

Testimony of John E. Sarna

Introduction

1. I am Chief of the California-Nevada and Watershed Assessment Section of the California Department of Water Resources (DWR). I have been assisting, including being the technical representative for DWR, in the negotiation of water issues involving the Truckee River and its tributaries for the past 17 years. A copy of my resume, which accurately describes my education and work experience, is exhibit DWR-02.

Background

2. I would like to start with some background on the Truckee River Operating Agreement (TROA). The TROA is exhibit App./Pet. Joint-19. I will address the TROA in this testimony because the decisions that are before the State Water Resources Control Board (State Water Board) regarding the Petitions to Change and Water Right Applications are directly related to the TROA.
3. Approval of the Petitions to Change and Applications serves California interests through implementation of the TROA.
4. The TROA represents a collaborative agreement that resulted from a long and detailed process to develop an operating agreement for the Truckee River that would, among other things:
 - provide for enhancement of Pyramid Lake fish spawning flows in a manner consistent with the Endangered Species Act (ESA);
 - prescribe changes in the operation of Truckee River reservoirs and the exercise of Orr Ditch decree water rights in order to improve spawning conditions and provide additional Municipal and Industrial (M&I) water drought protection; and
 - benefit instream uses and reservoir-based recreation in California.
5. California signed TROA on September 6, 2008. Then Secretary for Resources, Mike Chrisman, signed the Agreement in consultation with and on behalf of the California agencies identified in the Agreement, and as designee of the Governor for all purposes required by the Truckee-Carson-Pyramid Lake Water Rights Settlement Act (Public Law 101-618) (Settlement Act). The Settlement Act is exhibit App./Pet. Joint-16. A copy of the Governor's designation for the Secretary for Resources to sign on behalf of California is exhibit DWR-03. California is one of the five Mandatory Signatory Parties who negotiated the TROA. The other four Mandatory Signatory Parties are the United States, the State of Nevada, the Pyramid Lake

Paiute Tribe (Tribe), and the Truckee Meadows Water Authority (TMWA). Besides California, four other local California agencies signed the TROA: the North Tahoe Public Utility District, the Placer County Water Agency, the Sierra Valley Water Company, and the Truckee-Donner Public Utility District. Importantly, to my knowledge, no agency or organization in California is opposed to implementing the TROA.

6. DWR's interest in the TROA, generally, and the Petitions for Change, specifically, is to fulfill the Department's responsibility to lead State efforts in water resource planning and to represent the State's interests in the resolution of interstate water policy issues. Toward this end, DWR has been involved in Truckee River issues, specifically the interstate allocation of its waters, since the 1950s. DWR was involved in negotiations that led to the 1970 Interstate Compact between the states of California and Nevada, which included a predecessor interstate allocation between California and Nevada. This Compact was ratified by the State of California on September 19, 1970, and is in the California Water Code (Cal. Water Code § 5975, *et seq.*). However, Congress never approved it, and, as such, the Compact never went into effect.
7. DWR was also involved in discussions and negotiations leading to Congress passing the aforementioned Settlement Act. The Settlement Act set forth an interstate allocation for the Carson River, Lake Tahoe and Truckee River Basins. To achieve the purposes of the Settlement Act, Section 205 requires the U.S. Department of Interior Secretary to "negotiate an operating agreement [TROA] with the State of Nevada and the State of California" that will "provide for the operation of the Truckee River reservoirs". Importantly, the TROA must be implemented before the interstate allocation goes into effect.
8. In 1994, DWR, representing California, met with the other TROA Mandatory Signatory Parties and stated its interest in resolving three broad issues within the TROA negotiation process: (1) instream flows in the Truckee River, Little Truckee River, and other tributaries, (2) water levels in the lakes and reservoirs in the Truckee River Basin, and (3) water rights in California versus water rights in Nevada. Over the next several years, DWR actively participated in negotiations to resolve these and other issues, which arose during the discussion, to meet goals and objectives set forth by the State Water Board staff, the Lahontan Regional Water Quality Control Board, the Department of Fish and Game (DFG), and numerous local California agencies.
9. In short, DWR's interest in this action before the State Water Board is to represent California in obtaining the benefits of implementing the Settlement Act and the TROA. Since the TROA involves broad issues that affect different constituencies in California, we have worked with other State and local agencies to include language in the TROA that provides diverse benefits to California.

Benefits of the TROA to California

10. The following details the benefits DWR anticipates California would obtain through implementation of the TROA. Where appropriate, I will identify the benefits that are closely related to the Petitions for Change that are subject of this hearing.
11. Implementation of the TROA and, subsequently, the interstate allocation going into effect, will allow the State Water Board to begin processing water right applications pending since 1972. The Nevada State Engineer and the State Water Board have cooperated to limit issuance of water right permits while the interstate allocation negotiations were pending. A number of applications were filed during this time, but they were placed on inactive status. The interstate allocation in sections 204(a), (b), and (c) of the Settlement Act would go into effect, completing that negotiation process, once all the conditions precedent to the TROA's implementation are satisfied. The subject Petitions for Change constitute one of these conditions precedent.
12. Once the TROA is implemented, the Settlement Act makes high priority water available to serve existing and new water rights in the Truckee River Basin in California. Section 204(c)(1)(A) of the Settlement Act gives direct diversions of surface water a very high priority in the California portion of the Truckee River Basin. These diversions/water rights are subject only to Orr Ditch Claims 1 and 2 held by the Tribe and the 40 cfs right currently held by TMWA. Several additional limitations applicable to new water rights in California include:
 - future compliance, when added to existing water rights in California, with the interstate allocation in Section 204(c)(1) and Subpart (A) of the Settlement Act and with the depletion limit in TROA Section 6.E.2;
 - for water rights issued after May 1, 1996, the TROA states that no more than 25% of any yearly allowed diversion may be diverted in any month;
 - the TROA limits diversions to storage for use in California to only those times when Floriston Rates are being met; and
 - for groundwater use in California, TROA Article 10 provides a siting and design criteria for complying with Section 204.c(1)(B) of the Settlement Act, which requires that new water wells be "designed to minimize and short-term reductions of surface streamflows to the maximum extent feasible."
13. TROA Section 6.C.2 provides new opportunities for California diverters to maintain drought storage for M&I use in Truckee River reservoirs.
14. In the Lake Tahoe Basin, the priority of diversions is not an interstate issue and their priority is not addressed in TROA or the Settlement Act.
15. The Interstate Allocation of the Truckee River, Carson River, and Lake Tahoe Basins' water between California and Nevada provides an increased, assured and known future water supply in California. Section 204(c)(1) and Subpart (A) of the

Settlement Act specify the Truckee River Basin interstate allocation. The allocation limits overall water use in the California portion of the Basin to 32,000 acre-feet per year, of which 10,000 acre-feet per year may be from surface water. An additional limit — that no more than 55% of the 32,000 acre-feet per year allocation be depleted — is specified in TROA Section 6.E.2. Current use in the California portion of the Truckee Basin is well below these limits. As estimated in in Attachment D to the Final TROA Environmental Impact Statement/ Environmental Impact Report (TROA EIS/EIR), in the California portion of the Truckee River Basin, total water use in 2002 was 10,300 acre-feet per year, of which 2,800 acre-feet per year was surface water use. The TROA EIS/EIR is being offered into evidence, by reference, as State Water Board staff exhibit SWRCB-7.

16. Implementation of the TROA would confirm the Alpine Decree for the Carson River while allowing water to be used for existing rights outside that decree. Section 204(a)(1) of the Settlement Act specifies the Carson River Basin interstate allocation, which simply confirms the Alpine Decree. Section 204(a)(2) of the Settlement Act modifies this allocation to accommodate any additional water rights which were in existence under applicable law as of January 1, 1989, even though they may not be in the decree. Section 204(a)(2) does limit the total amount of this additional allocation to 1,300 acre-feet per year by depletion for use in the State of California.
17. Section 204(b)(1) of the Settlement Act specifies the Lake Tahoe Basin interstate allocation, providing that water use in the California portion of the Basin is limited to 23,000 acre-feet per year. As estimated in Attachment D to the TROA EIS/EIR, the 2002 total water use in the California portion of the Lake Tahoe Basin was 18,697 acre-feet per year.
18. Implementation of the TROA will end current litigation and avoid potential litigation among water users in California and Nevada. One condition precedent that must be satisfied before the TROA goes into effect is the dismissal with prejudice or otherwise final resolution of *Pyramid Lake Paiute Tribe v. California*, Civ S181-378-RAR-RCB, U.S. Dist. Court, Eastern District of California. The Tribe and California intend to request dismissal of this litigation concurrent with the TROA going into effect. Further litigation is likely among water users in California and Nevada if the TROA does not go into effect, because, without an interstate allocation of water in the Truckee and Tahoe Basin, potential conflicts between water users in California and Nevada would remain unresolved with no other foreseeable options for their resolution. DWR believes that the interstate allocation going into effect with TROA would avoid such potential litigation.
19. The TROA provides funds for a Habitat Restoration Program in California and Nevada. During the TROA negotiations, DFG requested funds be set aside for habitat restoration to complement the higher minimum flows they had requested in the Truckee River Basin. Consequently, a Habitat Restoration Program was

proposed and incorporated into TROA Section 2.C.2(f). This Program provides an inflation-adjusted \$50,000 per year for 30 years to plan and implement fish habitat restoration or maintenance projects proposed by California, Nevada, and the Tribe, with each party entitled to 1/3 of the funds.

20. The TROA also includes several miscellaneous benefits, such as: (1) a simplified process for releasing water from Lake Tahoe when high water levels may cause damage; (2) a 1993 Settlement of out-of-basin diversions between the Sierra Valley Water Company and Sierra Pacific Power Company, predecessor to TMWA; and (3) the 1998 agreement for diversions from Donner Lake by the Donner Lake Water Company. TROA Section 5.A.3(d) specifies a simplified process for releasing water from Lake Tahoe when high water levels may cause damage. TROA Section 6.B continues a 1993 Settlement of out-of-basin diversions by the Sierra Valley Water Company, a TROA signatory. TROA Section 5.B.4 requires compliance with the 1998 agreement for diversions from Donner Lake by the Donner Lake Water Company, the responsibilities of which have since been acquired by the Truckee-Donner Public Utility District, a TROA signatory.

Benefits of the TROA Related to the Petitions for Change

21. The Petitions for Change are particularly important in connection with the benefits described below. Approval of the Petitions will allow for better coordination between the reservoirs involved and more flexibility so that the water from one reservoir may be rediverted in place of water from another reservoir. This movement of water between the reservoirs will result in benefits to the environment and recreation.
22. The TROA provides for the creation and use of the California Guidelines, which identify specific objectives for instream flows and reservoir levels. As described in TROA Section 9.F, California shall submit operating guidelines to the Administrator for instream flow, reservoir level and other environmental objectives. A draft of these Guidelines is provided in Chapter 2, Attachment D of the TROA EIS/EIR. Part 2 of the Guidelines include general objectives to maintain releases to meet instream flows requested by DFG and to maintain reservoirs at levels requested by the Truckee River Basin Water Group¹, which represents local stakeholders. They also include objectives to better achieve DFG-proposed preferred flows, to ramp flows up and down to avoid stranding fish, and to avoid exceeding maximum flows. TROA Section 9.F.2 requires the TROA Administrator to meet these guidelines as long as they are consistent with the exercise of water rights, operational constraints, the requirements of the Settlement Act, and all other requirements of TROA.

¹ The Truckee River Basin Water Group consists of stakeholders in the Truckee River Basin, who initially met to assist in the negotiation of the TROA and, after the TROA was negotiated, continue to meet to discuss options for improving instream flows and reservoir levels, and addressing other items of interest involving the Truckee River, its tributaries, and its use. DWR provides technical support to this Group, which includes staff from DFG.

23. The TROA will likely increase Truckee River Basin reservoir levels during the recreation season. In 1994, California met with the other TROA Mandatory Signatory Parties and stated its interest in increasing water levels in the Truckee River Basin lakes and reservoirs to improve reservoir-based recreation opportunities. California could not require maintaining reservoir levels, since such a requirement could conflict with existing water rights, which would be contrary to the Settlement Act. However, it is apparent that the TROA, through the establishment of Credit Water, would allow for more water to be stored in the upstream reservoirs in California. The incorporation of several different categories of Credit Water into the TROA, including Fish Credit Water, California M&I Credit Water, Water Quality Credit Water, Fernley Municipal Credit Water, Newlands Project Credit Water, and Other Credit Water — all of which would supplement and not replace existing diversions to storage (of Project Water) in these reservoirs — will provide many opportunities to increase the overall amount of water stored in upstream reservoirs in California. As stated in Chapter 3 of the TROA EIS/EIR, , total end-of-month reservoir storage under the TROA is about 1% greater in wet hydrologic conditions, 5% greater in median hydrologic conditions, and 56% greater in dry hydrologic conditions than under the No Action Alternative, and similarly for other Alternatives, the latter two conditions being most important for reservoir-based recreation.
24. While the TROA would allow substantially more water to be stored in upstream reservoirs overall, local residents recognize that some reservoirs are more important to recreation than other reservoirs. Hence, DWR requested that the Truckee River Basin Water Group develop recreation-based, water level objectives for Truckee River Basin reservoirs, so it would be possible to better represent their interests during TROA negotiations. Language was subsequently included in the TROA to use its flexibility to move water from low-priority reservoirs (for recreation) to high-priority reservoirs--to meet water-based recreation objectives to the extent possible without affecting water rights. For example, California obtained control over the establishment and release of Joint Program Fish Credit Water, when Fish Credit Water is established as specified in TROA Section 7.C.6, which may be used to maintain reservoir levels and exchanged to high-priority reservoirs. Also, TROA Section 5.B.6(c) establishes criteria for the management of Prosser Creek Reservoir for the purpose of providing for recreation and fish benefits, and Section 8.Q requires TMWA to trade their water in Donner Lake to maintain water levels in the lake for recreation. In addition, TROA Section 8.R provides a process for California to propose voluntary exchanges to maintain water levels in some reservoirs which may be of higher priority for recreation than other reservoirs.
25. It is likely that further benefits to reservoir-based recreation may be obtained once the TROA goes into effect due to a number of additional options for flexibility included in the TROA, such as:

- The Truckee River Basin Water Group plans to hold monthly meetings each spring with DFG, DWR, and other stakeholders in California to apply the general objectives in the California Guidelines to the specific hydrologic conditions in each water year. The purpose of these meetings would be to further improve reservoir-based recreation, as well as instream flows, by determining when and where to establish and release Joint Program Fish Credit Water and what reservoir operations, including exchanges, to make or propose.
 - TROA Section 13.C requires the Administrator to provide a report summarizing the previous ten years of operations and evaluate whether the anticipated benefits of the TROA materialize. TROA Section 13.D provides a process to adjust operations if these anticipated benefits are not met.
26. The TROA will result in improved instream flows in the Truckee River and its tributaries to provide better fish and wildlife habitat and environmental conditions. Current minimum instream flows in the Truckee River Basin are maintained through several requirements and agreements and are as follows:
- When physically possible, releases from Lake Tahoe are to be maintained at 50 cfs from October 1 through March 31 and 70 cfs from April 1 through September 30, so long as make-up water may be stored in Prosser Creek Reservoir in accordance with the 1959 Tahoe-Prosser Exchange Agreement.
 - Releases from Donner Lake are to be maintained at 2 or 3 cfs, the latter when the flow in Cold Creek, as measured at the USGS gage below Cold Stream, is below 5 cfs for the last year.
 - Releases from Prosser Creek Reservoir are to be maintained at 5 cfs or inflow, whichever is less.
 - Releases from Independence Lake are to be maintained at 2 cfs.
 - Releases from Stampede Reservoir are to be maintained at 30 cfs as per a 1969 Memorandum of Agreement between the U.S. Bureau of Reclamation and the DFG, which the U.S. believes has expired but is still honoring. The State Water Board Permit requires releases to provide 6 to 8 cfs $\frac{1}{4}$ mile downstream of Stampede Reservoir and 12 to 16 cfs at the confluence with Boca Reservoir.
 - Bypass flows from the dams that divert water to the four Run-of-the-River Power Plants along the Truckee River near the California-Nevada State Line are to be maintained at 50 cfs as informally agreed to by the Sierra Pacific Power Company, predecessor to TMWA.
27. In 1994, California met with the other TROA Mandatory Signatory Parties and stated its interest in increasing these minimum instream flows to improve fish habitat as described in a 1993 Department of Fish and Game Draft Report: Instream Flow requirements, Truckee River Basin, Lake Tahoe to Nevada. The DFG-minimum flows were based on model runs, a physical habitat simulation model developed by the U.S. Fish and Wildlife Service (USFWS). This Report was finalized during the TROA negotiations in August 1996. The final report is Exhibit DWR-04. Their requested minimum instream flows were:

- 75 cfs to be maintained in the reach of the Truckee River below Lake Tahoe.
 - 8 cfs to be maintained in Donner Creek below Donner Lake.
 - 16 cfs to be maintained in Prosser Creek below Prosser Creek Reservoir.
 - 2 to 7 cfs, depending on the month, to be maintained in Independence Creek below Independence Lake.
 - 45 cfs to be maintained in the Little Truckee River below Stampede Reservoir
 - 100 cfs to be maintained in the Truckee River between Donner Creek and Boca Reservoir.
 - 150 cfs to be maintained in the Truckee River below Boca Reservoir.
28. California could not require these higher minimums, since it would conflict with existing water rights in Nevada, contrary to the Settlement Act. Instead, under the TROA, some TROA parties would voluntarily give up their water rights to meet the DFG-proposed minimum flows. For example:
- A 5 cfs release from Prosser Creek Reservoir was made mandatory instead of being allowed to drop to inflow.
 - The 2 to 7 cfs release from Independence Lake was made mandatory.
 - A 30 cfs release from Stampede Reservoir was made mandatory.
 - A 50 cfs bypass flow was made mandatory adjacent to the Run-of-the-River Power Plants in the Truckee River below Boca Reservoir. This minimum flow could be increased another 100 cfs, to be maintained at up to 150 cfs, when Fish Water was being released from Stampede Reservoir as specified in TROA Section 9.E.
29. The TROA Parties also agreed to mandatory exchanges and some special exchanges of water to meet higher DFG-proposed minimum flows when such exchanges were possible and water could be exchanged to other reservoirs where it would remain available to serve its original beneficial use. These DFG-proposed minimum flows were renamed "enhanced minimum flows" in the TROA to avoid confusion with the required above minimum flows. These mandatory exchanges are described in TROA Section 9.C.
30. TROA Section 8.K also places limits on the establishment of Credit Water under the Agreement to prevent existing flows from dropping below DFG-proposed minimums when water is already being released above the current minimums.
31. TROA Section 7.C.6 gives California control over the establishment and release of Joint Program Fish Credit Water, which may be concurrently established with Fish Credit Water, to maintain and improve instream flows in California. California Environmental Credit Water and Additional California Environmental Credit Water, established from purchased water rights or the unused part of the interstate allocation as specified in TROA Section 7.D.2 and 7.D.3, may also be used to maintain and improve instream flows in California.

32. TROA Section 8.R provides a process for California to propose voluntary exchanges to improve instream flows.
33. The analysis in the TROA EIS/EIR demonstrates that the TROA, as compared to the other alternatives analyzed, results in improved instream flows in the Truckee River, in Donner Creek, in Prosser Creek, in Independence Creek, and in the Little Truckee River below Stampede Reservoir. The TROA EIS/EIR quantifies this in Chapter 3, Table 3.47, and in the "Probability Flow would be Exceeded" charts in Exhibit 11 of the Water Resources Appendix. Below is a table which compares the probability that the Enhanced Minimum Flows would be met under the TROA versus the No Action Alternative. This table demonstrates substantial improvement under the TROA in many reaches and little or no change in the others.

Percentage Time DFG Minimum Releases are met below:	Oct-Jan	Oct-Jan	Feb-Mar	Feb-Mar	Apr-Jul	Apr-Jul	Aug-Sep	Aug-Sep
	No Action	TROA	No Action	TROA	No Action	TROA	No Action	TROA
Lake Tahoe	62	68	58	67	92	92	50	65
Donner Lake	87	90	93	93	71	75	44	50
Prosser Creek Reservoir	78	84	95	95	89	91	30	68
Independence Lake	69	83	73	83	84	90	67	97
Stampede Reservoir	60	89	84	94	93	93	45	97

34. It is likely that further benefits to instream flows may be obtained once the TROA goes into effect due to a number of additional options for flexibility included in the TROA, such as:
- The Truckee River Basin Water Group plans to hold monthly meetings each spring with DFG, DWR, and other stakeholders in California to apply the general objectives in the California Guidelines to the specific hydrologic conditions in each water year. The purpose of these meetings would be to further improve instream flows, as well as reservoir-based recreation, by determining when and where to establish and release Joint Program Fish Credit Water and California Environmental Credit Water and what reservoir operations, including exchanges, to make or propose.
 - TROA Section 13.C requires the Administrator to provide a report summarizing the previous ten years of operations and evaluate whether the anticipated benefits of the TROA materialize. TROA Section 13.D provides a process to adjust operations if these anticipated benefits are not met.

- In 2005, a Memorandum of Understanding to conduct a Biological Resources Monitoring Program (BRMP) was signed by the DWR, DFG, the Nevada Department of Wildlife, the Tribe and USFWS. The BRMP was created, based on public comments on the Draft TROA EIS/EIR, to identify and implement procedures for monitoring aquatic and riparian biological resources of the Truckee River Basin that are subject to the TROA operations. The information gained from the BRMP is to be shared among the TROA Parties and the public to ensure protection of the resource and to aid in scheduling water storage and deliveries to help protect the biological resources in the Truckee River Basin.

California Environmental Quality Act Compliance

35. The Final TROA EIS/EIR was certified on September 5, 2008. A copy of the certification is exhibit DWR-05. The Notice of Decision was filed on September 10, 2008. A copy of the NOD is exhibit App./Pet. Joint-18. The 30-day period for challenging the TROA EIS/EIR under the California Environmental Quality Act (CEQA) has long passed and there is no active CEQA litigation. The TROA EIS/EIR determined that the proposed action, TROA, was the environmentally preferable alternative. DWR believes the TROA EIS/EIR supports our characterization of the environmental benefits described above.

Conclusion

36. DWR supports the U.S. Bureau of Reclamation, Washoe County Water Conservation District, and TMWA's (collectively, Petitioners) petitions to amend the terms of their respective water rights for purposes of implementing the TROA. In particular, DWR supports the change in the Petitioner's water rights to change the points of diversion and rediversion, places of use, and purposes of use that will provide multiple benefits, including benefits to instream flows, water quality, recreational uses and municipal and industrial drought water supply.
37. Based on the above benefits provided by the TROA, of which these Petitions for Change are a necessary part and a condition precedent to the Agreement becoming effective, DWR believes approving the Petitions for Change and Applications would serve the public interest of California.