BEFORE THE
CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

HEARING IN THE MATTER OF
CALIFORNIA DEPARTMENT OF WATER RESOURCES AND UNITED STATES BUREAU OF RECLAMATION
REQUEST FOR A CHANGE IN POINT OF DIVERSION FOR CALIFORNIA WATER FIX

REBUTTAL TESTIMONY OF
CHRIS SHUTES
ON PART 2 ISSUES:
EFFECTS ON FISH AND WILDLIFE
PUBLIC TRUST
PUBLIC INTEREST

I, Chris Shutes, do hereby declare:

I. Introduction

I, Chris Shutes, work as a consultant to the California Sportfishing Protection Alliance (CSPA). My titles with CSPA are FERC Projects Director and Water Rights Advocate. My statement of qualifications is Exhibit CSPA-3.

The purpose of my rebuttal testimony in Part 2 of the Waterfix proceeding is to affirmatively provide a series of recommended permit terms that through their substance and their enforceability would provide greater assurance that the SWP and CVP with Waterfix facilities in place would be more likely to provide reasonable protection for fish.¹

Petitioners Department of Water Resources (DWR) and Bureau of Reclamation (Bureau) have proposed few specific permit terms for their petitions for change in point of diversion to enable construction and operation of the California WaterFix.

¹ Recommendation of permit terms does not diminish the opposition of CSPA et al. to the WaterFix petitions.
Petitioners rely heavily on external documents as the source of potential conditions for their proposed projects. Among these external documents are State Water Resources Control Board Water Rights Decision 1641 (D-1641, Exhibit SWRCB-21); the biological opinions of the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (FWS) for the operation of the SWP and CVP (Exhibits SWRCB-84 and SWRCB-87 respectively, as subsequently modified); the biological opinions of NMFS and FWS for WaterFix (Exhibits SWRCB-106 and SWRCB 105, respectively); and the Incidental Take Permit of the California Department of Fish and Wildlife (CDFW) for WaterFix (Exhibit SWRCB-107).

In addition, DWR and the Bureau propose that the State Water Board include adaptive management and real-time operations in the permits if granted. See petitioners’ September 8, 2017 “Response to the Hearing Officers’ August 31, 2017 Ruling,” Exhibit CSPA-256.

In addition to relying on external documents to condition the proposed changes to the permits of the SWP and CVP, DWR and the Bureau rely on modeling as the basis of opinions that WaterFix will reasonably protect fish. However, many of the modeling assumptions that form the basis of these opinions are not defined as actual operating rules that would enforseably constrain the operation of the SWP and CVP with WaterFix facilities in operation.

In my Part 2 direct testimony, I provided discussion of many substantive requirements for permit terms for WaterFix. In addition, I described the need for enforceability of permit terms by the State Water Board. I refer the parties to this hearing to that testimony (Exhibit CSPA-202-errata), and will not repeat it here.

II. Summary of the testimony I will rebut, and citations from this testimony

My Part 2 rebuttal testimony responds primarily to the testimony presented in the Department of Water Resources’ (DWR) case-in-chief by Dr. Marin Greenwood (Exhibits DWR-1012 and DWR-1029) and by Dr. Richard Wilder (Exhibits DWR-1013-signed and DWR-1070). DWR’s witnesses Dr. Marin Greenwood and Dr. Richard Wilder stated in their Part 2 testimony that the ensemble of conditions proposed by DWR and the Bureau would provide reasonable protection for Delta and upstream fisheries.
Dr. Greenwood’s Part 2 direct testimony (Exhibit DWR-1012) states that “existing reasonable protections” currently protect Delta smelt and longfin smelt, as well as listed salmonids and green sturgeon, in the Delta. Dr. Greenwood offers a series of opinions that maintaining these existing constraints, combined with the provisions in the NMFS and FWS BO’s for WaterFix, the ITP and other proposed measures, including adaptive management and real-time operations, will “reasonably protect” or “provide reasonable protection for” Delta fishes. These fishes include Delta smelt and longfin smelt, listed salmonids and green sturgeon, and non-listed salmon, white sturgeon, and other “aquatic species of primary management concern” under California WaterFix.

Dr. Greenwood states: “The evidence that I present is based on effects analyses and other relevant information included in the 2016 FEIR/S, the BA, the ITP Application, BOs issued by the US Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS), the ITP and associated Findings of Fact under CEQA and CESA issued by CDFW, and other materials ....” Dr. Greenwood clarified on cross-examination by Mr. Jackson: “And I would emphasize, our focus in all of these opinions is the incremental effect of the California WaterFix CWF H3+ relative to the project No Action Alternative.” (HT, 2/28/18, p. 46:17-20)

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2 Dr. Greenwood (DWR-1012) says that “existing reasonable protections” for longfin smelt and Delta smelt require pumping limitations in winter and spring at the south Delta facilities, p. 3:14-21; that CWF will maintain “existing reasonable protections” for longfin smelt and Delta smelt that prevent them from entrainment at the south Delta export facilities, p. 6:24-26;

3 Dr. Greenwood (DWR-1012) says “existing reasonable protections” for listed salmonids and green sturgeon include preventing entrainment risk at the south Delta export facilities, p. 7:16-17

4 Dr. Greenwood (DWR-1012) says the following measures under CWF will “reasonably protect” or “provide reasonable protection for” longfin smelt and Delta smelt: fish screens, p. 3:21-22; a “study program”, p. 3:22-23; operational criteria and real-time operations, p. 4:7-8; fall protection of the low salinity zone, p. 4:8-11; construction timing and practices, p. 4:18-25; spring outflow criteria for longfin smelt, p. 7:6-7.

5 Dr. Greenwood (DWR-1012) says the following measures under CWF will “reasonably protect” or “provide reasonable protection for” listed salmonids and green sturgeon: construction timing and practices, p. 7:14-15; fish screens and studies, p. 7:19-21; bypass flow requirements past the North Delta Diversion facilities, real-time operations, and mitigation, p. 7:22-24; construction of Head of Old River Gate, p. 7:25-26 (any San Joaquin River salmonids); limit or mitigate “changes in habitat suitability”, p. 7:27-28; “avoidance and minimization measures, conservation measures and recommendations, and operational criteria will reasonably protect” non-listed salmonids, p. 8:1-3

6 Dr. Greenwood (DWR-1012) says, “avoidance and minimization measures, conservation measures and recommendations, and operational criteria generally will reasonably protect” other non-listed species, including striped bass, p. 8:8-11.

7 Id., p.5:9-13.
Dr. Wilder states in his Part 2 direct testimony (Exhibit DWR-1013-signed): “The results presented in this testimony indicate that, overall, upstream effects of CWF H3+ on winter-run and spring-run Chinook salmon, CCV steelhead, Green Sturgeon, and unlisted species of primary management concern are expected to be small to insignificant.”

“Upstream changes are primarily a result of reductions in the September and November flows under CWF H3+ relative to the NAA, as modeled using CALSIM II.”

Dr. Wilder concludes that because upstream flow changes as modeled are “limited in timing and magnitude” and because real-time operations will improve, “CWF H3+ is reasonably protective of winter-run and spring-run Chinook salmon, CCV steelhead, Green Sturgeon, and unlisted species of primary management concern salmonids upstream of the Delta.”

Similar to Dr. Greenwood, Dr. Wilder stated on cross-examination by Mr. Jackson: “No, I didn't assume anything related to NAA. It was simply a comparison of the NAA to the CWF H3+ and, as Dr. Greenwood said, looking at the incremental difference between the two.” (HT, 2/28/18, p. 47:3-6)

III. Proposed permit terms

The proposed permit terms of CSPA et al. are shown in Exhibit CSPA-502. The terms are shown in a table that show a number, the title or subject of the proposed term, the requirement, the compliance point or points, the season or seasons of applicability, and a brief rationale for the term. I am available to answer questions on cross-examination regarding this exhibit.

IV. Additional declaration

I assisted Tom Cannon in the development of his Part 2 rebuttal testimony, Exhibit CSPA-500. I made substantive recommendations and provided editorial and formatting

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8 DWR-1013-signed, p. 2: 8-11.
9 Id., p. 2:15-16.
10 Id., p. 2:26 to p. 3:2.
11 CSPA et al. includes the California Sportfishing Protection Alliance, the California Water Impact Network (C-WIN), and AquAlliance.
assistance. I will be available to assist Mr. Cannon in responding to cross-examination on his Part 2 rebuttal testimony.

Executed this 9th day of July, 2018 at Berkeley, California.

Chris Shutes