



California WaterFix Water Rights Change Petition Hearing, Part 1: Opening Statement to the Case-in-chief in Support of Petitioned Change

This opening statement will describe (a) the interest of the California Department of Water Resources (DWR) in pursuing the California WaterFix, (b) the limited nature of this part of the water rights hearing, (c) an outline of the structure for presentation of testimony for Part 1 by the DWR and U.S. Bureau of Reclamation (Reclamation) (Testimony), and (d) a summary of the Testimony detailing the analytical framework presented to support a conclusion by the State Water Resources Control Board (State Water Board) that adding three new points of diversion to existing permits held by the DWR and the Reclamation causes no injury to any legal user of water.

It takes the sophisticated use of water to make California the most populous state in the nation, with the most productive farm economy, and a rich abundance of wildlife and natural beauty. The federal and state water projects are fundamental elements of our water management. California as we know it would not exist without the State Water Project and the Central Valley Project (SWP and CVP respectively, jointly referred to as the Projects). These Projects support hundreds of billions of dollars of economic activity a year, or, put another way, the jobs, neighborhoods, and ambitions of tens of millions of Californians. Our largest cities have built their own extensive water projects, reaching into distant mountains to capture snowmelt to satisfy demand for water, but none compare in scale or benefit to the state and federal Projects that prevent floods on northern rivers and serve communities from San Jose to Thousand Oaks to Pasadena and San Diego that long ago outgrew local streams and aquifers.

Generations ago, the builders of the Projects did not foresee the full extent to which their works would be asked to benefit fish and wildlife, besides cities and farms. SWP and CVP operations have been adjusted in step with changing public values. Today the reservoirs, pumping plants and aqueducts of the SWP and CVP maintain water quality in the highly-altered Sacramento-San Joaquin Delta (Delta). They provide flows to cool spawning grounds for the chinook salmon that sustain a West Coast fishing industry. A primary driver of water project operations is protection of species that either migrate through or dwell in the Delta, and our last 50 years of experience tells us that improved infrastructure would make this important job easier.

DWR pursues the California WaterFix to better protect native fish species in the Sacramento-San Joaquin Delta (Delta) and to safeguard water supplies for future generations. The federal and state water project pumps have drawn water from south Delta channels since 1951 and 1967, respectively. Today, the setting within the Delta, including operation of the pumps, creates unnatural flows at certain times that can draw native and endangered fish off-course and into predator-rich, dead-end channels and towards the pumps themselves. New, properly screened intakes, as proposed in the California WaterFix, would better protect fish and allow us to use the existing south Delta pumps in a strategic and flexible manner in a dual conveyance system with the proposed north delta diversions.

The location of the existing pumping plants in the south Delta, within habitat for endangered and threatened fish species, leads to another significant problem: unreliable water supplies, as rules to protect these listed species greatly restrict operations. Most California communities, urban and rural, depend upon our ability to capture the bounty of a few major winter storms each year. But the south Delta pumps frequently must be curtailed to protect native fish species, even at times of high flow throughout the Delta. The existing Delta water conveyance system with only one diversion point in the south Delta hinders our ability to make reliable water deliveries to 25 million people and three million acres of farmland. New, well-screened intakes in the north Delta, that would operate at times that do not alter natural flow patterns, would afford us more opportunities to capture and store water supplies in wet winters for dry seasons and drought years. The California WaterFix offers increased operational flexibility, allowing us to also manage diversions during dry seasons in order to maintain water quality through the Delta.

Other powerful forces – climate change, seismicity and flood – also compel our pursuit of this project. The existing pumps sit within reach of salty tides from San Francisco Bay. A sea-level rise of as much as 5 ½ feet can be expected within 90 years, and some scientists tell us sea levels could rise much higher and faster than we anticipated even a few years ago. Even a single-foot rise in sea level would increase the frequency of peak high tides in the western Delta, stressing Delta levees and intensifying the difficulty of managing water in the central and south Delta, at the heart of the state's major water delivery system. Already, most Delta islands are at 10 to 25 feet below sea-level.

Geological faults capable of unleashing large earthquakes run beneath the San Francisco Bay Area. Other faults exist in the Delta itself. Sudden ground movement could collapse or weaken some of the 1,000 miles of levees that protect Delta islands. Flood flows through the Delta could have the same effect on levee stability. Since

1900, levee failures have caused the flooding of Delta islands 158 times. The collapse of levees could draw salty tides from San Francisco Bay deep into the central and south Delta. The influx could render the existing federal and state pumping plants unusable, and flushing saltwater out of the interior Delta could drain upstream reservoirs, depending upon conditions at the time. The California WaterFix proposes facilities that would allow the Projects to function even in the scenarios described above, safeguarding water supplies for much of the state.

To ameliorate existing problems, to prepare for changing conditions, and to avert potential disaster, we pursue development of the California WaterFix.

THE CALIFORNIA WATER FIX WATER RIGHTS CHANGE

Testimony will describe with specificity the changes requested. The State Water Board has the task of assessing the addition of three new points of diversion, because the petitioned changes are only that - add three new points of diversion on the Sacramento River between Courtland and Clarksburg without any further modification of the permits. Existing permit provisions for sources of water, amounts of direct diversion and diversion to storage, maximum allowable combined diversion from the Delta, places of use, purposes of use and season of diversion, will remain unchanged. The three proposed additional diversions points would supply water to the SWP and CVP and provide SWP and CVP operators with increased flexibility by virtue of dual-conveyance, or in other words the ability to divert water from either the existing southern Delta points of diversion or the proposed northern Delta points of diversion, based upon biological, hydrologic, water quality and water supply considerations.

LIMITED NATURE OF HEARING

The elements of the legal framework for considering a change petition are defined in the California Water Code, and at their core they are straightforward: establish that the new points of diversion will not operate to the injury of any legal user of the water involved and will not in effect initiate a new water right. This is reflected in the structure of this multi-part hearing. Over the course of Part 1 of this hearing, the Testimony will demonstrate that the requested change, which is limited to the addition of three new points of diversion on the Sacramento River, clearly meets these thresholds.

As set forth in the October 30, 2015 notice for this hearing, as amended by the February 11, 2016 pre-hearing conference ruling, Part 1 includes:

- Will the addition of three new points of diversion to permits held by DWR and Reclamation in effect initiate a new water right?
- Will the addition of three new points of diversion to permits held by DWR and Reclamation cause injury to any municipal, industrial or agricultural

uses of water, including associated legal users of water by (a) altering flows, (b) altering water quality?

- What conditions would avoid injury to these users?
- What other human uses of water, beyond the strict definition of legal users of water, are affected with the addition of three new points of diversion to permits held by DWR and Reclamation?

In Part 2 of this hearing the State Water Board will address additional issues set forth as requirements of a water rights change petition, and should defer discussion of these issues until that time. Furthermore, in Part 2 and under the Delta Reform Act of 2009, the State Water Board order must include “appropriate flow requirements”, but only after considering the requested change and taking into account the current state of science and the responsibilities of the Petitioners.

Each regulatory process related to the California WaterFix involves unique factors for consideration by the various state and federal permitting agencies. These factors may be distinct from the language and standards used in the environmental documents prepared as a part of the California WaterFix environmental compliance process. The Testimony will provide information in a manner that facilitates the State Water Board decision-making and the unique responsibilities of this hearing as set forth above, as they will differ from the other environmental review processes.

Thus, the Testimony provided in the DWR and Reclamation cases-in-chief will present the basis for the first part of the State Water Board water rights approval process for the California WaterFix. Portions of the Testimony will detail proposed initial operational criteria in addition to broader operational scenarios that are presented for analytical purposes and are not contemplated as initial operational criteria. The broader operational scenarios are described as “boundaries.” The purpose of presenting the boundaries is to analyze impacts to legal users of water that are broad enough to encompass the expected collaborative science and adaptive management process, which is currently under development by the regulatory agencies for the California WaterFix and will be detailed in Part 2 of the hearing. Importantly, all the operational scenarios presented in the Testimony are within the range of alternatives described in the environmental review documents. The Testimony supports a conclusion that under all scenarios, either the proposed initial operations or the boundaries, there is no injury to legal users of water.

Standards for Water Quality

Importantly, Petitioners recognize that the regulatory framework for water quality in the Delta currently remains in place, consisting of the 2006 San Francisco Bay /

Sacramento – San Joaquin Delta Estuary Water Quality Control Plan (Water Quality Control Plan) and Water Rights Decision 1641 (D-1641), and, as they are today, will be protective of beneficial uses of water. Furthermore, Petitioners recognize that this protective regulatory framework is currently under review. Nothing in this hearing changes the fact that when new protective measures are adopted by the State Water Board it may assign new responsibilities to the Petitioners through that update process.

However, the hearing officers have appropriately recognized that to prejudge the content of that updated plan or assignment of responsibility prior to completion of that updated plan is inappropriate at this time and in this hearing. Therefore, discussions about the adequacy of existing protective thresholds for beneficial uses are not within the scope of this hearing. As indicated in case law and the pre-hearing notices and rulings in this matter, if the State Water Board wishes to consider revisions to its Water Quality Control Plan it must do so in a hearing that looks to all parties as potential contributors. This process is already underway through the Water Quality Control Plan update.

The Testimony is focused on the analysis of injury to legal users of water based upon the potential for the California WaterFix to change Delta water quality by evaluating state-of-the-art modeling results as compared to the D-1641 standards and through operational Testimony that describes the historical track record of meeting existing D-1641 requirements, and describes the real-time operational tools available to manage water quality.

Standard for Water Diversions

The Testimony also analyzes injury to legal users of water based upon disruptions in water supply by the California WaterFix by assessing reductions in water levels due to the addition of the new points of diversion or physical disruptions to a diversion point during construction. These are evaluated through modeling and examination of the engineering design for the construction footprint at the intake locations, or other physical facilities associated with the California WaterFix.

Lack of State Water Board Standards for “Other Human Uses”

The State Water Board indicated in its pre-hearing conference ruling that it will allow for the discussion of impacts to other human uses that extend beyond the strict definition of legal users of water set forth in the regulations and California Water Code. The testimony does not attempt to anticipate what might be contemplated as to other human uses by parties to this hearing; however, the Testimony does present information on flood control and groundwater. To the extent these other uses could be anticipated, they are addressed in components of the Testimony. It should be noted,

however, that the State Water Board has not provided a legal standard for evaluating these other uses. The Testimony sets forth the information available through the draft EIR/EIS in order to inform the hearing officers. To the extent that other parties, or the hearing officers, set forth a standard for evaluating these uses, DWR could address the standard during rebuttal.

STRUCTURE FOR PRESENTATION

This case-in-chief for Part 1 will consist of several witnesses identified in both the DWR and Reclamation Notice of Intent to Appear witness lists, whose testimony will together present a cohesive case-in-chief. In order to best inform the hearing officers, staff and public, and to be responsive to comments filed by many parties to this hearing regarding the number, density, and complex nature of the available documentation, DWR and Reclamation request that this case-in-chief not be interrupted by cross-examination. Rather, Testimony can be presented sequentially and, upon completion, all witnesses will be made available for cross-examination.

By allowing for a complete presentation of all components of this Testimony prior to cross-examination, the hearing officers, staff and public may find that questions raised during the testimony of an early witness will be answered by testimony of a later witness. It is through hearing a complete description prior to cross-examination that this structure will facilitate a clearer understanding of the project being considered and how it is designed to prevent injury to legal users of water. This structure will not interfere with any party's ability to cross-examine the witnesses as all witnesses will be made available for later portions of the hearing.

The first portion of the Testimony will address the project description. This will be followed by an engineering description and discussion of construction-based actions and measures to address potential effects. Testimony on SWP operations will follow the engineering testimony, which will be followed by modeling testimony. At the end, DWR and Reclamation experts will present testimony on the water rights permits held by DWR and Reclamation, contracts that provide for the delivery of water from the SWP and CVP, and information that will help inform the hearing officers' decision on whether the California WaterFix includes sufficient protections to legal users of water.

TESTIMONY SUMMARY

Project Description

As described in the Project Description Testimony, the California WaterFix is EIR/EIS Alternative 4A, the preferred alternative from the 2015 RDEIR/DEIS. Alternative 4A is described by operational criteria that provides for a range of outflows. The initial range of operation is bounded by what is described as scenarios H3 and H4.

These scenarios are set forth in the California WaterFix Recirculated Draft EIR / Supplemental Draft EIS. However, prior to operation of the project, there will be specific initial operating criteria set forth in the California WaterFix Endangered Species Act BiOp and California Endangered Species Act 2081(b) incidental take permit. These criteria may change based on adaptive management. Since the BiOp and incidental take permit have not been issued, and DWR and Reclamation do not know the specific initial operating criteria, the analytical framework presented for Part 1 is, of necessity, a boundary analysis. The boundary analysis will provide a very broad range of operational criteria and the California WaterFix initial operating criteria falls within this range. These boundaries are designed to be sufficiently broad so as to assure the State Water Board that any operations considered within this change petition proceeding have been evaluated with regard to effects on legal users of water. These boundaries are described in the Project Description Testimony as boundary 1 and boundary 2. However, these boundaries do not represent the proposed project. The proposed project is an initial operational scenario between H3 and H4 as presented in the California WaterFix Recirculated Draft EIR / Supplemental Draft EIS.

Engineering

The Engineering Testimony focuses on potential construction effects that could affect other users of water and measures to avoid or adequately mitigate those effects. It concludes that water quality will be protected through the implementation of best management practices during construction and through the conditions that will be a part of the State Water Board waste discharge and NPDES permitting process. Water supplies will be protected in several ways. Primarily, temporary and permanent displacement of existing diversions or drainage due to construction will be mitigated by providing replacement infrastructure in order to maintain the existing levels of service. Subsurface flows will be protected from construction impacts through best management practices that will hydraulically isolate construction areas from surrounding subsurface water using concrete liners with pressure grout and/or diaphragm cut-off walls.

Additionally, the Engineering Testimony addresses other human uses of water relevant to the concerns included with the State Water Board pre-hearing conference ruling. The Testimony will address the potential for flooding and conclude that through implementation of mitigation measures identified in the EIR/EIS, or required through the US Army Corps of Engineers Section 408 permitting process, these impacts will not impact other legal users of water. Furthermore, the Testimony will discuss the measures proposed for preventing or minimizing impacts to groundwater. It concludes that the proposed use of slurry walls, groundwater monitoring, toe-drains, interceptor wells, and soil grouting will ensure that no significant groundwater effects will occur.

Operations

Through the Operations Testimony DWR and Reclamation will explain the current operations of the SWP and CVP, describe the highly successful record of operating to the water quality standards in the Delta, and demonstrate that this successful record can be relied upon as a predictor of future performance for meeting current and future standards applicable to the SWP/CVP. As elaborated upon in the Testimony, in the years during which Water Rights Decision 1485 was in effect the applicable Delta standards were exceeded only 0.5 percent of the time. After implementation of D-1641 standards were exceeded only 1.5 percent of the time. Combining the performance under both Water Rights Decisions 1485 and 1641, standards were exceeded only 1.1 percent of the time. Testimony will describe how much of what makes up these percentages is driven by a single month in 2013. These successful operational records are through water year 2015, and are therefore inclusive of the current drought emergency.

Testimony also indicates the historic exceedance numbers for specific problematic or sensitive areas in the Delta. For instance, the Testimony describes for the hearing officers the ability of operators to meet the water quality standards in the western and southern Delta. The SWP and CVP operators have demonstrated a strong and successful record of operating to the water quality standards in both these parts of the Delta. In the western Delta, at compliance locations of Jersey Point, Contra Costa Canal Pumping Plan #1 in Rock Slough, and Emmanton, the SWP/CVP exceedance record is 0.4 percent, 0.2 percent, and 2.6 percent respectively. In the southern Delta, at compliance locations Old River at Tracy Road Bridge, Old River at Middle River, and San Joaquin River at Brandt Bridge, the SWP/CVP exceedance record since 1995 is 16.3 percent, 2.2 percent, and 2.9 percent respectively. The three south Delta locations account for a sizable portion of the overall Delta exceedance rate, and are primarily driven by changes put in place in 2005. The Testimony describes in detail the results of an investigation by DWR, the State Water Board and the South Delta Water Authority to locate the source of salinity that is driving these high numbers, in particular the Old River at Tracy Road Bridge location. In short, the salinity loads driving these exceedances are predominantly originating in Paradise Cut and Sugar Cut and are beyond the control of DWR or Reclamation.

Modeling

Modeling Testimony presents information as to the relative water supply, water quality and water level impacts anticipated when comparing the initial operating criteria for the California WaterFix with a future no action scenario. Additional modeling information is presented comparing the boundaries introduced above in the project description summary with a future no action scenario. All of the scenarios are evaluated

while considering the same climate change scenario. In doing so, the Modeling Testimony is able to identify the relative impacts of the project.

Explanations on the appropriate use of model results are included within the Modeling Testimony to help inform the hearing officers and the public as to why the operators of the SWP and CVP are able to maintain the successful record of compliance that is presented in the operations Testimony. This explanation, at its simplest, is that models are a comparative, but not highly predictive, tool. As such, models are able to give relative differences between two situations but are less helpful for describing absolutes.

In all scenarios presented in the Modeling Testimony, water quality is largely similar to the no action alternative. In limited circumstances, modeling anomalies resulting from a difference in time-step in the two main models used in the analysis produces results that would appear to indicate water quality concerns. However, the Modeling Testimony fully discusses the use of the two models and explains the anomalies. Water levels are largely unchanged with isolated short duration reductions in water levels in the vicinity of the proposed new intakes. Contractual obligations are also met in all scenarios although south of Delta exports for the initial operating criteria scenarios (H3 and H4) are either similar to the no action alternative or lower. End of September storage levels are similar to the no action alternative.

Water Rights

Building upon the Testimony presented in the Project Description, Engineering, Operations, and Modeling Testimonies, and providing analysis and expert opinion based upon their knowledge and interpretation of DWR contracts and water rights, the Water Rights Testimony is provided to support a conclusion by the hearing officers that there is no injury to any legal users of water. Furthermore, the Testimony presents information that this petition does not in effect constitute a new water right because the existing permit quantities, rates, place and purpose of use, season of diversion, and method of diversion would not change by virtue of approving the change petition submitted for the California WaterFix. The petition is limited to the addition of three new points of diversion.