



EXHIBIT 3

Written Testimony of

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to the State Water Resources Control Board

April 18, 2009

My name is Tom Stokely. I represent the California Water Impact Network (C-WIN) in these evidentiary hearing before the State Water Resources Control Board (State Water Board) concerning the petition to consolidate places of use of the State Water Project (SWP) and federal Central Valley Project (CVP) as specified in the license and permits of the US Bureau of Reclamation (USBR) and the California Department of Water Resources (DWR).

The State Water Board asks the following questions:

1. Should the subject petition to change the place of use under the specified license and permits of USBR and DWR be approved?
2. If the subject petition is approved, what (if any) terms and conditions of approval should be imposed?
3. Would approval of the subject petition (with any terms and conditions identified pursuant to Issue number 2 initiate a new right or injure other legal users of water?
4. Would approval of the subject petition unreasonably affect water quality, fish, wildlife, or other instream beneficial uses?
5. Are the proposed changes in the public interest?
6. What would be the effects or impacts (if any) to the State of California if the proposed changes are not approved?

C-WIN opposes granting of the subject petition. The so-called "emergency" is not an emergency pursuant to the requirements of CEQA, but instead a foreseeable event that does not disclose environmental impacts to water quality, fish and wildlife, especially those in the Sacramento, Trinity and Klamath rivers. My testimony focuses

on potential impacts and the ongoing lack of protection for salmon fisheries downstream of major CVP/SWP reservoirs, as well as the water quality impacts of various water emergency deliveries of CVP/SWP water to drainage problem lands in the Western San Joaquin Valley. Irrigation of the CVP drainage problem lands in the San Luis Unit is directly related to the issuance of the CVP's Trinity River Division water permits that are part of this application¹. Denial of the subject petition would send a message to the operators of the SWP and CVP that California is interested in a sustainable water future and that the continued planting of permanent crops on drainage problem lands with 100% interruptible water supplies is not in the public interest and must stop. I also identify conditions of approval which would minimize impacts to salmon resources downstream of major CVP dams and reservoirs.

The Drought is not an emergency under CEQA but instead a case of bad planning and misleading water accounting procedures.

As described in Exhibit 3A (pages 15-18), the subject petition as part of the Drought Water Bank does not qualify for an exemption under CEQA. The drought does not meet the definition of a natural disaster found in CEQA as "fire, flood, earthquake, or soil, or other geologic movements." It is not a "sudden unexpected occurrence" and is described very much differently on a DWR website as follows²:

"Droughts differ from typical emergency events such as floods or forest fires, in that they occur slowly over a multiyear period. Drought impacts increase with the length of a drought, as carry-over supplies in reservoirs are depleted and water levels in groundwater basins decline.

Exhibit 3A goes into great detail on why this project is not exempt from CEQA and an EIR should be required.

The Trinity River is germane to this proceeding because the Trinity River Division water permits issued to the Bureau of Reclamation in 1959 by California are part of the subject petition. The CALFED ROD of August 2000 (Exhibit 3B, p 41) promised a 10-

¹ <http://tcrd.net/exhibita.htm> CVP POU with and without Trinity River Division

² <http://www.water.ca.gov/drought/conditions/>

15% increase in south-of-Delta CVP agricultural service contractors directly conflicted with information in the Final Trinity River Mainstem Fishery Restoration EIS/EIR of October 2000 (Exhibit 3C), which disclosed that the Trinity ROD would result in a 4% reduction in water deliveries to CVP south-of-Delta agricultural service contractors. The CALFED ROD states as follows:

"It is also anticipated that implementation of Joint Point of Diversion, operational flexibility, interagency cooperation, EWA implementation, and other cooperative water management actions (some of which may require further specific environmental review) will result in normal years in an increase to CVP south-of-Delta agricultural water service contractors of 15 percent (or greater) of existing contract totals to 65 to 70 percent."

and

"The Secretary of the Interior is expected to make a decision later this year on Trinity River flows pursuant to the original Trinity authorization, the Trinity River Restoration Act of 1984, and the CVPIA. The substance of that decision is unknown and therefore cannot be addressed at this time. It is separate from and will not be affected by this ROD. Certain CALFED Agencies have considered the potential that the Trinity River decision may affect CVP allocation and have concluded that it will not affect the allocations to CVP south-of-Delta agricultural water service contractors described immediately above."

The information above is contradictory to the information provided in the NEPA/CEQA document for the Trinity Record of Decision (Exhibit 3C) which showed a 4% reduction on water deliveries to south-of-delta CVP agricultural service contractors. In the case of the CALFED and Trinity River Records of Decision, the difference between what was promised and what is actually available amounts to a 19% discrepancy in water supplies for CVP south of delta agricultural service contractors.

The problem of over allocation of Trinity water is indicative of a larger problem of over allocation of water in California, which was verified by the SWRCB's Strategic

Plan³ which states that *“existing claimed water rights, in combination with current permitted water appropriations, amount to at least five times California’s average annual surface water supply”*.

The lack of reliable water supplies did not halt farmers and their lending institutions from planting permanent crops over the past decade. In fact, Westlands’ manager Tom Birmingham encouraged farmers to plant permanent crops in 2004 by stating as follows (Exhibit 3D):

“The trend to more and more permanent crops is very encouraging for farming in Westlands,” said Thomas Birmingham, General Manager of the District. “One of the main reasons for this trend is that our water supply has become more stable and dependable in recent years. Planting vineyards and orchards requires confidence that the water these crops require will be available well into the future.”

Thus, to approve the subject petition to allow the irrigation of permanent crops on lands with 100% interruptible water supplies is not only bad policy, but it rewards bad behavior, similar to the financial crisis we now face. We can only assume that it is the same banks and lenders who created the mortgage crisis that underwrote those investments in permanent crops without a reliable water supply. Approval of the subject petition would continue to tell those who have foolishly invested in and planted permanent crops where they shouldn’t be planted to continue doing so because there will be special exceptions made for them. Denial of the subject petition would be in the Public Interest and would send the message that the planting of permanent crops on lands without reliable water supplies is unwise and will not be supported.

Recommendation: Deny the subject petition to lands with permanent crops and 100% interruptible water supply.

Upstream fishery resources dependent on an adequate cold water supply in reservoirs are not adequately protected, particularly salmon in the Sacramento River

³ See

http://www.waterboards.ca.gov/water_issues/hot_topics/strategic_plan/docs/final_draft_strategic_plan_update_090208.pdf page 10, second paragraph, fifth sentence).

All efforts should be made to conserve the cold water supply in the reservoirs for fisheries and other beneficial uses in the event of continued drought into 2010. A loosening of review for CVP/SWP water transfers that could increase reservoir depletion would not be in the public interest or the public trust.

The rim dams of the CVP- Shasta, Trinity and Folsom provide cold water supplies for downstream salmon and steelhead populations which can no longer access historic habitat upstream of the dams. For the four races of Chinook salmon in the Sacramento River, the cold water supply in the rim reservoirs, combined with habitat in tributary streams such as Butte Creek, Deer Creek, Mill Creek, Battle Creek, etc. (some of which may be depleted through groundwater withdrawals in 2009) are the last line of defense for these fish. Additionally, the waters of Trinity Reservoir provide water for the Sacramento, Trinity and the Lower Klamath rivers. In 2002 and 2003, pulse releases were made from the Trinity Reservoir to prevent a repeat of the 2002 Lower Klamath River fish kill in which thousands of Trinity River fish died (Exhibit 3E).

The various Biological Opinions on Sacramento River salmon issued by the National Marine Fisheries Service have included a 1.9 million AF Shasta Reservoir carryover⁴ target to provide adequate cold water supplies Sacramento River winter and spring run Chinook. Winter run Chinook are listed as endangered under both the federal and state endangered species acts, spring run Chinook are federally and state listed as threatened and Central Valley steelhead are federally listed as threatened. Water Right Order 90-05⁵ provides implementation of the Basin Plan temperature objective to protect Sacramento River Chinook⁶.

Severe reservoir depletion over the past several years as a result of various demands on the system has occurred and Sacramento River temperature compliance for winter run is projected to be Clear Creek, just a few miles below Keswick Dam (Exhibit 3F) which is many miles from the Red Bluff optimal compliance point. However,

⁴ [http://swr.nmfs.noaa.gov/sac/myweb8/BiOpFiles/2004/Biological Opinion Long-Term Central Valley Project and State Water Project Operation Criteria and Plan.pdf](http://swr.nmfs.noaa.gov/sac/myweb8/BiOpFiles/2004/Biological%20Opinion%20Long-Term%20Central%20Valley%20Project%20and%20State%20Water%20Project%20Operation%20Criteria%20and%20Plan.pdf) page 219

⁵ <http://www.waterrights.ca.gov/hearings/WaterRightOrders/WRO90-05.pdf>

⁶ http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr.pdf, page 3-8.00
Table III-4

unless conditions change, cold water resources will be totally exhausted by the time that Sacramento River Fall-run Chinook arrive to spawn so there will not be 56 degree water available. Historically the largest salmon run in California, the Sacramento River fall Chinook is important fishery that has been shut down for 2 consecutive years due to historically low abundance. According to the National Marine Fisheries Service's report on the Sacramento River salmon decline,⁷

"...the rapid and likely temporary deterioration in ocean conditions is acting on top of a long-term, steady degradation of the freshwater and estuarine environment."

The projected Shasta carryover is projected in the March 2009 90% exceedance CVP forecast is approximately 1 million AF on October 1, 2009 (Exhibit 3G). The level of drawdown is dramatic when one considers that the low Shasta storage of this past winter was achieved after only 2 dry years, as compared to 6 dry years during the drought of 1987-93 (Exhibit 3H).

The Shasta Dam Temperature Control Device (STCD) was constructed to provide selective water withdrawal to conserve cold water in Shasta Reservoir and also to access a limited cold water pool that was formerly unavailable. The cold water supply is nonetheless finite and the STCD leaks, thus reducing its modeled efficiency (Exhibit 3F).

The Trinity Dam auxiliary outlet, which bypasses the power plant to provide cold water for salmon when reservoir storage is low, is possibly damaged by cavitation and its use on a regular basis for temperature control is questionable (Exhibit 3F).

Therefore, due to combination of low reservoir storage in Shasta and Trinity reservoirs and the potential to be unable to access colder water at the bottom of each dam, there is already under the Existing Conditions, an imminent risk to the Sacramento River salmon runs from warm water during spawning and egg incubation.

Absent late and significant storms, there will not be temperature compliance for protection of Sacramento River Fall Run Chinook salmon on the Sacramento River because of low cold water storage in Shasta Reservoir, as well as potential hardware problems at Shasta and Trinity dams which limit operational remedies to improve temperatures. Anything which can maintain the highest possible cold water carryover

⁷ <http://swr.nmfs.noaa.gov/media/SalmonDeclineReport.pdf> p 4, 127-29

storage will improve spawning and incubating conditions for listed salmonids in the mainstem Sacramento River (Exhibit 3F). Increased cold water storage will also improve conditions for fall run Chinook and increase the likelihood that Sacramento River sport and commercial salmon fisheries could be reopened at some point after 2 historic years of being largely shut down. Conversely, approval of the subject petition would facilitate more water transfers, and in some cases, it may result in delivery of water which might not otherwise be delivered, thereby reducing cold water carryover storage for protection of fisheries this year and possibly into another year of drought.

Recommendation: Any approval of the subject petition should include a condition that the project not result in any further depletion of the cold water supplies Shasta or Trinity reservoirs beyond what would have occurred in the absence of approval.

Potential Harm to the Trinity River Salmon in Trinity River

The SWRCB ordered a Trinity-specific water right hearing in 1989 through Water Quality Order 89-18, which has yet to be held. Neither the North Coast Basin Plan temperature objectives nor and the Trinity River ROD flows have been implemented through a water rights order. The Trinity River's fishery is at risk, especially if dry conditions continue into next winter.

It appears that temperature objectives in the Trinity River may barely be met in 2009 (Exhibit 3F). However, Reclamation may have less ability to provide Trinity River cold water auxiliary outlet releases than thought at the time of the Trinity River Record of Decision⁸ and the accompanying National Marine Fisheries Service Biological Opinion which contains a 600,000 AF minimum cold water pool⁹. As discussed above, there may also be additional demands on Trinity's cold water from the Lower Klamath River in 2009.

The Trinity River is in the unique situation of being within the CVP, but is also a separate watershed, thus giving the Trinity River a priority for use of its own water. According to the California Department of Fish and Game (Exhibit 3N):

⁸ <http://trrp.net/documents/ROD.pdf>

⁹ http://www.fws.gov/arcata/fisheries/reports/technical/TREIS_BO_NMFS.pdf page 49 conditions 7a and 7b

"...a single source of supply from 2 basins requires needs for beneficial uses in the basin of origin to be met first- then needs can be supplied for the other basin."

The letter goes on to point out that the SWRCB and DFG recognize that diversions from the Trinity River to the Sacramento River may harm Trinity River Fisheries, but that the SWRCB, through Water Right Order 90-05 (WR 90-05)¹⁰ protects the Trinity River fishery from harm, and that *"The SWRCB will consider comprehensive protection of the Trinity River fishery in a separate water rights proceeding in the near future."*

The separate Trinity River water rights proceeding was ordered in Water Quality Order 89-18¹¹ and reiterated in WR 90-05 (Page 31, paragraph 2). However, to this day, there has been no Trinity-specific water right hearing to provide full protection to the Trinity River fishery.

There is not full protection for the Trinity River fishery because the Trinity River protections in WR 90-05 are only for diversions to the CVP for Sacramento River temperature control, not any other project purpose such as water supply, Delta water quality, hydropower, etc. Additionally, the protections for the Trinity River fishery defined in WR 90-05 are not the full suite of site and time-specific temperature objectives contained in Table 3-1 of the "Water Quality Control Plan for the North Coast Region."¹² Specifically, the Basin Plan temperature objectives for the Trinity River are as follows:

"Daily Average Not to Exceed Period River Reach
60°F July 1 - Sept. 14 Lewiston Dam to Douglas City Bridge
56°F Sept. 15 - Oct. 1 Lewiston Dam to Douglas City Bridge
56°F Oct. 1 - Dec. 31 Lewiston Dam to confluence of North Fork Trinity River"

The Trinity River protections in WR 90-05 do not contain the 60°F objective for the period July 1 – September 14 or protection from diversions for purposes other than temperature control on the Sacramento River.

¹⁰ <http://www.waterrights.ca.gov/hearings/WaterRightOrders/WRO90-05.pdf>

¹¹ http://www.swrcb.ca.gov/board_decisions/adopted_orders/water_quality/1989/wq1989_18.pdf
page 18, paragraph 3

¹² http://www.waterboards.ca.gov/northcoast/water_issues/programs/basin_plan/083105-bp/04_water_quality_objectives.pdf page 3-8.00, footnote 5.

Additionally, the Water Quality Control Plan for the North Coast region contains an "Interim Action Plan for the Trinity River" from 1991 that is woefully outdated. It states as follows:

"The State Water Board will consider the comprehensive protection for the Trinity River fishery in a separate water rights proceeding in the near future. The State Water Board will consider the objectives set forth in this action plan in its future water rights proceedings for the Trinity River."

Where is the consideration of Trinity River Basin Plan temperature objectives in the subject proceeding? Where is the analysis of impacts to the Trinity River from approval of the subject petition? Where is the Trinity-specific water right hearing that was promised in 1989 in Water Quality Order 89-18, reiterated in 1990 in WR Order 90-05, and again repeated in the 1991 North Coast Basin Plan amendment for the Trinity River?

The Hoopa Valley Tribe also has a Water Quality Control Plan which has been approved by USEPA under the Clean Water Act¹³. The Tribe's WQCP contains Trinity River temperature objectives. The subject petition and environmental analysis contains no mention of compliance with Hoopa Valley Tribal Water Quality standards and objectives.

In addition to issues related to maintenance of Trinity River temperatures needing a water right hearing, there is the issue of flows in the Trinity River. The 7 CVP Trinity River water permits all contain a minimum instream flow which amounts to 120,500 AF/year. However, the Trinity ROD changed the Trinity River minimum instream flow to an annual weighted average of 594,500 AF, creating a large difference between the permitted instream flow and actual releases. It would make sense for the SWRCB, during a Trinity-specific water right proceeding, to amend the permitted minimum instream flows in Reclamation's Trinity River water permits to include the Trinity ROD instream flows of approximately 48% of the Trinity's water, as opposed to the 1959 instream flows which were 10% of the Trinity's water. Absent permit modifications by the SWRCB, the NMFS-required carryover storage of Trinity Reservoir

¹³ <http://www.hoopa-nsn.gov/departments/tepa/waterquality.htm>

might be considered by some to be water that is otherwise available for export through the Delta to agriculture. It is clearly not because of the NMFS Biological Opinion on the Trinity ROD, but the SWRCB has failed to memorialize that for consistency with federal law in Reclamation's 7 Trinity River water permits.

Furthermore, Trinity County submitted evidence to the SWRCB in 1992 that the Trinity Reservoir carryover storage amount should be 900,000 AF.¹⁴

Trinity River temperatures are expected to mostly be in compliance with Basin Plan temperature objectives (Exhibit 3F), although if meteorological conditions are hot and dry and there are problems with the auxiliary outlet, there could be more exceedances than would be found in a typical year with higher reservoir storage (Exhibit 3O). Nonetheless, the March 90% exceedance forecast for CVP operations (Exhibit 3F) shows Trinity carryover storage on September 30 as 722 TAF. This is within the range of the Trinity ROD's Biological Opinion by NMFS, but certainly at the low end of the range. Continued drought into 2010 will however, make it likely that the 600 TAF minimum pool will be violated next year. Given the potential limitations for use of the Trinity Dam auxiliary outlet, a risk exists as to how to best to meet Trinity River temperature objectives into 2010 and beyond.

Approval of the subject petition might increase the drawdown of Trinity Reservoir's cold water pool, thereby increasing the risk of temperature violations in future years, or even this year (but there is no analysis). This is an unanalyzed impact of the subject petition.

Recommendation: Any approval of the subject petition should include a condition that the project not result in any further depletion of the cold water supplies in Trinity Reservoir beyond what would have occurred in the absence of approval. Additionally, a Trinity specific water right hearing should be scheduled, as ordered the SWRCB's Water Quality Order 89-18.

¹⁴ <http://tcrecd.net/trf-stor.htm> THE NEED FOR STANDARDS FOR MINIMUM CARRYOVER STORAGE IN TRINITY RESERVOIR Presented by: Dr. Anthony Finnerty and Barry Hecht of Balance Hydrologics, Inc.

Potential for a Repeat of the 2002 Lower Klamath River Fish Kill and the Potential Need for Pulse Flows From Trinity and Lewiston Dams in 2009

In addition to demands on the waters of Trinity Reservoir for temperature control in the Sacramento and Trinity rivers, the Lower Klamath River fish kill of 2002 was never anticipated, but did result in additional Trinity Reservoir cold water releases in 2003 and 2004 to prevent another occurrence (Exhibit 3E).

As excerpted below from Exhibit 3I, three triggers for the release of Trinity pulse flows were determined to be as follows:

“Criteria that Trigger Proposed Action:

The federal scientists who developed the proposed action were asked to establish triggers that would indicate the need to implement an action. The triggers initially proposed in the March 18th Plan are listed below. Because there is a strong interest by all agencies involved with the Trinity River and its fisheries to avoid a die-off this year, a conservative approach was taken. While those triggers are, in fact, environmental conditions in the Lower Klamath, it is emphasized that the intent of the action plan is to initiate migration of Trinity River Salmon into the Trinity River.

- **Run size** – Fall Chinook run-size greater than or equal to the long term average:
 - The average in-river run size for 1981-2002 is 110,400. The annual stock size projections developed by the Klamath River Technical Advisory Team for setting annual harvest rates includes an in-river run size estimate. The in-river estimate is determined by biologists from DFG, YT, HVT and FWS in April of each year. (50% estimated exceedance probability).
- **River discharge** – Projected flow for August less than 3,000 cfs at Terwer Gage:
 - Equal to the average daily discharge at Terwer gage on August 1 (50% estimated exceedance probability).
- **Water temperature** – Average daily water temperature greater than 19[°]c in the Lower Klamath River:
 - Water temperatures greater than 19[°]c inhibit adult salmon migration, increase thermal stress thus decreasing anadromous fish resistance to disease; and Columnaris and ICH become more pathogenic due to decreased generation times.”

Even though 2003 and 2004 were considered wet years on the Trinity River, 36,300 AF was released in 2003 and 34,000 AF was released in 2004 as a preventative measure to prevent excessive Trinity River adult salmon pre-spawn mortality in the Lower Klamath River. There have been no subsequent pulse flows for this purpose

because the three triggers have not been met. However, 2009 may prove to be another year which could require additional pulse flows from Trinity and Lewiston dams.

Consider the following:

- The 2009 Trinity River water year classification is for a "dry year" (Exhibit 3J)
- The 2009 Klamath River water year classification is for "below normal year"¹⁵
- The preseason run size estimate for 2009 adult Klamath-Trinity fall Chinook is 130,300 fish (Exhibit 3K); compared to 160,600 in 2002, 191,949 in 2003 and 78,943 in 2004 (Exhibit 3L).
- Cold water storage in Trinity Reservoir is substantially lower than it was in 2002, 2003 or 2004, increasing the likelihood of increased temperatures (Exhibit 3M).

August-September pulse flows are not being considered by the Trinity River Restoration Program this year. Trinity pulse flows for the Lower Klamath River have never been part of the Trinity ROD flows and the Trinity Management Council has never recommended use of Trinity ROD flows for that purpose.

Recommendation: Any approval of the subject petition should include a condition that the project not result in any further depletion of the cold water supplies in Trinity Reservoir beyond what would have occurred in the absence of approval. The SWRCB should require Reclamation to reserve and release from Trinity Reservoir up to 36,000 AF in the event that conditions meet the Trinity River Restoration Program's 3 triggers for a late summer/fall pulse release in order to protect migrating Trinity River salmon in the Lower Klamath River.

Wasteful and Unreasonable Use of Water in the Western San Joaquin Valley

It is C-WIN's contention that expediting water transfers to junior water contractors farming drainage-problem lands in the western San Joaquin Valley is a Wasteful and Unreasonable use of water per Article X, Section 2 of the California Constitution and Water Code Section 100. As noted in Tim Stroshane's testimony, most of the areas with junior water contracts and in need of water transfers facilitated by the subject petition

¹⁵ http://www.usbr.gov/mp/kbao/operations/2009_ops_plan_04-03-09.pdf p 1, item 2

are in the drainage problem areas of the Western San Joaquin Valley (Exhibit 3W). Therefore, it is likely that a disproportionate amount of the water transferred under the subject petition will go to drainage problem areas.

The SWRCB, in D-1641, (page 83), found "*... that the actions of the CVP are the principal cause of the salinity concentrations exceeding the objectives at Vernalis. The salinity problem at Vernalis is the result of saline discharges to the river, principally from irrigated agriculture, combined with low flows in the river due to upstream water development. The source of much of the saline discharge to the San Joaquin River is from lands on the west side of the San Joaquin Valley which are irrigated with water provided from the Delta by the CVP, primarily through the Delta-Mendota Canal and the San Luis Unit.*"

Based on the estimate on reassigning the Broadview Water Contract Assignment Environmental Assessment (Exhibit 3P), the cessation of irrigation for 9,200 acres of drainage problems lands would result in a reduction in 1,500 pounds of selenium, 17,000 tons of salt and 52,000 pounds boron loading to the Grasslands Bypass Project annually. It can be inferred that if an equivalent amount of water that was formerly provided to Broadview were transferred to drainage problem lands, there would be a similar amount of contaminated drainage water created containing selenium, salt, and boron.

Therefore, it can be concluded that water transferred under the subject petition would increase by an undisclosed amount, contaminated drainage water created by the western San Joaquin Valley's drainage problem lands. Since the San Joaquin River is already listed as an impaired water body on the 303(d) list for boron, selenium and electrical conductivity, this should be considered a significant undisclosed impact.

Numerous government studies identify the high economic and environmental cost of continuing to irrigate these lands, and that the only reliable solution to reverse the drainage problem is to halt irrigation of these lands. Exhibit 3Q discloses that for the San Luis Drainage Feature Re-Evaluation, the alternative with the least amount of land

retirement (In-Valley Groundwater Quality Land Retirement) had a negative benefit/cost summary amounting to \$15.603 million/year in 2050 dollars, or a negative \$780.15 million over the 50 year life of the project. Conversely, the alternative with the greatest amount of land retirement (In Valley Drainage Impaired Land Retirement) had a positive benefit/cost summary of \$3.643 million/year in 2050 dollars, or a positive \$182.15 million over the 50 year life of the project.

The U.S. Geological Survey has been clear that any solution to drainage problems must include land retirement. In relation to the San Luis Feature Re-Evaluation and subsequent settlement negotiations convened by Senator Feinstein, the USGS has stated that "*Land retirement is a key strategy to reduce drainage because it can effectively reduce drainage to zero if all drainage-impaired lands are retired.*" Exhibit 3R. USGS goes on to state that "*The treatment sequence of reverse osmosis, selenium bio-treatment and enhanced solar evaporation is unprecedented and untested at the scale needed to meet plan requirements.*"

Reclamation's CVPIA land retirement program has demonstrated that there can be a rapid reduction in shallow groundwater from cessation of irrigation (Exhibit 3S).

The Feasibility Report for the San Luis Drainage Feature Re-evaluation SLDFR Feasibility Study (Exhibit 3T, p xxvii) recommended significant increases in subsidies for San Luis Unit contractors in order to implement the Preferred Alternative for the SLDFR, which did not include maximum land retirement.

USGS identified that the aquifers of the western San Joaquin Valley contain so much selenium that even if the San Luis Drain were built with an annual discharge of 43,500 pounds of selenium/year with new additions of selenium halted, it would still take 63 to 304 years to eliminate the accumulated selenium from the aquifers (Exhibit 3U).

The USGS also shows graphically in Exhibit 3X, the huge salt imbalance in the San Joaquin River which amounts to approximately 2,300 tons of salt per day.

The Pacific Institute's Report on Agricultural Water Conservation¹⁶ (Exhibit 3V) identified that retirement of 1.3 million acres of drainage problem lands would lead to

¹⁶ http://www.pacinst.org/reports/more_with_less_delta/more_with_less.pdf p 7, pp1

water savings of 3.9 million AF, *"while also reducing cleanup costs and minimizing the social and environmental impacts associated with polluted surface and groundwater."*

Recommendation: Eliminate drainage problem areas from receiving water transfers in order to minimize the amount of salt, selenium and boron discharged to the San Joaquin River, its tributaries and aquifers. Discourage the planting of permanent crops on lands which create seleniferous drainage.

Reclamation Act Acreage Limitation Compliance

The subject petition would combine the places of use for the federal and State water systems. The State Water Project is not subject to the acreage limitations in the Reclamation Act. How will this difference in authorizing legislation as it relates to large agricultural operations be in compliance with federal law?

List of Exhibits:

Exhibit 3A- Verified Petition for Writ of Mandate, BEC vs. DWR on Drought Water Bank,
p 15-18

Exhibit 3B- excerpt from CALFED ROD, p 41-42.

http://www.calwater.ca.gov/calfed/library/Archive_ROD.html

Exhibit 3C-Final Trinity River Mainstem Fishery Restoration EIS/R, p Table 4-6

http://www.fws.gov/arcata/fisheries/reports/technical/treis/final_document_new.html

Exhibit 3D- Summer 2004 Westlands "Irrigator"

<http://www.westlandswater.org/long/200407/irrigator.pdf?title=Summer%202004>

Exhibit 3E- Trinity River Flow Summary 2000-2008 <http://trrp.net/water/wateryear.htm>

Exhibit 3F- Personal communication with Paul Fujitani, CVO Water Operations Chief,
4/15/2009

Exhibit 3G- March CVP Ops 90% forecast

<http://www.usbr.gov/mp/cvo/data/Mar90sum.pdf>

Exhibit 3H- Shasta Reservoir Storage 1987-present. Source: cdec.water.ca.gov

Exhibit 3I- 6/26/03 Memo from Douglas Schleusner on Potential [Trinity River] 2003 Fall
Flow Releases

Exhibit 3J- Water Year 2009 Release Schedule from Lewiston Dam to the Trinity River.

Exhibit 3K Pacific Fisheries Management Council Salmon Pre-season Report II, March
2009, Table 5 http://www.pcouncil.org/salmon/salprell09/table5_prell_09.pdf

Exhibit 3L *Review of 2008 Ocean Salmon Fisheries FEBRUARY 2009, page 196, Table B-4*
(http://www.pcouncil.org/salmon/salsafe08/apdxb_08.pdf)

Exhibit 3M Trinity Reservoir Storage 2000-Present. Source: cdec.water.ca.gov

Exhibit 3N- Letter from Fish and Game Region 1 to Russell Smith and Tom Stokely,
6/22/2004.

Exhibit 3O- Predicted water temperatures at Douglas City, Trinity River; From
presentation by Rod Wittler and Andreas Krause to Trinity Management Council on
4/2/09.

Exhibit 3P- Broadview Water Assignment Project EA/FONSI, USBR. April 2004

Exhibit 3Q- NED Analysis for SLDFR EIS, page N-17, Table N-10, with comments

http://www.usbr.gov/mp/nepa/documentShow.cfm?Doc_ID=2240

Exhibit 3R- USGS Open File Report 2008-1210, p1 Executive Summary

<http://pubs.usgs.gov/of/2008/1210/>

Exhibit 3S- CVPIA Land Retirement Program 5 year report 2005, p 71

http://www.usbr.gov/mp/cvpia/3408h/data_rpts_links/5-year_rpt/5-yr_full_rpt.pdf

Exhibit 3T- Feasibility Report for the San Luis Drainage Feature Re-evaluation, p xxvii.

http://www.usbr.gov/mp/sccaosld/docs/sldfr_report/index.html

Exhibit 3U- USGS Professional Paper 1646, p 1

<http://pubs.usgs.gov/pp/p1646/pdf/pp1646.pdf>

Exhibit 3V- More With Less- Agricultural Water Conservation and Efficiency in California- A Special Focus on the Delta, Pacific Institute 2008.

http://www.pacinst.org/reports/more_with_less_delta/index.htm p 7

Exhibit 3W- CVPIA Land Retirement Program 5 year report 2005, Figure 1-1, p 2

http://www.usbr.gov/mp/cvpia/3408h/data_rpts_links/5-year_rpt/5-yr_full_rpt.pdf

Exhibit 3X- USGS Professional Paper 1646, p 106, Figure A5

<http://pubs.usgs.gov/pp/p1646/pdf/pp1646.pdf>