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9 **BEFORE THE**
10 **CALIFORNIA STATE WATER RESOURCES CONTROL BOARD**

11 HEARING IN THE MATTER OF THE CALIFORNIA
DEPARTMENT OF WATER RESOURCES AND
12 UNITED STATES BUREAU OF RECLAMATION
REQUEST FOR A CHANGE IN POINT OF
13 DIVERSION FOR CALIFORNIA WATER FIX
14

TESTIMONY OF THOMAS STOKELY

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16 WRITTEN TESTIMONY OF THOMAS STOKELY
SALMON AND WATER POLICY ANALYST
17 PACIFIC COAST FEDERATION OF FISHERMEN'S ASSOCIATIONS (PCFFA) AND THE
INSTITUTE FOR FISHERIES RESOURCES (IFR) FOR PART 2 OF THE
18 CALIFORNIA WATERFIX CHANGE IN POINT OF DIVERSION HEARING BEFORE THE
19 STATE WATER RESOURCES CONTROL BOARD
20

21 I, Thomas Stokely, do hereby declare:

22 My name is Thomas Stokely. I am presenting this testimony on behalf of the PCFFA and
23 IFR in this evidentiary hearing before the State Water Resources Control Board (State Water
24 Board) concerning the petition to change the point of diversion for the California WaterFix for
25 the State Water Project (SWP) and federal Central Valley Project (CVP), as specified in the
26 licenses and permits of the US Bureau of Reclamation (USBR) and the California Department of
27 Water Resources (DWR).
28

1 I have been working on Trinity River and Central Valley Project issues for approximately
2 30 years, most of which was spent as a planner with Trinity County. This included
3 approximately ten years on the NEPA/CEQA Project Team that prepared the environmental
4 document for approval of the Trinity River Record of Decision (PCFFA-98) as the CEQA
5 representative for Trinity County. On behalf of Trinity County, I participated in the hearings that
6 resulted in SWRCB Water Quality Order 89-18 (PCFFA-23) and Water Right Order 90-5 (SWRCB-
7 24) regarding temperature management of the Sacramento and Trinity River, as well as the
8 hearings on Decision 1641. I also served as an expert witness for the California Water Impact
9 Network before the SWRCB regarding the 2009 petition by the Bureau of Reclamation and
10 Department of Water Resources for a change in the Place of Use. I have made presentations to
11 the State Board and North Coast Regional Water Quality Control Board six times each regarding
12 the Trinity River and/or selenium issues (State Board only). I have made four presentations
13 before the Central Valley Regional Water Quality Control Board regarding selenium issues and
14 the Grasslands Bypass Project.

15 My statement of qualifications is PCFFA-88.

16 **The State Water Board asks the following questions for Part 2 of the WaterFix CPOD Hearing:**

- 17 3. Will the changes proposed in the petition unreasonably affect fish and wildlife or
18 recreational uses of water, or other public trust resources?
- 19 a. Will the proposed changes in points of diversion alter water flows in a manner that
20 unreasonably affects fish, wildlife, or recreational uses of water?
- 21 b. Will the proposed changes in points of diversion alter water quality in a manner that
22 unreasonably affects fish, wildlife, or recreational uses of water?
- 23 c. If so for a and/or b above, what specific conditions, if any, should the State Water Board
24 include in any approval of the Petition to avoid unreasonable effects to fish, wildlife, or
25 recreational uses?
- 26 d. What Delta flow criteria are appropriate and should be included in any approval of the
27 petition, taking into consideration the 2010 Delta flow criteria report, competing
28

1 beneficial uses of water, and the relative responsibility of the Projects and other water
2 right holders for meeting water quality objectives?

3 4. Are the proposed changes requested in the petition in the public interest? What specific
4 conditions, if any, should be included in any approval of the Petition to ensure that the changes
5 are in the public interest?

6 5. Should the Final Environmental Impact Report be entered into the administrative record
7 for the Petition?

8 In this testimony, I will answer questions 3 a-c and 4 in regard to the Trinity River and
9 the Lower Klamath River. I will demonstrate that the Final EIR/EIS for the WaterFix does not
10 analyze ANY impacts to the Trinity River and Lower Klamath River and their beneficial uses, and
11 by not analyzing those impacts, the WaterFix does not identify specific mitigation measures or
12 water permit terms and conditions to avoid unreasonable effects to fish, wildlife or recreational
13 uses of the Trinity and Lower Klamath rivers.

14 In this testimony, I will demonstrate that full protection of Trinity and Lower Klamath
15 River fisheries and water quality is required by both federal and state laws. I will also show that
16 the WaterFix does not afford protection of the Trinity River in a manner that is consistent with
17 law. The remedy is specific terms and conditions on Reclamation's Trinity River water permits
18 that I will identify.

19 **Trinity River Protection is Consistent with Existing Laws:**

20 The unique protection afforded the Trinity River, its fisheries and water is embodied in
21 State and federal law. The special legal status of the Trinity River, and the federal mandate to
22 do no harm to its salmon runs, has been expressed in numerous legal opinions, court decisions
23 and administrative actions at both the State and federal level. While the Trinity River Division
24 is "*fully integrated*" with the CVP, its special status creates a priority for the use of Trinity River
25 water for Trinity River fisheries and other in-basin uses that is legally superior to any other use
26 of CVP water outside of the Trinity River basin. I will briefly summarize the applicable Federal
27 and State policies that apply to protect the Trinity River.

28 **Federal Laws and Policies:**

1 The *Trinity River Act of 1955* (PL 84-386) (Page 2, PCFFA-89) “*directed and authorized*”
2 the Secretary of Interior to “*preserve and propagate*” the fish and wildlife resources of the
3 Trinity River.

4 Another provision in the *Trinity River Act of 1955* (Page 2, PCFFA-89) reserved
5 50,000 acre-feet for Humboldt County and downstream water users that is embodied in a
6 1959 water contract between the Humboldt County Board of Supervisors and the Bureau of
7 Reclamation that is *separate* from fishery flows (PCFFA-124). A 2014 Interior Solicitor’s
8 Opinion (PCFFA-90) has reaffirmed this long-standing water contract and the fact that it is in
9 addition to fishery flows under the Trinity River Record of Decision.¹ This year, the Ninth
10 Circuit Court of Appeals confirmed the continued applicability of these provisions in a case that
11 PCFFA intervened on behalf of the federal government.² (PCFFA-91)

12 The Trinity River Basin Fish and Wildlife Restoration Act of 1984 (PL 98-541) (PCFFA-92)
13 clarified the “*preserve and propagate*” language from the 1955 Trinity River Act to mean “. . .
14 *restoring fish and wildlife populations in the Trinity River basin to a level approximating that*
15 *existed immediately before the construction of the Trinity River division.*”

16 The Trinity River Basin Fish and Wildlife Management Reauthorization Act of 1995
17 (PL 104-143) (PCFFA-93) clarified that the language in the 1984 Act that “*restoration is to be*
18 *measured not only by returning adult anadromous fish spawners but by the ability of dependent*
19 *tribal, commercial, and sport fisheries to participate fully, through enhanced in-river and ocean*
20 *harvest opportunities, in the benefits of restoration.*” It also clarified that the role of the Trinity
21 River Hatchery is to mitigate fish habitat loss above Lewiston Dam while not impairing efforts to
22 restore and maintain naturally reproducing anadromous fish stocks within the basin.

23
24 ¹ “Trinity River Division’s 50,000 Acre-Foot Proviso and the 1959 Contract Between the Bureau
25 of Reclamation and Humboldt County”, U.S. Department of Interior Solicitor Opinion M-37030,
Hilary C. Tompkins, December 23, 2014. Accessed at

26 <https://www.doi.gov/sites/doi.opengov.ibmcloud.com/files/uploads/M-37030.pdf>

27 ² *San Luis Delta Mendota Water Authority and Westlands Water District v. Haugrud*, 848 F.3d
1216 (9th Cir. 2017) (No 14-17493, D.C. No. 1:13-cv-01232-LJO-GSA), February 21, 2017.

28 Accessed at <http://cdn.ca9.uscourts.gov/datastore/opinions/2017/02/21/14-17493.pdf>, as
corrected by <http://cdn.ca9.uscourts.gov/datastore/opinions/2017/03/23/14-17493.pdf>

1 According to a 1993 Interior Solicitor's Opinion (Page B-13, PCFFA-94)³, the Tribal Trust
2 Doctrine dictates that the federally reserved fishing rights of the Hoopa Valley and Yurok
3 Tribes there are a property right associated with the flows of the Trinity River. These rights
4 date back 10,000 years, making them senior to any water rights obtained by the Bureau of
5 Reclamation for the Central Valley Project.

6 The Central Valley Project Improvement Act, P.L. 102-575 (CVPIA) (PCFFA-95)
7 acknowledged the difference between the Trinity River (CVPIA Section 3406(B)(23)) and
8 Central Valley (CVPIA Section 3406(B)(1)) streams by having separate fishery restoration goals
9 for each basin.

10 The primacy of the waters of the Trinity River for use in the Trinity River basin is
11 explained in a 1979 opinion by Interior Solicitor by Leo Krulitz (Page 2, PCFFA-96) on the water
12 contract and drought shortage provisions with the Grasslands Water District:⁴

13 *"...in authorizing the Trinity River Division in 1955, Congress specifically provided that*
14 *in-basin flows (in excess of a statutorily prescribed minimum) determined by the*
15 *Secretary to meet in-basin needs take precedence over needs to be served by out of*
basin diversions."

16 The United States Environmental Protection Agency's 1992 approval of the Trinity River
17 Water Quality Objectives under Federal Clean Water Act Section 303⁵ (PCFFA-97) established a
18 federal water quality standard that all federal agencies, including the Bureau of
19 Reclamation must comply with. USEPA also stated in their approval that Trinity River
20 diversions to the Sacramento River are a controllable factor in the protection of the Trinity River
21 and have harmed the Trinity River.

22 The 2000 Trinity River Record of Decision (ROD page 17)⁶ (PCFFA-98)
23 clearly stated as follows:
24

25 ³ <https://www.doi.gov/sites/doi.opengov.ibmcloud.com/files/uploads/M-36979.compressed.pdf>

26 ⁴ Interior Solicitor to Assistant Secretary for land and Water Resources regarding Proposed Contract with
Grasslands Water District, December 7, 1979. Accessed at <http://bit.ly/2vwa1dr>

27 ⁵ Letter from USEPA Region IX Administrator to Chairman of the California State Water Resources Control Board,
March 13, 1992. Accessed at <http://bit.ly/2vG8QqL>

28 ⁶ See https://www.fws.gov/arcata/fisheries/reports/technical/Trinity_ROD.pdf

1 *“From the inception of the TRD, Congress directed this Department to ensure the*
2 *preservation and continued propagation of the Trinity River’s fishery resources and*
3 *to divert to the Central Valley only those waters surplus to the needs of the Trinity*
4 *Basin.”*

5 **State Laws and Policies:**

6 The Trinity River’s fisheries also have protections under the concept of the Public
7 Trust Doctrine, as expressed in the Mono Lake Opinion (*National Audubon Society vs. Alpine*
8 *County Superior Court*). (PCFFA-99)⁷ *“The public trust...is an affirmation of the duty of the state*
9 *to protect the people’s common heritage of streams, lakes, marshlands and tidelands....”* –
10 Supreme Court of California, 1983.

11 The Area of Origin and Watershed Protection Statutes under California law also contain
12 a priority for in-basin uses compared to out of basin uses. The waters of the Trinity River are
13 subject to California’s Watershed Protection, Area of Origin and County of Origin Statutes
14 (California Water Code Sections 10505, 11128 and 11460 et seq.) (PCFFA-100) that limit the
15 export of its waters to surplus flows only. Water Code Section 11128 specifically applies the
16 watershed protection and county of origin statutes to the Bureau of Reclamation’s Central
17 Valley Project, which includes the Trinity River Division of the CVP.

18 The California Department of Fish and Game (DFG), in its 22 June 2004 comments on
19 the Supplemental EIS/EIR for the Trinity River Mainstem Fishery Restoration Program⁸ (PCFFA-
20 101) stated that impacts to listed species in the Central Valley and Delta as a result of increased
21 Trinity River flows (and decreased Trinity exports to the Sacramento River) do not require
22 mitigation under the California Environmental Quality Act. DFG cited California’s watershed
23 protection and area of origin statutes as the rationale for the determination that the priority
24 for Trinity River water is within that basin (Page 2, PCFFA-101):

25 *“In California, the controls put in place governing a single source of water supply from*
26 *two separate basins, requires needs for beneficial uses in the basin of origin be met*
27 *first- then needs can be supplied for the other basin.”*

28 ⁷
⁸ Trinity Supplemental EIS/EIR comments from California Department of Fish and Game Region 1 Manager to Russell Smith, USBR and Tom Stokely, Trinity County.

1 The North Coast Regional Water Quality Control Board and the California State Water
2 Resources Control Board approved Trinity River temperature objectives (PCFFA-102)⁹ in 1991,
3 which were approved by USEPA in 1992.

4 The concept of doing no harm to the Trinity River is also manifested in Water Right
5 Order 90-5 (Page 14, SWRCB-24), which contained a term and condition prohibiting harm to
6 the Trinity River as it relates to the export of Trinity River water to the Sacramento River
7 solely for temperature control on the Sacramento River. Unfortunately, as I demonstrate
8 below, Water Right Order 90-5 does not adequately protect the Trinity River fisheries from harm due
9 to exhaustion of the cold-water supply in Trinity Reservoir and subsequent violation of North
10 Coast Basin Plan Temperature Objectives for the Trinity River. (PCFFA-102)

11 The geographic basis for the North Coast Basin Plan temperature objectives and the
12 protections for the Trinity River in WR 90-5, is Fish and Game Code Section 1505 (PCFFA-124),
13 which designates the Trinity River between Lewiston Dam and the North Fork Trinity River
14 confluence as a prime salmon and steelhead spawning area.

15 **WaterFix Environmental Analysis Inadequate for Trinity and Lower Klamath Rivers**

16 The WaterFix EIS/EIR states unequivocally that there will be no impacts to the Trinity River
17 because there will be no change in CVP operations as a result of the WaterFix (Figure 4.3.1-4
18 Trinity Lake End of September Storage for Alternative 4A BDCP Recirculated DEIS/EIR, SWRCB-
19 102).¹⁰ While the CALSIM II computer modeling has assumptions about the reservoir carryover
20 storage and other operational criteria, none of the criteria are proposed as part of a formal
21 operations plan for approval by the State Water Resources Control Board. Furthermore, it
22 appears that the Bureau of Reclamation changes reservoir carryover storage targets in ways
23

24 ⁹ "Water Quality Control Plan for the North Coast Region" Footnote 5, Table 3-1, page 3-8.00:
25 Accessed at [http://www.waterboards.ca.gov/northcoast/water_issues/programs/basin_plan/083105-
bp/04_water_quality_objectives.pdf](http://www.waterboards.ca.gov/northcoast/water_issues/programs/basin_plan/083105-bp/04_water_quality_objectives.pdf)

Daily Average Not to Exceed	Period	River Reach
60°F	July 1- Sept 15	Lewiston to Douglas City Bridge
56°F	Sept 15-Oct 1	Lewiston to Douglas City Bridge
56°F	Oct 1- Dec 31	Lewiston to North Fork Confluence

28 ¹⁰See http://baydeltaconservationplan.com/RDEIRS/Recirc_Figures/Fig_4.3.1.4_Trinity_Sept_Alt4A.pdf

1 that are not disclosed. More detail on the lack of realistic modeling can be found in a July 13,
2 2017 letter by California Water Research (PCFFA-125).

3 The WaterFix only has theoretical modeling and no clear operations plans to compare to.
4 Trinity is already at risk and therefore WaterFix will do nothing to protect Trinity because no
5 impacts have been identified. Without clear specific carryover storage criteria there is no
6 protection for the Trinity River and its fisheries. Reservoir operations criteria and downstream
7 operations in the WaterFix EIS/EIR are speculative at best.

8 The fallacy of the argument that there won't be changes to operations at Trinity cannot
9 be overstated. The Central Valley Project is integrated as one system, including the Trinity
10 River Division, as stated in Section 2 of Public Law 84-386 authorizing construction of the
11 Trinity River Division (PCFFA-89). Operations north of the Delta are closely coordinated
12 between Shasta, Trinity and Folsom. What affects one reservoir affects the others.

13 A shortfall in Shasta or Folsom storage would therefore affect Trinity. As an example, the
14 State Board adopted Order WR 2015-0043 (PCFFA-103) on December 15, 2015 regarding the
15 Temporary Urgency Change Petition submitted by USBR and CDWR during the recent drought.
16 In that Order, the State Board required an end of October 2016 Folsom storage level of
17 200,000 AF and 1.6 million AF for Shasta. However, there was no end of October reservoir
18 storage requirement for Trinity, leaving Trinity completely vulnerable to a warm water crisis if
19 the drought had continued.

20 Fortunately, the epic drought did not continue into 2016 and the minimum storage
21 requirements at Folsom and Shasta were not needed. However, if the drought had continued
22 into 2016, it is clear that Trinity storage would have taken a major hit, according to quotes
23 from Don Bader, USBR Northern California Area Office Manager in a December 23, 2015 article
24 in the Trinity Journal "**Shasta Target Level could impact Trinity.**" (PCFFA-104):

25 *"From the federal Bureau of Reclamation's Northern California Area Office, Deputy Area
26 Manager Don Bader said typically if the agency needed to keep Shasta full Reclamation would
draw from Trinity, which we did last year."*

27 *"Bottom line is if they do require Shasta be kept fuller during the summer months it's going to
28 be more of a draw on Trinity, if it's available," he said."*

1 The WaterFix claim that there would be no change in operations to Trinity and no
2 impacts to Trinity is totally unsubstantiated.

3 Additionally, despite a request from the Hoopa Valley Tribe , (PCFFA-105),¹¹ the
4 WaterFix EIS/EIR did not include an analysis considering use of Humboldt County's 50,000 AF
5 water contract. This omission does not consider that on April 20, 2017, the Bureau of
6 Reclamation issued a Record of Decision for the Long Term Plan to Protect Adult Salmon in the
7 Lower Klamath River Project¹² (Lower Klamath ROD) (PCFFA-106) based on a draft and Final
8 Environmental Impact Statement¹³ (PCFFA-107, PCFFA-108). The preferred alternative includes
9 use of Humboldt County's 50,000 AF contract with additional releases beyond 50,000 AF.
10 Historically these late summer releases from Trinity and Lewiston Dams into the Trinity River
11 and Lower Klamath River have ranged from 17,500 AF (2013) to 64,000 AF (2014), with an
12 average of 40,000 AF based on the years these releases have occurred (2003, 2004, 2012,
13 2013, 2014, 2015, and 2016) (PCFFA-107, page ES-1).

14 The Draft EIS for the Lower Klamath ROD identified that losses to CVP deliveries from
15 the preferred alternative will be 24,000 AF in some drier years. (PCFFA-107, page ES-9).

16 Therefore, the WaterFix EIS/EIR does not address in any way WaterFix changes to
17 Trinity River Division operations nor does it analyze current Trinity River Division operations in
18 the WaterFix modeling.

19 **Inadequate Water Right Protection for Trinity River Fisheries- Flow and Temperature**

20 There is no assurance that the Trinity River and its cold-water fisheries will be protected
21 from CVP operations because Reclamation's Trinity River water permits (SWRCB-15, SWRCB-16,
22 SWRCB-17, SWRCB-18 and SWRCB-19 and permits 011966, 011970 and 011972) are not
23 consistent with North Coast Basin Plan Trinity River temperature objectives and instream flows
24 under the Trinity ROD and there is no carryover storage requirement. Additionally, the
25

26 ¹¹ See http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/DEIRS_Comment_Responses_Letters_1500-1548.sflb.ashx

27 ¹² See https://www.usbr.gov/mp/nepa/documentShow.cfm?Doc_ID=28314

28 ¹³ See https://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=22021

1 600,000 acre -foot Trinity Reservoir minimum cold water carryover storage requirement in the
2 2000 NMFS Biological for the Trinity River¹⁴ (PCFFA-109) is inadequate to prevent temperature
3 induced mortality in the Trinity River, particularly during multi-year drought as detailed in the
4 testimony by Greg Kamman (PCFFA-126).

5 Despite the existence of higher Trinity River fishery releases pursuant to the 2000 Trinity
6 River Record of Decision, neither the WaterFix nor the CVP OCAP mitigate or prevent
7 catastrophic loss of cold-water storage and basic flows to keep fish in good condition below
8 Trinity and Lewiston Dams, as required by the federal government’s Tribal Trust obligations and
9 California Fish and Game Code Sections 1505 and 5937 (PCFFA-110 and PCFFA-124).

10 Multi-year drought increases the risk to the Trinity and Lower Klamath rivers of losing
11 the cold water stored in Trinity Reservoir to out of basin export. It is essential to note that
12 Trinity River water provides beneficial uses for Coho (listed as threatened) and Chinook salmon,
13 as well as steelhead, Pacific Lamprey, green sturgeon and other species important to Tribal,
14 recreational and commercial fishing communities from Central California to the
15 Oregon/Washington border. Klamath-Trinity Spring Chinook are being proposed for listing as
16 threatened by the Karuk Tribe (PCFFA-111).

17 In 1958, the Bureau of Reclamation, pursuant to section 8 of the 1902 Reclamation Act
18 applied to the state for water rights to operate the TRD that were granted in 1959. However,
19 those water rights still contain minimum fishery flows of only 120,500 AF (SWRCB-15, SWRCB-
20 16, SWRCB-17, SWRCB-18 and SWRCB-19 and permits 011966, 011970 and 011972).
21 Weighted annual average Trinity ROD flows are 594,500 AF annually, and combined with
22 Humboldt County’s 1959 50,000 AF CVP water contract amounts to average annual river
23 releases of 644,500 AF. There are also tribal ceremonial flows requested by the Hoopa Valley
24 Tribe in odd numbered years that have ranged from 4,100 AF to 11,100 AF (PCFFA-113)¹⁵.

25 Reclamation has admitted that it does not operate to any “hard and fast” Trinity
26

27 ¹⁴ See https://www.fws.gov/arcata/fisheries/reports/technical/TREIS_BO_NMFS.pdf

28 ¹⁵ See <http://www.trrp.net/restoration/flows/flow-volume-summary/>

1 Reservoir carryover storage requirement and does not consider water quality objectives¹⁶
2 (Pages 3, PCFFA-114) contained in the North Coast Basin Plan as water permit terms and
3 conditions.

4 Trinity River temperature objectives to protect salmon and steelhead been adopted by
5 the North Coast Regional Water Quality Control Board, the State Water Resources Control
6 Board and USEPA (PCFFA-102) have not been fully incorporated into water permit requirements
7 for the Bureau of Reclamation (SWRCB-15, SWRCB-16, SWRCB-17, SWRCB-18 and SWRCB-19
8 and permits 011966, 011970 and 011972), creating a regulatory gap.

9 Reclamation does consider Water Right Order 90-5 (WRO 90-5. SWRCB-24) to be a
10 permit term and condition (PCFFA-114) but WRO 90-5 is not consistent with North Coast Basin
11 Plan Temperature objectives for the Trinity River. WRO 90-5 includes Trinity River North Coast
12 Basin Plan temperature requirements for the September 15- December 31 period, but omits
13 the Basin Plan temperature objective for the Trinity River July 1- September 15 period that are
14 protective of holding spring Chinook. Additionally, the WRO 90-5 September 15 through
15 December 31 Trinity River temperature requirement only applies to transfers of Trinity River
16 water to the Sacramento River for temperature control. All other uses of Trinity River water
17 sent to the Sacramento River are not covered by the temperature requirements of WRO 90-5.
18 Reclamation refuses to acknowledge that North Coast Basin Plan requirements are Clean
19 Water Act Section 313 standards that they must comply with because they are not water
20 permit terms and conditions. (PCFFA-114)¹⁷ Thus, comprehensive Trinity River Basin Plan
21 temperature objectives should be included in Reclamation's water permits as a mitigation
22 measure to protect the Trinity River.

23 The NMFS 2000 Biological Opinion¹⁸ (PCFFA-109) for the Trinity River, includes a
24 minimum carryover storage in Trinity Reservoir on September 30 of 600,000 AF and requires

26 ¹⁶ See 2/23/11 letter from Paul Fujitani, Chief of CVP Ops to Brian Person, Chairman Trinity Management Council;
accessed at: <http://bit.ly/2tulvQc>

27 ¹⁷ Ibid : <http://bit.ly/2tulvQc>

28 ¹⁸ National Marine Fisheries Service (2000), Biological Opinion for the Trinity River Record of Decision, accessed at:
http://www.fws.gov/arcata/fisheries/reports/technical/TREIS_BO_NMFS.pdf

1 reconsultation if storage falls below that level, which occurred in 2015. However, other
2 analyses have found that a 600,000 AF minimum carryover storage is inadequate (See Kamman
3 testimony (PCFFA-126). A 2012 report by Reclamation found that September 30 carryover
4 storage requirement of less than 750,000 AF is “problematic” in meeting state and federal
5 Trinity River temperature objectives protective of the fishery.¹⁹ (PCFFA-115)

6 In 1992 Balance Hydrologics found that a minimum carryover storage of 900,000 AF was
7 necessary to meet Basin Plan temperature objectives.²⁰ (PCFFA-116)

8 Analyses completed for Trinity County for the Trinity Record of Decision by Kamman
9 Hydrologics indicated that September 30 Trinity Reservoir carryover storage of at least 1.25
10 million AF on September 30 is necessary at the beginning of a simulated 1928-1934 drought in
11 order to meet Basin Plan temperature objectives. (PCFFA-117) During the recent drought,
12 Trinity Reservoir storage fell below levels necessary to survive a historic multi-year drought
13 such as 1928-1934.

14 Reclamation’s Mid-Pacific office also produced a preliminary technical memorandum
15 on the problem of excessive heating of Trinity Dam releases²¹ (PCFFA-118) when they pass
16 through the shallow 7-mile long Lewiston Reservoir. While Trinity Dam releases are normally
17 43-44°F, summer heating in Lewiston Reservoir can be severe unless approximately 900- 1,800
18 cfs is being released from Trinity Dam. Given that Trinity River summer base flows are only
19 450 cfs, water must be diverted to the Sacramento River to keep the Trinity River cold enough
20 to meet Basin Plan temperature objectives. However, during severe drought or under certain
21 operational circumstances, there may not be adequate water to provide base fishery flows and
22 to divert water to the Sacramento River to keep the Trinity River cold. Several structural
23 solutions have been identified in Reclamation’s preliminary technical memorandum; however,

24 ¹⁹ See Bender MD (2012) Trinity Reservoir Carryover Storage Cold Water Pool Sensitivity Analysis. Technical
25 Memorandum No. 86-68220-12-06, U.S. Bureau of Reclamation, Technical Service Center, Denver, CO. Accessed at
<http://odp.trrp.net/Data/Documents/Details.aspx?document=1813>

26 ²⁰ See Balance Hydrologics (6/26/1992) “The Need for Standards for Minimum Carryover Storage in Trinity
27 Reservoir” Accessed at <http://tcrd.net/trl-stor.htm>

27 ²¹ See USBR (2012) Lewiston Temperature Management Intermediate Technical Memorandum, Lewiston
28 Reservoir, Trinity County, California. Report by U. S. Bureau of Reclamation, Mid-Pacific Region, Sacramento, CA.
accessed at <http://odp.trrp.net/Data/Documents/Details.aspx?document=1814>

1 a full feasibility study and environmental document would need to be prepared to select a
2 solution and no such plans exist at this time.

3 Additionally, during summer and fall, Trinity River diversions to the Sacramento River
4 are usually warmer than Shasta Dam releases by three degrees Fahrenheit or more. (PCFFA-
5 119). Diversion of large amounts of Trinity River water to the Sacramento can harm
6 Sacramento River salmon from warming while depleting Trinity Reservoir of cold water.

7 The impact to Trinity fish from lack of cold water can be viewed in three reports from
8 the California Department of Fish and Game on the effects of the 1977 drought on Trinity River
9 water temperatures and Trinity River hatchery fish (PCFFA-120), (PCFFA-121) and (PCFFA-122).
10 These reports support the conclusion that exhaustion of the cold-water pool in Trinity Lake
11 during drought creates harm to Trinity River fish through warm water discharges that cause
12 disease outbreaks and fish mortality.

13 Therefore, in order for the Trinity River to be protected, any water right order
14 permitting the proposed WaterFix must require Reclamation to comply with the following
15 terms and conditions and that Reclamation's Trinity River water permits be amended as well, as
16 directed in the SWRCB's 1989 Water Quality Order 89-18.²² (PCFFA-123). The conditions for
17 Reclamation's Trinity River water permits should be as follows:

- 18 1. Conformance with the instream fishery flows contained in the Trinity River
19 Record of Decision as minimum instream flows.
- 20 2. Provision for release of not less than Humboldt County's 50,000 AF contract water in
21 addition to fishery flows and tribal ceremonial flows.
- 22 3. Inclusion of permit terms and conditions to require Reclamation to comply with the
23 Trinity River temperature objectives contained in the Water Quality Control Plan for the
24 North Coast Region (NCRWQCB) for all relevant time periods and for all uses of Trinity water
25 diverted to the Sacramento River.
- 26 4. A requirement for a minimum cold water storage in Trinity Reservoir adequate to preserve

27 _____
28 ²² See SWRCB Water Quality Order 89-18 (pages 18 and 19) at
http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/1989/wq1989_18.pdf

1 and propagate all runs of salmon and steelhead in the Trinity River below Lewiston Dam during
2 multi-year drought. Based on studies to date, 1.25 million AF to 1.75 million AF is appropriate
3 for starting storage, with storage levels not falling below 900,000 AF in any year.

4 5. Require Reclamation to address the temperature issue in Lewiston Reservoir through a
5 feasibility study and NEPA document to follow up on the 2012 preliminary technical
6 memorandum by Reclamation (PCFFA-118).

7 6. When releases from Spring Creek are more than one degree Fahrenheit warmer than
8 releases from Shasta Dam, limit the export of Trinity River water to the Sacramento River to the
9 amount necessary to meet Trinity River Basin Plan Temperature Objectives. This protects both
10 Trinity and Sacramento River salmon.

11 I declare under penalty of perjury under the laws of the State of California that the
12 foregoing is true and correct, and that I executed this declaration November 26, 2017 in Mount
13 Shasta, California

14
15 
16 _____
17 Thomas Stokely