

CSPA Exhibit 2

Witness Testimony

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Public Hearing to Consider Petition Requesting Change in the Place of Use for Certain Water Rights of the Department of Water Resources and Bureau of Reclamation

27, 28 April 2009

Before the State Water Resources Control Board

The purpose of my testimony is to identify the misstatements, inadequacies and contradictions in the Petition, describe the inconsistencies with extant law and regulation, address the Key Issues, detail the potential exacerbation of impacts to fisheries and water quality, recount the over appropriation of water and suggest available and prudent alternatives.

At its heart, the Petition is an attempt to transform supplemental and intermittent water supplies into firm yields. To accomplish this goal, it asks the State Water Board to discard a century of water law and precedent and disregard numerous environmental laws enacted to protect water quality, fisheries and the public.

The Petition fails to contain an adequate project description

The Petition by the California Department of Water Resources (DWR) and U.S. Bureau of Reclamation (Bureau) seeks to expand the place of use of the identified water rights of the Central Valley Project (CVP) to include the place of use of various State Water Project (SWP) water rights and to expand the place of use of identified SWP water rights to include the place of use of certain CVP water rights. The Project's stated purpose is to facilitate "numerous potential water transfers or exchanges." The 2009 Drought Water Bank is identified as a mechanism to acquire and transfer water. While several transfers and exchanges are identified, the Petition states that additional, as yet defined, transfers and exchanges will occur.

However, the Petition lacks an adequate project description. It is largely a concept containing little or no information on the specific quantity of water to be transferred, the actual source of transfer water or the timing of the proposed transfers. As I discuss at length below, this information is critical to any evaluation of the proposed project's potential harm to the environment, injury to other legal users of the environment or injury to existing water rights permittees.

The Petition's reliance upon the State of Emergency – Water Shortage Proclamation is misplaced

The Petition is predicated on Governor Schwarzenegger's 27 February 2009 State of Emergency Proclamation (Proclamation) that suspended regulatory requirements pursuant to the California Environmental Quality Act (CEQA), the 2006 Bay-Delta Plan or D-1641. However the Governor's Proclamation provides little or no legal or factual justification for invoking the emergency exemptions in Public Resources Code §§ 21080(b)(3), 21080(b)(4), 21172.¹

Nor does it justify the suspension of Water Code § 13247. Water Code § 13247 states, "State offices, departments, and boards, in carrying out activities which may affect water quality, shall comply with water quality control plans approved or adopted by the state board unless otherwise directed or authorized by statute, in which case they shall indicate to the regional boards in writing their authority for not complying with such plans." Water quality control plans include water quality standards adopted pursuant to the federal Clean Water Act. Water quality standards include both the criteria and identified beneficial use. CSPA disagrees with the State's contention that implementation plans are not subject to federal review and approval. Regardless of the State's contention, implementation plans are the method of compliance with water quality standards. Suspension of crucial elements of implementation plans eliminates the method of compliance with water quality standards. Any project or activity (for example, an increase in salinity where standards are already

¹ See *Verified Petition for Writ of Mandate, Butte Environmental Council, et al. vs. California Department of Water Resources, et al. regarding the Drought Water Bank*, pages 15-18, C-WIN Exhibit 3A.

violated) that causes or contributes to an exceedance of a water quality standard would violate the Clean Water Act. In this case, the suspension of provisions contained in the implementation plan for the 2006 Water Quality Control Plan for the San Francisco Bay/Sacramento – San Joaquin Delta Estuary (for example, the prohibition of JPOD when salinity is exceeded in the interior Delta) would violate the Clean Water Act. The Governor lacks authority to waive compliance and the means of compliance with water quality standards adopt pursuant to federal law.

Drought cannot be considered an unforeseen “emergency” in California. It is a common and expected occurrence. DWR observes that 2007-09 is the eighth-driest three-year period on record.² Indeed, a summary of droughts in California identified numerous multi-year statewide droughts over the last hundred years.³ It is simply preposterous to claim that suspension of important environmental review and water quality laws and regulations is necessary to address “emergency” conditions that arise one-fourth to one-third of the time. To the extent that water shortages are attributed to compliance with endangered species laws, it makes little sense to waive compliance with environmental laws to get around compliance with laws protecting the environment.

Alternatively, should DWR and the Bureau subsequently claim to have complied with CEQA in approving the Drought Water Bank, I note that CEQA does not authorize the use of an addendum to a previous EIR to evaluate whether a project may have new or more severe significant effects on the environment where the previous EIR is not certified or where the previous EIR was prepared for a different project.⁴

The Petition misstates the severity of the drought.

² *Snow not at record lows, but west-side farmers get zilch*, Mark Grossi, Fresno Bee, 2 April 2009. CSPA Exhibit 2A.

³ *Major Floods and Droughts in California*, excerpt from *National Water Summary 1988-89 – Hydrologic Events and Floods and Drought*, U.S. Geological Survey Water-Supply Paper, CSPA Exhibit 2B, http://geochange.er.usgs.gov/sw/impacts/hydrology/state_fd/cawater1.html

⁴ *See Verified Petition for Writ of Mandate, Butte Environmental Council, et al. vs. California Department of Water Resources, et al. regarding the Drought Water Bank*, pages 19-25, C-WIN Exhibit 3A.

While 2009 is a dry, perhaps tending to a below normal, water year. It is not a critically dry year that would justify suspension of statutes and regulations protecting fisheries and the environment.

- DWR's snow survey, as of 16 April 2009, shows that the snow water equivalent is 89% of average for the North Region, 79% of normal for the Central Region, 80% of normal for the South Region and the statewide average in 83% of normal.⁵
- The Bureau's Daily CVP Water Supply Report, as of 18 April 2009, shows that Shasta Reservoir storage is 77% of average, Oroville is 75% of average, Folsom is 112% of average, New Melones is 73% of average, Millerton is 102% and the total N. CVP storage is 72% of average. Accumulated precipitation for the water year is 80% of average on the Sacramento River at Shasta Dam, 99% at Blue Canyon on the American River, 88% on the Stanislaus River at New Melones and 82% on the San Joaquin at Huntington Lake.⁶
- The Bureau's Midnight Reservoir Elevation and Flows report of 19 April 2009 shows that inflow to reservoirs was 3,621 cfs at Folsom, 6,936 cfs at Shasta, 1,684 cfs at New Melones, 1,972 cfs at Trinity and 1,415 cfs at Millerton. Total storage at San Luis Reservoir was reported as 1,021,256 AF.⁷
- DWR's 30 March 2009 Report to the Governor on California's Drought predicted that 2009 would be classified as a "dry" and not "critically dry" year, as was envisioned at the time of the Governor's Emergency Proclamation (page, 9). It also revealed that, as of 27 March 2009, the statewide snowpack had reached 87% of average (page 7) and that precipitation had reached 80% of average for the Sacramento River

⁵ CSPA Exhibit 2C. DWR Snow Survey, 16 April 2009, http://cdec.water.ca.gov/cgi-progs/snowsurvey_sno/DLYSWEQ

⁶ CSPA Exhibit 2D, Daily CVP Water Supply Report, 19 April 2009, <http://www.usbr.gov/mp/cvo/vungvari/dayrpt.pdf>

⁷ CSPA Exhibit 2E, Midnight Reservoir Elevation and Flows, 19 April 2009, http://www.usbr.gov/mp/cvo/vungvari/wtr_rpt.pdf

Hydrologic Region, 90% for the San Joaquin River Region, 85% for the Tulare Lake Region and 80% of average statewide (page 8). It further showed that Don Pedro Reservoir storage was at 91% of historical average and that two water supply reservoirs (Pyramid and Castaic) in Southern California were at 101% and 97% of average, respectively.⁸

- DWR announced on 16 April 2009 that SWP allocations had been increased from 20% (or 825,437 AF) to 30% (or 1,238,158 AF) and that final allocations will be announced in May. SWP water deliveries averaged 3.1 MAF between 2000 and 2008, which represented a significant increase over the 2.3 MAF and 2.4 MAF average the SWP exported during the 1990s and 1980s, respectively. Further, the SWP has never supplied its full Table “A” amounts. Exhibit 1 of the DWR/Bureau Petition identifies 2009 Table “A” amounts to be 4.1 MAF. In other words, between 2000-08, the SWP only exported 75.4% of the 2009 Table “A” amounts. In the 1980s and 1990s, the SWP only exported 55.8% and 58.7% of the 2009 Table “A” amounts. It is simply disingenuous to claim a disaster based upon inflated Table “A” contractor requests. Indeed, the 30% currently allocated equals almost 54% of the 2000-08 exports, 53.7% of 1990 average exports and 51.1% of 1980 average exports. It is even more revealing when the present 30% allocations is compared with previous drought years. For example, current 30% allocation equates to 155% of 1977 SWP exports (797 TAF), 65.8% of 1983 exports (1.88 MAF), 75.2% of 1984 exports (1.65 MAF), 69.6% of 1991 exports (1.78 MAF) and 78.7% of 1992 exports (1.57 MAF).⁹ With final SWP allocations to be announced in May, it is likely that ultimate 2009 deliveries will be similar to previous dry or critically dry years where it wasn’t necessary to consolidate place-of-use or suspend CEQA and the Bay-Delta water quality control plan.

⁸ CSPA Exhibit 2F, DWR, California’s Drought, Report to the Governor, 30 March 2009. <http://www.water.ca.gov/news/newsreleases/2009/040209droughttrpt-gov.pdf>

⁹ CSPA Exhibit 2G, Central Valley Delta Exports, Spreck Rosekrans, Environmental Defense.

- On 20 March 2009, the Bureau announced its latest water supply allocations. Sacramento River water rights, San Joaquin River Exchange Contractors and wildlife refuges will get 100% of requested water supply. Urban contractors north of Delta will receive 55% while south of Delta urban contractors will receive 50%. Friant Class 1 will receive 85%. North of Delta agricultural contractors will receive 5% and south of Delta agricultural contractors will receive 0%. It is interesting to compare these allocations to previous years.¹⁰
 - Sacramento River water rights and San Joaquin River Exchange contractors only received 75% of their supply in 1977, 1991, 1992 and 1994; yet received 100% in 2007, 2008 and 2009.
 - Friant Class 1 contractors received only 25% of supply in 1977, 68% in 1990, 83% in 1992 and 80% in 1994; yet received 100% in 2007, 2008 and 2009.
 - Urban Contractors only received 25-50% in 1977, 50-75% in 1990, 25-50% in 1991, 75% of historical use in between 1992 and 1994, 100% (North of Delta) and 75% (south of Delta) in 2007, 75% in 2008 and are scheduled to receive 55% (north of Delta) and 50% (south of Delta) in 2009.
 - Agricultural contractors only received 25% in 1977, 50% in 1990, 25% in 1991 and 1992, 50% (south of Delta) in 1993, 70% (south of Delta) in 1999, 65% (south of Delta) in 2000, 60% (north of Delta) and 49% (south of Delta) in 2001, 70% (south of Delta) in 2002, 75% (south of Delta) in 2003, 70% (south of Delta) in 2004, 85% (south of Delta) in 2005, 50% (south of Delta) in 2007, 40% (south and north of Delta) in 2008.
 - It should be noted that it appears that south of Delta agricultural contractors are taking a disproportionate cut this year compared to previous dry/critically dry year reductions to Sacramento River water rights and San Joaquin River Exchange and Friant Class 1 contractors.

In any case, the Bureau released a 30 March 2009 press release that said “with the additional precipitation experienced since the March snow survey and with improved runoff into CV reservoirs, Reclamation anticipates announcing an updated

¹⁰ CSPA Exhibit 2H, Summary of Historical Water Supply Allocations, USBR, http://www.usbr.gov/mp/cvo/vungvari/water_allocations_historical.pdf.

water supply allocation in mid-to-late April.” It is reasonable to expect water supply allocations to increase in the near future. In fact, the Bureau has historically increased allocations as late June or July or even September.

To reiterate, the system has worked in the past. Allocations have been made based upon supply, contractual rights and seniority. California survived earlier and more severe droughts (i.e., 1976-77 and 1991-92) that led to major reductions in water deliveries without having to consolidate the SWP/CVP places of use or waiving fundamental statutes and regulations protecting fisheries and water quality.

There has been a significant increase in SWP and CVP exports in recent decades.

Average annual SWP and CVP exports in the 1970s were 1.4 MAF and 2.1 MAF, respectively. Average annual SWP and CVP exports in the 1980s were 2.4 MAF and 2.5 MAF, respectively (or a total of 5.06 MAF if CCWD and North Bay are included). During the 1990s, SWP and CVP average annual exports were 2.3 MAF and 2.2 MAF, respectively (or a total of 4.68 MAF if CCWD and North Bay are included). Exports dramatically increased between 2000 and 2007 to an annual average of 3.3 MAF (SWP) and 2.6 MAF (CVP) or 6.04 MAF if CCWD and North Bay are included.

The appearance of an “emergency” has been caused and exacerbated by policies and actions of DWR and the Bureau.

The sad fact of the present water supply debacle is that DWR and the Bureau have failed to learn from previous dry/critically dry cycles. The agencies operated the SWP and CVP without considering the possibility or likelihood of subsequent dry years. Examination of the historical delivery data contained in Exhibit 1 and Exhibit 2 of the DWR/Bureau Petition reveals that:

- a. Delta exports (including North and South Bay canals) in the “dry/critical” year of 2007 were 99.1% of exports in the 2000-06 wet cycle average. In fact, Delta exports in 2007 (5.48 MAF) exceeded the average of exports during the 1990s (4.68 MAF) and exceeded exports in all years but one (1990) of that

decade. They also exceeded the average of exports during the 1980s (5.05 MAF) and exceed exports in all years but three (1985, 1988, 1989).

- b. Water supply deliveries (including Friant, Madera and Millerton) in 2007 were 90.2% of 2000-06 average.
- c. Delta exports to MWD in the “dry/critical” year of 2007 were 101% of the average exports in the wet cycle 2000-06.
- d. Delta exports to Southern California (total) in 2007 were 105% of average exports during 2000-06 period.
- e. Deliveries to Kern WA in the “dry/critical” year of 2007 were 96.3% of the average between 2000-06.
- f. Exports to Westlands in 2007 were 94.5% of the wet cycle average between 2000-06.

The supply shortfalls of the last several dry years become exaggerated if compared to the previous seven above normal/wet years where exports were at record levels. The increased export pumping during 2000-06 has been identified as causing or contributing to the decline of pelagic and salmonid species in the Delta. A more reasonable and accurate assessment of water supply shortfalls would be to compare deliveries during the recent dry cycle to those between 1980 and 2000.

Following their failure to take prudent action during the “dry” (Sacramento Basin) and “critically dry” (San Joaquin Basin) year of 2007 where statewide runoff was only 53% of average, DWR and the Bureau inexplicably repeated the blunder the following year. 2008 was critically dry in both the Sacramento and San Joaquin Basins and statewide runoff was only 58%. However:

- a. Delta exports were 71% of the 2000-06 average.
- b. Water supply deliveries (including Friant, Madera and Millerton) were 71% of the 2000-06 average.
- c. Delta exports to MWD were 60% of 2000-06.
- d. Delta exports to Southern California (total) were 65% of 2000-06.
- e. Deliveries to Kern WA were 75.6% of 2000-06.
- f. Exports to Westlands were 57.6% of 2000-06.

And, now in the third successive “dry” year of 2009, where statewide runoff is projected to be 70% of average, the chickens have come home to roost and DWR and the Bureau are begging the State Water Board to cast aside environmental review, ignore the Bay-Delta water quality control plan and D-1641 and allow the SWP and CVP to consolidate their respective place-of-use in order to expedite water transfers.

The fact is that both DWR and the Bureau operated their respective projects during 2007 as if drought would never again occur. They failed to reserve sufficient water in upstream reservoirs to soften the consequences of a dry year. Incredibly, they repeated the blunder during the following critically dry year and reduced Shasta and Oroville reservoir levels to 1977 lows. As expected, the burden of their mismanagement falls hardest on Westside agricultural contractors whose interruptible water supply is predicated upon junior water rights. As noted previously, Sacramento River water rights and San Joaquin exchange contractors will receive 100% of their allocation, urban contractors will receive 50/55% and Friant Class 1 will receive 85%. The consequences of DWR’s mismanagement are more evenly distributed because the urban contractors relinquished their historic urban preference in the Monterey Agreement. All SWP contractors are presently scheduled to receive 30% of their allotted supply and, as previously mentioned, both DWR and the Bureau are likely to increase allocations later this year.

The Social, economic and environmental impacts of the present water shortage have been exacerbated by the allocations and promises of water that can never be reliably delivered.

We live in a state that averages about 75-77 MAF of unimpaired runoff and has an average water budget of about 82.5 MAF.¹¹ Incredibly, the State Water Board has identified diversion and storage rights of more than a half-a-billion acre-feet, or more than six and a half times the average unimpaired runoff.¹²

¹¹ CSPA Exhibit 2 “I,” California Water Plan Highlights, DWR Bulletin 160-05, December 2005.

¹² CSPA Exhibit 2J, Final Strategic Plan: 2008-2012, Appendix 4, Distribution of Surface Water Rights by Authorized Diversion Amount, Adopted 2 September 2008, State Water Board.

According to a 26 September 2008 letter from the State Water Board to the Delta Vision task force:¹³

- The mean annual unimpaired or full natural flow (without dams or diversions) in the Bay-Delta watershed between 1921 and 2003 was 29 MAF (maximum of 73 MAF in 83).
- The State Water Board has granted some 245 MAF of water rights in the Delta amounting to almost 8.5 times the annual mean unimpaired flow in the entire watershed.
- The Central Valley and State Water Projects hold 53% of these Delta water rights totaling about 130 MAF or about 4.5 times the annual mean flow.
- However, these SWP and CVP water rights are junior to most of the other water rights; meaning they're available only after more senior rights are satisfied.
- But, this is only the tip of the iceberg because the State Water Board doesn't control pre-1914 and riparian water rights.
- Water rights that existed prior 1914 are senior and superior to post-14 appropriative rights.
- Owners of property alongside waterways have riparian water rights that are senior and superior to all appropriative rights.
- The State Water Board doesn't know the full amount of these pre-14 and riparian rights.
- Riparian and appropriative water rights do not include water that is necessary to support the Public Trust: i.e., the fisheries and ecosystem integrity of the Delta and its tributary rivers and streams.

DWR and the Bureau promised and contracted for water they knew they could not reliably deliver. They peddled water contracts like Wall Street mortgage brokers hawking sub-prime and variable-rate mortgages. Unfortunately, many of their victims either forgot or failed to understand that their water sources were based upon junior water rights that were 100% interruptible in the event of severe drought. Ignoring history and seduced by

¹³ CSPA Exhibit 2K, Letter from State Board to Delta Vision, Water Rights Within the Bay/Delta Watershed, Can be found at: http://deltavision.ca.gov/BlueRibbonTaskForce/Oct2008/Response_from_SWRCB.pdf

record high water deliveries during the first seven years of this decade, many of them planted perennial crops requiring an assured source of water.¹⁴ In my travels over the last decade on the Westside of the San Joaquin Valley, I have personally witnessed the addition of thousands and thousands of acres of orchards, vineyards and other permanent crops. The resulting tragedy was foreseeable. I do not believe it is in the public interest or good policy to continue to encourage the planting of perennial crops that require assured sources of water in areas that are subject to 100% interruptible sources of water. And then, when inevitable shortages occur, subsequently abandon core laws and regulatory requirements enacted to protect fisheries, instream beneficial uses, senior water rights holders and the general public. The transformation of intermittent water supplies into firm yields in order to irrigate selenium-laced soils and saline lands that, when irrigated, discharge toxic pollutants to the environment is a wasteful and unreasonable use of water per Article X, § 2 of the California Constitution and Water Code § 100.

Central Valley fishery populations are collapsing.

Delta waterways and tributary streams are crucial habitat and migration corridors for a number species protected under federal and state endangered species acts. These species include: Central Valley spring-run Chinook salmon (*Oncorhynchus tshawytscha* - federally and state listed as threatened); Central Valley steelhead (*Oncorhynchus mykiss* - federally listed as threatened); Delta smelt (*Hypomesus transpacificus* - federal listed as threatened, state listed as endangered); Sacramento splittail (*Pogonichthys macrolepidotus* - federally listed as threatened, California species of concern); winter-run Chinook salmon (*Oncorhynchus tshawytscha* - federally and state listed as endangered); fall/late-fall-run Chinook salmon - both a federal and California species of concern; Green sturgeon (*Acipenser medirostris* - federally listed as threatened and is a California species of concern); longfin smelt (*Spirinchus thaleichthys* - stated listed as threatened); hardhead (*Mylopharodon conocephalus* - California species of concern) and Sacramento perch (*Archoplites interruptus* - California species of concern). Further, a number of non-special status species, including striped bass, largemouth bass, smallmouth bass, catfish, American

¹⁴ See C-WIN Exhibit 3-D, *Irrigator* [Westlands Water District Newsletter], Summer 2004.

shad, threadfin shad and panfish are found throughout the Delta Estuary and tributaries. Many of these species are also experiencing precipitous population decreases.

Fisheries scientist Peter Moyle and a team from the Center for Watershed Sciences at the University of California at Davis recently released a study of California salmon, steelhead and trout that predicted that, “20 of 31 living taxa (65%) are in danger of extinction within the next century. Of the 22 anadromous taxa, 13 (59%) are in danger of extinction, while seven (78%) of the nine living inland taxa are in danger of extinction.”¹⁵ Lack of adequate flows of high quality water were identified as a principle cause.

For the second year in a row, commercial fishing for Chinook salmon will be banned. The fall-run on the Sacramento River was the last of the great salmon runs in the Central Valley and has been the backbone of the West Coast fishing industry for decades. Only 87,881 returned in 2007 and returns in 2008 dropped again to 66,286. Historically, they had exceeded 800,000 fish.¹⁶ State officials are proposing to again severely restrict the recreational fishing season.¹⁷

The Delta’s pelagic fisheries are experiencing catastrophic collapse. The California Department of Fish and Game’s (DFG) Delta Summer Towntnet Survey and Fall Midwater Trawl Survey show indices (measures of relative abundance) for Delta smelt, longfin smelt, Sacramento splittail, threadfin shad and young-of-the-year striped bass to be at historic or near historic lows. Indeed, 2008 indices for delta smelt, splittail, American shad and threadfin shad are at all time lows.¹⁸ Native phytoplankton production in the estuary has decreased about one order of magnitude while native zooplankton production is down one to two orders of magnitude.

¹⁵ CSPA Exhibit 2L, Salmon, Steelhead, and Trout in California: Status of an Emblematic Fauna, Peter Moyle, et al., page 4.

¹⁶ CSPA Exhibit 2M, U.S. to ban commercial salmon season, S.F. Chronicle, 9 April 2009.

¹⁷ CSPA Exhibit 2N, Shorter recreational salmon fishing season proposed, Sacramento Bee, 10 April 2009.

¹⁸ CSPA Exhibit 2O, Monthly abundance indices, Midwater Trawl, 1967 – 2008, California Department of Fish and Game, <http://www.delta.dfg.ca.gov/data/mwt/charts.asp>.

The special team of federal and state scientists investigating the pelagic organism decline in the Delta has identified entrainment at the state and federal project pumps and toxic pollutants as two of the three major suspected causes of the collapse of these pelagic fisheries. The third suspected cause is identified as food web changes, partially caused by invasive species. Relative abundance of a number of these introduced species is likely related to changes in the balance of fresh and saline waters.

In Resolution No. 2007-0079, the State Board found: "San Joaquin River Basin salmonids have declined since adoption of the San Joaquin River flow objectives in the 1995 Bay-Delta Plan and the implementation of those objectives in D-1641. At the same time, pelagic organisms in the Delta have shown significant declines." It further found: "Delta smelt and several other pelagic fish and aquatic organisms in the Bay-Delta have experienced dramatic and unexpected population declines in recent years. The Interagency Ecological Program (IEP)³ determined that at least three general factors may be acting individually or in concert to lower pelagic productivity: toxic contaminants; exotic species; and water project operations."

Inexplicably, the State Water board has repeatedly declined to conduct emergency hearings in order to establish interim measures to slow the continue death-spiral of Central Valley fisheries. We now find that the Board is willing, even eager, to hold expedited hearings on a Petition that asks for a fundamental change in the water rights held by DWR and the Bureau that will alter the hydrograph without even a pretense of serious environmental review.

Central Valley waterways are highly polluted.

The Delta has been identified as impaired and incapable of supporting identified beneficial uses pursuant to the federal Clean Water Act. Delta waterways have been included, pursuant to the federal Clean Water Act, on the California 2002 and 2006 CWA Section 303(d) List of Water Quality Limited Segments as incapable of supporting identified beneficial uses because of diazinon, chlorpyrifos, Group A pesticides, DDT, mercury, electrical conductivity, unknown toxicity and dissolved oxygen deficiencies. California's

2006 Clean Water Act Section 303(d) List of Water Quality Limited Segments can be found at:

http://www.waterboards.ca.gov/water_issues/programs/tmdl/303d_lists2006_epa.shtml.

Virtually all of the waters tributary to the Delta have been identified as impaired because of pollutants. The Central Valley Regional Water Quality Control Board is proposing to add literally hundreds of additional waterbody/pollutant combinations to the updated 303(d) list. See

http://www.waterboards.ca.gov/centralvalley/water_issues/tmdl/impaired_waters_list/303d_list.shtml. Many of these proposed additional listings are located on the Westside of the San Joaquin Valley.

The Delta has been identified as a Toxic Hot Spot for mercury, pesticides and low dissolved oxygen pursuant to California's Bay Protection and Toxic Cleanup Program. In 1989, the California Legislature established the Bay Protection and Toxic Cleanup Program to identify and cleanup toxic hot spots. The State Board identified the Delta as a toxic hot spot for mercury, low dissolved oxygen in the Stockton Ship Channel and pesticides from agricultural return flows and dormant spray runoff and urban runoff in the Stockton and Sacramento area in 1999.

Numerous major rivers providing critical habitat and migration corridors in the Central Valley are impaired because of elevated temperature. These include the Pit, Feather, Yuba, Merced, Stanislaus, Tuolumne and San Joaquin Rivers, which are either on or proposed to be added to the state's 303(d) list. Data also shows that fisheries are adversely impacted by elevated temperature below Shasta and Folsom Dams.

Selenium concentrations measured in ducks, fish and invertebrates in the Delta can cause health risks to people and wildlife. Mercury concentrations in the Delta fish tissues exceed human health criteria. Pathogen counts in a number of Delta waterways exceed applicable numerical criteria. The California Office of Environmental Health Hazard Assessment has issued a sport fish consumption advisory regarding polychlorinated biphenyls (PCBs) in

fish from the western Delta. Continued population increases in the Central Valley have led to significant increases in the mass loading of pollutants into the Delta. Renewals of municipal wastewater NPDES permits routinely allow significant increases in pollutant mass loading; often exceeding the identified assimilative capacity of receiving waters.

The Delta has experienced significant increase in the ambient concentration of an array of pollutants; some exceeding water quality objectives, some just below the threshold. However, the potential harmful consequences of synergistic and additive interactions, bioaccumulative toxins, sublethal or chronic impacts and the cumulative effects of multiple stressors remain largely unidentified and unaddressed. Further, water quality standards have never been promulgated for a large number of known and potentially harmful constituents.

DWR and the Bureau are charged with responsibility for meeting Delta salinity standards. They have frequently violated interior Delta salinity standards: most recently between early December 2008 through mid-February 2009. The State Water Board issued a Cease & Desist Order to both DWR and the Bureau but has failed to enforce it. I believe Delta salinity standards are again likely to be exceeded this summer. Approval of the Petition could exacerbate exceedances of salinity standards in the Delta. This would clearly “harm” Delta irrigators.

I could find nothing in the record of this proceeding that addresses the potential or likely impacts on water quality that would result from approval of the Petition or measures that would be taken to avoid harming Delta farmers, municipal and industrial users of water, or those who enjoy the identified instream beneficial uses of California waters.

Alterations of the hydrograph affect water quality, fisheries and beneficial uses.

Water quality and water quantity are irrevocably interrelated and can be characterized as flip sides of the same coin. Alterations in the timing or quantity of instream flow, through upstream diversion or other changes in the hydrograph, inevitably alter the assimilative

capacity of downstream waters. Reductions in assimilative capacity will inevitably impact habitat and water quality. In other words, changes in flow directly affect the concentration, fate and transport of pollutants in downstream waters. Reductions in flow of good quality water will increase downstream water quality impacts. Likewise, increases in the discharge of poor quality water can have a similar effect. For example, tailwater discharges from irrigated lands that are impaired because of salts and/or selenium could have a disproportionate effect on water quality during drought years where instream flow is already low.

Storage levels in rim reservoirs can also have a fundamental effect on water quality. Increased reservoir storage will generally increase the abundance and availability of cold water crucial to maintaining sensitive life stages of downstream aquatic life. This is especially critical in this third low water year when reservoir depletion in Shasta Reservoir over the last several years has resulted in forecasted storage to be far below the 1.9 MAF carryover storage target in National Marine Fisheries Service biological opinions for protection of listed winter-run and spring-run Chinook salmon in the Sacramento. Additionally, reserved storage can provide water to increase assimilative capacity and dilute wastes during critical periods of poor water quality.

Groundwater levels are extremely important for small gaining waterways. For example, groundwater accretion is an important source of cold water for eastside creeks like Butte, Deer, Mill and Big Chico. During the last Drought Water Bank, flows in these eastside tributaries declined as the water table dropped from increased groundwater pumping. These creeks are crucial habitat for listed species. Indeed, these creeks contain virtually the entire remaining habitat for the federally and state listed ESU of spring-run Chinook salmon.

The baseline for considering or evaluating the Petition must be “no project.”

The Petition states that the proposed changes “will not result in any increase in water appropriated by the Projects” and that “the total quantity of water delivered to SWP or CVP contractors as a result of the change will not exceed historic deliveries to any individual

water user or be applied to any service areas that do not already receive water from the SWP or CVP.” This is inadequate as it implies that the baseline for evaluating impacts is the wettest of years where reservoirs are spilling and rivers overflowing. The Petition and potential impacts must be evaluated on the basis of a “no project:” i.e., water delivery in the absence of Petition approval and under presently applicable requirements. Impacts during a sequence of dry years cannot be evaluated in terms of what was historically delivered, could be delivered during wet years or delivered pursuant to the full extent of contracts or water rights.

State Water Board Decision D-1641, Bay-Delta Plan and the federal biological opinions have not been protective of fisheries.

The Petition states that all water exported at the SWP and CVP pumping plants will be pumped consistent with the requirements of State Water Board Decision 1642, as well as the requirements contained in biological opinions for the protection of Sacramento River winter-run Chinook salmon, Delta smelt, spring-run Chinook salmon, and steelhead. Despite the existence of the Bay-Delta Plan, D-1641 and various federal biological opinions, salmonid fisheries in the Central Valley and pelagic fisheries in the estuary have continued to collapse. This inescapably leads to the opinion that these measures inadequately protect fishery resources.

While the U.S. Fish and Wildlife Service (USFWS) Delta smelt biological opinion was issued late last year, there is no federal biological opinion for salmon and steelhead that has not been rejected by a federal court as non-protective. The National Marine Fisheries Service’s (NMFS) biological opinion on salmon, steelhead and sturgeon is not anticipated until June and it is uncertain what “reasonable and prudent” measures will be included in the final version. There is no discussion in either the Petition or the record of how DWR and the Bureau will comply with the new NMFS biological opinion when it is issued. Basing protection of salmon and steelhead on a biological opinion that has been rejected by the court as illegal is simply not acceptable. No existing biological opinion covers green sturgeon.

There has been no incidental take permit or consistency determination issued by the DFG for species listed pursuant to the California Endangered Species Act (CESA). CSPA filed a Petition for Writ of Mandate against DWR for failure to obtain either an incidental take permit or a consistency determination that the federal biological were sufficient to meet the requirements of CESA. Alameda Superior Court Judge Frank Roesch granted the Writ in March of 2007 and ordered DWR to either cease and desist from further operation of the Harvey O. Banks pumping plant or to comply with CESA's mandatory incidental take authorizing requirements. The decision was appealed and stayed pending the issuance of the new federal biological opinions. However, the Delta smelt biological opinion was issued last year and, as far as I know, DWR has failed to seek either incidental take authorization or a consistency determination. Nor, to my knowledge, have they sought CESA coverage for recent listed species such as longfin smelt. I note that the requirements of CESA go beyond the federal stature and require full mitigation for any incidental take.

The Petition provides no information upon which to evaluate whether approval would unreasonably affect water quality, fish, wildlife or other instream beneficial uses or whether the project is in the public interest.

As previously observed, the Petition contains little or no information on the specific quantity of water to be transferred, the actual source of transfer water or the timing of the proposed transfers. There is virtually no information on potential environmental impacts. The Petition includes the comment that "copies of the Petition for Change are being submitted to the relevant regional office of DFG," but DFG, USFWS and the NMFS are not parties to the hearing and cannot provide expert testimony subject to cross examination. This information is critical to any evaluation of the proposed project's potential harm to the environment, injury to other legal users of the environment or injury to existing water rights permittees. The absence of this information is surprising, given the identified degradation of Central Valley water quality and the irrefutable collapse of salmonid and pelagic fisheries. It is difficult to see how the State Water Board can make an informed and intelligent decision without this information.

However, it is my opinion that, if the Petition is approved, releases of water from upstream reservoirs will further deplete coldwater storage, increased groundwater pumping adjacent to gaining streams will lower instream flow and increased exports during this low water year will reduce Delta outflow and increase entrainment and predation of aquatic life at the export pumps beyond the impacts that would occur if the Petition is denied. I also believe that supplying water to irrigate lands impaired by selenium, boron and salts will likely increase the mass loading of toxic constituents to the environment beyond levels that would occur if the Petition was denied. It is also my opinion that supplying scarce water in the midst of a multi-year dry cycle to irrigate perennial crops on drainage impaired lands subject to low priority contracts from low priority water rights holders can only accelerate efforts to plant permanent crops in these areas. This is a sensible as subsidizing the rebuilding of homes in a flood plain following inevitable floods. It will create future demands for assured water supplies, increase the economic consequences of inevitable drought cycles and cannot be in the public interest.

Approval of the Petition would, in essence, result in new rights to water.

Approval of the Petition would represent a fundamental change in state water policy. It would allow CVP storage to serve urban areas. This has never been allowed before and would require a new water right. It also allows urban users to acquire water from streams where they have no storage facilities and no mitigation duties; i.e., terms and conditions to protect instream beneficial uses. The Petition is simply an attempted end-run around the intertie project (and its EIR/EIS), South Delta Improvement Project mitigation measures and the Joint Point of Diversion restrictions in D-1641.

Approval of the Petition would result in serious effects and impacts to the State.

Suspension of the rules by drought proclamation would be precedent setting. It further distances the state from enforcing environmental laws and regulations and will make it more difficult for anyone to rely on those laws. It essentially addresses the over appropriation of water in California by suspending laws under the guise of an emergency.

It will significantly increase pressure on a degraded Delta and collapsing fisheries. It will provide an incentive to the lowest priority water rights and contract holders to increase the planting of permanent crops thereby establishing a reoccurring crisis in the inevitable low water cycles. Primary benefits of Petition approval would be directed to one region of the state while the impacts are redirected to the Delta, Sacramento Valley and possibly the eastside San Joaquin Valley. It would provide justification to ignore real-world drought planning and facilitate bad drought planning that relies upon suspension of crucial environmental laws. Incredibly, neither DWR nor the Bureau has a drought management plan in place that specifies how impacts will be distributed during droughts.

Recommended terms and conditions in the event of Petition approval.

First, the Petition should not be approved. In the event it is approved, it should:

1. Exclude lands with the most junior contract water rights and subject to interruptible water supply where permanent crops have been planted.
2. Exclude drainage-impaired areas from receiving transferred water in order to reduce salt, selenium and boron loading to the environment.
3. Require, as a precondition, DWR and the Bureau to evaluate and identify remaining reservoir storage and potential harm to fisheries from elevated temperatures and low instream flow during sensitive life stages of listed species.
4. Not suspend any of the environmental protection standards in D-1641, including the VAMP pulse flow, interior Delta salinity standards, X2 and inflow/export ratio.
5. Require both DWR and the Bureau to obtain an incidental take permit or a consistency determination pursuant to CESA from the DFG.
6. Require DWR and the Bureau to bring any new application for water transfer back to the State Water Board for hearing.