 2015, the Executive Director notified USBR that the Temperature Management Plan remains suspended and, in the interim, USBR is required to maintain Keswick Reservoir (downstream of Shasta) base flow releases of 7,250 and target 57°F at Clear Creek, not to exceed 58°F. According to the U.S. Environmental Protection Agency, temperatures of 57-58°F cause direct mortality during salmon egg incubation and is detrimental to juvenile salmon. The SWRCB will continue to meet with USBR, DWR and the fishery agencies to determine future actions. As of this writing, the actual plan has not been released to the public or submitted to the fishery agencies for review and concurrence or consistency determinations with respect to endangered species acts.

The conundrum facing the SWRCB is apparent. If USBR delivers 1.6 MAF of water (of which, several hundred thousand acre-feet is destined to be transferred to south-of-delta agencies) in the summer/fall of 2015, there will insufficient storage in Shasta Reservoir to maintain temperature requirements to protect salmon.

However, the Sacramento Settlement Contractors exert substantial political power, as exemplified by delivery to them of 1.4, 1.6 and 1.2 MAF of water in the first three years of the present drought and allocation to them of 1.6 MAF in this fourth year of drought. Early June Shasta water releases are ranging between 7,000 and 7,100 cfs but flows reaching Wilkins Slough are only about 3,400 to 3,500 cfs, indicating that normally projected deliveries are being made to the Sacramento Settlement Contractors.

With temporarily reduce releases from Shasta, USBR is apparently making up the difference in water necessary for Delta outflow by increasing releases from other reservoirs. Water discharges in mid-June from Folsom Dam on the American River have increased to 2,000 cfs, thereby depleting Folsom Reservoir of storage necessary to protect American River salmon and steelhead and needed to supply Sacramento area communities. Water discharges from Oroville Reservoir on the Feather River in mid-June have increased to 3,200-3,400 cfs, with flows near Gridley above 1,750 cfs. Oroville Reservoir is in an even more precarious situation than Shasta, with storage at only 50% of historical average.

The SWRCB should limit Shasta releases in the summer to protect salmon and water savings should come from a fair-share reduction in deliveries to the Sacramento Settlement Contractors. A significant percentage of summer releases must be committed to meeting USBR's responsibility for Delta outflow to avoid redirecting impacts to other reservoirs. Relative to last year, flows should be increased in the fall in order to ensure temperature compliance. An ancillary benefit of reduced summer releases would be lower flows when salmon spawn thereby eliminating the huge spawning redd dewatering that occurred last year when flows were dramatically reduced following the end of the irrigation season.

Considering the loss of the 2014 brood year and substantially reduce natural production in 2013, the loss of the 2015 brood year of winter-run and spring-run Chinook salmon would be devastating to the fisheries and would bring these species to the brink of extinction. It must not be allowed to occur.

The San Joaquin River is simply a disaster and fisheries are being devastated. In April, the SWRCB Executive Director reduced June flows in the river by more than 70% (200 cfs monthly average, 7-day running average no more than 20% below the minimum). In early June, flows declined to a low of 151 cfs at Vernalis, temperature reached 86°F and EC was 857.26 uS/cm. As of this writing, it is unknown what decisions will be made regarding October flows.

### **A Few Words About South Delta Salinity**

As noted above, flows declined to a low of 151 cfs at Vernalis on the San Joaquin River, temperature reached 86°F and EC was 857.26 uS/cm in early June. Upstream of the Merced River confluence with the San Joaquin, flow was 21 cfs and EC reached 3,386.0 uS/cm at Newman. Thirty-day EC compliance standards are presently being violated at Brandt Bridge, Old River Near Tracy and Old River Near Middle River. Given depleted storage in New Melones (Stanislaus) and Exchequer (Merced) and low flows in the Tuolumne River, it is likely that EC at Vernalis will be violated this summer.

The Bureau and DWR have failed to comply with requirements in SWRCB Cease & Desist Order WR 2006-0006, yet the TUCPs and resulting Orders have remained silent on violations of south Delta salinity standards. Given the inability of the water boards to control salinity discharges from the west side of the San Joaquin Valley into the San Joaquin River, the SWRCB has apparently written off south Delta agriculture.

### **The Present Drought Crisis and Impending Extinction of Species Have Been Exacerbated by Mismanagement of the State and Federal Water Projects**

Droughts are a routine occurrence in California's Mediterranean climate. According to DWR, there have been ten multi-year droughts of large-scale extent in the last 100 years spanning 41 years, including 1918-20, 1923-26, 1928-35, 1947-50, 1959-62, 1976-77, 1987-92, 2000-02, 2007-09, and 2012-15. Below normal water years occur more than half the time, and natural ecosystems have evolved and adjusted to periodic droughts.

The inevitability of drought was extensively discussed during the numerous workshops and evidentiary hearings before the SWRCB over the last four decades during development the various iterations of Bay-Delta Plans and implementing water rights orders. It was discussed in the evidentiary proceeding leading up to D-1641. In D-1641, explicit provision was made for critically dry years, which included substantially less stringent, and consequently less protective, water quality and flow objectives. However, the SWRCB has ignored or weakened those criteria in each of the last three years.

Over the last several years, in workshop and protests, CSPA et al. have described the prevalence of drought in California and pointed out that the state and federal projects continue to operate

and deliver water as if there is no tomorrow. The pattern and practice of the projects is to draw down reservoir water under the assumption that the coming year will be wet, leaving little reserve storage in the event they're wrong. And in the event of another dry year, they again endeavor to maximize deliveries, without a margin of safety, in the hope that rains will return.

DWR summed up the prevailing attitude in a 1976 report in the midst of the extreme 1976-1977 drought:<sup>3</sup>

The usual strategy described in discussions with Central Valley surface water project operators who are experiencing a below-normal supply is to serve all the water possible on demand of the users, carrying little or no water over to guard against a dry 1977.... This strategy is based on the belief that a good crop this year is desirable, since next year will probably be a near-normal or better water supply.

### 1976-1977 Drought

The fall/winter/spring of 1975/76 was exceptionally dry: the third lowest in more than a 100 years of record. Yet the SWP and CVP drained their reservoirs to export a then record high 4.95 MAF from the Delta. Indeed, DWR opted to provide 600 TAF of “surplus” water from Oroville to Kern County contractors for \$2.95 per acre-foot. The following year was the driest year in the state’s record history. With depleted storage, the projects exported 2.2 MAF from the Delta and delivered 75% of contracted supplies to Sacramento River and Exchange Contractors. Shasta storage fell to almost 500 TAF (Figure 24) and Oroville (Figure 25) went below 1 MAF. Fisheries were devastated by low flows.

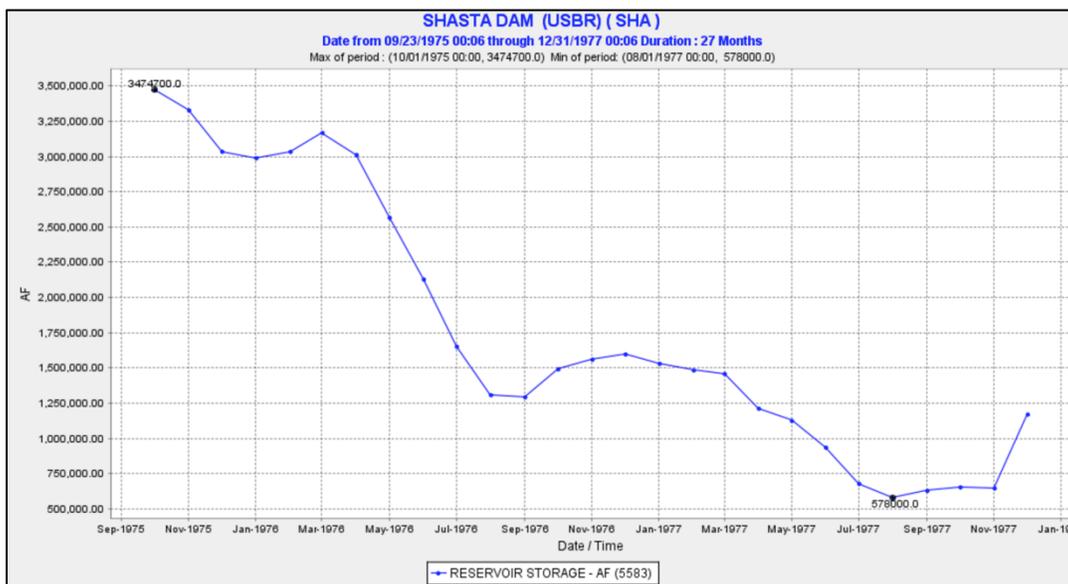


Figure 24, Shasta Dam Storage and Drawdown, 1976-1977.

<sup>3</sup> California Department of Water Resources, *The California Drought – 1976*, May 1976.  
[http://www.water.ca.gov/waterconditions/docs/11\\_drought-1976.pdf](http://www.water.ca.gov/waterconditions/docs/11_drought-1976.pdf)

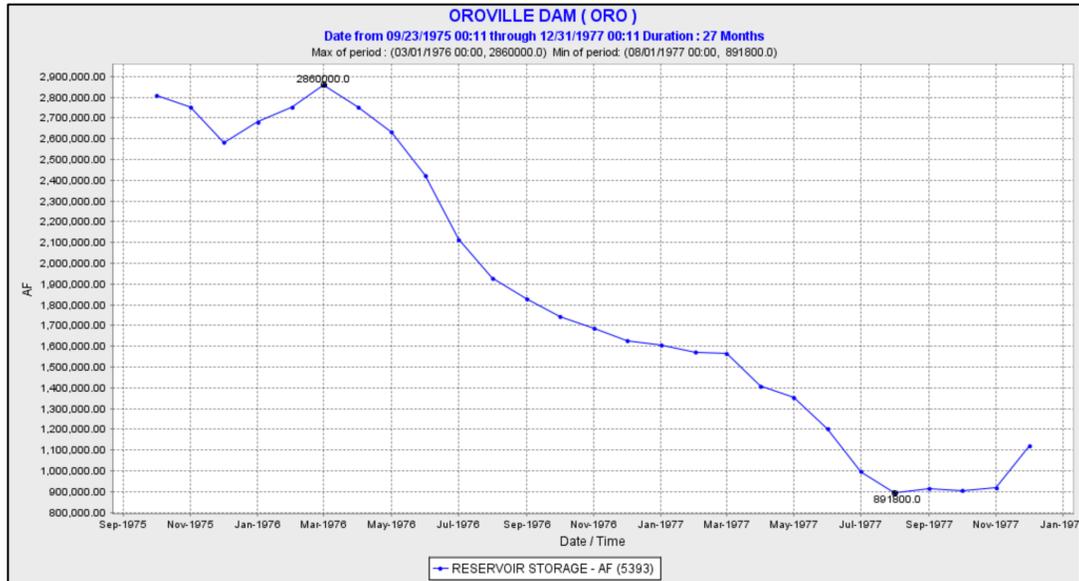


Figure 25, Oroville Dam Storage and Drawdown, 1976-1977.

### 1987-1992 Drought

The pattern and practice was repeated in the six-year drought between 1987 and 1992. Delta exports were maintained during the first four years of the drought. In 1987, 1988, 1989 and 1990 Delta exports were 5.2, 5.7, 6.1 and 5.96 MAF, respectively, as reservoirs were increasingly depleted. Sacramento River and Exchange Contractors received 100% of contract water. As reservoir storage plunged, the Projects still exported 3.3 MAF in 1991 and 3.1 MAF in 1992.

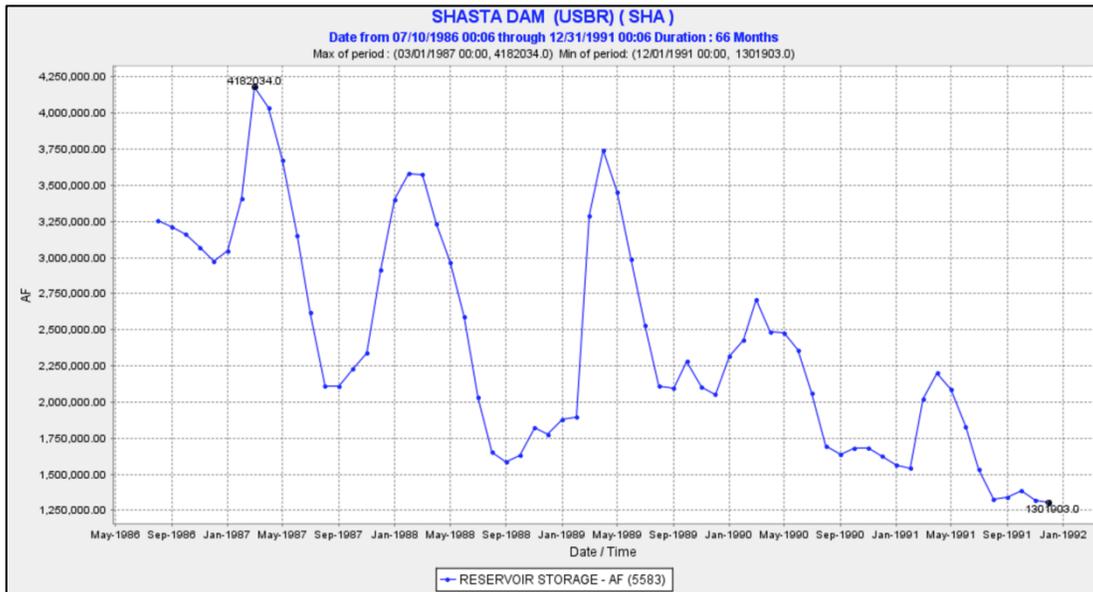


Figure 26, Shasta Dam Storage and Drawdown, 1987-1992.

Facing depleted storage, the SWRCB agreed to relax water quality requirements and subsequently announced that it wouldn't take enforcement action for hundreds of days of

violations of standards established to protect water quality and fisheries. Fisheries suffered. Both Delta smelt and winter-run Chinook salmon were listed pursuant to the Endangered Species Act, and invasive species, like the overbite clam, expanded their range and became entrenched in the estuary.

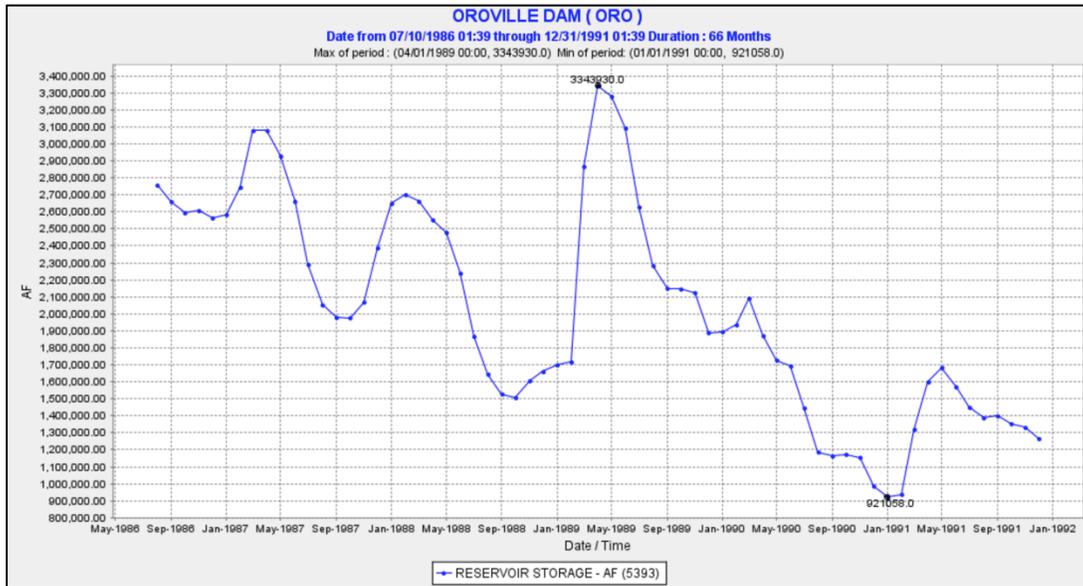


Figure 27, Oroville Dam Storage and Drawdown, 1987-1992.

### 2007-2009 Drought

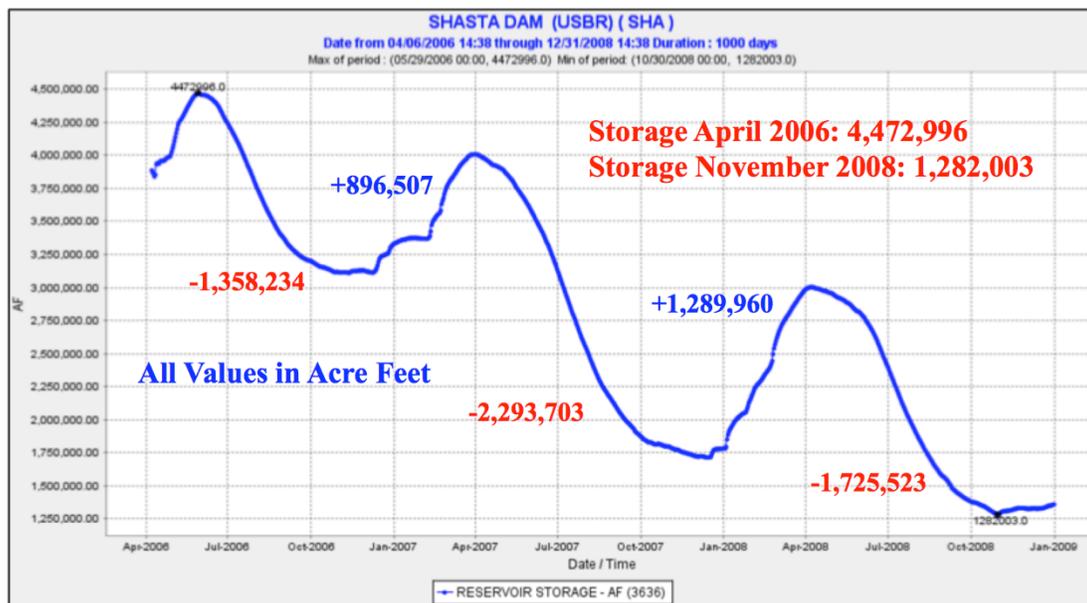


Figure 28, Shasta Dam Storage and Drawdown, 2007-2009.

The pattern and practice continued during the 2007-2009 drought. Despite an extremely dry winter, the projects exported 5.8 MAF of water in 2007 and another 3.7 MAF in 2008. Sacramento River and Exchange Contractors received 100% of contracted supplies. Populations

of pelagic and anadromous fisheries continued to decline. A crisis comparable to this year would have occurred during 2007-2009 but for a March Miracle that occurred in the late spring of 2009.

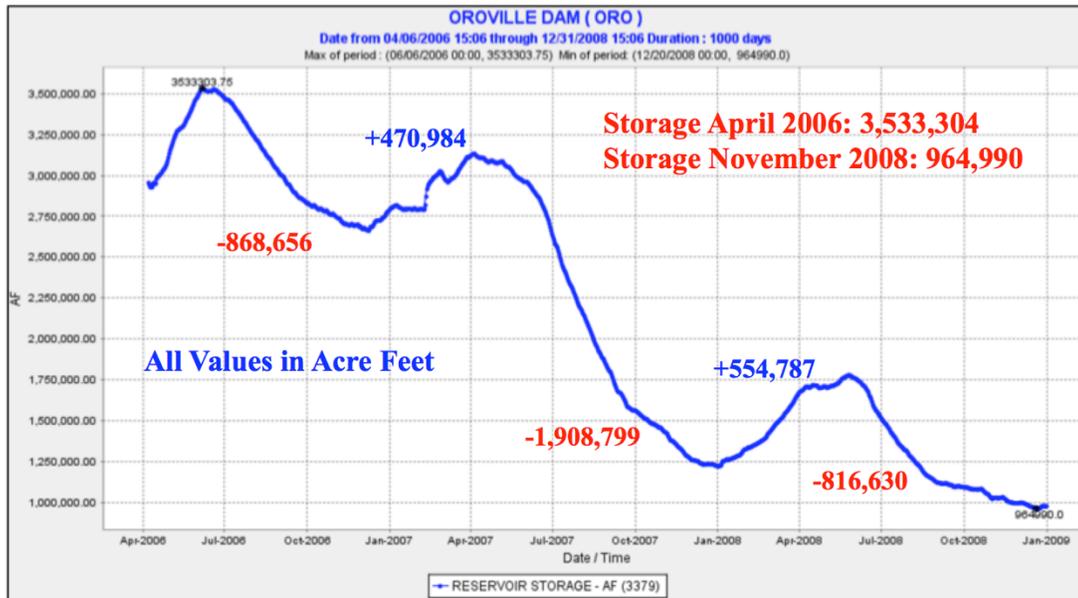


Figure 29, Oroville Dam Storage and Drawdown, 2007-2009.

### 2012-2015 Drought

The 2012-2015 drought is exceptional only in the sense that the SWRCB moved rapidly to weaken crucial standards established to protect water quality and fisheries.

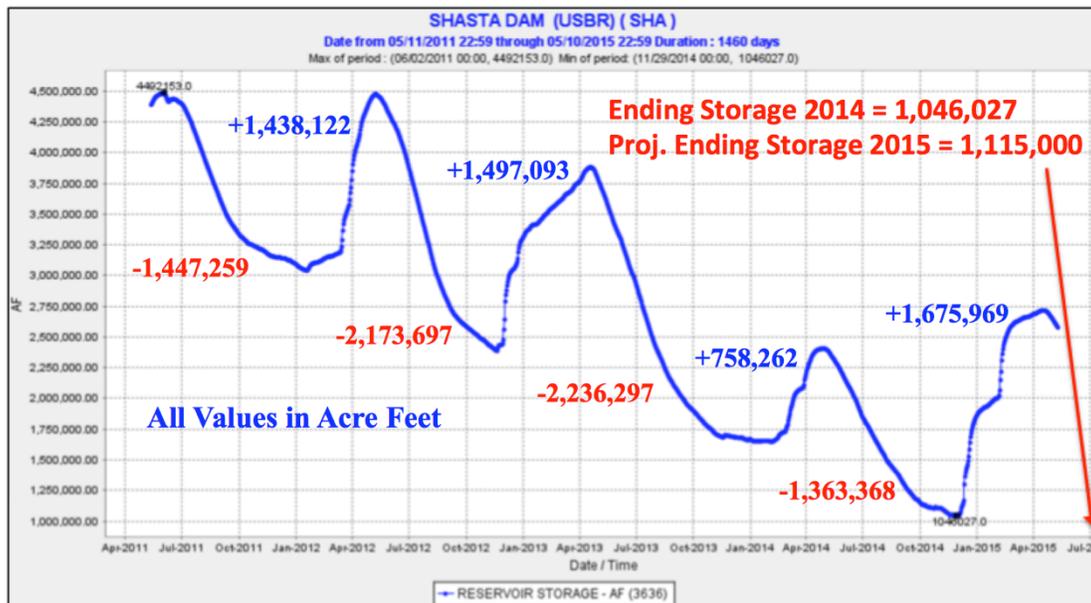


Figure 30, Oroville Dam Storage and Drawdown, 2012-2015.

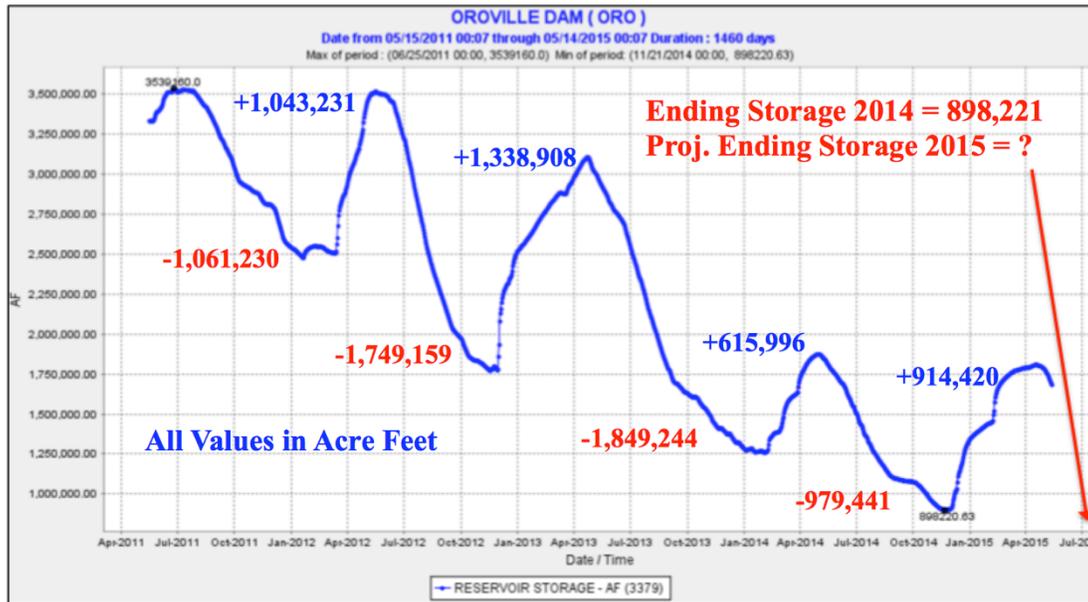


Figure 31, Oroville Dam Storage and Drawdown, 2012-2015.

Following a below normal year in the Sacramento River Basin and a dry year in the San Joaquin River Basin, the SWP and CVP exported 4.97 MAF of water in 2012. The Sacramento River and Settlement Contractors received 100% of contracted supplies and agricultural contracts in the San Joaquin Valley received 40%.

2013 was a dry year in the Sacramento River Basin and a critically dry year in the San Joaquin River Basin. CVP and SWP exports were 4.3 MAF in 2013 and the Sacramento River Contractors and Exchange Contractors received 100% of contracted water. Despite 2013 being classified as a “dry” year, the SWRCB informed the DWR and USBR that it would not take enforcement action if the Projects operated to critical-year water quality standards.

2014 was a critically dry year in both the Sacramento and San Joaquin basins. The CVP and SWP deliveries were reduced to 4.2 MAF of water and the Sacramento River Settlement Contractors and Exchange Contractors received 75% and 65% of contracted water, respectively. In response to a series of TUCP requests, the SWRCB Executive Director issued a number of orders weakening Delta water quality standards. Because storage in Shasta Reservoir had been drawn down in the first two drought years, the Executive Director agreed to a temperature management plan on the Sacramento River that compressed available spawning habitat to a few miles above Clear Creek in Redding. As expected, populations of Delta pelagic species plummeted and the inability to maintain sufficient cold water in Shasta Reservoir led to the loss of 95 % of Sacramento winter-run Chinook salmon, virtually the entire year class of in-river spawning Sacramento River spring-run Chinook salmon and 98 % of Sacramento fall-run Chinook.

As we discussed more fully in our 6 May 2015 Protest of the SWRCB’s 24 April 2015 TUCP Order, reservoir operations and depletions of Shasta and Shasta Reservoirs mirror operations and depletions in other reservoirs throughout the Central Valley. In fact, present storage, as a

percentage of historical average, in Folsom, New Melones and Exchequer Reservoirs is much less than Shasta and Oroville and those reservoirs may reach dead pool later this year.

2015 is another critically dry year in both the Sacramento River and San Joaquin River Basins. The CVP and SWP have already exported approximately 1.5 MAF of water and expect to export a total of more than 2 MAF. Sacramento Valley and Exchange Contractors will receive about 75% of contracted water. The SWRCB Executive Director has issued a series of TUCP Orders that have relaxed water quality standards and is expected to issue more in the near future.

Prudence, common sense and a decent respect for the environment and public trust resources would dictate that water agencies, in a state that faces below normal water years more than 50% the time and experiences drought sequences more than 40% of the time, would not deliver full contract demands in a summer following a dry or critically dry winter. They would not attempt to maximize deliveries in the second and third years of a drought until reservoir storage reserves shrink to critically low levels. Finally, they would not then attempt to escape the consequences of their actions by insisting that minimal flows reserved for the environment, water quality and already depleted fisheries be drastically reduced so they could again maximize water deliveries. But that is exactly what happens in droughts.

This pattern and practice has repeated itself for decades: 1976-1977, 1986-1992, 2001-2002, 2007-2009 and 2012-2015. DWR and USBR have refused to adjust to California's Mediterranean climate and over-subscribed system because they count on the SWRCB to bail them out during droughts by weakening water quality and flow criteria. And they've been right: the SWRCB has continued to bail them out by relaxing criteria and encouraging them to continue to operate on the edge of crisis. DWR and USBR also count on DFW, USFWS and NMFS to bail them out during droughts by agreeing that their proposals to weaken standards do not contravene the respective biological opinions. And they've been right: the fishery agencies have continued to provide quick concurrence memos, while the Valley's pelagic and salmonid fisheries continue their inexorable march toward extinction. It is always the Delta's fisheries and beneficial uses that pay the price.

Figures 32 and 33 provide an illustrative example of how successfully water agencies have been in persuading the SWRCB to externalize the adverse impacts arising from mismanagement by the water agencies on to the beneficial uses of the Delta and California's public trust resources. These charts were taken from the SWRCB staff presentation at the 20 May 2015 workshop on the drought. In 2014 (Figure 32), regulatory outflow protecting fisheries and Delta farmers was cut by 43% so that Delta exports could be increased from 14% to 17% of total watershed water use. The agencies apparently will receive greater benefits in 2015 (Figure 33), as regulatory outflow is projected to be slashed almost 78% so that Delta exports can be increased from 13% to 19% of watershed use. It should be noted that salinity control in the charts is water required to maintain the 1.0 ummhos/cm EC standard at the export pumping facilities before Delta water exports (red sector) are permitted. While there are some ancillary benefits to the environment from this water (green sector), it does not represent the flows needed to protect Delta farmers and fish faced with extinction (blue sector).

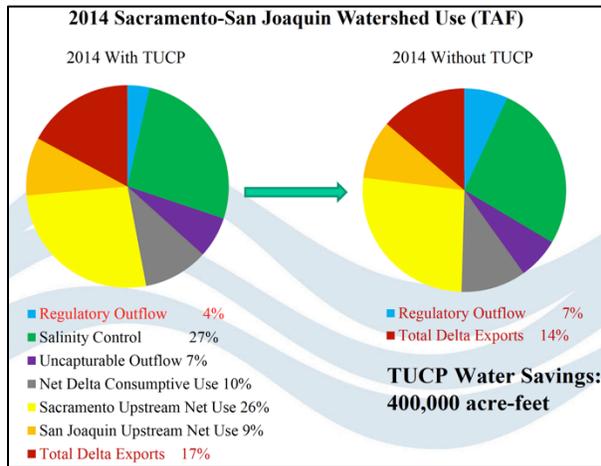


Figure 32, SWRCB, TUCP Effects 2014.

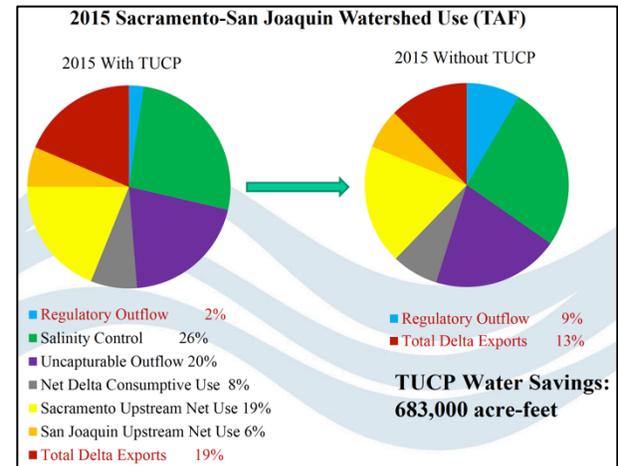


Figure 33, SWRCB, TUCP Effects 2015.

### Fisheries Have Suffered Disproportionate Harm During the Present Drought

The various TUCPs and SWRCB responding orders over the last two years have addressed impacts to irrigated agriculture, which comprises approximately 2% of the state's economy but consumes upwards of 70-80% of the state's developed water supplies. However, it is the state's fisheries that have suffered the greatest harm. Agriculture has been remarkably resilient.

As described more fully in our Protest of the 24 March 2015 TUCP Order and our presentation at the 20 May 2015 SWRCB workshop, agricultural production (Figure 34) and farm employment (Figure 35), based on official statistics from the California Department of Agriculture and California Economic Development Department, actually increased in both California and the Central Valley during the first three years of the present drought.

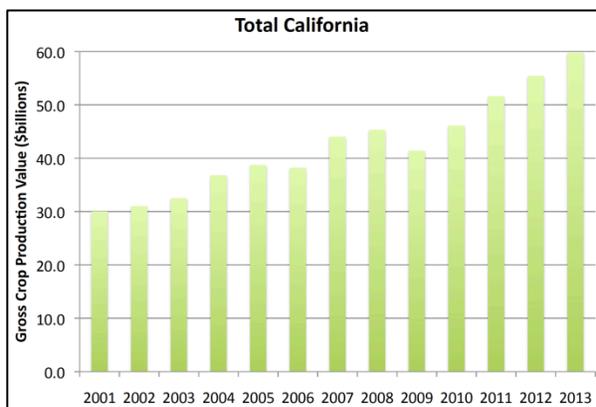


Figure 34, Ca. Agricultural Production 2001-2013.

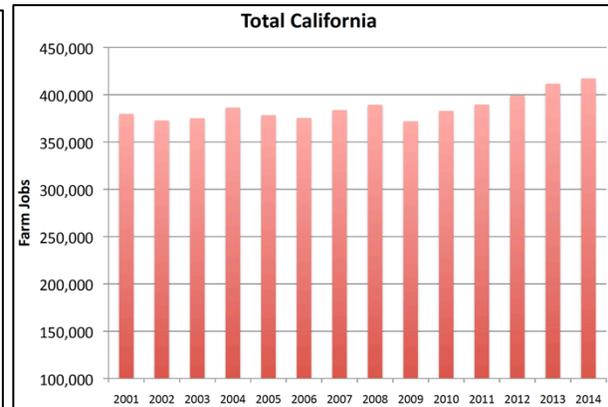


Figure 35, Ca. Farm Employment 2001-2014.

Crops that tend to produce the highest revenue and most jobs tend to require the least water. According to a U.C. Davis Center for Watershed Sciences report, vegetables, horticulture, no-tree fruits, deciduous fruits, cucurbits (melons, squash, cucumbers, watermelon, zucchini, etc.), tomatoes, vine (wine and table grapes), onions, potatoes, etc. require only 27.1% of irrigated acreage and 21.5% of the water but generate 62.7% of agricultural revenue and 81.8% of farm jobs. By contrast, irrigated pasture, alfalfa, corn, almonds, pistachios and cotton require 42.9%

of irrigated acreage and use 53.7% of the water but generate only 19.6% of revenue and 13.9% of farm jobs.

### **The SWRCB is a Poster-Child of a Captured Regulatory Agency**

Regulatory capture occurs when a regulatory agency, formed to act in the public interest, eventually acts in ways that benefit the industries, agencies and organizations it is supposed to regulate, rather than the public. The SWRCB has shaped its decisions primarily to benefit water agencies and politically powerful special interests at the expense of the public and the public interest.

For decades, the SWRCB has passively watched the disintegration of the Bay-Delta ecosystem and its fisheries without taking affirmative action to reverse the decline. The present condition of those fisheries, tottering on the brink of extinction, and the fact that virtually every significant Central Valley waterway is listed as impaired by multiple pollutants is an indictment of a blatant failure to comply with statutory mandates.

The SWRCB has refused repeated pleas to undertake a formal balancing of Public Trust resources with competing uses of water or to respond to petitions to adjudicate the fivefold over appropriation of water in the Central Valley or to hold requested evidentiary hearings on changes to water quality standards. It has failed to regularly update its Bay-Delta Plan despite increasing evidence that the Plan is not protective of fisheries and other beneficial uses. It has chaperoned the increasing pollution of Central Valley waterways and refused to enforce violations of Bay-Delta water quality standards. It has acquiesced as DWR and USBR have recklessly operated SWP and CVP reservoirs without providing a margin-of-safety to protect the citizens and public trust resources from droughts that occur more than 40% of the time. And when inevitable drought has occurred, the SWRCB has quickly acceded to demands of Project operators to externalize the consequences of their mismanagement on to the backs of beleaguered fisheries and Delta water quality.

The current drought proceedings are a scathing example. The rapidity of the decision-making process to weaken water quality criteria is breathtaking. The process from a TUCP through agency concurrence memos to the TUCP Order takes but a few days. It is accomplished in secret, the public is always excluded and there is never an evidentiary proceeding that might raise embarrassing questions or reveal inconvenient facts. Occasionally, the SWRCB will schedule a meaningless workshop to placate an increasingly exasperated public. It cannot be claimed that an emergency exists because the scenario has replicated itself multiple times in previous droughts and over the last three years.

The evidence indicates that the SWRCB, as well as DFW, USFWS and NMFS, have become captive agencies to politically powerful interests and incapable of independent action to protect public trust assets. They could not do more damage to the environment if they were subsidiaries of the state and federal water contractors.

## **Chronic Relaxation of Promulgated Standards Because Water Agencies Refuse to Pursue Reasonable Measures to Address Drought Emergencies that Occur 40% of the Time Cannot Serve the Public Interest**

The SWRCB's weakening of water quality standards over the last several years has brought winter-run and spring-run Chinook salmon, Delta smelt and longfin smelt to the brink of extinction. These species and frankly, all native pelagic and anadromous species in the Central Valley are public trust assets belonging to all of the people of the state and nation. The SWRCB ignored the Public Trust and failed to even attempt to balance competing beneficial uses of water in adopting the various TUCP Orders.

It cannot be in the public interest to send species that evolved and prospered over millennia into extinction simply to service politically powerful special interests. As discussed above, Central Valley agricultural production and farm employment have fared far better during the drought than the pelagic and salmonid species of the Valley. The public interest demands that these species be prevented from tumbling into the dark abyss of extinction.

### **The TUCP is Contrary to Law if Approved**

The TUCP contravenes Public Trust Doctrine by failing to protect trust assets and failing to balance a relatively healthy Central Valley agricultural sector that represents somewhat less than 2% of the state's gross domestic product with critically depressed public trust resources hovering on the brink of extinction. Extinction cannot be balanced! It contravenes the federal Clean Water Act by arbitrarily weakening criteria without following mandated procedures and ignoring federally promulgated water quality criteria. It violates the due process of those who have been excluded from the backroom deal cutting. It contravenes the Delta Protection Act of 1959 by failing to control salinity in the Delta to the detriment of Delta agriculture and urban water supply beneficial uses and by failing to make required findings that no water is being exported that belongs to Delta users under watershed protection and area of origin statutes. Notwithstanding the letters of concurrence or consistency, it violates state and federal endangered species statutes because the record clearly demonstrates that the agencies charged with implementing those acts have chaperoned the collapse of Delta fisheries, have grievously failed to protect endangered species from impending extinction, and have essentially become captive agencies to special interests.

For all of the reasons herein, we believe the evidence demonstrates that the proposed TUCP, and the Order, to the degree that it grants the measures requested in the TUCP, violates state and federal laws, including but not limited to:

### **Public Trust Doctrine and California Case Law**

The Public Trust Doctrine protects many values including fish and wildlife (*see Marks v. Whitney, 6 Cal 3d 251; National Audubon Society v. Superior Court 33 Cal 3d 419.*) The State of California has sovereign fee ownership of public trust easements in California Rivers and streams and of the fish and wildlife that live in them. Those rights cannot be arbitrarily and

capriciously waived by Governor Brown's suspension of regulations that require compliance with water quality standards under the guise of a self-proclaimed emergency.

The SWRCB retains its "affirmative duty" under Audubon to continually reevaluate the uses of water by the export projects in this and other droughts to come. The Governor does not have the authority to declare an emergency and destroy the Public Trust. The SWRCB cannot find that the TUCP has no "unreasonable" effect on fish and wildlife by the granting of a TUCP and a Temperature Management Plan that could eliminate salmon, smelt and other fish, which are Public Trust assets.

In November 2009, the State Legislature passed Water Code § 85086 as part of the Delta Reform Act of 2009. The Act required the SWRCB to develop new flow criteria to protect Public Trust resources of the Delta. Following extensive testimony, the SWRCB issued the 2010 Delta Flow Criteria Report, which identified flow criteria necessary to support Public Trust resources. The report, titled *Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem*, found that Delta flows are insufficient to support native Delta fishes and recommended significant increases in inflow to the Delta and outflow to the Bay.

The Delta Reform Act also directed DFW to identify quantifiable biological objectives and flow criteria for the species of concern in the Delta. Following a lengthy proceeding, DFW issued a 2010 report titled *Quantifiable Biological Objectives and Flow Criteria for Aquatic and Terrestrial Species of Concern Dependent on the Delta*.

Unfortunately, since the issuance of those reports, both the SWRCB and DFW have acted as if the reports and the Public Trust didn't exist. There has been virtually no attempt to balance the flows required to protect public trust resources with other beneficial uses as was done at Mono Lake. Despite native fisheries facing extinction, the SWRCB failed to consider or balance the Public Trust with competing beneficial uses as they adopted the TUCP Orders. DFW failed to consider the Public Trust and its Delta biological objectives and flow criteria in quickly endorsing the TUCPs and in finding them to be consistent with the California Endangered Species Act (CESA).

### **Article 10, Section 2 of the California Constitution**

"The right to water or to the use or flow of water in or from any natural stream or water course in this State is and shall be limited to such water as shall reasonably be required for the beneficial use to be served, and such right does not and shall not extend to the waste or unreasonable use or unreasonable method of use or unreasonable method of diversion of water."

Considering the conditions of drought which are described in the "drought emergency" declared by Governor Brown - the curtailments of water rights, the waiver of D-1641 standards to protect fish and wildlife and water quality in the Delta watershed - it is time for the SWRCB to declare flood irrigation by agriculture during the drought emergency a waste and unreasonable use until the emergency is over.

If the SWRCB can require urban conservation, it can also require conservation in agriculture. Flood irrigation in the Sacramento Valley in particular is unreasonable when the endangered salmon are facing extirpation. Increased evaporation from spreading water on the ground alone likely uses more stored water than that needed to save the fishery.

Alfalfa and irrigated pasture alone consumes 8.6 MAF of water in California and provides low net revenue and few jobs. The SWRCB can and must reduce the quantity of water allocated to irrigated pasture and low-value crops like alfalfa that use prodigious amounts of water during the drought emergency. To continue this use is unreasonable and a waste of water and must be stopped or reduced until the drought emergency is declared over.

The continued killing of threatened and endangered species by obsolete and non-protective export pumping facilities simply because the state and federal water contractors refuse to pay for new state-of-the-art fish screens is an unreasonable method of diversion. This is especially true when water diverted through those facilities deprives listed species of water necessary for survival. The SWRCB can and must curtail south Delta exports during the drought emergency until D-1641 water quality standards are met.

### **The California Endangered Species Act**

Native Salmon, smelt and other fish are listed under the California Endangered Species Act (CESA). The proposed TUCP does not provide these fish the protection provided by the law. Professor Moyle has been widely quoted that present conditions are likely to result in the extinction of the Delta smelt with as many as five more protected fish in line to follow. The SWRCB cannot waive Bay-Delta water quality standards and approve the TUCP because there is no rational basis to believe that there will not be an “unreasonable effect” on fish and wildlife from the approval.

### **Section 5937 of the California Fish and Game Code**

The requested TUCP and USBR’s Temperature Management Plan on the Sacramento River will not keep fish below Shasta, Oroville, Folsom, New Melones, Friant, and Trinity Dams “in good condition” as required by Section 5937 of the California Fish and Game Code. Each of these rivers contain fish and other creatures that need water to survive this drought and present forecasts of water and temperature conditions have indicated how close a question survival has become because of USBR’s failure to preserve necessary water in reservoirs under their control.

### **Section 7 of the Federal Endangered Species Act**

The USFWS’ Delta Native Fish Recovery Plan goals include: to establish self-sustaining populations of species of concern that will persist indefinitely ... The basic strategy for recovery is to manage the estuary in such a way that it is better habitat for aquatic life in general and for fish species of concern in particular. The goal of the NMPS management plans for the listed salmonids on the Sacramento River is their survival and the protection of their habitat for their recovery. The TUCP is not likely to provide protection and will cause increased jeopardy for the

listed species. Obviously, no State Governor has the authority to waive federal species protection laws.

### **The Federal Clean Water Act**

The federal Clean Water Act (CWA) requires the adoption of water quality standards consisting of the designated uses of navigable waters and the water quality criteria for such waters based upon such uses. Water quality standards must protect and restore the designated fish, wildlife and recreational uses of the Bay-Delta. Implementation plans that do not comply with the designated use of the waters do not comply with applicable water quality standards.

Despite claims to the contrary, the sequential actions of the SWRCB over the last two years in weakening the implementation of promulgated water quality standards contained in the Bay-Delta Plan amount to a de facto change in standards. The SWRCB has changed standards without public hearing and in violation of mandated requirements for establishing water quality standards and protecting designated uses.

The SWRCB has failed to comply with state and federal antidegradation requirements in lowering water quality. At a minimum, antidegradation requirements require that water quality standards must protect “fishable” beneficial uses. There is no analysis in the TUCP or responding Orders analyzing impacts to beneficial uses and the trade offs or costs between a temporary loss of water to state and federal water contractors and the decline of fisheries and likely extinction of species. Nor is there any analysis of the relative benefits of weakening water quality standards in order to provide water to state and federal water contractors at the cost of depriving Delta farmers of water and water quality.

There is disagreement between the SWRCB and U.S. Environmental Protection Agency (USEPA) over whether the CWA regulates flow. However, flow and constituent concentration are flip sides of the same coin. Reductions in flow increase the concentration of pollutants. The Suisun Bay water quality standards in the Bay-Delta Plan are narrative and require water quality conditions sufficient to support a natural gradient in species composition and wildlife habitat characteristic of a brackish marsh. While narrative in nature, it is pollutant concentration that determines whether it is met. The Eastern and Western Suisun Marsh salinity standards are expressed as concentration. The Delta outflow objectives are expressed both as flow and concentration but the impacts on pelagic species are determined by the concentration. Agricultural water quality standards in the Western, Interior and Southern Delta and Vernalis are established as concentration.

Federal regulations require states to revisit and revise water quality control plans every three years. The present Bay-Delta water quality standards were adopted twenty years ago in 1995, implemented five years later and briefly revisited in 2006 without change. A new proceeding is underway but has experienced long delays and it is unknown when it will be completed. The SWRCB has failed to comply with federal regulation in updating the Bay-Delta Plan.

The TUCP and resulting Orders violate the CWA by failing to comply with mandated water quality standards. The Governor cannot legally order state agencies to violate or refuse to

comply water quality standards. He clearly cannot exempt the USBR from complying with water quality standards.

### **Federal Water Quality Standards Promulgated for California at 40 CFR 131.37**

Pursuant to a federal court order (*Golden Gate Audubon Society, et al. v. Browner, et al. [E.D. Calif. CIV-S-93 646 LKK PAN]*), USEPA was required to promulgate final federal water quality standards for the Bay-Delta. Those water quality standards are current, as of this writing, and can be found at 40 CFR §131.37. Those standards are significantly more protective than the subsequent state Bay-Delta water quality standards issued in late 1995. The SWRCB Orders weakening Bay-Delta standards are inconsistent with the federally promulgated water quality standards.

### **The CVPIA Doubling Standard for Salmon and Steelhead**

One goal of the Central Valley Project Improvement Act (CVPIA) is to ensure that ... natural production of anadromous fish in Central Valley rivers and streams will be sustainable, on a long term basis, at levels not less than twice the average levels attained during the period of 1967-1991 (Section 3406(b)(1)). The SWRCB's Bay-Delta Plan has a narrative salmon protection objective with a similar doubling goal that the Governor has purported to waive under emergency provisions. The USEPA's federally promulgated water quality standards, at 40 CFR 131.37, also incorporate the doubling goal.

Section 3406(b) of the CVPIA requires USBR to operate the Central Valley Project to meet all obligations under state and federal law. This includes compliance with water quality standards adopted pursuant to the federal CWA.

A state governor cannot waive federal law. The USBR must obey the CVPIA and refrain from requesting actions that lead to a violation of the doubling standard for salmon and striped bass contained in the CVPIA.

### **The California Water Code and Governor's Declaration of Drought Emergency**

The Delta Protection Act of 1959 prohibits project exports from the Delta of water to which Delta users are "entitled" and water, which is needed for salinity control and, as adequate supply for Delta users. (Water Code § 12202, 12203, 12204)

The SWRCB, since D-1485 at page 9, has recognized that "The Delta Protection Act accords first priority to satisfaction of vested rights and public interest needs for water in the Delta and relegates to lesser priority all exports of water from the Delta to other areas for any purpose." The requested TUCP by the projects reverses this priority and eliminates the statutory protections for Delta agricultural water quality and estuarine protection in favor of water transfers from upstream of the Delta to secondary priorities outside of Bay-Delta watershed. There is nothing in the Governor's drought emergency declaration that authorizes the SWRCB to make such a drastic change in California water law by ignoring the Delta Protection Act, the Watershed of Origin Act and the Water Code sections effectuating them.

### **Under what conditions may this Objection be disregarded and dismissed?**

First, the requested TUCP Order should be denied. In its place, the SWRCB should undertake the following measures to protect fish and wildlife for the remainder of 2015:

1. Given the imminent threats of extinction, the SWRCB should move to reinstate D-1641 critical year criteria. If D-1641 outflow criteria to protect fish and wildlife cannot be met, exports should be prohibited. Water needed to supply export health & safety needs have already been exported are presently in storage in San Luis Reservoir.
2. Proposed Keswick releases should be in the range of 7,000-7,500 cfs during the June-July winter-run Chinook salmon spawning period and reduced to no more than 6,000-6,500 cfs in September-October to ensure that redds will not be dewatered and sufficient cold-water reserves remain in Shasta Reservoir to protect spawning, incubation and emergence of salmon. It is unreasonable to supply Sacramento Settlement Contractors with 1.2 MAF of water within essentially a critical four-month window during a drought at the expense of the cold-water pool in Shasta.
3. The SWRCB should prohibit South of Delta water transfers and ensure that “surplus” transfer water be used to meet D-1641 criteria.
4. The Vernalis salinity standard should be maintained at 0.7 EC through the growing season. If the standard cannot be met, discharges of high salinity waters from the west side of the San Joaquin Valley should be prohibited.
5. Vernalis flow should be maintained to at least 200 cfs. Water needed to institute these flows should be apportioned among tributary users. End of October New Melones storage should be maintained at 200 TAF or greater.
6. To minimize potential impacts from another dry year, the SWRCB should begin to require DFW and USFWS to establish a program to ensure maximum production and survival of young salmon to the ocean through trucking or, preferably, barging hatchery-produced salmon and steelhead to the Bay. The USBR and DWR should be required to fund any added costs associated with these enhanced hatchery practices.
7. The SWRCB should require management of delta hydrology through EC and gauged outflow, not NDOI. EC recorders and USGS gauges located throughout the river, Delta, and Bay provide a better management tool than the estimated NDOI.
8. The SWRCB should require the RTDOMT to operate the Delta Cross Channel gates in real time to minimize export losses of smelt and San Joaquin salmonids during periods of high Delta inflows, to minimize negative OMR and improve positive QWEST flows. When salmon are present, gates should only be opened during daylight hours to minimize redirection into the central Delta.
9. The SWRCB should require DWR and the Bureau to adjust exports to the natural monthly tidal cycle to minimize negative effects on Delta hydrology and fish habitat and entrainment risk conditions.
10. The SWRCB must hold an evidentiary hearing on the requested TUCP and Order to consider necessary measures to protect gravely threatened fish species during current drought and depleted storage conditions.

The SWRCB should also undertake the following measures to protect fish and wildlife for the remainder of 2015 and for 2016 and prior to any future drought sequence:

1. Expedite development of the Water Quality Control Plan for the Bay-Delta.
2. Undertake a comprehensive balancing of Public Trust Resources identified in the SWRCB's 2010 Report titled *Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem* with other identified beneficial uses of Central Valley waters.
3. Initiate an adjudication of over-appropriated water rights in the Central Valley.

The SWRCB should also use its authority during the remainder of 2015 and 2016 to re-regulate the state and federal export pumping facility to create better Bay-Delta ecosystem conditions by taking the following steps:

1. Determine Whether There Will Be Fish Passage at Central Valley Watershed Rim Dams.

There was very little spawning and rearing habitat for salmonids that existed below the locations of the lowest elevation water user dams on the edge of the Central Valley. Most estimates by government studies indicate that as much as 95% of the natural spawning and rearing habitat for the listed winter and spring run salmon and the Central Valley steelhead has been blocked by dams. There is presently no system of access for these fish to return to their native streams and to the upper elevation deep cold water that would allow the fish to survive on their own as they did before the dams. If access to this important habitat remains blocked, it will be necessary for the SWRCB to dedicate ever-increasing amounts of stored, cold water to fish and wildlife needs.

2. Dedicate Reservoir Storage for Endangered Fish Habitat.

Reservoirs are the only source for the cold water that salmon and steelhead depend on for habitat to survive below dams that restrict access of fish to historical habitat above these dams. If fish are to have any chance to survive expected future temperature increases resulting from climate change, reservoir storage must be dedicated to fish habitat and access for fish must be restored to higher elevation habitat with colder water. A program must be designed and executed to protect fish during this drought. The present state of cold-water reservoir reserve is insufficient and may result in salmonid extinction unless more of the winter's water run-off is dedicated to fish and wildlife in the Central Valley Rivers leading into the Bay-Delta estuary.

3. Modify Reservoir Flow Releases to Include a Margin of Safety.

Water flow is not only water supply for agriculture and urban California. Water flow is habitat for fish and other aquatic species. Because water users have eliminated much of the natural habitat for salmonids by building dams on Central Valley streams and rivers, salmon and steelhead are trapped in very small areas for spawning and rearing. This year's drought and the high volume water export since 2000 have nearly exhausted reservoir water available to provide habitat for fish and other aquatic species. The SWRCB should use its authorities under the Clean Water Act and the Water Code to prevent additional depletion of reservoir storage that risks extinction for salmon and steelhead.

4. Modify Reservoir Flow Releases to Ensure Protection of Coldwater Pools.

To the extent possible, water storage facilities should be managed to provide cold water for fish during the summer and early fall months. Since the salmon and steelhead are trapped below project dams, they are exposed to unnaturally high water temperatures that can have both lethal and chronic effects. For these fish, cold water is habitat. Without it, they die. The SWRCB must modify rim dam water rights permits to preserve cold water for water year 2016 and years following.

5. Establish Additional Cold-Water Reservoir Storage for Bay-Delta Ecosystem Purposes.

There are several reasons to expect that climate change will have negative long-term influences on pelagic habitat suitability for the POD fishes. First, there has been a trend toward more Sierra Nevada precipitation falling as rain earlier in the year. This increases the likelihood of winter floods and may have other effects on the hydrographs of Central Valley Rivers and Delta salinity. Altered hydrographs interfere with pelagic fish reproduction, which is usually tied to historical runoff patterns. Second, sea level is rising. Sea level rise will increase salinity intrusion unless sufficient freshwater resources are available to repel the seawater. This will shift fish distributions upstream and possibly further reduce habitat area for some species. Third, climate change models project warmer temperatures in central California. As stated above, water temperatures do not currently have a strong influence on POD fish distributions. However, summer water temperatures throughout the upper estuary are fairly high for delta smelt. Mean July water temperatures in the upper estuary are typically 21-24°C and the lethal temperature limit for delta smelt is about 25°C. Thus, if climate change resulted in summer temperatures in the upper estuary exceeding 25°C, delta smelt would have little chance of maintaining viable populations.

Water storage in Shasta and Oroville are approaching historic lows and will be at or below 1977 levels by fall 2015. The principal cause of this shortfall is the cannibalization of north-of-Delta storage over the last several years to supply south-of-Delta storage and use. Unless the approaching water year proves to be extremely wet, next years instream flows on the Feather, Sacramento and Yuba rivers are likely to approach record lows. These low flows will likely cause and contribute to reductions in spawning and rearing habitat, lethal temperatures and increases in pollutant concentration. Given the dramatic crash of pelagic species and the recent acceleration in the long-term decline in salmonid escapement, these expected low flows could trigger a catastrophic disaster to fisheries already hovering on the edge of extinction.

6. Improve Water Quality in Rivers Leading Into the Bay-Delta.

Concern over contaminants in the Delta is not new. There are long-standing concerns related to mercury and selenium in the watershed, Delta, and Bay. Phytoplankton growth rate may occasionally be inhibited by high concentrations of herbicides. New evidence indicates that phytoplankton growth rate may at times be inhibited by ammonium concentrations in and upstream of Suisun Bay. Toxicity to invertebrates has been noted in water and sediments from the Delta and associated watersheds. Undiluted drainwater from agricultural drains in the San Joaquin River watershed can be acutely toxic (quickly lethal) to fish and have chronic effects on

growth. Evidence for mortality of young striped bass due to discharge of agricultural drainage water containing rice herbicides into the Sacramento River led to new regulations for discharge of these waters. Bioassays using caged fish have revealed DNA strand breakage associated with runoff events in the watershed and Delta. Peak densities of larval and juvenile delta smelt sometimes coincided in time and space with elevated concentrations of dissolved pesticides in the spring. These periods of co-occurrence lasted for up to 2-3 weeks, but concentrations of individual pesticides were low and much less than would be expected to cause acute mortality. However, the effects of exposure to the complex mixtures of pesticides actually present are unknown.

7. Evaluate Biological Effects of Salt Input Into the Bay-Delta.

High levels of salt, as measured at Vernalis, has major potential to damage Bay-Delta agriculture and to cost water users substantial treatment costs at the place of use. The State Board assigned DWR and USBR the responsibility for meeting salinity objectives in the 1979 Delta Plan, D-1485, and the 1995 Delta Plan and D-1641. Salinity standards continue to be routinely violated. The San Joaquin River Salinity and Boron TMDL assigns responsibility for controlling salt delivered to the San Joaquin Valley from the Delta to USBR. USBR's salt load reductions are to be addressed through a joint Management Agency Agreement with the Central Valley Regional Water Quality Control Board (CVRWQCB). Unfortunately, the Bureau is claiming sovereign immunity and, while promising some level of cooperation, refuses to accept specific enforceable load limits that will actually lead to reductions in salt loading to the San Joaquin River.

8. Establish Origin of Salt Input Into the Bay-Delta.

The SJR Salt TMDL is a poster child for the failures of the TMDL program to secure improvements in water quality. Salinity problems on the river have been recognized for over a century. The long-delayed salt TMDL is the first 100-foot TMDL in the nation's history, only protecting a short stretch of river below the San Joaquin's confluence with the Stanislaus River. Water quality violations continue to occur upstream of the confluence and downstream below Vernalis: this despite the fact that EPA regulations and the CVRWQCB Basin Plan require that standards must apply throughout a waterbody, not simply at a single compliance point. While TMDL implementation plans must ensure attainment of water quality standards, the salt TMDL contemplates a 19% exceedance of standards in critical years and a 7% exceedance in dry years. The TMDL fails to reserve any assimilative capacity, thus depriving downstream farmers of the ability to irrigate and discharge return flows. Although the State Board has expressly directed the CVRWQCB to control salt loading from municipal and industrial dischargers, it is routinely allowing massive increases in salt loading in recently adopted NPDES permits. Indeed, the CVRWQCB, with SWRCB approval, recently issued a waiver exempting Delta municipalities from having to comply with salinity requirements contained in their respective NPDES permits. Both the 1995 Water Quality Control Plan for the Delta and D-1641 directed the CVRWQCB to move the salt compliance point upstream of Vernalis. Twenty years later, proposed upstream salinity objectives have not been released and the CVRWQCB is pursuing a CV Salts Plan that may provide results by mid-century.

9 Establish New Interim X2 Bay-Delta Fall Outflow Requirements for All Year Conditions.

Pelagic habitat quality in the San Francisco Estuary can be characterized by changes in X2 (Distance from the Golden Gate of the 2 psu isohaline). The abundance of numerous species increases in years when flows into the estuary are high and X2 is pushed seaward, implying that the quantity or suitability of estuarine habitat increases when outflows are high. The importance of salinity in this study was not surprising, given the relationships of population abundance indices with X2 for many species. Fall salinity has been relatively high during the POD years followed by drought years, with X2 positioned further upstream, even when there are moderate to high outflow conditions during the previous winter and spring. Recent increases in fall salinity could be due to a variety of anthropogenic factors. Initial results from 2007 POD studies have identified increased duration in the closure of the Delta Cross Channel, operations of salinity gates in Suisun Marsh, and changes in export/inflow ratios (i.e. Delta exports/reservoir releases) as contributing factors. The last two years of reduction of even the paltry critical year outflow requirements of D-1641 are clearly likely to extirpate the POD species.

Fall represents the time period when the delta smelt year class matures to adulthood. Hence, fall stressors have a direct effect on the delta smelt spawning population. The evidence to date indicates that habitat is a significant issue for delta smelt in fall. Delta smelt are strongly associated with low salinities and high turbidities, which can be used to index the “environmental quality” of habitat for the species. Numerous reports demonstrate that fall environmental quality has shown a long-term decline, which has resulted in the present drought causing numbers of pelagic species to decline far beyond the earlier POD “crash”. There is statistical evidence that these changes have population-level effects. A multiple linear regression of fall environmental quality in combination with adult abundance provides statistically significant predictions of juvenile production the following year. Hence, both habitat and stock-recruit factors are important issues during the fall of 2015.

10. Determine the Biological Effects of Project Pumping.

It is important to keep in mind that river flows influence estuarine salinity gradients and water residence times. The residence time of water affects both habitat suitability for benthos and the transport of pelagic plankton. High tributary flow leads to lower residence time of water in the Delta, which generally results in lower plankton biomass, but also lower cumulative entrainment effects in the Delta. In contrast, higher residence times (a month or more), which result from low tributary flows, may result in higher plankton biomass. This can increase food availability for planktivorous fishes; however, much of this production may be lost to water diversions under low flow conditions. Under extreme low flow conditions, long water residence times may also promote high biological oxygen demand when abundant phytoplankton die and decompose. Recent particle tracking modeling results for the Delta show that residence times in the southern Delta are highly variable depending on Delta inflow, exports, and particle release location. Very high inflow leads to short residence time. The longest residence times occur in the San Joaquin River near Stockton under conditions of low inflow and low export flow.

Statistical analyses of the long-term Delta smelt trends confirm that there has been a rapid decline of Delta smelt since 2000. We suggest that changes in water project operations and adult abundance are contributing causes of this recent decline. Increased water project exports during winter resulted in higher losses of adult smelt, particularly early spawning fish (and their offspring) that may be proportionally more important to the population. Finally, it is likely that the population is now at such low levels that recovery is unlikely in a single year but will require several years of successful reproduction and recruitment.

11. Establish Effective Fish Screens at Project Pumping Facilities in the Bay-Delta.

Because large volumes of water are drawn from the estuary, water exports and inadvertent fish entrainment at the SWP and CVP export facilities are among the best-studied top-down effects in the San Francisco Estuary. The export facilities are known to entrain most species of fish in the upper Estuary and are of particular concern in dry years, when the distributions of young striped bass, delta smelt, and longfin smelt shift closer to the diversions. As an indication of the magnitude of the effects, approximately 110 million fish were salvaged at the SWP screens and returned to the Delta over a 15-year period. However, this number greatly underestimates the actual number of fish entrained. It does not include losses at the CVP. Even for the SWP alone, it does not account for mortality of fish in Clifton Court Forebay and the waterways leading to the diversion facilities, larvae < 20 mm FL are not collected by fish screens, and losses of fish > 20 mm FL are inefficiently removed by the louver system.

Larval entrainment is unknown because larvae are not sampled effectively at the fish screening facilities. However, a number of studies suggest that larval delta smelt entrainment losses could exceed 50% of the population under low flow and high export. Evidence that export diversions played a role in the POD is the substantial increases in winter CVP and SWP salvage that occurred contemporaneously with recent declines in each of the four primary fishes. Increased winter entrainment of delta smelt, longfin smelt and threadfin shad represents a loss of pre-spawning adults and all their potential progeny. Similar increases in the salvage of littoral species including centrarchids and inland silverside were observed during the same period.

12. Establish Inflow-Outflow Weekly Ratio for All Weeks of The Year.

Habitat for pelagic fishes is open water, largely away from shorelines and vegetated inshore areas except perhaps during spawning. This includes large embayments such as Suisun Bay and the deeper areas of many of the larger channels in the Delta. More specifically, pelagic fish habitat is water with suitable values for a variety of physical-chemical properties, including salinity, turbidity, and temperature, suitably low levels of contaminants, and suitably high levels of prey production to support growth. Thus, pelagic fish habitat suitability in the estuary can be strongly influenced by variation in freshwater flow.

A true copy of this objection has been served upon the petitioners by e-mail (see below).

Date: 17 June 2015

Bill Jennings, Executive Director

California Sportfishing Protection Alliance



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Chris Shutes, Water Rights Advocate  
California Sportfishing Protection Alliance



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Barbara Vlamis, Executive Director  
AquAlliance



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Carolee Krieger, Executive Director  
California Water Impact Network



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Michael Jackson  
Counsel to California Sportfishing Protection Alliance,  
AquAlliance, and  
California Water Impact Network

/s/ Michael Jackson

Pursuant to requirements that all protests must be served on the petitioner, we have filed this protest, objection, petition for reconsideration and petition for hearing via e-mail to: Rich.Satkowski@waterboards.ca.gov, Chris.Carr@waterboards.ca.gov; Department of Water Resources, James.Mizell@water.ca.gov; Regional Solicitor's Office, Amy.Aufdemberge@sol.doi.gov; U.S. Bureau of Reclamation, pfujitani@usbr.gov.

# **Attachment 2**



## California Sportfishing Protection Alliance

*"An Advocate for Fisheries, Habitat and Water Quality"*

3536 Rainier Avenue, Stockton, CA 95204

T: 209-464-5067, F: 209-464-1028, E: [deltakeep@me.com](mailto:deltakeep@me.com), W: [www.calsport.org](http://www.calsport.org)

21 July 2015

Mr. Thomas Howard  
Executive Director  
Ms. Barbara L. Evoy  
Deputy Director, Division of Water Rights  
State Water Resources Control Board  
1001 "I" Street, 24<sup>th</sup> Floor  
Sacramento, CA 95814  
[Barbara.Evoy@waterboards.ca.gov](mailto:Barbara.Evoy@waterboards.ca.gov)

VIA: Electronic Submission  
Hardcopy if Requested

RE: COMPLAINT: Against SWRCB, USBR and DWR for Violations of Bay-Delta Plan, D-1641 Bay-Delta Plan Requirements, Clean Water Act, Endangered Species Act, Public Trust Doctrine and California Constitution

Dear Mr. Howard and Ms. Evoy:

The California Sportfishing Protection Alliance (CSPA) hereby submits a complaint against the State Water Resources Control Board (SWRCB), United States Bureau of Reclamation (USBR) and California Department of Water Resources (DWR) for violations of the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Delta Estuary (Bay-Delta Plan) and violations of D-1641 implementing requirements of water quality standards, Clean Water Act (CWA), Endangered Species Act (ESA), Public Trust Doctrine and the California Constitution.

Specifically, CSPA alleges that the SWRCB's sequential weakening of D-1641 requirements violates the federal CWA and represents a de facto change in the standards themselves, that the SWRCB has failed to enforce Bay-Delta water quality standards and has failed to enforce its 2010 Cease & Desist Order against USBR and DWR for violations of southern Delta salinity standards, that USBR and DWR are presently violating water quality standards protecting fish & wildlife and agricultural beneficial uses, and that USBR and DWR have failed to comply with the SWRCB 2010 Cease & Desist Order. CSPA additionally alleges that the SWRCB, USBR and DWR have failed to comply with their respective responsibilities and obligations under the ESA, Public Trust Doctrine and Article X of the California Constitution.

We incorporate by reference the protests, objections, exhibits and workshop comments and presentations that CSPA et al., the Bay Institute, Restore the Delta and Sequoia Forestkeeper et al. have previously made during the 2014 and 2015 SWRCB proceedings regarding USBR and DWR's Temporary Urgency Change Petitions (TUCPs) for the operation of the State Water Project and Central Valley Project.

Given the impending extinction of Delta smelt and possibly several other species, we ask the SWRCB to act expeditiously in responding and requiring USBR and DWR to respond to the allegations herein and to immediately reestablish D-1641's critical year requirements for the protection of fish and wildlife.

Dr. Peter Moyle has been publicly quoted as predicting the imminent demise of Delta smelt. Agency biologists have privately told us "they're gone." Should Delta smelt perish, it will not be the drought that sent them into extinction: it will be the failure of the SWRCB to comply with and enforce minimal standards for drought sequences that it adopted to prevent such catastrophe. Fallowed fields will be replanted when the drought is over; extinct species are forever lost. It would be tragic if the SWRCB's legacy were that its failure to comply with the law sent species that evolved and prospered over millennia into extinction. And longfin smelt are next in line.

### **Violations of Bay-Delta Standards & D-1641 Requirements**

The federal CWA requires the adoption of water quality standards consisting of the designated uses of navigable waters and the water quality criteria or objectives necessary to protect those designated uses. Antidegradation requirements are an integral part of water quality standards.

The current water quality objectives in the 2006 Bay-Delta Plan for the San Francisco Bay/Sacramento-San Delta Estuary are the same as those in the 1995 Water Quality Control Plan. Many of those objectives were also in the 1978 Bay-Delta Plan.

The SWRCB's Decision 1641, issued in 2000, is the current implementation plan for Bay-Delta water quality standards. Implementation plans that do not protect the designated use of the waters do not comply with applicable water quality standards. D-1641 contains objectives to protect fish and wildlife, agricultural, municipal and recreational designated beneficial uses of the Bay-Delta estuary. Those objectives are expressed as narrative, concentration and or flow.

There is continuing disagreement between the SWRCB and U.S. Environmental Protection Agency (USEPA) concerning whether the CWA regulates the quantity of water or flow. However, flow and constituent concentration are flip sides of the same coin. Reductions in flow increase the concentration of pollutants. The U.S. Supreme Court observed that a lowering of quantity or flow could destroy all of the beneficial uses of a river, and specifically that "... there is recognition in the Clean Water Act itself that reduced stream flow, *i.e.*, diminishment of water quantity, can constitute water pollution." *PUD No. 1 of Jefferson County v. Washington Department of Ecology*, (1994), 511 U.S. 700, 17.

This complaint addresses violations of agricultural objectives, expressed as concentration, and fish and wildlife objectives, expressed as both flow and concentration. For example, fish and wildlife objectives are expressed as both minimum Delta outflow and salinity concentration. However, the preferred habitat of estuarine species like Delta and longfin smelt is predicated on the concentration of salinity. A key to Delta smelt abundance, X2, is determined by the concentration of salinity and not by flow.

In an effort to avoid having to secure USEPA approval, the SWRCB suggests that it only modified the implementation of water quality objectives and not the objectives themselves. However, the sequential or serial weakening of standards and refusal to enforce violations of standards constitutes a de facto change in the standards themselves, especially when the serial weakening of and failure to enforce standards is replicated over decades in similar situations.

In 2013, the SWRCB Executive Director allowed USBR and DWR to operate to critical year criteria, without being subject to enforcement, instead of to the prevailing dry year criteria. In 2014, the Executive Director issued a series of TUCP Orders substantially weakening and extending the modifications of water quality objectives and requirements on 31 January, 7 February, 14 February, 28 February, 18 March, 9 April, 11 April, 18 April, 2 May and 7 October. The SWRCB denied multiple objections and petitions for reconsideration of the TUCP Orders on 24 September 2014. So far in 2015, the Executive Director has issued a series of TUCP Orders modifying and weakening water quality objectives and requirements on 3 February, 5 March, 6 April and 3 July.

Beyond the SWRCB's de facto weakening of Bay-Delta water quality objectives, the USBR and DWR have failed to comply with even the modified objectives. Violations of salinity standards at Threemile Slough and Jersey Point have occurred in 2015 and are continuing. Additionally, the sequential Cease & Desist Order compliance schedules adopted by the SWRCB in WR Orders 2006-0006 and 2010-0002 that allowed USBR and DWR to avoid actual compliance with southern Delta salinity objectives have expired and USBR and DWR are now in violation of WR Order 2010-0002 and the southern Delta salinity objectives at Old River Near Tracy, Old River near Middle River and San Joaquin River at Brandt Bridge. Further, the Vernalis salinity objective was violated on 5 days in July 2015.

This pattern and practice has replicated itself over decades. For example, during the 1987-1992 drought, D-1485 Bay-Delta standards were violated 246 times in the period from 1988 through 1991, and the SWRCB declined to take enforcement action. In 1992, the SWRCB, citing an effort to preserve sufficient cold water in Shasta Reservoir to meet temperature requirements for spawning salmon, weakened Suisun Marsh salinity and Rock Creek chloride requirements in WR Order 92-02. Of particular note, the SWRCB, referencing WR Order 90-05, stated in WR 92-02 at page 9:

The State Water Board also has advised the USBR that decisions on water deliveries are subject to the availability of water, and that water should not be considered available for delivery if it is needed as carryover to maintain an adequate cold water pool for the fishery.

However, the USBR and DWR have ignored that advice and have continued to maximize water deliveries in the initial years of drought sequences and failed to maintain sufficient carryover storage to protect fisheries and public trust resources. The pattern and practice of delivering near normal water supplies in the early years of drought, depleting carryover storage and then relying on the SWRCB to weaken water quality standards has been extensively discussed and documented in previous protests, objections and SWRCB TUCP workshops and is incorporated by reference and need not be repeated here.

## **Violations of Bay-Delta Agricultural Salinity Objectives**

Water quality objectives contained in the Bay-Delta Plan include salinity standards to protect agricultural beneficial uses. Table 2 objectives include electrical conductivity (EC) requirements of 2.78 mmhos/cm in the Sacramento River at Emmaton between 1 April and 15 August of critical dry years; EC requirements of 2.20 mmhos/cm in the San Joaquin River at Jersey Point between 1 April and 15 August of critical dry years and EC requirements of 0.7 mmhos/cm (April-August) and 1.0 mmhos/cm (September-March) at four locations in the South Delta (Vernalis, Brandt Bridge, Old River near Middle River and Old River at Tracy Road) in all years.

On 6 April 2015, the SWRCB Executive Director approved a Temporary Urgency Change Petition submitted by USBR and DWR to move the Emmaton EC compliance location to Threemile Slough from April through June. On 30 June 2015, the Executive Director provided interim approval of a subsequent TUCP, and, on 3 July he issued an order approving an extension of the relocated Emmaton objective to Threemile Slough until 15 August 2015. This action was similar to an action in the 2014 TUCP Order by the Executive Officer that moved the compliance point to Threemile Slough.

Had the SWRCB Executive Director not relocated the Emmaton compliance point, EC would have violated objectives on or about 1 May 2015, when the 14-day running average EC was 2.81 mmhos/cm, and would be ongoing in the present. As of 16 July 2015, 14-day running average EC at Emmaton was 5.26 mmhos/cm. During 2014, the Emmaton objective was exceeded on or about 26 May, and exceedances continued through 23 July.

Beginning on 7 July 2015, the EC objective of 2.78 mmhos/cm at the relocated Threemile Slough compliance point has been violated. The 14-day running average EC concentrations stated respectively for each day were 2.85, 2.94, 3.03, 3.09, 3.11, 3.15, 3.18, 3.20, 3.21, 3.21, 3.18, 3.14, 3.01, 2.91 and 2.84 mmhos/cm from 7 through 21 July. The 15-minute EC data from the DWR gage at Threemile Slough is included in Attachment A. As of this writing, violations are continuing.

Beginning on 8 July 2015, the EC objective of 2.20 mmhos/cm at Jersey Point has been violated. The 14-day running average EC concentrations stated respectively for each day were 2.204, 2.234, 2.242, 2.233, 2.250, 2.239 and 2.238 and 2.231, 2.219 and 2.207 mmhos/cm from 8 through 17 July. The 15-minute EC data from the USBR gage at Jersey Point is included in Attachment A.

USBR and DWR have not requested changes regarding salinity objectives at compliance stations in the South Delta in any of their 2014 and 2015 TUCPs and no changes or variances have been granted. D-1641 included a 5-year time schedule to meet the southern Delta 0.7 mmhos/cm EC objective. The objective became effective on 1 April 2005. Violations occurred. The SWRCB, in Order 2006-0006, issued a Cease & Desist Order that required USBR and DWR to take corrective actions in accordance with another time schedule in order to obviate violations of water quality objectives for EC by 1 July 2009. Violations continued. The SWRCB extended

the compliance deadline yet again in Order 2010-0002. CSPA and South Delta Water Agency petitioned for reconsideration of Order 2010-0002 but the SWRCB denied both petitions.

Order 2010-0002 required USBR and DWR to implement measures to obviate the threat of non-compliance with South Delta EC objectives and to submit a detailed plan and completion dates for actions that would ensure compliance. Order 2010-0002 extended the timeline for compliance to allow the SWRCB time to consider the possibility of modifying the responsibilities of USBR and DWR for meeting the objective, as part of its 2006 review of the 2006 Bay-Delta Plan. However, Order 2010-0002 explicitly states that *“the pending proceeding to consider changes to the interior southern Delta salinity objectives and associated program of implementation and any subsequent water right proceeding shall be deemed to have been completed if the State Water Board has not issued a final order in the water right proceeding by January 1, 2013, unless the Deputy Director for Water Rights determines that the water right proceeding has been initiated, is proceeding as expeditiously as reasonably possible, and will be completed no later than October 1, 2014.”* Emphasis added.

After three consecutive compliance deadlines have expired, violations of southern Delta EC objectives continue. Pursuant to the 2010-0002 Cease & Desist Order, the “compliance schedule” concluded on 1 January 2013 because a 2006 Bay-Delta Plan water rights proceeding was not underway and could not be successfully concluded by October 2014. The USBR and DWR have failed to provide a detailed plan and completion date for coming into compliance with salinity objectives and are presently violating those objectives. We have documented more than 1,400 days of violations of the 1.0 or 0.7 mmhos/cm EC objective at the Old River at Tracy Road compliance site alone since April of 2007, including every day this year. In fact, between 10 June and 15 July 2015, all three southern Delta locations have violated the 30-day running average EC objective everyday and the EC objective at Vernalis was violated 7-9 July.

In summary, from 1 January through the end of 14 July 2015, legally promulgated water quality criteria in Table 2 of the Bay-Delta Plan to protect agricultural beneficial uses was exceeded numerous times: specifically, Emmaton salinity criterion was exceeded at least 79 days; Old River Near Tracy salinity criterion was exceeded at least 199 days; San Joaquin River at Brandt Bridge salinity criterion was exceeded at least 96; days and Old River near Middle River salinity criterion was exceeded at least 40 days. In July 2015, the modified 14-day running average salinity criterion at Threemile Slough was exceeded 7 July and continues to be exceeded, the 14-day salinity criterion at Jersey Point was exceeded 8 July through 17 July and the 30-day salinity criterion at Vernalis on the San Joaquin River was exceeded 7 - 11 July. The USBR and DWR have failed to provide a plan and date for achieving compliance with southern Delta salinity criteria and, consequently, have been violating the SWRCB’s Cease & Desist Order since 1 January 2013 (566 days, as of 20 July 2015).

### **Violations of Bay-Delta Fish and Wildlife Salinity Objectives**

Table 3 of the Bay-Delta Plan contains Delta outflow requirements, several of which are also expressed as salinity concentration. For critically dry years, the requirements mandate a minimum monthly average Net Delta Outflow Index (NDOI) of 7,100 cubic feet per second (cfs) or a daily average or 14-day running average of EC less or equal to 2.64 mmhos/cm at

Collinsville. For July, August, September and October of critically dry years, the requirements are an NDOI of 4,000, 3,000, 4,000 and 3,000 cfs, respectively. During dry years, the July, August, September and October requirements are 5,000, 3,500, 4,000 and 4,500 cfs, respectively.

As noted above, so far in 2015, the Executive Director has issued a series of TUCP Orders modifying and weakening water quality objectives and requirements on 3 February, 5 March, 6 April and 3 July. The 2 February TUCP Order reduced NDOI requirements and salinity objectives from 7,100 cfs/2.64 mmhos/cm requirements to 4,000 cfs, increased allowable exports when the 7,100 cfs objective wasn't being met, allowed the Delta Cross Channel Gates to be opened under certain circumstances and reduce San Joaquin River flow requirements from 710/1,140 to 500 cfs.

The 5 March TUCP Order exempted water transfers from export provisions and increased exports when outflow was between 5,500 and 7,100 cfs. The 6 April extended outflow/salinity and export requirements through June, shifted the time period and reduced the volume of the San Joaquin pulse flow from 3,110 to 710 cfs, reduced minimum San Joaquin River outflow requirements to 300 cfs in May and 200 cfs in June and moved the Western Delta salinity compliance point on the Sacramento River at Emmaton to Threemile Slough.

The 3 July TUCP Order reduced Delta outflow requirements in July from 4,000 to 3,000 cfs, with a 7-day running average of no less than 2,000 cfs, reduced the minimum Sacramento River flow requirements at Rio Vista from 3,000 cfs (September, October) and 3,500 cfs in November to a monthly average of no less than 2,500 cfs, with a 7-day average of no less than 2,000 cfs and extended the change in the salinity compliance point from Emmaton to Threemile Slough on the Sacramento River through 15 August.

From 1 January through the end of June 2015, legally promulgated water quality criteria in Table 3 of the Bay-Delta Plan to protect fish and wildlife beneficial uses were exceeded numerous times. Specifically, Delta outflow criterion was exceeded approximately 124 days, Collinsville salinity criterion was exceeded at least 146 days and San Joaquin River flow criterion was exceeded approximately 112 days.

### **Violations of the Public Trust and Article X of the California Constitution**

Article X, Section 2 of the California Constitution provides that:

The right to water or to the use of the flow of water in or from any natural stream or water course in this state is and shall be limited to such water as shall be reasonably required for the beneficial use to be served, and such right does not and shall not extend to the waste or unreasonable use or unreasonable method of use or unreasonable method of diversion of water.

Because of this Constitutional requirement, the SWRCB must consider the reasonableness of a particular method of diversion of water when evaluating (or reevaluating) all permitted uses of water and the requirements controlling those uses. "The limitations of Art. X, Section 2 ... apply to all water users of the state and serve as a limitation on every water right and method of

diversion.” See *Yuba River D-1644* at p. 29. Both USBR and DWR are water users subject to Article X, Section 2 in the operation of their respective projects in the Central Valley.

Considering the conditions of drought which are described in the “drought emergency” declared by Governor Brown - the curtailments of water rights, the waiver of D-1641 standards to protect fish and wildlife and water quality in the Delta watershed - it is time for the SWRCB to declare flood irrigation by agriculture during the drought emergency a waste and unreasonable use until the emergency is over.

If the SWRCB can require urban conservation, it can also require conservation in agriculture. Flood irrigation in the Sacramento Valley in particular is unreasonable when the endangered salmon are facing extirpation. Increased evaporation from spreading water on the ground alone likely uses more stored water than that needed to save the fishery.

Alfalfa and irrigated pasture alone consumes 8.6 MAF of water in California and provides low net revenue and few jobs. The SWRCB can and must reduce the quantity of water allocated to irrigated pasture and low-value crops like alfalfa that use prodigious amounts of water during the drought emergency. To continue this use is unreasonable and a waste of water and must be stopped or reduced until the drought emergency is declared over.

The continued killing of threatened and endangered species by obsolete and non-protective export pumping facilities simply because the state and federal water contractors refuse to pay for new state-of-the-art fish screens is an unreasonable method of diversion. This is especially true when water diverted through those facilities deprives listed species of water and primary production necessary for survival. The SWRCB can and must curtail south Delta exports during the drought emergency until D-1641 water quality standards are met.

The SWRCB must also consider public trust issues in proceedings that concern water rights and water quality based on reserved jurisdiction or under the doctrine of reasonable use. The SWRCB may also modify permits of “the projects” that require the appropriator to reduce the quantity of exports. *United States v. SWRCB* (1986) 182 Cal.App. 3d 82, 124-131. The SWRCB has a complaint procedure that can exercise authority over both federal and state water projects by virtue of having state water rights permits issued by the Board.

The State’s management responsibilities include broad discretion to promote trust uses, such as the continued survival of the Bay/Delta estuary and dependent endangered species, provided the discretion is exercised consistent with constitutional and statutory constraints. *People v. California Fish Co.* (1913) 166 Cal. 576, 597. While the State has discretion to promote trust issues, the SWRCB has “an affirmative duty” to protect trust resources. See *Illinois Central Railroad v. Illinois*, 146 U.S. 387; and *National Audubon Society v. Superior Court* (1983) 33 Cal.3d 419 (The state may not abdicate its supervisory role any more than the state may abdicate its police power); see also Stevens, *The Public Trust: A Sovereign’s Ancient Prerogative Becomes the People’s Environmental Right*, 14 U.C. Davis Law Review 195, 223.

Fish and wildlife are natural resources unequivocally protected by state sovereignty, whereby ownership of the resource is reserved to the states. *Geer v. Connecticut*, (1896) 161 U.S. 519.

The court in *Audubon v. Superior Court*, (1983) 33 Cal.3d. 419 held that “no one may obtain a vested right to undertake an act that is harmful to the trust.” See also *SWRCB D-1644* (Yuba River) at page 29. The supremacy of the public trust over private individuals is reflected in a “judicial presumption against state or legislative alienation of trust resources.” *People v. California Fish*; see also *Illinois Central v. Illinois* (1892) 146 U.S. 387; *Montana v. U.S.*, (1981) 450 U.S.544. Historically, state sovereign ownership was limited to “the traditional triad of uses” – commerce, navigation, and fishing.

However, in 1971 the California Supreme Court expanded the protected uses to cover the environment generally. *Marks v. Whitney* (1971) 6 Cal 3d. 251, 259-260. State sovereign ownership imposes restraints on the state’s discretion regarding the use of navigable waters. The use of trust resources must be consistent with the general trust purposes or it is invalid. *State of California v. Superior Court* (Lyon) (1981) 29 Cal 3d. 210, 220-230; *Marks v. Whitney*, supra; *City of Long Beach v. Mansell*, (1970) 3 Cal 3d. 462, 482-485. Preservation of a public trust resource such as the San Francisco Bay/Delta estuary is a legitimate disposition of the public trust resource, and is consistent with general trust purposes. Thus, tidelands and water may be burdened with a negative easement against any active use or disposition of the trust reserve. *Id*; *National Audubon*, supra; *State of California v. Superior Court* (Fogerty), (1981) 29 Cal 3d. 240, 249-250.

Consequently, the SWRCB has both the authority and responsibility under its reserved jurisdiction in the permits and licenses of the USBR and DWR, and under its continuing authority and responsibilities pursuant to the public trust and reasonableness doctrine to protect fisheries, public trust resources and beneficial uses. To protect those resources and uses, it established minimum water quality objectives and requirements for critical dry years in the Bay-Delta Plan and D-1641.

USBR and DWR’s pattern and practice of delivering near normal water supplies in the early years of drought, depleting carryover storage and then relying on the SWRCB to weaken water quality standards established to protect public trust resources as successive dry years occur has been amply documented in multiple documents and TUCP proceedings over the last several years. The SWRCB has failed to establish minimum reservoir storage levels that ensure compliance with water quality standards protective of public trust resources. When successive dry years occur, it then routinely weakens those standards, with little regard to its public trust and constitutional obligations.

To weaken those water quality objectives and requirements simply because USBR and DWR recklessly delivered water that was otherwise necessary to maintain sufficient carryover storage to comply with water quality objectives and to protect public trust resources and agricultural beneficial uses in the Delta is a violation of Public Trust Doctrine and the California Constitution. To send fisheries into extinction while continuing to supply water for low value crops like pasture and alfalfa is an unreasonable use of water.

It is not the SWRCB’s responsibility or legal right to sacrifice public trust resources and Delta beneficial uses in order to absolve USBR and DWR of the consequences of their egregious mismanagement. If customers of water contractors are now suffering because USBR and DWR

failed to exercise prudence and due diligence in water management and rashly delivered near normal water supplies in initial drought years with little thought that another dry year might occur, it is USBR and DWR and not the SWRCB that have the responsibility to alleviate the suffering they caused.

The SWRCB has failed to balance the public trust. The California Legislature, in the Sacramento-San Joaquin Delta Reform Act of 2009, mandated the SWRCB to develop new flow criteria for the Delta ecosystem that are necessary to protect public trust resources. Following an extensive public proceeding, the SWRCB prepared a report titled "*Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem.*" The SWRCB's 2010 Report stated: "Recent Delta flows are insufficient to support native Delta fishes for today's habitats" and recommended 75% of unimpaired Delta outflow from January through June, 75% of unimpaired Sacramento River inflow from November through June and 60% of unimpaired San Joaquin River inflow from February through June as necessary to protect public trust resources. While the flow report did not balance the public trust against other beneficial uses or consider economics, it did conclusively establish that present flows are seriously insufficient to protect public trust resources.

The Legislature also mandated the California Department of Fish and Wildlife (DFW) to develop *Quantifiable Biological Objectives and Flow Criteria for Aquatic and Terrestrial Species of Concern Dependent on the Delta*. Following an extensive public proceedings throughout 2010, the DFW's report mirrored the conclusions and recommendations contained in the SWRCB flow report.

Five years after those reports were issued, the SWRCB has not begun to balance the public trust. It has, however, significantly weakened water quality standards and Delta flows. Fisheries have continued to decline and we are now faced with the imminent likelihood that one or more native species will become extinct.

An example of the SWRCB's egregious failure to even attempt to balance the public trust is demonstrated in the paucity of flows allocated to protect water quality and fisheries in July 2015. Releases from upstream-of-Delta rim reservoirs (Keswick, Whiskey Town, Oroville, Bullards Bar, Folsom, Camanche, New Hogan, New Melones, Don Pedro, New Exchequer and Friant) averaged 22,039 cfs or 43,703 AF daily 1 July through 19 July. Delta outflow for the same period averaged 2,990 cfs or 5,928 AF, most of which was necessary to allow operation of the state and federal project export pumps. In other words, under the most favorable light, only 13.6% of reservoir releases were allocated to protect fish and wildlife and Delta agricultural beneficial uses. The situation is even more bizarre on the San Joaquin River. Between 1 and 19 July, only 2.9% of flows released from New Melones, Don Pedro, New Exchequer and Friant reached the Delta. Whatever represents a reasonable public trust balancing, it is not 2.9% or 13.6% of flow, as water quality standards are violated and listed fish species plunge toward extinction.

Another example of the disregard for the public trust was provided in SWRCB staff's presentation on Sacramento-San Joaquin Watershed Use at the SWRCB 20 May 2015 Workshop on the TUCP, Emergency Drought Barrier, and Water Right Curtailments. Staff revealed that

the 2015 TUCP Orders had reduced regulatory outflow by 78% to allow export pumping to increase by 46%. Increasing water exports is apparently a higher priority to the SWRCB than protecting water quality, critical habitat for listed species and public trust resources.

### **Violations Are Likely to Cause or Contribute to Extinction of Species**

Since DWR's State Water Project began exporting water from the Delta, the DFW Fall Midwater Trawl indices for striped bass, Delta smelt, longfin smelt, American shad, splittail and threadfin shad have declined by 99.7, 97.8, 99.9, 91.9, 98.5 and 97.8 percent, respectively. The U.S. Fish & Wildlife Service's (USFWS) Anadromous Fisheries Restoration Program (AFRP) documents that, since 1967, in-river natural production of Sacramento winter-run Chinook salmon and spring-run Chinook salmon have decline by 98.2 and 99.3 percent, respectively, and are only at 5.5 and 1.2 percent, respectively, of doubling levels mandated by the Central Valley Project Improvement Act, California Water Code and California Fish & Game Code. Numerous species have been listed pursuant to state and federal endangered species acts.<sup>1</sup>

Populations of Bay-Delta fisheries plummeted during the 1987-1992 period and have never recovered from the impacts resulting from the serial violations of water quality objectives. Winter-run Chinook salmon were listed as threatened under the federal ESA emergency interim rule and endangered under the California Endangered Species Act (CESA) in 1989. Delta smelt were listed as threatened under both state and federal endangered species in 1993. Many of the noxious invasive species that have been identified as adversely impacting native fisheries became established and/or entrenched during that period.

The estuary's pelagic and anadromous fisheries have continued to decline since the 1987-1992 period. And now, the further weakening of water quality standards in 2013-2015 threatens to catapult several species into extinction.

For example, the 2014 Fall Midwater Trawl, 2015 Spring Kodiak Trawl and Summer Tournet Delta smelt indices were the lowest in history. The Summer Tournet index for Delta smelt was 0.0. Trawl #8 of the 20-mm Survey, conducted in late June, found only a single Delta smelt in Sacramento River at Threemile Slough, no longfin smelt and few striped bass. Compared to 2012, the 2015 trawl #8 of the 20-mm Survey catch-per-unit-effort of Delta smelt, striped bass and longfin smelt were down 98.9, 98.0 and 100 percent, respectively. Perhaps most alarmingly, the Survey identified no Delta smelt in Cache Slough and the Sacramento Deep-Water Ship

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<sup>1</sup> Southern DPS green sturgeon (*Acipenser medirostris*), federal threatened, candidate for federal endangered; Delta smelt (*Hypomesus transpacificus*), state endangered, federal threatened, Longfin smelt (*Spirinchus thaleichthys*), state threatened; Central Valley steelhead (*Oncorhynchus mykiss*), federal threatened; Sacramento winter-run Chinook salmon (*Oncorhynchus tshawytscha*), state endangered, federal endangered; Central Valley spring-run Chinook salmon (*Oncorhynchus tshawytscha*), state threatened, federal threatened; Central Valley fall/late-fall-run Chinook salmon (*Oncorhynchus tshawytscha*), federal species of concern, state species of special concern; Sacramento splittail (*Pogonichthys macrolepidotus*), state species of special concern; Pacific lamprey (*Entosphenus tridentate*), federal species of concern and river lamprey (*Lampetra ayresi*), state species of special concern. The state and federal Project also have the potential to adversely affect Killer whales or Orcas (Southern Resident DPS) (*Orcinus orca*), federally listed as endangered because they are dependent upon Chinook salmon for 70% of diet and reduced quantity and quality of diet is one of the major identified causes of their decline.

Channel and trawl #9 found only one. The northern population of Delta smelt seems to have, as expected, succumbed to excessive temperature.

Delta smelt are at extreme risk of imminent extinction. There are multiple threats to the Delta Smelt population that contribute to its vulnerability and risk of extinction. Chief among these threats are reductions in freshwater inflow to the estuary; loss of larval, juvenile and adult fish at the state and federal Delta export facilities and urban and agricultural water diversions; direct and indirect impacts of the Delta Smelt's planktonic food supply and habitat; and lethal and sub-lethal effects of warm water and toxic chemicals in Delta open-water habitats.

Weakened water quality objectives and failure to enforce objectives have significantly reduced Delta outflow, increased Delta salinity and moved the Low Salinity Zone further upstream (eastward) into the Delta, thereby increasing the degree of each of these threats. Presently, remnants of the population are confined to a small area of the Low Salinity Zone where water temperatures have been significantly above levels identified in the literature as highly stressful and barely below the lethal endpoint.

The continued violations of Bay-Delta Plan and D-1641 objectives and requirements are an obvious and direct threat to the remnants of Delta smelt living in the Low Salinity Zone. Allowing these "weakened standards" to be violated is a direct disregard for the remaining population, placing them under extraordinary risk by bringing them further into the zone of water diversions, degrading their habitat into the lethal range of water temperature, further degrading their already depleted food supply, and increasing the concentrations of toxic chemicals being discharged into the Delta.

The various Biological Reviews, agency concurrence letters and the SWRCB's TUCP Orders acknowledge the manifold threats to Delta smelt and other estuarine species but dismiss them and disregard the consequences of further weakening of already inadequate standards.

USBR's March Biological Review for Endangered Species Act Compliance with the WY 2015 Drought Contingency Plan April through September, submitted to the SWRCB and fish agencies, acknowledged that the Delta smelt population had plunged to an all time low. It observed that drought impacts Delta smelt by reducing the area of low salinity habitat and food availability, impacting reproductive potential impairing fecundity, and reducing turbidity, thereby limiting predator avoidance. It pointed out that warm, slow-moving water promotes conditions in which parasites and toxic *Microcystis* blooms thrive, and that non-native Delta smelt predators, like black bass, and food competitors, like *Corbicula*, have increased during the present drought. It admitted that Delta smelt have a strong positive association with the position of X2 and that under the TUCP Delta smelt would not be in areas optimal for growth and survival because X2 would move further upstream.

With respect to longfin smelt, the USBR biological review observed that the TUCP will reduce outflow and that increased outflow is one of the best predictors of longfin smelt year class strength. Consequently, it is likely that the TUCP will exacerbate poor longfin smelt recruitment and survival and that longfin smelt larvae will have an increased risk of entrainment into the south Delta where they are not expected to survive warming water temperatures.

Despite knowing that smelt were already at historically low abundances, that the drought had increased already deleterious conditions, and that further reductions in outflow would exacerbate impacts, the USBR and DWR proposed the TUCP on 24 March 2015 and requested agency concurrence. Incredibly and inexplicably, the USFWS and CDFW, acutely aware that subsequent fish surveys had revealed a catastrophic collapse in population abundance and knowing that the Biological Opinions assumed compliance with D-1641 criteria and that there were significant “uncertainties” in the conclusions of the Biological Review, issued brief, cursory three-page concurrence letters three days later, on 27 March, that claimed that reducing Delta outflow by 25 to 40% below D-1641 critical dry year criteria would not jeopardize the continued existence of smelt.

Of course, senior agency supervisors made these decisions. And we know, from private discussions with fishery agency staff, that the senior agency supervisors, many of whom participate in the secret weekly meetings of the Real-Time Drought Operations Management Team (RTDOT), ignored and rejected the recommendations and pleas from biological and technical staff that the TUCPs posed a threat to the continued existence of these species. Over the last several years, we have consistently told the SWRCB what would occur should they approve the various TUCPs. Sadly, the results from subsequent fish surveys and trawls establish that we were right and the SWRCB, USBR, DWR and fishery agencies were wrong!

The SWRCB was acutely aware of the adverse consequences of approving the recent TUCP. The 3 July 2015 TUCP Order acknowledges on pages 12 and 13:

“The extreme drought conditions that have been occurring for the last four years are having significant impacts on fish and wildlife,” Delta smelt indices “...are at record low numbers,” “Delta smelt have a strong positive relationship with a specific location in the low salinity zone (LSZ) referred to as X2...” and “...habitat quality and quantity diminish the more frequently and further the LSZ moves upstream...” It points out that “...there are likely to be few adult Delta smelt that live through the summer...” and “...it appears fish density has become so low that the SKT (Spring Kodiak Trawl) has reached or gone below its minimum effective detection ability,” and that in supplemental USFWS in sampling in the lower San Joaquin River “catch of adult Delta smelt declined precipitously to zero in the final month of sampling.” Emphasis added.

The 3 July 2015 TUCP Order, discussing the biological reviews, observes on page 14:

The proposed TUCP changes will have effects on physical habitat and water quality which may affect Delta smelt. The changes *will add to the already unfavorable conditions* related to the dry conditions. The Biological Review finds that reductions in inflows and outflows associated with the changes to Delta outflow, Western Delta agricultural salinity and Sacramento River flows may *reduce the general quality of habitat conditions throughout the Delta*. Further, survival of Delta smelt that are currently in the interior and North Delta may be *reduced through increased exposure to degraded habitat and predators and increased travel time for migrating fish*. In the lower San Joaquin River, the upstream relocation of X2 may result in a greater proportion of the

available habitat encompassing areas of high semi-aquatic vegetation and associated low turbidities. This could result in lower prey availability and higher predation rates on juvenile Delta smelt. Further constraining Delta Smelt closer to the upstream spawning areas in the lower Sacramento River, San Joaquin River, and the Cache Slough Complex/SDWSC *will increase Delta smelt exposure to less favorable conditions.* Conditions in these regions are generally warmer in the summer than locations further west due to prolonged heat waves and less marine influence. Juvenile Delta smelt may be able to reside in thermal refugia to reduce these effects, but *it is not clear how long that cool water refugia will be available this summer.* In addition, due to the more upstream location of X2, it is also likely that summer *Delta smelt distributions will not be in areas for optimal growth and survival* further west in Suisun Bay. Reduced inflows and outflows may also *affect Delta smelt's ability to move downstream to cooler habitats* with more food resources. These effects could *pose additional risks to the persistence of local populations.* Emphasis added.

With respect to estuarine habitat and species, the 3 July 2015 TUCP Order on page 15 observed:

The Biological Review focused on species listed under ESA and CESA, but the proposed action is *also likely to have adverse effects on other beneficial uses protected under D-1641,* “Since most of these species are not afforded the protections of ESA and CESA, *many have undergone population declines over the history of water development in the Bay-Delta*” and “*...decreasing Delta out flow constrains habitat by moving X2 and the LSZ inland from the shallow, more favorable habitats of Suisun Bay to the deeper, channelized, and less hospitable habitats of the lower Sacramento and San Joaquin Rivers and their confluence. This reduction in habitat quantity and quality will also likely result in lower survival and recruitment of several other estuarine dependent species.* Emphasis added.

Despite the serious risks of extinction of Delta smelt and other estuarine species, the SWRCB issued the TUCP Order on 3 July 2015. Apparently, the determination to deliver large quantities of water to Sacramento Settlement Contractors similar to the quantities they received over the last several years outweighs the potential extinction of species. In other words, the irrigation of vast tracts of pasture, alfalfa and other low value crops in the Sacramento Valley is more important than the continued existence of species that evolved and prospered over millennia.

### **Violations of the Federal Clean Water Act**

The Code of Federal Regulations, at 40 CFR §131.20 states that the “State shall from time to time, but at least once every three years, hold public hearings for the purpose of reviewing applicable water quality standards and, as appropriate, modifying and adopting standards.” The State is required to submit the results of the review to USEPA for review and approval.

Over the last 20 years since adoption of the present standards in 1995, the SWRCB has reviewed the water quality standards pertaining to the Delta only once, in 2006. In the 2006 review, no changes were made in the 1995 standards despite the continued decline of the estuary’s pelagic

and anadromous fisheries. The present proceeding to review Bay-Delta standards is years away from completion. The SWRCB is in violation of the federal CWA.

Following disapproval of the results from the state's 1991 proceeding to revise the 1978 Water Quality Control Plan, USEPA promulgated specific water quality standards for the Delta. The federal standards are significantly more protective of the ecosystem than present state standards. Even though the SWRCB subsequently issued its present standards in late 1995, the federal standards remain at 40 CFR §131.37. The SWRCB has refused to acknowledge or comply with the federal standards. Consequently, the SWRCB is in violation of the federal CWA.

The SWRCB has failed to comply with state and federal antidegradation requirements in lowering water quality. At a minimum, antidegradation requirements require that water quality standards must protect "fishable" beneficial uses. The SWRCB has undertaken no analysis of the impacts to beneficial uses and the trade-offs or costs between a temporary loss of water to state and federal water contractors to irrigate low value crops like pasture and alfalfa and the decline of fisheries and likely extinction of species. Nor is there any analysis of the relative benefits of weakening water quality standards in order to provide water to state and federal water contractors at the cost of depriving Delta farmers of water and water quality.

USBR and DWR's pattern and practice of delivering near normal water supplies in the early years of drought, depleting carryover storage and then relying on the SWRCB to weaken water quality standards as successive dry years occur has been amply documented in multiple documents and TUCP proceedings over the last several years. The SWRCB has failed to establish minimum reservoir storage levels that ensure compliance with water quality standards in the event of successive dry years and then routinely weakens those standards when droughts occur.

The numerous violations of water quality criteria enumerated above, the serial weakening of water quality criteria and implementation requirements, the refusal to enforce violations of water quality criteria, the failure to timely review water quality criteria and the approval of the pattern and practice of creating conditions that prevent water quality criteria from being met in sequential dry years constitute violations of the CWA. Consequently, the SWRCB, USBR and DWR have violated the CWA.

### **Violations of the Endangered Species Act**

In enacting ESA, Congress stated that the purpose of the ESA is "to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved." 16 U.S.C. § 1531(b). As part of conserving endangered or threatened species, ESA prohibits the "taking" of any such listed species. 16 U.S.C. § 1538(a)(1)(B). A "take" is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." 16 U.S.C. § 1532(9). To "harm" a listed species in the context of a "take" includes "[any] act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering." 50 C.F.R. § 17.3 (1994). An indirect injury to a listed species through habitat modification also

constitutes a “take.” *Babbitt v. Sweet Home Chapter of Communities for A Great Oregon*, 515 U.S. 687 (1995). The 9th Circuit Court of Appeals ruled that “under Sweet Home, a habitat modification which significantly impairs the breeding and sheltering of a protected species amounts to ‘harm’ under the ESA.” *Marbled Murrelet v Pacific Lumber Company*, 83 F.3d 1060 (9<sup>th</sup> Cir. 1996).

USBR and DWR have operated to a pattern and practice of delivering near normal water supplies in the early years of drought, depleting carryover storage and then relying on the SWRCB to weaken water quality standards. The SWRCB has operated to a pattern and practice of weakening water quality standards and thereby significantly degrading the habitat and impairing essential behavioral patterns, breeding, feeding, or sheltering of listed species. The SWRCB, USBR and DWR are in violation of the ESA.

Delta smelt and other estuarine species’ abundances have plummeted over the last few years to the point where they are facing the likelihood of imminent extinction. Over this period, the SWRCB has acceded to multiple requests by USBR and DWR to weaken basic minimum standards adopted to protect listed species and their habitats. These serial actions by the SWRCB have seriously modified and degraded the habitat and impaired the breeding and sheltering of listed species to the point of impending extinction.

The fact that USFWS, NMFS and CDFW have routinely issued concurrence letters in response to the TUCPs, frequently within hours or several days of receiving Reinitiation of Consultation requests, cannot be a valid excuse or defense. Since initial listings under EWA or CESA, abundances of listed species have continued to plummet. USFWS, NMFS and CDFW have essentially defined themselves as “capture agencies” and chaperoned listed species on their road to extinction.

Notwithstanding the letters of concurrence from USFWS, NMFS and CDFW that claim these actions are consistent with existing Biological Opinions, nothing in the ESA legally allows or justifies the SWRCB, USBR or DWR to further degrade the habitats of species lingering on the precipice of extinction. Collectively, the excuses, justifications and serial weakening of water quality criteria emanating from the secret RTDOT meetings while the fishery agencies remain embraced in denial as fisheries plummet toward extinction, surely constitute one of the saddest and most wretched spectacles we’ve ever witnessed and could be easily construed as an illegal conspiracy to defraud the public of public trust resources to the benefit of special interests.

### **A Final Thought**

It is not simply water quality, fisheries and public trust resources that have been sent to the scaffold: it is also the public’s security. With the exception of Shasta, water storage in all of the rim reservoirs is significantly below this time last year. Several are already below 1976-1977 levels and others are headed toward historic lows. As of 20 July, storage in the rim reservoirs totaled 5,632,522 AF and was being depleted by 43,703 AF daily or 1,354,796 AF monthly.

Historically, El Nino years have had an equal chance of being dry or wet. Should California experience another dry year, the impacts will be far greater than those endured this year. The

SWRCB's failure to establish minimum reservoir storage levels and its inability to protect the public and public trust resources by saying no to special interests in sequential dry years has placed the state in grave jeopardy. California deserves better.

### **In Conclusion**

We request that the SWRCB immediately use its public trust, constitutional and water rights authorities to require USBR and DWR to comply with D-1641 critically dry year water quality objectives, reduce water deliveries to low value crops in order to meet Bay-Delta objectives and to ensure sufficient reservoir storage to comply with temperature and other water quality objectives, and issue sanctions against USBR and DWR for their willful disregard for public trust resources and Delta beneficial uses. We also request that the SWRCB accelerate the present review of Bay-Delta standards, including a comprehensive balancing of the public trust with competing uses, and provide us a response to our 13 August 2014 complaint regarding illegal diversion by DWR and USBR and petition to adjudicate Central Valley waters.

Thank you for considering these comments and responding to this complaint. If you have questions or require clarification, please don't hesitate to contact us.

Sincerely,



Bill Jennings, Executive Director  
California Sportfishing Protection Alliance

### Attachment

Cc: Felicia Marcus  
Frances Spivy-Weber  
Tam M. Doduc

Steven Moore  
Dorene D'Adamo  
Michael George

# **Attachment 3**



## California Sportfishing Protection Alliance

*"An Advocate for Fisheries, Habitat and Water Quality"*

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2 August 2015

Mr. Thomas Howard  
Executive Director  
Ms. Barbara L. Evoy  
Deputy Director, Division of Water Rights  
State Water Resources Control Board  
1001 "I" Street, 24<sup>th</sup> Floor  
Sacramento, CA 95814  
[Barbara.Evoy@waterboards.ca.gov](mailto:Barbara.Evoy@waterboards.ca.gov)

VIA: Electronic Submission  
Hardcopy if Requested

RE: COMPLAINT: Against SWRCB and USBR for Violations of Central Valley Basin Plan, WR Order 90-05, Clean Water Act, Endangered Species Act, Public Trust Doctrine and California Constitution

Dear Mr. Howard and Ms. Evoy:

The California Sportfishing Protection Alliance (CSPA) hereby submits a complaint against the State Water Resources Control Board (SWRCB) and United States Bureau of Reclamation (USBR) for violations of the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan), violations of WR Order 90-05 and Sacramento River temperature requirements and for violations of the Clean Water Act (CWA), Endangered Species Act (ESA), Public Trust Doctrine and the California Constitution.

Specifically, CSPA alleges that the SWRCB has failed to implement crucial Basin Plan water temperature criteria and CWA requirements protecting water quality and fish and wildlife beneficial uses into USBR's water rights permits and licenses and has failed to take enforcement actions against habitual violations of the Basin Plan, CWA and WR Order 90-05 temperature criteria and requirements against USBR. CSPA alleges that USBR has failed to comply with explicit temperature criteria protecting fish and wildlife beneficial uses contained in the Basin Plan, CWA and WR Order 90-05. CSPA additionally alleges that the SWRCB and USBR have failed to comply with their respective responsibilities and obligations under the ESA, Public Trust Doctrine and Article X of the California Constitution.

CSPA incorporates by reference the comments, protests, objections (including exhibits) and workshop presentations submitted and presented over the last two years in the SWRCB drought proceedings related to Temporary Urgency Change Petitions (TUCP) and SWRCB TUCP Orders by CSPA et al., Bay Institute, Sequoia Forestkeeper and Restore the Delta. Those documents can be found on the SWRCB's State Water Project and Central Valley Project Temporary

Urgency Change Petition webpage under the headings *Comments/Objections/Protests/Petitions for Reconsideration* and *Temporary Urgency Change Petitions and Drought Workshops*.

We file this complaint in the wake of poor natural production of the 2013 brood year of Sacramento River winter-run, spring-run and fall-run Chinook salmon and the destruction of the 2014 year classes. Given the presence of lethal temperatures in the Sacramento River this year that threaten a repeat of last year's disaster, CSPA asks the SWRCB to act expeditiously in responding and in requiring USBR to respond to the allegations herein. CSPA requests that the SWRCB immediately re-establish protective, non-lethal temperature criteria at the Clear Creek compliance point and that the SWRCB require USBR to reduce water deliveries in order to preserve what's left of cold water reserves in Shasta Reservoir. CSPA further requests the SWRCB to issue sanctions against USBR for failure to comply with the Basin Plan, CWA and ESA.

WR Order 90-05 and the initial listing of winter-run Chinook salmon came on the heels of myriad exceedances of temperature criteria and alarming salmon population declines following the drought of 1976-1977 and the initial years of the 1987-1992 drought. Subsequent droughts brought similar population declines followed by only partial rebounds in wetter years that show a parallel long-term decline in anadromous fisheries. Failure to adopt and enforce defensible temperature criteria has been a key factor in the continued decline of Sacramento Chinook salmon to the point where winter-run and spring-run are now threatened with extinction and California's commercial salmon fishery is wholly dependent on grow-and-truck hatchery production for survival.

As discussed more fully below, the Central Valley Regional Water Quality Control Board (Regional Board) established temperature criteria in the Sacramento River, pursuant to the CWA and the SWRCB implemented the temperature criteria in USBR's permits and licenses in WR Order 90-05. In doing so, the SWRCB implemented temperature criteria based on average daily temperatures without determining whether average daily temperatures were protective of aquatic life and, additionally, exempted almost 43% of identified fish spawning habitat from temperature requirements. The SWRCB then ignored the Basin Plan's Controllable Factors Policy and its own admonition to USBR that water necessary to meet water quality criteria was not available for delivery. When the National Marine Fisheries Service (NMFS) listed winter-run Chinook salmon as threatened under the ESA, the SWRCB ignored the presence of other species and relocated the temperature compliance point further upstream.

Over the next 23 years, the SWRCB participated in back-room temperature management group meetings that recommended ever-changing temperature compliance points, based upon the quantities of water USBR had remaining in storage after deliveries to its water contractors. The SWRCB subsequently approved the recommendations of the temperature management group of which it is a participating member. These approvals generally relocated temperature compliance points further and further upstream, often eliminating as much as 90% or more of spawning habitat protected by the Basin Plan. And despite these yearly concessions, USBR has violated temperature criteria in nearly every year without a single enforcement sanction being issued by the SWRCB.

The SWRCB has ignored USBR's failure to comply with the National Marine Fisheries Service's (NMFS) OCAP Biological Opinion's (BO) Reasonable and Prudent Action (RPA) performance measures regarding end of September carryover storage at Shasta Reservoir and the percentages-of-time USBR is required to meet temperature criteria at specific compliance points. It has sidestepped the BO's RPA drought exception procedures when end of September Shasta storage is projected to be less than 1.9 million acre-feet (MAF). It refuses to address the conflict that exists under these conditions, between USBR delivering "nondiscretionary" water to Sacramento Settlement Contractors and achieving compliance with temperature objectives, despite the fact that the BO observes that these poor conditions "... could be catastrophic to the species, potentially leading to a significant reduction in the viability of winter-run."

The SWRCB is aware that USBR lacks the legal authority to curtail "nondiscretionary" contract water deliveries to Sacramento Settlement Contractors to meet ESA requirements. Despite being notified of a likely conflict between the delivery of this "nondiscretionary" water and compliance with temperature requirements, the SWRCB refused to use its authorities to reduce water deliveries in order to retain sufficient cold water storage necessary to meet temperature criteria. The BO does not address ESA section 7(a)(2) compliance for individual water supply contracts and, consequently, delivery of water that is "nondiscretionary" for the purposes of the ESA is not exempt from ESA section 9 take prohibitions. In effect, the SWRCB has sanctioned the illegal "take" of endangered species by the USBR and Sacramento Settlement Contractors.

USBR's delivery of 1.3 MAF of water to Sacramento River contractors in 2014 depleted limited cold water reserves in Shasta Reservoir leading to significant exceedances of water temperature criterion. The 2014 year classes of Sacramento winter-run, spring-run and fall-run Chinook salmon were virtually destroyed. Although the SWRCB acknowledged that it had made a serious mistake last year, it has inexplicably elected to repeat the mistake in 2015.

Rejecting the politically unpalatable option of reducing water deliveries to Sacramento Settlement Contractors to ensure compliance with temperature criteria, the SWRCB has instead approved USBR's request to increase the temperature compliance target from a daily average of 56°F to 58°F. This despite the fact that the NMFS pointed out in April that an increase to 58°F would result in adverse impacts to incubating winter-run eggs and alevin in redds and that 58°F was identified in the scientific literature as lethal to incubating salmon eggs and emerging fry. The subsequent concurrence by NMFS because "the plan provides a *reasonable possibility* that there will be *some juvenile winter-run survival* this year" is an unacceptable and illegal standard of compliance with the BO and ESA. [Emphasis added.]

The SWRCB justified the higher temperature criterion as necessary to preserve cold water in Shasta to avoid depletion of the cold water pool and more devastating impacts later in the year. However, the urgent need to preserve cold water was apparently unimportant to the SWRCB as USBR delivered 366,794 acre-feet (AF) of water in April and May to Sacramento River water contractors while exporting another 312,686 AF in the first five months of the year. Depletions (i.e., water deliveries) between Bend Bridge and Wilkins Slough in June and July of this year totaled another 500,771 AF.

CSPA et al. and others pleaded with the SWRCB to reduce these water deliveries in order to protect cold water storage. The NMFS summed up the situation in their 1 July 2015 concurrence letter regarding USBR's temperature management request in observing, "We note that these conditions could have been largely prevented through upgrades in monitoring and modeling, and reduced Keswick releases in April and May." Daily average June/July temperatures in the Sacramento River at the Clear Creek compliance point have been significantly higher this year than they were last year.

As we show below, a 56°F daily average temperature criterion is not protective of Chinook salmon spawning, egg incubation and fry emergence. The U.S. Environmental Protection Agency (USEPA), the states of Washington, Oregon and Idaho, both North Coast and Central Valley Regional Boards, NMFS, California Department of Fish and Wildlife (CDFW), the Pacific Fishery Management Council and the majority of the scientific literature have either adopted or recommended more restrictive temperature criteria based upon a daily maximum and/or a seven-day mean of daily maximums.

In sum, the SWRCB essentially bases its implementation of temperature criteria for Sacramento River Chinook salmon on the amount of water USBR has left over after supplying its contractors. Notwithstanding the law and the fact that protection, restoration and enhancement of fish and wildlife is a coequal purpose of the Central Valley Project (CVP), water deliveries always come first regardless of water year type.

Should winter-run Chinook salmon, Delta and longfin smelt and potentially several other species that have evolved and thrived over millennia go extinct, it will not be because of drought. It will be because the SWRCB has refused to comply with its responsibilities under the Water Code, CWA, ESA, Public Trust Doctrine and California Constitution.

### **Sacramento River Salmon Fisheries are in a State of Collapse**

The precipitous collapse of the Central Valley's pelagic and anadromous fish populations in recent decades has been extensively documented in our referenced documents and need not be repeated at length here. Numerous species dependent on the Sacramento River for all or part of their life cycle have been listed pursuant to state and federal endangered species acts.<sup>1</sup>

Since 1967-68, the U.S. Fish & Wildlife Service's (USFWS) Anadromous Fisheries Restoration Program (AFRP) documents that, since 1967, in-river natural production of Sacramento River

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<sup>1</sup> Southern DPS green sturgeon (*Acipenser medirostris*), federal threatened, candidate for federal endangered; Delta smelt (*Hypomesus transpacificus*), state endangered, federal threatened, Longfin smelt (*Spirinchus thaleichthys*), state threatened; Central Valley steelhead (*Oncorhynchus mykiss*), federal threatened; Sacramento winter-run Chinook salmon (*Oncorhynchus tshawytscha*), state endangered, federal endangered; Central Valley spring-run Chinook salmon (*Oncorhynchus tshawytscha*), state threatened, federal threatened; Central Valley fall/late-fall-run Chinook salmon (*Oncorhynchus tshawytscha*), federal species of concern, state species of special concern; Sacramento splittail (*Pogonichthys macrolepidotus*), state species of special concern; Pacific lamprey (*Entosphenus tridentate*), federal species of concern and river lamprey (*Lampetra ayresi*), state species of special concern. The Project also has potential to adversely affect Killer whales or Orcas (Southern Resident DPS) (*Orcinus orca*), federal listed as endangered because they are dependent upon Chinook salmon for 70% of diet and reduced quantity and quality of diet is one of the major identified causes of their decline.

winter-run, spring-run and fall-run Chinook salmon have decline by 98.2, 99.3 and 91.2 percent, respectively, and are only at 5.5, 1.2 and 31.6 percent, respectively, of doubling levels mandated by the Central Valley Project Improvement Act, California Water Code and California Fish & Game Code.

The construction of Shasta Dam eliminated the ability of Sacramento River winter-run, spring-run and late-fall-run Chinook salmon to reach the cold spring-fed headwaters of the Upper Sacramento, Pit, McCloud and Fall Rivers to spawn.<sup>2</sup> Before the Dam was constructed, there were an estimated 34,634 spawning sites for winter-run salmon available in the Upper Sacramento, McCloud, and Pit River systems. With the exception of Battle Creek, 100% of the winter-run salmon spawned upriver from the present site of Shasta Dam.<sup>3</sup> Pre-Shasta populations of spring-run salmon once had at least 51,377 spawning sites dispersed throughout the Upper Sacramento, the McCloud, and Pit Rivers (PG&E's Pit River dams eliminated an additional 7,444 upriver spawning sites without mitigation). Only about 15% of the fall-run salmon generally spawned above the present site of Shasta Dam. Most fall-run spawned within the lower river and its foothill reaches at elevations less than 500 feet. The construction of Shasta Dam eliminated approximately 201 miles of historically available habitat in the Pit, McCloud and Upper (little) Sacramento Rivers.<sup>4</sup>

Shasta/Keswick dams not only eliminated the vast majority of spawning habitat for winter-run, spring-run and late-fall-run Chinook salmon, they eliminated the quality of drought-proof habitat. The remaining habitat is subject to droughts and USBR's failure to retain sufficient reservoir storage in sequential low water years to meet temperature requirements. Additionally, the remaining spawning habitat is crammed into the 59 miles between Keswick and Red Bluff Diversion Dam (far less in most years) and does not provide necessary spatial separation between overlapping stocks, which leads to superimposition of redds. Under these degraded conditions, it is imperative that every effort be extended to ensure that the quality of remaining spawning habitat is protected. This means complying with temperature objectives for sensitive life stages during critical drought years.

Following the construction of Shasta Dam, significant numbers of winter-run Chinook salmon spawned below Red Bluff. Between 1987 and 1992, 19% of winter-run salmon spawned in the Sacramento River below Red Bluff as far down as Hamilton City. After construction of Red Bluff Diversion Dam in 1964, it was noted that 60% of fall-run Chinook salmon spawned below the Dam.<sup>5</sup> A 1988 DWR report titled *Water Temperature Effects on Chinook Salmon (Oncorhynchus tshawytscha), With Emphasis on the Sacramento River, A Literature Review*

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<sup>2</sup> Yoshiyama RM, Fisher FW, Moyle PB. 1998. Historical abundance and decline of Chinook salmon in the Central Valley region of California. *N Am J Fish Manage* 18(1998):487–521.

<sup>3</sup> Hallock RJ, Rectenwald H. 1989. Environmental factors contributing to the decline of the winter-run chinook salmon on the upper Sacramento River. In: Northwest Pacific chinook and coho salmon workshop proceedings. Bethesda (MD): American Fisheries Society. p 141–5.

<sup>4</sup> Yoshiyama RM, Gerstung ER, Fisher FW, Moyle PB. 1996. Historical and present distribution of chinook salmon in the Central Valley drainage of California. In: Sierra Nevada ecosystem project: final report to Congress. Volume III: assessments, commissioned reports, and background information. Davis (CA): University of California, Centers for Water and Wildlife Resources. p 309–61.

<sup>5</sup> Hallock, as cited in Lufkin 1991, p 100. Lufkin A, editor. 1991. California's salmon and steelhead: the struggle to restore an imperiled resource. Berkeley (CA): University of California Press.

reported: “By 1976 spawning activity was nearly uniform in the reaches from Balls Ferry to Keswick, Red Bluff to Balls Ferry, and Hamilton City to Red Bluff. More recent data show that the reach from Hamilton City to Red Bluff receives more spawning activity than do both upper reaches combined.”<sup>6</sup>

SWRCB Order 90-05 limited temperature protection to Red Bluff, excluding 44 river miles and more than half of the then-extant Chinook spawning habitat from temperature protection. This had the effect of shifting spawning upriver. USBR’s failure to provide adequate temperature control on the Sacramento River has pushed spawning ever further upstream. Between 2001 and 2005, only about 1% of winter-run salmon spawned below Red Bluff.<sup>7</sup>

The CDFW annually surveys the Sacramento River to estimate numbers of Chinook salmon that return and spawn. The results are published in annual reports titled *Chinook Salmon Populations for the Upper Sacramento River Basin* and include the results of aerial surveys of spawning redds. CDFW staff recommends using aerial redd data only for comparisons of redd distributions by river sections or for specific needs such as use of a specific area as a spawning location. Aerial redd surveys do not provide complete counts of new redds, but it is assumed that the proportion of redds visible in the various sections during a single flight are identical.

These reports establish that significant Chinook salmon spawning occurs below Red Bluff and, consequently, the Basin Plan’s temperature criteria for the reach between Red Bluff and Hamilton City are both justified and necessary. They also illustrate the compression of salmon spawning that has occurred in the extreme upper reaches below Keswick because USBR has failed to provide adequate cold water flows to meet temperature criteria in the river.

- In 2005, 21.1% of fall-run, 15.2% of spring-run, 9.8% of late-fall-run redds were identified below Red Bluff Diversion Dam and 88.9% of winter-run, 30.3% of fall-run, 29.5% of spring-run, and 51.63% of late-fall-run redds were found above the Highway 44 Bridge in Redding.<sup>8</sup>
- In 2007, 17% of fall-run and 10% of late-fall-run redds were below Red Bluff and 83% of winter-run, 25% of fall-run, 43% of spring-run, and 60% of late-fall-run redds were compressed into the 5 miles above Highway Bridge 44 in Redding.<sup>9</sup>
- In 2008, 6% of fall-run and 10% of late-fall-run redds were found below Red Bluff and 92% of winter-run, 35% of spring-run 56% of late-fall-run and 7% of fall-run redds were compressed into the reach above the Highway 44 Bridge.<sup>10</sup>

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<sup>6</sup> Boles G, Turek S, Maxwell C. 1988. *Water Temperature Effects on Chinook Salmon (Oncorhynchus tshawytscha), With Emphasis on the Sacramento River*, California Department of Water Resources. pp. 2, 18.

<sup>7</sup> OCAP BA, 5-12, 2008.

<sup>8</sup> Killam D, Harvey-Arrison C, Chinook Salmon Populations for the Upper Sacramento River Basin 2005, SRSSAP Technical Report No. 6-3, 2006: California Department of Fish and Game, Summary of Aerial Redd Survey Data 2008, Table 2, p. 9.

<sup>9</sup> Killam D, Krebs B, Chinook Salmon Populations for the Upper Sacramento River Basin 2007, SRSSAP Technical Report No. 08-4, 2008: California Department of Fish and Game, Summary of Aerial Redd Survey Data 2008, Table 2, p. 8.

- In 2011, 11% of fall-run redds were below Red Bluff and 78% of winter-run and 88% of late-fall-run and 34% of fall-run redds were above the Highway 44 Bridge. There were no spring-run aerial flights.<sup>11</sup>
- In 2012, 21% of fall-run redds were observed below Red Bluff and 99% of winter-run and 83% of late-fall-run and 22% of fall-run redds were identified into the reach above the Highway 44 Bridge.<sup>12</sup>

Failure to provide adequate temperatures protective of sensitive life stages of Chinook salmon and the resultant compression of spawning habitat are major factors in the continued decline of the species and the threatened extinction winter-run and spring-run salmon.

### **Violations of the CWA, Basin Plan, WR Order 90-05 and CVPIA**

The Regional Board's Basin Plan was adopted pursuant to the CWA and approved by the EPA. With respect to the Sacramento River, the Basin Plan explicitly states, "The temperature shall not be elevated above 56°F in the reach from Keswick Dam to Hamilton City nor above 68°F in the reach from Hamilton City to the I Street Bridge during periods when temperature increases will be detrimental to the fishery." Hamilton City is located at River Mile (RM) 199 on the Sacramento River. These temperature requirements protecting Chinook salmon extend up-river for 103 miles to Keswick Dam (RM 302).

As described above, the construction of Shasta and Keswick Dams eliminated virtually the entire historical spawning habitat for winter-run and spring-run Chinook salmon and forced these species to spawn in the river below Keswick. Historically, only 15% of fall-run Chinook salmon spawned in the Sacramento River upstream of Shasta Dam. The majority spawned in the lower river between Keswick and Hamilton City and until recently more than half spawned in the reach between Red Bluff Diversion Dam and Hamilton City.

The Basin Plan also states that temperature objectives are limited to "controllable factors" and "in determining compliance with the water quality objectives for temperature, appropriate averaging periods may be applied *provided that beneficial uses will be fully protected.*" Emphasis added.

The Basin Plan's Controllable Factors Policy states:

Controllable water quality factors are those actions, conditions, or circumstances resulting from human activities that may influence the quality of the waters of the State that are subject to the authority of the State Water Board or Regional Water Board, and that may be reasonably controlled.

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<sup>10</sup> Killam D. Chinook Salmon Populations for the Upper Sacramento River Basin in 2008, SRSSAP Technical Report No. 09-1, 2009: California Department of Fish and Game, Summary of Aerial Redd Survey Data 2008, Table 3 p. 9.

<sup>11</sup> Killam D. Chinook Salmon Populations for the Upper Sacramento River Basin in 2011, RBFO Technical Report No. 03-2012: California Department of Fish and Game, Summary of Aerial Redd Survey Data 2011, Table 2 p. 15.

<sup>12</sup> Killam D. Chinook Salmon Populations for the Upper Sacramento River Basin in 2012, RBFO Technical Report No. 02-2013: California Department of Fish and Game, Summary of Aerial Redd Survey Data 2012, Table 2, p. 14.

In 1990, the SWRCB issued WR Order 90-05, which implemented the Basin Plan with respect to USBR's water rights and licenses for the CVP. It requires USBR to meet a daily average water temperature of 56°F in the Sacramento River at Red Bluff Diversion Dam (RM 243) during periods when higher temperatures will be detrimental to the fishery. WR Order 90-05 states that when factors beyond the control of USBR prevent attainment of 56°F temperatures at Red Bluff Diversion Dam, USBR may, after consultations with the fishery agencies and subject to approval of the SWRCB, designate an upstream location where it can meet the 56°F requirement.

The SWRCB addressed controllable factors in maintaining cold-water pools for temperature control in WR Order 92-02 (Order Establishing Drought-Related Requirements for the Bay-Delta Estuary During 1992) when it referenced WR Order 90-05, at page 9:

The State Water Board also has advised the USBR that decisions on water deliveries are subject to the availability of water, and that water should not be considered available for delivery if it is needed as carryover to maintain an adequate cold water pool for the fishery.

WR Order 90-05 ignored and failed to protect the 44 miles of river between Hamilton City and Red Bluff that comprises almost 43% of the spawning habitat protected by the Basin Plan. The Order also violated the Basin Plan when it established an average temperature of 56°F, without regard to whether daily average temperatures that allow daily exceedances above 56°F will *fully protect beneficial uses* during critical periods. As we demonstrate below, daily average temperature criteria are not protective of the fishery, as daily maximums can be lethal to fish.

The SWRCB also ignores and violates the Basin Plan's Controllable Factors Policy and its own advice to USBR as it approves the yearly Sacramento River Temperature Management Plans (TMPs) submitted by USBR to the SWRCB that shifts the compliance point upstream thereby further restricting the amount of spawning habitat available to salmon. As discussed more fully below, in recent years the SWRCB has approved TMPs that establish the compliance point at Clear Creek. This compresses spawning to a 10 mile reach below Keswick: a 90% reduction of Basin Plan and 83% reduction in BO protected spawning habitat. In 2015, SWRCB even violated its average daily 56°F criterion, when the Executive Officer unilaterally approved an USBR request to raise the temperature standard to a target of 57°F not to exceed 58°F.

USBR has consistently operated to a pattern and practice of maximizing water deliveries without regard to reserving sufficient water storage to comply with water quality standards. It schedules water deliveries in the spring based on assumptions of future rainfall and not what was stored from the preceding wet season. The adverse consequences of this reckless policy are magnified during drought sequences. Delivering excessive quantities of water and draining reservoirs to the point of not being able to comply with water quality standards is not a defensible excuse for the failure to provide adequate cold water to protect fisheries. The pattern and practice of delivering near normal water supplies in the early years of drought, depleting carryover storage and then relying on the SWRCB to weaken water quality standards has been extensively discussed and documented in previous protests, objections and SWRCB TUCP workshops and is referenced and need not be repeated here.

The SWRCB has acquiesced and participated in this pattern and practice. It has disregarded Basin Plan and CWA requirements, relied upon average temperature criteria, approved temperature criteria that permit lethality, excluded significant reaches of identified spawning habitat from requirements to comply with temperature criteria, approved relocated compliance locations based upon USBR's willingness to reserve storage to meet water quality standards, and failed to enforce violations of temperature criteria.

Enactment of the Central Valley Project Improvement Act (CVPIA) in 1992 seems to have been forgotten. Co-equal with water supply, the protection, restoration and enhancement of fish and wildlife are now primary purposes of the CVP. Mitigation for previous dam construction, contributions to efforts to protect the Bay-Delta and the doubling of natural production of anadromous fisheries in Central Valley rivers are now CVP purposes.

Yet, USBR, with SWRCB approval, ignores the CVPIA requirement to achieve a reasonable balance between competing demands, and continues to operate the CVP primarily to deliver water to its customers and only secondarily to protect and enhance fisheries and public trust values. Deliveries to Settlement Contractors cannot take precedence over fish and wildlife requirements because the water rights of both USBR and the Settlement Contractors are subject to compliance with water quality criteria, the reasonable use doctrine and public trust balancing.

Both the SWRCB and USBR appear to regard NMFS' BO for the Long-Term Operational Criteria and Plan for Coordination of the CVP and SWP (OCAP) as having primacy over the CWA, Basin Plan, WR Order 90-05 and Public Trust Doctrine. Additionally, NMFS appears to believe that its BO protecting Chinook salmon spawning on the Sacramento River is subservient to USBR's desires to maximize water deliveries to its Settlement Contractors.

The NMFS OCAP BO's Reasonable and Prudent Action (RPA) 1.2.1 (page 592) establishes performance measures for temperature compliance points and End-of-September (EOS) carryover storage that must be attained.

Performance measures for EOS storage at Shasta Reservoir include:

- 87 percent of years: Minimum EOS storage of 2.2 MAF
- 82 percent of years: Minimum EOS storage of 2.2 MAF and end-of-April storage of 3.8 MAF in following year (to maintain potential to meet Ball's Ferry compliance point)
- 40 percent of years: Minimum EOS storage 3.2 MAF (to maintain potential to meet Jerry's Ferry compliance point in the following year)

Review of Shasta Reservoir storage records reveals that, over the last 10 years, USBR has failed to meet the performance requirements. They met the 2.2 MAF EOS storage requirement only 50% of the time, met the 2.2 MAF EOS and 3.8 MAF end-of-April requirement only 60% of the time and met the EOS storage of 3.2 MAF requirement only 30% of the time.

Reasonable and Prudent Action performance measures for temperature compliance points during the summer season, measured as a 10-year running average, include:

- Meet Clear Creek Compliance point 95% of the time
- Meet Balls Ferry Compliance point 85% of the time
- Meet Jelly's Ferry Compliance point 40% of the time
- Meet Bend Bridge Compliance point 15% of the time

Review of daily average temperature data for the Clear Creek compliance point (RM 292), Balls Ferry (RM 276), Jelly's Ferry (RM 266) and Bend Bridge (RM 258) compliance points reveals that, between 2007 and 2015, there were temperature exceedances at Bend Bridge and Jelly's Ferry in all years, exceedances at Ball's Ferry 66.6% of the years and exceedances at Clear Creek 55.5% of the years.

The NMFS OCAP BO's RPA 1.2.3.C (page 600) establishes drought exception procedures if the February forecast, based on 90% hydrology, shows that the Clear Creek temperature compliance point or 1.9 MAF Shasta Reservoir EOS storage is not achievable. Under these conditions, there is clear potential that minimal requirements for winter-run egg survival and spring-run spawning requirements will not be achieved due to depletion of the cold water pool, resulting in temperature-related mortality to both winter-run spring-run salmon. The BO's effects analysis concludes that these conditions could be catastrophic to the species.

Consequently, RPA 1.2.3.C requires preparation of a contingency plan, relaxation of Wilkins Slough criteria to at most 4,000 cfs and:

*Notification to State Water Resources Control Board that meeting the biological needs of winter-run and the needs of resident species in the Delta, delivery of water to nondiscretionary Sacramento Contractors and Delta outflow requirements per D-1641, may be in conflict in the coming season and requesting the Board's assistance in determining appropriate contingency measures, and exercising their authorities to put these measures in place. [Emphasis added.]*

The BO makes clear that an appeal to the SWRCB was necessary because Sacramento Settlement Contractor withdrawal volumes of water from the river can be substantial and because the court had concluded that USBR did not have discretion to curtail deliveries to Sacramento Settlement Contractors to meet federal ESA requirements. Unfortunately, while the SWRCB has the authority to reduce water deliveries to Settlement Contractors, it has demonstrated in this and previous droughts that it lacks the political will to do so.

Review of Shasta storage levels and deliveries to Sacramento Valley Contractors reveals that in the second drought year of 2013, USBR delivered 1.6 MAF to Sacramento Settlement Contractors and 249 TAF to Tehama-Colusa Canal, thereby drawing down EOS storage to only 1.9 MAF. In the third drought year of 2014, with a February projection of Shasta EOS storage to be less than 1.9 MAF, USBR delivered 1.99 MAF of water to Sacramento Settlement Contractors and Tehama-Colusa Canal drawing down Shasta EOS storage to only 1.16 MAF. Failure to meet temperature criteria in 2014 devastated the winter-run, spring-run and fall-run year classes.

In the fourth drought year of 2015, USBR scheduled 75% of contracted water deliveries on 27 February despite a February projection of Shasta EOS storage of only 903 TAF. In April and May, USBR delivered 337,339 AF of water to the Settlement Contractors and 36,898 AF to the Tehama-Colusa Canal, forcing USBR to request that the SWRCB increase the 56°F temperature criterion at Clear Creek compliance point to 58°F. In April 2015, the NMFS said that the fishery agencies believed an increase in the temperature criterion to 58°F would result in significant impacts and a likelihood of adverse impacts to incubating winter-run eggs and alevin in redds compared to a daily average of 56°F. But, by 1 July 2015, NMFS had been *persuaded* that an increase to 58°F was consistent with the BO because there was a *reasonable possibility* that there would be *some juvenile winter-run survival* this year.

USBR's continuing lack of compliance with temperature requirements is illustrated in a review of Sacramento River temperature control history in the NMFS' OCAP BO. Figure 6-18, on page 263, titled *Historical exceedances and temperature control point locations in the upper Sacramento River from 1992 through 2008* shows Shasta storage, the starting compliance point and changes in temperature compliance points and the reasons for the changes. It reveals that compliance points were frequently moved, often multiple times in a single year, in response to exceedances of water quality criteria. Compared with recent actions discussed below, not much has changed: the compliance point is a floating target that is frequently relocated because it is dependent upon how much water USBR is prepared to provide to comply with water quality criteria and protect fisheries.

The rationale and justification for meeting temperature criteria is described in the OCAP BO at Page 91, Section 4.2.1.2.3.3.4 titled *Water Temperatures for Successful Spawning, Egg Incubation, and Fry Development*. It states:

Reclamation releases cold water from Shasta Reservoir to provide for adult winter-run migration, spawning, and egg incubation. *However, the extent winter-run habitat needs are met depends on Reclamation's other operational commitments, including those to settlement contractors, water service contractors, D-1641 requirements, and projected end of September storage volume. Based on these commitments, and Reclamation's modeled February and subsequent monthly forecasts, Reclamation determines how far downstream 56°F can be maintained and sustained throughout the winter-run spawning, egg incubation, and fry development stages. Although WRO 90-05 and 91-1 require Reclamation to operate Keswick and Shasta dams, and the Spring Creek Powerplant, to meet a daily average water temperature of 56°F at RBDD, they also provide the exception that the water temperature compliance point (TCP) may be modified when the objective cannot be met at RBDD. In every year since the SWRCB issued WRO 90-05 and 91-1, operations plans have included modifying the RBDD compliance point to make best use of the coldwater resources based on the location of spawning Chinook salmon (CVP/SWP operations BA page 2-40). Once a TCP has been identified and established, it generally does not change, and therefore, water temperatures are typically adequate for successful, egg incubation, and fry development for those redds constructed upstream of the TCP. However, the annual change in TCP has degraded the conservation value of spawning habitat (based on water temperature). [Emphasis added.]*

Regardless of the OCAP BO's description of how USBR views its obligations to deliver water or the process of by which temperature compliance points are selected, it is USBR's ultimate responsibility to comply with the legal water quality criteria in the Basin Plan that was developed pursuant to the federal CWA and approved by USEPA as a condition of operations. USBR is not entitled to operate its project in violation of legal requirements simply because it is the USBR.

The approval of fishery agencies cannot be legally employed as an excuse for USBR's not complying with water quality standards. Nor is the SWRCB's failure to incorporate the full water quality protections in the Basin Plan a defensible excuse. Delivering contracted water and drawing down reservoir levels and depleting cold water storage to the point of not being able to meet temperature requirements is a controllable factor. USBR's contracts for delivering water are predicated on compliance with water quality standards, and USBR's desire to maximize water deliveries and the SWRCB's lack of political will to reduce deliveries to Sacramento Settlement Contractors cannot be used to justify failure to comply with the law.

Yet, over the years, USBR, the fishery agencies and SWRCB have gathered together in secret rooms to determine temperature compliance points. The Sacramento River Temperature Task Group (SRTTG) advises USBR on the best course of action to take regarding temperature compliance, based on fish surveys, real-time data and temperature modeling all functioning within the limits of the quantity of water USBR is willing to provide. The SRTTG is comprised of the USFWS, NMFS, CDFW, SWRCB, Western Area Power Administration and the Hoopa Tribe. A TMP is prepared yearly and submitted to the SWRCB for approval.

In an interesting conflict of interest conundrum, the SWRCB participates in the SRTTG that devises and recommends a TMP and then the SWRCB, as a regulatory agency, evaluates and approves the recommendation that is always less protective than CWA/Basin Plan requirements.

In 2009, the SRTTG set the temperature compliance point at Airport Road (RM 284) in Anderson, thus eliminating 85 miles of spawning habitat protected by the Basin Plan, 41 miles protected by the WR Order 90-05 or 26 miles under the BO. In 2010, Shasta Reservoir received above normal inflow and filled. The SRTTG set the temperature compliance point at Jelly's Ferry (RM 267), eliminating 68 miles of spawning habitat protected by the Basin Plan, 24 miles protected by WR Order 90-05 and 9 miles under the BP.

The SRTTG Annual Report for 2011 revealed that temperature compliance was targeted at Balls Ferry (RM 276) until 1 June and Jelly's Ferry (RM 266) until 31 October. Shasta Reservoir had 3.99 MAF of water, as of 1 April 2011, and inflow was expected to be above average. Yet USBR claimed that 56°F temperatures could not be met at Red Bluff during a wet year and, with the approval of the fishery agencies, eliminated 61% of spawning habitat from any temperature requirement until 1 June and subsequently eliminated 46% of spawning habitat in the critical spawning period for winter-run Chinook salmon.

The 2011 Independent Panel report, as quoted in the 2012 SRTTG Annual Report observed:

The TCP at Bend Bridge, which is required to be met only 15% of the time (i.e., 1.5 yrs out of 10), has not been met in either this or the previous year. *If the TCP at this location*

*was not met in WY2011 –one of the least challenging years in terms of available reservoir storage – it seems unlikely that it can be met in any year. [Emphasis added.]*

In 2012, the temperature compliance point began at Jelly's Ferry (RM 266) was moved up to Balls Ferry (RM 276) and ended the year at Jelly's Ferry. The 2012 SRTTG Annual Report also highlighted another problem: when high releases to meet delivery and temperature requirements are dramatically reduced following the close of the irrigation and temperature control seasons, there is considerable dewatering of fall-run and late-fall-run Chinook salmon redds.

In 2013, the SRTTG recommended and USBR operated to meet an initial temperature compliance point at Balls Ferry (RM 276), but in June it was moved upstream to Anderson (RM 284). The 2013 SRTTG Annual Report demonstrated how relocating temperature compliance points upstream compressed spawning. In 2012, 63.6% of fall-run and 95.9% of late-fall-run Chinook salmon spawned in the 26 miles between Keswick and Balls Ferry and, in 2013, 98.4% of winter-run Chinook salmon spawned in the 3 miles between Keswick and the ACID Dam, with another 22.5% above the Highway 44 bridge. It also reported that 35% of monitored fall-run redds were dewatered when flows were abruptly reduced from 7,000 to 4,000 cfs in WY2013 and that 8,011 fall-run and 650 winter-run salmon were observed stranded by CDFW crews between 7 February 7 and 4 April 2013.

In 2014, the SRTTG established a temperature compliance point at Clear Creek (RM 292), with the approval of the SWRCB Executive Director. This provided 10 miles of spawning habitat but eliminated 34 miles of spawning habitat under the BO, 49 miles of spawning habitat under WR Order 90-05 and 93 miles of spawning habitat protected under the Basin Plan. However, flawed modeling and reckless mismanagement prevented USBR from even protecting this upper 10 miles of spawning habitat. The cold water pool in Shasta Reservoir was depleted because USBR delivered 1.2 MAF of water to Sacramento Settlement Contractors and 119 TAF to the Tehama-Colusa Canal and exported 1.5 MAF via the Jones Pumping Plant in the Delta during 2014, the third year of the drought. Shasta Reservoir was drawn down to 1.05 MAF by January 2015.

With cold water depleted, the temperature objective was exceeded and 100% of the winter-run Chinook salmon redds were exposed to temperatures above 56°F. It is estimated that 95% of winter-run, 98% of fall-run and virtually all of the spring-run Chinook salmon brood year was lost because of the USBR's failure to comply with temperature objectives.

On 6 April 2015, the SWRCB Executive Director directed USBR to prepare and implement a 2015 TMP for the Sacramento River for the protection of winter-run, Chinook salmon and other salmonids. USBR submitted a draft TMP in mid-April and an updated plan on 4 May 2015. The Executive Director provisionally approved the TMP on 14 May. USBR subsequently informed the SWRCB that it could not meet the 56°F temperature requirement at Clear Creek, and the Executive Director suspended his approval of the TMP on 29 May. The SWRCB held a workshop on 24 June, where CSPA, NRDC and the Bay Institute provided highly critical comments on the proposed TMP. USBR submitted a revised TMP on 25 June, the NMFS provide a concurrence letter on 1 July and the Executive Director approved the TMP on 7 July 2015.

The approved TMP set a daily average temperature target of 57°F at Clear Creek, not to exceed 58°F. To preserve cold-water storage, the Order limited Keswick releases to 7,250 cfs in June, July and August, 6,500 cfs in September and 5,000 cfs in October, subject to change in accordance with real-time monitoring and decision-making.

So far in 2015, daily average temperatures at the Clear Creek compliance point averaged 57.3°F in June and 57.1°F in July. Daily maximum temperatures at Clear Creek averaged 59.6°F in June and 59.2°F in July. USBR violated the not-to-exceed 58°F weakened daily average criterion on June 16 (58.038), 17 (58.42), 18 (58.19) and 24 (58.18). Based upon the scientific literature, significant instantaneous mortality to the 2015 winter-run Chinook salmon brood class has already occurred, and substantial delayed mortality can be expected to occur.

The fishery agencies initially opposed USBR's proposal to increase temperature limits from 56°F to 58°F because they believed it was not protective of early Chinook salmon life stages. NMFS' 15 April 2015 *Evaluation of Alternatives for Sacramento River Water Temperature Compliance for Winter-run Chinook Salmon* is posted on the SWRCB's website. The Evaluation points out, on page one:

A requirement in NOAA's National Marine Fisheries Service's reasonable and prudent alternative is to provide water temperatures *no greater than a daily average of 56°F in the upper Sacramento River to provide habitat needs for various life history stages of Sacramento River winter-run Chinook salmon.* [Emphasis added.]

The fish agencies (NMFS, USFWS, and CDFW) have reviewed various alternatives to temperature compliance, including a targeted daily average water temperature Shasta Dam (e.g., 52°F or 53°F) and *increasing the temperature target from 56°F to 58°F at the Sacramento River above Clear Creek CDEC monitoring station (CCR) compliance point after the eggs hatch.* As a result of their assessment, the fish agencies *do not think that these alternatives would result in negligible impacts and/or little likelihood of adverse impacts to incubating winter-run eggs and alevin in redds compared to a daily average of 56°F.* [Emphasis added.]

For example, a heat wave in Redding (>105°F) with these operation could lead to elevated *temperatures above 56°F at CCR, leading to potentially significant winter-run egg mortality and sublethal effects.* [Emphasis added.]

Having acknowledged that NMFS, USFWS and CDFW believe that an increase of daily average temperatures from 56°F to 58°F would result in adverse impacts, the Evaluation observes, on page 5, that violations occur nearly every year because of USBR commitments to water contractors:

Even though State Water Resources Control Board Orders 90-5 and 91-1 require Reclamation to operate Keswick and Shasta dams to meet a daily average temperature of 56°F at Red Bluff Diversion Dam (RBDD) [or at a temperature compliance point (TCP) modified *when the objective cannot be met at RBDD based on Reclamation's other operational commitments including those to water contractors, D-1641 regulations and*

criteria, and projected end of September storage volume], *nearly every year, Reclamation has exceeded the TCP at some point throughout the temperature control season.* Especially last year, 100% of winter-run brood year 2014 redds were exposed to temperatures above 56°F degrees at the CCR TCP at some time period during the water year (see Figure 3). Emphasis added.

But USBR, with SWRCB acquiescence, did an end run around the fishery agencies and eliminated all possibility of using Shasta storage to meet a 56°F temperature criterion, even at Clear Creek. In April and May of this year, USBR, despite pleas from CSPA, Bay Institute, NRDC and others to reduce deliveries in order to protect the cold water pool in Shasta Reservoir, delivered 366,794 AF to the Sacramento Settlement Contractors and Tehama-Colusa Canal and exported an additional 312,686 AF of water from the Delta. These deliveries eliminated any possibility that the water would be used to meet water quality standards and fishery needs.

Faced with a *fait accompli* and unwilling to hold their partner accountable for violations of the CWA and ESA, the fishery agencies went along and issued consistency determinations that claimed the TMP was consistent with the BOs. The situation is described in the conclusion of NMFS's 1 July 2015 consistency determination for the TMP:

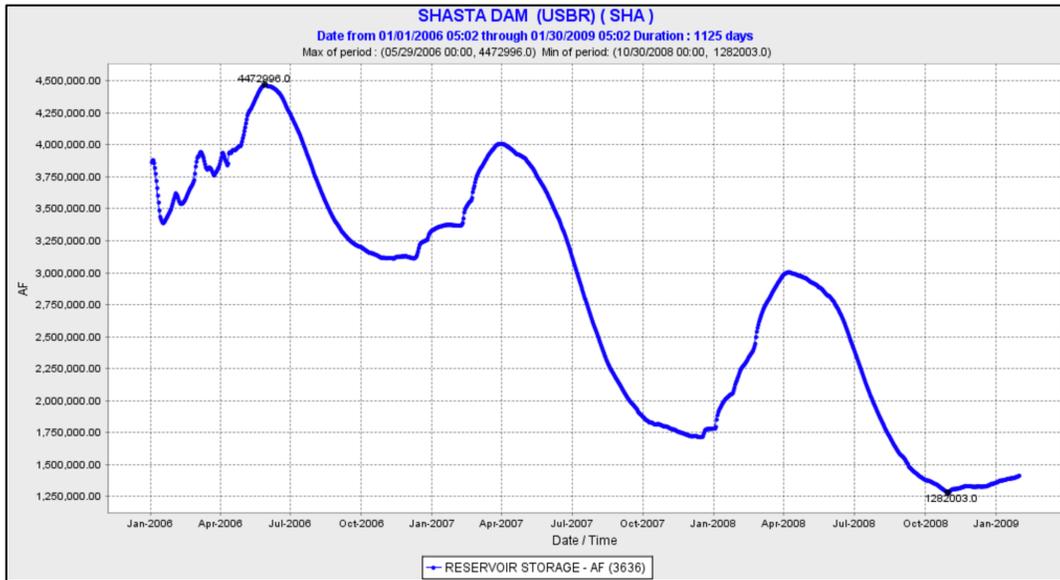
NMFS acknowledges that storage in Shasta Reservoir at the beginning of the temperature management season in June, and the quantity and quality of the cold water pool, *will not provide for suitable winter-run habitat needs throughout their eggs and alevin incubation and fry rearing periods.* The base operations plan, including the Keswick release schedule, delayed use of full side gates, and real-time monitoring and decision-making based on winter-run timing, location of redds, air and surface water temperature modeling, and projected versus actual cold water storage conditions and downstream water temperatures, represents the best that can be done with a really bad set of conditions. *We note that these conditions could have been largely prevented through upgrades in monitoring and modeling, and reduced Keswick releases in April and May. Based on extensive analyses of alternative scenarios (6,000 to 8,000 cfs Keswick releases), the plan provides a reasonable possibility that there will be some juvenile winter-run survival this year.* [Emphasis added.]

And that's the best that can be hoped for this year, "a reasonable possibility that there will be some juvenile winter-run survival this year." Had USBR and the SWRCB heeded the pleas to not deliver 2.8 MAF of water and draw down Shasta by 1.05 MAF of water last year in the third year of drought, had they heeded the pleas to not deliver 374,237 AF of water to Sacramento Settlement Contractors and the Tehama-Colusa Canal in April and May of this year, had they heeded pleas to not continue to further deplete cold water storage by delivering more than 500,000 AF in June and July to water agencies along the Sacramento River, there might be more than mere hope that some winter-run might survive this year.

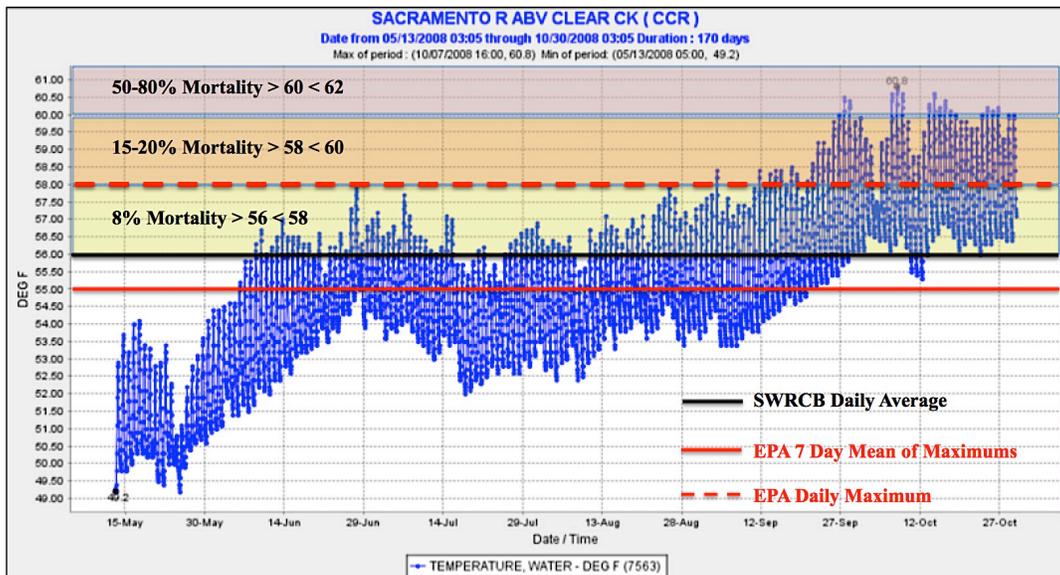
But reserving water needed to meet water quality standards and public trust fishery needs has never been a part of USBRs operating protocols. The pattern and practice of draining reservoirs in the initial years of a drought sequence and then either violating water quality and fishery standards or turning to the SWRCB to bail them out of having to comply with water quality

standards is deeply ingrained in USBR's operations. The last two drought sequences illustrate the pattern.

During the drought of 2007-2009, USBR delivered 100% of the contracted water to water contractors along the Sacramento River. Deliveries to Sacramento Settlement Contractors and Tehama-Colusa Canal in 2006, 2007, 2008 and 2009 totaled 1.7, 1.9, 1.9 and 1.8 MAF, respectively. CVP Delta Exports in 2006, 2007, 2008 and 2009 were 2.6, 2.6, 1.8 and 1.9 MAF, respectively. Shasta Reservoir was drawn down from 4.47 MAF in April 2006 to 1.28 MAF in November 2008, leaving insufficient cold water remained to comply with temperature criteria.



**Sacramento River Above Clear Creek Temperatures: 15 May – 30 November 2008**



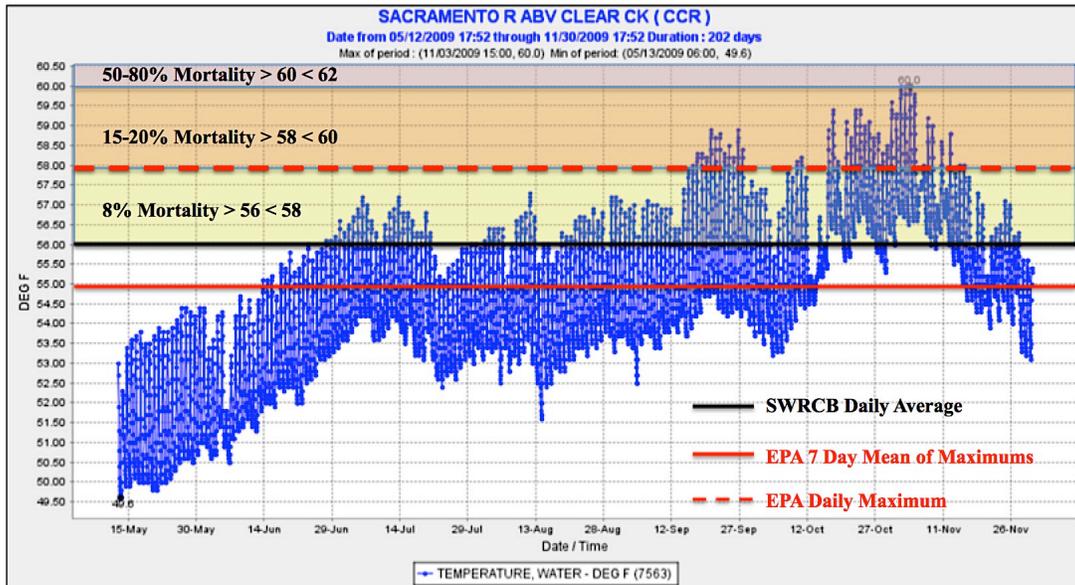
Mortality schedules developed by USFWS and CDFG for use in evaluation of Shasta Dam temperature control alternatives in June 1990 (Richardson et al. 1990).

Winter-run Chinook salmon spawning generally begins in late April and extends into early

August, eggs hatch between late June and middle-to-late September, and fry emerge between late July and late October. Spawning through incubation to emergence are critical life stages.

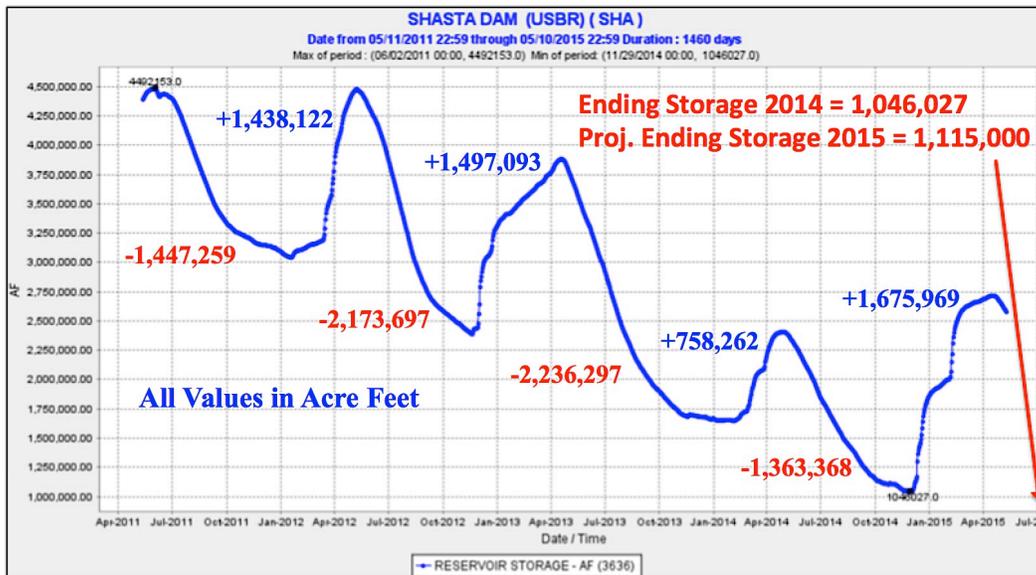
Temperatures at Clear Creek in 2008 ranged into lethal zones during spawning and egg incubation and exceeded even the SWRCB's inadequate daily averages during fry emergence. Temperatures in the 90% of identified spawning habitat below Clear Creek were much higher.

**Sacramento River Above Clear Creek Temperatures: 15 May – 30 November 2009**



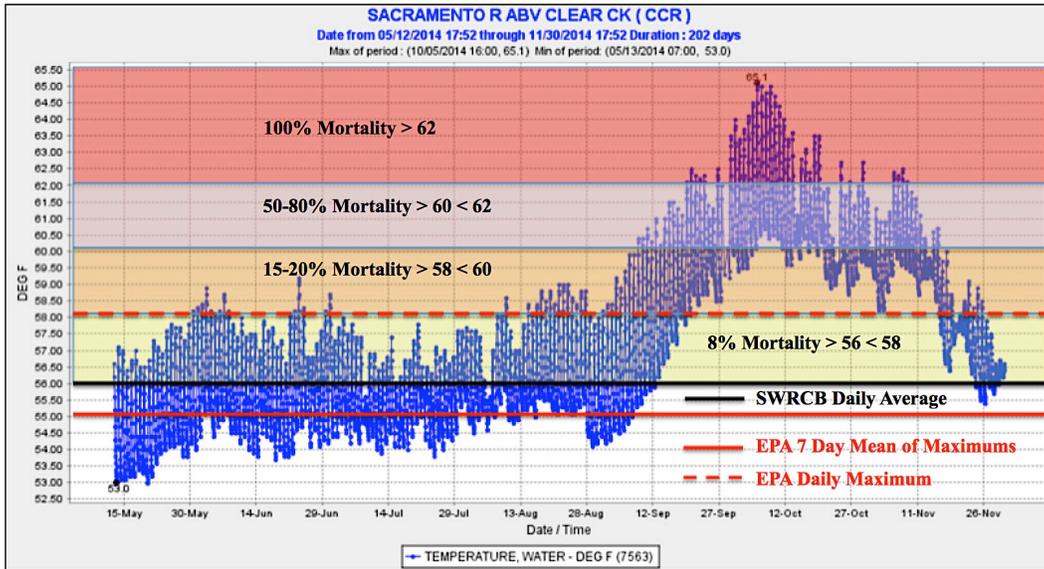
Mortality schedules developed by USFWS and CDFG for use in evaluation of Shasta Dam temperature control alternatives in June 1990 (Richardson et al. 1990).

The pattern repeated itself in 2009 as shown above.



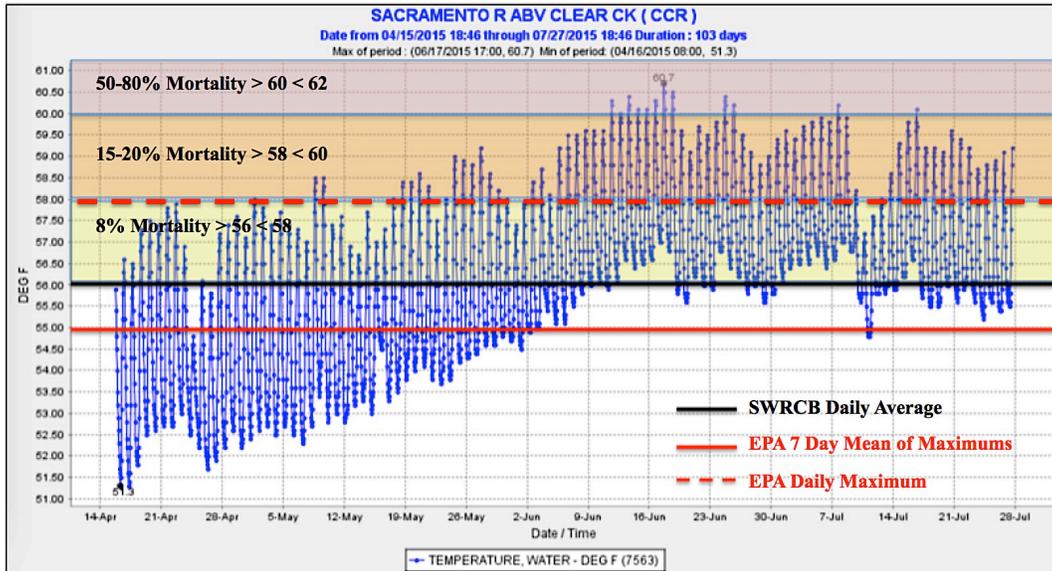
During the present drought, USBR scheduled deliveries of 100% of contracted water to Sacramento Contractors in 2012 and 2013 and 75% in 2014 and 2015. Deliveries to contractors along the Sacramento River in 2012, 2013 and 2014 totaled 1.8, 1.99 and 1.3 MAF, respectively. In 2012, 2013, 2014 and 2015 CVP Delta Exports were 2.1 MAF, 1.5 MAF, 874 TAF, and 334 TAF so far this year. Consequently, end-of-year storage in Shasta Reservoir plummeted.

**Sacramento River Above Clear Creek Temperatures: 15 May – 31 October 2014**



Mortality schedules developed by USFWS and CDFG for use in evaluation of Shasta Dam temperature control alternatives in June 1990 (Richardson et al. 1990).

**Sacramento River Above Clear Creek Temperatures: 15 April – 27 July 2015**



Mortality schedules developed by USFWS and CDFG for use in evaluation of Shasta Dam temperature control alternatives in June 1990 (Richardson et al. 1990)

Excessive water deliveries in the initial drought years depleted cold water pools in Shasta. Water temperature intruded well into lethal zones during spawning and egg incubation and soared

during late incubation are fry emergence. The entire brood years of winter-run, spring-run and fall-run Chinook salmon were devastated.

CSPA has been unable to find a single example of the SWRCB taking an enforcement action against USBR for violations that occur “nearly every year,” including the 2014 violations that destroyed an estimated 95% of winter-run, 98% of fall-run and virtually all of the spring-run brood class. Perhaps the SWRCB’s participation in the closed-door meetings that recommends TMPs that fail to comply with CWA/Basin Plan requirements precludes it from taking an enforcement action against a fellow SRTTG member for violations of the TMP. This exhibits all of the characteristics of classic “conflict of interest” and “regulatory capture.”

### **Average Temperature Requirements are Not Protective of Chinook Salmon**

Following a long extensively peer-reviewed court ordered proceeding, USEPA Region 10 issued *EPA Region 10 Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards* (Region 10 Guidance) in 2003. The Guidance establishes a recommended criterion of 13°C (55°F), as a 7 day average of the daily maximums (7DADM), for Chinook salmon, steelhead and trout spawning, egg incubation and fry emergence, 16°C (61°F) for salmon and steelhead “core” juvenile rearing and 18°C (64°F) for salmon and steelhead migration plus non-core juvenile rearing. The states of Washington, Idaho and Oregon have established temperature criteria for Chinook salmon spawning through fry emergence as 7DADM 13°C (55.4°F), 16°C (60.8°F) for salmonid core summer habitat and 17.5°C (63.5°F) for salmonid rearing and migration.

The 7DADM protects against not only the lethal effects of elevated temperatures but also the chronic and sublethal impacts that frequently occur in waters that meet weekly average temperatures. High daily maximum temperatures can lead to excessive mortality in waters that still meet weekly averages. Chronic and sublethal effects include reduce juvenile growth, increased incidence of disease, reduced viability of gametes in adults prior t spawning, increased susceptibility to predation and competitions and suppressed or reversed smoltification.

In 2011, USEPA Region 9, in disapproving the SWRCB’s 2008-2010 306(d) list of impaired waterbodies, added the San Joaquin, Merced, Tuolumne and Stanislaus Rivers to the 303(d) list as impaired by temperature based partly on the Region 10 guidance and partly on recommendations by the California Department of Fish and Wildlife (CDFG) and the Regional Board, both of which used the Region 10 Guidance and other studies. The USEPA Region 9 letter stated,

Additionally, EPA believes that EPA’s Temperature Guidance values are appropriate for use in the Central Valley. The criteria have been used by California in their 303(d) list recommendation as well as selected as targets in Total Maximum Daily Loads (TMSLs) in the North Coast Regional of California (Carter 2008). They have also been used by National Marine Fisheries Service (NMFS”) to analyze the effects of the long term operations of the Central Valley Project and State Water Project, and to develop the reasonable and prudent alternative actions to address temperature-related issues in the Stanislaus River (NMFS 2009a). Reviews of appropriate temperature criteria for use in

the Stanislaus have yielded findings consistent with the EPA Temperature Guidance values (Deas (2004) and Marston (2003)).

The USEPA Region 9 letter also quoted a 2010 letter from Maria Rea, NMFS, to Alexis Straus (USEPA) that also supports the use of the Region 10 Guidance:

The use of the US EPA 2003 criteria for listing water temperature impaired water bodies in the San Joaquin River basin is scientifically justified. It has been recognized that salmonid stocks do not tend to vary much in their life history thermal needs, regardless of their geographic location. There is not enough significant genetic variation among stocks or among species of salmonids to warrant geographically specific water temperature standards (US EPA 2001). Based upon reviewing a large volume of thermal tolerance literature, McCullough (1999) concluded that there appears to be little justification for assuming large genetic adaptation on a regional basis to temperature regimes.

Although many of the published studies on the responses of Chinook salmon and steelhead to water temperature have been conducted on fish from stocks in Oregon, Washington, and British Columbia, a number of studies were reported for the Central Valley salmonids. Myrick and Cech (2001, 2004) performed a literature review on the temperature effects on Chinook salmon and steelhead, with a focus on Central Valley populations...

It is evident that the difference in thermal response is minimal in terms of egg incubation, growth, and upper thermal limit. Healey (1979, as cited in Myrick and Cech 2004) concluded that Sacramento River fall-run Chinook salmon eggs did not appear to be any more tolerant of elevated water temperature than eggs from the more northern races. Myrick and Cech (2001) concluded that it appears unlikely that there is much variation among races with regard to egg thermal tolerance because data from studies on northern Chinook salmon races generally agree with those from California. They further concluded that fall-run Central Valley and northern Chinook salmon growth rates are similarly affected by water temperature.

In fact, the Myrick and Cech's 2004 study titled *Temperatures effects on juvenile anadromous salmonids in California's central valley: what don't we know?* noted that a recent study on Sacramento River Chinook salmon by the US Fish and Wildlife Service (1999) concurred that fall-run egg mortality increased at temperatures greater than 12°C (53.6°F), that winter-run egg mortality increased at temperatures over 13.3°C (55.8°F), and that temperatures between 6 and 12°C appear best suited to Chinook salmon egg and larval development.

Chapter 6, page 2 of USBR's Biological Assessment (BA) for the 2008 Long-Term Operational Criteria and Plan for Coordination of the Central Valley Project and State Water Project (OCAP) contains Table 6-1 titled *Recommended water temperatures for all life stages of Chinook salmon in Central Valley streams as presented in Boles et al. (1988)*. Recommended temperatures for Chinook salmon are migrating adult (<65°F), holding adult (<60°F), spawning (53-57.5°F), egg incubation (<55°F), juvenile rearing (53-57.5°F) and smoltification (<64°F). Table 6-2 (page 6-3) titled *Relationship between water temperature and mortality of Chinook salmon eggs and pre-*

*emergent fry used in Reclamation egg mortality model* shows that instantaneous daily salmon egg mortality begins at 57°F and instantaneous daily pre-emergent fry mortality begins at 59°F.

The NMFS 8 March 2012 Biological Opinion for DWR's proposed construction and operation of the South Delta Temporary Barriers Program acknowledges, at page 12, that the "upper preferred water temperature for spawning Chinook salmon is 55°F to 57°F (Chambers 1956, Smith 1973, Bjornn and Reiser 1991, and Snider 2001)" and the "optimal water temperature for egg incubation ranges from 41°F to 56°F (44°F to 54°F [Rich 1997], 46°F to 56°F [NMFS 1997 Winter-run Chinook salmon Recovery Plan], and 41°F to 55.4°F [Moyle 2002]). It noted a "significant reduction in egg viability occurs at water temperatures above 57.5°F and total embryo mortality can occur at temperatures above 62°F (NMFS 1997)."

The NMFS 4 June 2009, Chinook Salmon/Sturgeon Biological Opinion for OCAP establishes, on page 621, an RPA for specific temperature criteria to protect steelhead adult migration of (< 56°F at Orange Blossom Bridge [OBB], 1 Oct – 31 Dec), smoltification (< 52°F at Knights Ferry and < 57°F at OBB, 1 Jan – 31 May), spawning and incubation (< 55°F at OBB), 1 Jan - 31 May) and juvenile rearing (< 65°F, 1 June – 30 September). It states, "Temperature compliance shall be measured based on a seven-day average daily maximum temperature. While NMFS requires USBR to meet specific temperature criteria specified as a 7DADM on the Stanislaus River, it fails to require USBR to meet any specific temperature criteria on the Sacramento River; leaving it to the SRTTG to develop an annual flexible TMP based upon water available after USBR meets its contractor obligations.

The North Coast Regional Water Quality Control Board developed a Klamath River TMDL in 2010. As part of the process, staff conducted an extensive literature review to evaluate temperature needs of the various life stages of steelhead trout, coho salmon and Chinook salmon. The purpose of the review was to identify temperature thresholds that are protective of salmonids by life stage, as a basis for evaluating stream temperatures in California temperature TMDLs within the North Coast region. The results were reported in Appendix 4, Effects of Temperature, Dissolved Oxygen/Total Dissolved Gas, Ammonia, and pH on Salmonids of the Final Klamath River TMDL Staff Report. Table 13, on page 25 of Appendix 4 identifies life stage temperature thresholds for salmonid spawning, egg incubation and fry emergence as 13°C (55.4°F), expressed as a MWMT, which is the same as a 7DADM.

The Pacific Fishery Management Council, in a 29 May 2015 letter from its Executive Director Dr. D. O. McIsaac, to SWRCB Executive Director Tom Howard, recommended that the SWRCB insist that USBR actively manage to meet a 56°F maximum temperature, rather than a 56°F daily average.

The 2013 SRTTG annual report revealed that NMFS had broached the subject of switching to a 7DADM. It stated on page 12:

NMFS expressed the idea of tracking the 7-day maximum (7DADM) water temperature in order to determine whether sub-lethal effects on salmonid life history stages (spawning, egg incubation and fry emergence) exist, despite the current temperature requirement metric of a daily average (Appendix B). *The*

*7DADM metric is recommended by EPA as of 2003 and has been used in other Central Valley rivers (e.g., Stanislaus, Tuolumne, and Merced rivers). NMFS looked at the 7DADM and what that might mean to the current daily average criterion (Figures 3-6). 7DADM can exceed daily average temperatures by as much as 4°F at Balls Ferry and as much as 3°F at Airport Road. [Emphasis added.]*

The report then observed that:

*SRTTG indicated that a change in compliance metric would require considerable time and effort in negotiations among all of the agencies and the State Water Resources Control Board and a change to decision 90-5. Emphasis added.*

The SRTTG 2013 report then posed the question:

*How does the Panel view using 7DADM as a measurement to consider potential sub-lethal effects on salmonid life history stages in lieu of daily average temperature? Emphasis added.*

CSPA poses two additional questions: has the SWRCB abdicated its regulatory and public trust responsibilities to the SRTTG and ceded its authority to those it is required to regulate and to the fishery agencies that have chaperoned the continued decline of Chinook salmon in the Sacramento River? Where in the CWA, ESA or the California Water Code is authority granted to USBR, NMFS, USFWS, CDFG, the Western Area Power Administration and the Hoopa Tribe to secretly decide what are the appropriate water quality criteria to protect beneficial uses?

The 2014 SRTTG annual report reiterated NMFS' recommendation but did not mention any discussion or decision related to pursuing a change to a 7DADM temperature standard from the present daily average. It stated on page 16:

In 2013, NMFS expressed to the SRTTG the idea of tracking 7-day average of daily maximum water temperature in order to determine whether sub-lethal effects on salmonid life history stages (spawning, egg incubation, and fry emergency) exist, despite the current temperature requirement metric of daily average. As explained in Appendix B of the 2013 SRTTG Annual Report of Activities, daily average temperature does not consider the impacts of diurnal temperature changes and daily maximum temperature. The stressful impacts of higher water temperatures on salmonids are cumulative and positively correlated to the duration and severity of exposure. The longer the salmonid is exposed to thermal stress, the less chance it has for long-term survival. Sub-lethal effects from high water temperature can lead to delayed mortality due to reduced fry and smolt sizes from sub-optimal growth. These effects could result in reduced productivity of a stock and reduced population size. As the term suggests, 7-day average of daily maximum (7DADM) reflects an average of maximum temperatures that fish are exposed to in a week long period. Since this metric is oriented to daily maximum temperatures, it can be used to protect against acute and sub-lethal or chronic effects.

It then observed that:

*7DADM was monitored for WY2014 and it was found that the reported 7DADM temperature was as much as 3°F higher in the Sacramento above Clear Creek than was shown by the SWRCB's 56°F average temperature criterion. Emphasis added.*

### **Violations of the Endangered Species Act**

In enacting ESA, Congress stated that the purpose of the ESA is “to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved.” 16 U.S.C. § 1531(b). As part of conserving endangered or threatened species, ESA prohibits the “taking” of any such listed species. 16 U.S.C. § 1538(a)(1)(B). A “take” is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” 16 U.S.C. § 1532(9). To “harm” a listed species in the context of a “take” includes “[any] act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.” 50 C.F.R. § 17.3 (1994). An indirect injury to a listed species through habitat modification also constitutes a “take.” *Babbitt v. Sweet Home Chapter of Communities for A Great Oregon*, 515 U.S. 687 (1995). The 9th Circuit Court of Appeals ruled that “under Sweet Home, a habitat modification which significantly impairs the breeding and sheltering of a protected species amounts to ‘harm’ under the ESA.” *Marbled Murrelet v Pacific Lumber Company*, 83 F.3d 1060 (9<sup>th</sup> Cir. 1996).

USBR has operated to a pattern and practice of delivering near normal water supplies in the early years of drought, depleting carryover storage and then relying on the SWRCB to weaken water quality standards. The SWRCB has operated to a pattern and practice of weakening water quality standards and thereby significantly degrading the habitat and impairing essential behavioral patterns, breeding, feeding, or sheltering of listed species. The SWRCB and USBR are in violation of the ESA.

As discussed at length above, USBR does not have discretion to curtail water deliveries to Sacramento Settlement Contractors to meet ESA requirements to comply with temperature requirements. The SWRCB has the authority but has refused to use it reduce water deliveries to Settlement Contractors in order to retain sufficient cold water storage necessary for temperature compliance. Both the SWRCB and USBR have failed to ensure compliance with the terms and conditions in the incidental take statement, i.e., that the reasonable and prudent measures in the RPAs and, consequently, are no longer in compliance with the ESA.

The BO does not address ESA section 7(a)(2) compliance for individual water supply contracts and, consequently, delivery of water that is “nondiscretionary” for the purposes of the ESA is not exempt from ESA section 9 take prohibitions. The SWRCB has sanctioned the illegal “take” of endangered species by the USBR and Sacramento Settlement Contractors.

Abundances of anadromous and pelagic species listed pursuant to the ESA have plummeted over the last few years to the point where they are facing the likelihood of imminent extinction. Over

this period, the SWRCB has acceded to multiple requests by USBR to weaken basic minimum standards adopted to protect listed species and their habitats and the fishery agencies have acquiesced in issuing concurrence letters, frequently within hours or several days of receiving TUCPs and Reinitiation of Consultation requests. These serial actions have seriously modified and degraded the habitat and impaired the breeding and sheltering of listed species to the point of impending extinction.

For example, a year after violations of temperature criteria had decimated the year classes of Sacramento Chinook salmon, a month and a half after identifying Sacramento winter-run Chinook salmon as one of the eight species in the nation “most at risk of extinction in the near future” and after it had stated that an increase in the temperature compliance target would result in adverse impacts to incubating winter-run eggs and alevin in redds and that 58°F was identified in the scientific literature as lethal to incubating salmon eggs and emerging fry, the NMFS issued a concurrence letter claiming that that increasing the temperature target was consistent with the BO because “the plan provides a *reasonable possibility* that there will be *some juvenile winter-run survival* this year.” [Emphasis added.] A reasonable possibility that some winter-run might survive is not an acceptable ESA legal standard.

Notwithstanding the letters of concurrence from USFWS, NMFS and CDFW that claim these actions are consistent with existing Biological Opinions, nothing in the ESA legally allows or justifies the SWRCB and USBR to further degrade the habitats of species lingering on the precipice of extinction. Collectively, the excuses, justifications and serial weakening of water quality criteria emanating from the secret SRTTG meetings while the fishery agencies remain embraced in denial as fisheries plummet toward extinction, surely constitute one of the saddest and most wretched spectacles we’ve ever witnessed and could be easily construed as an illegal conspiracy to defraud the public of public trust resources to the benefit of special interests.

### **Violations of the Public Trust and Article X of the California Constitution**

Article X, Section 2 of the California Constitution provides that:

The right to water or to the use of the flow of water in or from any natural stream or water course in this state is and shall be limited to such water as shall be reasonably required for the beneficial use to be served, and such right does not and shall not extend to the waste or unreasonable use or unreasonable method of use or unreasonable method of diversion of water.

Because of this Constitutional requirement, the SWRCB must consider the reasonableness of a particular method of diversion of water when evaluating (or reevaluating) all permitted uses of water and the requirements controlling those uses. “The limitations of Art. X, Section 2 ... apply to all water users of the state and serve as a limitation on every water right and method of diversion.” See *Yuba River D-1644* at p. 29. USBR is a water user subject to Article X, Section 2 in the operation of its respective projects in the Central Valley. The SWRCB’s responsibility under the reasonable use doctrine is illustrated in the recent summary of this doctrine by the First District Court of Appeal, in *Light v. SWRCB (2014) 226 Cal.App.4th 1463, 1479–80*:

Water use by both riparian users and appropriators is constrained by the rule of reasonableness, which has been preserved in the state Constitution since 1928. (Cal. Const., art. X, § 2; hereafter Article X, Section 2.) ... As the Supreme Court recognized soon after Article X, Section 2 was added, the rule limiting water use to that reasonably necessary “appl[ies] to the use of all water, under whatever right the use may be enjoyed.” (Peabody v. City of Vallejo (1935) 2 Cal.2d 351, 367–68 (Peabody).) The rule of reasonableness is now “the overriding principle governing the use of water in California.” (People ex rel. State Water Resources Control Bd. v. Forni (1976) 54 Cal.App.3d 743, 750 (Forni).)

California courts have never defined, nor as far as we have been able to determine, even attempted to define what constitutes an unreasonable use of water, perhaps because the reasonableness of any particular use depends largely on the circumstances. (Peabody, supra, 2 Cal.2d at p. 368.) “What may be a reasonable beneficial use, where water is present in excess of all needs, would not be a reasonable beneficial use in an area of great scarcity and great need. What is a beneficial use at one time may, because of changed conditions, become a waste of water at a later time.” (Tulare Dist. v. Lindsay–Strathmore Dist. (1935) 3 Cal.2d 489, 567.) In this regard, the Joslin court commented, “Although, as we have said, what is a reasonable use of water depends on the circumstances of each case, such an inquiry cannot be resolved in vacuo isolated from statewide considerations of transcendent importance. Paramount among these, we see the ever increasing need for the conservation of water in this state, an inescapable reality of life quite apart from its express recognition in [Article X, Section 2].” ([Joslin v. Marin Municipal Water District (1967) 67 Cal.2d 132, 140 (Joslin)]; see similarly In re Waters of Long Valley Creek Stream System (1979) 25 Cal.3d 339, 354 [“it appears self-evident that the reasonableness of a riparian use cannot be determined without considering the effect of such use on all the needs of those in the stream system [citation], nor can it be made ‘in vacuo isolated from statewide considerations of transcendent importance’”].) Few decisions have ruled on the reasonableness of a specific use of water, but in separate cases the Supreme Court has concluded, essentially as self-evident, that the use of water for the sole purpose of flooding the land to kill gophers and squirrels is unreasonable (Tulare Dist., at p. 568), as is the use of floodwaters solely to deposit sand and gravel on flooded land (Joslin, at p. 141.)

And the responsibility and authority of the SWRCB to prevent unreasonable use of water extends to all users, The Board’s authority to prevent unreasonable or wasteful use of water extends to all users, regardless of the basis under which the users’ water rights are held. ([*California Farm Bureau Federation vs. State Water Resources Control Board* (2011) 51 Cal.4th 421, 429].)

Considering the conditions of drought which are described in the “drought emergency” declared by Governor Brown - the curtailments of water rights, the serial waivers of D-1641 standards to protect fish and wildlife and water quality in the Delta watershed, and the continual weakening of temperature compliance requirements on the Sacramento River - it is time for the SWRCB to declare flood irrigation by agriculture during the drought emergency a waste and unreasonable use until the emergency is over.

If the SWRCB can require urban conservation, it can also require conservation in agriculture. As former SWRCB chief counsel and Delta Watermaster Craig Wilson put it “flood irrigating a field during drought can be considered unreasonable. Flood irrigation in the Sacramento Valley in particular is unreasonable when endangered salmon are facing extinction.

Alfalfa and irrigated pasture alone consumes 8.6 MAF of water in California and provides low net revenue and few jobs. The SWRCB can and must reduce the quantity of water allocated to irrigated pasture and low-value crops like alfalfa that use prodigious amounts of water and have very high “applied water” coefficients relative to other crops during the drought emergency. To continue this use is unreasonable and a waste of water, and must be stopped or reduced until the drought emergency is declared over.

The continued killing of threatened and endangered species by obsolete and non-protective export pumping facilities simply because the state and federal water contractors refuse to pay for new state-of-the-art fish screens is an unreasonable method of diversion. This is especially true when water diverted through those facilities deprives listed species of water and primary production necessary for survival. The SWRCB can and must curtail south Delta exports during the drought emergency until D-1641 water quality standards are met.

The SWRCB must also consider public trust issues in proceedings that concern water rights and water quality based on reserved jurisdiction or under the doctrine of reasonable use. The SWRCB may also modify permits of “the projects” that require the appropriator to reduce the quantity of exports. *United States v. SWRCB* (1986) 182 Cal.App. 3d 82, 124-131. The SWRCB has a complaint procedure that can exercise authority over both federal and state water projects by virtue of having state water rights permits issued by the Board.

The State’s management responsibilities include broad discretion to promote trust uses, such as the continued survival Chinook salmon in the Sacramento River, provided the discretion is exercised consistent with constitutional and statutory constraints. *People v. California Fish Co.* (1913) 166 Cal. 576, 597. While the State has discretion to promote trust issues, the SWRCB has “an affirmative duty” to protect trust resources. See *Illinois Central Railroad v. Illinois*, 146 U.S. 387; and *National Audubon Society v. Superior Court* (1983) 33 Cal.3d 419 (The state may not abdicate its supervisory role any more than the state may abdicate its police power); see also Stevens, *The Public Trust: A Sovereign’s Ancient Prerogative Becomes the People’s Environmental Right*, 14 U.C. Davis Law Review 195, 223.

Fish and wildlife are natural resources unequivocally protected by state sovereignty, whereby ownership of the resource is reserved to the states. *Geer v. Connecticut*, (1896) 161 U.S. 519. The court in *Audubon v. Superior Court*, (1983) 33 Cal.3d. 419 held that “no one may obtain a vested right to undertake an act that is harmful to the trust.” See also *SWRCB D-1644* (Yuba River) at page 29. The supremacy of the public trust over private individuals is reflected in a “judicial presumption against state or legislative alienation of trust resources.” *People v. California Fish*; see also *Illinois Central v. Illinois* (1892) 146 U.S. 387; *Montana v. U.S.*, (1981) 450 U.S.544. Historically, state sovereign ownership was limited to “the traditional triad of uses” – commerce, navigation, and fishing.

However, in 1971 the California Supreme Court expanded the protected uses to cover the environment generally. *Marks v. Whitney* (1971) 6 Cal 3d. 251, 259-260. State sovereign ownership imposes restraints on the state's discretion regarding the use of navigable waters. The use of trust resources must be consistent with the general trust purposes or it is invalid. *State of California v. Superior Court* (Lyon) (1981) 29 Cal 3d. 210, 220-230; *Marks v. Whitney*, supra; *City of Long Beach v. Mansell*, (1970) 3 Cal 3d. 462, 482-485. Preservation of a public trust resource such as the Sacramento River and San Francisco Bay/Delta estuary is a legitimate disposition of the public trust resource, and is consistent with general trust purposes. Thus, tidelands and water may be burdened with a negative easement against any active use or disposition of the trust reserve. *Id*; *National Audubon*, supra; *State of California v. Superior Court* (Fogerty), (1981) 29 Cal 3d. 240, 249-250.

Consequently, the SWRCB has both the authority and responsibility under its reserved jurisdiction in the permits and licenses of the USBR, and under its continuing authority and responsibilities pursuant to the public trust and reasonableness doctrine to protect fisheries, public trust resources and beneficial uses. To protect those resources and uses, it approved, among other things, the Basin Plan and issued WR Order 90-05 to protect the Sacramento River and issued the Bay-Delta Plan and D-1641 to protect the Sacramento-San Joaquin Delta Estuary.

Unfortunately, the SWRCB has ignored reasonable use and public trust considerations in its decision-making. It failed to analyze, discuss or justify its decision to significantly weaken protection for Sacramento River fisheries as opposed to maintaining near 75% deliveries to Settlement Contractors in its 7 July 2015 Order. The Order is devoid of any analysis and discussion weighing the costs and benefits of sending public trust species into extinction versus following cropland that will be replanted when rains return. There is no economic study of Sacramento Valley agricultural beneficial uses to determine which crops provide important employment and economic benefits relative to crops that require large quantities of water but provide low net economic return and few jobs. Nor is there any analysis of "health and safety" needs and urban uses as opposed to agricultural or environmental.

USBR's pattern and practice of delivering near normal water supplies in the early years of drought, depleting carryover storage and then relying on the SWRCB to weaken water quality standards established to protect public trust resources as successive dry years occur has been amply documented in multiple documents and TUCP proceedings over the last several years. The SWRCB has failed to establish minimum reservoir storage levels that ensure compliance with water quality standards protective of public trust resources. When successive dry years occur, it then routinely weakens those standards, with little regard to its public trust and constitutional obligations.

In WR Order 92-02, the SWRCB previously made clear that water necessary to comply with water quality standards is not available for delivery for consumptive purposes. It must now explain or justify why it now chooses to reallocate that water to the Sacramento Settlement Contractors. Weakening water quality objectives and requirements simply because USBR recklessly delivered water that was otherwise necessary to maintain sufficient carryover storage to comply with water quality objectives and to protect public trust resources and agricultural beneficial uses in the Delta is a violation of Public Trust Doctrine. To send fisheries into

extinction while continuing to supply water for low value crops like pasture and alfalfa is an unreasonable use of water and a violation of Public Trust Doctrine and the California Constitution.

It is not the SWRCB's responsibility or legal right to sacrifice public trust resources and the Sacramento River's beneficial uses in order to absolve USBR of the consequences of egregious mismanagement. If customers of water contractors are now suffering because USBR failed to exercise prudence and due diligence in water management and rashly delivered near normal water supplies in initial drought years with little thought that another dry year might occur, it is USBR and not the SWRCB that has the responsibility to alleviate the suffering it caused.

### **In Conclusion**

We request that the SWRCB immediately use its public trust, constitutional and water rights authorities to reduce water deliveries to low valued crops that are further depleting already inadequate cold water reserves, to require USBR to modify operations to ensure that sufficient carryover reserves of cold water necessary to comply with CWA and Basin Plan temperature criteria remain in Shasta Reservoir, and to issue sanctions against USBR for its willful disregard for public trust resources and beneficial uses. We also request that the SWRCB accelerate the present review of Bay-Delta standards, including a comprehensive balancing of the public trust with competing uses, and provide us a response to our 13 August 2014 complaint regarding illegal diversion by DWR and USBR and petition to adjudicate Central Valley waters.

Thank you for your consideration. If you have questions or require clarification, please don't hesitate to contact us.

Sincerely,



Bill Jennings, Executive Director  
California Sportfishing Protection Alliance

### Enclosures

Cc: Felicia Marcus  
Frances Spivy-Weber  
Tam M. Doduc  
Dorene D'Adamo

Steven Moore  
Tom Howard  
Michael George