

EXHIBIT

TMWA 4-0

Written Testimony of Don Mahin

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8 STATE WATER RESOURCES CONTROL BOARD
9
10 DIVISION OF WATER RIGHTS
11

12 In the Matter of:) Hearing Officers: Charles Hoppin
) and Tam Doduc
13 Water Right Applications 31487 and 31488)
14 filed by the United States Bureau of) **WRITTEN TESTIMONY OF**
15 Reclamation, and Petitions to Change License) **DON MAHIN**
16 3723 (Application 5169) of Washoe County) **ON BEHALF OF TRUCKEE**
17 Water Conservation District, License 4196) **MEADOWS WATER**
18 (Application 9247) of Truckee Meadows Water) **AUTHORITY**
19 Authority, Permit 11605 (Application 15673))
20 and License 10180 (Application 18006) of the)
21 United States Bureau of Reclamation)
22)
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24)
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28)
Date: July 21-23; 28-29, 2010
Time: 9:00 a.m.
Dept: 1001 I Street, Second Floor
Coastal Hearing Room
Sacramento, California

1 **I. Background Information**

2 1. My name is Donald A. Mahin. I graduated from Shasta College, Redding
3 California and received Associate in Arts degrees in Geology and Physical Science in 1974. I
4 received my Bachelor of Arts degree in Geology from California State University, Fresno in
5 1976. I continued by studies at the University of Nevada, Reno where I received by Master of
6 Science degree in Hydrology in 1978. I am a registered Civil Engineer in California (License
7 Number C35052) and in Nevada (License Number 6348). I am also a licensed Professional
8 Geologist in the State of Indiana (License Number 215). In addition, I am a State Water Right
9 Surveyor in Nevada (Certificate Number 682).

10 2. I began my professional work experience while in graduate school by working at
11 the Desert Research Institute in Reno, Nevada as a Graduate Research Assistant performing
12 water quality monitoring on the Truckee River, groundwater exploration and groundwater
13 modeling. After obtaining my M.S. degree, I went to work for Hydrosearch, Inc. in Reno,
14 Nevada and Denver, Colorado as a Hydrologist conducting water resources investigations, a
15 Colorado River water quality investigation, groundwater exploration, well design and
16 construction management. My next employment was with the U.S. Geological Survey as a
17 Hydrologist in Garden City, Kansas, performing surface and groundwater monitoring. After
18 this I went to work for CH₂M-Hill Inc in Redding, California as a Hydrologist performing
19 water resource and water quality investigations, groundwater exploration, well design,
20 construction management, flood planning, landfill design, hazardous waste studies, agricultural
21 drainage investigation and design, design of constructed wetlands for effluent disposal, and
22 groundwater contaminant transport studies.

23 3. Following these jobs, I spent the next 25 years of my professional career as an
24 employee of Washoe County, Nevada from 1982 through 2007 in various roles. I began my
25 employment with Washoe County as a Hydrologist with its land use planning agencies as they
26 evolved over time up through 1990. In 1984 I was promoted to Registered Engineer. My
27 duties included water resource investigations, water quality studies relating to the Truckee
28 River, groundwater quality and contaminant transport studies, land use plan development,

1 review of land development proposals, water resource planning, policy development, and
2 groundwater management. In 1990 I was reassigned to work for the Washoe County Manager
3 with a significant part of my duties devoted to the negotiation of the Truckee River Operating
4 Agreement (TROA) and later the Water Quality Settlement Agreement (WQSA). In 1994 I
5 was reassigned back to the planning department and continued my prior planning duties listed
6 above along with the ongoing negotiation of the TROA and WQSA. In 1997, the Washoe
7 County Manager appointed me to the Local Government Oversight Committee (LGOC) where
8 I served 10 years as a member and the last 6 of which I served as its chairman. The LGOC is a
9 committee appointed to carry out the terms and obligations contained in the WQSA on behalf
10 of Reno, Sparks and Washoe County. In 1997, all of the water related functions and staff of
11 Washoe County were transferred into the newly formed Department of Water Resources, where
12 I served until my retirement in 2007. During my employment with the Washoe County
13 Department of Water Resources, I was promoted to Senior Licensed Engineer. While
14 employed by Washoe County, I was appointed to serve on numerous boards and commissions
15 by the County Manager and Board of County Commissioners. In addition to serving on the
16 LGOC, I served as an alternate member of the Board of Directors of the Truckee Meadows
17 Water Authority (TMWA).

18 4. Following my retirement from Washoe County in 2007, I have been employed
19 part-time by ECO:LOGIC Engineering in Reno, Nevada as a Senior Engineer. While employed
20 by ECO:LOGIC, I have continued to be involved assisting TMWA in tasks necessary for the
21 implementation of TROA, and assisting other clients with water rights, development of facility
22 plans, water supply projects, effluent reuse, and water quality studies.

23 5. I have been qualified as an expert witness before the Nevada State Engineer in
24 the field of hydrology, the Nevada Public Utility Commission in the fields of hydrology and
25 water planning, and the Second Judicial District Court of Nevada in the fields of water rights
26 and land use planning.

27 6. TMWA Ex. 4-1 is a true and correct copy of my professional resume.

28 **II. Purpose of Testimony**

1 7. The purpose of my testimony is to provide information regarding Water Quality
2 water rights acquisitions in Nevada and to explain that the approval of the Change Petitions
3 will provide flexible storage opportunities for water that will be used for enhancing the Truckee
4 River habitat in both California and Nevada during times when river flows would otherwise be
5 low. In its Hearing Notice, the Board raised questions regarding water quality, the environment
6 and public trust. My testimony describes some actions taken to protect and improve the lower
7 Truckee River habitat and water quality in Nevada and how these actions when combined with
8 the approval of the Change Petitions will also provide recreation and wildlife benefits in the
9 California portion of the Truckee River and the California reservoirs on the Truckee River
10 system.

11 **III. Truckee River Water Quality Settlement Agreement**

12 8. In the course of my employment with Washoe County, I was personally
13 involved in its activities relating to the Truckee River, specifically including water quality
14 monitoring, working with the Nevada Division of Environmental Protection on joint projects
15 and grants related to Truckee River water quality, water supply planning, water rights,
16 negotiations relating to TROA and the WQSA, and implementation of the WQSA. Through
17 this employment with Washoe County and my prior work with the Desert Research Institute
18 and CH₂M-Hill I also became familiar with some of the litigation and the water quality issues
19 associated with the Truckee River. This knowledge was necessary as part of my role in
20 representing Washoe County in the negotiations of the WQSA and TROA.

21 9. A series of lawsuits arose in the 1980's relating to the Truckee River water
22 quality standards for temperature (TRWQS), the Endangered Species Act (ESA), the Clean
23 Water Act (CWA), and the construction and expansion of the wastewater treatment plant that
24 eventually became known as the Truckee Meadows Water Reclamation Facility (TMWRF).
25 Parties to these actions included the Pyramid Lake Paiute Tribe, the US Department of the
26 Interior (DOI), the US Environmental Protection Agency (EPA), the State Of Nevada, and the
27 Cities of Reno and Sparks.

1 10. Violations of temperature and dissolved oxygen standards in the lower Truckee
2 River downstream of Derby Dam were among the main causes of the above referenced
3 litigation. The importance of the dissolved oxygen contained in the Truckee River waters is
4 that it relates to the ability of fish to live in the water. The flow of the Truckee River as it
5 leaves the Truckee Meadows is generally sufficient to maintain temperatures and dissolved
6 oxygen concentrations which are consistent with fish life. The diversion of water at Derby
7 Dam to send water to the Newlands Reclamation Project significantly reduces the flow in the
8 lower Truckee River, when large diversions are taking place. At times, the flow downstream of
9 Derby Dam has been as low a 1 cubic foot per second (CFS) and it has historically been around
10 30 CFS in many summer months. At these low flows, the temperature of the lower Truckee
11 River climbs and consequently results in insufficient oxygen to meet the needs of the fish. Low
12 flow conditions below Derby Dam have been associated with violations of both temperature
13 and dissolved oxygen water quality standards.

14 11. In 1994 and 1995, I served as a technical representative of Reno, Sparks and
15 Washoe County in a series of facilitated confidential negotiation sessions which were held
16 between numerous stakeholders along the Truckee River in Nevada in an attempt to settle a
17 wide variety of outstanding issues relating to the Truckee River, including the above referenced
18 litigation. At the conclusion of these facilitated negotiations, a water quality settlement of the
19 TMWRF/ESA/CWA/TRWQS litigation appeared to be possible and separate negotiations on
20 these water quality issues continued into 1996 between the litigation parties. In addition to the
21 named litigants, Washoe County participated in the water quality settlement negotiations, as it
22 had certain contractual relationships with Reno and Sparks for the provision of wastewater
23 treatment services on behalf of the county and as a potential successor in interest to Reno and
24 Sparks pursuant to an agreement to transfer the ownership of TMWRF. I was the Washoe
25 County policy and technical representative in the WQSA negotiations. The US Department of
26 Justice also participated in the negotiations as it was involved in defending the various federal
27 interests.

1 12. In 1996, an agreement was reached between the Pyramid Lake Paiute Tribe, the
2 US Department of the Interior (DOI), the US Environmental Protection Agency (EPA), the US
3 Department of Justice, the State Of Nevada, Washoe County, and the Cities of Reno and Sparks
4 to settle the water quality issues on the lower Truckee River. On October 10, 1996 the Truckee
5 River Water Quality Settlement Agreement (WQSA) was formally signed by the parties in
6 Reno, Nevada. A true and correct copy of the WQSA is TMWA Ex. 4-2. The key provisions
7 of the WQSA provide for the acquisition of \$24,000,000 of Truckee River water rights and
8 their management to maintain and enhance Truckee River water quality. The water right
9 purchases were agreed to be funded by the Department of the Interior, providing \$12,000,000
10 and the Cities of Reno and Sparks and Washoe County providing the other \$12,000,000. The
11 agreement specified dollar amounts rather than quantities of water due to the ever changing
12 water rights market, so the parties would have some certainty regarding their obligations.

13 13. In addition, the DOI agreed in Section 5 of the WQSA that it would make
14 storage available for these water rights in its reservoirs so that the water can be released in a
15 manner to augment the river flow when it is needed. The storage was agreed by the DOI to be
16 part of TROA if implement. In the absence of TROA, the DOI agreed to store water under any
17 other applicable mechanism available to it. Section 5 of the WQSA also provides for the
18 storage of any other water rights which are used by Reno, Sparks and Washoe County for the
19 purposes of the WQSA as described in Section 3 of the WQSA.

20 **IV. WQSA Implementation and Water Rights Acquisitions**

21 14. In 1997, Reno, Sparks and Washoe County entered an interlocal agreement for
22 the implementation of the WQSA and delegated the implementation to a newly formed
23 committee, the Local Government Oversight Committee (LGOC), with authority to acquire
24 water rights, manage and dispose of property, and manage the acquired water rights. I served as
25 a member of the LGOC from its inception until my retirement from Washoe County in 2007. I
26 have remained in contact with the LGOC since that time to assist them with their work and to
27 remain up to date with the status of the acquisitions. Reno, Sparks and Washoe agreed to fund
28 their WQSA obligations through a combination of sewer user and hookup charges. Shortly

1 thereafter, the Department of the Interior contracted with the Pyramid Lake Paiute Tribe
2 (PLPT) to assume its duties under the WQSA, with funding provided by the DOI. The funding
3 for the DOI obligations was delayed during the completion of an Environmental Impact
4 Statement.

5 15. Water right purchases by the LGOC and PLPT began in 1998, with the PLPT
6 initially utilizing some funds it obtained from other sources. The LGOC and PLPT regularly
7 communicated with each other regarding their respective progress, acquisitions and funding
8 status. The purchases have continued up through the present time with nearly all of the
9 \$24,000,000 having been expended on the purchase of water rights. Presently, the LGOC has
10 acquired approximately 3283 acre feet of water rights and the PLPT has acquired
11 approximately 2107 acre feet of water rights.

12 16. Approximately one half of the LGOC acquisitions have been of water rights
13 under Claim 3 of the Orr Ditch Decree from lands in the Truckee Division of the Newlands
14 Project, an area outside of the Truckee River basin. I personally filed the Nevada water rights
15 change application for Permit 70934, which was protested by the City of Fallon and Churchill
16 County. I participated in the State Engineer hearings associated with the consideration of the
17 application. Application No. 70934 of the LGOC to change the place and manner of use of
18 some of its water rights from the Truckee Division of the Newlands Project under Claim 3 of
19 the Orr Ditch Decree was approved by the Nevada State Engineer and subsequently challenged
20 in the Orr Ditch Court. A true and correct copy of Nevada State Engineer Ruling 5760 is
21 TMWA Ex. 4-3. A true and correct copy of Permit No. 70934 is TMWA Ex. 4-4. In a ruling
22 dated April 27, 2009, the court denied the City of Fallon's petition for judicial review of
23 Nevada State Engineer Ruling 5760. A true and correct copy of that court order is TMWA Ex.
24 4-5. The State Engineer did not impose a consumptive use adjustment on this or the other
25 WQSA permits originating from Claim 3.

26 17. The LGOC has filed applications to utilize its purchased water rights for wildlife
27 purposes and obtained change permits on approximately 2314 acre feet with a diversion rate of
28 15.85 CFS. Applications to change the place and manner of use of 182.97 acre feet of the

1 LGOC water rights remain pending. The Nevada State Engineer has applied a consumptive use
2 adjustment to the LGOC acquisitions which originated from lands within the Truckee River
3 basin in order to account for the return flows which would have accrued back to the Truckee
4 River under the original decreed uses. At the present time, the PLPT has obtained approval of
5 change applications in the amount of approximately 1378 acre feet. As all of the water rights
6 held by the PLPT are from the Truckee Division of the Newlands Project under Claim 3 of the
7 Orr Ditch Decree, and based upon the past actions of the Nevada State Engineer, it is
8 reasonable to expect that they will not be subject to a consumptive use deduction.

9 18. When all of the WQSA funds have been expended and the change applications
10 have been approved, there should be at least 4535 acre feet of water, or 25 CFS, under permit
11 for wildlife purposes available from the WQSA acquisitions for augmenting the flow of the
12 lower Truckee River.

13 19. In addition to the water rights acquired under the WQSA utilizing the
14 \$24,000,000 of funding for purchases, Reno, Sparks and Washoe County have agreed in TROA
15 Section 1.E.4 to provide 6,700 acre feet of additional Truckee River water rights for water
16 quality purposes as defined in Section 3 of the WQSA. These water rights are largely already
17 owned by Reno, Sparks and Washoe County or related entities and were obtained by other
18 means. By taking into account a consumptive use reduction for these Truckee River basin
19 water rights, this would provide approximately 4,188 Acre feet of water, or 17.6 CFS.

20 20. Together, the WQSA water rights and the TROA Section 1.E.4 water rights will
21 provide approximately 42.6 CFS of water for augmenting the flow of the lower Truckee River
22 under normal conditions. Unfortunately during droughts and other low flow conditions, this
23 water may not be fully available when most needed to augment the flow in the lower Truckee
24 River.

25 **V. Present and Future Water Quality Flow Augmentation**

26 21. In my role as the Chairman of the LGOC, one of my tasks was the management
27 the WQSA water rights held by Reno, Sparks and Washoe County in consultation with the
28 Pyramid Lake Paiute Tribe. Under the present management of the Truckee River, in the

1 absence of storage for the water rights acquired under the WQSA, the water is managed in
2 accordance with the Orr Ditch Decree, which permits a water right holder to utilize up to 25
3 percent of the annual duty in any one month. River flow projections are reviewed and a
4 delivery schedule is provided to the Federal Water Master for the delivery of the water, subject
5 to the availability of water in the system. Under this present management, water cannot be
6 carried over from one year to the next or held in storage for later use in the same year. When
7 river flows drop due to depleted reservoirs in droughts, water is no longer available to be used
8 to meet the scheduled water quality uses.

9 22. In order to permit the retiming of the flow that would otherwise be available
10 under the WQSA water rights so that it is available at times when the flow in the lower Truckee
11 River would be diminished to the point where water quality problems would potentially arise
12 with respect to temperature and dissolved oxygen, the WQSA negotiators anticipated the need
13 for reservoir storage. Section 5 of the WQSA contains the commitment of the DOI to provide
14 this storage and the agreement of the PLPT to cooperate in making the storage available. Such
15 storage would be provided under TROA or other applicable mechanism available to the DOI.

16 23. The preferred method of operation would be to utilize the Credit Storage
17 provisions of TROA, and more specifically Section 7.E which addresses Water Quality Credit
18 Storage. This operation would permit water already appropriated in Nevada under the Orr
19 Ditch Decree to be placed into Credit Storage in reservoirs to be utilized for wildlife purposes
20 at times when needed to augment the flow of the lower Truckee River. The Change Petitions
21 which are under consideration in this hearing will provide flexibility in the reservoir
22 management to allow for exchanging the Water Quality Credit Water in storage between
23 reservoirs to permit its timely release and to protect it from spilling. The specific timing of the
24 use of the water for flow augmentation is not specified in the WQSA, recognizing that water
25 quality concerns and priorities may change over time.

26 24. By utilizing Credit Storage under TROA, the Water Quality water can be
27 managed in such a way as to provide water for lower Truckee River flow augmentation in late
28 summer and fall months when it might not otherwise be available under the present day river

1 and reservoir management. Having the ability to retain water in storage from one year to the
2 next is especially important in years which are similar to 1992 and 1994 when the Truckee
3 River dried up along its path through Reno. The storage of the Water Quality water in
4 reservoirs located in California will contribute to the recreational use of the reservoirs in most
5 years and its release during dry seasons will contribute to the wildlife habitat and recreational
6 uses along the river system from the California reservoirs to Pyramid Lake in Nevada. Having
7 a live stream in such years through the use of stored water will help preserve aquatic habitat,
8 including the riparian zone along the river. Utilizing TROA Credit Storage is my
9 recommended approach to get the best use of the WQSA water rights for the benefit of the
10 Truckee River habitat, both in Nevada and California. Exchanges facilitated by the Change
11 Petitions will provide the flexibility in the management of the Water Quality water in storage to
12 preserve it from unnecessary spills and allow it to be used to provide recreational and wildlife
13 benefits in both Nevada and California.

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