



TRUCKEE MEADOWS WATER AUTHORITY Board of Directors

AGENDA

Wednesday, April 21, 2021 at 10:00 a.m.
Virtual meeting only.

MEMBERS OF THE PUBLIC MAY ATTEND VIA THE WEB LINK, OR
TELEPHONICALLY BY CALLING THE NUMBER, LISTED BELOW.
NO PHYSICAL LOCATION IS BEING PROVIDED FOR THIS MEETING

(be sure to keep your phones or microphones on mute, and do not place the call on hold)

Please click the link below to join the webinar:

<https://tmwa.zoom.us/j/93199705901?pwd=b1BNd2hHM2pqVkVhZFIcGgzV1NkUT09>

Password: 205040

Or call:

Phone: (888) 788-0099

Webinar ID: 931 9970 5901

Board Members

Chair Vaughn Hartung

Member Neoma Jardon

Member Jenny Brekhus

Member Paul Anderson

Vice Chair Kristopher Dahir

Member Alexis Hill

Member Naomi Duerr

NOTES:

1. This meeting is being conducted pursuant to the Governor's Declaration of Emergency Directive 006 ("Directive 006 [http://gov.nv.gov/News/Emergency_Orders/2020/2020-03-22 - COVID-19 Declaration of Emergency Directive 006/](http://gov.nv.gov/News/Emergency_Orders/2020/2020-03-22_-_COVID-19_Declaration_of_Emergency_Directive_006/) and will be held by teleconference only.
2. The announcement of this meeting has been electronically posted in compliance with NRS 241.020(3) and Directive 006 at <http://www.tmwa.com>, and NRS 232.2175 at <https://notice.nv.gov/>.
3. Pursuant to Directive 006, the requirement contained in NRS 241.020(3)(c) that physical locations be available for the public to receive supporting material for public meetings has been suspended. Staff reports and supporting material for the meeting are available on the TMWA website at <http://www.tmwa.com/meeting/> or you can contact Sonia Folsom at (775) 834-8002. Supporting material is made available to the general public in accordance with NRS 241.020(6).
4. The Board may elect to combine agenda items, consider agenda items out of order, remove agenda items, or delay discussion on agenda items. Arrive at the meeting at the posted time to hear item(s) of interest.
5. Asterisks (*) denote non-action items.
6. Pursuant to Directive 006, public comment, whether on action items or general public comment, may be provided without being physically present at the meeting by submitting written comments online on TMWA's Public Comment Form (tmwa.com/PublicComment) or by email sent to boardclerk@tmwa.com prior to the Board opening the public comment period during the meeting. In addition, public comments may be provided by leaving a voicemail at (775)834-0255 prior to 4:00 p.m. the day before the scheduled meeting. Voicemail messages received will be noted during the meeting and summarized for entry into the record. Public comment is limited to three minutes and is allowed during the public comment periods. The Board may elect to receive public comment only during the two public comment periods rather than each action item. Due to constraints of TMWA's videoconference system, public comment must be provided by voicemail, email or online comment as indicated above.
7. In the event the Chairman and Vice-Chairman are absent, the remaining Board members may elect a temporary presiding officer to preside over the meeting until the Chairman or Vice-Chairman are present (**Standing Item of Possible Action**).
8. Notice of possible quorum of Western Regional Water Commission: Because several members of the Truckee Meadows Water Authority Board of Directors are also Trustees of the Western Regional Water Commission, it is possible that a quorum of the Western Regional Water Commission may be present, however, such members will not deliberate or take action at this meeting in their capacity as Trustees of the Western Regional Water Commission.

¹The Board may adjourn from the public meeting at any time during the agenda to receive information and conduct labor-oriented discussions in accordance with NRS 288.220 or receive information from legal counsel regarding potential or existing litigation and to deliberate toward a decision on such matters related to litigation or potential litigation.

1. Roll call*
2. Pledge of allegiance*
3. Public comment — limited to no more than three minutes per speaker*
4. Possible Board comments or acknowledgements*
5. Approval of the agenda **(For Possible Action)**
6. Approval of the minutes of the March 17, 2021 meeting of the TMWA Board of Directors **(For Possible Action)**
7. Discussion, action, and possible authorization to the General Manager and approval of Water Resource Exchange Agreement between TMWA, TRI General Improvement District and Tahoe-Reno Industrial Center in furtherance of the July 17, 2018 TMWA, TRIGID, Reno and Sparks Return Flow Management Agreement and reclaimed water service to the Tahoe Reno Industrial Center — John Enloe **(For Possible Action)**
(continued from the March 17, 2021 meeting)
8. Presentation and informational Report on a Proposed OneWater Nevada Feasibility Study to evaluate feasibility of using recycled water for irrigation in Warm Springs Valley (Palomino Farms and LW Land Company) and to provide water sustainability benefits — John Enloe and John Zimmerman*
9. Discussion and possible approval of an Interlocal Agreement between TMWA and the City of Reno for TMWA to provide supplemental irrigation water to Reno's American Flat Road Project — John Zimmerman **(For Possible Action)**
10. Discussion and action, and possible direction to staff for the ratification of the Collective Bargaining Agreement between TMWA and the International Brotherhood of Electrical Workers (IBEW) Local 1245 for the period of July 1, 2021 through June 30, 2023 — Andy Gebhardt and Jessica Atkinson **(For Possible Action)**
11. Discussion and possible action, and direction to staff regarding 2021 legislative activities, current bills, and TMWA recommended positions on legislative proposals — John Zimmerman and Leo Drozdoff **(For Possible Action)**
12. Water Supply Update — Bill Hauck*
13. Presentation on proposed Conservation, Communications and Outreach Plan for 2021, discussion and possible direction to staff — Andy Gebhardt and Cammy Elquist LoRe **(For Possible Action)**
14. Presentation and discussion regarding consideration of adding a Risk Manager position, and possible direction to staff — Jessica Atkinson and Michele Sullivan **(For Possible Action)**

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15. Discussion and action on appointments to the Standing Advisory Committee (SAC) to fill the multi-family customer primary representative, and senior citizen and residential 3 customer alternate representatives, and other possible vacancies for terms beginning May 1, 2021 to December 31, 2023 from the following pool of candidates listed in alphabetical order: Al Black, Russ Foreman, Jordan Graham, Tom Kurtz, Kevin Ryan and Alex Talmant — Sonia Folsom **(For Possible Action)**
16. General Manager's Report*
17. Public comment — limited to no more than three minutes per speaker*
18. Board comments and requests for future agenda items*
19. Adjournment **(For Possible Action)**

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TRUCKEE MEADOWS WATER AUTHORITY
DRAFT MINUTES OF THE MARCH 17, 2021
MEETING OF THE BOARD OF DIRECTORS

The Board of Directors met on Wednesday, March 17, 2021, via Zoom Virtual Meeting, Reno, Nevada. Chair Hartung called the meeting to order at 10:02 a.m.

1. ROLL CALL

Members Present: Paul Anderson, Jenny Brekhus, Kristopher Dahir, *Naomi Duerr, **Neoma Jardon, Vaughn Hartung, and Alexis Hill.

A quorum was present by telephonic appearance.

**Member Duerr left at 12:29 p.m.*

***Member Jardon left at 12:34 p.m.*

2. PLEDGE OF ALLEGIANCE

The pledge of allegiance was led by Vice Chair Dahir.

3. PUBLIC COMMENT

Beverly Harry, Native Community Organizer for the Progressive Leadership Alliance of Nevada (PLAN), submitted a short video showing their work of cleaning up along the Truckee River, downstream of Sparks, led by indigenous community volunteers. She thanked the Board and for them to consider the projects proposed by the Truckee River Fund that would directly benefit the Truckee River.

4. POSSIBLE BOARD COMMENTS OR ACKNOWLEDGEMENTS*

Member Duerr stated that the video was very impressive with the use of a drone to capture the before/after images of the area, and the encampments, was very notable. She added this is why the Portland Loo was installed along the river, and working to stand-up the Nevada Cares Campus.

5. APPROVAL OF THE AGENDA

Upon motion by Member Dahir second by Member Anderson, which motion duly carried by unanimous consent of the members present, the Board approved the agenda.

6. APPROVAL OF THE MINUTES OF THE FEBRUARY 17, 2021 MEETING

Upon motion by Member Hill, second by Member Hartung, which motion duly carried by unanimous consent of the members present, the Board approved the February 17, 2021 minutes.

7. DISCUSSION AND POSSIBLE ACTION AND DIRECTION TO STAFF REGARDING 2021 LEGISLATIVE ACTIVITIES, CURRENT BILLS, AND TMWA RECOMMENDED POSITIONS ON LEGISLATIVE PROPOSALS

John Zimmerman, TMWA Water Resources Manager, Leo Drozdoff, TMWA Lobbyist, and Michael Pagni, TMWA General Counsel, updated the Board on the status of significant bills approved for recommendation by the legislative subcommittee. Mr. Zimmerman stated there are only 287 bills to date, and over 1,000 bill draft requests (BDRs) have yet to be introduced.

Staff reported on: AB3 (allows parcel maps and documents be sent electronically) was heard in committee once but no action taken, support; AB5 (attempts to clarify what actions State Engineer can be judicially reviewed) was heard but has not moved forward, monitor; AB6 (codifies existing State Engineer practice that hearings are not required for temporary change applications), support; AB87 (proposes to streamline the process by which certain easements of cities and counties can be vacated and abandoned without a hearing), staff worked with the bill sponsor and they provided an amendment stating local governments could choose to have a simplified procedure for vacating easements, still opposed but if the amendment is introduced the position will change to monitor; AB97 (revises provisions governing toxic chemicals), staff is working with Assemblyman Watts on other ways to address both his and TMWA's concerns, and an amendment is being drafted, monitor; AB146 (to address various requirements to control water pollution) sponsored by Assemblywoman Sarah Peters, staff have spoken with her to understand her intent, they received a conceptual amendment (appears to improve on the clarity and intent, and addresses the fiscal note), and are in the process of reviewing it; SB67 (increases the threshold by which an agency can self-perform capital projects from \$100k to \$250k), TMWA submitted an amendment so that the \$250k exemption would only apply to agencies that have a State approved apprenticeship program like TMWA. Mr. Zimmerman added the legislative subcommittee recommended support only if TMWA's amendment was approved, otherwise remain neutral; and SB149 (two counties can create a groundwater board in a basin that has not been designated by the State Engineer), it is important to note all of TMWA's basins have been designated, and this proposed bill would allow two counties to create a joint groundwater board if they share a groundwater basin. An amendment is circulating by some rural counties and stakeholders who would want to change the bill to bypass State Engineer approval and Governor appointment of board members, monitor.

Member Brekhus referenced AB87 and proposed having a standard review process, changing the term from "shall" to "may" abandon easements so that government bodies can withhold at their discretion, and she supports the position of oppose.

Mr. Pagni clarified the bill is enabling legislation where it would allow a local government to adopt this simplified procedure if it wished, which would only apply to vacating an easement owned by the local government. If TMWA holds an easement it would not be subject to this simplified procedure and TMWA's rights would be in addition to rights of government would have so a street. He also added that there is another statute that addresses when an entity vacates a street or alleyway, there are notification procedures in place so the utility is made aware and those public utility easements would be preserved. AB87 would not affect those particular easements, rather simplify the processes where there is an old easement held by the local government for some other purpose that nobody uses anymore.

Mark Foree, TMWA General Manager, added there are times when TMWA would want to use those easements and if we don't have any say in abandonments it poses an issue. He asked about easements that are not in the public right of way. Mr. Pagni replied that is the reason why TMWA took an initial position of oppose and staff have been working with the sponsor to make changes in their proposed amendment to address that concern and carve those types of easements out; that only certain types of easements would be subject to the simplified procedure.

Member Brekhuis inquired about the BDR related to water banking and the bill related to general jurisdiction courts to set up a water court. Mr. Zimmerman replied staff was able to see a conceptual bill (recommend neutral) but have yet to see the official bill language. The proposed bill related to water courts was withdrawn. Chief Justice Hardesty spoke with the State Engineer (bill sponsor) about the process and a letter was sent out to all water stakeholders to comment on whether a commission to study water adjudication should be set up. TMWA submitted a letter of support of any process that improves the way water law cases are adjudicated and are now waiting for the Supreme Court to establish the commission and appoint members. Both TMWA and Southern Nevada Water Authority (SNWA) will most likely be appointed to the commission as urban municipal water purveyors.

Upon motion by Member Dahir, second by Member Duerr, which motion duly carried by unanimous consent of the members present, the Board approved staff recommendation to change position on AB87 from Oppose to Monitor if the amendments are accepted.

Upon motion by Member Jardon, second by Member Hill, which motion duly carried by unanimous consent of the members present, the Board approved staff recommendation to change position on SB67 from Monitor to Support if the amendments are accepted.

8. WATER SUPPLY UPDATE

Bill Hauck, TMWA Water Supply Administrator, reported that snowpack conditions improved since January and the February storms, although not significantly and have kept the snowpack levels stable. Consequently, the Truckee River and Lake Tahoe basins are at about 69% of average, which is below normal, but not as severe as in 2015; according to the US Drought Monitor, the region is being classified as a severe drought; it is the second dry year in a row and runoff projections are significantly below

average; April 1 forecast is 65% of average and Lake Tahoe (largest reservoir in the system) will be relied upon to provide Truckee River flows, but will continue to drop through the summer and fall. Despite this fact, normal river flows are projected for the rest of the year, and assuming normal weather over the next two weeks, a drought situation as defined under the Truckee River Operating Agreement (TROA) will likely not be declared. TMWA's response to a drought situation is directly related to Truckee River flow projections and not the elevation of Lake Tahoe. TMWA's reserves are in a good position, about 42k acre feet (AF), between privately owned stored water (POSW) in Donner and Independence Lakes, and credit water stored under terms of TROA in Lake Tahoe, and Stampede, Boca and Prosser Reservoirs, which is equivalent to about half of TMWA's annual demand. TMWA requested a one month variance, which TMWA has been doing for over 20 years when necessary, for early filling at Donner Lake to ensure the lake remains full, and total system storage is about 40% of maximum capacity.

Member Duerr asked for clarification regarding the amount of TMWA owned water in upstream reservoirs. Mr. Hauck replied the amount changes every year depending on Floriston rates, but currently TMWA has over 28k AF of credit storage in upstream federally owned/operated reservoirs and over 14k AF of privately owned stored water between Independence and Donner Lakes. Chair Hartung requested Mr. Hauck to send the link to the TMWA upstream reserves tracker to the Board.

Vice Chair Dahir thanked Mr. Hauck for the explanation of when a drought situation is declared under TROA and asked if what is being reported throughout the state regarding drought applies in our region. Mr. Hauck replied no, the US Drought Monitor shows over 90% of the State is in some form of extreme drought, but that is not case in the Truckee River system and network of upstream reservoirs.

9. DISCUSSION AND POSSIBLE ACTION ON RESOLUTION NO. 291: A RESOLUTION TO APPROVE FUNDING FOR ONE OR MORE OF THE PROJECTS RECOMMENDED BY THE TRUCKEE RIVER FUND ADVISORY COMMITTEE AND AN AUTHORIZATION FOR THE COMMUNITY FOUNDATION TO FUND SUCH PROJECTS FROM FUND PROCEEDS (RESOLUTION MAY REFLECT ACTION TAKEN IN ONE OR MORE VOTES ON RECOMMENDED PROJECTS)

Sonia Folsom TMWA Executive Assistant, presented the project proposals recommended by the Truckee River Fund (TRF) Advisory Committee for Board approval.

Chair Hartung inquired why project #250, Truckee Meadows Parks Foundation: Doggie Ambassador Awareness Campaign, was not approved for recommendation. Ms. Folsom replied that a similar project was presented to the Board a couple of years which was rejected and the TRF Advisory Committee did not want to recommend another project that would otherwise be rejected again.

Member Brekhus commented on the video presented by Ms. Harry, which is similar to concerns raised by her constituents, and would like to see funding allocated to new projects such as this one, as well as to consider instituting a four year cap of consecutive RFPs approved, followed by a two year hiatus.

John Enloe, TMWA Director of Natural Resources, said he spoke with Ms. Harry, who was aware of the TRF Advisory Committee, and is considering if their efforts could be incorporated into the Keep Truckee

Meadows Beautiful (KTMB) river cleanups because KTMB is one of the groups that get funding on a consistent basis from the TRF. Also, the TRF Advisory Committee typically looks at projects that are upstream of the Glendale Water Treatment Plant and very rarely are projects funded downstream.

Chair Hartung agreed that TMWA has a specific section of the river that is addressed, but we do have an obligation, to look at the Truckee River watershed as a whole, as a regional effort.

Lauren Renda, Community Foundation Program Manager, said she was able to speak with Ms. Harry after her conversation with Mr. Enloe. They discussed the lack of support and considered partnering with other organizations. Ms. Renda invited Ms. Harry to present at the next TRF meeting.

Member Jardon asked if there is a contingency in place to provide funding outside the normal application period and stated with the Nevada Cares Campus, along with regional efforts, for the houseless using the campus, there will be a coordinated effort to clean up some of the camps along the river. Mr. Enloe replied that in the last budget cycle, TMWA Board directed that staff withhold \$200k from the TRF which was recently granted to the Nevada Cares Campus through Washoe County, and is on their agenda later this month.

Public Comment

Autumn Harry, Reno resident, clarified their group, although they collaborate with PLAN, are independent of PLAN and are a group of local people who live in Reno and Sparks, and on the Pyramid Lake Paiute Tribe (PLPT) reservation. They could work with PLAN or KTMB if it increased the potential for funding.

Upon motion by Member Hill, second by Member Anderson, which motion duly carried by unanimous consent of the members present, the Board adopted Resolution No. 291: A Resolution to approve funding for one or more of the projects recommended by the Truckee River Fund Advisory Committee and an authorization for the Community Foundation to fund such projects from Fund proceeds.

10. DISCUSSION AND POSSIBLE ACTION ON THE TMWA TENTATIVE BUDGET FOR THE FISCAL YEAR ENDING JUNE 30, 2022 AND DRAFT CAPITAL IMPROVEMENT PLAN (CIP) FOR FISCAL YEARS 2022 THROUGH 2026

Matt Bowman, TMWA Financial Controller, introduced Sandra Tozi, TMWA Financial Analyst, who has been at TMWA for a few years, but has been in this position since Joe Petrelli retired last year. He explained the timeline for TMWA's budget preparation and financial planning throughout the year.

Mr. Bowman presented the tentative budget for FY2022, which establishes a conservative approach in setting the spending threshold: Compared to the FY 2021 budget, change in net position increased by \$5.9M (17.8%) and net change in cash decreased by \$7.2M (32.3%); operating revenue (includes water, hydroelectric sales, and other operating sales) is \$114M, change of \$5.7M (5.3%) which is based on a forecast model (water rates, service connections and water usage) maintained by Shawn Stoddard, TMWA's Senior Resource Economist Ph.D.; operating expenses are \$104.7M, increased by \$4.5M

(4.5%); \$800k (2.5%) increase in services and supplies includes the commodity prices in chemical costs, a full year of operations of Mt. Rose Water Treatment Plant and increase in sponsorship costs, which is offset by the new customer service system (expect savings between \$750k-\$1M each year.)

Mr. Enloe reminded the Board of the several presentations from Frank McDonald, Desert Research Institute (DRI), on their extensive cloud seeding program in the Tahoe and Truckee River watershed which requires \$250k for a full year of funding, but would only require a \$100k in sponsorship to ensure the program continues, particularly with the potential drought situation.

At this time there was discussion regarding the concern about the rate increase going into effect and the ratio between services and supplies and employees (there was no increase in headcount in FY21 and expect to see savings with increase headcount versus contracted or professional services); supporting the cloud seeding program when constituents expressed the need for river cleanups and monitoring (it is difficult to measure the benefit of cloud seeding); the possibility of paying less towards the bonds (TMWA's financial strategy has always been to decrease debt); concern about the cloud seeding program disappearing due to lack of funding; and determining how best to allocate the \$950k for sponsorships between TRF, cloud seeding and other causes related to the Truckee River. Mr. Bowman suggested they approve the \$950k as a whole and when it is brought back for final approval in May, it will be itemized per the discussion.

Mr. Bowman continued: interest expense decreased by \$600k (-4.8%) this is the history of TMWA's debt, (total debt principal outstanding in FY16 was \$480M and projecting it to be at \$332.8M by end of FY22); capital contributions included grants and developer contributions; an increase of \$7M (62.5%) in developer infrastructure contributions (non-cash line item), developer will-serve contributions decreased by \$1.3M (-31%), developer capital contributions-other decreased by \$800k (-7.8%) and developer facility charges increased by \$1.3M (21.7%), which are the primary cash developer contributions that TMWA receives; cash flow statement includes operations, capital and financing, and investing; and cash outflows are up by \$7.3M, this increase is due to capital and financing activities of about \$9M (13.3%), which is primarily due to increase in capital spending.

Ms. Tozi presented on the draft FY2022-26 CIP: customer rate funded projects increased by \$33.2M (6.4%) which is attributed to rehabilitation construction projects on existing infrastructure; staff is continuously analyzing and evaluating TMWA's current infrastructure to stay ahead of maintenance and determine where the needs are within our system to mitigate any risks; new projects over the next five years is \$21.4M; increase in amounts for projects from the prior plan in the amount of \$17.0M; former South Truckee Meadows General Improvement District (STMGID) reserves have \$5.2M remaining which required two STMGID projects to be moved into customer rate funded projects; and projects that were completed from the prior CIP and will not be carried forward amounts to \$10.6M.

Upon motion by Member Jardon, second by Member Dahir, which motion duly carried by unanimous consent of the members present, the Board approved Tentative Budget for the Fiscal Year ending June 30, 2022 and Draft Capital Improvement Plan (CIP) for Fiscal Years 2022 through 2026, with the understanding items related to sponsorship in the amount of \$950k will be addressed prior to final approval.

11. DISCUSSION, ACTION, AND POSSIBLE AUTHORIZATION TO THE GENERAL MANAGER AND APPROVAL OF WATER RESOURCE EXCHANGE AGREEMENT BETWEEN TMWA, TRI GENERAL IMPROVEMENT DISTRICT AND TAHOE-RENO INDUSTRIAL CENTER IN FURTHERANCE OF THE JULY 17, 2018 TMWA, TRIGID, RENO AND SPARKS RETURN FLOW MANAGEMENT AGREEMENT AND RECLAIMED WATER SERVICE TO THE TAHOE RENO INDUSTRIAL CENTER

Due to time constraints the Board agreed to move this item to the April meeting. Vice Chair Dahir clarified that delaying this item is not due to lack of support, rather the need to have more time for discussion.

No action taken.

This agenda item was tabled for the April Board meeting.

12. GENERAL MANAGER'S REPORT

Mr. Foree reported on a successful migration to the new customer information and billing system (CIS) though not without a few issues to resolve and a tremendous amount of work over the last 20 months from dozens of TMWA team members that worked on the project.

Michele Sullivan, TMWA CFO, reported that the much needed new CIS took about 20 months to set up for release on March 9th. The new system allows for mass upload of meters for new meter installations starting in July, a better customer user experience, an improved auto dispatch system and annual savings of about \$1M/year.

13. PUBLIC COMMENT

There was no public comment.

14. BOARD COMMENTS AND REQUESTS FOR FUTURE AGENDA ITEMS

There were no Board comments.

15. ADJOURNMENT

With no further discussion, Chair Hartung adjourned the meeting at 12:38 p.m.

Approved by the TMWA Board of Directors in session on _____.

Sonia Folsom, Board Clerk.

****Member Duerr was present for agenda items 1 thru 11 only.***

*****Member Jardon was present for agenda items 1 thru 12 only.***



STAFF REPORT

TO: Board of Directors
THRU: Mark Foree, General Manager
FROM: John Enloe, Director Natural Resources
John Zimmerman, Water Resources Manager
DATE: March 8, 2021
SUBJECT: **Discussion, action, and possible authorization to the General Manager and approval of Water Resource Exchange Agreement between TMWA, TRI General Improvement District and Tahoe-Reno Industrial Center in furtherance of the July 17, 2018 TMWA, TRIGID, Reno and Sparks Return Flow Management Agreement and reclaimed water service to the Tahoe Reno Industrial Center** *(continued from the March 17, 2021 Board Meeting)*

Recommendation

Staff recommends the Board authorize the General Manager to execute a Water Resource Exchange Agreement between TMWA, TRI General Improvement District (TRIGID) and Tahoe-Reno Industrial Center, LLC (TRIC) related to the acquisition of Truckee River water rights and issuance of a return flow will-serve.

Summary

On July 17, 2018 TMWA, TRIGID, Reno and Sparks entered the Return Flow Management Agreement (“RFMA”) in connection with the management of return flow resources to support reclaimed water service to the Tahoe Reno Industrial Center. Under the RFMA, TRIGID is required to provide 1,500 acre-feet (AF) of Truckee River water rights permitted for return flow purposes (“TRIGID Return Flow Resources”) to satisfy return flow obligations in connection with the reclaimed water supply to Tahoe Reno Industrial Center. Under the RFMA, TRIGID is required to deed or lease the TRIGID Return Flow Resources to TMWA to manage. Permitting the TRIGID Return Flow Resources for use at TRIC has unique complexities. Representatives of the Pyramid Lake Paiute Tribe (“Tribe”) provided input and raised a question regarding permitting more than the consumptive use duty (roughly 62.5%) of the TRIGID Return Flow Resources. In order to address the Tribe’s concern, TRIGID would need to provide additional Truckee River water rights (up to approximately 2,350 AF) in order to obtain permits for 1,500 AF of return flow supply, necessitating additional water rights acquisitions by TRIC or TRIGID.

At the time the RFMA was entered, TMWA was concerned about TRIGID competing with TMWA for Truckee River resources and attempting to move them downstream. As a result, the

RFMA requires TRIGID “to cooperate in good faith with TMWA to minimize acquisitions of additional Truckee River water rights or compete with TMWA for the acquisition of Truckee River water rights, and where such does not diminish the quality, quantity or availability of resources [to] cooperate with TMWA to facilitate exchange or other transfers of TRIGID water rights, acquired now or in the future, with TMWA water resources.”

Given TRIC’s and TRIGID’s need to acquire and dedicate additional Truckee River rights and their obligation to cooperate with TMWA before acquiring additional rights, TMWA initiated discussions with TRIC and TRIGID in 2020 pursuant to the RFMA to explore other alternatives. From the outset, TRIC and TRIGID were both amenable to discussions and cooperated with TMWA in these efforts.

After extensive discussions, TMWA, TRIGID and TRIC identified terms for a three-party Water Resource Exchange Agreement. Under the Exchange Agreement, TRIGID will convey Truckee River rights to TMWA, TRIC will pay TMWA cash, and TMWA will issue TRIGID a return flow will-serve of 1,500 AF, which will satisfy TRIGID’s obligations under the RFMA to secure and permit the TRIGID Return Flow Resources. The key elements of the Exchange Agreement are as follows:

- TRIGID will convey to TMWA 1,143.39 AF of Truckee River water rights (with a net consumptive use yield of 700 AF) (“TRIGID Rights”) held in TRIGID’s inventory which are acceptable to TMWA. TMWA anticipates using the TRIGID Rights in TMWA’s discretion, including for support of the return flow will-serve commitment as needed.
- TRIC will pay TMWA \$8,978,200 the (“TRIC Payment”). TMWA anticipates using the TRIC Payment to gradually acquire water resources to be held by TMWA for use in TMWA’s discretion, including for support of the return flow will-serve commitment as needed.
- TMWA will issue a return flow will-serve commitment to TRIGID, pursuant to which TMWA will commit to provide sufficient resources to supply the 1,500 AF of return flow required to be provided by TRIGID under the RFMA through the TRIGID Return Flow Resources. TMWA will have sole discretion to determine what resources it will use to satisfy the return flow will-serve commitment (likely to include the TRIGID Rights) and will have the right to substitute different types of TMWA water resources from time to time.
- Consistent with the RFMA and to maximize benefits under TROA, TRIGID will become a customer of TMWA and TMWA will deliver water for return flow resources to a point on the Truckee River near the Truckee Meadows Water Reclamation Facility (“TMWRF”) to satisfy the 1,500 AF requirement. TMWA will charge TRIGID for return flow service as contemplated under the RFMA and under TMWA’s ILVNPS rate tariff.
- TRIGID may elect to terminate the return flow will-serve commitment prior to delivery of reclaimed water from TMWRF, and in such event TMWA shall re-convey the TRIGID Rights to TRIGID and return the TRIC Payment to TRIC together with any water rights purchased with the TRIC Payment. TMWA does not anticipate purchasing very many

water rights prior to the start of the delivery of reclaimed water because TRIGID will not need the full amount at that time.

- The exchange is conditional on TMWA Board approval and TRIGID Board approval.

One key element that enabled TMWA to negotiate such a beneficial transaction while keeping TMWA customers whole is that TMWA is uniquely positioned under TROA and as a result of the wide variety of water resources under its control to satisfy the TRIGID Return Flow Resource obligation with fewer water rights than TRIGID would otherwise be required to commit¹. In other words, through more efficient management of a broader array of water resources, TMWA is able to provide 1,500 AF of return flow supply utilizing fewer water rights than TRIGID.

The Water Resource Exchange Agreement provides mutual benefits to all the parties consistent with and in furtherance of the intent and purpose of the RFMA, as summarized below:

1. TMWA gets the benefit of avoiding TRIC/TRIGID acquiring and attempting to move additional Truckee River water rights downstream, and acquires a large block of TRIGID Rights to support the return flow will-serve commitment and \$8.9 million to pursue other transactions to support the return flow will-serve and/or enhance TMWA's water resource portfolio, *all at no cost to TMWA customers*.
2. TRIGID gets the benefit of satisfying its obligation to provide 1,500 AF of return flow supply under the RFMA Return Flow Resources by dedicating far fewer water resources than it would be required to commit if it sought to permit Truckee River water resources for return flow purposes on its own, freeing up TRIGID resources for its municipal purposes and reducing the likelihood of competing against TMWA for future Truckee River water rights purchases.
3. TRIC gets the benefit of avoiding the time, expense and uncertainty associated with acquiring additional Truckee River water rights and permitting the TRIGID Truckee River resources at some point in the future and secures the benefits of immediately satisfying the TRIGID Return Flow Resource obligation facilitating up to 1,500 AF of reclaimed water service through TMWRF as soon as the pipeline is operational.
4. TMWRF, the Tribe and the river ecosystem realize the water quality benefit of less effluent discharged into the river while satisfying the unique water rights consumptive use reduction permitting requirements associated with reclaimed water use at TRIGID.

TRIC has approved and signed the Exchange Agreement. The Exchange Agreement was presented to the TRIGID Board for consideration, which was heard and approved on March 2, 2021. Staff recommends the Board authorize the General Manager to execute the Water Resource Exchange Agreement between TMWA, TRIGID and TRIC related to the acquisition of Truckee River water rights and issuance of a return flow will-serve commitment.

Attachment: Water Resource Exchange Agreement

¹ The exact amount will vary depending on hydrologic conditions and the specific rights used by TMWA to support the return flow will-serve commitment.

WATER RESOURCE EXCHANGE AGREEMENT

THIS WATER RESOURCE EXCHANGE AGREEMENT (“Agreement”), dated for identification purposes as of the date last executed below, is entered by and between TRUCKEE MEADOWS WATER AUTHORITY, a Joint Powers Authority entity created pursuant to a cooperative agreement among the cities of Reno, Nevada, Sparks, Nevada and Washoe County, Nevada, pursuant to N.R.S. Chapter 277 (“TMWA”), TRI GENERAL IMPROVEMENT DISTRICT, a political subdivision of the State of Nevada (“TRIGID”), and TAHOE-RENO INDUSTRIAL CENTER, LLC, a Nevada limited liability company (“TRIC”).

RECITALS

WHEREAS, TMWA, TRIGID, the City of Reno and City of Sparks entered into that certain Return Flow Management Agreement dated July 17, 2018 (the “RFMA”) pursuant to which TMWA is authorized to control and manage various water resources of the parties for return flow purposes to facilitate implementation of reclaim water delivery to TRIGID and in order to further regional water management objectives and provide indirect benefits to TMWA by reducing the demand for conversion of Truckee River water resources otherwise available for TMWA municipal supply to use in the Tahoe-Reno Industrial Center. Except as otherwise defined herein, capitalized terms shall have the meaning ascribed to them in the RFMA.

WHEREAS, pursuant to the RFMA, TRIGID is required to provide 1,500 acre feet annually (AFA) of Truckee River water rights (defined therein as the “TRIGID Return Flow Resources”) permitted for Return Flow Purposes for management by TMWA to satisfy certain return flow obligations set forth in the RFMA.

WHEREAS, TRIGID owns 1,143.39 AFA of Truckee River water rights more particularly described in Exhibit “A” attached hereto (“TRIGID Exchange Rights”) banked for the benefit of TRIC, which have not been committed to any will-serve commitment and which could be made available to TMWA for management as a portion of the TRIGID Return Flow Resources.

WHEREAS, TMWA, as allowed by TROA, holds certain water resources and may in the future acquire other resources that in TMWA’s sole discretion can be made available and used for Return Flow Purposes to satisfy the Return Flow Requirements associated with the TRIGID Return Flow Resources under the RFMA (“TMWA Return Flow Resources”).

WHEREAS, pursuant to the RFMA, TRIGID is required to cooperate in good faith with TMWA to minimize acquisitions of additional Truckee River water rights and minimize competition with TMWA for the acquisition of Truckee River water rights, and where such does not diminish the quality, quantity or availability of resources, to cooperate with TMWA to facilitate exchange or other transfers of TRIGID water rights with TMWA water resources.

WHEREAS, TMWA Rate Tariff ILVNPS authorizes TMWA to provide instream return flow services based on dedication of water resources and/or purchase of a will-serve commitment supported by other resources owned or managed by TMWA, as determined by TMWA in its sole discretion.

WHEREAS, TRIC and TRIGID desire to secure a will-serve commitment for return flow purposes through a combination of purchase and dedication pursuant to which TRIC will pay TMWA \$8,978,200 and TRIC and TRIGID will convey the TRIGID Exchange Rights to TMWA in exchange for TMWA issuing an irrevocable Return Flow Will-Serve Commitment to TRIGID in the amount of up to 1,500 AFA to satisfy TRIGID's obligation to provide the TRIGID Return Flow Resources under the RFMA on the terms and conditions below.

NOW THEREFORE, in consideration of the mutual promises and covenants herein contained, the parties hereto agree to the following terms and conditions:

1. WATER RESOURCE EXCHANGE AND RETURN FLOW WILL-SERVE COMMITMENT.

1.1 Conveyance of TRIGID Exchange Rights. Within fifteen (15) days after the execution of this Agreement by all the Parties (the "Closing Date"), TRIGID will convey all right, title and interest in the TRIGID Exchange Rights to TMWA by Water Rights Deed in the form attached hereto as Exhibit "B", TRIGID and TRIC will terminate any banking agreement encumbering the TRIGID Exchange Rights, and TRIC will assign to TMWA any beneficial interest held in the TRIGID Exchange Rights, if applicable. TRIGID and TRIC acknowledge and agree no money shall be paid for the TRIGID Exchange Rights and the sole consideration for the conveyance shall be the issuance of the Return Flow Will-Serve Commitment by TMWA pursuant to Section 1.2. TMWA acknowledges and agrees that it shall bear all fees and charges, if any, associated with any reports of conveyance or change applications sought by TMWA with respect to the TRIGID Exchange Rights. The Parties agree the TRIGID Exchange Rights shall not be construed as "water rights acquired after the Effective Date for use as TRIGID Return Flow Resources" for purposes of Section 5.2.1 of the RFMA, it being the express intent of the Parties that the TRIGID Exchange Rights shall not be governed by Section 5.2.1 of the RFMA and that TMWA shall have no obligation to commit or use the TRIGID Exchange Rights for Return Flow Purposes.

1.2 Additional Consideration for Will-Serve Purchase. On or before the Closing Date, TRIC shall pay to TMWA the sum of Eight Million Nine Hundred Seventy Eight Thousand Two Hundred Dollars (\$8,978,200.00) ("Purchase Price") in cash or other immediately available funds.

1.3 Issuance of Return Flow Will-Serve Commitment. In consideration of and conditional upon the conveyance of the TRIGID Exchange Rights and payment of the Purchase Price, concurrently with the conveyance of the TRIGID Exchange Rights to TMWA under Section 1.1 and payment of the Purchase Price under Section 1.2, TMWA shall issue to TRIGID a return flow will-serve commitment in the form attached hereto as Exhibit "C" ("Return Flow Will-Serve Commitment") pursuant to which TMWA irrevocably commits (except as provided in Section 1.4) sufficient water resources to provide up to 1,500 AFA for Return Flow Purposes in satisfaction of and compliance with the Return Flow Requirement associated with the TRIGID Return Flow Resources under the RFMA. Other than TRIGID being a beneficiary of the irrevocable Return Flow Will-Serve Commitment to satisfy its obligations under the RFMA, neither TRIC nor TRIGID shall have any right, title or interest in the TRIGID Exchange Rights and/or TMWA Return Flow Resources supporting the Return Flow Will-Serve Commitment, and TMWA shall

have sole and absolute discretion to identify, designate, use and substitute from time to time the specific TMWA Return Flow Resources supporting the Return Flow Will-Serve Commitment. Upon issuance of the Return Flow Will-Serve Commitment, and for purposes of implementing this Agreement, TRIGID shall become a customer of TMWA under TMWA's ILVNPS rate tariff, or such other tariff deemed applicable by TMWA, for purposes of delivering TMWA Return Flow Resources to meet the demands of TRIGID as a TMWA customer in connection with the Return Flow Will-Serve Commitment. The rates payable by TRIGID for the TMWA Return Flow Resources used to satisfy customer deliveries under the Return Flow Will-Serve Commitment (whether under the ILVNPS rate tariff or other tariff) shall be calculated in accordance with Section 4.6 of the RFMA (which TMWA shall incorporate by reference into such tariff for customers receiving service under or in connection with the RFMA). TMWA acknowledges and agrees the Return Flow Will-Serve Commitment and deliveries thereunder to TRIGID as a customer will satisfy TRIGID's obligations to provide the TRIGID Return Flow Resources under the RFMA, and that notwithstanding any provision of the ILVNPS tariff that subjects such service to interruption or curtailment in TMWA's discretion, TMWA will provide sufficient resources to support the Return Flow Will-Serve Commitment to ensure that deliveries thereunder are provided as and when necessary to satisfy the TRIGID Return Flow Resources obligation under the RFMA and in compliance with the Return Flow Requirement associated with the TRIGID Return Flow Resources under the RFMA. TRIGID may allocate all or any portion of the beneficial interest in the Return Flow Will-Serve Commitment to TRIC as separately agreed between TRIGID and TRIC.

1.4 Contingent Re-conveyance of Truckee River Rights.

(a) Prior to Delivery of Reclaimed Water. At any time prior to the completion of construction of the Pipeline Project and commencement of delivery of Reclaimed Water to TRIGID, TRIGID may deliver to TMWA written notice of its desire to terminate the Return Flow Will-Serve Commitment ("Termination Notice"). Within thirty (30) days of TMWA's receipt of the Termination Notice: i) TMWA will terminate the Return Flow Will-Serve Commitment and TRIGID shall acknowledge such termination, upon which termination neither party shall have any rights or liability in connection with the Return Flow Will-Serve Commitment; ii) TMWA will re-convey to TRIGID fee title to the TRIGID Exchange Rights; and iii) TMWA will refund to TRIC the Purchase Price (if none had been expended by TMWA as of the date of the Termination Notice), or if all or any portion of the Purchase Price has been used by TMWA to acquire water rights, TMWA will convey to TRIC all water rights purchased with the Purchase Price proceeds and will refund to TRIC the unspent balance of the Purchase Price.

(b) Following Delivery of Reclaimed Water. In the event TMWA terminates the RFMA pursuant to Section 7.2 of the RFMA after commencement of delivery of Reclaimed Water to TRIGID, at TRIGID's election: i) TMWA shall provide a resource credit in the amount of 1,500 acre feet for municipal service within TMWA's retail service area for the benefit of TRIC and TRIGID or their assignees, as mutually agreed by TRIC and TRIGID; or ii) the Return Flow Will-Serve Commitment shall remain in effect, provided service shall be delivered pursuant to the terms and conditions of TMWA's ILVNPS rate tariff (or other applicable tariff in effect at the time), and the timing and volume of water delivered under the Return Flow Will-Serve Commitment shall be determined in the sole discretion of TMWA and consistent with the applicable rate tariff; conditions and availability of water under the Truckee River Operating Agreement ("TROA");

requirements of the TROA Administrator/Federal Water Master; and applicable water rights. TMWA will reasonably cooperate with TRIGID on the timing and volume of water delivered under the Return Flow Will-Serve Commitment, provided TMWA shall retain final discretion over such decisions as set forth in the preceding sentence.

2. REPRESENTATIONS AND WARRANTIES OF TRIGID.

As a material inducement to the TMWA to enter into this Agreement, TRIGID represents and warrants to TMWA as follows:

2.1 Organization and Power. TRIGID is duly organized, validly existing and authorized to conduct business under the laws of the State of Nevada, and has full power and authority to own, sell and convey the TRIGID Exchange Rights to TMWA and to enter into and perform its obligations pursuant to this Agreement. This Agreement and all other documents delivered by TRIGID to TMWA, have been or will be duly executed and delivered by TRIGID and are or will be legal, valid and binding obligations of TRIGID, and are enforceable in accordance with their respective terms. Each of the persons signing this Agreement and other instruments required under this Agreement on behalf of TRIGID is or will be authorized to so sign; and the execution, consent or acknowledgment of no other person, entity, court or governmental authority is necessary in order to validate the execution and performance of this Agreement by TRIGID.

2.2 Property, Title and Related Matters. TRIGID owns all right, title and interest in the TRIGID Exchange Rights free and clear of all security interests, mortgages, liens, pledges, charges, claims or encumbrances of any kind or character other than the TRIC banking agreement, and has not, and will not sell, encumber, pledge, assign, convey or transfer any of the TRIGID Exchange Rights, except as set forth in this Agreement. The TRIGID Exchange Rights have not been committed to support any will-serve commitment by TRIGID.

2.3 Transferability. TRIGID has no knowledge of any condition or fact related to the TRIGID Exchange Rights which would prevent or impede the transfer and exchange of the TRIGID Exchange Rights to TMWA.

2.4 No Litigation. There are no pending or to the best of TRIGID's knowledge threatened actions which would materially and adversely affect the TRIGID Exchange Rights, or any portion thereof, nor are there any known specific facts which might give rise to such action or proceedings, or which would or could adversely change the use of the TRIGID Exchange Rights.

2.5 No Misstatement. No representation, statement or warranty by TRIGID contained in this Agreement or in any exhibit hereto contains any untrue statements or omits, any material fact necessary to make the statement of fact recited not misleading.

2.6 No Agreements. Neither the execution and delivery of this Agreement by TRIGID nor the consummation of the transactions contemplated hereby will result in any breach or violation of or default under any judgment, decree, order, mortgage, lease, agreement, indenture or other instrument to which TRIGID is a party, or to which it is bound.

3. REPRESENTATIONS AND WARRANTIES OF TRIC.

As a material inducement to the TMWA to enter into this Agreement, TRIC represents and warrants to TMWA as follows:

3.1 Organization and Power. TRIC is duly organized, validly existing and authorized to conduct business under the laws of the State of Nevada, and has full power and authority to sell and convey all its right, title and interest in the TRIGID Exchange Rights to TMWA and to enter into and perform its obligations pursuant to this Agreement. This Agreement and all other documents delivered by TRIC to TMWA, have been or will be duly executed and delivered by TRIC and are or will be legal, valid and binding obligations of TRIC, and are enforceable in accordance with their respective terms. Each of the persons signing this Agreement and other instruments required under this Agreement on behalf of TRIC is or will be authorized to so sign; and the execution, consent or acknowledgment of no other person, entity, court or governmental authority is necessary in order to validate the execution and performance of this Agreement by TRIC.

3.2 Transferability. TRIC has no knowledge of any condition or fact related to the TRIGID Exchange Rights which would prevent or impede the transfer and exchange of the TRIGID Exchange Rights to TMWA.

3.3 No Litigation. There are no pending or to the best of TRIC's knowledge threatened actions which would materially and adversely affect the TRIGID Exchange Rights, or any portion thereof, nor are there any known specific facts which might give rise to such action or proceedings, or which would or could adversely change the use of the TRIGID Exchange Rights.

3.4 No Misstatement. No representation, statement or warranty by TRIC contained in this Agreement or in any exhibit hereto contains or will contain any untrue statements or omits, or will omit, any material fact necessary to make the statement of fact recited not misleading.

3.5 No Agreements. Neither the execution and delivery of this Agreement by TRIC nor the consummation of the transactions contemplated hereby will result in any breach or violation of or default under any judgment, decree, order, mortgage, lease, agreement, indenture or other instrument to which TRIC is a party, or to which it is bound.

4. REPRESENTATIONS OF TMWA.

As a material inducement to TRIGID and TRIC to enter into this Agreement, TMWA represents and warrants to the TRIGID and TRIC as follows:

4.1 Organization and Power. TMWA is duly organized, validly existing and authorized to conduct business under the laws of the State of Nevada and has full power and authority to issue the Return Flow Will-Serve Commitment to TRIGID and to enter into and perform its obligations pursuant to this Agreement. This Agreement and all other documents delivered by TMWA, have been or will be duly executed and delivered by TMWA and are or will be legal, valid and binding

obligations of TMWA, and are enforceable in accordance with their respective terms. Each of the persons signing this Agreement and other instruments required under this Agreement on behalf of TMWA is or will be authorized to so sign; and the execution, consent or acknowledgment of no other person, entity, court or governmental authority is necessary in order to validate the execution and performance of this Agreement by TMWA.

4.2 No Misstatement. No representation, statement or warranty by TMWA contained in this Agreement or in any exhibit hereto contains or will contain any untrue statements or omits, or will omit, any material fact necessary to make the statement of fact recited not misleading.

4.3 No Agreements. Neither the execution and delivery of this Agreement by TMWA nor the consummation of the transactions contemplated hereby will result in any breach or violation of or default under any judgment, decree, order, mortgage, lease, agreement, indenture or other instrument to which TMWA is a party, or to which it is bound.

5. MISCELLANEOUS.

5.1 Time. Time is of the essence in the performance of all obligations under this Agreement.

5.2 Nevada Law. The validity, interpretation and performance of this Agreement shall be controlled and governed by and construed under the laws of the State of Nevada.

5.3 Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Legible executed counterparts of this Agreement may be delivered by facsimile, PDF e-mail attachment, or any other electronic means.

5.4 Successors and Assigns. This Agreement shall be binding on and shall inure to the benefit of the parties hereto and their respective heirs, legal representatives, successors and/or assigns.

5.5 Entire Agreement. This Agreement contains the sole and only agreement between the parties hereto relating to their agreement regarding the subject matters and correctly sets forth the rights, duties and obligations of each to the other as of this date. Any prior agreements, promises, negotiations or representations not expressly set forth in this Agreement are of no force and effect.

5.6 Non-Merger. This Agreement and all of its conditions and covenants shall not merge with the deeds referred to herein but shall survive the recordation of such documents and remain in full force and effect.

5.8 Recitals. The above recitals are incorporated herein by reference.

5.9 Board Approval. This Agreement is contingent upon the approval of the terms by the Board of Directors of TMWA and the Board of Trustees of TRIGID.

[Signature Page Follows]

[Signature Page – Water Resource Exchange Agreement]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

“TMWA”
TRUCKEE MEADOWS WATER
AUTHORITY, a Joint Powers Authority

By: _____
Mark Forcee, General Manager

Dated: _____

“TRIGID”
TRI GENERAL IMPROVEMENT DISTRICT,
a political subdivision of the State of Nevada

By: _____
Shari Whalen, General Manager

Dated: _____

“TRIC”
TAHOE-RENO INDUSTRIAL CENTER,
LLC, a Nevada limited liability company

By: Norman Properties, Inc., a California
corporation

By: _____
Don Roger Norman, President

Dated: _____

EXHIBIT "A"
LEGAL DESCRIPTION OF TRIGID EXCHANGE WATER RIGHTS

All of the rights of the Grantor to divert from the Truckee River and its tributaries the water appurtenant to the land situate in the County of Washoe, State of Nevada, more particularly describes as:

I.

A portion of Permit No. 64368 which consists of 192.22 acre-feet along with 1.265 cfs of diversion rate. Said water rights being a portion of the Lake Ditch heretofore allocated to James L. Hash, successor to D. C. Wheeler Inc. and to others, in that certain action entitled United States of America, Plaintiff, vs. Orr Water Ditch Company, et al, Defendants, the same in Equity Docket A-3 in the District Court of the United States in and for the District of Nevada, said water being distributed and allocated in said Decree under CLAIM OR RIGHT NO. 207, 207.5, 265.5 and as changed by Permit No. 11489, Certificate 4827.

II.

A portion of Permit No. 65134 which consists of 45.14 acre-feet along with 0.234 cfs of diversion rate. Said water rights being a portion of the Orr Ditch heretofore allocated to Dennis R. O'Sullivan, successor to J.D. O'Sullivan in that certain action entitled United States of America, Plaintiff, vs. Orr Water Ditch Company, et al, Defendants, the same in Equity Docket A-3 in the District Court of the United States in and for the District of Nevada, said water being distributed and allocated in said Decree under CLAIM OR RIGHT NO. 311.

III.

All of Permit No. 67467 which consists of 128.38 acre-feet along with 0.392 cfs of diversion rate. Said water rights being a portion of Steamboat Canal heretofore allocated to D. C. Wheeler, Inc., in that certain action entitled United States of America, Plaintiff, vs. Orr Water Ditch Company, et al, Defendants, the same in Equity Docket A-3 in the District Court of the United States in and for the District of Nevada, said water being distributed and allocated in said Decree under CLAIM OR RIGHT NO. 65.

IV.

A portion of Permit No. 72776 which consists of 40.0 acre-feet along with 0.157 cfs of diversion rate. Said water rights being a portion of the Steamboat Canal heretofore allocated to Leonidas Frederick Johnson, successor to L. Cardella and S. Capurro, in that certain action entitled United States of America, Plaintiff, vs. Orr Water Ditch Company, et al, Defendants, the same in Equity Docket A-3 in the District Court of the United States in and for the District of Nevada, said water

being distributed and allocated in said Decree under CLAIM OR RIGHT NO. 50 and 50a.

V.

A portion of Permit No. 73061 which consists of 58.52 acre-feet along with 0.346 cfs of diversion rate. Said water rights being a portion of the Cochran Ditch heretofore allocated to W. H. Menke, D. P. Jones, successor to Mary De Remer, and E. L. Hall, successor to Mary De Remer, in that certain action entitled United States of America, Plaintiff, vs. Orr Water Ditch Company, et al, Defendants, the same in Equity Docket A-3 in the District Court of the United States in and for the District of Nevada, said water being distributed and allocated in said Decree under CLAIM OR RIGHT NOS. 438, 443 and 444.

VI.

A portion of Permit No. 74330 which consists of 16.69 acre-feet along with 0.100 cfs of diversion rate. Said water rights being a portion of the Eastman Ditch and Pioneer Ditch heretofore allocated to Steele Corporation, in that certain action entitled United States of America, Plaintiff, vs. Orr Water Ditch Company, et al, Defendants, the same in Equity Docket A-3 in the District Court of the United States in and for the District of Nevada, said water being distributed and allocated in said Decree under CLAIM OR RIGHT NOS. 524 and 596.

Reserving unto the Grantor any and all water and water rights over and above the 16.69 acre-feet and a proportionate rate of diversion under Permit No. 74330 specifically granted herein. It being the intent of the Grantor to convey 4.90 acre-feet under CLAIM NO. 524 and 11.79 acre-feet under CLAIM NO. 596 and to reserve the remainder.

VII.

All of Permit No. 74908 which consists of 8.60 acre-feet along with 0.029 of diversion rate. Said water rights being a portion of the Orr Extension Ditch heretofore allocated to Mrs. Adelina Trosi (formerly Mrs. Charles Trosi), in that certain action entitled United States of America, Plaintiff, vs. Orr Water Ditch Company, et al, Defendants, the same in Equity Docket A-3 in the District Court of the United States in and for the District of Nevada, said water being distributed and allocated in said Decree under CLAIM OR RIGHT NOS. 337 and 338.

VIII.

All of Permit No. 85734 which consists of 24.06 acre-feet along with 0.152 of diversion rate. Said water rights being a portion of the North Truckee Ditch heretofore allocated to Alex Crotta, successor to Lucy M. Uyatt, in that certain action entitled United States of America, Plaintiff, vs. Orr Water Ditch Company, et al, Defendants, the same in Equity Docket A-3 in the District Court of the United

States in and for the District of Nevada, said water being distributed and allocated in said Decree under CLAIM OR RIGHT NOS. 576 and 577.

IX.

Said water being a portion of the STEAMBOAT CANAL heretofore allocated to Peter Quillici, Intervenor, in that certain action entitled United States of America, Plaintiff, vs. Orr Water Ditch Company, et al, Defendants, the same in Equity Docket A-3 in the District Court of the United States in and for the District of Nevada, said water being distributed and allocated in said Decree under CLAIM OR RIGHT NO. 17.

Said right authorizing delivery of a pro-rata share of the rate of diversion not to exceed 6.14 acre-feet, more or less, per season from STEAMBOAT CANAL in Washoe County, Nevada, together with the right to change the point of diversion and place and manner of use thereof.

Reference is made to Washoe County Assessor Parcel Numbers 038-810-03, 038-810-04, and 038-810-05 on Truckee River Mapping TR-.068

X.

Said water being a portion of the STEAMBOAT CANAL heretofore allocated to Domingo Gavica in that certain action entitled United States of America, Plaintiff, vs. Orr Water Ditch Company, et al, Defendants, the same in Equity Docket A-3 in the District Court of the United States in and for the District of Nevada, said water being distributed and allocated in said Decree under CLAIM OR RIGHT NO. 19.

Said right authorizing delivery of a pro-rata share of the rate of diversion not to exceed 16.0 acre-feet, more or less, per season from STEAMBOAT CANAL in Washoe County, Nevada, together with the right to change the point of diversion and place and manner of use thereof.

Reference is made to Washoe County Assessor Parcel Numbers 038-221-02, 038-221-03, and 038-221-04 on Truckee River Mapping TR-067.

XI.

Said water being a portion of the STEAMBOAT CANAL heretofore allocated to Mrs. Phillipine Mitchell in that certain action entitled United States of America, Plaintiff, vs. Orr Water Ditch Company, et al, Defendants, the same in Equity Docket A-3 in the District Court of the United States in and for the District of Nevada, said water being distributed and allocated in said Decree under CLAIM OR RIGHT NO. 31.

Said right authorizing delivery of a pro-rata share of the rate of diversion not to exceed 26.12 acre-feet, more or less, per season from STEAMBOAT CANAL in

Washoe County, Nevada, together with the right to change the point of diversion and place and manner of use thereof.

Reference is made to Washoe County Assessor Parcel Numbers 038-090-14 and 038-090-60 on Truckee River Mapping TR-067.

XII.

Said water being a portion of the STEAMBOAT CANAL heretofore allocated to Unknown Owner in that certain action entitled United States of America, Plaintiff, vs. Orr Water Ditch Company, et al, Defendants, the same in Equity Docket A-3 in the District Court of the United States in and for the District of Nevada, said water being distributed and allocated in said Decree under CLAIM OR RIGHT NO. 33.

Said right authorizing delivery of a pro-rata share of the rate of diversion not to exceed 6.0 acre-feet, more or less, per season from STEAMBOAT CANAL in Washoe County, Nevada, together with the right to change the point of diversion and place and manner of use thereof.

Reference is made to Washoe County Assessor Parcel Number 038-090-60 on Truckee River Mapping TR-067.

XIII.

Said water being a portion of the STEAMBOAT CANAL heretofore allocated to Paul Garson successor to Chris Theusen, Intervenor, in that certain action entitled United States of America, Plaintiff, vs. Orr Water Ditch Company, et al, Defendants, the same in Equity Docket A-3 in the District Court of the United States in and for the District of Nevada, said water being distributed and allocated in said Decree under CLAIM OR RIGHT NO. 46.

Said right authorizing delivery of a pro-rata share of the rate of diversion not to exceed 222.855 acre-feet, more or less, per season from STEAMBOAT CANAL in Washoe County, Nevada, together with the right to change the point of diversion and place and manner of use thereof.

Reference is made to Washoe County Assessor Parcel Numbers 038-100-19, 038-100-21, and 038-120-13 on Truckee River Mapping TR-064.

XIV

Said water being a portion of the STEAMBOAT CANAL heretofore allocated to Chris Mortensen, Sophia Mortensen, and M. Mortensen, Jr., Intervenor, in that certain action entitled United States of America, Plaintiff, vs. Orr Water Ditch Company, et al, Defendants, the same in Equity Docket A-3 in the District Court

of the United States in and for the District of Nevada, said water being distributed and allocated in said Decree under CLAIM OR RIGHT NO. 47.

Said right authorizing delivery of a pro-rata share of the rate of diversion not to exceed 318.0 acre-feet, more or less, per season from STEAMBOAT CANAL in Washoe County, Nevada, together with the right to change the point of diversion and place and manner of use thereof.

Reference is made to Washoe County Assessor Parcel Numbers 038-100-27, 038-430-20, 038-430-21, and 038-420-22 on Truckee River Mapping TR-064.

.XV

Said water being a portion of the STEAMBOAT CANAL heretofore allocated to James Atcheson, L. R. McKenzie, successors to A. L. Laughton and Geo. Christensen, Intervenor, in that certain action entitled United States of America, Plaintiff, vs. Orr Water Ditch Company, et al, Defendants, the same in Equity Docket A-3 in the District Court of the United States in and for the District of Nevada, said water being distributed and allocated in said Decree under CLAIM OR RIGHT NO. 48.

Said right authorizing delivery of a pro-rata share of the rate of diversion not to exceed 11.07 acre-feet, more or less, per season from STEAMBOAT CANAL in Washoe County, Nevada, together with the right to change the point of diversion and place and manner of use thereof.

Reference is made to Washoe County Assessor Parcel Numbers, 038-430-24, Interstate I-80, and a portion of 038-430-03 on Truckee River Mapping TR-064.

.XVI

Said water being a portion of the ORR DITCH heretofore allocated to Mrs. Alice Chism in that certain action entitled United States of America, Plaintiff, vs. Orr Water Ditch Company, et al, Defendants, the same in Equity Docket A-3 in the District Court of the United States in and for the District of Nevada, said water being distributed and allocated in said Decree under CLAIM OR RIGHT NO. 271.

Said right authorizing delivery of a pro-rata share of the rate of diversion not to exceed 23.60 acre-feet, more or less, per season from ORR DITCH in Washoe County, Nevada, together with the right to change the point of diversion and place and manner of use thereof.

Reference is made to Washoe County Assessor Parcel Numbers 006-183-42, 006-221-23, 006-222-02, and 006-222-22 on Truckee River Mapping TR-128.

Grantee does hereby agree to assume the payment of all water master fees and charges that may hereafter become due and payable in respect to said rights referred to herein by reason of the Decree in the *United States of America, Plaintiff, vs. Orr Water Ditch Company, et al, Defendants*, the same in Equity Docket A-3 in the District Court of the United States in and for the District of Nevada, and Grantee does hereby further agree to pay all administration, operation and maintenance charges that may be herein payable arising for periods from and after the date hereof to Washoe County Water Conservation District and constitute a charge or lien against the lands herein described by reason of the Boca Dam construction.

Exhibit "B"
Form of Deed

APN: N/A
When Recorded mail Document to:
Truckee Meadows Water Authority
Water Resources Dept.
P.O. Box 30013
Reno, NV 89520-3013

The undersigned hereby affirms that this document submitted for recording does not contain the personal information of any person or persons per N.R.S. 239B.030.

WATER RIGHTS DEED

THIS INDENTURE, made and entered into this _____ day of _____, 2021 by and between TRI GENERAL IMPROVEMENT DISTRICT, a political subdivision of the State of Nevada hereinafter referred to as "Grantor", and the TRUCKEE MEADOWS WATER AUTHORITY, a Joint Powers Authority entity created pursuant to a cooperative agreement among the cities of Reno, Nevada, Sparks, Nevada and Washoe County, Nevada, pursuant to N.R.S. Chapter 277, hereinafter referred to as "Authority".

WITNESSETH:

That the Grantor, for good and valuable consideration, the receipt whereof is hereby acknowledged, does by these presents grant, bargain, sell and convey unto the Authority, and to its successors and assigns forever, all of Grantor's right, title, and interest in and to those certain water and water rights more particularly described in Exhibits "1" attached hereto and incorporated herein, including without limitation any and all rights arising in connection with pending Applications to Change, Permits and Certificates related to such Water Rights on file in the office of the Nevada State Engineer.

To have and to hold said Water Rights together with the tenements, hereditaments and appurtenances thereunto belonging or appertaining and the reversion and reversions, remainder and remainders, rents, issues, and profits thereof unto The Authority, its successors and assigns, forever.

The Authority does hereby agree to assume the payment of all water master fees and charges that may hereafter become due and payable in respect to said rights referred to herein by reason of the Decree in The United States of America, Plaintiff, vs. Orr Water Ditch Company, et al, Defendants, the same in Equity Docket No. A-3 in the District Court of the United States in and for the District of Nevada, and the Authority does hereby further agree to pay all administration and operation and maintenance charges that may be herein payable to Washoe County Water Conservation District and constitute a charge or lien against the lands herein described by reason of Boca Dam construction.

IN WITNESS WHEREOF, the parties hereto have caused their names to be hereunto subscribed the day and year first above written.

“AUTHORITY”

“GRANTOR”

TRUCKEE MEADOWS WATER
AUTHORITY, a Joint Powers Authority

TRI GENERAL IMPROVEMENT DISTRICT,
a political subdivision of the State of Nevada

By: _____
Mark Forcee, General Manager

By: _____
Shari Whalen, General Manager

STATE OF NEVADA)
) ss.
COUNTY OF WASHOE)

This instrument was acknowledged before me on _____, 2021,
by Shari Whalen, as General Manager of the TRI General Improvement District, as therein named.

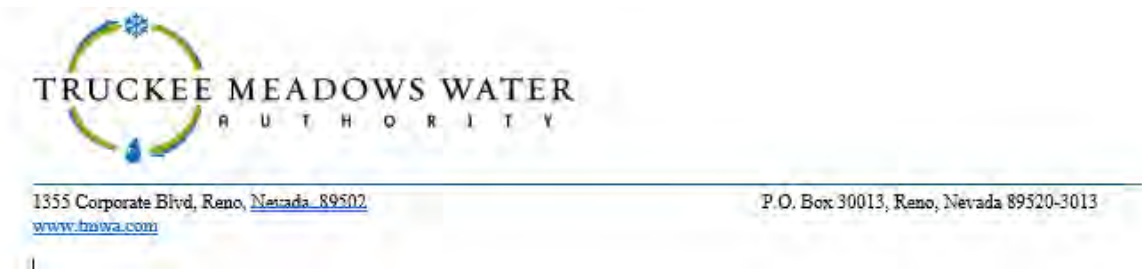
Notary Public

STATE OF NEVADA)
) ss.
COUNTY OF WASHOE)

This instrument was acknowledged before me on _____, 2021 by Mark
Foree as General Manager of TRUCKEE MEADOWS WATER AUTHORITY, on behalf of said
Joint Powers Authority therein named.

Notary Public

Exhibit “C”
Return Flow Will-Serve Commitment



RETURN FLOW WILL SERVE COMMITMENT LETTER
(Tariff ILVNPS)

_____, 2021

TRI General Improvement District
Attn: Shari Whalen

Return Flow Demand: 1,500 AFA

Approval Date: _____

RE: Commitment for Return Flow Purposes/Return Flow Management Agreement

Dear Ms. Whalen:

Pursuant to that certain Water Resource Exchange Agreement between the Truckee Meadows Water Authority (TMWA), TRI General Improvement District (TRIGID) and the Tahoe-Reno Industrial Center dated _____, 2021, and in furtherance of the Return Flow Management Agreement dated July 17, 2018 between TMWA, TRIGID, the City of Reno and City of Sparks (“RFMA”), this letter constitutes an irrevocable commitment that TMWA has assumed a legal obligation to supply sufficient water resources to deliver water to the Truckee River for Return Flow Purposes under Tariff ILVNPS or such other tariff deemed applicable by TMWA to meet the return flow demand of TRIGID as a customer of TMWA up to the amount stated above. Notwithstanding any provision of the ILVNPS tariff or such other tariff deemed applicable which subjects such service to interruption or curtailment in TMWA’s discretion, TMWA will provide sufficient resources to support the Return Flow Will-Serve Commitment to ensure that deliveries hereunder are provided as and when necessary to satisfy the TRIGID Return Flow Resources obligation under the RFMA. TRIGID shall be the customer of record with TMWA in connection with water deliveries pursuant to this commitment and the rates payable by TRIGID for the TMWA Return Flow Resources used to satisfy customer deliveries under this Return Flow Will-Serve Commitment shall be governed by Section 4.6 of the RFMA (as incorporated by reference into the applicable tariff). Except as otherwise defined herein, capitalized terms shall have the meaning ascribed to them in the RFMA as of the date of this Commitment. This commitment is made subject to all

applicable TMWA Rules and payment of fees for water delivery in accordance with the Water Resource Exchange Agreement and RFMA. This commitment does not constitute an obligation to provide municipal water service.

Very truly yours,

cc: _____



TO: Board of Directors
THRU: Mark Foree, General Manager
FROM: John Enloe, Director of Natural Resources & Planning
John Zimmerman, Water Resources Manager
DATE: April 21, 2021
SUBJECT: **Presentation and informational Report on a Proposed OneWater Nevada Feasibility Study to evaluate feasibility of using recycled water for irrigation in Warm Springs Valley (Palomino Farms and LW Land Company) and to provide water sustainability benefits**

Background

Palomino Farms, LLC and LW Land Company, LLC (Palomino-LW) collectively own approximately 1,512 acres of farmland (shown in Attachment 1) and 2,580 acre-feet (AF) of groundwater rights in Palomino Valley, which is an unincorporated area that is part of the larger Warm Springs Valley. Under the auspices of OneWater Nevada, with the cooperation of Palomino-LW, a study is proposed to explore the coordinated use of surface water, groundwater and recycled water as part of a long-term sustainable water management plan (“Feasibility Study”).

Reno, Sparks, and Washoe County are interested in exploring long-term opportunities to use recycled water for agricultural irrigation of Palomino-LW land in lieu of using the Palomino-LW groundwater rights. TMWA is interested in locating sites where it may bank water underground through active and passive groundwater recharge and new groundwater resources, to provide a future source of water for drought protection, water resource sustainability, and operational flexibility. There may also be benefits to the Palomino Valley area from leaving the Palomino-LW land as farmland irrigated with recycled water and open space, preserving the existing farmland and rural lifestyle.

The proposed Feasibility Study would evaluate the feasibility and direct and indirect benefits of (i) providing another option for regional effluent management, (ii) reducing the volume of treated effluent being discharged into the Truckee River, (iii) the long-term use of recycled water for irrigation of the Palomino-LW land, (iv) increasing the sustainability of the Warm Springs groundwater basin by resting current Palomino-LW irrigation wells, (iv) recharging and storing on a long-term basis potable water and potentially advanced purified water in the Warm Springs groundwater basin using Palomino-LW land, and (vi) providing TMWA with a water banking site and an additional source of water for drought protection, water resource sustainability, and operational flexibility.

Discussion

TMWA, in collaboration with Reno, Sparks, and Washoe County, would perform and pay for all work required to complete the Feasibility Study pursuant to an Interlocal Agreement (ILA) outlining each of their respective obligations and responsibilities regarding the Feasibility Study and the Project. Under the ILA, TMWA, Reno, Sparks, and Washoe County would work together and cooperatively on the intent and scope of the Feasibility Study, including evaluation of the direct and indirect benefits to the region, and public outreach, engagement, and education. Each Party to the ILA would be responsible for twenty five percent (25%) of the actual costs incurred by TMWA to perform and complete the Feasibility Study (excluding charges for TMWA staff time) with a not to exceed cost of \$1.6 million. Cost share responsibility of Reno, Sparks, Washoe County and TMWA would not exceed \$400,000 each. A task summary and cost estimate for proposed scope of work of the Feasibility Study is outlined in Attachment 2.

To facilitate the Feasibility Study, TMWA would concurrently enter a Feasibility Study Agreement with Palomino-LW pursuant to which Palomino-LW would grant TMWA physical access to the Palomino-LW land for a ten-month period. Palomino-LW would grant TMWA access to data and information related to irrigation operations, the land, wells and water rights as necessary to allow TMWA to conduct the Feasibility Study.

The Feasibility Study effort is generally described as follows: The potential to recharge, store, and recover water from the Palomino Farms will be addressed in phases. Understanding the geology, water quality, storage, flow, and geochemical characteristics of the saturated and unsaturated zones are critical to determining the long-term viability of this site for aquifer storage and recovery (ASR).

Major Feasibility Study phases include:

1. Project Planning
2. Historical Review
3. Groundwater Flow and Transport Modeling
4. Preliminary Basin Assessment

TMWA has completed work on phases 1 thru 3 and has determined the site warrants further investigation and investment. Preliminary groundwater modeling shows that over 50,000 acre-feet of water could be stored at the Palomino-LW site. However, elevated concentrations of arsenic, fluoride, and nitrate are in the vicinity of the proposed ASR sites so additional geochemical characterization, water quality sampling and transport modeling is needed to ensure that existing poor water quality will not impact the stored water.

Phase 4, Preliminary Basin Assessment, will resolve potential “deal breakers” regarding water quality in the basin. If the existing water quality cannot meet drinking water standards, then recovery may not be economically viable. The Preliminary Basin Assessment aims to address this through a detailed evaluation of the following:

- a. Well Inventory
- b. Water Levels
- c. Water Quality Sampling (Drinking Water Concerns)
- d. Geology
- e. Saturated aquifer sediments Geochemical Characterization
- f. Solute Transport Model (based on new info above)
- g. Project Feasibility Variables
 - i. Water Quality
 - ii. Recharge Potential
 - iii. Water Quantity

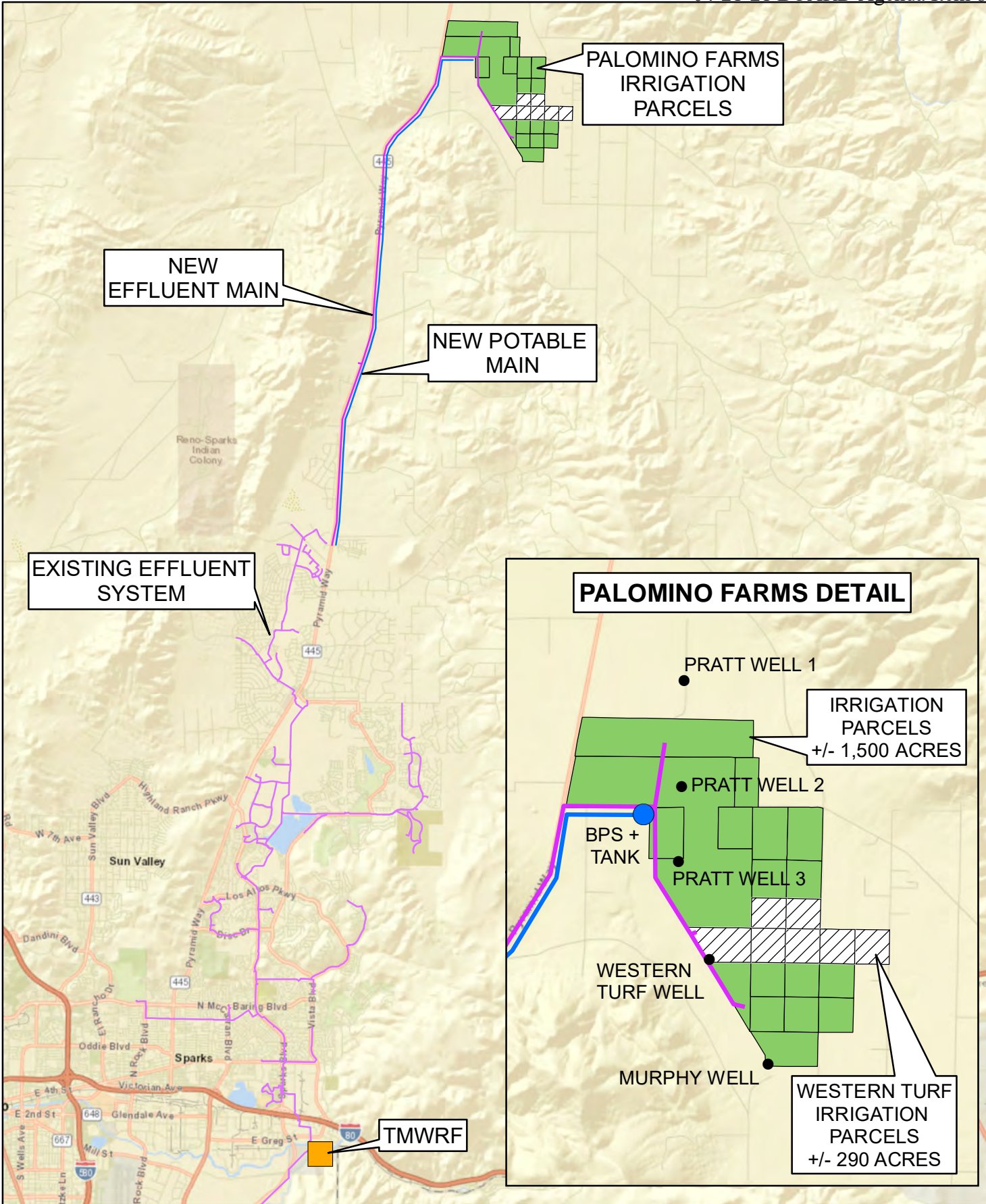
TMWA, Reno, Sparks and Washoe County will also discuss permitting requirements with regulatory agencies that have or may have jurisdiction over implementation of all or any element of the Project, including, but not limited to, Nevada State Engineer, Washoe County, Nevada Department of Transportation, and Nevada Division of Environmental Protection. A portion of the funding is also planned for preliminary surveying and right-of-way investigations along Pyramid Highway, and engineering support services for alternative facility analyses, construction phasing and cost estimates.

During the 10-month Feasibility Study period (subject to favorable results from the Phase 4 assessment outlined above), TMWA, Reno, Sparks, Washoe County and Palomino-LW would negotiate a five-year option agreement for future TMWA, Reno, Sparks, and Washoe County consideration. As presently contemplated, the Option Agreement would grant the right to purchase (1) all necessary rights and interests in the Palomino-LW land and (2) the Palomino-LW water rights sufficient to allow TMWA and Reno, Sparks and Washoe County, subject to obtaining necessary permits, the right to implement the Project. The total purchase price for the above-described interests in the Palomino-LW land and Palomino-LW water rights under the option would be \$27,000,000 and any option payments would be applied toward the purchase price. The option would reserve to Palomino-LW the right to use the Palomino-LW land for any activity so long as such activity does not adversely impact the Project. Such uses include, but are not limited to, entering into an agreement with a contract farmer, leasing the Palomino-LW land to a farmer, and encumbering the Palomino-LW land with a conservation easement.

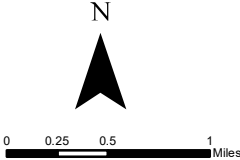
Summary:

No action is requested at this time. This is an informational report on a proposed Feasibility Study to evaluate the feasibility of using recycled water for irrigation on Palomino-LW land and other water resource sustainability benefits.

Staff plans to bring forward two agreements for TMWA Board consideration at the May 20th meeting: The Feasibility Study Agreement with Palomino-LW and the ILA for the Palomino Farms Sustainable Water Resource Feasibility Study. Assuming TMWA Board approval of the two agreements, staff from Reno, Sparks and Washoe County would subsequently take the ILA to each of their respective governing bodies for review and approval in late May or June.



REGIONAL EFFLUENT MANAGEMENT PALOMINO FARMS



K:\Hydrologic\Sciences\Surface water files\effluent + return flow\gis\mxd\palomino_valley_effluent_inset.mxd

Attachment 2

Palomino Farms Sustainable Water Resource Feasibility Study

Feasibility Study Budget Summary

Task	Cost Estimate
Well Videos and Contractor-Assisted Well Sampling	\$60,000
Existing Production Well Flow and Quality Profiles (4)	\$120,000
Deep Sonic Core Boring and 2" Monitoring Wells (2)	\$150,000
Deep Mud Rotary 6" Monitoring Wells (6) to 600'	\$510,000
6" Monitoring Well Flow and Quality Profiles (5)	\$175,000
Water Quality Analyses	\$15,000
Soil Lab Analyses	\$10,000
Geochemistry Assessment	\$200,000
Subtotal	\$1,240,000
Engineering, Surveying, and R/W Research	\$160,000
Contingency	\$200,000
TOTAL	\$1,600,000



STAFF REPORT

TO: Chairman and Board Members
THRU: Mark Foree, General Manager
FROM: John Zimmerman, Water Resources Manager
DATE: April 15, 2021
SUBJECT: **Discussion and possible approval of an Interlocal Agreement between TMWA and the City of Reno for TMWA to provide supplemental irrigation water to Reno’s American Flat Road Project**

SUMMARY

Staff requests Board approval of an interlocal agreement between TMWA and the City of Reno under which TMWA would provide water to the City for irrigation use at its American Flat Project. The agreement is subject to Reno City Council approval.

RENO’S AMERICAN FLAT PROJECT

The City of Reno, through an independent contractor, currently irrigates land it is leasing from Washoe County. The land is located roughly 2 miles north of the Reno Stead Airport. Reno currently uses water from Swan Lake to irrigate the land, however, the land will be used in the future for irrigation with advanced purified water as part of the regional A+ water reuse strategy. This year Reno staff anticipates that there will not be enough water in Swan Lake for irrigation and requested TMWA supply additional water (up to 500 acre-feet) to supplement the irrigation water supply. Two TMWA production wells near Swan Lake are capable of providing the additional water and, but for Reno’s request, would not have been used to meet TMWA customer demands this year. Providing the water is in TMWA’s interests because it furthers the regional benefits of the Advanced Purified Water Demonstration Project at American Flat. TMWA also benefits operationally because it will be able to use two wells that have not been operated for a while and that would otherwise remain idle this year. Operating the wells reduces the amount of rehabilitation and maintenance TMWA must conduct to keep the wells at optimal operational levels and provides water quality data that TMWA uses to ensure the wells will be ready when needed to meet customer demands.

PROPOSED INTERLOCAL AGREEMENT

Under the attached Interlocal Agreement (ILA), Reno will pay and reimburse TMWA for all costs to provide the service. There is already an existing aboveground pipeline near Swan Lake that Reno uses for the Project, which is near one of the wells TMWA intends to use to provide the water. Reno will construct additional pipelines to connect to TMWA's wells.

The water service will be subject to TMWA's Interruptible Water Service rules and staff is requiring Reno to reimburse TMWA for the cost of pumping those wells (\$0.20/1000 gallons). The ILA also provides that TMWA may, in its sole discretion, choose to supply water with Fish Springs groundwater from TMWA's distribution system. TMWA would charge Reno for the estimated costs to provide Fish Springs water for this service through its distribution system to Reno (\$0.60/1000 gallons). TMWA staff will conduct the same review process that all water service applicants must go through to ensure the water facilities are appropriately designed and constructed.

TMWA staff is not recommending the County's land be annexed into TMWA's service area because the service is temporary and unique to this Project only. TMWA also will not require Reno to dedicate water rights to obtain the water service and instead will temporarily change TMWA's groundwater rights from the two wells to provide the service. Water service under the ILA will be provided at the sole discretion of TMWA and may be subject to frequent and immediate interruptions or curtailments for indefinite periods. Lastly, the ILA will be automatically renewed from year to year unless either party terminates it by providing 30 days' advance notice.

RECOMMENDATION

Staff recommends the TMWA Board approve the ILA and authorize the General Manager to sign it if the Reno City Council approves it.

INTERLOCAL AGREEMENT
FOR TEMPORARY DELIVERY OF WATER

THIS INTERLOCAL AGREEMENT is entered into as of the date indicated below by and between TRUCKEE MEADOWS WATER AUTHORITY, a Joint Powers Authority (“Authority”) and the City of Reno, a municipal corporation (“Customer”), hereinafter sometimes referred to individually as “Party” and collectively as “Parties.”

WITNESSETH:

WHEREAS, Authority is a public purveyor of water service within Reno and Sparks, Nevada, and areas of Washoe County.

WHEREAS, Customer has an agreement with Washoe County dated August 6, 2019 which allows Customer to irrigate certain real property owned by the County described as APN 079-332-36 and 079-332-37 (“County Property”) with water from Swan Lake to reduce the water level of Swan Lake. Customer has engaged an independent contractor to conduct farming operations on the County Property.

WHEREAS, Customer desires Authority to deliver non-potable water (as defined below, the “Supplemental Water Service”) in the event supplemental irrigation water is needed to provide water to the farming operation on the County Property when non-potable water from Swan Lake is unavailable or insufficient to meet the irrigation demands.

WHEREAS, Customer desires Authority to deliver the Supplemental Water to a master meter, from points of connection Customer may then transmit from the point of connect to the County Property for irrigation purposes.

WHEREAS, there are sufficient water resources of Authority to provide the Supplemental Water and Customer acknowledges and understands that it will be required to pay for the cost and installation of the necessary water facilities to provide water to the County Property as per Swan Lake/American Flat Irrigation Project PWP I20027. Authority is willing to provide Customer and Customer agrees to accept service under the IWS Rate Schedule for the Authorized Use (as described below) on the terms and conditions set forth below.

NOW THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, the Parties agree as follows:

1. Service to Customer and Authorized Use. Authority agrees to supply water service to the County Property on an interruptible basis (the “Supplemental Water Service”). The use of water under this Supplemental Water Service is limited to irrigation at the County Property (the “Authorized Use”). Customer agrees it shall not use any water supply provided under the Supplemental Water Service for any purpose other than the Authorized Use. The Supplemental Water Service shall be subject to all terms and conditions of service set forth in this Agreement, the Authority’s IWS Rate Schedule, and Authority Rules of Service, as such may be amended from time to time, the terms and conditions of which are incorporated herein by reference.

2. Customer Facilities. Customer shall be solely responsible for installing, operating, permitting and maintaining all water distribution facilities downstream of the Points of Connection (“Customer Facilities”) necessary to deliver water to the County Property. Customer shall be responsible for all water facility modifications, improvements, and meters required to allow Authority to provide water to Customer under this Agreement. Customer shall be responsible for the cost of installing all necessary meter facilities to measure the amount of water supplied to Customer by Authority. These facilities are seen in Swan Lake/American Flat Irrigation Project PWP I200027. In addition to any of the above-described costs, Customer shall reimburse Authority for Authority providing and installing the following: RTU/radio equipment at Lemmon Valley Well No. 8 (including associated wiring/appurtenances); flow meter at Lemmon Valley Well No. 8; level transducer at Lemmon Valley Well No. 7 (to control Customer’s frac tank level); and Authority’s cost of labor to install an RTU at Lemmon Valley Well No. 7.

3. Delivery of Water. Authority intends to supply water consistent with the IWS Rate Schedule or Modified Rate (as applicable) to Customer from Authority’s Lemmon Valley Well Nos. 7 and 8 or Authority’s distribution system to a master meter connected to Customer Facilities (the master meter referred to as the “Points of Connection”), which Customer may then convey through Customer’s Facilities to the County Property. Water supply under the Supplemental Water Service is provided at the sole discretion of the Authority and may be subject to frequent and immediate interruptions or curtailments for indefinite periods. During the term of this agreement and subject to Authority’s discretion to interrupt or terminate service, Authority agrees to provide up to 500 acre-feet annually (AF) to Customer at the Points of Connection. Available supply flows from each source is limited to the following: Lemmon Valley Well 7 up to 450 gpm; Lemmon Valley Well 8 up to 650 gpm and TMWA resources, which may include Fish Springs groundwater resources, up to 450 gpm. Authority shall bill Customer at the rate of \$0.60/1,000 gallons for all water provided from Authority’s potable distribution system and \$0.20/1,000 gallons for water provided directly from Authority’s Lemmon Valley Well Nos. 7, and 8 (“Modified Rate”). The above-described rates are lower than TMWA’s IWS rate schedule, however, they fully compensate the Authority for the cost of providing service to Customer for the Authorized Use due to the location of the County Property and Customer’s payment for all facilities necessary to provide the service. Additionally, this service provides a unique public benefit because it allows Customer to continue its American Flat Road project, which is intended to lower the level of Swan Lake and provide flood mitigation, and it provides the Authority with an opportunity to assess the operational capacity of the wells.

4. Conditions of Water Service. The Supplemental Water Service shall be and remain in all respects subject to the applicable Rate Schedules and the Rules of the Authority, and any lawful amendments and supplements thereto, all of which are incorporated into and made a part of this Agreement. In the event of any inconsistency between this Agreement and the Rate Schedules or Rules, the Rate Schedules and Rules shall govern. This Supplemental Water Service is being provided to Customer only and shall not be assignable to any other entity without Authority’s advance written consent in Authority’s sole discretion. If Customer discontinues the use of the County Property, then Customer must notify Authority and Authority is authorized to terminate this Supplemental Water Service and retire the service facilities.

5. Water Resources Supporting Service. Authority agrees that Customer shall not be required to dedicate water resources to Authority to support the Supplemental Water Service for the Authorized Use because TMWA has existing resources to temporarily commit to the Service. The Customer shall have no right, title or interest (including beneficial interest) in the Authority's water resources used to support the Supplemental Water Service. Authority shall have sole discretion in identifying the Authority's water resources used to support the Supplemental Water Service, and Authority may use one or more sources or substitute from time to time sources of supply in its sole and absolute discretion.

6. Indemnification. Customer will hold harmless, protect, indemnify and (at Authority's option) defend Authority, its officers, employees and agents from and against any and all claims, liabilities, losses, damages, actions, causes of action (in law or equity), demands, liens, expenses and charges, including injury to, loss of use of, or damage to any property of Authority, relating to or arising directly or indirectly from or incident to any: (i) water service interruption; (ii) breach of this Agreement by Customer; (iii) error, negligence, act or omission of Customer; (iv) claim arising from or related to Customer's Facilities or delivery of water through Customer's Facilities; or (v) use of water on County Property. Customer acknowledges and agrees that Customer's indemnification of Authority as described above applies to any claims, liabilities, losses, damages, actions, causes of action (in law or equity), demands, liens, expenses and charges, and reasonable expenses, of any kind or nature whatsoever, including injury or death, brought by Customer's independent contractor or Washoe County related to Authority's water service to Customer under this Agreement.

7. Notices. All notices and communications, except those specified in the paragraph below, shall be in writing and sent prepaid mail to the addresses stated below, or at such other addresses as may hereafter be designated in writing:

Authority: Truckee Meadows Water Authority
P.O. Box 30013
Reno, Nevada 89520
Attn: Water Resources Manager

Customer: City of Reno
c/o John Flansberg
Public Works Director
1 East First Street, 7th Floor
Reno, NV 89501

Notices with respect to curtailment or restoration of water service, or with respect to force majeure, shall be sufficient if given by Authority in writing, or by facsimile or orally in person or by telephone to the person or persons designated from time to time by the customer as authorized to receive such notices.

8. Miscellaneous.

8.1. No Third-Party Beneficiaries. This Agreement shall not be construed to provide any person or entity not a party to this Agreement with any benefits or cause of action arising from the performance of this Agreement.

8.2 Successors and Assigns. This Agreement may not be assigned without the express prior written consent, in its sole discretion, of the Authority.

8.3 Amendment. This Agreement may be amended or supplemented only by an instrument in writing executed by the party against whom enforcement is sought. No oral statements or representations made before or after the execution of this Agreement regarding the subject matter of this Agreement are binding on a party, nor may any such oral statements or representations be relied on by a party.

8.4 Required Approvals. This Agreement is subject to approval by the Reno City Council and TMWA Board of Directors and contingent on Customer and Authority obtaining all state, Washoe County, and City of Reno authorizations and approvals.

8.5 Term and Termination. The term of this Agreement shall be one year and shall renew automatically from year to year unless a party provides 30-day advance written notice of termination to the other party.

8.6. Applicable Law. This Agreement is subject to all applicable laws of the State of Nevada.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement by their duly authorized officials on the date indicated below Authority’s signature.

<u>Authority:</u> TRUCKEE MEADOWS WATER AUTHORITY By _____ Its _____ Date: _____	<u>Customer:</u> CITY OF RENO By: _____ Hillary L. Schieve, Mayor Date: _____ (“Effective Date”)
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	<p><u>ATTEST:</u></p> <p>_____ <u>Ashley D. Turney, City Clerk</u></p> <p><u>APPROVED AS TO FORM:</u></p> <p>_____ <u>Office of City Attorney</u></p>
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STAFF REPORT

TO: Board of Directors
FROM: Andy Gebhardt, Director of Operations
Jessica Atkinson, HR Manager
DATE: April 21, 2021
SUBJECT: Discussion and action, and possible direction to staff for the ratification of the Collective Bargaining Agreement between TMWA and the International Brotherhood of Electrical Workers (IBEW) Local 1245 for the period of July 1, 2021 through June 30, 2023

Recommendation

It is recommended that the Board approve the Collective Bargaining Agreement (CBA) between TMWA and IBEW for a two (2) year period beginning July 1, 2021 through June 30, 2023. Staff strongly believes that this proposed agreement is a fair and equitable agreement that will provide labor stability for TMWA during the next two years.

Summary

- The current agreement between TMWA and IBEW will expire on June 30, 2021.
- TMWA and IBEW began discussions on a successor agreement for a wage extension only in January of 2021.
- On March 17, 2021, parties reached a full tentative agreement on a two-year (2) year wage extension, with all other provisions of the CBA remaining.
- The tentative CBA was presented to IBEW membership for a vote and was approved by membership on March 30, 2021.
- TMWA Board approval is required for ratification of the CBA.

Discussion

The tentative CBA before the Board provides for coverage from July 1, 2021 through June 30, 2023. The only changes to this CBA are in the Wages portion.:

Fiscal Items

Title 4 - Wages

- The wage schedule has been modified to reflect a 2.5% general wage increase to base wage effective the first full pay period following July 1, 2021.
- The wage schedule has been modified to reflect a 2.5% general wage increase to base wage effective the first full pay period following July 1, 2022.

Attachments

- #1: Final Proposed Wage Table FY2021-2023
- #2: Fiscal Impact Statement
- #3: TMWA-IBEW Collective Bargaining Agreement

ATTACHMENT 1
EXHIBIT "A" (1)

WAGE SCHEDULE (Amended 07/1/2021)						
Job Class No.	Job Title/Classification	Wage Step	Wages as of 6/22/20	Wages as of 7/05/21 Plus 2.50%	Wages as of 7/19/21 PERS Increase* 0.250%	Wages as of 7/03/22 Plus 2.50%
54040	Apprentice, Fitter	Start	\$31.19	\$31.97	\$31.89	\$32.69
		6 Months	\$32.22	\$33.03	\$32.94	\$33.76
		1 Year	\$33.67	\$34.51	\$34.43	\$35.29
		18 Months	\$34.66	\$35.53	\$35.44	\$36.33
53045	Apprentice, Mechanic, Hydro/Generation	Start	\$33.48	\$34.32	\$34.23	\$35.09
		6 Months	\$34.30	\$35.16	\$35.07	\$35.95
		1 Year	\$35.97	\$36.87	\$36.78	\$37.70
		18 Months	\$36.81	\$37.73	\$37.64	\$38.58
		2 Years	\$38.49	\$39.45	\$39.35	\$40.33
		30 Months	\$40.16	\$41.16	\$41.06	\$42.09
55010	Apprentice, Mechanic Maintenance/Control-WP	Start	\$34.81	\$35.68	\$35.59	\$36.48
		6 Months	\$35.66	\$36.55	\$36.46	\$37.37
		1 Year	\$37.40	\$38.34	\$38.24	\$39.20
		18 Months	\$38.29	\$39.25	\$39.15	\$40.13
		2 Years	\$40.04	\$41.04	\$40.94	\$41.96
		30 Months	\$41.77	\$42.81	\$42.71	\$43.78
53000	Apprentice, Operator, Hydro/Generation	Start	\$34.72	\$35.59	\$35.50	\$36.39
		6 Months	\$35.99	\$36.89	\$36.80	\$37.72
		1 Year	\$37.66	\$38.60	\$38.50	\$39.46
		18 Months	\$38.50	\$39.46	\$39.36	\$40.34
55070	Apprentice, Operator, Water Plant	Start	\$36.38	\$37.29	\$37.20	\$38.13
		6 Months	\$37.70	\$38.64	\$38.55	\$39.51
		1 Year	\$39.03	\$40.01	\$39.91	\$40.91
		18 Months	\$40.36	\$41.37	\$41.27	\$42.30
		2 Years	\$41.70	\$42.74	\$42.64	\$43.71
		30 Months	\$43.02	\$44.10	\$43.99	\$45.09
		36 Months	\$44.35	\$45.46	\$45.35	\$46.48

Change from 2 to 3 year program effective 11/1/2019. Wages as of 6/25/18 are actually wages as of 11/1/2019 and represent redistribution of % of journey wage due to extension of program.

ATTACHMENT 1
EXHIBIT "A" (1)

WAGE SCHEDULE (Amended 07/1/2021)						
Job Class No.	Job Title/Classification	Wage Step	Wages as of 6/22/20	Wages as of 7/05/21 Plus 2.50%	Wages as of 7/19/21 PERS Increase* 0.250%	Wages as of 7/03/22 Plus 2.50%
55120	Apprentice, SCADA Technician	Start	\$38.03	\$38.98	\$38.88	\$39.85
		6 Months	\$39.00	\$39.98	\$39.88	\$40.88
		1 Year	\$39.95	\$40.95	\$40.85	\$41.87
		18 Months	\$40.90	\$41.92	\$41.82	\$42.87
		2 Years	\$41.83	\$42.88	\$42.77	\$43.84
		30 Months	\$42.81	\$43.88	\$43.77	\$44.86
		3 Years	\$43.76	\$44.85	\$44.74	\$45.86
53040	Apprentice, Technician, Electrical, Plant	Start	\$35.15	\$36.03	\$35.94	\$36.84
		6 Months	\$36.00	\$36.90	\$36.81	\$37.73
		1 Year	\$37.76	\$38.70	\$38.61	\$39.58
		18 Months	\$38.65	\$39.62	\$39.52	\$40.51
		2 Years	\$40.41	\$41.42	\$41.32	\$42.35
		30 Months	\$42.17	\$43.22	\$43.12	\$44.20
		55045	Assistant, WT Equipment Specialist <i>Position created effective 9/6/2019</i>	Start	\$35.73	\$36.62
6 Months	\$37.57			\$38.51	\$38.41	\$39.37
1 Year	\$39.41			\$40.40	\$40.29	\$41.30
18 Months	\$41.25			\$42.28	\$42.18	\$43.23
2 Years	\$43.10			\$44.18	\$44.07	\$45.17
51015	Facilities & Grounds Maintenance I	Start	\$25.81	\$26.46	\$26.39	\$27.05
		6 Months	\$27.85	\$28.55	\$28.47	\$29.18
51020	Facilities & Grounds Maintenance II	Start	\$29.87	\$30.62	\$30.54	\$31.30
		6 Months	\$32.43	\$33.24	\$33.16	\$33.99
51025	Facilities & Grounds Maintenance - Senior	Start	\$37.03	\$37.96	\$37.86	\$38.81
54010	Facilities Locator	Start	\$39.87	\$40.87	\$40.76	\$41.78
54045	Fitter	Start	\$37.61	\$38.55	\$38.45	\$39.41
54050	Fitter/Welder	Start	\$39.02	\$40.00	\$39.90	\$40.90
		Step 2	\$40.24	\$41.25	\$41.14	\$42.17
		Step 3	\$41.47	\$42.51	\$42.40	\$43.46
		Step 4	\$42.67	\$43.74	\$43.63	\$44.72
52030	Foreman/Forewoman, Customer Services Rep, Working	Start	\$36.63	\$37.55	\$37.45	\$38.39
53080	Foreman/Forewoman, General Customer Services Rep, Working	Start	\$40.28	\$41.29	\$41.18	\$42.21
6042	Foreman/Forewoman, General, Heavy, Water	Start	\$53.76	\$55.10	\$54.97	\$56.34
52040	Foreman/Forewoman, General, Hydro/Generation, Working	Start	\$53.76	\$55.10	\$54.97	\$56.34
6043	Foreman/Forewoman, General, Light, Water	Start	\$51.42	\$52.71	\$52.57	\$53.88

*PERS rate increases shall be split between TMWA and the employee. The wage schedule will be automatically decreased by one-half of any PERS increase and automatically increased by one-half of any PERS rate decrease.

ATTACHMENT 1
EXHIBIT "A" (1)

WAGE SCHEDULE (Amended 07/1/2021)						
Job Class No.	Job Title/Classification	Wage Step	Wages as of 6/22/20	Wages as of 7/05/21 Plus 2.50%	Wages as of 7/19/21 PERS Increase* 0.250%	Wages as of 7/03/22 Plus 2.50%
6016	Foreman/Forewoman, General, Mechanic, Hydro/Generation Working	Start	\$53.76	\$55.10	\$54.97	\$56.34
55060	Foreman/Forewoman, General, Mechanic, Maintenance and Control, Working	Start	\$55.91	\$57.31	\$57.16	\$58.59
55110	Foreman/Forewoman, General, Shift, Water Treatment, Working	Start	\$56.98	\$58.40	\$58.26	\$59.72
53070	Foreman/Forewoman, Hydro/Generation, Working	Start	\$48.85	\$50.07	\$49.95	\$51.20
54080	Foreman/Forewoman, Light, Working, Water	Start	\$46.71	\$47.88	\$47.76	\$48.95
55050	Foreman/Forewoman, Mechanic Maintenance/Control-WP	Start	\$48.85	\$50.07	\$49.95	\$51.20
55100	Foreman/Forewoman, Shift, Water Treatment, Working	Start	\$51.78	\$53.07	\$52.94	\$54.26
54090	Foreman/Forewoman, Working, Heavy, Water	Start	\$48.85	\$50.07	\$49.95	\$51.20
51000	Helper	Start	\$22.22	\$22.78	\$22.72	\$23.29
		6 Months	\$23.98	\$24.58	\$24.52	\$25.13
		1 Year	\$25.71	\$26.35	\$26.29	\$26.95
		18 Months	\$27.92	\$28.62	\$28.55	\$29.26
54070	Inspector	Start	\$47.06	\$48.24	\$48.12	\$49.32
54075	Inspector, Construction	Start	\$45.02	\$46.15	\$46.03	\$47.18
		1 Year	\$47.06	\$48.24	\$48.12	\$49.32
53050	Mechanic, Hydro/Generation	Start	\$44.41	\$45.52	\$45.41	\$46.55
55020	Mechanic, Maintenance & Control, Certified, WP	Start	\$41.84	\$42.89	\$42.78	\$43.85
		6 Months	\$43.14	\$44.22	\$44.11	\$45.21
55030	Mechanic, Specialist, Maintenance/Control-WP	Start	\$46.19	\$47.34	\$47.23	\$48.41
54020	Operator, Equipment I	Start	\$32.75	\$33.57	\$33.48	\$34.32
		6 Months	\$34.36	\$35.22	\$35.13	\$36.01
54025	Operator, Equipment II	Start	\$34.76	\$35.63	\$35.54	\$36.43
		1 Year	\$36.35	\$37.26	\$37.17	\$38.10
54030	Operator, Equipment III	Start	\$37.61	\$38.55	\$38.45	\$39.41
54035	Operator, Equipment, Heavy	Start	\$38.82	\$39.79	\$39.69	\$40.68
		1 Year	\$39.57	\$40.56	\$40.46	\$41.47
53010	Operator, Hydro/Generation	Start	\$41.84	\$42.89	\$42.78	\$43.85
8470	Operator, Water Plant, Grade II, Treatment Only	Start	\$40.51	\$41.52	\$41.42	\$42.46
55080	Operator, Water Plant, Grade II, Treatment & Distribution	Start	\$44.35	\$45.46	\$45.35	\$46.48
55090	Operator, Water Plant, Grade III, Treatment & Distribution	Start	\$47.08	\$48.26	\$48.14	\$49.34

*PERS rate increases shall be split between TMWA and the employee. The wage schedule will be automatically decreased by one-half of any PERS increase and automatically increased by one-half of any PERS rate decrease.

ATTACHMENT 1
EXHIBIT "A" (1)

WAGE SCHEDULE (Amended 07/1/2021)						
Job Class No.	Job Title/Classification	Wage Step	Wages as of 6/22/20	Wages as of 7/05/21 Plus 2.50%	Wages as of 7/19/21 PERS Increase* 0.250%	Wages as of 7/03/22 Plus 2.50%
52000	Representative, Accounts Payable	Start	\$18.60	\$19.07	\$19.02	\$19.50
		6 Months	\$19.92	\$20.42	\$20.37	\$20.88
		1 Year	\$21.19	\$21.72	\$21.67	\$22.21
		18 Months	\$22.45	\$23.01	\$22.95	\$23.52
		2 Years	\$24.86	\$25.48	\$25.42	\$26.06
		30 Months	\$27.26	\$27.94	\$27.87	\$28.57
		3 Years	\$29.66	\$30.40	\$30.33	\$31.09
52010	Representative, Customer Service	Start	\$18.60	\$19.07	\$19.02	\$19.50
		6 Months	\$19.92	\$20.42	\$20.37	\$20.88
		1 Year	\$21.19	\$21.72	\$21.67	\$22.21
		18 Months	\$22.45	\$23.01	\$22.95	\$23.52
		2 Years	\$24.86	\$25.48	\$25.42	\$26.06
		30 Months	\$27.26	\$27.94	\$27.87	\$28.57
		3 Years	\$29.66	\$30.40	\$30.33	\$31.09
52020	Representative, Customer Service, Senior	Start	\$32.88	\$33.70	\$33.62	\$34.46
54000	Service Utility Worker	Start	\$30.72	\$31.49	\$31.41	\$32.20
		6 Months	\$31.62	\$32.41	\$32.33	\$33.14
		1 Year	\$33.50	\$34.34	\$34.25	\$35.11
54060	Technician, Water Service	Start	\$40.88	\$41.90	\$41.80	\$42.85
55040	Specialist, Equipment, Water Treatment	Start	\$44.41	\$45.52	\$45.41	\$46.55
TBD	Specialist, Heating Ventilation and Air Conditioning (HVAC)	Start	\$39.02	\$40.00	\$39.90	\$40.90
		1 Year	\$40.24	\$41.25	\$41.14	\$42.17
		2 years	\$41.47	\$42.51	\$42.40	\$43.46
55000	Specialist, Water Supply	Start	\$31.44	\$32.23	\$32.15	\$32.95
		6 Months	\$33.11	\$33.94	\$33.85	\$34.70
		1 Year	\$34.70	\$35.57	\$35.48	\$36.37
53020	Technician, Plant Electrical	Start	\$47.56	\$48.75	\$48.63	\$49.85
53030	Technician, Power Generation	Start	\$47.56	\$48.75	\$48.63	\$49.85
55130	Technician, SCADA	Start	\$47.56	\$48.75	\$48.63	\$49.85
		6 Months	\$48.66	\$49.88	\$49.75	\$50.99
		1 Year	\$49.71	\$50.95	\$50.83	\$52.10

Position created effective 2/16/2021

*PERS rate increases shall be split between TMWA and the employee. The wage schedule will be automatically decreased by one-half of any PERS increase and automatically increased by one-half of any PERS rate decrease.

Truckee Meadows Water Authority Fiscal Impact Assessment Summary Required by NRS 288.153

Bargaining Unit: International Brotherhood of Electrical Workers (IBEW) Local #1245

Term: 07/01/2021 - 06/30/2023

NRS 288.153 Agreement must be approved at a public hearing; report of fiscal impact of agreement. Any new, extended or modified collective bargaining agreement or similar agreement between a local government employer and an employee organization must be approved by the governing body of the local government employer at a public hearing. The Chief executive officer of the local government shall report to the local government the fiscal impact of the agreement.

Cost	Baseline	2.5% General Wage Increase	
	FY21	FY22	FY23
Cash Out	114,277	117,804	121,188
Health	1,491,699	1,551,748	1,614,512
Dental	154,662	160,976	167,575
Vision	13,666	14,218	14,790
Cell Phone Allowance	87,780	87,780	87,780
Certifications	5,860	5,860	5,860
ER Match	717,019	739,150	760,385
General Wage Increase	-	283,990	577,172
General Wage Increase_PERs EE Contribution for Inc/Dec to Rates 50/50	-	(29,108)	-
Licensing	3,816	3,816	3,816
Life	2,705	2,788	2,868
LTD	1,710	1,733	1,753
Meal Per Diem	496,199	511,349	526,289
Medicare	213,635	220,187	226,480
Overtime	2,451,904	2,527,582	2,600,197
PERS	3,422,700	3,587,476	3,690,658
Schedule Pay	11,266,722	11,359,590	11,400,917
Shift Differential	114,069	117,592	120,970
Travel	77,142	79,523	81,808
Upgrade Assignment	125,334	129,203	132,915
Workers Compensation	103,799	107,199	110,330
Totals	20,864,698	21,580,456	22,248,263
Initial Proposal-financial impact w/step increases	-	(286,673)	(432,375)
Total less initial proposal/step increases w/no wage increase	20,864,698	21,293,783	21,815,888
Annual fiscal impact of salary increase		429,085	522,105
Cumulative Increase for FY22-23			951,190

Collective Bargaining Agreement

Truckee Meadows Water Authority (TMWA)
Reno, Nevada



and

Local #1245
International Brotherhood of Electrical Workers (IBEW)
AFL-CIO



Term of Agreement:
July 1, 2017 – June 30, 2021

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COLLECTIVE BARGAINING AGREEMENT
TMWA & IBEW LOCAL UNION 1245

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AGREEMENT

THIS AGREEMENT, made and entered into this day of 21st day of February, 2018, by and between TRUCKEE MEADOWS WATER AUTHORITY, a Joint Powers Authority entity created under a cooperative agreement among Reno, Sparks, and Washoe County under NRS Chapter 277 its successors or assigns, hereinafter referred to as the Company, and LOCAL UNION No. 1245 of the INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS (affiliated with the American Federation of Labor-Congress of Industrial Organizations), hereinafter referred to as Union.

WITNESSETH that:

WHEREAS, the parties to this agreement recognize the existence of NRS Chapter 288 and NAC Chapter 288 and their legal implications. If any of the provisions of this agreement conflict with the NRS or the NAC, the provisions in the NRS or the NAC shall prevail;

WHEREAS, pursuant to NRS 288.160, IBEW Local 1245 has applied to TMWA for recognition by presenting a copy of its constitution, a copy of its bylaws, a roster of its officer and representatives, and a pledge in writing not to strike against TMWA under any circumstances and has provided TMWA with a verified membership list showing that it represents a majority of the employees in this bargaining unit. TMWA officially recognized IBEW Local 1245 by approval of its Board of Directors on May 23, 2001;

WHEREAS, the parties hereto desire to facilitate the peaceful adjustment of differences that may from time to time arise between them, to promote harmony and efficiency to the end that Company, Union and the general public may benefit therefrom, and to establish wages, hours and working conditions for certain hereinafter designated employees of Company;

WHEREAS, the parties hereby recognize that their industry is quickly transitioning into a competitive environment, and that they will be faced with competitive threats, expanding customer requirements, and related implications that must be addressed during the transition. Both parties agree that the magnitude of the possible changes are currently unknown; however, the Union and Company both agree to meet these challenges jointly as committed partners with the end result being the Company and Union that the customers choose. (Added 1/1/98)

NOW THEREFORE, the parties hereto do agree as follows:

TITLE 1
RECOGNITION

- 1.1 Company recognizes Union as the exclusive bargaining agent of the Company employees in the bargaining unit, which are those employed in the position classifications listed in Attachment II, Exhibit B. Such employees shall not include confidential employees (as defined in NRS 288.170(6). Heads of departments, administrative employees (as defined in NRS 288.025) and supervisory employees (as defined in NRS 288.075) shall not be members of the same bargaining unit as the employees under their direction. (NRS 288.170)
- 1.2 Provisions of this Agreement shall be limited in their application to employees of Company as described in 1.1 of this Title. When the words "employee" and "employees" are used in this Agreement they shall be construed to refer only to employees described in said 1.1 unless otherwise noted.
- 1.3 Any employee, except for those employees listed in 1.1 above has the right to join or not join the Union without fear of intimidation, coercion, or reprisal by any party. Company shall deduct from their wages and pay over to the proper officers of Union, the membership dues of the members of the Union who individually and voluntarily authorize such deductions in writing. The form of check-off authorization shall be approved by Company and Union. (Amended 6/11/01)
- 1.4 It is the policy of the Company and the Union to provide a work environment free of unlawful discrimination, harassment, intimidation, and coercion. Discriminatory conduct in any form based on race, religion, sex, age, color, nationality or ethnicity, marital status, citizenship, gender identity or expression, sexual orientation, pregnancy, genetic information, medical condition, veteran status, or mental or physical disability, or any other basis made unlawful by applicable Federal, State, or local law

is strictly prohibited. It is further agreed that wherever in their Agreement the masculine term is used, it shall be considered applicable to both sexes.

- 1.5 If the Company hires employees whose duties are not covered under this Agreement but whose duties are significantly the same duties covered under Attachment II, Exhibit "B" (1) of the Agreement between Sierra Pacific Power Company and Local Union 1245 of the IBEW which was effective January 1, 1998, then the Company shall notify the Union of this circumstance and, upon request by the Union:

Allow representatives of the Union reasonable access to the business of the Company for the purpose of informing such employees of their rights to form and join organizations of their own choosing for the purpose of representation with their employer with respect to wages, hours and other terms and conditions of employment: and to explain the benefits of membership in and representation for such purposes by the Union. "Reasonable access" shall include the right to meet with employees on at least three (3) occasions at the business of the Company on non-work time (e.g., lunch break) during normal business hours. (Amended 7/1/09)

- (a) Allow representatives of the Union reasonable access to the business of the Company for the purpose of informing such employees of their rights to form and join organizations of their own choosing for the purpose of representation with their employer with respect to wages, hours and other terms and conditions of employment: and to explain the benefits of membership in and representation for such purposes by the Union. "Reasonable access" shall include the right to meet with employees on at least three (3) occasions at the business of the Company on non-work time (e.g., lunch break) during normal business hours. (Amended 7/1/09)
- (b) The Company shall supply the Union with a list of such employees. Such list shall contain the names, home addresses and home phone numbers of such employees. The Union shall at all times maintain the confidentiality of any such list.
- (c) The Company shall submit to a card check election to determine the desires of such employees to be represented for the purpose of collective bargaining by the Union. If a majority of such employees have signed cards authorizing the Union to act as their collective bargaining representative, and such authorization card majority is verified by the Federal Mediation and Conciliation Service, then the Company shall recognize the Union as the exclusive bargaining representative of such employees.
- (d) If the Union is selected by a majority of such employees as their collective bargaining representative, then the Company shall, immediately upon the request by the Union, bargain in good faith with the Union for the purpose of concluding a collective bargaining agreement. NRS Chapter 288.160 and NAC Chapter 288 shall apply. (Amended 6/11/01)
- (e) At all times the Company shall remain neutral with regard to any question concerning the representation of such employees by the Union. "Neutral" shall mean that the Company or Affiliate shall take no official position, nor shall it direct or condone any of its agents or representatives, including any attorneys or consultants to take any position against the exercise by its employees of their right to select the Union as their collective bargaining representative or to oppose the selection of the Union as the employees' collective bargaining representative.

- 1.6 The Company and the Union recognize the Company's Administrative Instructions (AIs) and has negotiated and agreed to the terms of Correction Action and Progressive Discipline A-38; Drug and Alcohol Free Workplace Policy A-05; and DOT Drug and Alcohol Testing Program A-06. In addition, the Union has agreed to the terms of all other Administrative Instructions, including updated revisions, which are not in direct conflict with the Collective Bargaining Agreement (CBA), with the understanding that the CBA will prevail when in direct conflict with the Administrative Instructions. (Added 6/12/06) (Amended 7/1/09)

So long as the Company complies with the terms and conditions of this section, the Union will not defame, slander, libel or otherwise make derogatory statements concerning the Company's business practices. Nothing in this section is intended to limit the right of the Union to discuss the benefits of joining the Union or comparing the benefits that employees of Company currently receive with the benefits that the Union will seek to obtain for such employees. (Added 6/11/01)

TITLE 2
CONTINUITY OF SERVICE

- 2.1 Company is engaged in rendering public utility services to the public and Union and Company recognize that there is an obligation on each party for the continuous rendition and availability of such services.
- 2.2 Strikes and Lockouts
- (a) No lockout of employees shall be instituted by the Company during the term of this Contract.
- (b) The Union agrees that during the term of this Contract neither it nor its officers, employees or members will engage in, encourage, sanction, support, or suggest any strikes, work stoppages, boycotts, slowdowns, mass resignations, mass absenteeism, picketing or any other similar actions which would involve suspension of, or interference with the normal work of the Company.
- (c) In the event that Union members participate in such activities in violation of this provision, the Union shall notify those members so engaged to cease and desist from such activities and shall instruct the members to return to their normal duties. (Amended 6/11/01)
- 2.3 Any employee in a Bargaining Unit classification shall perform loyal and efficient work and service, and shall use their influence and best efforts to protect the properties of Company and its service to the public, and shall cooperate in promoting and advancing the welfare of Company and in preserving the continuity of its service to the public at all times.
- 2.4 Consistent with the Provisions of this Title, the parties recognize that Union, Company, and all employees are mutually obligated to promote efficiency in Company's operations and harmony among Company's employees.
- 2.5 Consistent with the provisions of this Title which pertain to continuity of service to the public and duties essential to the operation of the utility, after May 1, 1979 all employees shall be required by Company to either report to work on a call out basis within 45 minutes or reside within a thirty-five (35) mile radius of the Company headquarters to which they regularly report. An employee, who is unable to report for work on a call-out basis within forty-five (45) minutes, will be exempt from the provisions of Section 10.3 of the Agreement. (Amended 1/1/98)

TITLE 3
DEFINITIONS

- 3.1 Employees shall be known as "Temporary," "Provisional," Probationary," "Part Time" and "Regular" (Amended 6/11/01)
- 3.2 For the purpose of the contract, a Regular employee is defined as an employee who has completed six (6) months of continuous service with the Company, excluding those hired as Provisional employees. (Amended 6/11/01)
- 3.3 A Temporary employee is defined as an employee hired by the day for occasional or seasonal work, or for a limited time. A Temporary employee shall not be eligible for sick pay, holiday pay, vacation pay, insurance coverage, pension coverage or items of similar nature, except as herein specifically provided. If a Temporary employee should in the course of continuous employment, be reclassified to Probationary or Regular, they shall be credited with all continuous service in determining eligibility for such benefits that may accrue to them in their new status. A Temporary employee shall receive not less than the minimum rate for the job except in the case of laborers. Temporary Helpers, as defined in Exhibit A, may be hired for a period of not more than three (3) months at the special Temporary labor rate. (Amended 7/1/09)
- 3.4 A Provisional employee is defined as an employee whose employment is intended to last more than six (6) months but less than two (2) calendar years. The work performed is linked to specific projects or is in anticipation of future events with a specific date at which the position will be eliminated. The use of the Provisional employee will not impede the opportunities of Regular employees or by-pass the bidding

procedure as defined under Title 16 of this Agreement and are not subject to Title 23 nor Sections 19.8 or 19.9. Provisional employees will be required to remain in the position for the duration of their term with no bidding rights. They will accrue benefits equivalent to a Regular employee for sick leave, vacation, group health insurance coverage (medical, dental, vision and life), pension coverage and will be eligible to participate in the Company deferred compensation program(s). For purposes of overtime work, preference will be extended to "Regular" employees, and the Company is under no obligation to balance overtime for Provisional employees as specified under Section 10.3 of Title 10. A Provisional employee will not receive less than the minimum rate for the job and will progress through the appropriate classification wage progression in accordance with this Agreement. If employment of a Provisional employee extends beyond two (2) calendar years, the employee will be reclassified to "Regular" with a hire date and seniority date equivalent to the start date of their Provisional time. (Added 6/11/01) (Amended 7/1/09)

3.5 A probationary employee is defined as an employee hired for a position that has been regularly established and is of indeterminate duration. A probationary employee shall receive sick pay, vacation pay, insurance coverage, pension coverage or items of a similar nature as they shall become eligible, but in all other respects shall be equivalent to a Regular employee, subject to the provision of 3.6 of this Title. A probationary employee shall receive not less than the minimum rate for the job. A "probationary" employee shall be eligible for all benefits under Title 22 of the CBA upon commencement of employment and at such time as the specific benefit plan allows participation. (Amended 6/12/06)

3.6

(a) A Part-time employee is one scheduled to work less than five (5) days per week or less than eight (8) hours per day. A limited number of part-time employees may be assigned to work covered by this Agreement, provided that such assignment shall not result in the loss of Regular employment for Regular employees, nor shall the employees so assigned affect the status of or impede the promotional opportunities of Regular employees. Part-time employees shall be paid the wage rates established in Exhibit A for the work performed. In determining allowances for vacations, sick leave, and other benefits hereunder, such allowance shall be prorated in direct ratio that the number of hours worked per week bears to forty (40). (Amended 1/1/95)

(b) The number of Part-time employees in all "Clerical" classifications will not exceed 15% of the aggregate number of employees in all "Clerical" classifications. (Amended 6/11/01)

Schedules will be established in full hour increments and the employee's classification, i.e., one-half (1/2) time or three-quarter (3/4) time will be based on the established schedule at the time they are hired and an annual (payroll year) review of hours actually worked (excluding non-productive time) thereafter. Status changes will apply prospectively only. (Amended 1/1/98)

3.7 The retention of Temporary, Provisional and Probationary employees is at the sole discretion of the Company, and termination of employment of such employees shall not be subject to review through the grievance procedure. (Amended 6/11/01)

3.8 (a) Continuous service with Company shall start with the date of employment and consist of the entire period of employment. Continuous service will be broken when (a) an employee is discharged for cause; (b) an employee voluntarily terminates employment; (c) an employee has been laid off for more than twelve (12) consecutive months; (d) an employee has violated the provisions of 8.4; (e) an employee has taken a leave of absence of over thirty (30) calendar days as defined in Section 8.1. (Amended 5/1/88)

(b) Employees who transfer from Sierra Pacific Power Company (SPPC) to the Truckee Meadows Water Authority (TMWA) on June 11, 2001 shall be credited with continuous service with Company from their SPPC hire dates. These hire dates shall not apply for purposes of PERS as explained more fully in Title 22, but shall apply towards service for post-retirement medical. (Added 6/11/01)

TITLE 4
WAGES

- 4.1 The wage to be paid employees of the Company covered by this Agreement shall be at the rates specified in the schedule hereto attached, numbered Exhibit A, and made a part hereof.
- 4.2 All employees shall be placed on an hourly rate of pay and shall be paid on alternate Fridays for all time worked during the two (2) week period ending the previous Sunday midnight; exclusive of overtime worked during the second week of the two week period. Any such deferred payment shall be included with the paycheck for the payroll period next succeeding the period in which such overtime was worked. In order to spread the payroll work the Company reserves the right to divide the payroll into two groups, paying each group on alternate Fridays. If a payday falls on a holiday, the day next proceeding such holiday shall be payday. However, if a payday falls on the Day after Thanksgiving the following Monday shall be payday. Payroll deductions for employees shall occur semi-monthly (first and second paycheck each month) including, but not limited to, Employee-only/Dependent Medical premium payments, Life Insurance premiums, Union Dues, and Credit Union deposits or payments. (Amended 6/11/01) (Amended 7/1/09)
- 4.3 (a) An employee who temporarily assumes the duties and responsibilities of a classification having a higher minimum rate shall be paid not less than the minimum rate of the higher classification for the time worked, meal and travel time, as applicable, computed to the next quarter ($\frac{1}{4}$) hour. (Amended 5/1/83)
1. Any upgrade position lacking an incumbent employee and continuing for a cumulative period of 1500 straight-time hours in a 12-month period shall require posting of the position. This provision does not apply to those classifications designated as "upgrade only". Exceptions to this provision can be made by mutual agreement between the Company and Union, i.e., training positions and special projects. (Added 1/1/98)
- (b) When an employee is temporarily reassigned to work in a classification higher than their Regular classification, they shall be paid, upon such reassignment, the rate of pay they last received in such higher classification, plus any general wage increase or adjustments subsequently made therein.
- (c) When an employee is temporarily assigned or reassigned to work in a classification lower than their Regular classification, their rate of pay will not be reduced unless such assignment or reassignment is caused by the employee's failure to obtain or maintain a certification, license, or other qualification required under this Agreement for their job classification. The Company agrees to assign the employee to the highest possible job classification, below their current job classification, for which they are qualified. If the Company determines, in its sole discretion, that an employee took all necessary actions to maintain the certification, license, or other qualification, then the employee's rate of pay shall not be reduced while they are in the lower job classification so long as they re-obtain the necessary certification, license, or other qualification at the earliest possible date. If the employee fails to re-obtain the necessary certification, license, or other qualification at the earliest possible date or the Company determines that the employee is not diligently pursuing such certification, license, or other qualification, then the employee's rate of pay must be reduced to the rate of pay of the classification to which they are assigned.
- (d) Where automatic progression between classification or within the pay rate range of a classification is provided by the Agreement, it is understood that the employee's performance must be satisfactory to qualify for advancement. Where an employee's performance is unsatisfactory and an automatic progression wage step has been withheld, the Investigating Committee, provided for in Section 21.2 of the Agreement, may review the employee's performance.
- (e) Where automatic progression in any classification is provided by the Agreement, an automatic progression wage step will be withheld after an employee is off work for sixty (60) calendar days or more. (Amended 5/1/83)

- 4.4 Company and Union may agree to additional classifications inclusive of those referred to in Title 1, Section 1.5 and/or revisions of existing classifications and wages and lines of progression with respect thereto, during the term of this Agreement. Pending negotiations with respect to such classifications, wage rates and lines of progression, the Company may establish temporary classifications and wage rates. (Amended 6/11/01)

The Company will promptly notify the Union of any such temporary classifications and/or revisions and wage rates, which are established. When the Company and Union reach agreement on the wage rate for the new classification and/or revised classification, it shall be retroactive to the date when the classification was first temporarily established or revised.

TITLE 5
TRANSPORTATION

- 5.1 Company or public transportation shall be furnished all employees requiring, at the discretion of the Company, transportation in the performance of their duties. In the event an employee is asked to use their own automobile for Company business, they shall be reimbursed at the current rate sanctioned by the Internal Revenue Code, Section 274, Treasury Regulations and Administrative Interpretations. (Amended 1/1/95)

5.2 (Deleted 6/11/01)

- 5.3 (a) Any employee who may be required to operate Company vehicles and/or equipment while performing duties pertinent to their job classification must possess and maintain the appropriate licenses or permits required by applicable laws and/or Company policy. (Amended 5/1/82)
- (b) An employee who is unable to maintain a job-related driver's license, may be provided alternative work by their Immediate Supervisor while the employee re-obtains a valid license. (Amended 5/1/82)

If alternative work is not assigned or is unavailable, the employee will be required to use earned vacation or will be temporarily placed in a Helper or Customer Service Representative position, at the one-year wage step, for up to three (3) months while obtaining re-licensure.

Should the employee exhaust their vacation and still has not obtained the job-related license, the employee may utilize a personal leave of absence, for up to three (3) months, while they obtain the required license. After such time the employee is subject to termination.

During any period the employee must re-obtain their required license within ninety (90) calendar days. (Added 7/1/09)

- (c) (Deleted 07/01/2017)
- (d) A successful bidder on any job requiring vehicle and/or equipment operation, will be given a thirty (30) day period beyond the date of the job award to obtain the proper licenses and/or permits. If employee is unable to obtain the license within the 30 days due to circumstances beyond the employee's control, the employee shall have until the first available appointment date after the (30) day period to obtain the license has expired. Additional training must be arranged through Department Management. Bidder must be trained and/or evaluated prior to receiving approval to operate Company vehicles and/or equipment. (Amended 1/1/98) (Amended 7/1/12)
- (e) Any employee who is considered for an upgrade to a position requiring the operation of Company vehicles or equipment must be qualified by training or experience prior to upgrade. Employee will be subject to the provisions of Section (a) and (b) above. (Added 5/1/83)
- (f) The provisions of Sections (a), (b) and (c) shall also apply to any employee operating a personal vehicle while being compensated by the Company for its use. (Added 5/1/82)
- 5.4 Employees shall be authorized to utilize Company vehicles only for the purpose of performing their assigned duties. Use of such vehicles for personal reasons is prohibited.

TITLE 6
WORKING HOURS

- 6.1 All Regular employees shall receive full-time employment for each work week employed provided they physically report for duty at their regularly assigned reporting place in accordance with the terms and conditions of this Agreement and are in condition to perform their work. This is not interpreted to mean that the Company does not have the right to lay off or release employees on account of lack of work or any other valid reason at the end of the work week.
- 6.2 (a) Each employee shall have a regular reporting place, a regularly established schedule of work hours and work days. Such schedule shall indicate the starting and quitting times, the regularly scheduled meal period and the scheduled non-work days. The arrangement of such schedule shall be in accordance with the provisions hereafter contained for the classification in which the employee is regularly employed. Schedules with work periods providing for starting times after 12:00 noon or before 6:00 a.m. shall provide eight (8) consecutive hours of work.
- (b) Employees who are assigned to work away from their regular assigned reporting place will be required to report to work at the established starting time and at the temporary-reporting place designated by Company. When board and lodging is provided by Company, the reporting place will be the lodging designated by Company. It is understood that the temporary-reporting place designated by the Company may change from time to time due to changes in Company's operational requirements. When necessary, Company shall provide water and sanitation facilities for the employee's use at the temporary reporting place. When the change of temporary reporting place occurs, the Union will be notified as far in advance as practicable. (Amended 1/1/95)
- 6.3 The workweek shall be defined to be that period of 168 hours comprising seven (7) consecutive calendar days. For all employees but those in classifications listed in Section 6.13 the work week shall be that period beginning one (1) minute after 11:59 p.m. Saturday and ending 168 hours later.
- 6.4 A change in the regularly scheduled lunch period for any reason shall be deemed to require the payment of overtime for work performed during the regular lunch period and the employees may eat their lunch on Company time. Lunch periods may be advanced or delayed one-half (1/2) hour without the payment of overtime.
- 6.5 Employees, including those on out-of-town assignment, who are required to report for work on their non-work days, or on holidays which they are entitled to have off, or outside their regular work hours on work days, shall be paid overtime compensation for the actual work time, commencing at the time they physically report at their regularly assigned reporting place, and travel time in the amount of fifteen (15) minutes each way in connection therewith. An employee who is called out for such work shall be paid overtime compensation for travel time in the amount of thirty (30) minutes from their home and fifteen (15) minutes to return home. If an employee who is called out for such work outside of their regular work hours on a work day continues to work into or beyond their regular work hours, they shall be paid overtime compensation for actual travel time in the amount of thirty (30) minutes only from their home. (Amended 1/1/95)

An employee who is required to call out the remainder of a crew to respond to a call out and are themselves responding to the call will be deemed on the clock immediately. This time is to include the time it takes to prepare for the work assignment and actual commute time. The travel time of 30 minutes would not apply, as the employee is compensated for all time spent getting ready and commuting. (Added 6/12/06)

The portion of this Title relating to travel time shall not apply to the following situation:

- (a) Prearranged extended work schedules on regular workdays. (Amended 5/1/81)
- 6.6 (a) If an employee is instructed by their Supervisor to report for prearranged overtime on a non-work day, or on a holiday which they are entitled to take off with pay, and the employee reports for work as instructed, the employee shall be paid overtime compensation for a minimum of four (4) hours provided, however, this will not apply to cases in which the employee is prevented

from completing the assignment or earning the minimum through no fault of the Company, for reasons such as inclement weather, accidents, illness, or other reasons beyond the control of the Company. In such cases the employee shall be paid overtime compensation for the actual time worked, but in no event less than the two (2) hour minimum. (Amended 5/1/81)

- (b) In the event an employee is instructed to report for prearranged overtime as provided in 6.6(a) above, and such work is canceled, the employee shall be paid overtime compensation for a minimum of four (4) hours, if they have not had notice of such cancellation at least eight (8) hours prior to the designated reporting time. (Amended 5/1/81)
- (c) If an employee is instructed by their Supervisor to report for prearranged overtime prior to their regular starting time on a scheduled work day, the employee reports for work as instructed and for any reason the work is canceled, the employee shall be paid overtime compensation for actual time worked, but in no event less than a two (2) hour minimum time. (Added 5/1/91)

6.7 For the purposes of application of the provisions of this Title, all employees not specifically denoted by Sections 6.13, 6.14 and 6.15 shall be considered to be day employees. Sections 6.13, 6.14 and 6.15 shall determine the designation of all others.

6.8 (a) Day employees' hours of work shall be regularly scheduled as either 7:00 a.m. to 11:00 a.m. and 11:30 a.m. to 3:30 p.m. or 7:30 a.m. to 11:30 a.m. and 12:00 noon to 4:00 p.m. or 8:00 a.m. to 12:00 noon and 12:30 to 4:30 p.m. or 8:00 a.m. to 12:00 noon and 1:00 p.m. to 5:00 p.m. and the regular work days shall be Monday through Friday.

Working hours will be the same for all employees within an occupational group at their specific reporting place. If Company desires to split starting times for employees within the same occupational group it shall be established by mutual agreement between Company and Union.

- (b) When by reason of an emergency in connection with ice fighting, it is necessary to work employees on a shift schedule at hours outside of their regular work hours; Company shall be exempt from the penalties provided under Section 10.1(a)(5) after paying two (2) days of such penalty. Upon the third day, the employees will assume the hours of the new schedule at the straight-time rate of pay for the duration of such assignment. When employees are assigned to such shift schedules, the newly scheduled hours shall become their "regular work hours" in applying the other provisions of this Title.

In connection with ice fighting work assignments as provided for above, the following rules will be applicable to "Day Employees" with a normal workweek of Monday through Friday, and employees classified as Operator, Hydro/Generation.

1. When an emergency arises in connection with ice fighting, the Company may reschedule the hours of certain "Day Employees" and employees classified as Operator, Hydro/Generation to the hours of a shift schedule.
2. The starting time for a shift schedule is 0700, 1500, or 2300.
3. The workday of a shift schedule consists of eight (8) consecutive hours.
4. When "Day Employees" and employees classified as Operator, Hydro/Generation are assigned ice fighting on a shift schedule, they assume the hours of a shift schedule beginning with the first day of the assignment, but the work days and non-work days remain the same as their normal work week.
5. The shift premium is applicable to the hours in these schedules as provided for in Title 7, beginning with the first day of the assignment.
6. No notice is necessary to start a shift schedule to fight ice. However, as much notice as possible should be given both going on and coming off the shift schedule to allow the employees sufficient time to readjust their sleep and rest routine.

7. Meals at Company expense are limited to those where the Supervisor has not allowed sufficient time for the employees to eat breakfast and prepare lunch before reporting to work.
 8. On days the provisions of Section 10.1(a)(1), (2), (3), and (4) are applicable, such day or days shall not be counted as one (1) of the days where penalty is paid under Section 6.8(b).
 9. The two (2) day penalty provided in Section 6.8(b) is not considered overtime in applying the rest period provisions.
- (c) The regular hours of work established herein may be changed by Company at the request or direction of public authorities, provided, however, that before any such change is made Company shall discuss it with Union. Company shall not be required to pay overtime compensation by reason of any change made as provided in this Section.
- 6.9 (a) Company may schedule employees to work for periods of eight (8) hours at other than their regular hours in any of the following situations:
1. The maintenance or repair of any generating plant or substations, and emergency repairs to hydro plant canal systems. A generating plant or substation shall be defined as any facility that has high voltage apparatus, including OCBs and disconnects. (Amended 5/1/87)
 2. Work involving cleaning debris from the water intake of a hydro or power plant.
 3. (Deleted 6/11/01)
 4. To provide relief in a regularly scheduled job which has been temporarily vacated by absence of an incumbent.
 5. To provide public safety and the protection of Company facilities underground which may be exposed to possible damage by excavating operations performed by other than Company employees.
 6. Work involving emergency repairs to or the cleaning of sand and debris from all raw water delivery systems. (Amended 1/1/98)
 7. (Deleted 6/11/01)
 8. At the request of the customer, special project construction or unique maintenance requirements of facilities where customer impacts must be minimized. (Added 1/1/98)
- (b) In the event such assignment is for four (4) regular work days or less, the employees shall be paid at the rate of one and one-half (1 1/2) times the applicable straight-time rate for all such work except that if the schedule continues beyond four (4) regular work days, the employee shall be paid one and one-half (1 1/2) times the applicable straight-time rate only for the first two (2) days of any such situation, and shall upon the third day, be paid at the straight-time rate for the duration of the assignment. Where the provisions of Title 10.1(a), (1), (2), (3), and (4) or the paragraph (c) next following are applicable, such day shall not be counted as one (1) of the premium days under this Section 6.9.
- (c) In the event the employee is required to begin work in a temporary "off schedule" assignment with less than forty-eight (48) hours notice they shall be paid at the applicable overtime rate for all work performed on the "off schedule" assignment between the time of notice and the expiration of the forty-eight (48) hour period. Wherever possible, assignment to an "off schedule" status and return to the regular schedule shall be made in such a manner as to provide the same number of hours off between work periods as is provided by the employee's regular schedule. Where this is not possible and a change is made with less than the required time interval, the difference between the amount of time off and the required time interval shall

require the payment of an additional one-half (1/2) times the straight-time or overtime rate which may be applicable.

- (d) Upon completion of the temporary off schedule assignment, which may include scheduled days off, the employee shall be returned to their regular status and schedule. In all cases an assignment to an "off schedule" status shall not operate to deprive an employee of a forty (40) hour workweek.
- (e) Except for operating employees who are assigned to supplement maintenance employees as provided in (a) above, and for employees who are assigned to relief as provided in (a) above, the employees' regular schedules of days of work shall not be changed.
- (f) If any such situation extends beyond four (4) weeks, Company and Union may agree to rotate the shift assignments without additional payment of overtime for such change.
- (g) The application of this Section shall in no way limit the right of the Company to establish schedules which would provide for work hours in excess of eight (8) on a work day, or more than five (5) days in a work week.

6.10 Employees shall have work schedules as follows:

- (a) They may be regularly scheduled to work any eight (8) consecutive hours, exclusive of meal period, between 6:00 a.m. and 7:00 p.m., Monday through Friday.
- (b) Operations Center employees, other than those working hours as provided in Section 6.10(a) above, may be assigned to work any eight (8) consecutive hours between 1:00 p.m. and 12 midnight.
- (c) Group schedules when required shall be developed to provide rotation of assignments and equalization of conditions. Schedules may be established or revised during the term of the Agreement, provided however that such arrangements shall be first mutually agreed upon by Company and Union.
- (d) Shift schedules shall be posted for affected employees by November 30 for the following year. (Added 7/1/09)(Amended 7/1/12)
- (e) Operations Maintenance establishment of voluntary 10-hour day, four-day work week schedule for the following position classifications: Specialist, Equipment, Water Treatment; Mechanic, Maintenance & Control, Certified WP; Specialist, Water Supply; Technician, SCADA; and Mechanic, Specialist, Maintenance & Control, WP.

1. Establishment of Schedule

- (a) The 10-hour, 4-day work week will be on a voluntary basis.
- (b) The 10-hour shift will be considered the employee's regular work hours as it applies to all sections of this Agreement, unless otherwise stated herein.
- (c) There will be no shift change penalty in connection with any change occurring relating to this schedule.
- (d) For the above-listed positions, the workweek shall be defined to be that period of 168 hours comprising seven (7) consecutive calendar days. The workweek shall be that period of time beginning one (1) minute after 11:59 p.m. Saturday and ending 168 hours later. (See title 6.3).
- (e) The start time for all day employees under the 10-hour, 4-day work week schedule shall be 6:00 a.m. instead of as set forth in Section (6.8(a)).

2. Meals

- (a) Lunch will be from five (5) hours after the time corresponding to an employee's regular starting time on regular workdays to six (6) hours after this starting time. Provisions of 6.4 will apply.
 - (b) Overtime Meals: If Company requires an employee to perform work for one-half (1/2) hour or more beyond regular work hours, it shall provide a meal approximately one-half (1/2) hour after regular quitting time. Except as noted in 2(a) above, normal meal practices will apply in all other situations.
3. Upgrades. Employees will be upgraded according to current department procedures and in accordance with Title 16.7 (a). A person accepting an upgrade may be required to change shifts if the crew they are working is on a different shift and no shift change penalty will apply.
4. Holidays. Scheduled holiday hours (88/year) and floating hours (8/year) will be credited to each employee at the beginning of the first payroll period of each year.
- (a) Holiday hours may be used to take time off from work in conjunction with vacation or as independent days off.
 - (b) Holiday hours may be exchanged for regular pay at any time during the course of the payroll calendar year. Employees will receive payment at straight time rates for holiday hours that remain unused at the end of the payroll year.
 - (c) Scheduled holiday hours may not be taken in increments of less than one (1) hour.
 - (d) The 24-hour period between 0000 of the recognized holiday and 0000 of the following day will be considered the holiday.
 - (e) When an employee observes a holiday as a day off, it may be used as 10 scheduled holiday hours, 10 hours of vacation or a combination of scheduled holiday hours and vacation, or taken off on their own time without compensation.
 - (f) Nothing herein limits the right of the Company to require an employee to observe any holiday as a day off.
 - (g) Nothing herein shall be construed to increase or decrease the total number of total holiday pay earned annually under Title 11.
 - (h) Should conflicts arise with Title 11 Holiday, they will first be addressed by supervision of the affected employees.
5. Floating Holiday. Compensation for floating holiday can be taken in 8-hour increments, but cannot exceed 8 hours total annually as in Title 11.
6. Funeral Leave. Full day leave, as described in the Bereavement Leave Policy in the Administrative Instructions, can be taken in 10-hour increments. For immediate family members, the three consecutive days off will be paid in 10-hour increments.
7. Rest Periods. For employees under the 10-hour, 4-day work week, Section 10.6(a)(1) shall be modified to replace eight (8) hours with six (6) hours and Section 10.6(a)(2) shall be modified to replace nine and one-half (9 ½) hours with eight (8) hours.
8. Overtime. For the purpose of the ten (10) hour work schedule, overtime will be paid for all time worked in excess of ten (10) hours per day and forty (40) per week. As defined in a workweek.

The Company and Union reserve the right to return to the five (5) day, eight-hour shift schedule by giving 30 days written notice. (Added 08/30/2012).

- 6.11 (a) This section means that except as noted below, there is an absolute prohibition against requiring an employee to work more than three (3) consecutive weeks without having two (2) consecutive days off. There is no penalty provided for a violation of the provisions of this section since the ban is absolute.

If an employee has performed work on twenty-one (21) straight days, the employee must be granted the next two (2) days off. If the next two (2) days off occur on regular workdays for that employee, such employee shall, nonetheless, be granted the days off at the straight-time rate of pay. (Added 1/1/95)

- (b) Employees may work beyond the twenty-one (21) day limit only under the following condition:
1. Any work situation involving an immediate hazard to life or property. This does not include situations limited to a loss of money or revenue only. (Added 1/1/95)

- 6.12 The work week and work hours of part-time employees shall be governed by the following rules:

- (a) Company shall notify Union of all part-time employees hired, the work being performed and the schedule of work hours and workdays, if any, for such employees.
- (b) Schedules of work hours and workdays for part-time employees who would fall within the regular work hours and workdays established in Section 6.8(a) may be established at the convenience of the Company.
- (c) Schedules of work hours or workdays for part-time employees who would fall wholly or in part outside the regular work hours and workdays established in Section 6.8(a) shall be established by mutual agreement between Company and Union.

- 6.13 "Shift" employees are as listed below:

Foreman/woman, Hydro/Generation, Working
Foreman/woman, Shift, Working, Water Treatment
Operator, Hydro/Generation
Operator, Hydro/Generation, Apprentice
Operator, Apprentice, Water Plant
Operator, Water Plant
Specialist, Equipment, Water Treatment
(Amended 6/11/01)(Amended 7/1/12)

- (a) The workweek for shift employees shall be regularly scheduled but may be any seven (7) consecutive days. The normal work week of shift employees may start on any day of the week and at any hour of the day, and shall consist of one (1) eight (8) hour shift for five (5) days. The five (5) work days and two (2) non-work days may be arranged in one, two, three or four (4) week cycles. The shift employee's workday shall consist of eight (8) consecutive hours. The starting time of such shifts are presently established at 8:00 a.m., 4:00 p.m., and 12:00 midnight. During the term of the Agreement, present shifts may be changed or additional shifts added, provided however, that such arrangements shall be first mutually agreed upon by Company and Union. The term "shift" shall be defined as a schedule of employee's work days, non-work days, working hours, and the arrangement of work week cycles.
- (b) (Deleted 6/11/01)
- (c) (Deleted 6/11/01)
- (d) (Deleted 6/11/01)
- (e) Water Treatment/Water Plant employee's 12-hour shifts. (Added 6/12/06)
1. Establishment of shift

- (a) The 12 hour shift schedules will be based on a two week pay period. It will consist of six 12 hour days and one eight hour day, with seven days off. The day shift will be defined as those hours between 0400 to 1600. The swing shift will work from 1600 to 0400. The work weeks will be mutually agreed upon by the Company and Union.
- (b) The 12 hour shift schedule as defined above will be considered the employees "regular" work hours as it applies in all sections of the Collective Bargaining Agreement, unless otherwise stated herein.
- (c) To establish, continue, or change this schedule, will require a minimum of 75% agreement of the crew members.
- (d) There will be no shift change penalty in connection with any change occurring relating to this schedule.
- (e) This agreement may be cancelled by either party with 90 days written notice. The company and Local 1245 agree to meet and discuss proposed cancellation, but agree to return to their previous eight hour shift schedules as identified in Section 6.13 (a) at the conclusion of the 90 day notification.

2. Overtime

- (a) Overtime will be paid for all actual time worked in excess of 40 hours per defined work week pursuant to 1.(a) above, and all time worked on days normally observed as days off.
- (b) Overtime rates of two times the rate of pay will be paid for all time worked in excess of 16 consecutive hours on a regularly scheduled day off.
- (c) A shift change penalty will not apply if the change is voluntary from the employee.

3. Holidays

- (a) All 96 hours of scheduled holiday hours, which include floaters, will be credited to each employee at the beginning of the first payroll period of each year.
- (b) During their first calendar year of employment an employee will be entitled to holiday hours in accordance with the following conditions.
 - 1. If an employee is hired between the first day of the first pay period of the year and July 1st of the same year, then that employee shall receive 8 Floating Holiday hours and 8 hours of each recognized holiday remaining for the payroll calendar year.
 - 2. If an employee is hired after June 30th and before the end of the payroll calendar year then that employee shall receive 8 Floating Holiday hours and 8 hours for each recognized holiday remaining for the payroll calendar year.
 - 3. Holiday hours may be used to take time off from work in conjunction with vacation or as independent days off.
 - 4. Holiday hours may be exchanged for regular pay at any time during the course of the payroll calendar year. Employees will receive payment at straight time rates for holiday hours that remain unused at the end of the payroll year.
 - 5. Scheduled holiday hours may not be taken in increments of less than 1 hour.

6. 8 of the 96 scheduled holiday hours will be considered Floating Holiday hours. These hours may be taken at any time shift coverage is available.
7. When overtime relief is required, Floating Holiday hours must be taken in increments of four (4) hours or more.
8. The 24-hour period between 0400 of the Observed Holiday and 0400 of the following day will be considered the holiday. The Observed Holidays are listed below in (10).
9. Operators will be paid time and one-half (1 ½) when scheduled to work the 24-hour period between 0400 of the Observed Holiday and 0400 of the following day.
10. Observed Holidays will include:

<i>Holiday</i>	<i>Date Observed</i>
New Years Day	January 1
Martin Luther King Day	
Presidents' Day	Third Monday of February
Memorial Day	Last Monday of May
Independence Day	July 4
Labor Day	First Monday of September
Veteran's Day	
Nevada Day	Last Friday of October
Thanksgiving Day	Fourth Thursday of November
Thanksgiving Day 2	Fourth Friday of November
Christmas Day	December 25

4. Travel and Meals

- (a) If the company requires an employee to perform work for more than two hours beyond the regular work hours, it shall provide a meal approximately two hours after regular quitting time and with meals thereafter of approximately 4 hours but not more than 5, as long as the employee continues to work, insofar as it is possible for the company to do so.
- (b) On overtime associated with 12-hour shift coverage, employees will be eligible for one meal. (Amended 7/1/2012)
- (c) Overtime not associated with 12-hour shift coverage, shall be subject to Title 17. (Amended 7/1/12)

5. Rest Period

If an employee works more than 4 hours past the ending of the shift for a total of 16 hours, the employee is entitled to a rest period of 9 hours. If an employee is scheduled for work more than 4 hours prior to the regular start time and extends into the regular shift, the employee is entitled to a rest period.

6. Shift Change Time

Two Water Treatment Plant Operators on the crew at each producing plant location (Glendale and Chalk Bluff) and one Water Treatment Plant Operator on the crew at each non-producing plant location (Glendale or Chalk Bluff) will report fifteen (15) minutes before the beginning of their crew's scheduled shift to receive shift change report from the departing crew. This fifteen (15) minute time frame is referred to as "Shift Change Time." The Union and the Operators are responsible for designating the Operators ("Designated Operators") who will report for the Shift Change Time for the purpose of equalizing overtime among the Operators, and the Union is responsible for handling any complaints by the Operators relating to the allocation of responsibility for Shift Change Time. (Added 7/1/09)

6.14 "Service" employees are as listed below:

Apprentice, Technician, Electrical, Plant
Helper
Water Service Technician
Specialist, Water Supply
Technician, Electrical, Plant
(Amended 6/11/01)

- (a) The normal workweek for each Service Employee shall be regularly scheduled and may be any five (5) consecutive days, starting on any day of the week. The arrangement of work hours, work days, non-work days and work week cycles, where applicable, shall be considered as the employee's work schedule and shall be developed to provide rotation of assignments and equalization of conditions.
- (b) Working hours for Service Employees assigned to work schedules providing for one-shift operations shall be either 7:00 a.m. to 11:00 a.m. and 11:30 a.m. to 3:30 p.m., or 7:30 a.m. to 11:30 a.m. and 12:00 noon to 4:00 p.m. or 8:00 a.m. to 12:00 noon and 12:30 p.m. to 4:30 p.m. or 8:00 a.m. to 12:00 noon and 1:00 p.m. to 5:00 p.m.
- (c) Schedules for two-shift operations shall be as follows: First shift shall consist of any eight (8) consecutive hours between 7:00 a.m. and 5:00 p.m., exclusive of a thirty (30) minute meal period. Second shift shall consist of any eight (8) consecutive hours between 1:00 p.m. and 12 midnight. Employees assigned to the No. 2 shift shall be allowed necessary time to eat a meal on the job on Company time.

The Company agrees to schedule Service Employees on the No. 1 shift to take lunch four (4) hours after their regular starting time.

- (d) Group schedules when required shall be developed to provide rotation to assignments and equalization of conditions. Schedules may be established or revised during the term of the Agreement, provided however, that such arrangements shall be first mutually agreed upon by Company and Union.
- (e) New work schedules may be established and present schedules may be revised during the terms of the Agreement, provided, however, that such arrangements shall be first mutually agreed upon by Company and Union.

6.15 (a) "Office Service" employees are listed below: These employees may be regularly scheduled to work any eight (8) consecutive hours, exclusive of a meal period, between 6:00 a.m. and 12:00 midnight, Monday through Friday.

Foreman/woman, Customer Services, Working
Representative, Customer Services
Representative, Customer Services, Senior
Representative, Accounts Payable (AP)
(Amended 6/11/01)(Amended 7/1/12)

- (b) The Company will schedule Office Service employees to take lunch during the period from three (3) hours after the employee's regular starting time to five (5) hours after their regular starting

time. Office Service employees, with consent of the Supervisor, may exchange lunch periods on any given day.

- (c) The provisions of Section 6.4 shall not apply to employees covered by this section. Schedules of Office Service Employees may be established or revised during the term of the Agreement, provided, however, that such arrangements shall be first mutually agreed upon by Company and Union. (Amended 5/1/80)
- (d) Office Service employees may change their working hours and/or lunch period, with prior supervisory approval, by up to two (2) hours within the same work day with no penalty to the Company. This allows the employee to schedule personal time off while maintaining their regularly scheduled number of work hours, i.e. making time up within the same day of no more than two hours.

A request to change an employee's work schedule must be arranged with the supervisor at least one day prior to the change, other than for emergency situations.

When an employee has requested personal time off, the employee has the option to make up time within the same day by adjusting their or her work schedule, or may use vacation or floating holiday hours, or sick leave (under Title 15 or Family Sick Leave guidelines), or with Supervisor approval may elect time off without pay. A minimum of 1/2 hour lunch period must be taken in accordance with Section 6.15, unless required by operational needs. (Amended 7/1/09)

TITLE 7 PREMIUMS

- 7.1 All eight (8) hour work periods regularly scheduled to begin at 4:00 a.m. or thereafter, but before 12:00 noon shall be designated as first shifts. All eight (8) hour work periods regularly scheduled to begin at 12:00 noon or thereafter, but before 8:00 p.m., shall be designated as second shifts. All eight (8) hour work periods regularly scheduled to begin at 8:00 p.m. or thereafter, but before 4:00 a.m., shall be designated as third shifts. No shift premium shall be paid for the first shift. A 3% shift premium shall be paid for work performed in the second shift. An 8% shift premium shall be paid for work performed in the third shift. (Amended 7/1/12)
- 7.2 When a shift premium is applicable to time worked at the overtime rate of pay, the overtime rate shall be applied to the applicable shift premium.
- 7.3 Shift premiums shall be payable only for hours actually worked, and shall not be paid for non-work time such as holidays, sick leave, vacations, etc.
- 7.4 Shift premium shall be paid for meal and travel time at the applicable overtime rate. (Added 5/1/83)
- 7.5 Certified Welder Premium for employees in the Heavy and Light Foreman/woman classifications. To encourage employees in these job classifications to obtain and maintain welding certifications, the Company agrees to pay a premium of \$2.181 per hour as follows:
 - (a) When welding work is required to be performed by a certified welder and a certified fitter/welder or a fitter certified in accordance with API 1104 testing is unavailable or it is not practicable to assign welding work to either, welding will be assigned to an available certified Light Foreman/woman or certified Heavy Foreman/woman.
 - (b) When welding is assigned to a Light Foreman/woman or Heavy Foreman/woman as described above, the welding wage premium shall be paid for all welding hours actually worked with a minimum of eight (8) hours welding wage premium for each day a Light Foreman/woman or Heavy Foreman/woman is assigned and performs welding work.
 - (c) When a welding premium is applicable to time worked at the overtime rate of pay, the overtime rate shall be applied to the applicable welding premium.

¹ Shall be adjusted annually on July 1 by the percentage of the general contractual wage increase.

- (d) Welding premiums shall be payable only for hours actually worked, and shall not be paid for non-worktime such as holidays, sick leave, vacations, rest periods, etc.
- (e) Welding premium shall be paid for meal and travel time at the applicable overtime rate.
- (f) The welding wage premium will be adjusted each year by a percentage equal to the general contractual wage increase for the Fitter/Welder job classification.

Nothing contained above is intended to reduce or eliminate the Fitter/Welder Classification. Additionally, it is understood that when practicable, welding will first be assigned to the Fitter/Welder classification. Second, in the absence of a Fitter/Welder, when practicable, Fitters with appropriate welding certification will be upgraded to the Fitter/Welder classification.

TITLE 8
LEAVES OF ABSENCE

8.1 "Leaves of Absence" and "Leaves" signifies approved absence without pay. A leave shall commence on and include the first work day on which an employee is absent and shall terminate upon the agreed-to date of expiration of the leave of absence. An individual's seniority shall not be affected, except for personal leaves of thirty (30) or more calendar days. The employee's status as a Regular employee shall not be impaired by a leave of absence and the conditions of the leave shall be governed by the provisions herein applicable to the type of leave granted. Any demotion of an employee caused by a reinstatement of an employee who has been absent on an approved leave of absence shall be governed by the Demotion and Layoff Procedure. (Amended 1/1/95)

8.2 Military Leave

A leave of absence shall be granted to employees who enter the Armed Forces of the United States, provided, however, that any such leave of absence and the reinstatement of any such employee shall be subject to the terms of any Act of Congress, which provides for re-employment. The seniority rights for employees who are members of the Armed Forces shall accrue while they are absent on military duty.

8.3 Union Leave

Company shall, at the written request of Union, grant a leave of absence without pay to an employee who is appointed or elected to any office or position in the Union and whose services are required by the Union, provided adequate arrangements can be made to take care of the employee's duties, without undue interference with the normal routine of work. Such Union leave shall be subject to the following conditions:

- (a) The term shall be for a fixed period not to exceed three (3) years. The period shall be stated in the request for leave.
- (b) The employee shall be returned to employment in their same classification held at the time the leave was granted and at the same headquarters at which they were last employed, or at the nearest headquarters to that location in which a vacancy exists.
- (c) The seniority of an employee who is granted a leave of absence under the provisions of this Title shall accrue during the period of such leave.(Amended 1/1/98)
- (d) Upon at least 72 hours written notice, employees may be granted time off to perform Union duties or services. The Company, in its sole discretion, reserves the right to deny such request.

8.4 Personal Leave

Leaves of absence for urgent, substantial personal reasons may be granted to regular employees provided that mutual agreement is reached thereon by Company and employee, and subject to the following conditions:

- (a) The leave will not exceed a period of six (6) months, or a six (6) month extension thereof, but in no case shall any leave or extension be granted which extends the total leave of absence beyond a period of one (1) year.
- (b) The purpose for which the leave is granted will not lead to the employee's resignation.
- (c) If an employee fails to return immediately on the expiration of the leave of absence, or if they apply for unemployment benefits, or they accept other employment while on leave, they shall thereby forfeit the leave of absence and terminate their employment with the Company.
- (d) An employee returning from an authorized leave of six (6) months or less shall be reinstated to their former classification and headquarters location.
- (e) An employee returning from an authorized leave exceeding six (6) months shall be reinstated to their former classification and headquarters provided a vacancy exists in their former classification. If no such vacancy exists, the employee shall be reinstated in a lower classification thereto in the same Line of Progression. If such reinstatement in a lower classification is required under this section, the employee will be given preferential consideration over other employees in the filling of vacancies in higher classifications in the line of progression until such time as they are returned to their former classification or rate of pay. (Amended 5/1/82)

8.5 The Company will not consider the bid of an employee on a leave of absence. (Added 5/1/87)

8.6 Family and Medical Leave

Leaves for care of child, spouse, parent, or serious illness of employee shall be provided in accordance with State and Federal Law, including but not limited to the Family Medical Leave Act of 1993, 29 USC §§ 2601-2654, and subsequent amendments("FMLA").

TITLE 9 INCLEMENT WEATHER PRACTICE

9.1 Regular and probationary employees who are unable to work in the field because of inclement weather, or other similar causes, shall receive pay for the full day, provided they physically report for duty at their regularly assigned reporting place and are in condition to perform their work. However, they may be held pending emergency calls, and may be given first aid, safety or other instructions, or they may be required to perform miscellaneous work in the warehouses or other sheltered locations. Temporary employees under the same conditions shall receive pay for time they worked or are held on Company property or ordered to stand-by. They shall not be paid in any event for less than four (4) hours.

9.2 The employee in charge at the job site shall be responsible for determining if the weather conditions warrant cessation of outside work. In arriving at a decision with respect to weather conditions, the following shall be taken into account. (Amended 1/1/98)

- (a) Employee safety

When "red" air quality days occur, as ordered by any air quality regulatory agency, strenuous work activity shall cease within affected areas except when emergencies, and/or public safety or welfare are involved, and in those instances, the Company shall provide appropriate respirators for those employees required to work. (Amended 7/1/12)

- (b) Operating requirements
- (c) Undue hazards
- (d) Service to the public
- (e) Job site-working conditions
- (f) Anticipated duration of time required to leave unfinished job in safe condition

- (g) Anticipated duration of inclement weather
- (h) Distance from job site to operating headquarters
- (i) Driving conditions (Added 7/1/12)
- (j) Any other pertinent factors which in their opinion should be taken into account in reaching their decision relative to stopping or continuing work. (Amended 1/1/98)

TITLE 10
OVERTIME

- 10.1 (a) Overtime is defined as (1) time worked in excess of forty (40) hours in a work week, (2) time worked in excess of an employee's normal work hours (or eight hours for part-time employees) on a scheduled work day, (3) time worked on a non-work day, (4) time worked on a holiday, and (5) time worked outside of regular work hours on a work day. Overtime shall be computed to the nearest quarter hour.
- (b) Prearranged overtime shall be defined as overtime for which notice has been given prior to the employee's release at the end of the last regularly scheduled work period or an extension thereof, of no more than two (2) hours on that work day.
1. Company may extend prearranged overtime as necessary. (Amended 5/1/81)
- (c) Callout overtime shall be defined as overtime for which prior notice has not been given the employee as per 10.1(b). (Added 5/1/81)
- (d) Overtime work should be assigned in accordance with the following principles, which are intended to guide the actions of both Supervisors and employees:
1. The nature of the utility business requires the working of overtime and is reflected in the language of this Agreement.
 2. The right to determine the importance and necessity of any work assignment rests within the rights of Management.
 3. Refusal shall be supported by a valid reason.
 4. A reasonable and sympathetic approach shall be taken by Supervision, with employees receiving as much advance notice as possible in order to allow them to alter their plans.
 5. Extenuating circumstances and health of the employees shall be considered.
 6. The time necessary to complete the work assignment and the availability and practicability of the use of other employees shall be considered.
 7. Above all, the rule of reason shall be used by employees and Supervisors.
- 10.2 If an employee is called out by a responsible authority of the Company outside the employee's regularly scheduled hours and works less than two (2) hours, the employee shall receive not less than two (2) hours to be compensated at the applicable overtime rate, for each such call out, provided the employee has finished their first call out and has returned to their home. If the employee is sent on another job or jobs prior to returning home from the initial call without a break in work time it shall be considered a single call out. It shall be the policy of the Company to avoid a second assignment except those of such urgency as would ordinarily warrant a call out, but the determination of such urgency shall be determined solely by the Company Representative dispatching the call. When an employee can resolve an issue from home, and does not have to leave their house, or the call is cancelled prior to the employee leaving their home, the employee will receive a minimum call out of ½ hour. (Amended 7/1/12)

Such minimum call out pay provision shall not apply and the overtime payment shall be made only for actual work time outside regular hours where:

- (a) The call-out is less than two (2) hours prior to their regular starting time and the work extends into the regular workday.
 - (b) The call-out is an extension of the regular workday or the employee has not left the plant premises when called. Any employee required to keep a radio-equipped Company vehicle at home when off duty shall, upon completion of a tour of duty, proceed directly to their home. Any call-out while in transit shall be considered an extension of the regular day without interruption in time. A call-out received after reaching home and signing off the radio shall be considered a separate call-out. (Amended 5/1/81)
- 10.3 (a) Overtime, time and one-half (1½) and double time (2), shall be treated separately and shall be divided as equally as is practicable over the course of the payroll year, among those employees qualified and available within a classification and headquarters. All overtime, time and one half (1½x) and double time (2x), for individuals in each headquarters shall be posted separately every 30 days. Employees new to a classification or district or department shall be averaged into that district or department's year to date, time and one-half (1½) and double time (2) overtime lists. (Amended 4/5/05)
- (b) Deviation from the distribution of overtime as stated in Section 10.3 (a) must be established in writing and agreed to by both Company and Union. (Added 1/1/98)
 - (c) Deviation from the distribution of overtime as stated in Section 10.3 (a) will be allowed in select cases where employees within classification possess special skills (certifications, licenses, or training) unique to that job requirement. (Added 1/1/98)
- 10.4 Nothing contained herein shall be construed to require the payment of overtime compensation under more than one (1) of the foregoing definitions for a single period of operation.
- 10.5 (a) Overtime compensation at the rate of one and one-half (1 1/2) times the straight rate of pay shall be paid to employees for overtime as defined in Section 10.1 (a) (1), (2), (3), (4), and (5) and Section 10.1 (b). (Amended 5/1/81)
- (b) The time worked in excess of sixteen (16) consecutive hours (which includes unpaid meal period) and continuing until the employee is dismissed from such work shall be paid at the rate of two (2) times the employee's straight rate of pay. (Amended 5/1/82)
 - (c) Prearranged overtime worked in excess of twelve (12) consecutive hours and continuing until the employee is dismissed from such work shall be paid at the rate of two (2) times the employee's straight rate of pay. (Added 5/1/81)
 - (d) If, following an employee's dismissal from work or on an employee's non-work day, the employee is called out for work, they shall be paid at two (2) times their straight rate of pay for all work performed outside their regular work hours or on a non-work day. (Added 5/1/81)
 - (e) (Deleted 5/1/91)
- 10.6 (a) Any regular or probationary employee who, as the result of a call out or a prearranged work assignment, has worked at overtime rates between their regular quitting time and their next regular starting time on regular work days, shall be entitled to a rest period under the following conditions:
- 1. If an employee has worked eight (8) hours or more at overtime rates, they shall be entitled to a rest period of nine (9) consecutive hours upon completion of such overtime work.
 - 2. If they have worked a minimum of two (2) hours at overtime rates and such work extends beyond nine and one-half (9 1/2) hours after their regular quitting time, they shall be entitled to a rest period of nine (9) consecutive hours upon completion of such

overtime work. If they work less than two (2) hours at overtime rates and such work extends beyond nine and one-half (9 ½) hours after their regular quitting time, the employee shall only be entitled to a rest period of seven (7) consecutive hours upon completion of such overtime work. (Amended 7/1/12).

3. If they have worked a minimum of two (2) hours at overtime rates and such work commences later than nine and one-half (9 1/2) hours after their regular quitting time, they shall be entitled to a rest period of nine (9) consecutive hours upon completion of such overtime work. If they work less than two (2) hours and such work commences later than nine and one half (9 ½) hours after their regular quitting time, the employee shall only be entitled to a rest period of seven (7) consecutive hours upon completion of such overtime work. The above provisions shall not apply if such work commences later than four (4) hours before their next regular starting time. (Amended 7/1/12)
 4. Rest periods, as provided above, shall commence upon completion of the employee's overtime work or the start of their regular work hours, whichever occurs first.
 5. Overtime work that qualifies for a rest period will include 45 minutes consumption time for each missed meal. Travel time will not be included as time worked to qualify for a rest period. (Amended 7/1/12)
- (b) The provisions of Section 10.6(a) shall apply to an employee who works at overtime rates on their regularly scheduled day off or on a holiday observed by the Company as follows:
1. The overtime must have been worked immediately preceding their regular starting time on the next regularly scheduled work day, and
 2. During the corresponding time period normally observed by them as off-duty hours on consecutive workdays.
- (c) If the employee becomes eligible for a rest period in accordance with any of the conditions above, and the Company requires the employee to continue work into their regular work period, the employee shall be paid at two (2) times the standard rate of pay for all hours worked until they are given a rest period. If, however, the employee is not entitled to a rest period, the employee shall revert to the straight-time rate at the beginning of their regular work period irrespective of whether they continue to work at said overtime work or changes to regular duties.
- (d) If the employee becomes eligible for a rest period and is called back to work during their nine (9) hour rest period, the employee shall be paid overtime compensation at the rate of pay equivalent to two (2) times the standard rate of pay for all work performed until they have been relieved from duty for at least nine (9) consecutive hours, and a new rest period will commence at the conclusion of such work.
- (e) Should a rest period provided for above extend into their regular work hours, the employee may be required to report for work at the end of said rest period for the remainder of that regular work period. The employee shall be paid at straight time for any portion of their regular work period, which they are allowed to take as a rest period. They will in any event be paid at the straight-time rate for the said regular work period.

TITLE 11
HOLIDAYS

- 11.1 It shall be the policy of the Company to perform only necessary work on any of the holidays observed by the Company. The necessity for holiday work and the number and choice of employees required to work on the holiday shall be determined by the Company.
- 11.2 For regular, probationary and Provisional employees, "holiday" as used herein is defined as a day on which each of the following holidays is observed by the Company: (Amended 6/11/01)

New Year's Day
Martin Luther King Day
Presidents' Day
Memorial Day
Independence Day
*Floating Holiday
Labor Day
**Nevada Admission Day
Veteran's Day
Thanksgiving Day
Day After Thanksgiving
Christmas Day

*An employee, during their first payroll year of employment, shall be entitled to one Floating Holiday (Amended 6/11/01)

** Nevada Day will be observed the last Friday in October.

Employees shall observe their floating holiday(s) on a workday before the end of the payroll year at the convenience of the Company and the Company will not pay in lieu of unused floating holiday(s). In the event an employee is prevented from taking their floating holiday(s) due to operational requirements, they shall be entitled to defer the floating holiday(s) into the next ensuing payroll year. (Amended 6/11/01)

- 11.3 If a holiday is observed by Company on a regular or probationary employee's non-working day, the employee shall, during the ensuing twelve (12) months be given a work day off with straight-time pay at the convenience of the Company. The employee may have the option of foregoing the workday off and accepting regular straight-time pay for the holiday if they so desire.
- 11.4 If a holiday is observed by Company on a regular or probationary employee's scheduled non-work day and the employee works on that day, they shall be paid at the applicable overtime rate for all work performed plus their holiday allowance.
- 11.5 If a holiday is observed by Company on a regularly scheduled workday of a regular or probationary employee and they perform no work that day, they shall be given a holiday allowance equal to their regular straight-time pay for the day.
- 11.6 If a holiday is observed by Company on a regularly scheduled workday of an employee and they work that day, the employee shall have the option to:
- (a) Be paid the applicable overtime rate for all work performed plus their holiday allowance of eight (8) hours straight-time pay, or
 - (b) Be paid the applicable overtime rate for all work performed and carry over the holiday, to be observed at another time, subject to the provisions of 11.3 of the Agreement. (Amended 5/1/83)
- 11.7 (a) If a holiday falls on a Saturday, the Company shall observe the holiday on Friday. If a holiday falls on a Sunday, the Company shall observe the holiday on Monday.
- (b) If a holiday falls on a Saturday or Sunday, employees regularly scheduled to work that day shall observe the actual holiday rather than the Company observed holiday.

- 11.8 If an employee takes off any of the days observed by the Company as holidays and is absent without bona fide reason on the work day either immediately preceding or following such day observed by the Company as holiday, they shall not receive holiday pay.

TITLE 12
VACATIONS

- 12.1 All active employees, except Temporary employees, begin accumulating vacation time upon employment. Vacation time shall be computed from the employee's continuous service date and will be credited bi-weekly.

- (a) An employee's continuous service date shall be their most recent date of hire, which may be adjusted subject to the provisions of Title 8.
- (b) When an employee's accrual rate changes as stated in 12.2 below, the new accrual rate will be effective at the beginning of the pay period in which the continuous service date falls. (Amended 5/1/87; Effective 1/1/88)

- 12.2 Full-time employees except Temporary employees earn vacation time as follows and subject to the provisions of Title 20:

<u>Years of Continuous Service</u>	<u>Bi-weekly Accrual Rate</u>	<u>Total Vacation Hours Per Year</u>
1st through 5th year (from 1 day – 60 Months)	3.076	80
6th through 12th year (At the completion of 5 full years, 60 months)	4.615	120
13th through 19th year (At the completion of 12 full years, 144 months)	6.153	160
20th through 26th year (At the completion of 19 full years – 228 months)	7.692	200
27th years or more (At the completion of 26 full years – 312 Months)	9.230	240

- 12.3 Each employee who has completed five (5), ten (10), fifteen (15), twenty (20) years, etc., of continuous service with the Company will be credited with five (5) days vacation (40 hours) in the pay period in which the continuous service date falls. (Amended 5/1/87; Effective 1/1/88)

- 12.4 Part-time employees except Temporary employees shall earn vacation time as stated in Section 12.2 and 12.3, but adjusted as follows and subject to the provisions of Title 20.

- (a) Vacation time credits shall be prorated as outlined in Section 3.5. (Amended 5/1/87)

- 12.5 An employee must complete six (6) months of continuous service to be eligible to take vacation. After completion of six (6) months of continuous service, vacation may be taken as earned, subject to operational needs of the Company and by mutual agreement of Company and employee. (Amended 5/1/87)

- 12.6 Vacation time shall be paid at the straight-time rate of pay. (Amended 5/1/87)

- 12.7 Vacation requests, which must be pre-approved by the employee's supervisor, should be submitted as far in advance as possible and must be taken in ¼ hour increments. (Amended 7/1/09)

- 12.8 Earned vacation, which is not used by an employee, may be allowed to accumulate. Such vacation may be carried over from one (1) payroll year to the next following payroll year provided that the carryover vacation does not exceed a maximum amount based on years of continuous service as stated below: (Amended 1/1/98)

<u>Years of Continuous Service</u>	<u>Maximum Carryover Vacation</u>
1st through 5th year (from 1 day - 60 months)	20 days or 160 hours
6th through 12th year (At the completion of 5 full years - 60 months)	30 days or 240 hours
13th through 19th year (At the completion of 12 full years - 144 months)	40 days or 320 hours
20th through 26th year (At the completion of 19 full years - 228 months)	50 days or 400 hours
27 years or more (At the completion of 26 full years – 312 months)	60 days or 480 hours

- (a) All vacation carried over from one (1) payroll year to the next following payroll year in excess of the maximum as stated in 12.8 above will be forfeited. However, on an annual basis, an employee is allowed to transfer up to 80 hours in forfeited vacation to their 401(a) or 457 deferred compensation accounts. Once an employee has made their election to a deferred compensation account, those elections are subject to plan guidelines and annual maximum contribution limits as stipulated by the IRS. (Amended 6/12/06) (Amended 7/1/09)
- 12.9 When an employee is required to carry over a vacation from one (1) payroll year to the next payroll year due to an approved absence from work because of an extended illness or industrial injury, such vacation will be taken at the convenience of the Company and at such time as not to interfere with vacation schedules of other employees. Such vacation will not be subject to forfeiture as stated in 12.8(a). (Amended 1/1/98)
- 12.10 When an employee's approved scheduled vacation is canceled by the Company due to unforeseen emergency conditions, or an employee foregoes their/her vacation for the convenience of the Company, the employee shall be allowed to reschedule their vacation by mutual agreement between Company and the employee. If such vacation must be carried over to the next following payroll year, it shall not be subject to forfeiture as stated in 12.8(a). (Amended 1/1/98)
- 12.11 If a holiday is observed by the Company on a workday within an employee's vacation period, the holiday shall not be considered a vacation day. (Amended 5/1/87)
- 12.12 Company shall not require an employee to take their vacation in lieu of sick leave or leave of absence on account of illness. (Amended 5/1/87)
- 12.13 Regular, probationary and Provisional employees whose employment with the Company has been terminated for any reason shall receive vacation pay for all accrued vacation time in lieu of any vacation allowance. (Amended 6/11/01)
- 12.14 Before January of each year, there will be a sign-up in each department so that the employees may designate their choice of vacation periods. The Company shall prepare the annual vacation schedule on the basis of such sign-up, effecting whenever possible the selections of the employees within each classification in the order of Company seniority. (Amended 7/1/09)
- (a) If, in accordance with 12.7, an employee has arranged to take their vacation in two (2) or more periods the use of seniority as a factor in securing preferential consideration over other employees shall be limited to one (1) of such periods.
- (b) Service employees shall be allowed to include one (1) night shift in their first choice vacation period. (Amended 5/1/87)
- 12.15 Vacation lists shall be posted on or before January 15 of each year. Scheduled vacation shall be taken as posted unless otherwise agreed to by Company. Any request for changes in scheduled vacation shall be submitted by the employee in writing and subject to written approval by Company. Such request shall include the alternate date(s) proposed by the employee. (Amended 5/1/87) (Amended 7/1/09)
- 12.16 During each payroll year, the employee may elect to cash out up to 40 hours of unused earned vacation. (Added 7/1/12)

TITLE 13
SAFETY

Working SAFELY prevents suffering, loss of wages to ourselves and families, and damage to property and injury to others.

An important part of everyone's acceptance of employment is to accept responsibility to do their work in accordance with the latest safety practices and to cooperate with other employees with whom they work to carry out safety rules and practices. Therefore, every employee of this Company is automatically pledged to study the safety rules and put them into effect for every applicable circumstance.

Every employee must be familiar with the special safety rules and regulations pertaining to their particular classification, in addition to the general overall safety rules.

- 13.1 Company shall make reasonable provisions for the safety of employees in the performance of their work. Union shall cooperate in promoting the realization of the responsibility of the individual employee with regard to the prevention of accidents.
- 13.2 The Company will draft reasonable safety rules for employees and it will be the responsibility of all employees to observe these rules. A copy of the rules will be furnished the Union.
- 13.3 The Company shall hold not less than eight (8) safety meetings each year at practical points throughout the system. When practicable, such meetings shall be scheduled to permit as many employees as possible to attend. Employees shall be required to attend safety meetings except for good cause. The programs of the safety meetings shall be arranged by the Company and in general will cover material appropriate to each group.
- 13.4 The Company will promptly notify the Union Business Representative of any accident resulting in death or serious injury to an employee. The Union Business Representative of Local 1245 shall be a member of the Company Accident Prevention Board. (Amended 1/1/98)
- 13.5 The Company and Union recognize the importance of timely, well documented investigative reports for any serious accident/incident determined to be worth investigating. To this end, the Company and Union agree that a Committee comprised of not more than twelve (12) members of the Bargaining Unit and twelve (12) members of Management will be selected by their respective parties to receive special training from the Safety Department in the appropriate methods of conducting accident investigations -- such training to be provided on Company time at Company expense.

Thus, when an accident/incident occurs, there will be a trained group of personnel from whom to select the Joint Accident Investigating Committee members as described in the remainder of this section. Selection to serve as a member of the Joint Accident Investigating Committee shall be based on the knowledge and experience of the individual committee members so that, to the extent practicable, the Committee will be comprised of members experienced in the field of work in which the accident/incident occurred. In no case shall the members of the Joint Accident Investigating Committee be selected from the occupational group in which the accident/incident has occurred, unless mutually agreed on by the Company and Union. (Amended 6/11/01)

At the request of either the Company or the Union, any accident/incident of a serious nature shall be investigated by a Joint Accident Investigating Committee. The Joint Accident Investigating Committee shall consist of not more than four (4) employees, two (2) of whom shall be appointed by the Company and two (2) by the Union.

If such investigation is requested by the Company, the Company will pay wages at the appropriate hourly wage rate, for approved hours so worked by the Union committee members. Normal out of pocket expenses required for the proper conduct of the investigation will also be paid by the Company.

If such investigation is requested by the Union, the Company will not be liable for any lost wages or expenses incurred resulting from the Union member's participation in the investigation.

After investigating a serious accident/incident, the Joint Committee may, at its discretion, file a joint or separate report or reports with the Company covering its recommendations for prevention of the recurrence of accidents of similar nature. It is understood and agreed that the Company is not obligated or required to accept the committee's recommendations. If the Company accepts or rejects any or all such recommendations, Company will give written explanation to the Joint Accident Investigating Committee. (Amended 1/1/98)

- 13.6 A Company Safety Committee shall be established consisting of four represented employees, one non-represented employee and the Safety Officer. The officers of the Committee shall consist of a "chairman," "vice-chairman" and "secretary" who shall be selected by vote of the Committee. The four represented members will serve staggered four (4) year terms.

A representative of the following departments will be assigned to the Safety Committee:

Distribution Maintenance (one member)
Operations (one member)
Hydro Generation and Customer Service (one member)
MPAT employee (one member)
Rotating Seat to be from one of the areas listed in 1, 2 or 3

In establishing said Safety Committee, it is specifically recognized and acknowledged that the employer is obligated to provide to the employees a safe and healthy place of employment and that the operation and/or establishment of the aforementioned committee shall in no way relieve the employer of that obligation. The Company Safety Committee shall develop a Charter listing the committee activities, members responsibilities, meeting times and agendas and the measures of its success. The Safety Committee will make recommendations concerning unsafe working conditions and recommending measures to be taken for correction thereof. Such recommendations shall be in the form of written reports, copies of which will be sent to the appropriate Supervisor or Manager, Safety Officer, Human Resources, and each member of the Safety Committee. Within ten (10) working days from receipt of such recommendations, a written reply from the Safety Officer will be returned to the Chairman of the Committee. Replacement of committee members shall be done through solicitation and recommendation from the Company, Union and the Committee. Election of new members shall be done by majority vote of the current membership. In the Fall and Spring the members of the Safety Committee will agree on a date and time to conduct inspections of Company's properties, vehicles, equipment, and activities. Members of the committees will have time off with pay for the purpose of making said inspections and shall be reimbursed by Company for expenses incurred therefore. (Amended 6/11/01) (Amended 7/1/09)

- 13.7 (Deleted 7/1/09)

- 13.8 If the Company requires any employee to wear steel-toed safety shoes (as defined in ANSI Standard Z.41), the Company will provide the shoes. The employee is then required to wear in the performance of their duties, steel-toed safety shoes recognized as such by ANSI Standard Z.41. (Added 5/1/91)

TITLE 14
UNION ACTIVITY

- 14.1 The Union will use one-half (½) of the Company's regular bulletin boards and Company shall designate by lettering the portion of the Board reserved for Union use.
- 14.2 The Company shall not discriminate against an employee because of their or her membership in the Union or their or her activity on behalf of the Union, and the Union agrees not to discriminate against any employee because of their non-affiliation with the Union.
- 14.3 The Union's use of bulletin boards shall be limited to the posting thereon of official notices of meetings and similar matters relating to official Union business, and Union shall not post thereon any matter relating to the solicitation of employees to join Union or the collection of dues, or any matter derogatory to Company.

- 14.4 At the request of the Union, the Company shall issue a temporary pass, renewable yearly, to any representative of the Union authorizing them to enter any Company property where any employee within the Bargaining Unit is employed.
- 14.5 (Deleted 7/1/09)
- 14.6 (a) E-Mail: E-Mail will be made available to the Union for Union communications.
- (b) New Employee Orientation: IBEW Business Representative will be allowed to participate in the New Employee Orientation.

TITLE 15
SICK LEAVE

- 15.1 A regular employee shall, in addition to any accumulated unused sick leave with pay to which they may be entitled as of May 1, 1968, also be entitled to accumulate further unused sick leave with pay at the rate of thirteen (13) sick days per year subsequent to May 1, 1969, and calculated biweekly. An unlimited number of working days of sick leave may be accumulated in this manner, subject to the provisions of Section 20.1. The employee may cash out unused earned sick leave in excess of 700 hours during the payroll year, not to exceed 48 hours that payroll year. (Amended 5/1/86) (Amended 7/1/12)
- 15.2 The Company may require satisfactory evidence of an employee's illness or disability before sick leave will be granted. If it is found that the employee is using sick leave for reasons other than a bona fide personal sickness or disability, said employee shall forfeit all sick leave accumulated up to that date. When an employee determines that they will be unable to report for work, they must notify their Immediate Supervisor's cell phone, or if directed, the cell phone of the Supervisors' designee. These calls must be made a minimum of 30 minutes before the employee's scheduled start time. In the event an employee is unable to determine when they will be able to return to work, they must, on each day of their illness or disability, notify their Supervisor that they will be unable to report for work. When the employee does become aware of the date when they will be capable of returning to work, they must give as much advance notice of this fact as possible to the Supervisor. Lack of notification will result in denial of sick pay benefits. (Amended 7/1/09)
- 15.3 If a holiday is observed by the Company on a work day within the sick leave period of an employee who is entitled to holidays off with pay, the holiday shall not be charged to the employee's sick leave (see 11.5).

Except as provided in Section 15.4, nothing in the foregoing Title shall be interpreted to entitle the employee to sick leave while on vacation, temporarily laid off by the Company, upon severance of employment, or while receiving industrial compensation.
- 15.4 If an employee is confined to a hospital during their vacation period, upon request they will be granted sick leave for the period of confinement.
- 15.5 (Deleted 5/1/83)
- 15.6 (Deleted 5/1/83)
- 15.7 (Deleted 5/1/83)
- 15.8 Sick leave time may be granted in ¼ hour increments. (Added 1/1/98)
- 15.9 (Deleted 6/11/01)
- 15.10 Family Sick Leave Program

The parties, in an effort to meet the needs of employees while maintaining sick leave usage at an acceptable level, hereby agree to the following:

- (a) Employees may be granted up to thirty-two (32) hours sick leave per payroll year (assuming sufficient hours of accrued sick leave) for immediate family illness/emergency. The accrual rate remains unchanged. (Amended 1/1/98)
- (b) Family illness/emergency is any situation involving the employee's immediate (as defined in the Company's funeral leave policy) family requiring the employee's personal attention which cannot be attended to outside normal work hours.
- (c) Family sick leave time may be granted in ¼ hour increments. (Amended 1/1/98)
- (d) Proven abuse will be handled pursuant to the provisions of Section 15.2
- (e) Employees at any stage of progressive discipline for attendance related problems are not eligible.
- (f) It is recognized that this program does not provide an additional benefit to employees. Time is provided, as described above, at the sole discretion of the Supervisor.(g)The Company will communicate this program to Supervisors in a manner designed to foster consistency and understanding. (Amended 1/1/95)
- (g) Family sick leave usage will not be a consideration in employee performance appraisals. (Added 1/1/98)
- (h) This section shall be independent of Section 8.6, Family and Medical Leave Act and does not change the guarantees offered under the Federal Act. (Amended 6/11/01)

15.11 Unused Sick Leave at Retirement (Added 6/12/06)

Employees who "retire" under the qualified Retirement Plan (minimum age 55 with at least 10 years of service) will convert 100% of unused sick leave over 700 hours at retirement to a Retirement Health Savings (RHS) account.

TITLE 16
SENIORITY

- 16.1 There shall be two (2) types of seniority, namely, Occupational Group Seniority and Company Seniority. Company Seniority shall be defined as total length of continuous service with the Company as determined in accordance with 3.7. Company Seniority shall be used as the basis for determining such benefits as sick leave, retirement, vacations and protection against demotion and lay-off. Occupational Group Seniority shall be defined as the total length of service in one (1) of the occupational groups shown in Exhibit C attached hereto. Occupational Group Seniority shall be used in determining the preferred bidder within an occupational group and line of progression in the sequence outlined in 16.5. Attached hereto and made a part hereof is Exhibit C, an appendix outlining the "Occupational Groups" and "Lines of Progression" to be used for promotion and demotion. It is understood that the Occupational Groups have no relationship to "departments" as used in prior contracts between the parties nor shall Exhibit C be construed to limit in any way the right of the Company to choose any form of organizational arrangement it prefers.
- 16.2 Company shall make up and post on bulletin boards, a Company seniority list and an occupational seniority list every six (6) months. If no opposition shall be made in writing within thirty (30) days after posting, the respective seniorities shall be considered as correct as listed. A copy shall be furnished the Union.
- 16.3
 - (a) The seniority status of employees as of July 1, 1959, shall be that shown on the personnel records of the Company, and seniority shall accumulate in the occupational group where then employed.
 - (b) An employee who bids or is transferred from one occupational group to another or is transferred out of the Bargaining Unit shall, for a period of 90 days following the date they are awarded their new job in the new occupational group, or out of the Bargaining Unit, will be assumed to be continuing in the occupational group from which they transferred and shall have no seniority in

the group to which they transferred. At the end of the 90 day period specified, they shall be credited with 90 days of seniority in the new group, and shall retain in the group from which they bid or was transferred, the seniority they have earned in that group as of the beginning of the 90 day period specified. (Amended 7/1/12)

- (c) An employee who is transferred out of the Bargaining Unit on a temporary assignment shall be considered to be continuing in the occupational group and classification from which they has been transferred. Assignments of a temporary nature which are expected to continue beyond twelve (12) months shall first be discussed with the Union.
- (d) Such employee may not use the previous group seniority for bidding on posted jobs in the previous group, but if they are re-transferred to the previous group they may use the seniority to re-establish themselves in that group.
- (e) All non-Bargaining Unit employees, who are used on the job for training purposes, shall be exempt from the provisions of this Agreement.

They shall be assigned to fully manned and supervised crews and for periods not to exceed ninety (90) calendar days.

16.4 When an employee is temporarily transferred from the occupational group in which they are regularly employed to another occupational group, their seniority will continue to accumulate in their regular occupational group while they are temporarily working elsewhere.

16.5 When new jobs are created as provided in 4.4, additional jobs and vacant jobs will be posted on the bulletin boards by the Company for a period of ten (10) calendar days. It shall be the duty of the Company to set forth in said bulletin the date of postings, the nature of the job, its duties, qualifications required and the rate of pay. The Company shall furnish the Union with a list of bidders on all jobs and it shall be the duty of the Company within ten (10) working days of the close of the bidding period to post on bulletin boards the name of the applicant, if any, awarded the job, and email a copy of such notice to the Union. If no bids are received for the job classification during the bidding period, the Company may fill the job from any source whatsoever. After a period of six (6) months, if Company has not hired an applicant to fill the posted vacancy, Company shall re-post the job vacancy if such vacancy still exists. If a job is filled and the job again becomes vacant within forty-five (45) days from the date the job was last filled; it shall not be necessary to again post the job. If the job was awarded to a qualified bidder and becomes vacant within forty-five (45) days from the date the job was last filled it shall be awarded to the next highest bidder. If the next highest bidder has been awarded another job, they shall have the option to accept either job. The vacant position shall be filled by the next highest bidder. (Amended 1/1/98)

Attached hereto and made a part hereof and numbered Exhibit B are the "Job Descriptions and Qualifications" of those jobs coming within the scope of the bidding procedure. Bids to job vacancies will be given preferential consideration in the following manner. Subject to 16.7 and 16.10, the employee with the greatest occupational group seniority shall be awarded the job, except under (c) and (e) below, the Company seniority shall be used:

- (a) Bids from employees within the same occupational group in the same classification or classifications higher than the existing vacancy.
- (b) If there are no bidders under (a), all bids from employees in the next lower classification within that occupational group.
- (c) Where no bids are received under (a) and (b), all bids from employees in another occupational group with the same classification.
- (d) If there are no bids received under (a), (b) or (c), all bids from employees within the occupational group in which the vacancies exist.
- (e) Should there be no bids from any employee under (a), (b), (c) or (d), all other bids from any employee in any occupational group, regardless of classification and subject to 16.7 and 16.10,

the bidder with the greatest Company seniority shall be awarded the job. Bids from employees who have less than six (6) months of continuous service in the Bargaining Unit classification at the close of the bid shall not be considered as having company seniority. (Amended 6/12/06)

1. Incumbents are defined as those employees hired prior to January 1, 1995 and listed in classifications in Exhibit C in double-lined boxes. Incumbents shall retain their group seniority for bidding purposes subject to provisions listed below. (See updated incumbency list 6/11/01.)
 2. All bids to Apprentice classifications shall be considered "E" bids (except those incumbents hired before January 1, 1995 subject to Section 16.5(4).
 3. An incumbent will have one (1) opportunity to accept a bid using group seniority per 16.5(1) for a double-lined classification, and will then continue to progress in their line of progression in accordance with Section 16.5.
 4. If incumbent in double-lined boxes bids a position within their line of progression at any location but elects to turn down such position or fails to place a bid, he/she will lose the opportunity to use group seniority for that particular position and location. Future bids to that position and location, if posted again, shall be based on Company seniority only. (Added 1/1/95, Amended 6/11/01)
- (a) When the occupational group seniority is identical for two (2) or more employees whose bids are entitled to equal consideration under paragraph (a), (b), or (d) of Section 16.5, preferential consideration shall be given to the employee with the greatest Company seniority, subject to the provisions of Sections 16.7 and 16.10.
- (b) When a bid cannot be awarded as stated in Section 16.6(a) because there is a tie between two (2) bidders for the same job and it is decided that to award the job the tie must be broken, a representative of the Company and a representative of the Union will meet and have a coin toss to determine which of the bidders will be offered the position. Because in this case there are only two (2) bidders tied, the Union representative will decide which of the coin (head or tails) will represent which employee. The Company representative will then toss the coin and whichever side (heads or tails) comes up, that bidder will be offered the position. (Added 6/11/01)
- (c) When a bid cannot be awarded as stated in Section 16.6(a) because there is a tie between more than two (2) bidders for the same job and it is decided that to award the job the tie must be broken, the same process will be used as in 16.6(b) only that after the first person is eliminated, the process will be repeated until there is only enough bidders left to award the position. (Amended 6/11/01)
- 16.7 (a) Nothing in this Agreement shall be construed as limiting the right of the Company to determine the number of employees required in each classification nor shall it be construed as limiting the right of the Company to determine whether a vacancy shall be filled. Except as provided in Section 16.7(b), awards to jobs posted for bid shall be made in accordance with Section 16.5. However, whenever a vacancy occurs in any job classification, Company may, in its discretion, temporarily fill such vacancy. Any such temporary appointment shall, if practicable, be given to an employee who would be eligible to bid therefore under the seniority and job bidding provisions of this Agreement, subject to the provisions of Sections 16.7(b) and 16.10(a), and the lines of upgrade (Attachment IV Exhibit C (2)).(Amended 7/1/12)
- (b) In filling vacancies in jobs hereinafter collectively referred to in Subsection 16.7(c) as "Working Foreman/woman jobs," Company shall consider the appointment of employees to any such vacancy as herein provided, and where the Company determines that the following qualifications are relatively equal, seniority shall govern:
1. The quality of the employee's performance on their current job.
 2. Their background of education and experience in similar or related work.

3. The amount of special preparation for the new job, if any is necessary or pertinent, which the employee has completed at the time the bid is made.
4. Their previous demonstrations of leadership and progress. When filling a permanent position, upgrade hours need not be considered (Amended 7/1/12)

It is the intent of the parties that the Union shall not have the right to arbitrate the "judgment" of the Company, but that the Union shall have the right of appeal if it believes there was not a fair submission of facts upon which that judgment was made.

After selecting an applicant on the above basis, the Company shall notify the Union by letter. During a period of fifteen (15) calendar days following the receipt of such notification, the Union may investigate the facts used by the Company in making its selection. If, after such investigation, the Union feels that it would serve a useful purpose to further review the matter, the Union may request a meeting with an officer of the Company or their representative. The Union Representative at such meeting shall not have participated actively in the original investigation. The Union and Company Representatives would review the facts used by the Company in making the selection. Company's initial decision will stand unless, after such review of the facts, Union and Company representatives agree that the decision was arbitrary. In any event, the Union and Company representatives shall, within thirty (30) days, dispose of the case and their decision shall be final and binding upon the Company, the Union, and the employees involved.

- (c) The term "Working Foreman/woman" as used in this Section 16.7 shall be construed to include any of the following: (Amended 6/11/01) (Amended 7/1/12)

Foreman/woman, Working (All Classifications)
Inspector
Representative, Customer Services, Senior
Senior Facilities and Grounds Maintenance Man

- 16.8 (a) An employee changing any classification shall be given a qualifying period. Within the first thirty (30) days of the qualifying period, the employee must determine whether they can meet the requirements of the new classification or elect to return to their former job classification and rate of pay. If the employee elects to exercise the option of returning to their former classification and rate of pay within the thirty (30) day period they will then be ineligible to bid on any position openings for a period of ninety (90) days from the date they return to their former position. The employee may only exercise returning to their former position during the thirty (30) day qualifying period once every three (3) years. After expiration of the above-described 30-day period and up to 180 days after the employee begins work in the new job classification, only the Company and the Joint Apprenticeship Training Committee may determine if the employee is meeting the requirements of the new classification. If within the above-described time period the Company and Committee determine that the employee is not meeting the requirements of the new job classification, then the employee must be returned to their former job classification and rate of pay.

If an employee bids into a position for which they have no experience and is the senior bidder, then they will be given an option to job shadow for up to five (5) working days prior to making a decision to accept the new position.

In the event it is necessary for the Company to demote a "Working Foreman/woman," as defined in Subsection 16.7(c) for failure to discharge the duties of their position, the identical procedures of notice to Union, investigation and review procedure for appointment as outlined in Subsection 16.7(b), shall be used prior to completion of demotion.

- 16.9 All bids shall be submitted through the electronic application tracking system used by the Company. If a prospective bidder is unable to access the internet during the bidding period, then they may request via email that Human Resources submit a bid on their behalf. The Company will not consider any bid submitted later than the closing date on the posted bid/job announcement form.

- 16.10 (a) Notwithstanding anything contained herein, Company need not consider the bid of any employee who does not possess the knowledge, skill, efficiency, adaptability and physical ability required for the job on which the bid is made.
- (b) Company need not consider the bid of any employee for a posted job vacancy in another occupational group, if the employee has not worked for a minimum of 90 days in their present classification within the occupational group in which they are currently employed. The provisions of Section 16.10(c) are not to be construed as placing any time limitation upon the subsequent advancement of any employee within the line of progression in the occupational group to which they are qualified to bid. (Amended 7/1/12)
- (c) Company will not consider the bid of any employee in an Apprentice classification for a posted job vacancy in another Apprentice classification. (Amended 1/1/95)
- (d) Company will not consider the bid of any employee for an apprenticeship who has not met the requirements of the Joint Apprenticeship Training Committee. (Added 5/1/83)
- (e) The Company will not consider the bid of an employee for any position if the employee has an overall unsatisfactory appraisal in their current classification. (Added 1/1/95)
- 16.11 (Deleted 5/1/82)
- 16.12 The seniority rights of employees who are members of the Armed Forces shall accrue while they are absent on military duty.
- 16.13 Both the Company and Union recognize that there will arise situations with respect to partially incapacitated employees, employees displaced by new technologies or revisions of operational procedures, employees who are temperamentally unsuited to their jobs, employees returning from military service (other than annual field training) or employees who are displaced either directly or indirectly by other employees returning from military service with the Armed Forces of the United States (other than annual field training) who have been granted leaves of absence by the Company under Section 8.2 of the Agreement, and that in such cases the bidding procedure may be waived by mutual agreement in order to properly protect the seniority of employees who have given long and faithful service. The Company will discuss such cases with the Union as far in advance as possible with the object of avoiding any inequitable situations, which might result. Both parties will endeavor to provide for retention of employees in the Company, in jobs suitable to their capabilities, first in the areas where they are employed at the time, or secondly in other areas of the Company's operations. If after full discussion of such cases and survey of all possibilities available to the solution of the problem, the Union and the Company are unable to agree on a satisfactory solution, the Company shall have the right to make changes or layoffs as it may deem necessary, consistent with the provisions of the Agreement. Should a partially incapacitated employee, an employee displaced by new technologies or revisions of operational procedures, or an employee who is temperamentally unsuited to their job, or employees returning from military service (other than annual field training) or employees who are displaced either directly or indirectly by another employee returning from military service with the Armed Forces of the United States (other than annual field training) who have been granted leaves of absence by the Company under Section 8.2 of the Agreement, agree to be transferred to work falling outside of the Bargaining Unit, and should the employee not prove to be satisfactory in this assignment, Company and Union may mutually agree to waive the bidding procedure and return the employee to a Bargaining Unit job suitable to his/her capabilities, under the provisions of this Section.
- 16.14 After attainment of journeyman status through the Apprenticeship Program, the Company need not consider the journeyman's bid back into another Apprentice Program for a period of one year. (Added 1/1/98)

TITLE 17
EXPENSES

- 17.1 (a) Upon mutual agreement between the Company and the employee, the employee may provide their own regular meals on an out-of-town work assignment as outlined in Section 17.8(a) and be reimbursed by the Company the meals for which the employee qualified during each day of the assignment. The reimbursed price will be the base cost of the appropriate meal as outlined in 17.1, excluding tax and tip. (Added 5/1/86)(Amended 7/1/12)
- (b) The provisions of this Title shall be applied in a reasonable manner by the Company and the Union to conform to the intent of the parties, namely, that the Company will provide adequate meals when employees are prevented from observing their normal meal practices, and such other meals as provided for in this Title. Time necessary to consume the meals shall be considered as time worked. Union will cooperate with the Company to insure that the time necessary to consume meals will not be excessive. Company shall have right to consider excessive time taken to consume meals as time not worked.

Definitions

"Normal Meal Practice":

- Breakfast: The two (2) hour period immediately proceeding the time corresponding to an employee's regular starting time on regular work days.
- Lunch: From four (4) hours after the time corresponding to an employee's Regular starting time on Regular workdays to five (5) hours after this starting time.
- Dinner: From one and one half (1.5) hours after the time corresponding to an employee's regular quitting time on regular work days to two and one half (2.5) hours after this quitting time.

(Amended 7/1/12)

The meal practices observed on workdays shall prevail on non-work days.

"Adequate Meal":

1. Beginning on February 19, 2018, all earned meals will be credited at \$32.17 per meal. Credit will appear on the paycheck following the pay period in which the meal was earned. This dollar amount will be adjusted annually pursuant to the CPI Index identified as the "Food Away From Home" for the preceding calendar year.
2. Each earned meal will be compensated for 45 minutes at the appropriate overtime rate so long as the meal is not consumed on company time.
3. An employee taking an earned meal at the conclusion of their work must return company vehicle to the employee's regular reporting place and sign off prior to consuming the earned meal. (Added 7/1/12)
4. (Deleted 7/1/12)

"Time Necessary to Consume":

Parties recognize that certain meals may take more or less than thirty (30) minutes to consume. Any excessive time may be subject to justification.

- 17.2 If Company requires an employee to perform work for one and one-half (1 1/2) hours or more beyond regular work hours, it shall provide them with a meal approximately one and one-half (1 1/2) hours after regular quitting time and with meals thereafter of approximately four (4) but not more than five (5) hours for as long as they continue to work, insofar as it is possible for the Company to do so.

- 17.3 (a) On callout overtime, outside of regular hours on work days, the Company shall provide: breakfast, if callout work begins prior to two (2) hours before the time corresponding to the employee's regular starting time on regular work days. Lunch, if callout work begins prior to two (2) hours before the time corresponding to the employee's regular starting time on regular work days and they have qualified for a lunch through time worked. Neither breakfast nor lunch, if callout work begins two (2) hours or less before the time corresponding to the employee's regular starting time on regular work days, unless the employee has not been allowed sufficient time by their Supervisor, at the Supervisor's discretion, to eat their breakfast and prepare their lunch before reporting for work.

Other meals will be provided at intervals of approximately four (4) hours but not more than five (5) insofar as it is possible for the Company to do so and for so long as the work continues. Where any such work extends into regular work hours the normal meal hours as defined in Section 17.1 shall apply. (Amended 5/1/81)

- (b) On callout overtime on non-work days, Company will furnish meals at intervals of approximately four (4) but not more than five (5) hours, for as long as such work continues insofar as it is possible to do so.
- (c) Qualifying time for the next meal period shall begin upon completion of previous meal. (Added 7/1/12)

Normal meal practice shall prevail for work performed during those hours described in Section 17.1. (Amended 5/1/81)

- 17.4 (a) On prearranged overtime assignments, Company will provide breakfast if such work begins prior to two (2) hours before the time corresponding to the employee's regular starting time on workdays and non-work days. If such work begins two (2) hours or less before the time corresponding to the employee's regular starting time on a work day or a non-work day the normal meal practice relating to work days shall prevail. If such work continues, Company will furnish meals in accordance with Section 17.2 for the duration of the assignment. (Amended 5/1/81)
- (b) If such prearranged overtime is wholly outside of regularly scheduled work hours on either work days or non-work days, employee shall be eligible for one (1) meal on the job and shall be allowed thirty (30) minutes for consumption of such meal, approximately four (4) but not more than five (5) hours after beginning work, to be considered as time worked. If such work continues, Section 17.2 or 17.3 will be applicable. (Amended 5/1/81)

17.5 It shall be the obligation of Company to provide meal time to any employee whose normal meal practices, as herein defined, are disrupted. These meal times shall be given as nearly as possible, to the normal time for eating regular meals.

17.6 If an employee is called out during a period defined in the "Normal Meal Practice" but actually reports to work after the "Normal Meal Practice" period, the employee shall be credited the earned meal amount pursuant to Section 17.1. Such employee will not be eligible for 45 minutes to consume said meal. (Amended 7/1/12)

17.7 Nothing in the proceeding Sections of this Title shall be construed as altering in any way the lunchtime provisions set forth in Title 6.

- 17.8 (a) Regular employees who are assigned to temporary work at such distance from their headquarters that it is impractical for them to return thereto or to their regular place of abode, shall be allowed actual personal expense for board and lodging for the duration of such assignment, provided they board and lodge at places to be designated by Company. Under such circumstances, the Company designated lodging will be the reporting place. (Amended 1/1/95)
- (b) The subsistence allowance will not be applicable if board and/or lodging are provided by the Company. Upon the approval of the Company, any employee electing to provide their own living accommodations and meals in lieu of those provided by the Company will be:

Each night's stay of the work assignment: \$85.00 Effective 1/1/03

The last day of the whole aforementioned assignment: \$42.50 Effective 1/1/03

The dollar amount prescribed above will be adjusted based on Section 274 of the Internal Revenue Code, Treasury Regulations and Administrative Interpretations. (Amended 1/1/95)

Employees working a five (5) day work week and electing to remain within the project area on their two (2) non-work days will not be entitled to the subsistence allowance for the non-work days. If assigned to work six (6) days during the workweek, the subsistence allowance will be granted for each of the seven (7) days in the workweek.

An employee shall not be entitled to the subsistence allowance for any day they are absent from duty for personal reasons.

In the event of the illness of an employee, subsistence allowance shall be granted only for the first regularly scheduled workday. If such illness exceeds one (1) regularly scheduled workday, employees shall be encouraged to seek proper medical attention at facilities properly equipped to render same.

Transportation and allowances shall be provided to employees by the Company in accordance with the terms of Sections 17.8(a) and 17.9 of the Agreement, except that time spent by employees traveling in their personal vehicles to the project at the beginning of the employee's assignment and from the project at the end of the employee's assignment shall not be considered as time worked.

A travel allowance equal to that provided for under Title 5, Section 5.1, for one (1) round trip, will be allowed each employee providing their own living accommodations and meals under the following conditions: (Amended 1/1/95)

1. Travel to the project at the beginning of the employee's assignment and from the project at the end of the employee's assignment.
2. Travel from one (1) temporary reporting place designated by Company to another such Company designated temporary reporting place within the project for the purpose of relocating an employee's personal living accommodations.

Employees will be required to report for work at the established starting time and at the temporary-reporting place designated by Company. It is understood that the temporary reporting place designated by Company may change from time to time due to changes in Company's operational requirements. Such changes shall occur at Company's option.

Employees receiving the subsistence allowance in accordance with the foregoing provisions shall report for work on the first scheduled work day of the work week, at the established starting time, at the temporary reporting place designated by Company.

Employees providing their own living accommodations and meals shall accept full responsibility for the health, welfare and safety of any family members or personal property taken with them while on this job assignment. Employees shall hold the Company harmless of any and all liability involving family members, friends, personal property or equipment. (Amended 5/1/82)

- (c) Employees who are assigned to temporary out-of-town, overnight work assignments, as outlined in Sections 17.8(a) and 17.8(b), shall be paid an additional \$2.00 per hour out-of-town premium, commencing on departure the first work day and ending on the start of the last work day after the last night's stay. Such premium shall be paid for the duration of the assignment, excluding days not worked, even though such assignment may be interrupted by weekends or authorized days off during which the employee returns to their regular place of abode. (Amended 1/1/95)

No out-of-town premium shall be applicable for one (1) night out-of-town assignments. When out-of-town premium is applicable to time worked at the overtime rate of pay, the overtime rate shall be applied to the out-of-town work premium.

Out-of-town premium shall be applicable only for hours considered time worked and shall not be paid for non-work time such as sick leave, time of own accord, etc. (Added 5/1/83; Effective 5/1/84)

- 17.9 If on their non-work days any such employees remain at such designated places, their expenses for board and lodging on such days shall be paid by Company, but if they go elsewhere for their personal convenience Company shall not reimburse them for any expense they incur thereby. If any such employees return to their homes on their non-work days, Company at its option shall (1) allow them the equivalent of any saving it realizes in their board and lodging costs, or (2) reimburse them for the expenses of round-trip transportation by public carrier, or (3) provide round-trip transportation by Company vehicle, if such travel is at Company's request. In the event that any such employees board and lodge at a Company boarding house, the allowance which may be made by reason of the saving in board and lodging cost will be based on the established charge to employees who regularly board and lodge at such boarding houses.
- 17.10 An employee who is required to change their residence from one (1) locality to another for the Company's convenience, shall be eligible for authorized relocation expenses (Company reserves the right to select approved expenses) consistent with the current Company policy/procedure if the employee's place of residence is at least 50 miles from their/her new headquarters. This benefit does not apply if the move results from an employee exercising their/her rights under Title 16, except when there is only one qualified bidder for a journeyman or above job, qualified moving expenses, not to exceed \$2,000 with a limit on availability to said bidder once every five years, will be available. (Amended 1/1/98)
- 17.11 (Deleted 5/1/91)
- 17.12 Insofar as possible, the Company will give at least one (1) day's notice to an employee who is to be sent out of town for work in order that the employee may have time to prepare for the trip. The cost of Company provided meals for which the employee qualifies during each day of such assignments shall not exceed the aggregate of the meal allowances specified in Section 17.1 for such meals.
- 17.13 On optional or voluntary training related travel out of the Company's service territory, the following shall apply:
- Company to reimburse for actual expenses.
 - Out-of-town premium will not be in effect.
 - No overtime will be paid; however, Company Management to be sympathetic to travel connections and delays. (Added 1/1/98)

TITLE 18
APPRENTICESHIP

- 18.1 (a) A committee, known as the Joint Apprenticeship Training Committee (JATC), shall be established for the purpose of working out apprenticeship problems.
- (b) The JATC shall be comprised of two (2) members appointed by the Company and two (2) members appointed by the Union. (Amended 1/1/95) (Amended 7/1/09)
- (c) The JATC members shall serve from the date of their appointment until their successors are duly selected.
- (d) In addition to the two (2) Company Representatives, the Company can elect a Chairperson who shall remain a non-voting member of the Committee. In addition to the Union Representatives, the Union Business Representative shall remain a non-voting member. (Amended 7/1/09)
- (e) The chairman will be responsible for an agenda of, and presiding over, scheduled meetings. The secretary shall record the minutes of each meeting and distribute them to all appropriate persons.

- (f) JATC meetings shall be held quarterly or as designated by the Chairman. (Amended 5/1/82)
(Amended 7/1/09)
- 18.2 The JATC shall have the responsibility for developing new apprenticeship programs, amending existing apprenticeship programs, and investigating problems related to such areas as entrance requirements, standards of progress, methods of testing and scoring, apprenticeship working conditions, and procedures for removal or freezing when apprentices fail to meet established requirements. (Amended 5/1/82)
- 18.3 The Company shall not be liable for lost time or expenses of the Union appointed members of the JATC.
- 18.4 Any programs or plans which may be agreed upon by the JATC with reference to items listed in 18.2 shall be reduced to writing and upon approval and acceptance by the General Manager of the Company or designee and the Business Manager of the Union, such supplemental agreements shall constitute an amendment to this Agreement as of the date specified in such supplementary agreement. (Amended 6/11/01)
- 18.5 (Deleted 6/11/01)
- 18.6 When an apprentice in any formalized Apprenticeship Training Program has completed six (6) months at the top step of their apprentice wage progression and has successfully met all requirements for advancement to Journeyman status, they shall automatically be reclassified to the classification and wage rate of a Journeyman within the Department in which their apprenticeship has been served, and the Company shall not be required to post a Journeyman vacancy. When an apprentice has reached the top step of their wage progression and has successfully met all requirements for advancement to Journeyman status, they may be, at Company's discretion, reclassified to the classification and wage rate of Journeyman within the Department in which their apprenticeship has been served, and the Company shall not be required to post a Journeyman vacancy. (Amended 5/1/81)
- 18.7 All apprenticeship job vacancies will be filled in accordance with the provisions of Section 16.10 of this Agreement. (Added 5/1/83)
- 18.8 From the date an apprentice voluntarily drops out of an apprenticeship, they shall not be eligible to bid another apprenticeship for a two (2) year period. (Added 7/1/09)

TITLE 19
MISCELLANEOUS

- 19.1 No employee shall be required to be "on call." An employee placed on standby duty shall be considered working and shall receive pay as such. Provisions to this section do not apply to the Emergency Response Program (Attachment VIII). (Amended 1/1/98)
- 19.2 (Deleted 5/1/80)
- 19.3 The Company does not plan to contract work it normally does and agrees that in no case will it lay off employees as the result of work contracted. The Company has the right to enter in contracts. The Company will review on a quarterly basis, in the labor management committee, the status of the outside contracts. (Amended 1/1/98)
- 19.4 Company shall not, by reason of the execution of this Agreement, abrogate or reduce the scope of any present plan or rule beneficial to employees, which is not specifically covered by this Agreement.
- 19.5 Job descriptions are not intended to be so restrictive as to prohibit performance of work not specifically mentioned in the job descriptions themselves. Such work assignments shall be in accordance with Section 4.3 of the Agreement.
- 19.6 Nothing herein contained shall be construed as to limit the right of the Company to determine the character, extent and methods of its operations, the amount of production, the number of employees required in total and in the specific classifications of work.

- 19.7 The Company will furnish for use by employees all special tools it deems necessary that may be required by any classification in the performance of the job therein. The Company will replace all personal hand tools, as normally purchased by the Company, which are worn out in the service of the Company and are turned in to the Company for replacement.
- 19.8 If any part or portion of this contract is determined to be invalid or be superseded by either state or Federal law, by a court of competent jurisdiction, the remaining portions of the contract shall, remain in full force and effect. If the invalid or superseded part is a mandatory subject of collective bargaining under NRS 288.150 (in effect as of the date of this Agreement), the Company and the Union agree to meet within 60 days following such determination to negotiate the invalid or superseded provision.
- 19.9 To facilitate and promote effective communication, cooperation, and early resolution of disputes and issues, the Company and Union agree to form a Labor Management Committee (LMC). The LMC is intended to facilitate communication between the Company and the bargaining unit employees by providing a forum for discussion and collaborative problem-solving relating to:
- (a) Matters arising from the provisions of this Agreement
 - (b) Administration of this Agreement
 - (c) Exchanging general information of interest to the parties
 - (d) Items which affect the working conditions of employees

The LMC shall be comprised of up to four (4) management employees appointed by the Company and up to four (4) bargaining unit employees appointed by the Union. Attendance by bargaining unit employees at LMC meetings shall be without loss of pay, but no employee shall be eligible for any overtime pay for their participation on the LMC. Employees shall not be compensated for off-duty attendance at LMC meetings.

The LMC shall meet monthly unless otherwise agreed to by the Company and Union. LMC meetings may, if agreed to by the Company and the Union, be attended by non-committee member employees. Two days prior to each scheduled meeting, the Company and the Union Business Representative agree to provide the other party with agenda items. If there are no agenda items, then the meeting may be canceled. The Company shall prepare notes of each meeting, which may be published by the Company in the form of a "Brief" on the Company intranet after they are approved by the Union Business Representative.

LMC members may make recommendations, however, the LMC shall have no independent authority to implement or amend policies, rules, procedures or practices. LMC member recommendations shall be referred to the appropriate Company management employee and a response shall be provided at a subsequent meeting. Recommendations related to matters of mandatory collective bargaining, or provisions or administration of this Agreement must be referred to the appropriate Company management employee and the Union Business Representative.

The LMC may not supersede any processes, rights or obligations otherwise provided by this Agreement. No discussion or consideration of any item before the LMC shall be deemed as a limitation on the Company's or Union's rights under this Agreement. LMC meetings shall not bypass the grievance procedure or be used to discuss grievances and shall not be considered negotiation sessions for the purposes of collective bargaining.

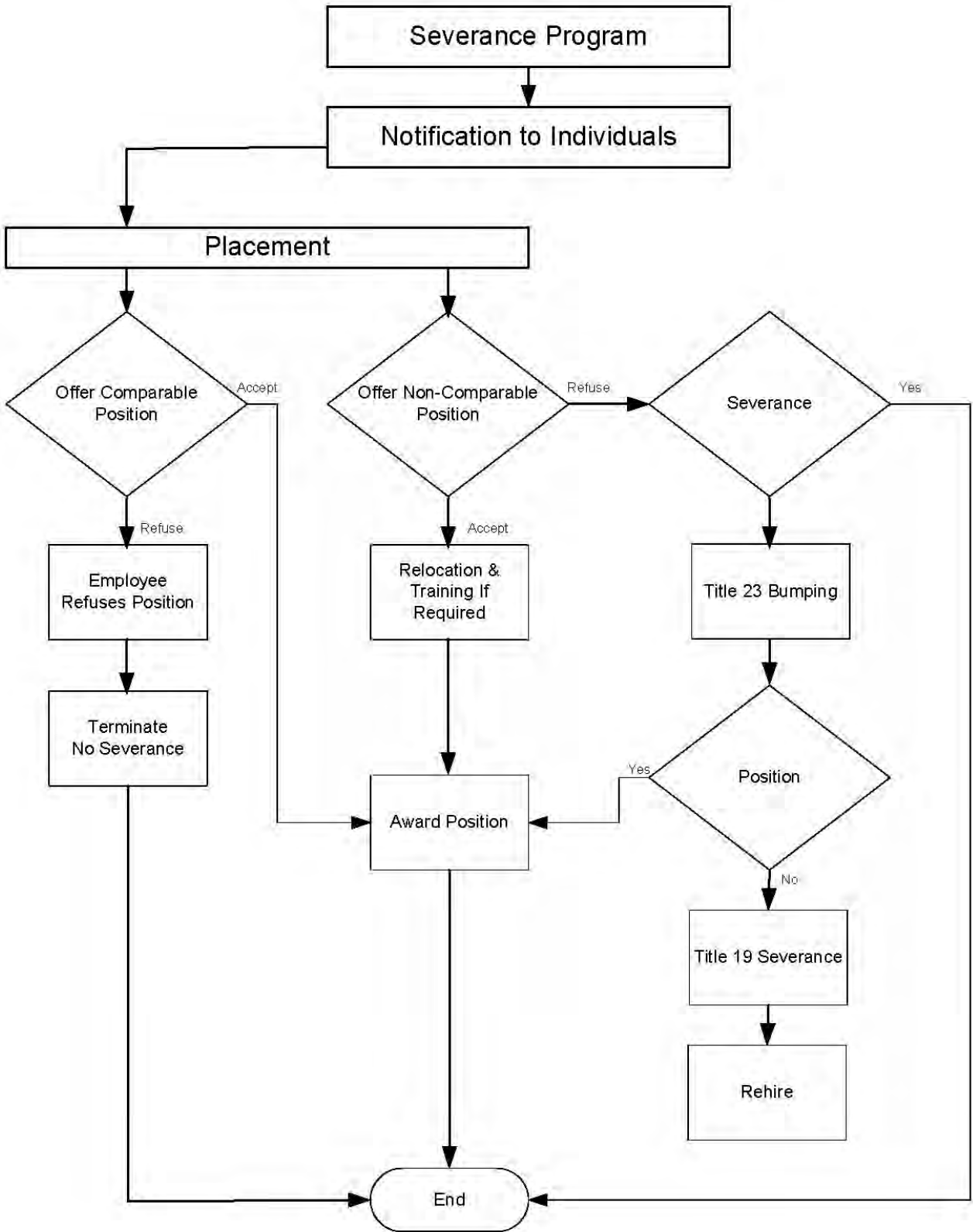
- 19.10 The Company and Union recognize that the use of "Smart Phone" technology in the workplace can potentially enhance productivity and be of benefit to both the employee and the company. Because of this, the company is authorizing a voluntary allowance provided on a monthly basis of \$75.00 for employees who maintain a "Smart Phone." The company will determine classifications that are authorized to receive this special "Smart Phone" allowance. (Added 7/1/12)
- 19.11 Severance benefits shall be provided pursuant to the Company's Bargaining Unit Employees Severance Pay Plan, which became effective January 1, 1995, for employees laid off through the application of Title 23. (Added 1/1/95; Amended 6/11/01).

Bargaining Unit Employees Severance Pay Plan

Employees are eligible for "severance program" options if they are determined to be no longer required due to displacement as a result of a lack of work, a sale, divestiture, merger, or any other business event as defined by the Company. Affected Employee is defined as an employee in a specific classification and location.

(See 19.10 (d), Severance Program Flow Chart.)

- (a) NOTIFICATION OF INDIVIDUALS: Company will notify Union and employees affected as soon as possible.
- (b) PLACEMENT: Company and Union will work to place Affected Employees in available positions for which they are qualified:
 1. Volunteers will be requested and selected by Company seniority. If there are no volunteers, reverse seniority will be used to select Affected Employees for severance program.
 2. Affected Employee(s) may be offered a comparable position [defined as the same headquarters location (i.e., Reno/Sparks will be considered one location) and same wage (i.e., comparable or higher wage if qualified)]. The Affected Employee will have five (5) working days to notify the Company of their decision. If the Affected Employee accepts the position, it will be awarded to them at the appropriate wage rate. If the Affected Employee refuses the position, he/she will be terminated with no severance. (Amended 6/11/01)
 3. An Affected Employee offered non-comparable position (defined as requiring relocation of greater than a 35-mile radius and/or wage reduction):
 - (a) The Affected Employee will have five (5) days to notify the Company of their decision to accept the offer at the appropriate wage rate.
 - (b) If an Affected Employee accepts and is awarded the position, he/she will be eligible for retraining, if required, and up to \$2000 relocation expense.
 - (c) If an Affected Employee declines, he/she will be eligible for:
 1. Severance defined as:
 - Two (2) weeks of pay for each year of service, with a maximum of 52 weeks
 - A lump sum payment of \$4,500 for training or outplacement services
 - Six (6) months of Company-paid COBRA
- (c) If an Affected Employee declines Severance, they will be eligible for consideration under Title 23, Demotion and Layoff Procedure (bumping).
- (d) Severance Flow Chart - (this chart should only be used as a guide when reviewing Section 19.10)



Severance Plan Flow Chart 19.10 (d)

TITLE 20
SUPPLEMENTAL BENEFITS FOR INDUSTRIAL INJURY

- 20.1 When an employee is absent by reason of injury which comes within the application of the Nevada Industrial Insurance Act, the Nevada Occupational Diseases Act, they shall be entitled to supplementary benefits for the duration of such temporary disability. Benefits shall begin with the first work day of absence following the day of injury. The amount of Supplemental benefit payable for each day of absence shall be 85% of the employee's basic daily wage less the sum of any payments to which they may be entitled under the aforementioned acts or any other acts applying to the case. The Company will investigate any employee off work on industrial injury. If there is reason to believe that the intent and/or benefits of this section are being abused, the supplemental benefit will be terminated. After six (6) months off on industrial injury the employee will no longer accrue vacation or sick leave until such time as they report back to work. Reference is hereby made to Section 16.13, relative to employees permanently injured in the Company's services. (Amended 6/11/01)

TITLE 21
GRIEVANCE PROCEDURE

- 21.1 Any grievance which may arise between Union or any employee in a Bargaining Unit classification and Company with respect to the interpretation or application of any of the terms of this Agreement and with respect to such matters as the alleged discriminatory or arbitrary discharge, discipline, or demotion of an individual employee shall be processed through the procedure set forth in the following paragraphs of this Title.
- 21.2 An Investigating Committee shall be established and shall consist of at least two (2) members, one (1) appointed by Union and one (1) by Company. (Amended 1/1/95)
- 21.3 A Joint Grievance Committee shall be established consisting of four (4) members appointed by Union, one (1) of which will be the Union Business Representative, and four (4) members appointed by Company. The Grievance Committee shall meet at a time and place to be designated by mutual consent of the members thereof. The meetings shall be limited to one (1) per month but need not be held each month if there is a lack of business for the Committee to conduct.
- 21.4 (a) STEP 1 - As the initial step in the adjustment of an alleged grievance of an employee, the Union Shop Steward shall discuss same with the Supervisor in charge and the Union Shop Steward shall inform the Supervisor that this is the first step of the grievance procedure. The Supervisor shall have five (5) working days from date of notification to give their verbal response.
- (b) STEP 2 - If they are unable to resolve the alleged grievance as provided in Subsection 21.4(a), the Union Shop Steward shall present a written statement of the alleged grievance to the Supervisor in charge within five (5) working days after completion of the first step. Such grievance report form shall have been approved by Company and Union. The Supervisor shall present their answer in writing on grievance form to the Union Shop Steward as soon as possible, but in no event more than ten (10) working days from the date Union Shop Steward presents the written statement of the alleged grievance to the Supervisor in charge.
- (c) Discussions between Union Shop Steward and the Supervisor may be on Company time but shall be at such time and place as not to interfere with the work in progress.
- (d) Grievances shall be introduced at the initial step of the grievance procedure within the time limits specified in subsection (1) and (2) hereof:
1. A grievance involving the alleged discriminatory or arbitrary discharge of an employee shall be introduced at the initial step of the grievance procedure not later than ten (10) working days after an employee discharge becomes effective. Company shall answer, in writing, within five (5) working days after receipt of Union's written grievance.
 2. Grievances as described in Section 21.1 other than specified in (1) above shall be introduced at the initial step of the grievance procedure not later than thirty (30) calendar days after the date of the incident or action complained of which is the basis of the grievance, or in a situation beyond the control of the employee, thirty (30) calendar days after the date the employee became aware of said incident or action.

- 21.5 STEP 3 - If the Union Shop Steward and Supervisor involved are not able to reach an agreement on the disposition of a grievance, or if the Company fails to answer within the time limit above, it may be referred by the Shop Steward to the Union's Business Representative. If the alleged grievance is not presented to the third step of the grievance procedure within ten (10) working days after receiving the Supervisor's answer in Step 2; the grievance shall be considered closed. The Union's Business Representative may present such grievance in duplicate on the proper form to the Labor Relations Manager, or alternate. The form shall be completed by the Company and returned to the Union's Committee Chairman within ten (10) working days from receipt thereof.
- 21.6 (a) STEP 4 - If no settlement is reached at Step 3, or the Company fails to submit a written answer within the specified time limit, the Union may refer such alleged grievance to the next step of the grievance procedure, which is the Joint Grievance Committee.
- (b) If the grievance is not settled as provided in Sections 21.4 and 21.5, it shall be discussed by the Joint Grievance Committee at its next regular meeting. The Committee shall consider grievances referred to it as provided in Section 21.5 and shall conscientiously endeavor to effect their settlement. The decision of this Committee shall be final and binding upon both parties. Minutes shall be kept of the Committee's proceedings and the disposition of all grievances shall be recorded.
- (c) All grievances will be processed in the manner prescribed in Sections 21.4 and 21.5 and 21.6(a) except those involving alleged discriminatory or arbitrary discharge, discipline, or demotion of an individual employee, which, if not settled in the manner prescribed in Sections 21.4 and 21.5 shall be referred directly to the Investigating Committee. The Investigating Committee shall make a complete investigation of all the facts pertinent to the grievance and shall strive to reach agreement on disposition of the grievance. Their agreement shall be recorded and shall be final and binding on Company, Union and the aggrieved employee. If the Committee is unable to reach agreement, it shall refer the grievance to the next regular meeting of the Joint Grievance Committee with a full and complete report of its investigation and the separate recommendations of the Investigating Committee members. Company and Union agree that they will attempt to settle grievances involving alleged discriminatory or arbitrary discharge of an individual employee as expeditiously as possible.
- 21.7 STEP 5 - If a satisfactory settlement cannot be reached by the Joint Grievance Committee in two (2) consecutive meetings (unless mutually otherwise agreed), it shall be referred to the Review Committee, such committee to be composed of a Union Representative and a representative of the Company who were not involved in any of the preceding grievance steps. The Company representative shall not directly supervise any party involved in the grievance. This Committee shall meet within thirty (30) working days after the date the case is referred to the Committee, and shall endeavor to make a decision based on the record referred to it. It may, in its discretion, return the grievance to the Joint Committee with a request for further investigation and consideration by that Committee. It may, at its discretion, conduct a hearing on any grievance submitted to it. This Committee shall be authorized to make a decision, which shall be final and binding on Company and Union. If the members agree on the disposition of a grievance a statement to that effect shall be signed by the members. (Amended 6/12/06)
- 21.8 STEP 6 - If a satisfactory settlement cannot be reached under the foregoing procedure, either party may refer the case to arbitration by notifying the other in writing to that effect. Within twenty-one (21) days of such notice, Union and Company shall each notify the other of the persons appointed to act as their representative on the Arbitration Board. An Arbitration Board shall be appointed on each occasion that a grievance is submitted to arbitration. The Board shall be composed of three (3) members, one (1) to be appointed by Union; one (1) to be appointed by the Company. At the earliest convenience of the representatives after their appointment, they shall meet for the purpose of selecting the third member who will serve as Chairman of the Board. In the event the parties are unable to agree on a person to act as a third member, within forty-eight (48) hours they shall jointly request the Director of Federal Mediation and Conciliation Service to submit a list of five (5) persons qualified to act as a third member. After receipt of such list, the Union and Company shall alternately challenge two (2) names, the party to have first choice to be determined by lot. The remaining name shall be accepted as Chairman of the Board. The Arbitration Board shall hear all evidence and arguments on the points in dispute and the written decision of a majority of the members of such Board shall be final and binding upon the parties hereto. The Board shall have jurisdiction and authority to interpret and apply the provisions of this

Agreement, insofar as shall be necessary to the determination of the grievance of complaint, but it shall not have jurisdiction or authority to alter in any way the provisions of this Agreement.

The Board may make such retroactive award, or settlement, of any grievance or complaint as the equities of the case may demand, but in no event shall any award be retroactive beyond the date of the occurrence of the latest incident which gave rise to the grievance, nor shall any award be retroactive for more than one (1) year prior to date of submission of grievance at Step 3. The Company and the Union shall each bear the expense of its own representatives. The expense of the third party shall be borne equally by the Company and the Union. Either party may call any employee as a witness in any proceeding before the Arbitration Board, and if the employee is on duty, the Company agrees to release such employee from duty so they may appear as a witness. If an employee is called to appear before the Board, the party calling the witness will reimburse them for all expenses including time lost.

- 21.9 The disqualification of a preferred bidder as provided in Section 16.5 to a job classification listed in Exhibit C by reason of Company application of Section 16.10 shall be referred to Union's member of the Investigating Committee. The Union's member shall within fourteen (14) calendar days notify Company member that an investigation is desired. If no notification is made the award shall be made permanent. Where notification is given the Committee shall make a complete investigation of all the facts pertinent to the grievance and this investigation shall substitute as the initial step in the adjustment of a grievance provided in Section 21.4. Such investigation shall commence as soon as reasonably possible after referral and the Committee shall diligently carry on its investigation and shall strive to reach agreement on disposition of the grievance. Their agreement shall be recorded and shall be final and binding on Company, Union and the aggrieved employee. If the Committee is unable to reach agreement it shall refer the grievance to the next regular meeting of the Joint Grievance Committee with a full and complete report of its investigation and the separate recommendations of the Committee members.

TITLE 22 EMPLOYEE BENEFIT PROGRAMS

The Company maintains the right to make administrative changes to any benefit plan that will not adversely affect the employee's benefit or cost of such benefit but may reduce the Company's obligation. These changes will be reviewed and discussed with the Joint Wages and Benefits Committee.

Except in the event of the election of a different funding medium by the Company, if any Benefit Plan is terminated or modified in such a manner that the benefits are reduced, the Union or Company shall have the right to open negotiations for the purpose of negotiating a replacement plan or program but for no other purpose. (Amended 7/1/09)

22.1 Retirement

- (a) The retirement system for all Regular employees shall be the Public Employee Retirement System of Nevada (PERS) in accordance with applicable provisions of NRS.
- (b) The Retirement rate of compensation will be in accordance with NRS Ch. 286.
- (c) Effective July 1, 2017, Nevada PERS rate increases or decreases shall be split equally between the Company and the employee. The Wage Schedule and the wage of each employee shall be automatically decreased by one-half of any PERS increase and increased by one-half of any PERS rate decrease.

22.2 Post Retirement Medical

The Company has established two separate trusts to assist retirees of TMWA with the payment of premiums for post-retirement medical and group life insurance. The first trust is referred to as "The Truckee Meadows Water Authority Post-Retirement Medical Plan & Trust," and was established as a Voluntary Employees' Benefit Association under Section 501(c)(9) of the Internal Revenue Code of 1986, as amended (Code), and is referred to herein as the VEBA Trust. The second trust is referred to as the "Truckee Meadows Water Authority OPEB Trust Fund," and was established under Code Section 115, and is referred to herein as the 115 Trust.

The following is provided for informational purposes only and should not be interpreted as amending or modifying the terms of the VEBA Trust or the 115 Trust, the post-retirement benefits stated therein, or the Company's obligations under the Trusts. If information provided in their Title 22.2 contradicts or conflicts with the terms of the Trusts, or any amendments thereto, then the terms of the Trust are to control.

1. VEBA Trust Benefit: The VEBA Trust has been established to provide retirees and their dependents with benefits to assist with the payment of premiums for post-retirement medical coverage and post-retirement group life insurance coverage. The benefits payable to participants under the VEBA Trust will vary depending on whether the participant is classified as an "IBEW Transfer Employee," "IBEW Transfer Employee Receiving Sierra Plan Benefits," or "Other IBEW Employees." Bargaining Unit employees entitled to receive benefits under the 115 Trust described in Section Two below are not eligible to receive benefits under the VEBA Trust.
 - (a) Employees who "retire" under the qualified Retirement Plan (minimum age 55 with at least 10 years of service), are eligible for Post Retirement Medical benefits. For Post Retirement Medical Plan provisions, refer to the Truckee Meadows Water Authority Post-Retirement Medical Plan & Trust. (Amended 6/12/06)
 - (b) Employees retiring on or after July 1, 1998, who are under age 65, will pay 20% of the applicable Medical Plan premium (including Dental and Vision); plus an additional 4% of the applicable Medical Plan premium (including Dental and Vision) for each year less than 20 full years of Credited Service.
 - (c) Employees retiring on or after January 1, 1998, who are age 65 or over, or who subsequently become age 65, will be offered the same HMO group policies or plans offered by the Company that provide medical, dental, or vision coverage to as active Bargaining Unit employees, a Medicare Supplement Plan (plan design to be determined and mutually agreed upon in the Joint Wages and Benefits Committee), and a Medicare Risk Contract.
 - (d) Employees retiring on or after July 1, 1998, who are age 65 or over, will pay 15% of the applicable Medical Plan premium (including Dental and Vision); plus an additional 4% of the applicable Medical Plan premium (including Dental and Vision) for each year less than 20 full years of Credited Service. If a retiree elects to participate in a Medicare Risk Contract, the 15% premium will be waived; any additional premium for years of Credited Service less than 20 shall apply. In addition, retirees age 65 or over are required to enroll in and pay the cost of Medicare Part "B" or Medicare Part "C".
 - (e) Grandfathering: Employees who are age 60 or greater with at least 10 years of service as of July 1, 1998, will not be required to pay 20% (or 15% if over age 65) of the applicable premium at the time they retire, but will be required to pay 4% for each year less than 20 full years of Credited Service. For example, an employee who turns 60 on May 1, 1998, but chooses to retire May 1, 2001, when they have 20 years of service, will not be required to pay 20% of their applicable Medical Plan premium.
 - (f) Retirees may choose to waive their medical coverage at the time of retirement or any time thereafter. Waiver is permanent.
 - (g) Retirees may change plans once each year during an annual open enrollment period without pre-existing exclusions. Retirees can change their coverage level (retiree only; retiree plus spouse; etc.) if they incur a family status change within the plan year.
 - (h) Medical Plan premiums will be actuarially determined each plan year. Retirees will be rated separately from active employees for self-funded plans.
 - (i) Unless the parties design a more mutually acceptable plan, all new employees hired on or after January 1, 1998, will receive an individual account balance for post retirement medical equivalent to \$1,250 per year of Credited Service at the time they retire. Details of plan design and administration will be deferred to Joint Wages and

Benefits Committee prior to any employee first becoming eligible. The Company agrees to review current plan and determine if improvements can be made to plan. (Amended 7/1/12)

2. Former Washoe County Employees Benefit: Their Section applies only to former Washoe County employees who became Company employees through the January 1, 2015 merger of Washoe County Community Services Department Water Utility with and into the Company.
 - (a) The 115 Trust has been established to provide the means to fund all or a portion of premiums for post-retirement medical coverage to the above-referenced former Washoe County employees. The benefits payable to participants under the 115 Trust will vary depending on whether the participant is classified as a "Tier 1 Retiree" (hired by Washoe County on or before September 16, 1997) or a "Tier II Retiree" (hired by Washoe County after September 16, 1997 and before July 1, 2012).
 - (b) Benefits for Tier I Retirees: The maximum benefits to be paid by the 115 Trust to Tier I Retirees shall be as follows:
 - (1) For Tier I Retirees with at least ten (10), but less than fifteen (15), years of combined full-time employment with Washoe County and the Company, the maximum benefits payable by the 115 Trust will be 50% of the premium attributable for coverage of such retirees under the medical plans offered to Tier I Retirees under the 115 Trust.
 - (2) For Tier I Retirees with at least fifteen (15), but less than twenty (20), years of combined full-time employment with Washoe County and the Company, the maximum benefits payable by the 115 Trust will be 75% of the premium attributable to medical coverage of such retirees under the medical plans offered to Tier I Retirees under the 115 Trust.
 - (3) For Tier I Retirees with twenty (20) or more years of combined full-time employment with Washoe County and the Company, the maximum benefits payable by the 115 Trust will be 100% of the premium attributable to medical care coverage of such retirees under the medical plans offered to Tier I Retirees under the 115 Trust.
 - (c) Benefits for Tier II Retirees: The maximum benefits to be paid by the 115 Trust to Tier II Retirees less than 65 years of age is to be the same amount of the premium paid for group health coverage by an employer for coverage of non-state employees under the Nevada State Public Employee Benefit Plan ("PEBP") Retiree Health Insurance plan.
 - (1) By way of background, the 2003 Nevada Legislature passed legislation (AB286) that afforded public employees of Nevada political subdivisions the opportunity to enroll, upon their retirement, in the PEBP Retiree Health Insurance Plan. The 2003 legislation also obligated public employers of said retirees who enrolled in the Plan to pay a portion of the medical premium on the retiree's behalf (the "Subsidy"). Tier II Retirees are entitled to receive their Subsidy from the 115 Trust for use towards their coverage under the medical plans offered under the 115 Trust rather than the PEBP Retiree Health Insurance Plan.
 - (2) Tier II Retirees who have attained the Medicare Eligibility Age (currently age 65) or older will receive the equivalent of the state of Nevada's Medicare Exchange Retiree HRA contribution subsidy based upon the combined number of years of service with Washoe County and the Company and must elect Medicare coverage. At that time, Medicare then becomes the primary carrier, and the medical plans offered under the 115 Trust are to become secondary. If the Medicare Eligibility Age is revised, the revised age is to be substituted for the current Medicare Eligibility Age of 65. To receive the benefits described in their paragraph, Tier II Retirees must be employees of the Company immediately prior to drawing their retirement benefits.

NOTE: The PEBP non-state retiree subsidy and Medicare Exchange Retiree HRA Contribution subsidy amounts are revised annually by the state of Nevada. If these benefits are discontinued by the state of Nevada, then Tier II Retirees shall continue to receive the same premium amount that they were entitled to receive during the last year that these benefits remained in effect.

3. Board Resolution Regarding Post-Retirement Healthcare Benefits

Should the TMWA Board adopt a resolution that decreases or eliminates post-retirement healthcare benefits for TMWA employees not covered under their Agreement, IBEW agrees that the Board's resolution will apply to all employees covered under this Agreement. The application of the Board's resolution to all employees covered under this Agreement shall comply with the terms set out within the Board's resolution in the same manner that said terms apply to employees not represented by this Agreement. Any such resolutions shall apply to employees covered under this Agreement without the need for further negotiations. Title 22.2(3) applies only to employees hired on or after the date of the Board's resolution regarding post-retirement healthcare benefits.

22.3 Deferred Compensation (457 and 401(a) Plans)

- (a) The Section 457 and 401(a) Deferred Compensation Program for Bargaining Unit Employees of Truckee Meadows Water Authority is provided by the ICMA Retirement Corporation and are the Plans in effect during the term of this Contract. For more detailed information regarding the Plans, refer to the Plan Document distributed by the Plan. (Amended 6/12/06)
- (b) The Company will pay the normal administrative fee for all plan participants.
- (c) The maximum employee contribution is defined by Federal law.(d) For fiscal year 2009-2010, the Company will provide a match of one dollar (\$1.00) for each dollar of employee contributions up to three (3) percent of the following total earnings: (amended 6/11/03) (Amended 7/1/09)

Effective July 1, 2010, the Company will provide a match of one dollar (\$1.00) for each dollar of employee contributions up to the TMWA Board of Directors approved percent adopted in Resolution No. 6 dated May 9, 2001, and applied on the following total earnings: (Amended 7/1/09)

- Base Pay
- Incentive compensation
- Out-of-Town
- Upgrade
- Shift Premium
- Overtime
- Rest Period
- Pager Pay
- Any other cash earnings

- (e) The investment options shall be those made available through the ICMA Retirement Corporation.
- (f) Changes to allocations, payroll deductions, etc., and transfers among funds can be done at any time.
- (g) Plan withdrawal is defined by Federal law.
- (h) (Deleted 6/12/06)

22.4 Medical, Dental, and Vision

- (a) The Medical, Dental and Vision Plan for Bargaining Unit Employees of Truckee Meadows Water Authority shall be those provided to regular employees of the City of Reno. For more detailed information regarding the Medical Plans refer to the Summary Plan Descriptions.
- (b) An Internal Revenue Service Section 125 is established to allow pre-tax premium contributions.
- (c) The Medical Plan provides the following three (3) options:
 - 1. A preferred provider plan
 - 2. A health maintenance plan
 - 3. No coverage, contingent upon proof of other insurance
- (d) Elections of medical plan options will be made each year during a switch enrollment period. The election remains in effect for the entire Plan year, unless employee incurs a "Family Status Change" as defined by Internal Revenue Code Section 125.
- (e) The rate structure for the Medical Plan options shall consist of four-tiers: employee only; employee and spouse; employee and child or children; and, employee and family. Employee contributions will be made bi-weekly on a pre-tax basis.
- (f) The Company will pay one hundred (100) percent of the premium for the employee only coverage premium.
- (g) The Company will pay fifty-five (55) percent of the dependent coverage premium. Employees working less than a full-time work schedule will be required to pay a prorated premium for the employee only and dependent coverage categories based on the regular hours scheduled.
- (h) The rates and the level of benefits will be determined by the City of Reno.

22.5 Group Life Insurance

- (a) All regular, full-time, Bargaining Unit employees shall have Group Life Insurance coverage with a basic benefit level of one (1) times base salary. Employees who "retire" under the Nevada PERS retirement system will continue with the amount in force at retirement until age 70 at which time it reduces to one-half of the amount. At age 75, it reduces to \$2,000.
- (b) The Company will provide Bargaining Unit employees the opportunity to purchase optional life insurance at employee cost. This will be in the form of group term life subject to any underwriting restrictions imposed by the insurance carrier. Employee contributions will be made bi-weekly on a post-tax basis.

22.6 (Deleted 6/11/01)

22.7 Long-Term Disability Income Plan

- (a) The Company will provide Bargaining Unit employees with the long-term disability insurance at company cost.
- (b) Coverage amount is equal to sixty-six and two-thirds (66-2/3) percent of the individual's pre-disability monthly base wage up to age sixty-five (65) in accordance with the terms of the long term disability policy.
- (c) The "own occupation" disability period is twenty-four (24) months.
- (d) Maximum benefit amount is \$5,000/month.

22.8 Benefits for Part-Time Employees

- (a) The following provisions apply to part-time employees hired on or after January 1, 1995, and to part-time employees who assume full-time status and subsequently revert to part time on or after January 1, 1995, and to full-time employees who become part-time on or after January 1, 1995.
 - 1. Allowance for vacation, sick leave, holidays and other nonproductive time will be prorated as described in Title 3.5(a).
 - 2. To participate in the benefits programs, employees must work a minimum of 20 hours per week.
 - 3. All welfare benefits will have the appropriate premium allocation between Company and the employee based on the following formula:
 - (i) Twenty (20) hours per week = one-half (1/2) time.
 - (ii) More than twenty (20) but less than thirty-one (31) hours per week = three-quarter (3/4) time.
 - (iii) Thirty-one (31) or more hours per week = full time.

22.9 Joint Benefits Committee

- (a) A Joint Benefits Committee was established as of January 1, 1995, for the purpose of reviewing Medical, Benefit and Dependent Care costs, issues and trends and to make non-binding recommendations for improving savings and enhancing Medical, Benefit and Dependent Care Programs/Policies and to assist employees in dealing with Child/Elder Care issues. The Joint Benefits Committee meets at least quarterly unless mutually agreed to meet more often when necessary. Direct payroll costs for Bargaining Unit members are shared equally by Local #1245 and Company. Either party may cancel this agreement with 30 days notice. (Amended 6/11/03)
- (b) The Committee will consist of the Union Business Representative and three (3) Union members and the Representative of the General Manager and four (4) MPAT employees assigned by the General Manager. The Committee will be chartered to review health and welfare plans, and 457 plans during the term of the contract. (Amended 6/11/03) (Amended 7/1/09)

22.10 Time Off for Jury Duty and Serving as a Witness (Added 10/25/00)

Employees who serve on jury duty or are subpoenaed to testify as a witness in court on TMWA's behalf during regularly scheduled working hours will be excused from work and will receive their regular pay for the time they are required to serve. The employee may retain jury or witness fees.

An employee who is served with a summons for jury duty or a subpoena to appear as a witness must notify their supervisor as soon as possible. Employees who are subpoenaed to testify as a witness in court for non-TMWA business will be limited to a maximum of 24 hours in any calendar year. (Amended 7/1/09)

Upon being discharged from jury duty or appearing as a witness, the employee is expected to report to work for the remainder of their regular work schedule.

If an employee has brought legal action against another party and is subpoenaed to appear as a result of filing such action, then the employee is not entitled to pay for any time away from work.

22.11 Time Off for Funerals (Added 6/11/01)

A regular employee will be allowed time off, without loss of pay, to attend funerals of members of their immediate family and other individuals provided they get approval from their supervisor in advance.

In the case of death of a member of the employee's immediate family, the employee will be allowed not more than three consecutive work days off at the time of the funeral. Immediate family includes spouse,

children (foster and/or step), parents, parents-in-law, brothers, sisters, brothers-in-law, sisters-in-law, grandparents, and grandchildren.

Attendance by an employee at funerals of individuals other than members of the employee's immediate family (such as other relatives, fellow employees, friends, and business acquaintances) will be limited to a maximum of 24 working hours in any calendar year, to be taken in increments of no more than eight hours.

Employees will be paid funeral pay for the amount of time they are actually absent from their job during their regularly scheduled working hours. Pay will be calculated at the employee's regular straight-time earnings rate.

22.12 Military Leave (Added 6/11/01)

The Company has a military leave policy and employees are entitled to the benefits as provided by this policy. (Amended 7/1/09)

TITLE 23
DEMOTION AND LAYOFF PROCEDURE

23.1

I. General Rules

- (a) Employees shall be given as much notice as practicable of Company's proposed action. Following such notice, and prior to the date of the actual layoff, employees to be affected by the procedure shall be considered as though they have already been demoted, and notwithstanding the provisions of Title 16, have their bids to fill vacancies in the normal line of progression considered under the provisions of VI below.
- (b) An employee's Company seniority, as defined in Sections 3.7 and 8.1 shall be determining factors in the application of this procedure.
- (c) Where a vacancy in an appropriate classification exists, the filling of such vacancy shall be in accordance with the appropriate provisions of this procedure. If such vacancies exist at more than one (1) headquarters, Company shall provide an employee with a list of such vacancies and the location thereof. Employee may then elect to fill any of such vacancies for which they have sufficient Company seniority [I (b)].
- (d) An employee may not elect to demote another employee whose Company seniority is equal to or greater than their own. An employee may not demote an employee in a classification having a wage rate higher than that of their own classification.
- (e) Employees scheduled for demotions under this procedure shall exercise one (1) of two (2) options:
 - 1. Employee may demote a junior employee in the employee's present job classification at another headquarters, or
 - 2. Employee may demote within their occupational group at their present headquarters. In either of these options, the demoted employee shall be considered to have displaced the most junior employee in the classification.

If the exercise of Options (e) 1) and/or (e) 2) would result in a senior employee being laid off, then, and only then, the employee may exercise Option 3).

If exercise of this Option would still result in a senior employee being laid off, the employee may then exercise Option 4).

- 3. Employee may demote a junior employee in any occupational group at their present headquarters.

4. Employee may demote a junior employee in any occupational group at any headquarters.

Options 3) and 4) above are intended to protect employees whose job classifications fall "below the entry level line", but who have more seniority than other employees in occupational groups and/or headquarters. In either of these options, the demoted employee shall be considered to have displaced the most junior employee in the job classification at that headquarters location.

- (f) In the application of this procedure, an employee shall not be placed in a job unless qualified to perform the duties.

II. Notices

The following notices shall be given in connection with the demotion and layoff provisions of this procedure.

- (a) Company will give an employee who is to be demoted as much notice thereof as possible, but not less than three (3) days, advising them of the classification to which they are to be demoted and whether there are any jobs with respect to which they may exercise an election by filling a vacancy or by demoting another employee.
- (b) Not more than three (3) days after receiving the notice provided for in Subsection (a), the employee shall advise the Company of their decision with respect to exercising the election.

If they desire to exercise the election, Company shall, within two (2) days thereafter, provide them with a list of the jobs and the locations thereof to which the election may be applied.

- (c) Within three (3) days after receipt of the list described in Subsection (b), the employee shall notify Company of their election to transfer and indicate the job locations in the order of their preference. Preferential consideration shall be given to employees in the order of their Company seniority. While Company shall endeavor to give effect to an employee's preference in the order they have indicated, Company seniority shall be the determining factor where two (2) or more employees express a preference for a single job classification or headquarters location. Company shall notify an employee as to the specific location to which they will be transferred and the effective date of the transfer.
- (d) An employee's failure to give the notices prescribed in Subsections (b) and (c) will operate to forfeit their right of election.
- (e) Any transfer resulting from the application of this Section shall be effective not later than fifteen (15) days from the giving of the notice provided for in Subsection (a).

III. When a demotion is to be made in a job classification(s) at a Company headquarters [see I (e)], the employee(s) with least Company seniority in such classification(s) shall have the option to:

- (a) Elect to displace that employee in their same classification and occupational group within the Company who has less Company seniority than he.
- (b) Elect to demote to the next lower classification in the reverse order of the normal line of progression in their occupational group.

An employee shall be demoted on a step by step basis; that is, they shall first be demoted in the reverse order of the normal line of progression for their classification to the next lower classification. If successive demotions must be made, the same procedure shall apply at each step until the employee is either placed in another job or is laid off. If more than one (1) demotion is to be made, the described procedure shall

first be applied to the highest classification to be affected, and then to successively lower classifications.

- (c) If an employee cannot for any reason effect an election in accordance with (a) or (b) above, he shall demote into the general demotional pool.
- (d) All jobs below entry line, in Exhibit C, shall be considered as a general demotional pool for demotion purposes. All demotions to be by Company seniority. (Amended 6/11/01)

Note: See Attachment IV, Lines of Progression Diagram, for details.

- (e) In all demotions and/or layoffs, the employees demoting into a job must be able and willing to perform the duties of the job with a minimum of further training. Company shall make the determination of minimum training needed in all such cases.
- (f) Journeymen who can demote apprentices shall retain Journeyman status and the junior apprentice(s) shall be demoted.

IV. Layoff

If there is no job to which the employee can demote under III above, he or she will be laid off.

V. Notice of Layoff

When it is necessary for Company to lay off employees because of lack of work, Company shall give employees involved as much notice thereof as practicable, but in no event shall an employee be given less than thirty (30) calendar days' notice of layoff, provided, however that notice of layoff need not be given to employees who are employed on a temporary or probationary basis.

VI. Accelerated Promotion

For the purpose of enabling employees who have been demoted or transferred under the provisions of this procedure, Company will give preferential consideration in the following sequence to the bids made by such employees on any job vacancy:

- (a) Bids made by employees who formerly worked in such job classification and headquarters; demoted from such classification from such headquarters. An employee's bid shall not be considered under this subsection if following their demotion or transfer they have not exercised each opportunity available to them to bid on a job in their former classification and headquarters;
- (b) Bids made by employees listed in Subsection (a) above who formerly worked in such job classification.
In considering, under Subsection (a) or (b), bids received from two (2) or more employees on the same job, Company shall give preferential consideration to the bid made by the employee who has the greatest Company seniority.

An employee who has been demoted or transferred under the provisions of this procedure who thereafter voluntarily removes themselves from the Line of Progression and occupational group to which they were previously transferred or demoted shall not be given consideration under this section.

VII. Enabler

By written agreement between Company and Union, special provisions may be substituted for the provisions of this procedure. (Added 5/1/82)

TITLE 24
TERM OF AGREEMENT

- 24.1 This Agreement shall take effect as of February 21, 2018. The term of this Agreement shall continue in full force and effect until June 30, 2021, unless written notice of change or termination shall be given by either party ninety (90) days prior to the expiration date above or the expiration date of any year thereafter. (Amended 6/11/03) (Amended 7/1/09)(Amended 7/1/12)
- 24.2 Whenever notice is given for changes, the nature of the changes desired must be specified in the notice, and until a satisfactory conclusion is reached in the matter of such changes, the original provision shall remain in full force and effect.

This Agreement shall not be amended or supplemented except by agreement of the parties hereto, reduced to writing and duly signed by each.

This Agreement cancels and supersedes that certain Agreement and Exhibits entered into on July 1, 2012, and extended on July 1, 2015, by the Company and the Union.

AGREEMENT BETWEEN
TRUCKEE MEADOWS WATER AUTHORITY
& LOCAL UNION 1245
INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS, AFL-CIO

February 21, 2018 – June 30, 2021

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written, acting by and through their duly authorized officers.

TRUCKEE MEADOWS WATER AUTHORITY

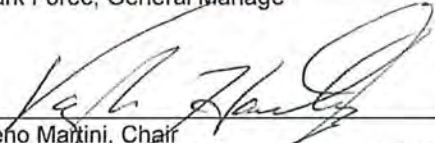
INTERNATIONAL BROTHERHOOD OF
ELECTRICAL WORKERS, LOCAL 1245



Mark Foree, General Manager



Travis Bunkowski



Geno Martini, Chair
Truckee Meadows Water Authority Board of Directors



Chris Hires

For Geno Martini



Rick Pickworth



Brandyn Rada



Pat Waite, Business Representative



Tom Dalzell, Business Manager



ATTACHMENT I
EXHIBIT "A" (1)
(As Amended February 21, 2018)

WAGES

- a. The wage scales for all employees listed in Attachment I Exhibit "A" (1) shall be increased during the term of this Agreement as follows:
- Fiscal Year 2018 – increased by 3%, immediately upon IBEW ratification and TMWA Board approval
 - Fiscal Year 2019 – increased by 3%
 - Fiscal Year 2020 – increased by 3%
 - Fiscal Year 2021 – increased 3%
- b. In addition to the general increases set forth in subsection (a) above, the wage scales for the following classifications will receive additional increases as follows for FY 2019, starting the first pay period of FY 2019:
- i. Classifications Receiving 6% Increase for FY 2019
- Foreman/Forewoman, Shift Working Water Treatment
 - Water Plant Operator III
 - Water Plant Operator, Treatment and Distribution II
 - Apprentice Water Plant Operator
- ii. Classifications Receiving 5% Increase for FY 2019
- SCADA Technician
 - Apprentice SCADA Technician
 - Plant Electrical Technician
 - Power Gen Technician
 - Inspector
- iii. Classifications Receiving 4% Increase for FY 2019
- Mechanic Specialist, MC-WP
 - Apprentice Mechanic Specialist, M/C-W/P

ATTACHMENT I
EXHIBIT "A" (1)

WAGE SCHEDULE									
Job Class No.	Job Title/Classification	Wage Step	Wages as of 6/25/17	Wages as of 2/19/18	Wages as of 6/25/18	6/25/18 Inequity Adj. % by Position	Wages as of 6/25/18	Wages as of 6/24/19*	Wages as of 6/22/20
				Plus 3.00%	Plus 3.00%		Plus 3.00%	Plus 3.00%	
54040	Apprentice, Fitter	Start	\$27.88	\$28.72	\$29.58		\$29.58	\$30.47	\$31.38
		6 Months	\$28.81	\$29.67	\$30.56		\$30.56	\$31.48	\$32.43
		1 Year	\$30.11	\$31.01	\$31.94		\$31.94	\$32.90	\$33.89
		18 Months	\$30.98	\$31.91	\$32.87		\$32.87	\$33.85	\$34.87
53045	Apprentice, Mechanic, Hydro/Generation	Start	\$29.93	\$30.83	\$31.75		\$31.75	\$32.71	\$33.69
		6 Months	\$30.66	\$31.58	\$32.53		\$32.53	\$33.50	\$34.51
		1 Year	\$32.16	\$33.12	\$34.12		\$34.12	\$35.14	\$36.20
		18 Months	\$32.91	\$33.90	\$34.91		\$34.91	\$35.96	\$37.04
		2 Years	\$34.41	\$35.44	\$36.51		\$36.51	\$37.60	\$38.73
		30 Months	\$35.91	\$36.99	\$38.10		\$38.10	\$39.24	\$40.42
55010	Apprentice, Mechanic Maintenance/Control-WP	Start	\$29.93	\$30.83	\$31.75	4.00%	\$33.02	\$34.01	\$35.03
		6 Months	\$30.66	\$31.58	\$32.53	4.00%	\$33.83	\$34.84	\$35.89
		1 Year	\$32.16	\$33.12	\$34.12	4.00%	\$35.48	\$36.55	\$37.64
		18 Months	\$32.91	\$33.90	\$34.91	4.00%	\$36.31	\$37.40	\$38.52
		2 Years	\$34.41	\$35.44	\$36.51	4.00%	\$37.97	\$39.10	\$40.28
		30 Months	\$35.91	\$36.99	\$38.10	4.00%	\$39.62	\$40.81	\$42.03
53000	Apprentice, Operator, Hydro/Generation	Start	\$31.04	\$31.97	\$32.93		\$32.93	\$33.92	\$34.94
		6 Months	\$32.18	\$33.15	\$34.14		\$34.14	\$35.16	\$36.22
		1 Year	\$33.67	\$34.68	\$35.72		\$35.72	\$36.79	\$37.90
		18 Months	\$34.42	\$35.45	\$36.52		\$36.52	\$37.61	\$38.74

*PERS rate increases shall be split between TMWA & the employee. Wage schedule will be automatically decreased by one-half of an PERS increase & automatically increased by one-half of any PERS rate decrease.

Job Class No.	Job Title/Classification	Wage Step	Wages as of 6/25/17	Wages as of 2/19/18	Wages as of 6/25/18	6/25/18 Inequity Adj. % by Position	Wages as of 6/25/18	Wages as of 6/24/19*	Wages as of 6/22/20
55070	Apprentice, Operator, Water Plant	Start	\$30.66	\$31.58	\$32.53	6.00%	\$34.48	\$35.51	\$36.58
		6 Months	\$32.16	\$33.12	\$34.12	6.00%	\$36.17	\$37.25	\$38.37
		1 Year	\$32.91	\$33.90	\$34.91	6.00%	\$37.01	\$38.12	\$39.26
		18 Months	\$34.41	\$35.44	\$36.51	6.00%	\$38.70	\$39.86	\$41.05
55120	Apprentice, SCADA Technician	Start	\$32.38	\$33.35	\$34.35	5.00%	\$36.07	\$37.15	\$38.27
		6 Months	\$33.21	\$34.21	\$35.23	5.00%	\$36.99	\$38.10	\$39.25
		1 Year	\$34.01	\$35.03	\$36.08	5.00%	\$37.89	\$39.02	\$40.19
		18 Months	\$34.83	\$35.87	\$36.95	5.00%	\$38.80	\$39.96	\$41.16
		2 Years	\$35.62	\$36.69	\$37.79	5.00%	\$39.68	\$40.87	\$42.10
		30 Months	\$36.45	\$37.54	\$38.67	5.00%	\$40.60	\$41.82	\$43.08
		3 Years	\$37.26	\$38.38	\$39.53	5.00%	\$41.51	\$42.75	\$44.03
42 Months	\$38.07	\$39.21	\$40.39	5.00%	\$42.41	\$43.68	\$44.99		
53040	Apprentice, Technician, Electrical, Plant	Start	\$29.93	\$30.83	\$31.75	5.00%	\$33.34	\$34.34	\$35.37
		6 Months	\$30.66	\$31.58	\$32.53	5.00%	\$34.15	\$35.18	\$36.23
		1 Year	\$32.16	\$33.12	\$34.12	5.00%	\$35.82	\$36.90	\$38.01
		18 Months	\$32.91	\$33.90	\$34.91	5.00%	\$36.66	\$37.76	\$38.89
		2 Years	\$34.41	\$35.44	\$36.51	5.00%	\$38.33	\$39.48	\$40.67
30 Months	\$35.91	\$36.99	\$38.10	5.00%	\$40.00	\$41.20	\$42.44		
51015	Facilities & Grounds Maintenance I	Start	\$23.08	\$23.77	\$24.49		\$24.49	\$25.22	\$25.98
		6 Months	\$24.90	\$25.65	\$26.42		\$26.42	\$27.21	\$28.03
51020	Facilities & Grounds Maintenance II	Start	\$26.70	\$27.50	\$28.33		\$28.33	\$29.18	\$30.05
		6 Months	\$29.00	\$29.87	\$30.77		\$30.77	\$31.69	\$32.64
51025	Facilities & Grounds Maintenance - Senior	Start	\$33.11	\$34.10	\$35.13		\$35.13	\$36.18	\$37.27

Job Class No.	Job Title/Classification	Wage Step	Wages as of 6/25/17	Wages as of 2/19/18	Wages as of 6/25/18	6/25/18 Inequity Adj. % by Position	Wages as of 6/25/18	Wages as of 6/24/19*	Wages as of 6/22/20
54010	Facilities Locator	Start	\$35.65	\$36.72	\$37.82		\$37.82	\$38.96	\$40.12
54045	Fitter	Start	\$33.62	\$34.63	\$35.67		\$35.67	\$36.74	\$37.84
54050	Fitter/Welder	Start	\$34.89	\$35.94	\$37.01		\$37.01	\$38.13	\$39.27
		Step 2	\$35.98	\$37.06	\$38.17		\$38.17	\$39.32	\$40.50
		Step 3	\$37.07	\$38.18	\$39.33		\$39.33	\$40.51	\$41.72
		Step 4	\$38.16	\$39.30	\$40.48		\$40.48	\$41.70	\$42.95
52030	Foreman/Forewoman, Customer Services Rep, Working	Start	\$32.75	\$33.73	\$34.74		\$34.74	\$35.79	\$36.86
53080	Foreman/Forewoman, General Customer Services Rep, Working	Start	\$36.02	\$37.10	\$38.21		\$38.21	\$39.36	\$40.54
6042	Foreman/Forewoman, General, Heavy, Water	Start	\$48.06	\$49.50	\$50.99		\$50.99	\$52.52	\$54.09
52040	Foreman/Forewoman, General, Hydro/Generation, Working	Start	\$48.06	\$49.50	\$50.99		\$50.99	\$52.52	\$54.09
6043	Foreman/Forewoman, General, Light, Water	Start	\$45.97	\$47.35	\$48.77		\$48.77	\$50.23	\$51.74
6016	Foreman/Forewoman, General, Mechanic, Hydro/Generation Working	Start	\$48.06	\$49.50	\$50.99		\$50.99	\$52.52	\$54.09
55060	Foreman/Forewoman, General, Mechanic, Maintenance and Control, Working	Start	\$48.06	\$49.50	\$50.99	4.00%	\$53.03	\$54.62	\$56.26
55110	Foreman/Forewoman, General, Shift, Water Treatment, Working	Start	\$48.06	\$49.50	\$50.99	6.00%	\$54.05	\$55.67	\$57.34

Job Class No.	Job Title/Classification	Wage Step	Wages as of 6/25/17	Wages as of 2/19/18	Wages as of 6/25/18	6/25/18 Inequity Adj. % by Position	Wages as of 6/25/18	Wages as of 6/24/19*	Wages as of 6/22/20
53070	Foreman/Forewoman, Hydro/Generation, Working	Start	\$43.68	\$44.99	\$46.34		\$46.34	\$47.73	\$49.16
54080	Foreman/Forewoman, Light, Working, Water	Start	\$41.77	\$43.02	\$44.31		\$44.31	\$45.64	\$47.01
55050	Foreman/Forewoman, Mechanic Maintenance/Control-WP	Start	\$43.68	\$44.99	\$46.34		\$46.34	\$47.73	\$49.16
55100	Foreman/Forewoman, Shift, Water Treatment, Working	Start	\$43.68	\$44.99	\$46.34	6.00%	\$49.12	\$50.59	\$52.11
54090	Foreman/Forewoman, Working, Heavy, Water	Start	\$43.68	\$44.99	\$46.34		\$46.34	\$47.73	\$49.16
51000	Helper	Start	\$19.87	\$20.47	\$21.08		\$21.08	\$21.71	\$22.36
		6 Months	\$21.44	\$22.08	\$22.75		\$22.75	\$23.43	\$24.13
		1 Year	\$22.99	\$23.68	\$24.39		\$24.39	\$25.12	\$25.88
		18 Months	\$24.97	\$25.72	\$26.49		\$26.49	\$27.29	\$28.10
54070	Inspector	Start	\$40.07	\$41.27	\$42.51	5.00%	\$44.64	\$45.97	\$47.35
54075	Inspector, Construction	Start	\$38.33	\$39.48	\$40.66	5.00%	\$42.70	\$43.98	\$45.30
		1 Year	\$40.07	\$41.27	\$42.51	5.00%	\$44.64	\$45.97	\$47.35
53050	Mechanic, Hydro/Generation	Start	\$39.71	\$40.90	\$42.13		\$42.13	\$43.39	\$44.69
55020	Mechanic, Maintenance & Control, Certified, WP	Start	\$37.41	\$38.53	\$39.69		\$39.69	\$40.88	\$42.11
		6 Months	\$38.56	\$39.72	\$40.91		\$40.91	\$42.14	\$43.40
55030	Mechanic, Specialist, Maintenance/Control-WP	Start	\$39.71	\$40.90	\$42.13	4.00%	\$43.81	\$45.13	\$46.48

Job Class No.	Job Title/Classification	Wage Step	Wages as of 6/25/17	Wages as of 2/19/18	Wages as of 6/25/18	6/25/18 Inequity Adj. % by Position	Wages as of 6/25/18	Wages as of 6/24/19*	Wages as of 6/22/20
54020	Operator, Equipment I	Start	\$29.29	\$30.17	\$31.07		\$31.07	\$32.01	\$32.97
		6 Months	\$30.72	\$31.64	\$32.59		\$32.59	\$33.57	\$34.58
54025	Operator, Equipment II	Start	\$31.08	\$32.01	\$32.97		\$32.97	\$33.96	\$34.98
		1 Year	\$32.50	\$33.48	\$34.48		\$34.48	\$35.51	\$36.58
54030	Operator, Equipment III	Start	\$33.62	\$34.63	\$35.67		\$35.67	\$36.74	\$37.84
54035	Operator, Equipment, Heavy	Start	\$34.72	\$35.76	\$36.83		\$36.83	\$37.94	\$39.08
		1 Year	\$35.38	\$36.44	\$37.53		\$37.53	\$38.66	\$39.82
53010	Operator, Hydro/Generation	Start	\$37.41	\$38.53	\$39.69		\$39.69	\$40.88	\$42.11
8470	Operator, Water Plant, Grade II, Treatment Only	Start	\$36.22	\$37.31	\$38.43		\$38.43	\$39.58	\$40.77
55080	Operator, Water Plant, Grade II, Treatment & Distribution	Start	\$37.41	\$38.53	\$39.69	6.00%	\$42.07	\$43.33	\$44.63
55090	Operator, Water Plant, Grade III, Treatment & Distribution	Start	\$39.71	\$40.90	\$42.13	6.00%	\$44.66	\$46.00	\$47.38
52000	Representative, Accounts Payable	Start	\$16.63	\$17.13	\$17.64		\$17.64	\$18.17	\$18.72
		6 Months	\$17.81	\$18.34	\$18.89		\$18.89	\$19.46	\$20.05
		1 Year	\$18.95	\$19.52	\$20.10		\$20.10	\$20.71	\$21.33
		18 Months	\$20.08	\$20.68	\$21.30		\$21.30	\$21.94	\$22.60
		2 Years	\$22.23	\$22.90	\$23.58		\$23.58	\$24.29	\$25.02
		30 Months	\$24.38	\$25.11	\$25.86		\$25.86	\$26.64	\$27.44
		3 Years	\$26.52	\$27.32	\$28.14		\$28.14	\$28.98	\$29.85

Job Class No.	Job Title/Classification	Wage Step	Wages as of 6/25/17	Wages as of 2/19/18	Wages as of 6/25/18	6/25/18 Inequity Adj. % by Position	Wages as of 6/25/18	Wages as of 6/24/19*	Wages as of 6/22/20
52010	Representative, Customer Service	Start	\$16.63	\$17.13	\$17.64		\$17.64	\$18.17	\$18.72
		6 Months	\$17.81	\$18.34	\$18.89		\$18.89	\$19.46	\$20.05
		1 Year	\$18.95	\$19.52	\$20.10		\$20.10	\$20.71	\$21.33
		18 Months	\$20.08	\$20.68	\$21.30		\$21.30	\$21.94	\$22.60
		2 Years	\$22.23	\$22.90	\$23.58		\$23.58	\$24.29	\$25.02
		30 Months	\$24.38	\$25.11	\$25.86		\$25.86	\$26.64	\$27.44
		3 Years	\$26.52	\$27.32	\$28.14		\$28.14	\$28.98	\$29.85
52020	Representative, Customer Service, Senior	Start	\$29.39	\$30.27	\$31.18		\$31.18	\$32.12	\$33.08
54000	Service Utility Worker	Start	\$27.48	\$28.30	\$29.15		\$29.15	\$30.03	\$30.93
		6 Months	\$28.27	\$29.12	\$29.99		\$29.99	\$30.89	\$31.82
		1 Year	\$29.95	\$30.85	\$31.77		\$31.77	\$32.73	\$33.71
54060	Technician, Water Service	Start	\$36.55	\$37.65	\$38.78		\$38.78	\$39.94	\$41.14
55040	Specialist, Equipment, Water Treatment	Start	\$39.71	\$40.90	\$42.13		\$42.13	\$43.39	\$44.69
55000	Specialist, Water Supply	Start	\$28.11	\$28.95	\$29.82		\$29.82	\$30.72	\$31.64
		6 Months	\$29.61	\$30.50	\$31.41		\$31.41	\$32.36	\$33.33
		1 Year	\$31.02	\$31.95	\$32.91		\$32.91	\$33.90	\$34.91
53020	Technician, Plant Electrical	Start	\$40.50	\$41.72	\$42.97	5.00%	\$45.11	\$46.47	\$47.86
53030	Technician, Power Generation	Start	\$40.50	\$41.72	\$42.97	5.00%	\$45.11	\$46.47	\$47.86
55130	Technician, SCADA	Start	\$40.50	\$41.72	\$42.97	5.00%	\$45.11	\$46.47	\$47.86
		6 Months	\$41.44	\$42.68	\$43.96	5.00%	\$46.16	\$47.55	\$48.97
		1 Year	\$42.33	\$43.60	\$44.91	5.00%	\$47.15	\$48.57	\$50.02

ATTACHMENT II
EXHIBIT "B" (1)
(As Amended, July 1, 2012)

JOB CLASSIFICATIONS/DESCRIPTIONS AND QUALIFICATIONS

- Note: 1) All positions except those listed in the Clerical Occupational Group must possess a current Driver's license.
- 2) Employees will not be assigned work of another job description if there is an incumbent available to perform those duties. Keeping in mind the provisions previously provided for in 19.5 and 19.6, the company may assign employees based upon availability. (Added 7/1/12)

54040 APPRENTICE, FITTER

An employee who installs and maintains water pipes, conduits, mains and accessories under the general direction of a Foreman/woman, Fitter, or other experienced and qualified personnel while training for a Journeyman classification. In order to gain experience for advancement, they may be required to work alone or under direct supervision on jobs for which they have been trained and instructed. State of Nevada Grade I Water Distribution certification will be required to progress to the one-year rate of pay. State of Nevada Grade II Water Distribution certification will be required to progress to the two-year rate of pay. The employee's education and general qualifications must be such that they are considered capable of obtaining Journeyman status. Before obtaining Journeyman status, they must qualify by test and demonstrate an ability to handle tools and operate equipment, such as earth boring machines, all types of tapping machines, pipe locators, concrete saws, compressors and other equipment commonly used in the trade.

53045 APPRENTICE, MECHANIC, HYDRO/GENERATION

An employee who is engaged in performing work as an assistant to or under the general direction of Foreman/woman, Mechanic Hydro/Generation, or other experienced and qualified personnel while training for Journeyman classification while training for a Journeyman classification. In order to gain experience for advancement they may be required to work alone or under direct supervision on jobs for which they have been trained and instructed. The employee's educational and general qualifications must be such that they are considered capable of attaining Journeyman status.

55010 APPRENTICE, MECHANIC, MAINTENANCE & CONTROL, WP

An employee who is engaged in performing as an assistant to, or under the direction of a Foreman/woman, Maintenance Mechanic & Control, WP, or other experienced and qualified personnel while training for Journeyman classification, while training for a Journeyman classification. In order to gain experience for advancement they may be required to work alone or under direct supervision on jobs for which they have been trained or instructed. State of Nevada Grade I Water Distribution certification will be required to progress to the one-year rate of pay. State of Nevada Grade II Water Distribution certification will be required to progress to the two-year rate of pay. The employee's educational background and general qualifications must be such that they are considered capable of attaining Journeyman status. The employee will be automatically reclassified to Mechanic, Specialist, Maintenance and Control upon completion of the apprenticeship and obtaining a Nevada Grade III Water Distribution Certification. If the employee does not hold a State of Nevada Grade III Water Distribution Certification upon completion of the apprenticeship, then they will automatically progress to Mechanic, Maintenance & Control, Certified, WP, until they are able to obtain a State of Nevada Grade III Water Distribution Certification.

53000 APPRENTICE, OPERATOR, HYDRO/GENERATION

An employee who is engaged in performing work as an assistant to or under the general direction of Foreman/woman, Hydro Generation or other experienced and qualified personnel while training for Journeyman classification. In order to gain experience for advancement they may be required to work alone or under direct supervision on jobs for which they have been trained and instructed. The employee's educational and general qualifications must be such that they are considered capable of attaining Journeyman status.

55070 APPRENTICE, OPERATOR, WATER PLANT

An employee who assists the Foreman/woman, Water Plant Operators as required, or other experienced and qualified personnel while training for Journeyman classification and who is in training to acquire the experience and develop the skills necessary for advancement to Operator, Water Plant classification. In order to gain experience for advancement, they may be required to work alone or under direct supervision on jobs for which they have been trained or instructed. State of Nevada Grade I Water Distribution and Water Treatment certifications will be required to progress to the one-year rate of pay. State of Nevada Grade II Water Distribution and Water Treatment certifications will be required to progress to the two-year rate of pay. Their education and general qualifications must be such that they are considered capable of attaining Journeyman status.

55120 APPRENTICE, SCADA TECHNICIAN

An employee who is engaged in performing work as an assistant to, or under the general supervision of a Foreman/woman, Journeyman SCADA Technician or other experienced and qualified personnel while training for Journeyman classification. In order to gain experience for advancement, they may be required to work alone or under direct supervision on jobs for which they have been trained and instructed. Their education and general qualification must be such that they are considered capable of attaining Journeyman status.

53040 APPRENTICE, PLANT, ELECTRICAL, TECHNICIAN

An employee who is engaged in performing work as an assistant to, or under the general supervision of a Foreman/woman, Journeyman Plant Electrical Technician, or other experienced and qualified personnel while training for Journeyman classification. In order to gain experience for advancement, they may be required to work alone or under direct supervision on jobs for which they have been trained and instructed. Their education and general qualification must be such that they are considered capable of attaining Journeyman status.

51015 FACILITIES AND GROUNDS MAINTENANCE I

An employee who has sufficient knowledge and adaptability to understand and carry on duties as assigned; must be a semi-skilled laborer, or equivalent with past experience such as, capable of handling ordinary tools safely in accordance with Company safety rules. Assist the Facilities Grounds Man II or work under their direction at various classes of work associated with grounds and building maintenance of all TMWA property. Must work towards obtaining certification as a Licensed/Certified Pesticide Applicator with a Category "Ornamental and Turf Pest Control" and "Right-of-Way Pest Control" certification, and a Backflow Prevention Assembly General Tester Certification for both domestic and irrigation water services. After completion of 1 (one) year as a Facilities Grounds Man I, successful completion of Backflow Prevention Assembly General Tester Certification and certification as Licensed/Certified Pesticide Applicator with Category Ornamental and Turf Pest Control" and "Right-of-Way Pest Control" certification this person will automatically progress to the Facilities Grounds Man II position at that starting wage. At any time a required certification lapses, the incumbent will be demoted to the next lower classification after failure to recertify within 60 calendar days.

51020 FACILITIES AND GROUNDS MAINTENANCE II

An employee who has at least 1 years' experience as a Facilities Grounds Maintenance Man I who is qualified to perform with limited supervision all work associated with grounds and building maintenance of all TMWA property as required. Including but not limited to, painting carpentry, fence repair, irrigation systems, pruning and planting trees and shrubs, mowing and fertilizing lawns. Must have and maintain a Backflow Prevention Assembly General Tester Certification, and a restricted use Pesticide Applicators Certification with a Category "Ornamental and Turf Pest Control" and "Right-of-Way Pest Control" certifications. Will be required to do backflow testing on domestic supply plumbing as well as irrigation devices as required on TMWA facilities. Will be required to operate landscape maintenance equipment and vehicles such as a variety of power tools and motorized equipment such as small tractors, mowers, weed eaters, blowers, chain saws, power chipper etc. May be required to provide general direction to any classification assigned to them in performing the work as defined. Should have knowledge of TMWA's various sites and facilities. At any time a required certification lapses the

incumbent will be demoted to the next lower classification after failure to recertify within 60 calendar days.

51025 SENIOR FACILITIES AND GROUNDS MAINTENANCE

An employee who has at least 3 years' experience as a Facilities Grounds Maintenance Man and possess the necessary knowledge skill and experience and under direction, plans, schedules, provides lead work while participating in the work of personnel engaged in the landscaping and maintenance of all TMWA facilities and grounds. This position will perform related duties as assigned and will also be responsible for the daily activities of contract/temporary/seasonal personnel engaged in grounds and facilities maintenance activities. Must be proficient in the use of computer programs and will be required to use a computerized maintenance management system to track and complete work orders, update scheduled maintenance activities, and keep facilities/work records current.

Must be able to interpret plans, specifications, and written instructions and coordinate/participate in all aspects of installation, repair and maintenance of landscaping, irrigation, vegetation and facilities improvements. Ensures all the above activities are carried out in a safe and efficient manner. Will also be required to operate a variety of power tools and motorized equipment such as small tractors, mowers, weed eaters, blowers, chain saws, power chipper, and will be required to train subordinate employees in their use. Must have and maintain a Backflow Prevention Assembly General Tester Certification, and a restricted use Pesticide Applicators Certification with a Category "Ornamental and Turf Pest Control", "Aquatic Pest Control" and "Right-of-Way Pest Control" certifications. Will possess at a minimum a current Nevada Class "B" Commercial Driver License. At any time that a certification/license lapses the incumbent will be demoted to the next lower classification after failure to recertify/license within 60 days. Award to this position is subject to Section 16.7 of the CBA.

54010 FACILITIES LOCATOR

An employee who is a Journeyman Fitter who has successfully completed a Nevada State Fitter apprenticeship and is qualified by training and knowledge to locate Truckee Meadows Water Authority (TMWA) facilities. Responds to requests for information on underground utility locations; conducts field location inspections and clearly marks the utility in the area of the proposed excavation as described in the locate request. Documents and prioritizes utility locate requests and data including emergency requests. The employee shall have an advanced working knowledge of the entire distribution system as well as a firm grasp of inspection procedures and policies. Must have the knowledge and experience in the application of pipe and cable locators and GPS equipment to locate facilities including water lines, communication lines and electrical lines. Must be able to read and interpret cards, maps and as-built drawings that are utilized as reference material to locate facilities. Identifies errors on maps and provides detailed map corrections to the G.I.S department to accurately capture the location of the facilities. Must be able to work with computers to interface with a mobile dispatch and work order management systems. Must be familiar with the Underground Services Alert (USA) locate system and pertinent State regulations in regards to underground utility locating requirements. May be required to investigate, document and file reports/claims on 3rd party damage to TMWA facilities. Must be able to write legibly and maintain a neat, clean appearance and must be capable of working with the public. May work after hour locates and respond to emergency locate requests. Must maintain a State of Nevada Grade II Water Distribution certification and a Nevada driver's license.

54045 FITTER

An employee who is a Journeyman and qualified by experience, training and knowledge to install and repair water services, mains and appurtenances, locate and repair leaks, do miscellaneous pipe fitting and operate equipment such as earth boring machines, all types of tapping machines, pipe locators, concrete saws and compressors. They locate and repair leaks. Understands the use of tools in connection with pipe work and the installation of all types of pipe. May be required to prepare ground for installation of mains and services and restore ground to required condition. May be assigned to other work as the occasion arises, including the installation of meters and regulators. Must maintain State of Nevada Grade II Water Distribution certification or equivalent.

54050 FITTER/WELDER

An employee who installs and repairs water pipes, conduits, mains and accessories. Does gas and electric welding and is required to be certified by testing in accordance with the Department of Transportation regulations and repair work on water lines and their accessories as required and, in addition, will be required to operate all tools used on water leakage detection equipment. Will be required to prepare ground for the installation of mains and services and restore ground to required condition. May be assigned to other work as the occasion arises, including the installation of meters and regulators. Must have successfully completed a Nevada State Fitter apprenticeship. Must maintain State of Nevada Grade II Water Distribution certification or equivalent. Employee must certify by completing and passing the most current edition of the API 1104 Multiple Qualifications Test.

- Must have successfully completed a Fitter Apprenticeship.
- Bidding process shall be based on the existing lines of progression in the Collective Bargaining Agreement (CBA).
- The employee is required to complete and pass a semester of each of the following courses, Welding I, Welding Practice I, Welding II and Welding Practice II through TMCC or "qualified equivalent courses". It is required that the courses Welding I and Welding I Practice be taken concurrently and the courses Welding II and Welding II Practice be taken concurrently. Any courses presented as a substitution under "qualified equivalent courses" shall be agreed upon by the Company and the Union.
- All courses must have prior approval. Upon successful completion of a course, reimbursement shall be through TMWA's Tuition Reimbursement program.
- Courses shall be attended outside of regularly scheduled work hours. If the course is not available after regularly scheduled work hours, the employee shall be required to obtain additional approval from the Company prior to registering for the course. Time spent in courses is not subject to compensation.
- The employee must immediately enroll in the first required course upon being awarded the position of fitter/welder and attend the first course offered and the sequential courses the following semester. The employee must be able to be certified within 18 months unless an extension of time is agreed upon by the Company and the Union.
- Upon successful completion of the required courses, the employee must certify by completing and passing the most current edition of the **API 1104 Multiple Qualifications Test**. Testing of the welded pipe will be administered by a qualified third party testing facility. The welds to be tested will be performed in the presence of a certified welder and or an qualified welding inspector, who will verify that all welding procedures were followed and will certify in writing the name of the person that performed the welds, weld date, time, location, rod, machine settings and procedure used. This information will then accompany the welded pipe to the certified testing facility. The employee must use 12.75" outside diameter or larger pipe and a minimum of ¼" wall thickness for testing.
- If the employee is not successful in completing any one of the courses or passing the API 1104 Testing, they shall be demoted to a Fitter position. The Fitter/Welder position shall be re-posted and that employee will not be considered for that Fitter/Welder posting or any subsequent Fitter/Welder posting for a period of 90 days from the date of demotion.
- The demotion to a Fitter position, should the employee not successfully complete any of the requirement coursework or pass API 1104 testing, shall supersede section 16.8 (a) of the Collective Bargaining Agreement.

- Wages and Progression. The wages listed below are calculated using the Fitter wage that is in effect as of the 14th payroll period, year 2007 wage plus \$1 per step.
 1. Step I shall pay \$32.88 per hour. This is the entry level for the position.
 2. Step II shall pay \$33.91 per hour upon successful completion of the Welding I and Welding I Practice courses.
 3. Step III shall pay \$34.93 per hour upon successful completion of the Welding II and Welding II Practice courses.
 4. Step IV shall pay \$35.96 which is the top level wages for the Fitter/Welder position. This shall be obtained upon successful completion of the API 1104 Test and Welding certification.
- If an employee has successfully completed any of the required courses prior to entering the position, they will be entitled to the pay that is relative to the course level completed. All courses or qualifications that may be considered as equivalent shall be agreed upon by the Company and the Union prior to entering the position.
- On the job training should consist of 16 to 32 hours per month. The training should consist of practice welding of all types needed to succeed with the API 1104 Multiple Test and actual field welding when possible. The Company shall make a reasonable effort to allow time to do so. This is not a requirement and is intended as a guideline.

The employee must maintain certification and recertify annually for welding for this position. Maintaining of this certification will consist of performing a twelve-inch (12") Butt weld and having it pass the radiographic (X-Ray) testing requirements as called out in API 1104. In the event the employee is not able to maintain the certification the employee shall be demoted to a Fitter position.

52030 FOREMAN/WOMAN, CUSTOMER SERVICE REPRESENTATIVE, WORKING

An employee who is directly in charge of and directs a crew of Customer Services Representatives (CSR's) in their day-to-day operations. Will be responsible for scheduling, logging of attendance, handling timesheets, maintaining daily work schedules, and monitoring CSR's to assure quality in their transactions with customers. Also prepare their performance appraisals and be thoroughly familiar with the work procedures and methods for the area of work assigned and skilled in all areas of the Customer Service Representative position. They may be required to assist representatives in on-the-job training and answer questions as they arise. They will also handle those customers who wish to have their questions or complaints answered on a higher level. Required to make independent decisions as necessary to satisfy customer needs. Also required to perform tasks as delegated by their Supervisor. Must have successfully performed as a Customer Service Representative for at least three (3) years.

FOREMAN/WOMAN, GENERAL, WORKING (UPGRADE ONLY)

An employee assigned on an upgrade basis only at the Company's discretion, to assume a leadership role under any combination of the following circumstances:

- On special projects when required to direct crew operations and coordinate all aspects of construction, maintenance and repair of Company facilities. Will aid in the design of facilities and also participate in the planning stages of such projects,
- Replace a supervisor who will be absent from their duties for an extended time period,
- When directing the work of other foremen and their crews (foreman/woman over foreman/woman),
- Other circumstances as deemed appropriate by management.

An employee assigned to this upgrade must have been a journeyman in their occupation for a minimum of six (6) years or a foreman/woman or equivalent for at least two years. Will be required to communicate effectively and contribute to a positive team environment to provide quality service to both external and internal customers.

- See Wage Table for appropriate job class upgrade number.

53070 FOREMAN/WOMAN, HYDRO/GENERATION, WORKING

An employee who, under general supervision, is in charge of and responsible for the operation of Hydro, Stand-by Diesel and Combustion Turbine Plants. The employee is directly responsible for the day to day Operation & Maintenance of all hydro and water production flumes, ditches, diversion dams, head gates and related facilities. Will be required to direct and inspect work being performed on all hydro plants and waterways. Will be required to measure and record water flows, operate ditch and dam head gates on all Company waterways from the upriver storage dams to all hydro plant intakes. Must have at least two years experience as a Hydro/Generation Operator and possess the knowledge and skills through experience and training to direct and train the Hydro/Generation Operator or Apprentice Operator. The employee will be responsible to determine the lumber and hardware needed for flume and penstock repairs and rebuilds and may be required to provide construction management and inspection. They shall be responsible for controlling the Verdi Lumberyard inventory and access. The employee shall be responsible for keeping proper records of plant operations, maintenance and outages. The employee shall be thoroughly familiar with Company dispatching and clearance rules electrical and mechanical tagging and safety rules. In the absence of management, the employee shall be the controlling party of all hydro and related facilities and is authorized to issue and grant all clearances. The employee must maintain a current driver's license and be qualified to render first aid.

55060 FOREMAN/WOMAN, MECHANIC, MAINTENANCE & CONTROL, WP, WORKING

An employee who has the knowledge and skill through experience and training to work with and direct the activities of a crew engaged in construction and maintenance of facilities connected with or related to the Water Production Department. Must be a Journeyman Mechanic, Maintenance & Control, WP, to be considered for promotion to this classification. Must be skilled in the crafts in which they work and have sufficient knowledge of all tools and equipment used under their direction and guidance. Must have sufficient knowledge of the function of water system equipment, how it operates mechanically, hydraulically and electronically. Must be able to interpret plans, sketches, specifications and written instructions. Will be required to interpret and work from various service and repair manuals. Must be thoroughly familiar with work procedures and methods for the assigned area of responsibility. Will be required to keep and maintain accurate and legible records of the operation and maintenance of water system related mechanical equipment. Shall be thoroughly familiar with Company's dispatching, clearance, rigging and hazardous materials handling regulations. Must maintain a State of Nevada Grade III Water Distribution Certification and a current driver's license.

55100 FOREMAN/WOMAN, SHIFT, WATER TREATMENT, WORKING

An employee who is in charge of and responsible for the operation and maintenance of all water treatment plants and related water system facilities. Is required to effectively contribute to positive working relationships and job performance of the employees under their direction and to provide and encourage quality customer service. Must possess the knowledge and skill through experience and training to direct, perform and assist in the activities and duties of the Water Plant Operators, apprentices and other classifications as assigned. Must be capable of analyzing water system problems and be responsible for contracting and directing other Water Production personnel to resolve these problems in the most timely and economical fashion. Shall be responsible for scheduling and directing work and training activities while on shift. Must be capable of properly coordinating the flow of water through all treatment plants, regulators and pumping plants to satisfy pressure and storage of water. They shall be responsible for record keeping such as, but not limited to timesheets, plant operation, maintenance, tests and unusual incidents during their shift. Shall be responsible for implementing Company policies, including fitness for duty. In addition to the duties of foreman/woman, is required to relieve in all subordinate capacities when requires. Must possess sufficient knowledge of all tools and equipment, which may be used. Must be able to interpret plans, drawings and specifications and comply with all federal, state and local governmental regulations. They shall be thoroughly familiar with Company's dispatching and clearance rules, electrical and mechanical tagging and safety rules. Must maintain State of Nevada Water Treatment and Distribution Operators Certification Grade III or equivalent. Must maintain a valid driver's license.

54090 FOREMAN/WOMAN, WORKING, HEAVY, WATER

An employee who possesses the necessary knowledge and skill through experience and training to work with and direct the activities of a crew engaged in heavy construction, maintenance or replacement of facilities. Must have successfully completed a Nevada State Fitter apprenticeship. Must have demonstrated satisfactory performance as a light Foreman/woman for at least one (1) year or have equivalent experience before consideration will be given for promotion to this classification. Crew size will not be limited in number or skilled classifications under direction by this classification. Must be skilled in the crafts in which they work and possess sufficient knowledge of all tools and equipment which they may have occasion to use or to be used under their direction and guidance. They must be able to interpret plans, sketches, specifications, and written instructions. Must be thoroughly familiar with the work procedures and methods for the area of responsibility assigned. Must possess sufficient familiarity with symbols and dimensions as related to plans. Will be required to keep time for themselves, as well as the crew under their supervision and prepare proper notes and records, as well as other clerical work associated with their job and crew. Must be capable of writing with clarity in a neat and legible fashion. A Heavy Working Foreman/woman must maintain a State of Nevada Grade III Water Distribution certification or equivalent.

54080 FOREMAN/WOMAN, WORKING, LIGHT, WATER

An employee who possesses the necessary knowledge and skill through experience and training to work with and direct the activities of semi-skilled personnel engaged in light construction, maintenance or replacement of facilities. Must have successfully completed a Nevada State Fitter apprenticeship. Must be skilled in the crafts in which they work and possess sufficient knowledge of all tools and equipment which they may have occasion to use or to be used under their direction and guidance. They must be able to interpret plans, sketches, specifications and written instruction. Must be thoroughly familiar with the work procedures and methods for the area of responsibility assigned. Must possess sufficient familiarity with symbols and dimensions as related to plans. Will be required to keep time for themselves, as well as the crew under their supervision and prepare proper notes and records, as well as other clerical work associated with their job and crew. Must be capable of writing with clarity in a neat and legible fashion. Employees must maintain a State of Nevada Grade III Water Distribution certification.

51000 HELPER

Must have sufficient knowledge and adaptability to understand and carry on duties as assigned; must be semi-skilled laborer, or equivalent with past experience as such, capable of handling ordinary tools safely in accordance with Company safety rules. Assist skilled workman or apprentice or work under their direction at various classes of work, which may be assigned in any location.

54070 INSPECTOR

An employee who possesses knowledge and skill as obtained by experience and training to direct and inspect work performed by contractors installing water facilities for the Company. Must have successfully completed a Nevada State Fitter apprenticeship. Must possess in-depth knowledge of water distribution materials, construction standards, procedures and specifications, including the interpretation of grading plans and profiles. Attends preconstruction conferences, interprets and reviews construction plans before and during construction to identify problems and conflicts and works with engineering to resolve identified issues. Required to inspect the activities of non-utility contractors when their construction activities pose a hazard to existing water facilities, provides direction to mitigate conflicts. Coordinates projects with internal departments, outside agencies and communicates with customers who may be affected by construction activities. Prepares reports, verifies change orders and quantities to ensure accurate billing. Must be familiar with and update the work order management systems. Required to keep the records necessary to complete as-built drawings, including type of material installed, dimensions of the installation as well as the use of GPS equipment to verify vertical and horizontal alignment, location and elevation of pipe to ensure the accurate mapping of all water facilities. Operates pipe locators, pressure recorders, hydrostatic pumps, and other instruments and equipment common to water facility installations. Must be familiar with pertinent health regulations and ensure these regulations are adhered to during the construction and acceptance of new facilities. Must possess and maintain State of Nevada Grade II Water Distribution Certification or equivalent.

54075 INSPECTOR, CONSTRUCTION

An employee who has sufficient knowledge of Construction to inspect contractors' and/or Company work. Will be required to perform such duties as coordinating work between contractors and Company crews, scheduling and coordinating delivery of materials, preparing and maintaining construction records and verifying that work is done in accordance with plans and specifications. Must be familiar with all phases of construction including site work, excavation, carpentry, concrete work, steelwork, fencing, buildings, grounding, installation of both metallic and non-metallic conduit, and their underground facilities. Must be able to read and understand drawings and specifications, have knowledge of surveying, and be able to work with all other departments. May be assigned to work as a member of a construction crew. Requires two (2) years' experience as a Repairman or equivalent.

53050 MECHANIC, HYDRO/GENERATION

An employee who is qualified and regularly engaged in performing all types of hydro, diesel, and turbine generation maintenance, including maintenance of engine turbo chargers, oil systems, cooling systems and all related plant facilities. Employee shall also perform all types of mechanical and electrical maintenance to water production and distribution facilities for which they are qualified. Employee shall maintain a current driver's license and be qualified to render first aid. Upon successful completion of the minimum qualifications of Power Generator Tech/Hydro Certified Tech, the Mechanic, Hydro/Generation will be reclassified to Power Generator Tech/Hydro Certified Tech.

55020 MECHANIC, MAINTENANCE & CONTROL, CERTIFIED, WP

An employee who has completed a Maintenance and Control Mechanic apprenticeship or equivalent and is qualified to install, maintain, test and repair various types of mechanical equipment within the Water Production Department, including, but not limited to, production wells, booster pump stations, pressure regulator stations as well as the water treatment facilities. Must have an understanding of the electrical systems related to the mechanical equipment. Must have a thorough understanding of hydraulic controls, and their principles, and will be required to install, test, and service these controls in order to obtain an efficient operation. Must have a working knowledge of the SCADA system and will be required to access data relative to the operation of the various pumping systems and pressure zones. Will also input set points related to the hydraulic controls and their automatic functions and may at times be asked to aid the plant operators in the operation of these systems/zones. Must be able to work from various service and repair manuals and be capable of solving technical problems where resources may be limited. Will be required to perform other related tasks such as incidental welding and rigging and will keep accurate and legible records of the operation and maintenance of the equipment for which the employee is responsible. Must be thoroughly familiar with the Company tagging procedure and safety rules. Must maintain a current Nevada Grade II Water Distribution Certificate and a current driver's license. The employee will be reclassified to Mechanic, Specialist, Maintenance and Control, WP, upon completion of two years in this classification, and attaining chemical handling system training and Nevada Grade III Water Distribution Certification.

55030 MECHANIC, SPECIALIST, MAINTENANCE & CONTROL, WP

An employee who has completed a Mechanic, Maintenance & Control apprenticeship or equivalent, has received hazardous materials handling training or equivalent and is qualified to install, maintain, test and repair various types of mechanical equipment, chemical handling equipment, and piping systems used in water production, treatment, and distribution facilities, including, but not limited to, production wells, booster pump stations, pressure regulator stations, water treatment plants, and associated facilities. Must have an understanding of the electrical systems related to the mechanical systems controlling and driving mechanical equipment. Must have a thorough understanding of hydraulic controls and will be required to install, test and service these controls in order to obtain an efficient operation. Must have a working knowledge of the SCADA system and will be required to access data relative to the operation of the various pumping systems and pressure zones. Will also enter data relative to hydraulic setpoints and controls. May be asked to aid the plant operators in operations of pumping and/or regulator station operation. Will be called on to assist customers in resolving pressure or flow problems. Will be required to inspect contractor-installed work in any water production facility. Must be able to work from various service and repair manuals and be capable of solving technical problems where resources may be limited. Will be required to perform other related tasks such as welding and rigging and will keep accurate and legible records of operation and

maintenance of the equipment for which the employee is responsible. Must be thoroughly familiar with Company lock-out/tag-out procedures, safety rules and hazardous materials handling procedures. Must maintain current Nevada Grade III Water Distribution Certificate.

54020 OPERATOR, EQUIPMENT I

An employee who is under direct supervision and assists an experienced Operator, or equivalent, and is in the process of acquiring the experience and skills required to advance to Equipment Operator II. Will be required to operate pavement breakers, rubber-tired excavation equipment such as loaders, and combination back-hoe/loaders with rated capacities not exceeding one and one-half (1 ½) cubic yards for loader buckets and one half (½) cubic yard for back-hoe buckets.

After one (1) year, automatic progression to Equipment Operator II classification will occur upon successful completion of the Equipment Operator I Performance Test. Refer to Equipment Operator Progression Guidelines.

54025 OPERATOR, EQUIPMENT II

An employee who has progressed through the Equipment Operator I classification, or has equivalent experience and is qualified by training and experience to perform special construction work using rubber-tired excavation equipment such as loaders, and combination back-hoe/loaders with rated capacities exceeding one and one-half (1 ½) cubic yards for loader buckets and one half (½) cubic yard for back-hoe buckets boom trucks, forklifts, etc. (type of equipment may vary by department). May be required to complete job-related clerical work and assist in training.

After two (2) years of Equipment Operator II, progression to Equipment III classification will occur upon successful demonstration of Equipment Operator II skills and department specific Journeyman skills during two years of Operator II classification. Refer to Equipment Operator Progression Guidelines.

54030 OPERATOR, EQUIPMENT III

An employee who has progressed through the Equipment Operator II classification, or has equivalent experience and is qualified by training and operating experience to perform special construction work using rubber tired equipment such as loaders, and combination backhoe-loaders with rated capacities exceeding 1 _ cubic year for loader buckets and _ cubic yard for backhoe buckets, boom trucks, forklifts, excavators equivalent in size to Cat Model 308 or less etc. (type of equipment may vary by department). May be required to complete job related clerical work and assist in training. Is additionally qualified by training and experience to perform a variety of department specific Journeyman level tasks. Refer to the Equipment Operator Progression Guidelines.

54035 OPERATOR, EQUIPMENT, HEAVY

An employee who has completed a minimum of three (3) years as an Equipment Operator II and/or a combination of two (2) years as an Equipment Operator II and one (1) year as an Equipment Operator III, or has equivalent experience and is qualified by training and operating experience to perform special construction work using various rubber-tire and track- mounted or heavy equipment (type of equipment may vary by department) such as bulldozers, cranes, road graders and excavators or other similar equipment. May be required to complete job-related clerical work and assist in training.

53010 OPERATOR, HYDRO/GENERATION

A shift employee with at least one (1) year's experience as an Assistant Hydro/Generation Operator, who during their shift is in direct charge of and is responsible for the operation of one (1) or more Hydro Generation units, Diesel Generation units, and any related facilities. They will perform the duties of Hydro Operator at unattended hydro plants and substations, water collection and delivery systems or ditch and stream gauging. May be required to perform monthly runs and testing for emergency generation units and assist in maintenance. Will be required to observe and record station operation data on a continuous basis and maintain equipment in proper operating condition. Will be required to operate, inspect, and perform routine maintenance of all Water Production dams, head gates, flumes, penstocks, and other related facilities in order to insure proper river and canal flows at all times. Will be responsible for minor maintenance of all equipment in their care. Will keep facilities and grounds in a clean and orderly fashion. Will prepare switching orders and maintain operating diagrams. May be required to perform and direct electrical switching in accordance with established Company procedures. Must be familiar with Company dispatching and clearance rules, electrical and mechanical tagging and safety rules, and be qualified to render first aid. May be required to direct and train other operating employees in any or all of the above mentioned duties. May be upgraded to Hydro/Generation Foreman/woman.

8470 OPERATOR, WATER PLANT, GRADE II, TREATMENT ONLY

An employee who has completed an apprenticeship and/or equivalent level of training or appropriate certification and is responsible for the flow of water in the canals and reservoirs and operates pumps and valves to regulate the flow of water through a treatment plant or pumping plant, coordinating the rate of flow with demand, storage and other operating plants; reads and interprets meters, charts, and gauges, changing recording charts and inking pens as necessary; performs such recordkeeping functions as log of plant operations, test results, maintenance work performed, unusual operating conditions and special reports as required; takes samples of water at established times and makes such standardized control tests as chlorine residual, coagulation tests, pH, etc., as may be required; adjusts rate-of-feed of chemical dispensers accordingly, will conduct daily radiological monitoring tests; maintain plants and operating equipment in a clean and orderly condition, may perform maintenance cleaning of plant machinery, equipment, piping and structures; lubricates and makes limited repairs and adjustments to equipment commonly found in a water pumping or treatment plant, shuts down areas of the plant system for repairs; observes and reports unusual operating conditions or the need for maintenance of equipment, building and grounds; makes prescribed and special reports, receives supplies delivered during their shift and insures that they are properly stored. Must maintain a State of Nevada Grade II Water Treatment Operator's Certification or equivalent. The Employee shall be reclassified to Grade II, Treatment & Distribution Operator, Water Plant, upon completion of Grade II Water Treatment and Water Distribution Certifications.

55080 OPERATOR, WATER PLANT, GRADE II, TREATMENT & DISTRIBUTION

An employee who has completed an apprenticeship and/or equivalent level of training or appropriate certification and is responsible for the production of safe and clean drinking water in compliance with all Federal, State, and Local regulations and restrictions, under general supervision of the Working Foreman/woman. Will also be responsible for the operation of pumps and valves to regulate the flow of water through canals and treatment plants and will coordinate the rate of flow with demand, storage and other operating needs; operates the overall distribution system through the companies SCADA system, and using the SCADA system to start, stop, and take out of service for work, whatever part of the distribution system is required for the efficient delivery of water to customers; will take appropriate action to help resolve customer complaints when necessary; performs such record keeping functions as log of plant operations, test results, maintenance work performed, unusual operating conditions and special reports as required; takes samples of water at Regular intervals and makes such control tests required to ensure the efficient production of a safe product for public consumption; performs tests and adjusts chemical feed equipment to ensure optimal performance of treatment plant process; will make limited repairs and adjustments, for which training has been provided; receives supplies delivered during their/her shift and ensures that they are properly stored. Must maintain State of Nevada Grade II Water Treatment and Water Distribution certifications or equivalent. The Employee shall be reclassified to Operator III, Water Plant upon completion of Grade III Water Treatment and Water Distribution Certifications.

55090 OPERATOR, WATER PLANT, GRADE III, TREATMENT & DISTRIBUTION

An employee who has completed an apprenticeship and/or equivalent level of training or appropriate certification and is responsible for the production of safe and clean drinking water in Compliance with all Federal, State, and Local regulations and restrictions, under general supervision of the Working Foreman/woman. Will also be responsible for the operation of pumps and valves to regulate the flow of water through canals and treatment plants and will coordinate the rate of flow with demand, storage and other operating needs; operates the overall distribution system through the companies SCADA system, and using the SCADA system to start, stop, and take out of service for work, whatever part of the distribution system is required for the efficient delivery of water to customers; will take appropriate action to help resolve customer complaints when necessary; performs such record keeping functions as log of plant operations, test results, maintenance work performed, unusual operating conditions and special reports as required; takes samples of water at Regular intervals and makes such control tests required to ensure the efficient production of a safe product for public consumption; performs tests and adjusts chemical feed equipment to ensure optimal performance of treatment plant process; will make limited repairs and adjustments, for which training has been provided; receives supplies delivered during their/her shift and ensures that they are properly stored. Must maintain State of Nevada Grade III Water Treatment and Water Distribution certifications or equivalent. Required for upgrade to Working Foreman/woman.

53030 POWER GENERATOR TECH/HYDRO CERTIFIED TECH

An employee who has graduated and is certified by a diesel technical college or has certifications for diesel controls and diesel power train engine training. Additionally, two years' experience with maintenance, troubleshooting and repair of diesel generators required.

Must have a thorough understanding and be qualified to perform generator mechanical and electrical repair and diagnose both engine and electrical component/attachment problems as well as troubleshoot, diagnose and repair various diesel engines, governor controls, electronic control functions and knowledge of their standard operation and maintenance. Ability to troubleshoot, diagnose as well as perform emergency repair of analog and digital controls. Must have the ability to read and understand wiring diagrams and schematics. Must be able to perform planned and corrective maintenance of diesel fueled generator sites. Ability to follow proper procedures for performing load bank testing on generator sets. Must have knowledge of automatic transfer switches and control logic. Responsibilities for diesel generator units are limited to diesel controls and responsibility terminates at all leads or wires leaving the unit. Required to learn hydro mechanical and emergency operation procedures. Must be thoroughly familiar with Company's electrical and mechanical tagging and safety rules. The ability to work independently with minimum daily supervision and must be able to work overtime as needed. Must maintain a current valid driver's license.

52000 REPRESENTATIVE, ACCOUNTS PAYABLE (AP)

Their position performs a variety of skilled and unskilled tasks dealing with the orderly flow of work within the Accounts Payable area. The incumbent will be responsible for a) reviewing, analyzing and verifying consistency, completeness and accuracy of items to be entered into the accounts payable system (including validation with purchase orders and understanding of the accounts payable relationship with the purchasing function), b) researching and resolving errors or discrepancies in invoices, c) timely processing of invoices, expense reports and credit card transactions for payment in the applicable accounts payable computer system, d) maintaining subsidiary ledgers, e) processing weekly accounts payable check runs, preparing check register reports and issuing checks with the applicable bank, and f) deciphering vendor W-9 information and maintaining 1099 records.

The incumbent may work alone and make independent decisions as necessary on such duties for which the employee has been trained and instructed, including accounting and data entry functions and is required to be effective when working with and responding to customer and vendor requests and inquiries. Performs other assignments that may be clerical in nature and provides instruction/interpretation of accounts payable policies to both internal and external customers.

Their position requires incumbents to have five (5) years' experience handling accounts payable transactions, accounts receivable transactions, cash transactions, or general bookkeeping entries in a financial software program. Experience in the Customer Service Representative (9776) and Senior

Customer Service Representative (9735) job classifications will count towards the five years' experience required for their position.

The position may be required by Company to pass written and/or proficiency tests covering any of the following qualifications:

1. Typing with acceptable speed and accuracy (40 wpm)
2. Aptitude for basic arithmetical calculations (general math test as administered by third party)
3. Aptitude for routine accounts payable operations including 1099 and W-9 procedures (accounts payable test as administered by third party)
4. Ability to operate various office machines and personal computer
5. Microsoft Office computer application proficiency

52010 REPRESENTATIVE, CUSTOMER SERVICES

An employee not required to have prior customer services experience, but able to receive training in order to perform the duties of Customer Services Representative (CSR). Upon satisfactory completion of the minimum training requirements of the Customer Information System, and while receiving on-the-job training, may be assigned to any of the duties performed by the CSR's. Required to be effective when working with the public and responding to customer requests and inquiries, as well as have other qualifications and qualities generally accepted as being desirable in a customer services classification. Works alone on duties for which employee has been trained and instructed and makes independent decisions as necessary to satisfy customer needs and provide quality customer service. Will automatically progress through the wage rate scale provided the employee's performance is satisfactory to qualify for advancement. Must be able to perform mathematical calculations, type at an acceptable speed and accuracy, and be able to operate various office machines and personal computers with some proficiency. May be required by Company to pass written and/or proficiency tests covering any of the following qualifications:

1. Typing with acceptable speed and accuracy (45 w.p.m.)
2. Microsoft Office computer applications proficiency.
3. Aptitude for arithmetical calculations.
4. Ability to operate various office machines and personal computers.
5. Spanish speaking skills.

52020 REPRESENTATIVE, CUSTOMER SERVICES, SENIOR

An employee who has demonstrated to the satisfaction of the Company, through a minimum of three (3) years' experience as a Customer Services Representative (CSR), that he/she is qualified to perform, with a minimal amount of supervision, all functions relating to CSR's. Required to be effective when working with the public and responding to customer requests and inquiries, as well as having other qualifications and qualities generally accepted as being desirable in customer services classifications. Required to make independent decisions as necessary to satisfy customer needs and provide on-the-job training.

54000 SERVICE UTILITY WORKER

An employee who is required to work alone in the field and is engaged in routine duties revolving around TMWA's Customer Service billing and credit-collections needs, such as meter reading, move-in/move-outs and credit cut-in/cut-outs. The employee must be able to operate TMWA's meter reading equipment, both hand-held and truck mounted, and must be able to resolve and repair meter reading issues and equipment. These repairs may include the RTR, ERT or other signaling device, but will not include repairs to the meter. Employee will assist in other areas of customer service as required including responding to internal and external customer requests. An employee who has at least one (1) years' experience as an apprentice fitter or equivalent experience shall be given an experience rating to the one (1) year wage step. Will be required to have and maintain a driver's license.

Not included in the Service Utility Worker job description are the following:

- Cut-in/cut out for repairs
- Emergency water leaks
- Water meter replacement

- After hours service calls
- Back Flow Testing
- Water meter sets
- Pressure complaints

54060 WATER SERVICE TECHNICIAN

An employee who is a Fitter or equivalent. Their background of apprentice training and experience must be such as to qualify them to perform these duties with skill and efficiency. Must be able to learn the application of pipe locator equipment, determine leak locations in regard to Company or customer side of curb cock and investigate water customer complaints. Will be required to set and remove water meters and remote readers. Will be required to check for and investigate tampered or damaged water meters, remote readers, and remote cables as well as repair or replace remote cables. May be required to assist in the field with the testing of water meters. May be required to change recording instrument charts at various locations. Will be required to make water cutouts and water cut-ins. Servicemen will test, adjust and repair all classes (sizes) of water meters. Must be familiar with water fittings and system pressures. Must maintain a State of Nevada Grade II Water Distribution certification and must maintain a Backflow Prevention Assembly General Tester certification. Successful bidder will have 90 days to obtain a Backflow Prevention Assembly General Tester certification.

55040 SPECIALIST, EQUIPMENT, WATER TREATMENT

An employee who is responsible for the operation and routine maintenance of water treatment equipment, machinery and instrumentation including flow meters. Will be required to conduct water treatment tests including determination of coagulant and purification dosage. Must be able to modify existing water treatment systems when needed and be capable of recognizing the need for making these changes and make recommendations. Will be required to make preliminary analysis of usage and costs of chemical and chemical equipment. Must be able to make estimates for plant operations improvements and changes. Will be required to keep accurate records of plant operations and maintenance, chemical usage, purchases and other special reports as required. Will be responsible for maintaining proper stock of water treatment chemicals for all plants. Must maintain a Grade II Distribution, Grade III Water Treatment and Backflow Specialist Certifications. Will be required to attain Backflow Certifications within one year of award. Must maintain state of Nevada Grade II Distribution and Grade III Water Treatment certifications. Within one year of award, will be required to attain and maintain a Backflow Assembly Tester Certification, and OSHA 40 Hour HAZWOPER certification (Hazardous Waste Operations and Emergency Response). Within six months of award, will be required to attain and maintain a Nevada CDL Class B with a HME (Hazardous Materials Endorsement).

55000 SPECIALIST, WATER SUPPLY

An employee who, with minimum supervision, is responsible for the inspection, minor maintenance of any and all water supply and distribution facilities owned and/or operated by TMWA. Must be able to observe and recognize normal and abnormal operating characteristics of pumps, motors, regulators, and similar equipment and see that correct operating pressures are being maintained on water systems. Will be required to reset tripped motor starters, variable frequency drives, etc. Will be required to keep pump stations, well facilities, pressure regulating stations, and other facilities clean and orderly. Must be able to work in vaults and other small underground facilities and comply with all safety requirements. Must be able to take water samples and perform simple water quality tests on both raw water and finished water. Will be required to change charts, clean and fill inking pens, lubricate pumps, and perform work of similar nature. Must be able to complete daily log of sites visited and report irregularities that need correction to supervisor. Must have knowledge of basic personal computer programs (Word, email, CMMS) and the ability to use a PC on a daily basis. May be required to assist other Operations and Maintenance staff if needed. Must maintain a State of Nevada Grade II Water Distribution certification within 12 months of entering the position. May be required to pass a written and/or performance test that will demonstrate competency of the qualifications listed above. Must maintain a valid driver's license.

53020 TECHNICIAN, PLANT, ELECTRICAL

An employee who is a Journeyman and is engaged in testing, repairing, maintaining and installing all types of electric and electronic equipment and related components in generating stations, water production and related facilities. May be required to do plant and plant substation switching. May be required to do incidental welding, such as tack hangers and test welding machines after repair, etc. Their background of apprenticeship and experience must be such as to qualify them to perform these duties with skill and efficiency. They may also be required to instruct or advise operating personnel on problems pertaining to electrical equipment. They must be thoroughly familiar with Company's electrical and mechanical tagging and safety rules. Employee shall maintain a current driver's license and qualified to render first aid.

55130 TECHNICIAN, SCADA

An employee who has completed an apprenticeship in the electrical field and can demonstrate experience in the instrumentation area or who has completed an apprenticeship in the instrumentation field and can demonstrate experience in the electrical area. Must have experience and aptitude in all areas of computer logic; controls, interfacing and system integration. Equivalent training and experience may also be considered. Must be qualified to maintain, repair, install, and troubleshoot various water system instruments, electronic devices and motor control devices, including but not limited to calibration and/or repair of all primary sensors, chlorination equipment, meters, pressure switches, etc.; problem analysis and/or replacement/repair of telemetry communications circuits, circuit breakers, fuses, control wiring and other electrical motor control equipment; programming of logic for controllers and system software; troubleshooting remote terminal signals and computer integration systems. Must be able to understand relatively complex technical problems and perform a wide variety of non-routine tasks, where only general methods of procedure are available. May be required to do work planning and in a courteous and professional manner, train and direct the activities of other employees. Must have a good knowledge of electrical and mechanical tagging procedures, safety rules and the ability to render first aid. Must maintain a State of Nevada Grade II Water Distribution certification or equivalent.

ATTACHMENT II
EXHIBIT "B" (2)
(As Amended July 1, 2012)

DELETED JOB CLASSIFICATIONS

The following classifications shall be deleted and the incumbents shall be reclassified as indicated:

1. (Deleted 6/11/01)
2. (Deleted 6/11/01)
3. 6295 Foreman/woman, Shift, Working, Water Treatment becomes 6297 Foreman/woman, Shift, Water Treatment, Working
4. (Deleted 6/11/01)
5. 7683 Apprentice, Mechanic, Maintenance becomes Apprentice, Mechanic, Maintenance & Control, WP
6. 8150 Operator, Water Treatment becomes Specialist, Equipment, Water Treatment
7. 7626 Serviceman II, Water and Serviceman III, Water becomes Water Service Technician
8. 6280 Foreman/woman, Working, Heavy Water II and Foreman/woman, Working, Heavy Water III becomes Foreman/woman, Working, Heavy Water
9. 6395 Foreman/woman, Working, Light Water II and Foreman/woman, Working, Light Water III becomes Foreman/woman, Working, Light Water
10. 9240 Helper – Facilities & Grounds Maintenance becomes Facilities & Grounds Maintenance I & II (per LOA)(7/1/12)

The following classifications shall be deleted:

1. 7120 Technician, Well Production
2. 7140 Technician, Communications, G/W
3. 7355 Technician, Systems, Peaking/Hydro
4. 8778 Operator, Equipment, Assistant
5. 8840 Operator, Water Plant, Assistant
6. Wage Steps for Foreman/woman, Light Working Water and Foreman/woman, Light Working Water II
7. Wage Steps for Foreman/woman, Heavy Working Water and Foreman/woman, Heavy Working Water II
8. 8850 Operator, Hydro/Generation, Assistant (7/1/12)
9. 7692 Apprentice, Fitter/Welder (7/1/12)
- 6071 Foreman/woman, Maintenance, Hydro/Generation, Working

ATTACHMENT III

LETTERS OF UNDERSTANDING

1. (Deleted 6/11/01)
2. (Deleted 6/11/01)
3. (Deleted 6/11/01)
4. (Deleted 1/1/98)
5. (Deleted 1/1/98)
6. (Deleted 6/11/01)
7. (Deleted 6/11/01)
8. (Deleted 7/1/12)
9. (Deleted 1/1/95)
10. (Deleted 6/11/01)
11. (Deleted 6/11/01)
12. (Deleted 6/11/01)
13. (Deleted 6/11/01)
14. (Deleted 6/11/01)
15. EQUIPMENT OPERATOR PROGRESSION GUIDELINES (Amended 6/11/01)

The Equipment Operator I performance test will generally consist of the following: Monthly evaluations by the Working Foreman/woman or equivalent (a form entitled "Equipment Operator Evaluation" will be used for such evaluations). Additionally, the employee will be required to study and become knowledgeable of proper equipment safety and operating techniques as well as maintenance procedures for each piece of equipment they operate within the Equipment Operator I classification. This information is typically found in the equipment operator's manual and/or in other publications, which deal specifically with operating equipment.

Demonstration of Equipment Operator II skills and Journeyman skills, if applicable, will generally be determined through demonstrated proficiency, which will be evaluated and documented on the form entitled "Equipment Operator Evaluation". These evaluation forms are to be completed at least quarterly by the Working Foreman/woman or equivalent. The Equipment Operator II should have these skills evaluated by at least 75% of the Working Foreman/woman in a given department over the course of the progression, which will help ensure a representative yet thorough appraisal of the operator's skills is being achieved.

Demonstration of understanding and basic proficiency in the following Journeyman level skills will be required in order to progress to Equipment Operator III:

Water Department—Water facility installation techniques, facility locating, map and print reading, use of water tapping equipment, leak repair techniques.

16. The terms and conditions of that certain Letter of Agreement dated April 15, 2014 and Letter of Agreement dated June 10, 2014 (attached hereto) are incorporated as if fully set forth herein.

ATTACHMENT IV
EXHIBIT "C" (1)
(As Amended July 1, 2012)

LINES OF PROGRESSION FOR BIDDING AND DEMOTIONAL
PURPOSES BY OCCUPATIONAL GROUPS

DEFINITION OF OCCUPATIONAL GROUPS

Occupational Groups shall be defined as those separate divisions of the applicable Company "Departments" shown above. In those "Departments" where there is no such division, the entire "Department" shall be considered as an Occupational Group.

"A" Bid - Same classification or higher than job posted using occupational seniority. (Amended 1/1/95)

"B" Bid - Next lower classifications in-occupational group seniority. Classifications shown on chart above at the reverse end of arrows shall be considered next lower to those to which the arrow points. (Amended 1/1/95)

"C" Bid - Same classification in any other occupational group using Company seniority.

"D" - Any classification in same occupational group as job being posted using occupational seniority.

"E" - Any classification in any occupational group using Company seniority.

For Lines of Progression (see Lines of Progression Diagram)
BIDDING NOTES

1. (Deleted 1/1/95)
2. (Deleted 1/1/98)
3. (Deleted 1/1/95)
4. (Deleted 6/11/01)
- 4a. (Deleted 6/11/01)
5. (Deleted 1/1/95)
6. (Deleted 1/1/95)
7. (Deleted 1/1/95)
8. (Deleted 6/11/01)
9. Classifications labeled (9) shall be considered as "B" bids to Light and Heavy Working Foreman/woman. Fitters and Fitter-Welders will be considered "A" bids to Inspector. A Journeyman Fitter may carry this note to any position within the Maintenance Occupational Group. If employee bids to another Occupational Group the Bid Note #9 shall no longer be utilized. (Amended 2/2/04) (Amended 7/1/09)
10. (Deleted 6/11/01)
11. (Deleted 6/11/01)
12. (Deleted 6/11/01)
13. (Deleted 5/1/81)

14. (Deleted 5/1/68)
15. (Deleted 5/1/68)
16. (Deleted 07/01/2017)
17. (Deleted 1/1/95)
18. (Deleted 5/1/71)
19. (Deleted 5/1/71)
20. (Deleted 5/1/74)
21. (Deleted 6/11/01)
22. (Deleted 1/1/95)
23. (Deleted 6/11/01)
24. (Deleted 6/11/01)
25. (Deleted 1/1/95)
26. (Deleted 6/11/01)
27. (Deleted 1/1/95)
28. (Deleted 6/11/01)
29. (Deleted 6/11/01)
30. Clerical Bidding Notes (Moved from Attachment III - Letters of Understanding #1, effective 1/1/98)
 - A. Generally speaking, Clerical employees will be hired at the minimum of the range. In exceptional cases, experience elsewhere will be counted in determining the starting rate. In no case will experience elsewhere be given more weight in determining the starting rate than if it had been with the Company.
 - B. When a Clerical employee is in a wage progression and is promoted from one (1) job classification to another, their rate of pay shall be the starting rate for new classification or their present rate, whichever is higher. In the case of an employee who bids laterally to a job classification with the same wage progression, or an employee who bids downward to a job classification with a lower wage progression, their rate of pay shall be the starting rate for such classification, except that allowance shall be made by the Company for previous experience in the new classification. When a Clerical employee bids from one (1) Department, District or Sub-District to another in the same classification, their rate of pay shall remain the same.
 - C. (Deleted 5/1/91)
 - D. (Deleted 07/01/2018)
 - E. (Deleted 1/1/95)
31. The lines of progression for bidding in and out of the Equipment Specialist (8150) position shall be set forth in the figure titled Attachment IV, exhibit C - Lines of Progression. However, no Bargaining Unit employee will be able to bid to a position if he or she has not satisfactorily completed the approved apprenticeship program required for that position, or previously held that position. (Added 6/12/06)

"E" BIDDERS
51000 – Helper

ATTACHMENT V
"EXHIBIT D"

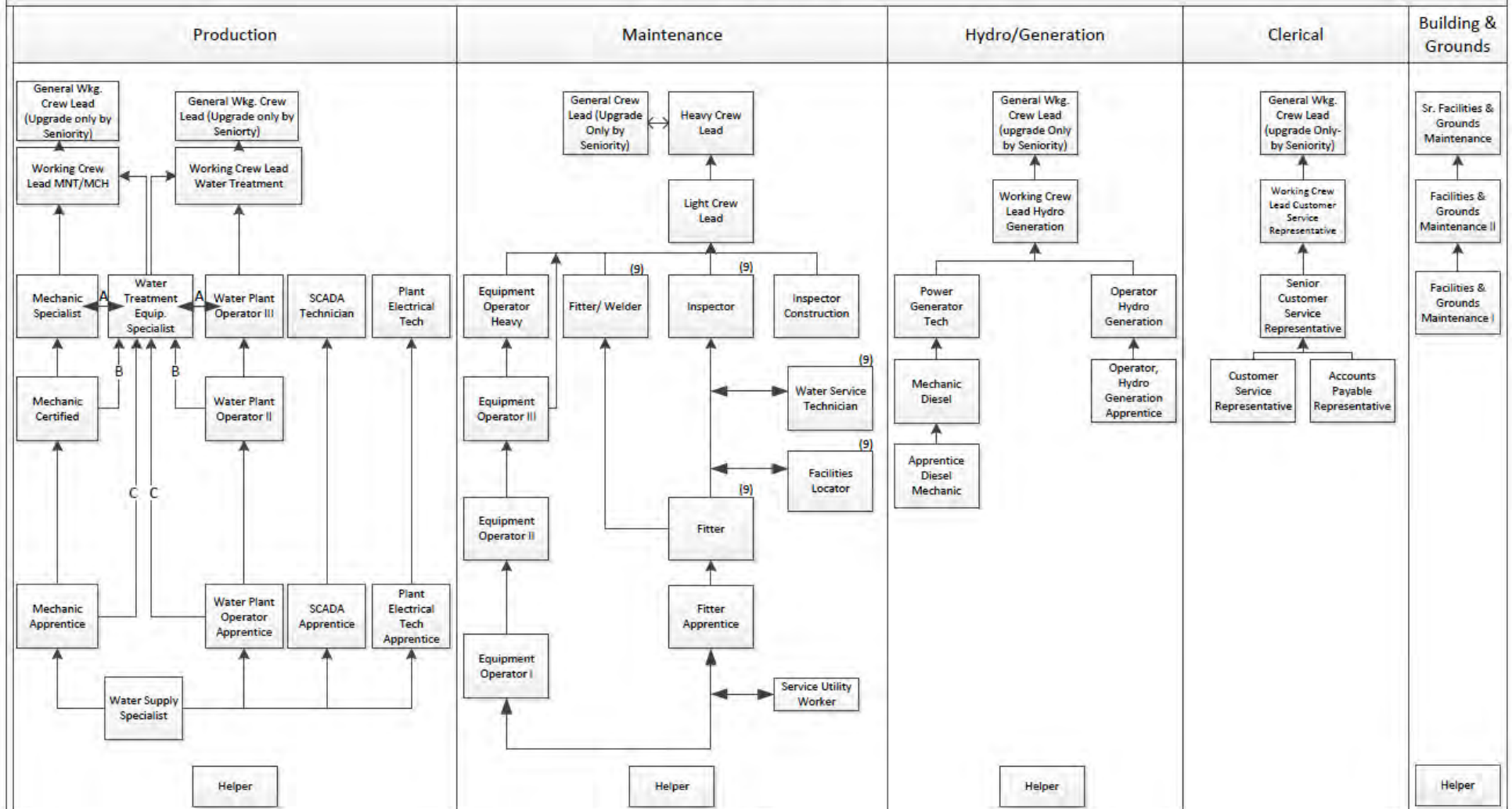
BARGAINING UNIT
MEDICAL/DENTAL/VISION OPTIONS COMPARISON

(Deleted 07/01/2018)

ATTACHMENT IV
EXHIBIT "C" (1) – Lines of Progression Diagram
(Amended 7/1/2012)

CHART APPEARS ON NEXT PAGE

TMWA Lines of Progression
(Amended 06/12/2017)



Entry

ATTACHMENT VI
OUT-OF-TOWN WORK ASSIGNMENT GUIDELINES
(Added January 1, 1995)

A. PURPOSE

Due to growth and operational changes, which have occurred in our service area over the last few years, it has become more common to send employees away from their permanent work location to work in other areas. In most cases these temporary assignments are beneficial to both the Company and its employees. As the number of out-of-town assignments increases, however, so does the potential for disruption of family life and personal inconvenience of our employees.

B. NOTIFICATION OF WORK ASSIGNMENT

As soon as a Supervisor learns that some of their employees will be needed on an out-of-town project or job they should make their employees aware of the following factors:

1. Number of employees required in each classification from their work location for the job or project.
2. Scope of work of the job or project (build new line, general maintenance, plant overhaul, etc.).
3. Starting date and expected duration.
4. Job location and reporting place.
5. Expected working hours (overtime, if expected).
6. Any other information available and of interest to employees, e.g., is there a special project agreement with the Union for the job?

Keep in mind that employees appreciate being kept informed and effective, timely communications improve morale. THE SUPERVISOR SHOULD GIVE EMPLOYEES ASSIGNED OUT-OT-TOWN WORK AS MUCH ADVANCE NOTICE AS POSSIBLE.

C. MANNING OUT-OF-TOWN WORK ASSIGNMENTS

1. VOLUNTARY:

If possible, the Supervisor should attempt to use volunteers in each job classification, with the skill level required.

If there are more volunteers than are required for the job assignment then employees should be selected on the basis of 1) qualifications, 2) accumulated overtime, 3) accumulated number of nights out-of-town, 4) Occupational Group Seniority from top to bottom, 5) operational needs. Unless otherwise agreed to, volunteers will be expected to work through the entire project from start to finish. Supervisors should discuss this issue with employees at the earliest possible date.

2. NON-VOLUNTARY:

If volunteers are not available to fill the manpower requirements of a project, assignments will be made on a non-voluntary basis. Employees will be selected on the basis of 1) qualifications, 2) accumulated overtime, 3) accumulated number of nights out-of-town, 4) Occupational Group Seniority from bottom to top, 5) operational needs.

On the next mandatory job assignment, the next employees on the Out-Of-Town Assignment List should be selected. By assigning employees in this order, all employees will share equally in performance of out-of-town assignments.

If an employee volunteers for an out-of-town assignment, they should be considered as doing so on their own accord, and will still be required to take their turn at non-voluntary assignments based on Section C (2)(a).

If an employee is unable to work their out-of-town assignment when selected due to illness, personal hardship, or any other reason of a temporary nature, they shall be replaced on the list as the first to go when their problems are resolved.

Any new employee reporting to a work location will be placed on the Headquarters' Out-Of-Town Assignment List and will be assigned out-of-town work when their turn arrives based on Section C (2)(a).

Employees should be kept informed where they stand on the Out-Of-Town Assignment List, as this will give them additional time to plan in advance for out-of-town assignments.

D. PERSONAL HARDSHIP

1. When an employee feels that an out-of-town assignment will create a personal hardship they should explain all the facts to their Supervisor. The Supervisor should listen to the employee, evaluate the situation and make a decision whether to send the employee on a non-voluntary basis or not. These decisions will have to be made on a case-by-case basis, relying on the information supplied by the employee as well as other facts, which may be known to the Supervisor.
2. If a non-voluntary job assignment lasts more than eight (8) weeks the Supervisor should consider rotating personnel to complete that job assignment. (If for example, the Supervisor knows that an out-of-town work assignment will last for ten (10) weeks, they might consider sending two (2) different groups for five (5) weeks each.)

E. OTHER CONSIDERATIONS

1. Continuity - Is it better to have the same group of employee's do the full job rather than changing in the middle of the project?
2. Project Length - Eight (8) weeks is not necessarily the ideal maximum assignment for some projects. Some might be shorter, depending on the travel required, working conditions, equalization of overtime, etc.
3. Job Location - If the assigned job locations are so far away that employees cannot return home on weekends, consideration should be given to making shorter assignments and rotating employees.
4. Productivity - Employees away from home on an involuntary basis for long periods of time may become less productive. Harmony and efficiency in the operation should be considered by Supervisors.
5. Skills Required - Certain employees with special skills may be required at certain projects for the duration of the project, or they may be required to remain at their home location regardless, of the provisions of these guidelines. This will depend on job requirements.
6. Reporting Place - When board and lodging are provided by the Company, the reporting place will be the Company designated lodging of the local headquarters.

ATTACHMENT VII
JOB SITE REPORTING
(Amended 6/11/01)

The Company and Local Union 1245 of the International Brotherhood of Electrical Workers hereby mutually agree to the following:

A. DEFINITION - TEMPORARY ASSEMBLY SITES

Employees who are assigned to work away from their regular assigned reporting place will be required to report to work at the established starting time and the established temporary assembly site designated by the Company. (Temporary assembly site is defined as a temporary work location, not regularly established as a Company reporting place or headquarters.) It is understood that the temporary assembly site designated by the Company may change from time to time due to changes in the Company's operational requirements. When necessary, the Company shall provide water and sanitation facilities for the employee's use at the temporary assembly site. Temporary assembly sites shall be within twenty (20) road miles, one way, of the employee's regular reporting headquarters and accessed by a regularly maintained, paved, all-weather road. Access by other roads must be mutually agreed upon by the Company and the Union. When a change of temporary assembly site occurs, the Union will be notified as far in advance as practicable.

B. CONDITIONS FOR IMPLEMENTING

1. The Company shall not reduce the work force as a result of job site reporting.
2. An employee's regular reporting headquarters shall not be changed for the purpose of job site reporting
3. Each employee shall receive an expense allowance for each day the employee physically reports to the temporary assembly site. The expense allowance will be \$17.50 per day when the job site is within 20 road miles of the employee's regular reporting headquarters.
4. The guidelines contained in Section C (Staffing Temporary Assembly Sites) of this agreement shall be followed to provide personnel for projects or jobs using a temporary assembly site.
5. The Company shall provide a secure area for Company vehicles and employee's personal vehicles.
6. All other provisions and terms of the agreement between the Company and Local Union No. 1245 shall apply as if employees were reporting to their regular headquarters.
7. During the term of the Agreement EITHER PARTY on a department or location basis may cancel this proposal as related to that work area with thirty (30) days written notice after Company and Union have met and attempted to resolve problems associated with job site reporting.

C. STAFFING TEMPORARY ASSEMBLY SITES

1. A sign-up sheet will be posted in the regular reporting headquarters no less than five (5) workdays prior to the establishment of a temporary assembly site. The sign-up sheet shall include a description of the project, location of the temporary assembly site, classifications required, an estimate of the duration of the assignment, and any other relevant information.
2. Job site reporting assignments shall be staffed on a voluntary basis unless there are an insufficient number of volunteers then the assignment will be staffed using reverse seniority. Volunteers shall be selected in order from the Group Seniority List by required classification. A system of totaling and equalizing remote reporting assignments shall be established and reduced in writing in each department in a headquarters.
3. Unless otherwise agreed to, employees will be expected to work through the entire project from start to finish. If a personal hardship arises, consideration will be given to the employee

and the next qualified employee on the Group Seniority List will be given the opportunity to be the replacement.

4. The assigned foreman/woman, along with the supervisor and others involved in the project, will participate in planning and scheduling for the project.
5. Transportation will be provided as necessary for personnel and their tools to and from the temporary assembly site on the first and last days of the project.
6. Safe storage for employee's tools will be provided.
7. Employee's paychecks, messages, Company mail, notifications of CDL drug tests, etc., will be made available in a timely manner.

ATTACHMENT VIII
EMERGENCY RESPONSE PROGRAM
(Amended 4/5/05) (Amended 7/1/09)

Consistent with the provisions and obligations of Section 2.1, Title 2 of the Collective Bargaining Agreement between the Company and Local Union No. 1245 of the International Brotherhood of Electrical Workers, the parties hereby agree to the following:

The Company and Union recognize there may arise situations in various departments of the Company where availability of some key classifications becomes imperative in the rendering of service to the customer and for the safe, effective operation of facilities. To assure availability of these key people, the Company and Union mutually agree to the following conditions that will apply to both parties for Positive Emergency Response.

The hours of emergency response availability will be divided as equally as is practicable over the course of the payroll year, among those employees qualified and available within a classification and headquarters. Emergency response hours for individuals in each headquarters shall be posted separately every 30 days. Employees new to a classification or department shall be averaged into that Department's year to date emergency response hours list.

A. Conditions Applicable to Company

1. The Company will provide an appropriate radio-equipped vehicle for the employees who are responding from home directly to the jobsite. (Amended 4/5/05)
2. The Company will provide a pager or hand-held radio/telephone to improve the employee's mobility and communication.
3. Normal work hours will prevail during employee's regular workdays.
4. Availability schedule will apply from the end of employee's shift on Friday until the beginning of employee's shift on Monday, during holidays and such other times when adequate emergency coverage is not available (Amended 1/1/98)
5. The Company shall provide an option for either (1) availability premium to employee of:
 \$4.70/hour, effective 1/5/09
 Note: The availability premium will be adjusted each January 1, beginning January 1, 1996. The adjustment will be made by a percentage equal to the general wage increase. (Added 1/1/95)

For every hour employee is available for duty exclusive of employee's normal pay for regular scheduled hours worked. (Amended 1/1/95) or (2) "day in lieu of" at the following rates:

All hours will be factored at the .259/hour accrual rate. (Amended 7/1/09)

6. The Company shall compensate the employee at the applicable overtime rate as provided in Title 10 of the Agreement for any hours worked outside normally scheduled hours during the availability period plus the availability premium for all hours available.
7. The maximum limit of in lieu accrual hours on pager duty is 160 hours, after which, only premium pay will be available. (Added 1/1/98)

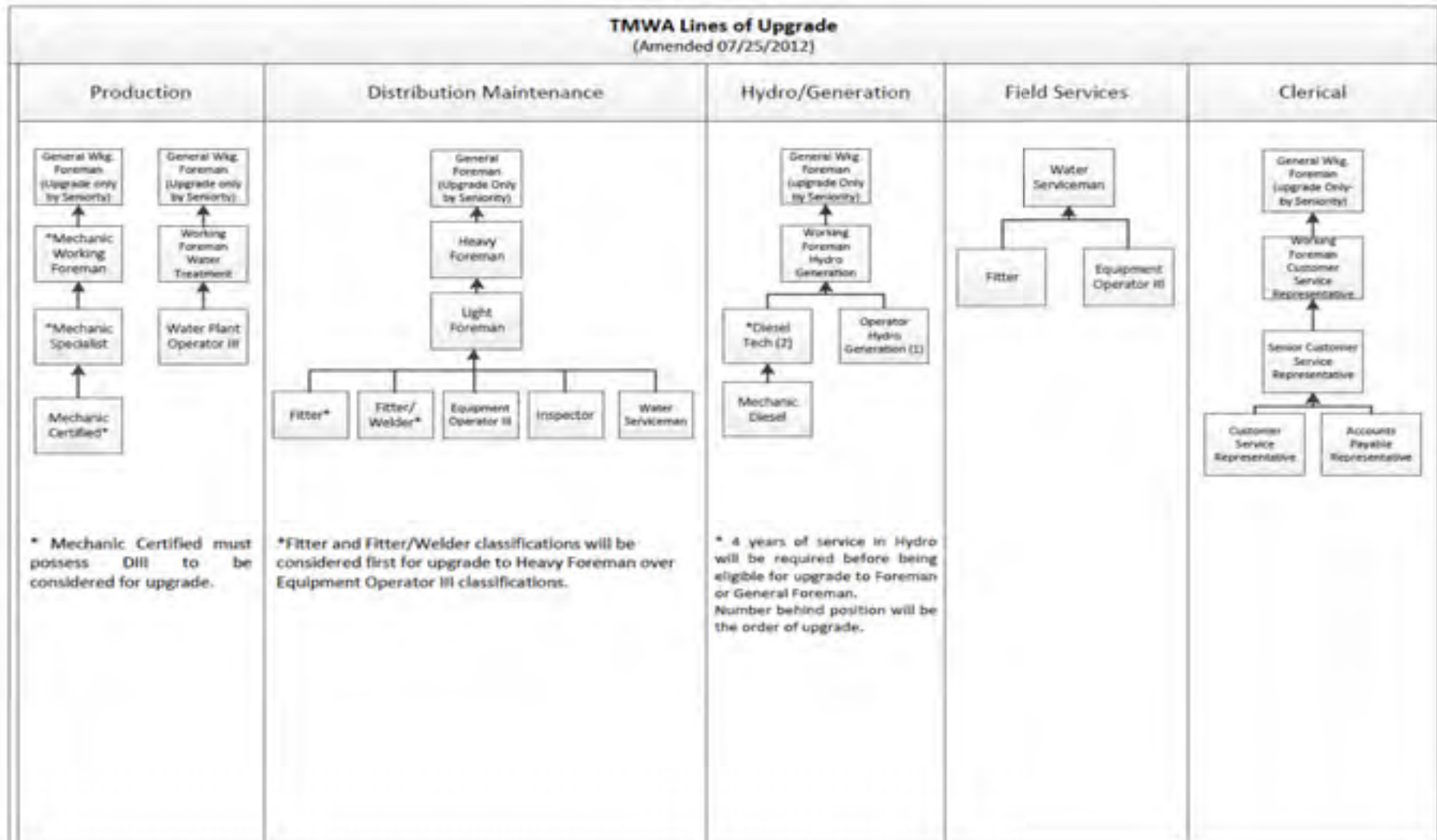
B. Conditions Applicable to Employee

1. Employee must be available to receive communication to qualify for emergency availability scheduled.
2. Employee must be in physical condition to perform assigned duties when emergency situations arise.

3. The employee must respond to a page within ten (10) minutes of the notification and report within a reasonable time thereafter.
 4. Substitutions of coverage may be arranged only with the approval of the Supervisor in charge, and the substitute employee must be qualified to perform the assigned duties.
 5. The employee on emergency response will have first opportunity to fill the emergency response call-out. If a substitute employee is required, accumulated overtime will prevail. (Amended 4/5/05)
- C. (Deleted 1/1/95)
- D. If, in the event there is no duty employee, a departmental procedure to administer the Emergency Response Program must be established in writing and agreed to by the Company and Union. (Added 1/1/98)

ATTACHMENT XI
TMWA LINES OF UPGRADE
(Amended 7/1/2012)

Chart Appears on Next Page





June 3, 2019

Mike Venturino
IBEW Local #1245
30 Orange Tree Circle
Vacaville, CA 95687

Mike,

In accordance with Title 22.1(c) of the current Collective Bargaining Agreement (CBA) between Truckee Meadows Water Authority ("TMWA"), and the International Brotherhood of Electrical Workers, Local 1245 ("IBEW"), TMWA through this written correspondence hereby notifies the union that effective July 22, 2019, the Wage Schedule under Attachment I Exhibit "A" (1) will be amended to reflect Nevada Public Employees' Retirement System (PERS) Contribution Rate Increase beginning July 2019.

Attached to this notification, you will find a memorandum from PERS describing the contribution increase and providing guidelines for implementing changes as a result thereof. In addition, I have attached a copy of the amended Wage Schedule.

Title 22.1(c) Retirement

Effective July 1, 2017, Nevada PERS rate increases or decreases shall be split equally between the Company and the employee. The Wage Schedule and wage of each employee shall be automatically decreased by one-half of any PERS increase and increased by one-half of any PERS rate decrease.

In accordance with Title 22.1(c), this written notification along with the attached memorandum from PERS and copy of the updated Wage Schedule is intended to serve as notification of changes to the Wage Schedule and Wages of individuals covered under the CBA. Please note: All PERS rate changes are effective with the first monthly retirement reporting period beginning on or after July 1st. For TMWA, this means the change will be effective on July 22, 2019, and will be reflected on check dated August 9, 2019.

Please do not hesitate to let me know if you have any questions or need anything further regarding this matter.

Regards,



Jessica Atkinson
Human Resources Manager

ATTACHMENT 1
EXHIBIT "A" (1)

WAGE SCHEDULE (Amended 06/03/2019 due to July 2019 PERS Contribution Change)										
Job Class No.	Job Title/Classification	Wage Step	Wages as of 6/25/17	Wages as of 2/19/18 Plus 3.00%	Wages as of 6/25/18 Plus 3.00%	6/25/18 Inequity Adj. % by Position	Wages as of 6/25/18	Wages as of 6/24/19* Plus 3.00%	Wages as of 07/22/2019 PERS Increase* 0.625%	Wages as of 6/22/20 Plus 3.00%
54040	Apprentice, Fitter	Start	\$27.88	\$28.72	\$29.58		\$29.58	\$30.47	\$30.2800	\$31.19
		6 Months	\$28.81	\$29.67	\$30.56		\$30.56	\$31.48	\$31.2800	\$32.22
		1 Year	\$30.11	\$31.01	\$31.94		\$31.94	\$32.90	\$32.6900	\$33.67
		18 Months	\$30.98	\$31.91	\$32.87		\$32.87	\$33.86	\$33.6500	\$34.66
53045	Apprentice, Mechanic, Hydro/Generation	Start	\$29.93	\$30.83	\$31.75		\$31.75	\$32.70	\$32.5000	\$33.48
		6 Months	\$30.66	\$31.58	\$32.53		\$32.53	\$33.51	\$33.3000	\$34.30
		1 Year	\$32.16	\$33.12	\$34.12		\$34.12	\$35.14	\$34.9200	\$35.97
		18 Months	\$32.91	\$33.90	\$34.91		\$34.91	\$35.96	\$35.7400	\$36.81
		2 Years	\$34.41	\$35.44	\$36.51		\$36.51	\$37.61	\$37.3700	\$38.49
30 Months	\$35.91	\$36.99	\$38.10		\$38.10	\$39.24	\$38.9900	\$40.16		
55010	Apprentice, Mechanic Maintenance/Control-WP	Start	\$29.93	\$30.83	\$31.75	4.00%	\$33.02	\$34.01	\$33.8000	\$34.81
		6 Months	\$30.66	\$31.58	\$32.53	4.00%	\$33.83	\$34.84	\$34.6200	\$35.66
		1 Year	\$32.16	\$33.12	\$34.12	4.00%	\$35.48	\$36.54	\$36.3100	\$37.40
		18 Months	\$32.91	\$33.90	\$34.91	4.00%	\$36.31	\$37.40	\$37.1700	\$38.29
		2 Years	\$34.41	\$35.44	\$36.51	4.00%	\$37.97	\$39.11	\$38.8700	\$40.04
30 Months	\$35.91	\$36.99	\$38.10	4.00%	\$39.62	\$40.81	\$40.5500	\$41.77		
53000	Apprentice, Operator, Hydro/Generation	Start	\$31.04	\$31.97	\$32.93		\$32.93	\$33.92	\$33.7100	\$34.72
		6 Months	\$32.18	\$33.15	\$34.14		\$34.14	\$35.16	\$34.9400	\$35.99
		1 Year	\$33.67	\$34.68	\$35.72		\$35.72	\$36.79	\$36.5600	\$37.66
		18 Months	\$34.42	\$35.45	\$36.52		\$36.52	\$37.62	\$37.3800	\$38.50
55070	Apprentice, Operator, Water Plant	Start	\$30.66	\$31.58	\$32.53	6.00%	\$34.48	\$35.51	\$35.2900	\$36.35
		6 Months	\$32.16	\$33.12	\$34.12	6.00%	\$36.17	\$37.26	\$37.0300	\$38.14
		1 Year	\$32.91	\$33.90	\$34.91	6.00%	\$37.01	\$38.12	\$37.8800	\$39.02
		18 Months	\$34.41	\$35.44	\$36.51	6.00%	\$38.70	\$39.86	\$39.6100	\$40.80

*PERS rate increases shall be split between TMWA and the employee. The wage schedule will be automatically decreased by one-half of any PERS increase and automatically increased by one-half of any PERS rate decrease.

ATTACHMENT 1
EXHIBIT "A" (1)

WAGE SCHEDULE (Amended 06/03/2019 due to July 2019 PERS Contribution Change)										
Job Class No.	Job Title/Classification	Wage Step	Wages as of 6/25/17	Wages as of 2/19/18 Plus 3.00%	Wages as of 6/25/18 Plus 3.00%	6/25/18 Inequity Adj. % by Position	Wages as of 6/25/18	Wages as of 6/24/19* Plus 3.00%	Wages as of 07/22/2019 PERS Increase* 0.625%	Wages as of 6/22/20 Plus 3.00%
55120	Apprentice, SCADA Technician	Start	\$32.38	\$33.35	\$34.35	5.00%	\$36.07	\$37.15	\$36.9200	\$38.03
		6 Months	\$33.21	\$34.21	\$35.23	5.00%	\$36.99	\$38.10	\$37.8600	\$39.00
		1 Year	\$34.01	\$35.03	\$36.08	5.00%	\$37.89	\$39.03	\$38.7900	\$39.95
		18 Months	\$34.83	\$35.87	\$36.95	5.00%	\$38.80	\$39.96	\$39.7100	\$40.90
		2 Years	\$35.62	\$36.69	\$37.79	5.00%	\$39.68	\$40.87	\$40.6100	\$41.83
		30 Months	\$36.45	\$37.54	\$38.67	5.00%	\$40.60	\$41.82	\$41.5600	\$42.81
		3 Years	\$37.26	\$38.38	\$39.53	5.00%	\$41.51	\$42.76	\$42.4900	\$43.76
53040	Apprentice, Technician, Electrical, Plant	Start	\$29.93	\$30.83	\$31.75	5.00%	\$33.34	\$34.34	\$34.1300	\$35.15
		6 Months	\$30.66	\$31.58	\$32.53	5.00%	\$34.15	\$35.17	\$34.9500	\$36.00
		1 Year	\$32.16	\$33.12	\$34.12	5.00%	\$35.82	\$36.89	\$36.6600	\$37.76
		18 Months	\$32.91	\$33.90	\$34.91	5.00%	\$36.66	\$37.76	\$37.5200	\$38.65
		2 Years	\$34.41	\$35.44	\$36.51	5.00%	\$38.33	\$39.48	\$39.2300	\$40.41
		30 Months	\$35.91	\$36.99	\$38.10	5.00%	\$40.00	\$41.20	\$40.9400	\$42.17
51015	Facilities & Grounds Maintenance I	Start	\$23.08	\$23.77	\$24.49		\$24.49	\$25.22	\$25.0600	\$25.81
		6 Months	\$24.90	\$25.65	\$26.42		\$26.42	\$27.21	\$27.0400	\$27.85
51020	Facilities & Grounds Maintenance II	Start	\$26.70	\$27.50	\$28.33		\$28.33	\$29.18	\$29.0000	\$29.87
		6 Months	\$29.00	\$29.87	\$30.77		\$30.77	\$31.69	\$31.4900	\$32.43
51025	Facilities & Grounds Maintenance - Senior	Start	\$33.11	\$34.10	\$35.13		\$35.13	\$36.18	\$35.9500	\$37.03
54010	Facilities Locator	Start	\$35.65	\$36.72	\$37.82		\$37.82	\$38.95	\$38.7100	\$39.87
54045	Fitter	Start	\$33.62	\$34.63	\$35.67		\$35.67	\$36.74	\$36.5100	\$37.61
54050	Fitter/Welder	Start	\$34.89	\$35.94	\$37.01		\$37.01	\$38.12	\$37.8800	\$39.02
		Step 2	\$35.98	\$37.06	\$38.17		\$38.17	\$39.32	\$39.0700	\$40.24
		Step 3	\$37.07	\$38.18	\$39.33		\$39.33	\$40.51	\$40.2600	\$41.47
		Step 4	\$38.16	\$39.30	\$40.48		\$40.48	\$41.69	\$41.4300	\$42.67
52030	Foreman/Forewoman, Customer Services Rep, Working	Start	\$32.75	\$33.73	\$34.74		\$34.74	\$35.78	\$35.5600	\$36.63
53080	Foreman/Forewoman, General Customer Services Rep, Working	Start	\$36.02	\$37.10	\$38.21		\$38.21	\$39.36	\$39.1100	\$40.28
6042	Foreman/Forewoman, General, Heavy, Water	Start	\$48.06	\$49.50	\$50.99		\$50.99	\$52.52	\$52.1900	\$53.76
52040	Foreman/Forewoman, General, Hydro/Generation, Working	Start	\$48.06	\$49.50	\$50.99		\$50.99	\$52.52	\$52.1900	\$53.76

*PERS rate increases shall be split between TMWA and the employee. The wage schedule will be automatically decreased by one-half of any PERS increase and automatically increased by one-half of any PERS rate decrease.

ATTACHMENT 1
EXHIBIT "A" (1)

WAGE SCHEDULE (Amended 06/03/2019 due to July 2019 PERS Contribution Change)										
Job Class No.	Job Title/Classification	Wage Step	Wages as of 6/25/17	Wages as of 2/19/18 Plus 3.00%	Wages as of 6/25/18 Plus 3.00%	6/25/18 Inequity Adj. % by Position	Wages as of 6/25/18	Wages as of 6/24/19* Plus 3.00%	Wages as of 07/22/2019 PERS Increase* 0.625%	Wages as of 6/22/20 Plus 3.00%
6043	Foreman/Forewoman, General, Light, Water	Start	\$45.97	\$47.35	\$48.77		\$48.77	\$50.23	\$49.9200	\$51.42
6016	Foreman/Forewoman, General, Mechanic, Hydro/Generation Working	Start	\$48.06	\$49.50	\$50.99		\$50.99	\$52.52	\$52.1900	\$53.76
55060	Foreman/Forewoman, General, Mechanic, Maintenance and Control, Working	Start	\$48.06	\$49.50	\$50.99	4.00%	\$53.03	\$54.62	\$54.2800	\$55.91
55110	Foreman/Forewoman, General, Shift, Water Treatment, Working	Start	\$48.06	\$49.50	\$50.99	6.00%	\$54.05	\$55.67	\$55.3200	\$56.98
53070	Foreman/Forewoman, Hydro/Generation, Working	Start	\$43.68	\$44.99	\$46.34		\$46.34	\$47.73	\$47.4300	\$48.85
54080	Foreman/Forewoman, Light, Working, Water	Start	\$41.77	\$43.02	\$44.31		\$44.31	\$45.64	\$45.3500	\$46.71
55050	Foreman/Forewoman, Mechanic Maintenance/Control-WP	Start	\$43.68	\$44.99	\$46.34		\$46.34	\$47.73	\$47.4300	\$48.85
55100	Foreman/Forewoman, Shift, Water Treatment, Working	Start	\$43.68	\$44.99	\$46.34	6.00%	\$49.12	\$50.59	\$50.2700	\$51.78
54090	Foreman/Forewoman, Working, Heavy, Water	Start	\$43.68	\$44.99	\$46.34		\$46.34	\$47.73	\$47.4300	\$48.85
51000	Helper	Start	\$19.87	\$20.47	\$21.08		\$21.08	\$21.71	\$21.5700	\$22.22
		6 Months	\$21.44	\$22.08	\$22.75		\$22.75	\$23.43	\$23.2800	\$23.98
		1 Year	\$22.99	\$23.68	\$24.39		\$24.39	\$25.12	\$24.9600	\$25.71
		18 Months	\$24.97	\$25.72	\$26.49		\$26.49	\$27.28	\$27.1100	\$27.92
54070	Inspector	Start	\$40.07	\$41.27	\$42.51	5.00%	\$44.64	\$45.98	\$45.6900	\$47.06
54075	Inspector, Construction	Start	\$38.33	\$39.48	\$40.66	5.00%	\$42.70	\$43.98	\$43.7100	\$45.02
		1 Year	\$40.07	\$41.27	\$42.51	5.00%	\$44.64	\$45.98	\$45.6900	\$47.06
53050	Mechanic, Hydro/Generation	Start	\$39.71	\$40.90	\$42.13		\$42.13	\$43.39	\$43.1200	\$44.41
55020	Mechanic, Maintenance & Control, Certified, WP	Start	\$37.41	\$38.53	\$39.69		\$39.69	\$40.88	\$40.6200	\$41.84
		6 Months	\$38.56	\$39.72	\$40.91		\$40.91	\$42.14	\$41.8800	\$43.14
55030	Mechanic, Specialist, Maintenance/Control-WP	Start	\$39.71	\$40.90	\$42.13	4.00%	\$43.81	\$45.12	\$44.8400	\$46.19
54020	Operator, Equipment I	Start	\$29.29	\$30.17	\$31.07		\$31.07	\$32.00	\$31.8000	\$32.75
		6 Months	\$30.72	\$31.64	\$32.59		\$32.59	\$33.57	\$33.3600	\$34.36
54025	Operator, Equipment II	Start	\$31.08	\$32.01	\$32.97		\$32.97	\$33.96	\$33.7500	\$34.76
		1 Year	\$32.50	\$33.48	\$34.48		\$34.48	\$35.51	\$35.2900	\$36.35
54030	Operator, Equipment III	Start	\$33.62	\$34.63	\$35.67		\$35.67	\$36.74	\$36.5100	\$37.61

*PERS rate increases shall be split between TMWA and the employee. The wage schedule will be automatically decreased by one-half of any PERS increase and automatically increased by one-half of any PERS rate decrease.

ATTACHMENT 1
EXHIBIT "A" (1)

WAGE SCHEDULE (Amended 06/03/2019 due to July 2019 PERS Contribution Change)										
Job Class No.	Job Title/Classification	Wage Step	Wages as of 6/25/17	Wages as of 2/19/18 Plus 3.00%	Wages as of 6/25/18 Plus 3.00%	6/25/18 Inequity Adj. % by Position	Wages as of 6/25/18	Wages as of 6/24/19* Plus 3.00%	Wages as of 07/22/2019 PERS Increase* 0.625%	Wages as of 6/22/20 Plus 3.00%
54035	Operator, Equipment, Heavy	Start	\$34.72	\$35.76	\$36.83		\$36.83	\$37.93	\$37.6900	\$38.82
		1 Year	\$35.38	\$36.44	\$37.53		\$37.53	\$38.66	\$38.4200	\$39.57
53010	Operator, Hydro/Generation	Start	\$37.41	\$38.53	\$39.69		\$39.69	\$40.88	\$40.6200	\$41.84
8470	Operator, Water Plant, Grade II, Treatment Only	Start	\$36.22	\$37.31	\$38.43		\$38.43	\$39.58	\$39.3300	\$40.51
55080	Operator, Water Plant, Grade II, Treatment & Distribution	Start	\$37.41	\$38.53	\$39.69	6.00%	\$42.07	\$43.33	\$43.0600	\$44.35
55090	Operator, Water Plant, Grade III, Treatment & Distribution	Start	\$39.71	\$40.90	\$42.13	6.00%	\$44.66	\$46.00	\$45.7100	\$47.08
52000	Representative, Accounts Payable	Start	\$16.63	\$17.13	\$17.64		\$17.64	\$18.17	\$18.0600	\$18.60
		6 Months	\$17.81	\$18.34	\$18.89		\$18.89	\$19.46	\$19.3400	\$19.92
		1 Year	\$18.95	\$19.52	\$20.10		\$20.10	\$20.70	\$20.5700	\$21.19
		18 Months	\$20.08	\$20.68	\$21.30		\$21.30	\$21.94	\$21.8000	\$22.45
		2 Years	\$22.23	\$22.90	\$23.58		\$23.58	\$24.29	\$24.1400	\$24.86
		30 Months	\$24.38	\$25.11	\$25.86		\$25.86	\$26.64	\$26.4700	\$27.26
		3 Years	\$26.52	\$27.32	\$28.14		\$28.14	\$28.98	\$28.8000	\$29.66
52010	Representative, Customer Service	Start	\$16.63	\$17.13	\$17.64		\$17.64	\$18.17	\$18.0600	\$18.60
		6 Months	\$17.81	\$18.34	\$18.89		\$18.89	\$19.46	\$19.3400	\$19.92
		1 Year	\$18.95	\$19.52	\$20.10		\$20.10	\$20.70	\$20.5700	\$21.19
		18 Months	\$20.08	\$20.68	\$21.30		\$21.30	\$21.94	\$21.8000	\$22.45
		2 Years	\$22.23	\$22.90	\$23.58		\$23.58	\$24.29	\$24.1400	\$24.86
		30 Months	\$24.38	\$25.11	\$25.86		\$25.86	\$26.64	\$26.4700	\$27.26
		3 Years	\$26.52	\$27.32	\$28.14		\$28.14	\$28.98	\$28.8000	\$29.66
52020	Representative, Customer Service, Senior	Start	\$29.39	\$30.27	\$31.18		\$31.18	\$32.12	\$31.9200	\$32.88

*PERS rate increases shall be split between TMWA and the employee. The wage schedule will be automatically decreased by one-half of any PERS increase and automatically increased by one-half of any PERS rate decrease.

ATTACHMENT 1**EXHIBIT "A" (1)**

WAGE SCHEDULE (Amended 06/03/2019 due to July 2019 PERS Contribution Change)										
Job Class No.	Job Title/Classification	Wage Step	Wages as of 6/25/17	Wages as of 2/19/18 Plus 3.00%	Wages as of 6/25/18 Plus 3.00%	6/25/18 Inequity Adj. % by Position	Wages as of 6/25/18	Wages as of 6/24/19* Plus 3.00%	Wages as of 07/22/2019 PERS Increase* 0.625%	Wages as of 6/22/20 Plus 3.00%
54000	Service Utility Worker	Start	\$27.48	\$28.30	\$29.15		\$29.15	\$30.02	\$29.8300	\$30.72
		6 Months	\$28.27	\$29.12	\$29.99		\$29.99	\$30.89	\$30.7000	\$31.62
		1 Year	\$29.95	\$30.85	\$31.77		\$31.77	\$32.72	\$32.5200	\$33.50
54060	Technician, Water Service	Start	\$36.55	\$37.65	\$38.78		\$38.78	\$39.94	\$39.6900	\$40.88
55040	Specialist, Equipment, Water Treatment	Start	\$39.71	\$40.90	\$42.13		\$42.13	\$43.39	\$43.1200	\$44.41
55000	Specialist, Water Supply	Start	\$28.11	\$28.95	\$29.82		\$29.82	\$30.71	\$30.5200	\$31.44
		6 Months	\$29.61	\$30.50	\$31.41		\$31.41	\$32.35	\$32.1500	\$33.11
		1 Year	\$31.02	\$31.95	\$32.91		\$32.91	\$33.90	\$33.6900	\$34.70
53020	Technician, Plant Electrical	Start	\$40.50	\$41.72	\$42.97	5.00%	\$45.11	\$46.46	\$46.1700	\$47.56
53030	Technician, Power Generation	Start	\$40.50	\$41.72	\$42.97	5.00%	\$45.11	\$46.46	\$46.1700	\$47.56
55130	Technician, SCADA	Start	\$40.50	\$41.72	\$42.97	5.00%	\$45.11	\$46.46	\$46.1700	\$47.56
		6 Months	\$41.44	\$42.68	\$43.96	5.00%	\$46.16	\$47.54	\$47.2400	\$48.66
		1 Year	\$42.33	\$43.60	\$44.91	5.00%	\$47.15	\$48.56	\$48.2600	\$49.71

*PERS rate increases shall be split between TMWA and the employee. The wage schedule will be automatically decreased by one-half of any PERS increase and automatically increased by one-half of any PERS rate decrease.



STAFF REPORT

TO: Chairman and Board Members
THRU: Mark Foree, General Manager
FROM: John Zimmerman, Manager, Water Resources
DATE: April 12, 2021
SUBJECT: Discussion and possible action and direction to staff regarding 2021 legislative activities, current bills, and TMWA recommended positions on legislative proposals

SUMMARY

TMWA staff, lobbyist, and General Counsel continue to monitor and review all bills as they are released. At the Board meeting, TMWA staff, lobbyist, and General Counsel will provide an update regarding the Session and a summary of all significant bills and bills on which the Legislative Subcommittee recommends TMWA support or oppose. Attachment 1 lists all new bills reviewed by the Legislative Subcommittee since the last Board meeting. Attachment 2 lists all bills on which the TMWA Board has approved the Legislative Subcommittee recommendations.

Key 2021 Legislative Deadlines:

February 1	Session Begins
February 8	Legislators' Bill Draft Requests
March 15	Legislators' Bill Introductions
March 22	Committees' Bill Introductions
April 9	Committee Passage (1 st House)
April 20	First House Passage
May 14	Committee Passage (2 nd House)
May 21	Second House Passage
May 31	Session Ends

BILL	DESCRIPTION	SPONSOR(S)	STATUS	PAST MEETINGS	PAST ACTION	FUTURE MEETINGS	LEG. SUBCOMMITTEE RECOMMENDATIONS
ASSEMBLY BILLS							
AB222	Revises provisions governing employment practices. (BDR 53-739)	Torres	Commerce and Labor	Assembly Committee on Commerce and Labor 4/9/2021 Upon Call of Chair	Amend, and do pass as amended		MONITOR
AB227	Revises provisions relating to contractors. (BDR 54-720)	Carlton	Commerce and Labor	Assembly Committee on Commerce and Labor 3/26/2021 Upon Adjournment	Do pass		MONITOR
AB250	Revises provisions relating to insurance to supplement Medicare. (BDR 57-142)	Jauregui and Hardy	General File	Assembly Committee on Commerce and Labor 3/31/2021 1:00 PM	Amend, and do pass as amended		MONITOR
AB253	Revises provisions relating to governmental administration. (BDR 19-947)	Considine	Government Affairs	Assembly Committee on Government Affairs 4/8/2021 8:00 AM	Amend, and do pass as amended		MONITOR
AB325	Revises provisions relating to the recording of documents. (BDR 20-642)	Assemblymen Kasama, Titus, Leavitt, Dickman, Ellison, Hafen, Hardy, Krasner, Matthews, McArthur, O'Neill, Roberts, Tolles and Wheeler; Senators Buck and SeEVERS Gansert	General File	Assembly Committee on Government Affairs 4/9/2021 8:00 AM	Amend, and do pass as amended		SUPPORT
AB333	Makes changes to provisions relating to land use planning. (BDR 22-357)	Krasner, Roberts, Ellison, Hardy and O'Neill	Government Affairs	Assembly Committee on Government Affairs 4/9/2021 8:00 AM	Amend, and do pass as amended		MONITOR
AB338	Revises provisions governing the investment of certain public money in foreign bonds, notes or other obligations. (BDR 31-787)	Orentlicher	General File	Assembly Committee on Government Affairs 4/9/2021 8:00 AM	Do pass		MONITOR
AB356	Makes various changes relating to the conservation of water. (BDR 48-1090)	Committee on Ways and Means	Natural Resources	Assembly Committee on Natural Resources 4/9/2021 Upon Call of Chair	Amend, and do pass as amended		MONITOR
AB385	Revises provisions relating to compensation received by public officers and employees. (BDR 23-52)	Benitez-Thompson and Britney Miller	Government Affairs	Assembly Committee on Government Affairs 4/9/2021 8:00 AM	Amend, and do pass as amended		MONITOR
AB445	Revises provisions relating to financial administration. (BDR 18-862)	Committee on Growth and Infrastructure	Government Affairs	Assembly Committee on Government Affairs 4/9/2021 8:00 AM	Amend, and do pass as amended		MONITOR
AJR7	Urges the Congress of the United States to pass the National Infrastructure Bank Act of 2020. (BDR R-765)	Assemblymen Bilbray-Axelrod, Peters, Anderson, Benitez-Thompson, Brown-May, Carlton, Considine, Duran, Flores, Frierson, González, Gorelow, Kasama, Krasner, Martinez, Marzola, Cameron Miller, Monroe-Moreno, Nguyen, O'Neill, Orentlicher, Summers-Armstrong, Thomas, Torres, Watts and Yeager; Senators Brooks, Ohrenschall, Buck, Denis, Donate, Harris, Lange, Ratti, Scheible and SeEVERS Gansert	Growth and Infrastructure	Assembly Committee on Growth and Infrastructure 4/1/2021 1:00 PM	Amend, and do pass as amended		MONITOR
AJR15	Proposes to amend the Nevada Constitution to revise provisions relating to the State Legislature. (BDR C-859)	Committee on Legislative Operations and Elections	Legislative Operations and Elections	Assembly Committee on Legislative Operations and Elections 3/25/2021 4:00 PM	Discussed as BDR		MONITOR
ACR3	Requires the Legislative Commission to appoint an interim committee to conduct a study concerning environmental justice. (BDR R-568)	Peters and Watts	Legislative Operations and Elections	Assembly Committee on Legislative Operations and Elections 3/16/2021 4:00 PM	Heard		MONITOR
ACR4	Directs the Legislative Commission to appoint a committee to conduct an interim study on general improvement districts. (BDR R-199)	Assemblymen Krasner, Matthews and Torres; Senator Settlemeyer	Legislative Operations and Elections				MONITOR

BILL	DESCRIPTION	SPONSOR(S)	STATUS	PAST MEETINGS	PAST ACTION	FUTURE MEETINGS	LEG. SUBCOMMITTEE RECOMMENDATIONS
SENATE BILLS							
SB150	Makes changes to provisions relating to housing. (BDR 22-221)	Harris, Donate, Buck, Denis and Lange	Government Affairs	Senate Committee on Government Affairs 4/5/2021 3:30 PM	Amend, and do pass as amended		MONITOR
SB176	Revises provisions relating to the Commission to Study Governmental Purchasing. (BDR 17-512)	Committee on Legislative Operations and Elections	Legislative Operations and Elections	Senate Committee on Legislative Operations and Elections 3/30/2021 3:30 PM	Amend, and do pass as amended		MONITOR
SB247	Revises provisions relating to apprenticeships. (BDR 53-575)	Dondero Loop	General File	Senate Committee on Commerce and Labor 4/2/2021 8:00 AM	Amend, and do pass as amended		MONITOR
SB255	Creates the Division of Supplier Diversity within the Office of Economic Development. (BDR 18-572)	Neal	Revenue and Economic Development	Senate Committee on Revenue and Economic Development 4/8/2021 1:00 PM	Amend, and do pass as amended		MONITOR
SB283	Revises provisions relating to local improvements. (BDR 22-792)	Brooks	Government Affairs	Senate Committee on Government Affairs 4/7/2021 3:30 PM	Amend, and do pass as amended		MONITOR
SB289	Revises provisions relating to workers' compensation. (BDR 53-713)	Harris	Commerce and Labor	Senate Committee on Commerce and Labor 4/7/2021 8:00 AM	Amend, and do pass as amended		MONITOR
SB293	Revises provisions relating to employment. (BDR 53-907)	Cannizzaro	Commerce and Labor	Senate Committee on Commerce and Labor 4/9/2021 7:30 AM	Amend, and do pass as amended		MONITOR
SB294	Revises provisions governing collective bargaining by local government employers. (BDR 23-254)	Cannizzaro	Government Affairs	Senate Committee on Government Affairs 4/5/2021 3:30 PM	Amend, and do pass as amended		MONITOR
SB297	Revises provisions relating to agriculture. (BDR 22-480)	Spearman	Government Affairs	Senate Committee on Government Affairs 4/9/2021 Upon Call of Chair	Amend, and do pass as amended		MONITOR
SB308	Provides for the establishment of a worksharing program. (BDR 53-716)	Dondero Loop	Commerce and Labor	Senate Committee on Commerce and Labor 4/9/2021 7:30 AM	Amend, and do pass as amended		MONITOR
SB327	Revises provisions relating to discriminatory practices. (BDR 53-574)	Neal and Harris	Government Affairs	Senate Committee on Government Affairs 4/7/2021 3:30 PM	Amend, and do pass as amended		MONITOR
SB368	Requires the issuance of bonds for environmental improvement projects in the Lake Tahoe Basin. (BDR S-366)	Committee on Government Affairs	Ways and Means	Senate Committee on Government Affairs 4/9/2021 Upon Call of Chair	Do pass		SUPPORT
SCR9	Expresses support for the Nevada System of Higher Education to work collaboratively in its science and research efforts addressing the needs of the Lake Tahoe Basin. (BDR R-364)	Committee on Education	Education				SUPPORT

BILL	DESCRIPTION	SPONSOR(S)	STATUS	PAST MEETINGS	PAST ACTION	FUTURE MEETINGS	BOARD/LSC APPROVED POSITIONS
ASSEMBLY BILLS							
AB1	Revises provisions relating to training for Legislators. (BDR 17-438)	Committee on Legislative Operations and Elections	Legislative Operations and Elections	Senate Committee on Legislative Operations and Elections 4/13/2021 3:30 PM	Heard, No Action		MONITOR
AB3	Revises provisions concerning the electronic transmission of certain maps and other documents relating to the approval of divisions of land. (BDR 22-406)	Committee on Government Affairs	Government Affairs	Assembly Committee on Government Affairs 4/6/2021 8:00 AM	Amend, and do pass as amended		SUPPORT
AB6	Revises provisions governing an application for a temporary change relating to appropriated water. (BDR 48-309)	Committee on Natural Resources	Transmitted to Senate	Assembly Committee on Natural Resources 3/31/2021 4:00 PM	Amend, and do pass as amended		SUPPORT
AB28	Imposes an inverse preference on certain bidders for state purchasing contracts. (BDR 27-238)	Committee on Government Affairs	Government Affairs	Assembly Committee on Government Affairs 4/6/2021 8:00 AM	Do pass		MONITOR
AB37	Revises provisions relating to the enforcement of obligations for the support of children. (BDR 3-301)	Committee on Judiciary	Ways and Means	Assembly Committee on Judiciary 2/26/2021 8:00 AM	Amend, and do pass as amended		MONITOR
AB61	Revises provisions relating to trade practices. (BDR 52-424)	Committee on Commerce and Labor	Commerce and Labor	Assembly Committee on Commerce and Labor 4/7/2021 6:00 PM	Amend, and do pass as amended		MONITOR
AB65	Revises provisions relating to ethics in government. (BDR 23-257)	Committee on Legislative Operations and Elections	Legislative Operations and Elections	Assembly Committee on Legislative Operations and Elections 2/23/2021 4:00 PM	Heard		MONITOR
AB87	Makes various changes to provisions governing the vacation or abandonment of certain easements. (BDR 22-460)	Nguyen and Roberts	Government Affairs	Assembly Committee on Government Affairs 4/6/2021 8:00 AM	Amend, and do pass as amended		OPPOSE
AB90	Requires counties to pay impact fees to certain local governments for projects of intercounty significance. (BDR 22-883)	Benitez-Thompson	Revenue	Assembly Committee on Revenue 4/6/2021 4:00 PM	Amend, and do pass as amended		MONITOR

BILL	DESCRIPTION	SPONSOR(S)	STATUS	PAST MEETINGS	PAST ACTION	FUTURE MEETINGS	BOARD/LSC APPROVED POSITIONS
ASSEMBLY BILLS							
AB95	Revises the membership of the Legislative Committee on Public Lands. (BDR 17-463)	Committee on Legislative Operations and Elections	Legislative Operations and Elections	Assembly Committee on Legislative Operations and Elections 3/16/2021 4:00 PM	Do pass		MONITOR
AB97	Revises provisions governing toxic chemicals. (BDR 40-141)	Watts	Natural Resources	Assembly Committee on Natural Resources 4/5/2021 4:00 PM	Amend, and do pass as amended		SUPPORT
AB100	Revises provisions relating to wildfires. (BDR 42-109)	Committee on Government Affairs	Government Affairs	Assembly Committee on Government Affairs 4/8/2021 8:00 AM	Do pass		MONITOR
AB146	Revises provisions relating to water. (BDR 40-123)	Peters	Natural Resources	Assembly Committee on Natural Resources 4/9/2021 Upon Call of Chair	Amend, and do pass as amended		MONITOR
AB147	Authorizes a board of county commissioners to create the office of county counsel. (BDR 20-119)	Nguyen	Ways and Means	Assembly Committee on Government Affairs 4/8/2021 8:00 AM	Do pass		MONITOR
AB153	Revises provisions governing performance contracts. (BDR 27-708)	Assemblywoman Bilbray-Axelrod; Senator Brooks	Government Affairs	Assembly Committee on Government Affairs 3/24/2021 9:00 AM	Amend, and do pass as amended		MONITOR
AB154	Revises provisions governing certain notice provided by public utilities. (BDR 58-510)	Assemblymen Roberts, Tolles, Nguyen, Watts and Monroe-Moreno; Senator Hammond	Growth and Infrastructure	Assembly Committee on Growth and Infrastructure 3/18/2021 1:30 PM	Amend, and do pass as amended		MONITOR
AJR2	Recognizes that the health of forests, rangelands and soils are inextricably linked to the quantity and quality of water. (BDR R-112)	Committee on Natural Resources	Transmitted to Senate	Assembly Committee on Natural Resources 3/31/2021 4:00 PM	Amend, and do pass as amended		SUPPORT
AJR3	Urges various actions relating to the protection and conservation of land and water. (BDR R-775)	Assemblymen González, Watts, Yeager, Cohen, Anderson, Brown-May, Flores, Brittney Miller, Nguyen and Torres; Senator Donate	Natural Resources	Assembly Committee on Natural Resources 3/22/2021 4:00 PM	Do pass		MONITOR

*Reflects recommended change in positions

BILL	DESCRIPTION	SPONSOR(S)	STATUS	PAST MEETINGS	PAST ACTION	FUTURE MEETINGS	BOARD/LSC APPROVED POSITIONS
SENATE BILLS							
SB14	Revises provisions relating to certain emergency response plans and assessments. (BDR 36-280)	Committee on Government Affairs	Government Affairs	Senate Committee on Government Affairs 2/17/2021 3:30 PM	Amend, and do pass as amended		MONITOR
SB18	Revises provisions governing penalties for certain violations relating to public utilities. (BDR 58-277)	Committee on Growth and Infrastructure	Growth and Infrastructure	Senate Committee on Growth and Infrastructure 3/31/2021 3:30 PM	Amend, and do pass as amended		MONITOR
SB33	Revises certain provisions relating to natural resource management. (BDR 47-312)	Committee on Natural Resources	Transmitted to Assembly	Senate Committee on Natural Resources 3/2/2021 3:30 PM	Amend, and do pass as amended		MONITOR
SB40	Provides for the collection of certain data relating to health care. (BDR 40-415)	Committee on Health and Human Services	Health and Human Services	Senate Committee on Health and Human Services 4/6/2021 3:30 PM	Amend, and do pass as amended		MONITOR
SB67	Revises provisions relating to public works. (BDR 28-400)	Committee on Government Affairs	Government Affairs	Senate Committee on Government Affairs 4/9/2021 Upon Call of Chair	Amend, and do pass as amended		MONITOR
SB71	Revises provisions governing unclaimed property. (BDR 10-398)	Committee on Judiciary	General File	Senate Committee on Judiciary 2/25/2021 1:00 PM	Amend, and do pass as amended		MONITOR
SB107	Makes various changes relating to the statute of limitations for certain causes of action. (BDR 2-872)	Ohrenschall	Second Reading File	Senate Committee on Judiciary 3/25/2021 1:00 PM	Amend, and do pass as amended		MONITOR
SB109	Revises provisions relating to the collection of certain information by governmental agencies. (BDR 19-95)	Spearman	General File	Senate Committee on Government Affairs 4/5/2021 3:30 PM	Amend, and do pass as amended		MONITOR
SB139	Requires certain health insurance to cover treatment of certain conditions relating to gender dysphoria. (BDR 57-54)	Scheible and Harris	Commerce and Labor	Senate Committee on Commerce and Labor 4/2/2021 8:00 AM	Amend, and do pass as amended		MONITOR
SB141	Revises provisions relating to public works. (BDR 28-44)	Brooks	Government Affairs	Senate Committee on Commerce and Labor 3/19/2021 8:00 AM	Amend, and do pass as amended		MONITOR
	*Reflects recommended change in positions						



Northern Nevada Water Supply Outlook

TMWA Board of Directors Meeting

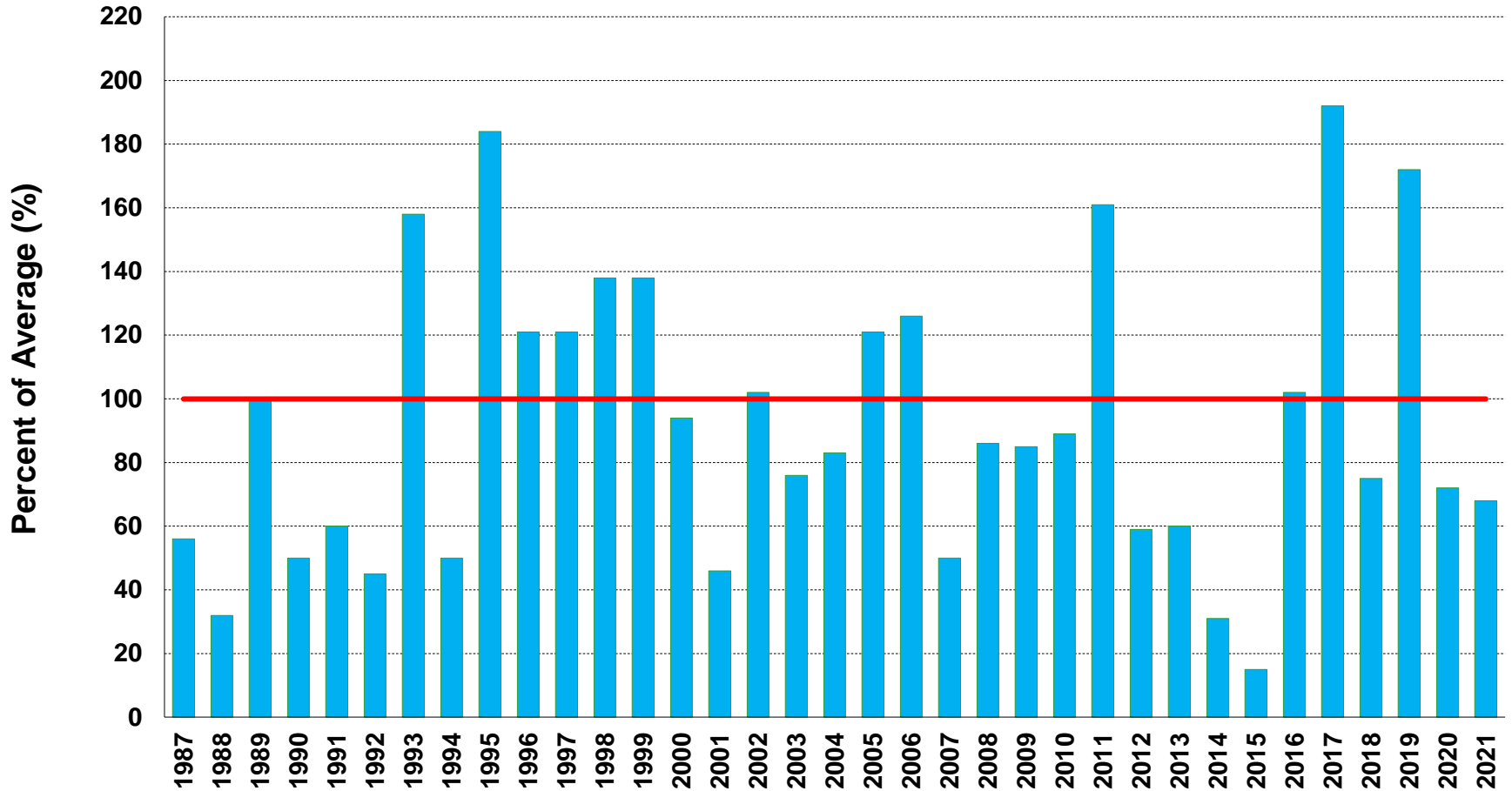
Bill Hauck, Water Supply Administrator

April 21, 2021

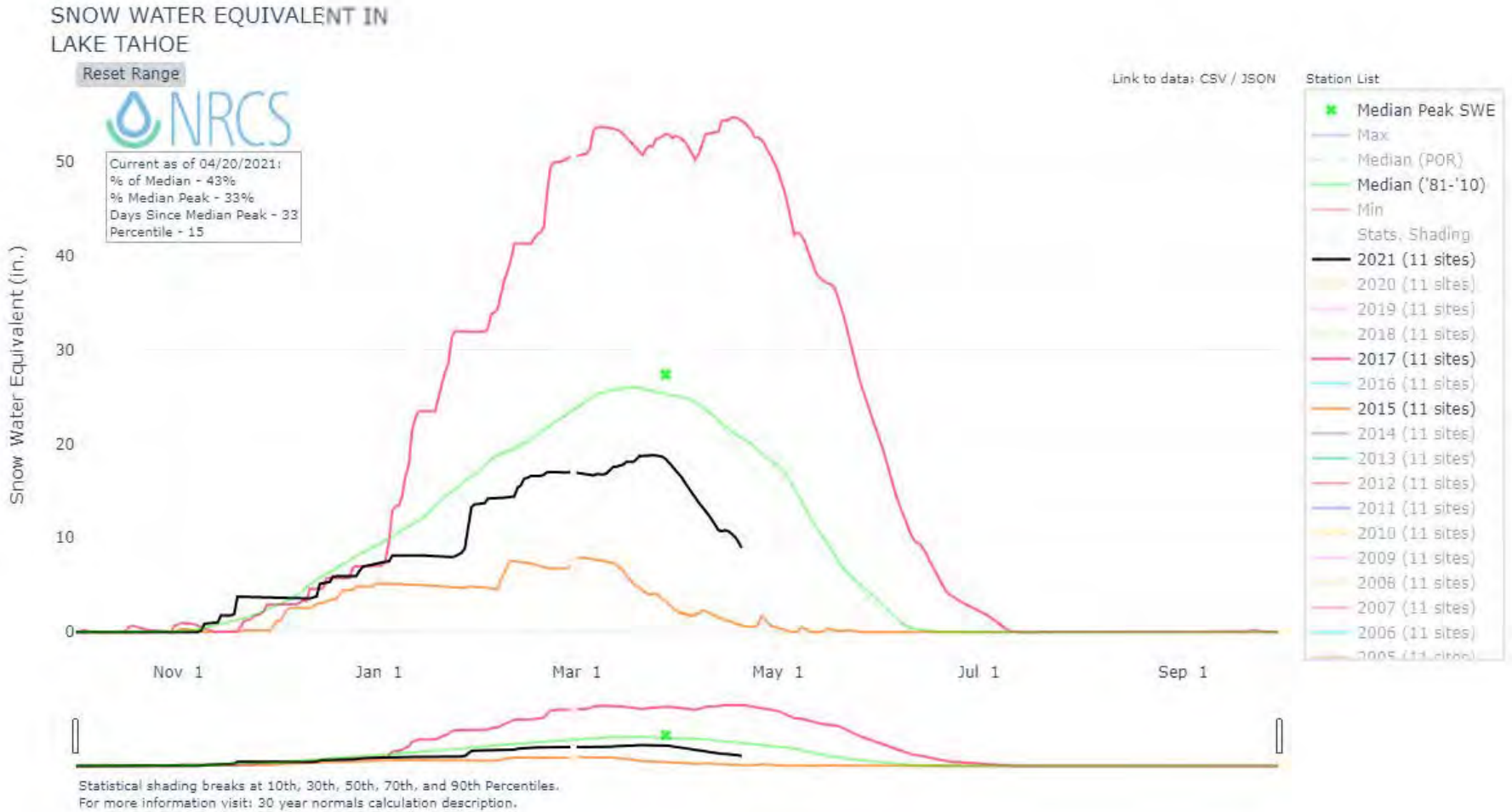




April 1 Truckee River Basin Snowpack (last 35 years)



Lake Tahoe Basin Snowpack (04/20/2021)



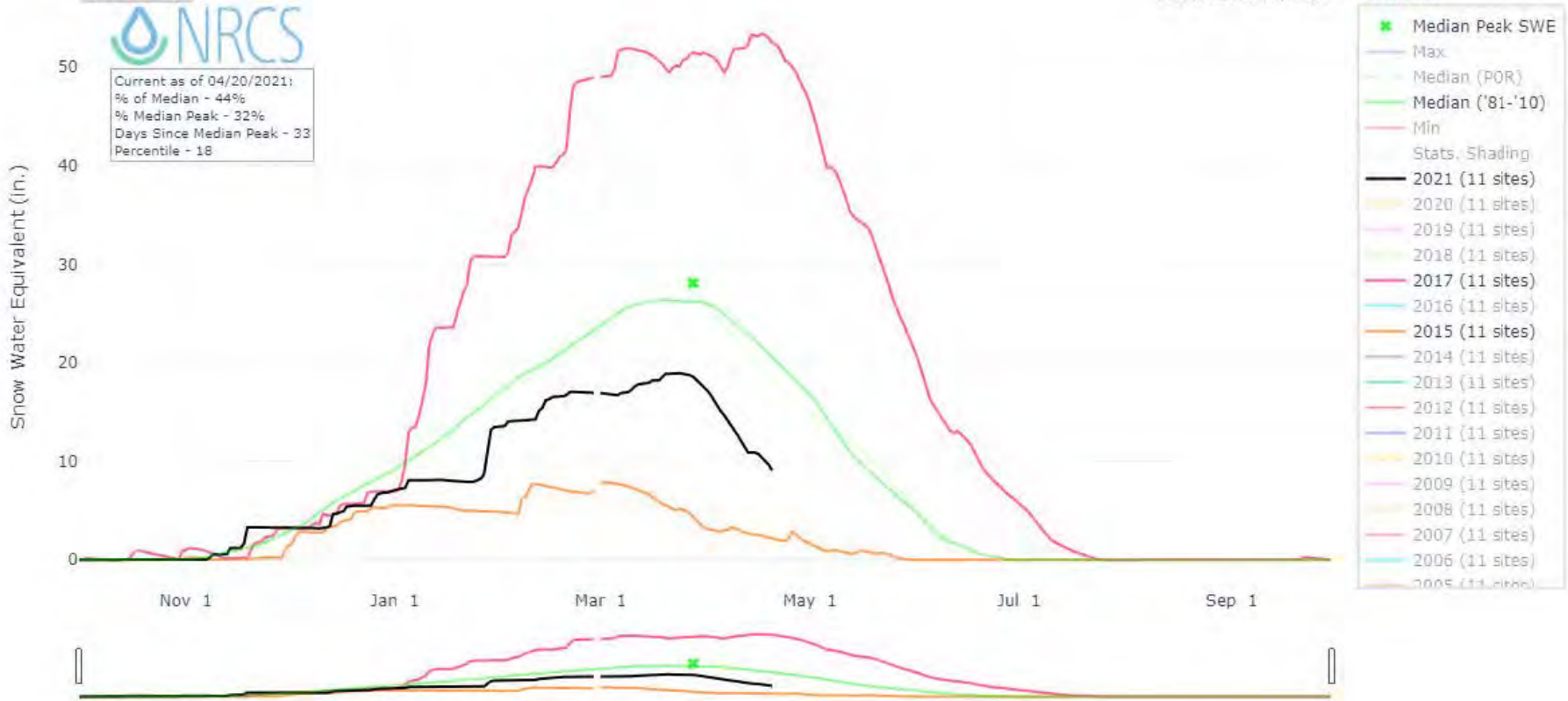
Truckee Basin Snowpack (04/20/2021)

SNOW WATER EQUIVALENT IN TRUCKEE

Reset Range

[Link to data: CSV / JSON](#)

[Station List](#)








Current as of 04/20/2021:
 % of Median - 44%
 % Median Peak - 32%
 Days Since Median Peak - 33
 Percentile - 18






- * Median Peak SWE
- Max
- Median (POR)
- Median ('81-'10)
- Min
- Stats. Shading
- 2021 (11 sites)
- 2020 (11 sites)
- 2019 (11 sites)
- 2018 (11 sites)
- 2017 (11 sites)
- 2016 (11 sites)
- 2015 (11 sites)
- 2014 (11 sites)
- 2013 (11 sites)
- 2012 (11 sites)
- 2011 (11 sites)
- 2010 (11 sites)
- 2009 (11 sites)
- 2008 (11 sites)
- 2007 (11 sites)
- 2006 (11 sites)
- 2005 (11 sites)

Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th Percentiles.
 For more information visit: 30 year normals calculation description.

CALIFORNIA SNOTEL Snow Water Equivalent Update Graph

As of TUESDAY: APRIL 20 , 2021

Basin	Snow Water Equivalent Percent of Median
NORTHERN GREAT BASIN	 57%
TRUCKEE RIVER	 44%
LAKE TAHOE	 43%
CARSON RIVER	 49%
WALKER RIVER	 52%

Legend:	 <70%	 70-90%	 91-110%	 111-130%	 >130%
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* = Data are not available or data may not provide a valid measure of conditions for over half of the sites within the basin.

Mid-April NRCS Streamflow Forecasts

- Lake Tahoe Gates Closed Rise (GCR)

0.45' (34% Avg.) 30% COE (Apr-High)

0.35' (27% Avg.) 50% COE (Apr-High)

0.31' (24% Avg.) 70% COE (Apr-High)

- Truckee River at Farad, CA (A-J)

106 KAF (41% Avg.) 30% COE (Apr-Jul)

89 KAF (35% Avg.) 50% COE (Apr-Jul)

77 KAF (30% Avg.) 70% COE (Apr-Jul)

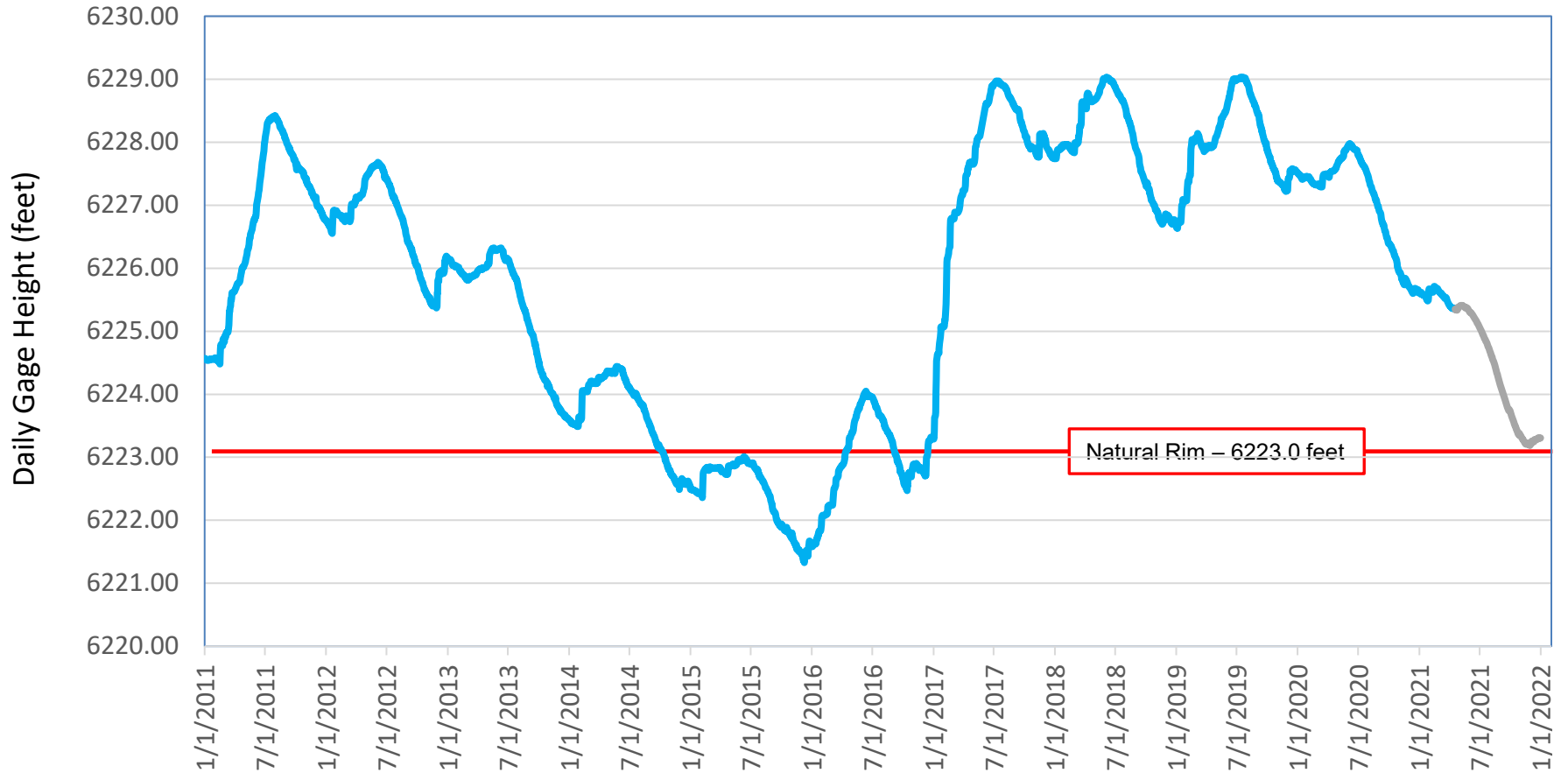
2021 NRCS Streamflow Runoff Forecast Summary

	Mid-Feb	Mid-Mar	Apr-01	Mid-Apr
1. % Chance of TROA Drought Designation	15%	46%	79%	100%
2. Forecasted Lake Tahoe Elev. (Nov 15)	6224.87'	6224.06'	6223.40'	6223.17'
3. Projected Day of Missing FR	NA	NA	10/7	9/13*

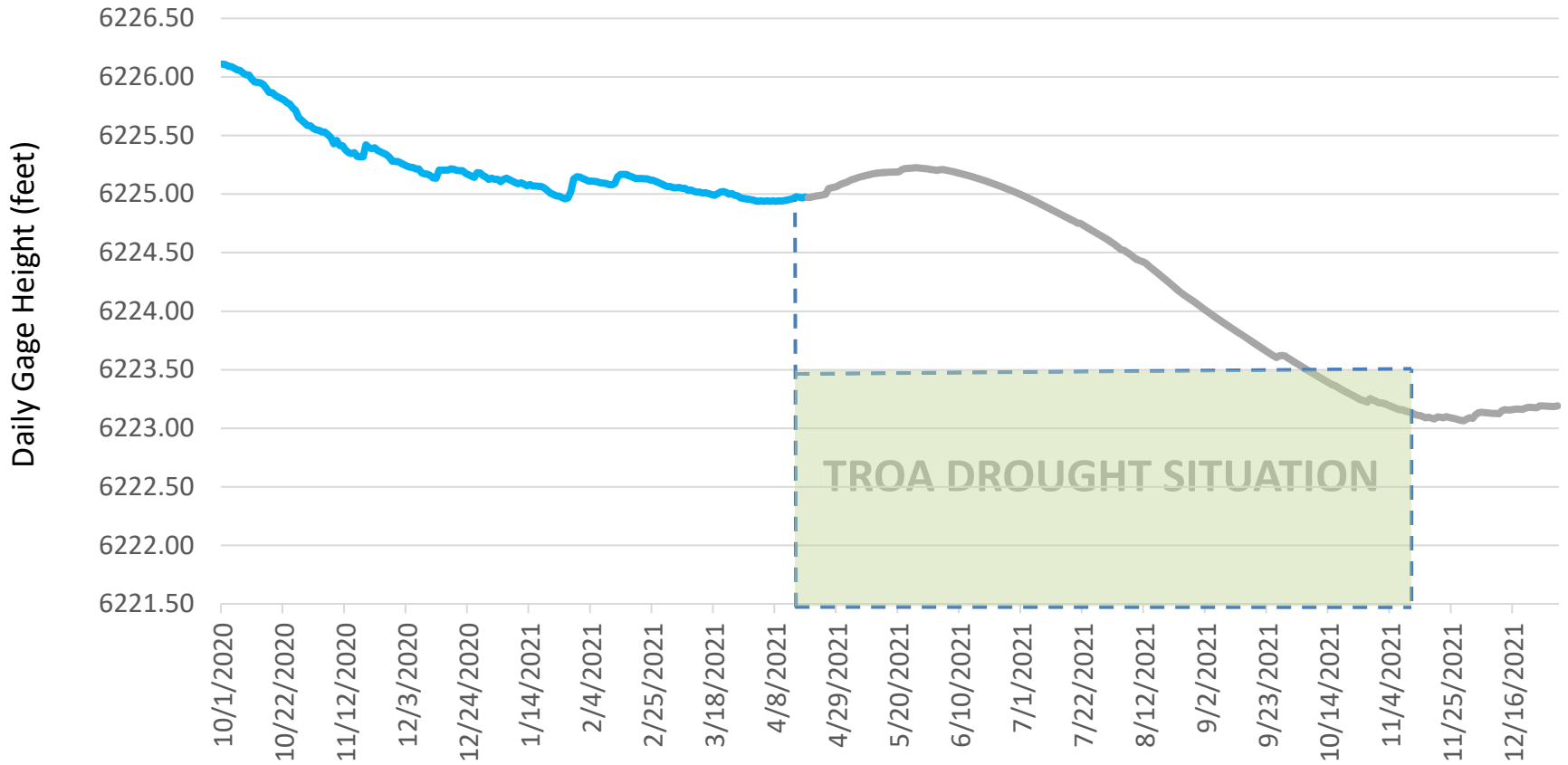
* A **DROUGHT SITUATION** has now been determined according to the terms of TROA, as Floriston Rates *are* projected to be lost prior to October 31st. However, normal river flows are projected past labor Day (actually through 9/12), and no reserves are projected to be used prior to that time. See TMWA's 2020-2040 Water Resource Plan, Chapter 4., pages 52-55. As **TMWA's response to this determination is tied directly to projections for Truckee River flows**, we are planning for a Drought Level 1 Situation based on the severity of the drought.



Actual and Projected Lake Tahoe Elevation through 2021

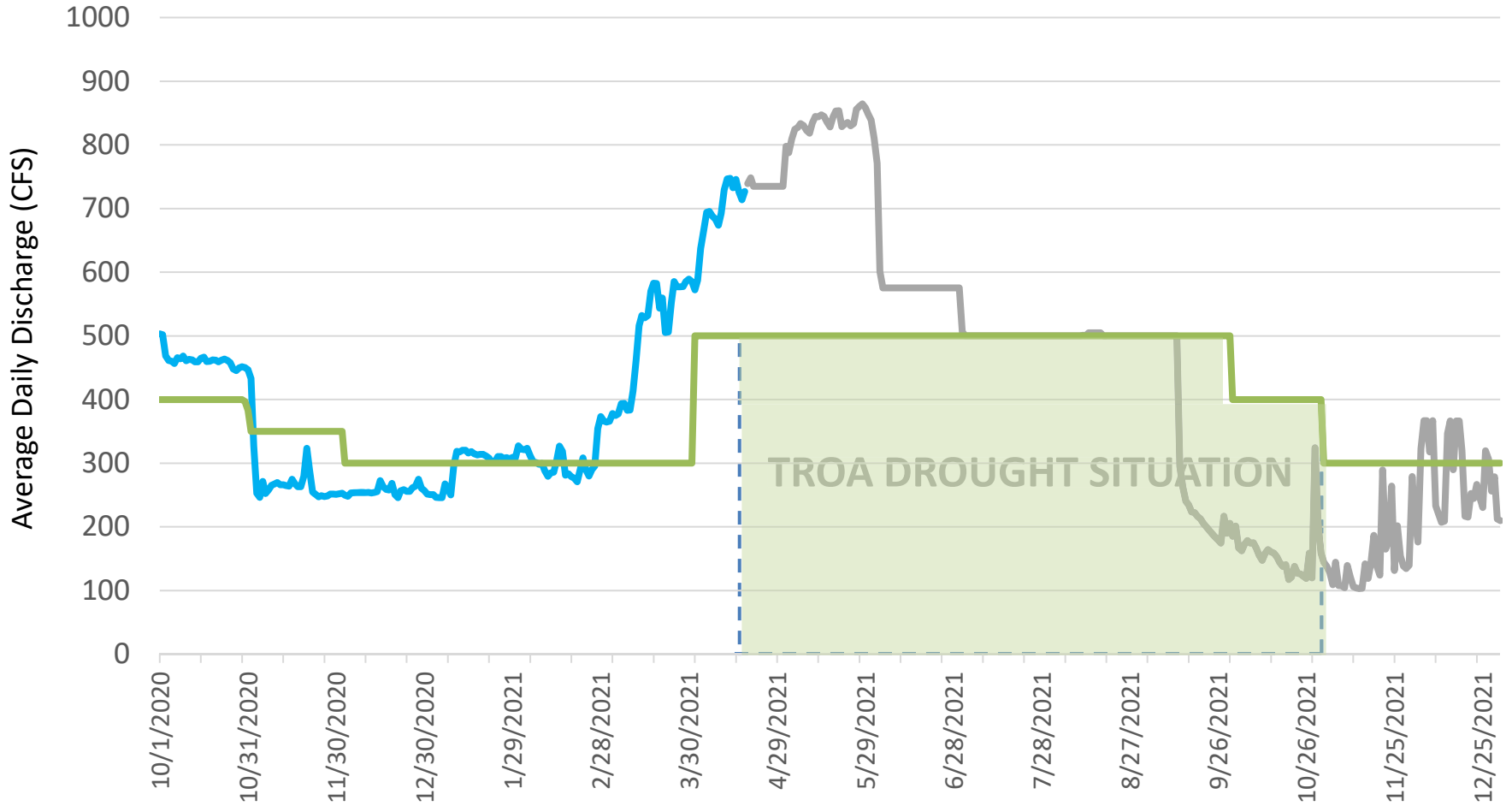


Actual and Projected Lake Tahoe Paper Elevation through 2021





Actual and Projected Floriston Rate Water at Farad through 2021

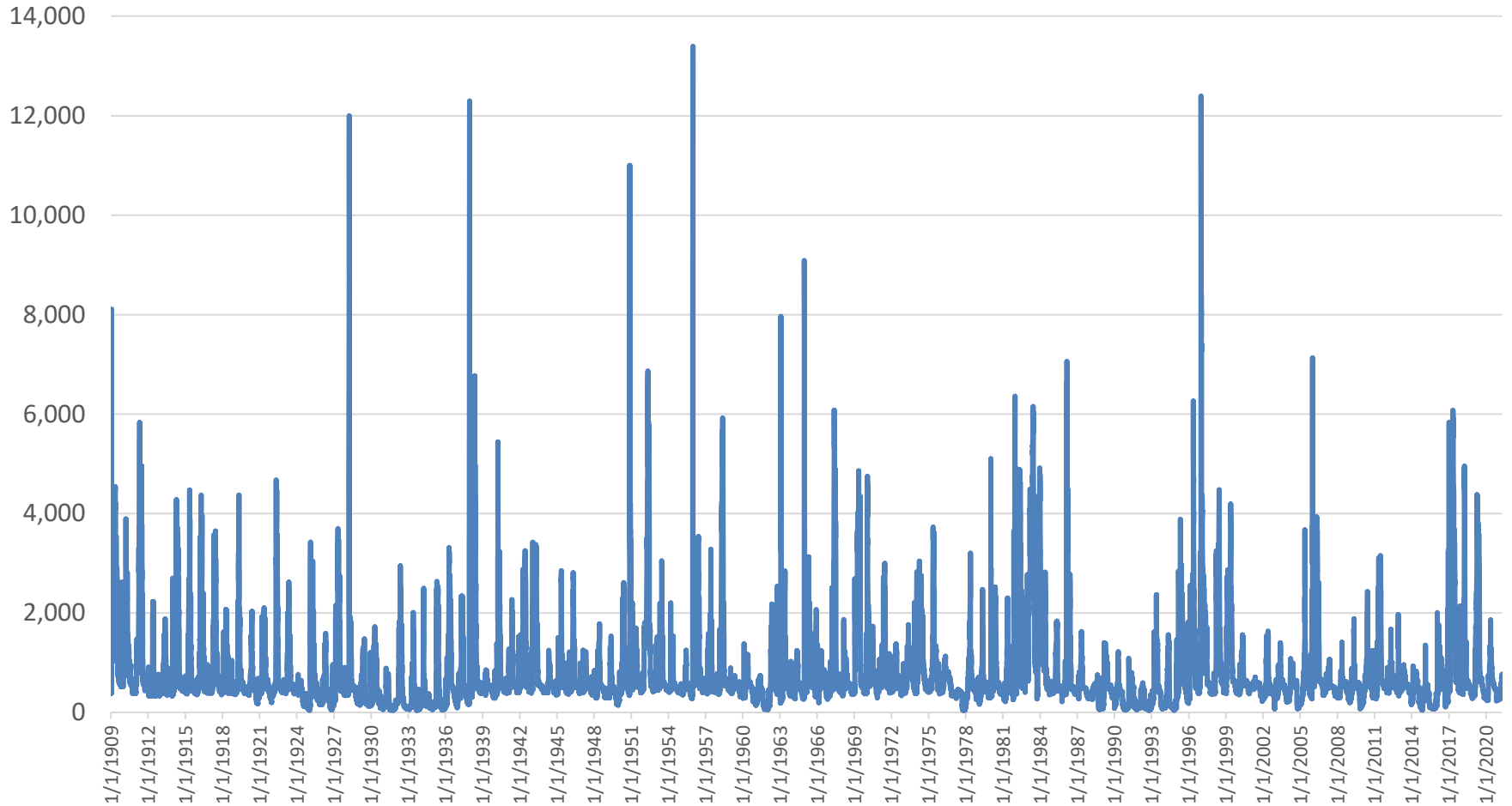


Truckee River Operating Agreement (TROA)

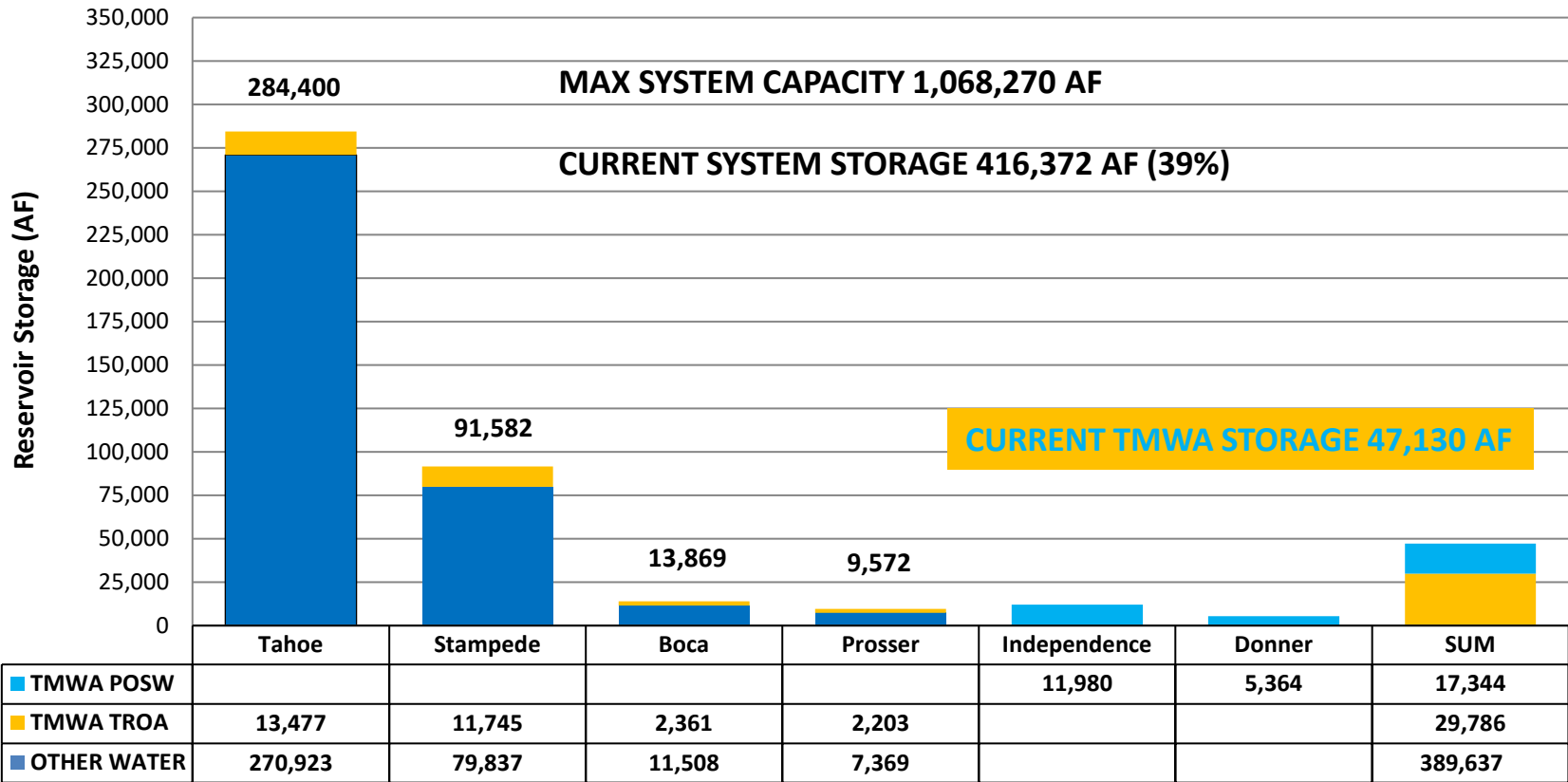
DEFINITION NO. 26 “DROUGHT SITUATION”

“Means a situation under which it is determined by April 15, based on procedures set forth in Section 3.D, either that there will not be sufficient **Floriston Rate Water** to maintain **Floriston Rates** through October 31, or the projected amount of **Lake Tahoe Floriston Rate Water** in Lake Tahoe, and including **Lake Tahoe Floriston Rate Water** in other **Truckee River Reservoirs** as if it were in Lake Tahoe, on or before the following November 15 will be equivalent to an elevation less than 6223.5 feet Lake Tahoe datum.”

Truckee River Discharge at Farad 1909-2020 (USGS Gage 10346000)



Truckee River System Storage (04/19/2021)



Capacity (%)

38 %

40 %

34 %

32 %

68 %

56 %



Thank you!
Questions?

Bill Hauck, Water Supply Administrator
Email: bhauck@tmwa.com
O: (775) 834-8111 M: (775) 250-1333



STAFF REPORT

TO: Board of Directors
THRU: Mark Foree, General Manager
FROM: Andy Gebhardt, Director, Operations and Water Quality
Cammy Elquist LoRé, GoodStanding Communications Planner
DATE: April 15, 2021
SUBJECT: **Presentation on proposed Conservation, Communications and Outreach Plan for 2021, discussion and possible direction to staff**

Report Highlights:

- *This plan combines TMWA’s outreach activities into one comprehensive communication plan. It leverages numerous forms of communication: multimedia advertising, news coverage, direct-to-customers, social media, digital media and website content.*
- *With Truckee River flows projecting a Level 1 drought, conservation outreach is planned that aligns with the Drought Management Plan. Conservation measures will be a primary message starting earlier (mid-May), with another push into the fall that will promote the cooling down of irrigation systems.*
- *Additional messaging will use TMWA’s 20th anniversary for perspective into TMWA’s history, current state and future outlook. This approach will be folded into messaging through bill inserts, eNewsletters, web pages and social media.*
- *The long-term goal of this communications plan is to establish high levels of knowledge regarding TMWA’s water resource management, operations and planning among stakeholders, which increases the potential for more informed customers and supports high customer satisfaction.*

Summary

Twenty years ago, our community made an important decision that secured our region’s water resources and kept water infrastructure under local control through the formation of Truckee Meadows Water Authority.



It has been a period of substantial change, making TMWA’s 20-year anniversary worth celebrating beyond the time stamp. Whether in historic drought, record-breaking snowpack or global pandemic, TMWA has demonstrated how adaptable and resilient this region’s primary water system and staff can be. For customers, this constant stewardship and commitment has been the backbone of mission fulfillment for TMWA, ensuring the delivery of high-quality drinking water throughout Reno, Sparks and Washoe County.

In fact, everything TMWA does and has done ultimately supports its vision *to enhance the quality of life in the Truckee Meadows by delivering exceptional, customer-focused water services.* Doing this goes beyond water treatment alone—it requires an integrated and proactive approach to water resource management, infrastructure investment and long-term planning as well.

In this way, TMWA has a key water leadership role in the community. From a communication perspective, this means addressing a broader range of topics, which is reflected in the four primary communication pillars below. By aligning communication activities within these areas, TMWA’s communication team can drive its effort and resources toward well-defined objectives.

<u>Communication Pillars</u>	<u>Objectives</u>
Conservation Engagement	<i>Encourage smart water use, help ensure demand on the system is manageable and help meet conservation requirements of Truckee River Operating Agreement.</i>
Customer Outreach	<i>Ensure customers are informed and understand their bill statements, rates, and other transaction details regarding their water service.</i>
Water Quality Education	<i>Maintain widespread awareness about the high standards and rigor applied through TMWA’s water treatment process.</i>
Water Leadership Awareness	<i>Raise knowledge about water resource management, resilient infrastructure systems and fiduciary stewardship.</i>

With each of these pillars, TMWA’s 20th anniversary provides an opportunity to reflect on and highlight the proactive decisions, projects and long-term investment that has kept our drinking water system adaptable and resilient over time and will continue to do so into the foreseeable future.

20th Anniversary Positioning



Icon for coversheets, email signature blocks and select collateral application.

Support tag element for banners, presentations, workshops, tours, etc.

Strong contrast design for hats, T-shirts and other memorabilia.

New logo development

A 20th anniversary logo will be used for placement in relevant ads, collateral and materials throughout the year. The versions above will be used based on collateral type or materials used.

Bill inserts

An *anniversary infographic* will be developed and delivered through customer bills during the month of June. It will include multiple topic-specific graphic elements that can stand independently and will be used throughout the year through bill insert articles, social media posts, and to support other types of outreach efforts.

Lobby display*

Expanding upon the anniversary infographic, a new lobby display will be installed that will continue to be exhibited throughout the year. Milestones will clearly outline how planning and investments have resulted in continuous improvement for the community's water system for the past 20 years.

Media interviews

Current and past TMWA leaders will be scheduled for a series of media interviews on *Nevada Newsmakers*, KOH, KUNR and morning news shows. The goal will be to reinforce the long-term view taken in planning and executing TMWA's operations. TMWA's communication team will assist with key messages and interview preparation.

Content development and creative design

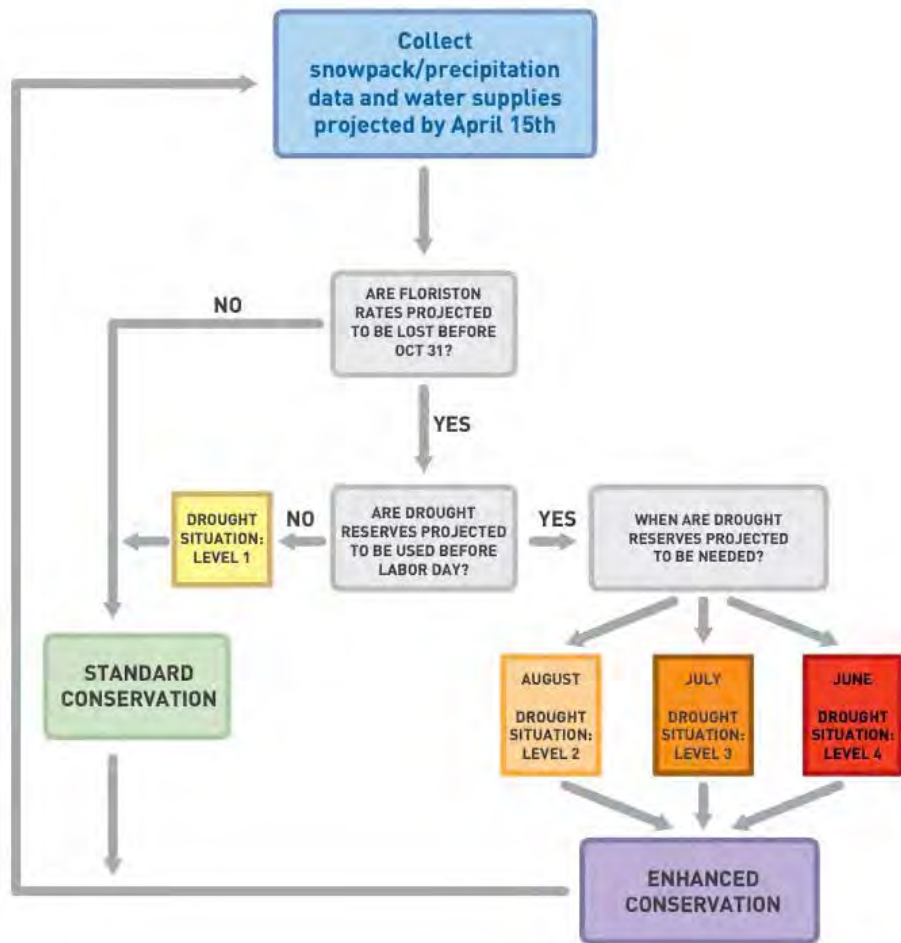
Twenty years of TMWA accomplishments will be juxtaposed with current state and future projections, tying-in continuity of service to customers and resource stewardship to the broader community.

**Planned to occur. Lobby is currently closed per county and state health guidance.*

Conservation Strategies

Promotion of smart water use all year round is *always* relevant in the Truckee Meadows. It becomes more so during years when the minimum required flow rate in the Truckee River at the California-Nevada state line cannot be met, which is also known as the Floriston Rate.

Currently, required river flows are projected to drop off mid-September, which is also when customer demands typically decrease. While the *required* rate of flow may not be met, river water is anticipated to meet TMWA’s needs at the onset of fall. Because projected river flows will be enough to satisfy demand, and no drought reserves will be required, this year’s drought situation is at “**Level 1**”, but this plan can adjust if something changes. This cues in standard water conservation practices as explained in [TMWA’s 2020-2040 Water Resources Plan](#) and demonstrated in the chart below.

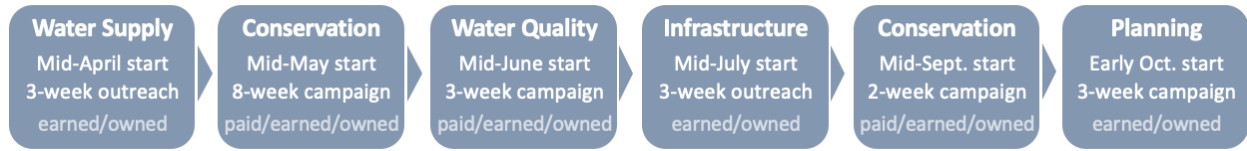


Standard conservation outreach supports TMWA’s Assigned Watering Days program. The annual campaign includes earned and paid placement (see page 6) using multiple media channels. It begins in April and this year will continue through September.

Enhanced conservation outreach includes all standard conservation with an expansion of channels used and frequency of messaging. With TMWA’s new customer information system, enhanced insight into water-use trends can also cue direct messaging that could influence water use.

Planned Timing for Outreach and Campaigns

Cornerstone topics and timing of outreach can be found in the grey boxes below. The table shows how these topics nest with the ongoing tactics that support the four communication pillars.

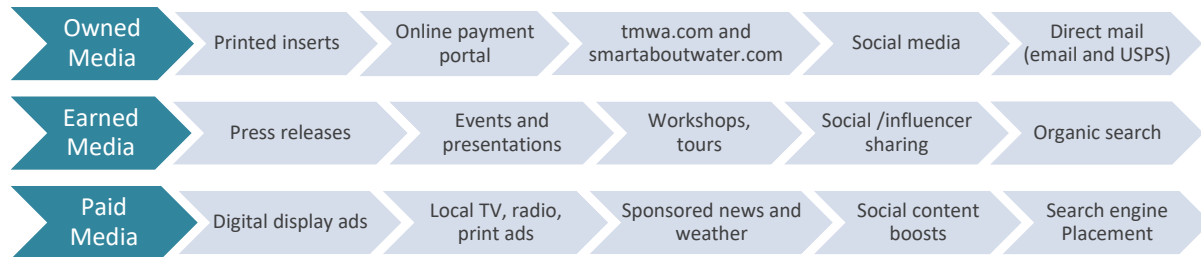


Timing 2021–22	Forecast of monthly outreach activity	Communication Pillar-Reinforcement Messaging			
		Transactional	Water Quality	Conservation	Water Leadership
April	PRESENTATIONS: Water Year in Review			√	√
April	OPINION EDITORIAL: Water Year in Review			√	√
April	VIRTUAL WORKSHOPS: Irrigation System Start-Up	√		√	
April	PROMOTION: Landscape Guide—Spring Planning			√	
May	PROMOTION: Drinking Water Week FB Live Videos		√		√
May	PRESENTATIONS: Water Year in Review				
May	VIRTUAL WORKSHOP: Drip-System Maintenance	√		√	
May	VIRTUAL WORKSHOP: Know Your Drinking Water		√		
May	VIRTUAL WORKSHOP: Tree Care			√	
May	CAMPAIGN: Summer Assigned Day Watering Days	√		√	
June	CAMPAIGN: Summer Assigned Day Watering Days	√		√	
June	WORKSHOPS: Irrigation*	√		√	
June	TOUR: Valley Wood Park w/Edible Native Plants*			√	
June	PROMOTION: 20th Anniversary Declaration				√
July	CAMPAIGN: Water Quality Is Clear	√	√		
July	PROMOTION: Water Quality Report Release	√	√		
July	CAMPAIGN: Infrastructure Improvements	√	√	√	√
Aug.	TOUR: Mt. Rose Water Treatment Plant*		√	√	√
Aug.	TOUR: TMWA Hydroelectric Plant*	√			√
Aug.	TOUR: Valley Wood Park w/Edible Native Plants*			√	
Sept.	TOUR: Mt. Rose Water Treatment Plant*		√		√
Sept.	TOUR: Chalk Bluff Water Treatment Plant*				
Sept.	PROMOTION: Landscape Guide—Fall Planting			√	
Oct.	PROMOTION: Comprehensive Annual Financial Report				
Oct.	CAMPAIGN: Cool Down / Reduce Watering	√		√	
Oct.	WORKSHOP: Winterization*	√		√	
Oct.	SURVEY: SmartAboutWater benchmarking		√	√	√
Nov.	PROMOTION: Project Spotlights and Utility Awards	√	√	√	√
Nov.	PROMOTION: Truckee River Fund Project Updates		√	√	√
April '22	(REBOOT TOPICS) PRESENTATION: Water Year in Review			√	√

* Tours and workshops throughout the summer months will be virtual unless recommended county and state social distance restrictions are adjusted.

Communication Channels Overview

The following identifies accessible communication tactics by channel of exposure. A full breakdown of reach and audience targeted by each channel can be found on pages 8 and 9.



Channel Updates for 2021

Owned Channels

Two major new internal developments at TMWA have come online in recent months and will be leveraged in the coming year:

1. Increased functionality within TMWA’s new customer information system

Launched last month, TMWA’s new customer information system has created more flexible and timely ways to communicate with customers. Direct messaging to customers will be more targeted and relevant because we now have the ability to segment audiences and create exception rules for message distribution. Most of TMWA’s transactional outreach (messages to customers about their accounts or service) will be conducted through this new system.

2. Expanded topic structure on [SmartAboutWater.com](https://www.smartaboutwater.com)

Additionally, the Smart About Water campaign platform has a redesigned website to broaden water topics beyond the scope of TMWA’s mission. Through this site, other community partners can also host and share content about the watershed, storm water, flood mitigation, effluent management and indirect potable reuse. Traffic to the website will be encouraged through messaging in TMWA paid, earned and owned channels.

Earned Media

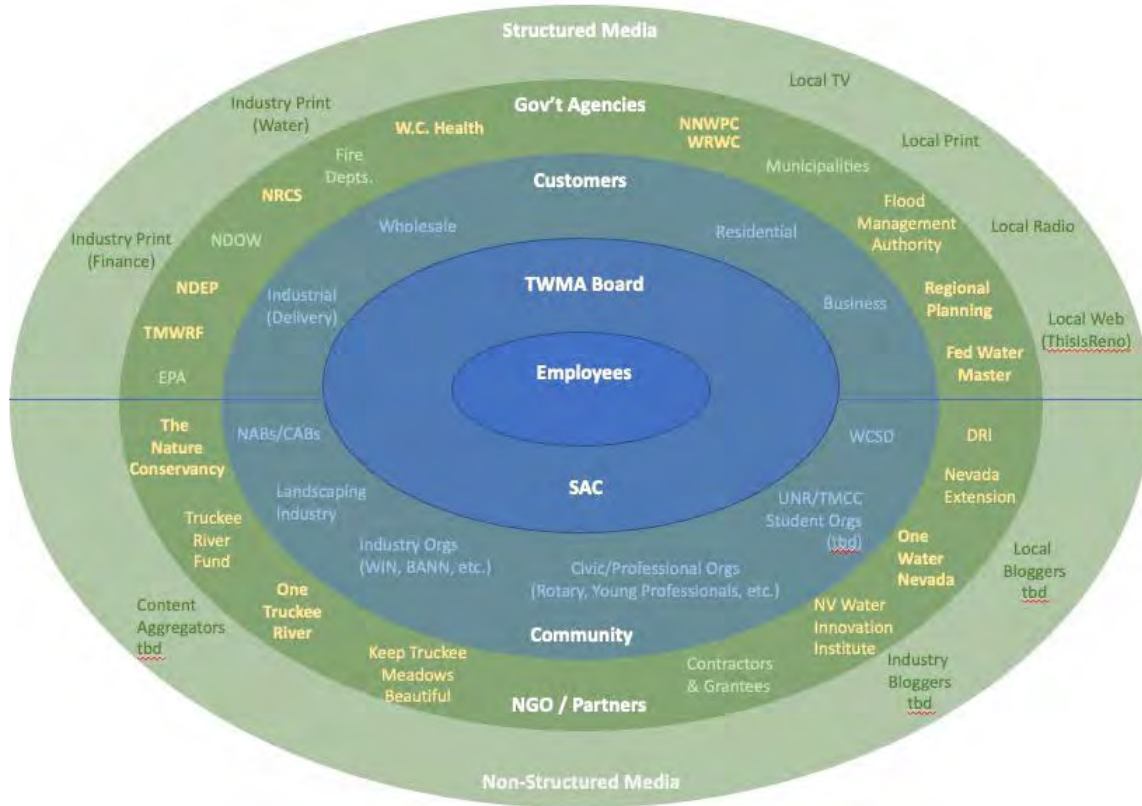
Earned media is a highly credible channel for our messaging. Typically, it is the outcome of TMWA’s media outreach, public-facing events, workshops, tours, etc. Most will continue to be hosted virtually. Any in-person event will follow the COVID-19 guidelines as determined through county and state guidance.

Paid Placement

Links and redirects from established media websites help elevate search engine ranking for TMWA-generated content. To help make budget decisions and ensure TMWA’s media buy is effective, broad-reach media placement will prioritize outlets that have a healthy digital footprint. Culturally specific media outlets to reach targeted demographics will continue to be part of the buy.

Internal and External Stakeholders Map for 2021

The circular map below is an overview of TMWA’s stakeholder community. It is intended to represent the internal and external stakeholders TMWA serves, affects, or may influence. Those who are more likely to address water topics to fulfill their own outreach objectives are noted in yellow.



For those highlighted in yellow, the likelihood of crossover with TMWA-related messaging can be seen below. Whenever relevant, partnership and collaboration with these important stakeholders could be important to achieving community education goals.

TMWA Engagement Matrix: Key Stakeholder Audiences in 2021

+ ↑ Topic Cross-Over with TMWA ↓ -	<u>Moderately visible, could be highly relevant</u> Natural Resources Conservation Service Federal Water Master Truckee Meadows Regional Water Reclamation Facility WRWC/NNWPC Nevada Water Innovation Institute	<u>Most visible, could be highly relevant</u> OneWater Nevada One Truckee River The Nature Conservancy
	<u>Topic-dependent, involved messaging when needed</u> Washoe County Health Department NDEP Truckee Meadows Regional Planning Agency	<u>Very visible, involved messaging when needed.</u> Keep Truckee Meadows Beautiful Truckee Meadows Flood Management Authority
	Public Interest or Outreach Activity Levels → +	

Appendix: Communication Channels Inventory

The following are TMWA's current inventory of controlled communication channels in order of audience reach. Content structure will adjust to accommodate tactical shifts in communication objectives or in the way the public utilizes the channel.

Billing Inserts, Envelope Backers, and Buck Slips

Audience: Customers, can also apply target or exclusion audience rules
 Reach: 133k households/businesses
 Frequency: Monthly
 Distribution: With bill statements
 Content: + Quick spotlight on key topics
 + Reinforcing call to action when needed (e.g., start of 3x-per-week watering)
 + New CIS

Quality.Delivered eNewsletter

Audience: Customers
 Reach: 107k subscribed emails
 Frequency: Monthly
 Distribution: Email and online
 Content: + Updates and explanations on snowpack, water storage, and water supply
 + Notices about upcoming workshops
 + Notification of water quality reports
 + Updates on large-scale projects and improvements
 + Tips on conservation and lowering bills
 + In-depth topic education and/or analysis when needed
 + Pertinent community news or partner announcements
 + Assigned-day watering reminders

TMWA.COM

Audience: Customers
 Reach: 23.6k visitors per month
 Frequency: Monthly
 Distribution: Internet
 Content: + Organizational information
 + Customer service and billing
 + Business and development information
 + Water quality
 + Conservation messaging
 + Promotion for workshops and tours
 + Planning
 + Links to educational or informational content

TMWA Online (Web payment portal)

Audience: Customers
Reach: 2,788
Frequency: Monthly
Distribution: With bill statements
Content: + Quick spotlight on key topics
+ Reinforcing call to action when needed (e.g., start of 3x-per-week watering)

From the Source Newsletter

Audience: Employees
Frequency: Monthly
Reach: Approx. 230 employees
Distribution: Email
Content: + Updates from board of directors meeting
+ Spotlight and perspective on interesting projects or service calls
+ Other newsworthy TMWA information that might be relevant or topical
+ Employee profiles

TMWA Facebook and Twitter Pages

Audience: Community
Reach: 2,498 followers (Facebook), 1,713 followers (Twitter), 1,191 followers (Instagram)
Frequency: Weekdays
Distribution: Followers and broader membership populations
Content: + Conservation messaging
+ Promotion for workshops and tours
+ Links to educational or informational content
+ Promotion of TMWA and community partner events
+ Employee highlights

YouTube Channel

Audience: Community
Reach: 174 subscribers
Frequency: Topic dependent
Distribution: Social media, newsletters, TMWA websites, bill inserts
Video Content: + Do-it-yourself home water system repairs
+ Spotlight on major infrastructure accomplishments
+ In-depth analysis of key topics or relevant historical perspectives

Smart About Water Website

Audience: Community

Frequency: Updated with summer campaign

Distribution: n/a

Content: + Content to understand water-resource management in the Truckee Meadows
+ External link source to funnel views to TMWA.com or other partner websites
+ Up-to-date information about river flows, storage capacity, production stats, etc.
+ Source for additional information for facts for summer campaign

Truckee Meadows Water Authority Communications Plan

Overview of Approach

Communication Pillars: Collective Focus Areas & Message Objectives

Conservation Engagement

Encourage smart water use, help ensure demand on the system is manageable and help meet conservation requirements of the Truckee River Operating Agreement.

Assigned Watering Days Landscape Guide Irrigation Workshops Instructional Videos Interpretive Tours

Customer Outreach

Ensure customers are informed and understand their bill statements, rates and other account details regarding their water service.

Bill statements Bill Inserts Envelope Messaging TMWA Online Customer Information System

Water Quality Education

Maintain awareness levels about the high standards and rigor applied through TMWA's water treatment process.

Water Quality Report Water Quality Look-up Map Water Treatment Plant Tours Water Source Workshops

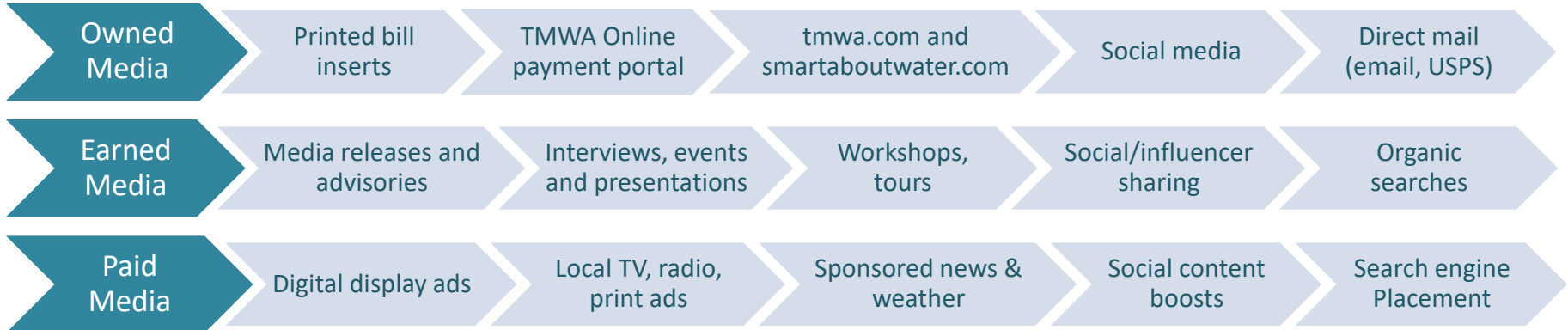
Water Leadership Awareness

Raise knowledge about water resource management, resilient infrastructure systems and fiduciary stewardship.

Plan Positioning Speaking Engagements Smart About Water[®]

Outreach Channels: Main assets and tactics for message distribution

Channel Review and Key Shifts in 2021



Owned Channels: Two major internal developments at TMWA will be leveraged.

1. Increased functionality within TMWA's new customer information system.
2. Expanded topic structure on [SmartAboutWater.com](https://www.smartaboutwater.com).

Earned Media: Social protocols will continue to be followed for in-person outreach.

Earned media typically is the outcome of TMWA's public-facing events, workshops, tours, etc. Most will continue to be hosted virtually. Any in-person event will follow the COVID guidelines in our community as identified by county and state officials.

Paid Placement: Importance of digital placement reaches beyond message positioning.

Inbound redirects and links from established webpages is given weight by search engines and increases TMWA's search engine rank value. Media with digital footprints will be given consideration of this added-value in TMWA's media buy, once primary demographic-reach goals have been met.

Messaging for a Milestone Year: TMWA's 20th Anniversary 2001 - 2021



Icon for coversheets and select collateral application.



Tag element scaled for banners, presentations, workshops, etc.



Strong contrast design for hats, t-shirts, etc.

Examples of owned placement and earned media tactics:

Lobby display

Historic milestones outlined.
TMWA history in context.

Bill inserts

Infographic delivery,
featured history sidebars.

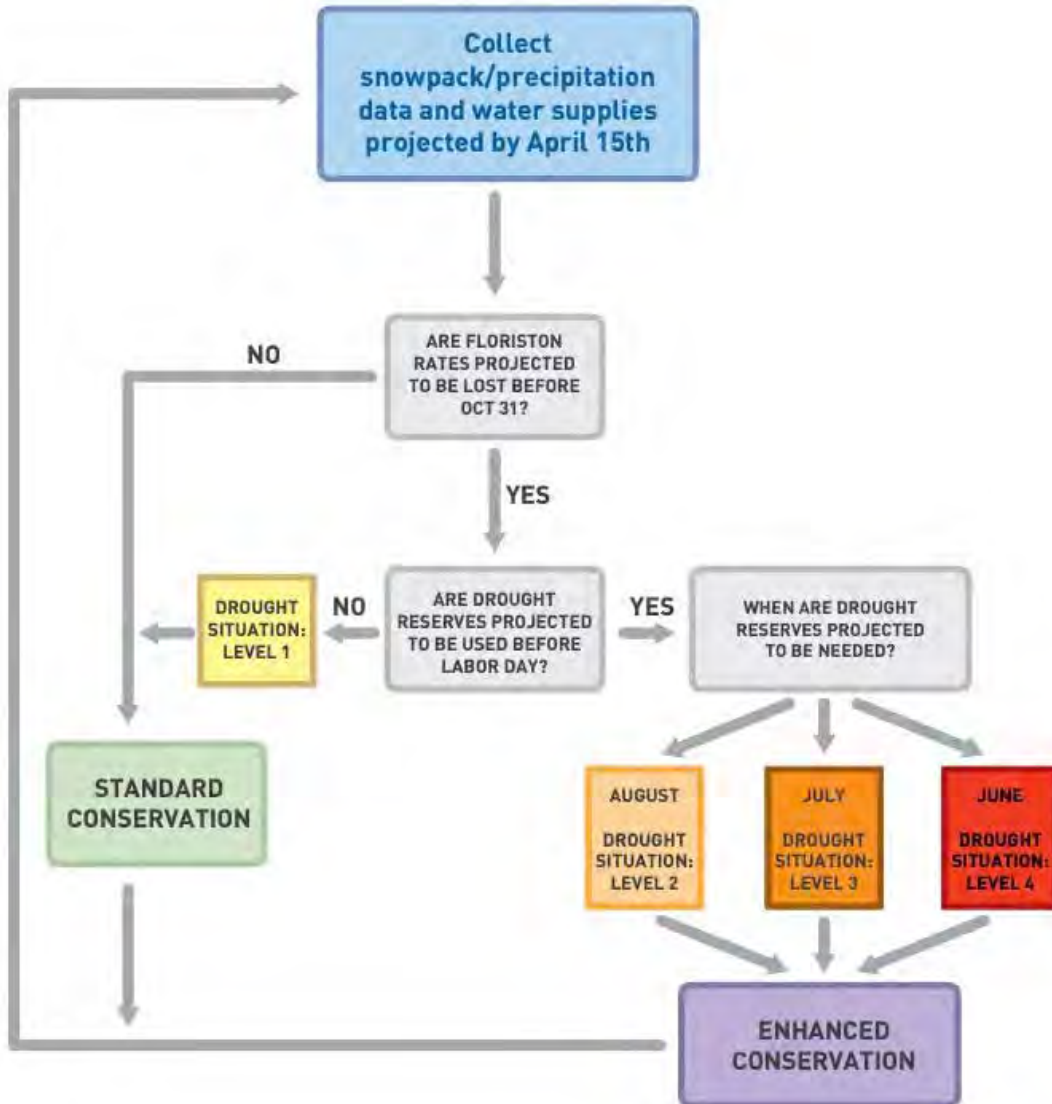
Video features

First-person history of key events
and accomplishments.

Media interviews

TMWA educating the community
about its shared history.

Messaging for Drought: Calibrating Outreach for Tiered Situations



Standard Conservation Outreach
Supports TMWA's Assigned Watering Days program and other conservation offerings. This year's campaign includes paid placement and earned positioning, beginning in April and continuing through September.

Enhanced Conservation Outreach
Includes an expansion of channels and frequency of messaging. With TMWA's new customer information system, enhanced insight into water-use trends can also cue direct messaging to influence water use.



STAFF REPORT

TO: Board of Directors
THRU: Mark Foree, General Manager
FROM: Jessica Atkinson, HR Manager
Michele Sullivan, CFO
DATE: April 7, 2021
SUBJECT: **Presentation and discussion regarding consideration of adding a Risk Manager position, and possible direction to staff**

Recommendation

After review and consideration of TMWA's risk management strategies, resources and processes, staff recommends continuing with its current risk management approach and does not recommend increasing the budgeted FTE's to hire a Risk Manager at this time.

Summary

- TMWA uses a broker to market and purchase third-party insurance coverage for property, general liability, employment practices, professional & wrongful acts, crime, network security and privacy (cyber coverage), workers' compensation and employer's liability. Where recommended, TMWA also has umbrella/excess coverage policies.
- NRS 41.033 provides that no lawsuit may be brought against TMWA for:
 - Failure to inspect any building, structure, vehicle street, public highway or other public work, facility or improvement to determine any hazards, deficiencies or other matters, whether or not there is a duty to inspect; or
 - Failure to discover such a hazard, deficiency or other matter, whether or not an inspection is made.
- NRS 41.035 limits a person's recovery in a tort against a governmental entity to a maximum of \$150,000 (increasing to \$200,000 effective July 1, 2022), exclusive of interest computed from the date of judgment and may not include any amount as exemplary or punitive damages.
- TMWA continuously works internally and regularly engages external consultants to identify risk and mitigate or eliminate risk where possible and to the satisfaction of our insurance carriers.

Background

During the October 21, 2020, Board of Directors Meeting, Member Brekhus requested staff consider adding a Risk Manager as a proposed goal objective for FY2021.

TMWA's approach to Risk Management is decentralized. This means there is not one person solely responsible for all aspects of Risk Management. Department heads, the CFO and the Human Resources Manager are all responsible for Risk Management with the guidance of our insurance broker, insurance carriers and our internal legal resource.

TMWA's Risk Management strategies include risk identification, risk transfer, risk reduction/risk control, risk avoidance and in some cases, risk acceptance/retention. These strategies are carried out at a departmental level. Finance works directly with department heads to make sure TMWA has insurance coverage sufficient for the current and prospective operating environment. Liability and workers' compensation claims are administered through the Human Resources (HR) department. TMWA is insured by outside insurance carriers for liability and workers' compensation coverage. When a claim under either liability or workers' compensation is received, the HR department works with the claimant as a liaison facilitating the submission and processing of claims and ensuring our insurance company has information necessary to adjudicate any claims.

Despite all appropriate and prudent efforts, based on the nature and scope of TMWA's business, there is always a likelihood that incidents will occur. When incidents occur, financial impacts to TMWA are mitigated through insurance. In addition, several state statutes limit TMWA's legal obligations and liability.

Discussion

Broadly, risk can be described as an uncertain outcome with the possibility of loss or reward, with loss exposures resulting from the assets and operations of an organization. The chance or likelihood of an event happening that will have an impact on organizational objectives combined with the financial, personnel and other consequences are driven by the frequency and severity of such losses.

Risk management is the systematic process of identifying, analyzing, planning, controlling, and responding to these risks and can be managed internally or externally using either a centralized or decentralized approach.

When determining how or who should manage risk in an organization some common considerations include the employment of:

1. Internal employees who manage risk for the entire organization;
2. Independent consultants who provide risk-management services for a fee; and
3. Insurance agents to provide risk assessment services and insurance advice, recommendations, and solutions.

Internal risk managers are often found in organizations that are larger in size than TMWA, have specific or increased risks and are self-insured and may only transfer high severity/catastrophic

risk exposures. When risk is not transferred, the impact of adverse events is absorbed directly by the organization. This is not the case for TMWA as we are not self-insured.

Independent consultants are often used to centralize risk management in small organizations that lack internal resources or can be used to provide services related to a particular project, department or for a specific type of risk, as in the case of cyber security. The use of an independent consultant to perform a centralized risk management function for TMWA has been employed in the past and was determined to be unnecessary because TMWA is insured and has certain statutory liability limits. However, TMWA currently engages consultants such as those made available through our insurance broker, property insurer, liability insurer, workers' compensation insurer, Department of Homeland Security (DHS), Nevada Department of Public Safety (DPS) and others related to specific projects or operational disciplines such as cyber security and network infrastructure.

TMWA is insured for property, general liability, employment practices, professional & wrongful acts, theft/crime, network and cyber security, and workers' compensation claims through outside insurance carriers. In addition, TMWA has excess/umbrella policies which provide additional coverage beyond the primary policy limits. By electing to be insured by a third-party versus self-insured, TMWA transfers the potential liability associated with risk to our insurance carriers with appropriate deductibles.

In addition to transferring of risk, due to TMWA's status as a political subdivision of the state of Nevada, potential liability for TMWA is controlled under the following Nevada Revised Statutes due to statutory immunities and caps:

- NRS 41.033 provides immunity from actions being brought under NRS 41.031 or against an officer or employee of the state or any of its agencies or a political subdivision which is based upon:
 - Failure to inspect any building, structure, vehicle street, public highway or other public work, facility or improvement to determine any hazards, deficiencies or other matters, whether or not there is a duty to inspect; or
 - Failure to discover such a hazard, deficiency or other matter, whether or not an inspection is made.
- NRS 41.035 limits a person's recovery in a tort against a governmental entity to a maximum of \$150,000 (increasing to \$200,000 effective July 1, 2022), exclusive of interest computed from the date of judgment and may not include any amount as exemplary or punitive damages.

Finally, and most important, is TMWA's commitment and effort to avoid and reduce (mitigate) risk whenever possible. This is accomplished at the departmental level and is assessed any time a new facility, process or system is designed and installed and regularly thereafter through monitoring and evaluation of performance indicators. TMWA also leverages insurance resources available through our insurance broker and various carriers. Periodically, our carriers and insurance broker conduct site visits and formal loss control surveys. As an example, TMWA's insurance brokerage recently conducted facility visits to update current risk assessments and to assess the new Mt. Rose Water Treatment Plant. From these surveys, the brokerage or carrier consultants identify hazards (actual and potential) and make recommendations to mitigate or eliminate risk. These recommendations are reviewed with department heads and corrective action is taken as necessary. Additionally, TMWA regularly engages the DHS to conduct

vulnerability assessments related to both physical and cyber/network security and the NV DPS to conduct vulnerability and physical security assessments. DHS and DPS also provide reports identifying hazards and threats and make recommendations, which are addressed and prioritized for correction.

TMWA uses a decentralized risk management approach with a focus on communication between departments and external resources, leveraging resources and consultants as necessary to assist with the different aspects of risk associated with our operations. Currently, there are sufficient processes and practices in place for the identification, measurement, and evaluation of the different types of risks that can occur and TMWA has processes in place to minimize the probability and consequences of adverse events. Therefore, adding a Risk Manager at this time is not recommended. If something were to change related to our insurance status or related to statutory immunities, then that would be an appropriate time to reevaluate the need for adding a Risk Manager.

Fiscal Impact

TMWA estimates an approximate total cost (wages and benefits) of \$190, 620 annually to add a Risk Manager to our payroll.



STAFF REPORT

TO: Standing Advisory Committee
 FROM: Sonia Folsom, TMWA SAC Liaison
 DATE: April 12, 2021
 SUBJECT: **Discussion and action on appointments to the Standing Advisory Committee (SAC) to fill the Multi-Family Residential Primary Customer Class vacancy, Senior Citizen Alternate Customer Class vacancy, and Residential Representative 3 Customer Class Alternate vacancy and other possible vacancies for terms beginning May 1, 2021 to December 31, 2023 from the following pool of candidates listed in alphabetical order: Al Black, Jordan Graham, Russ Foreman, Tom Kurtz, Kevin Ryan and Alex Talmant**

Recommendation

Staff is presenting the SAC recommendation to fill the vacancies for the senior citizen alternate customer class and residential representative customer class alternate positions with Alex Talmant and Kevin Ryan, respectively. In addition, the *SAC recommended, at the Boards discretion, to keep vacant the multi-family residential primary customer class position until an interested candidate submits a letter of interest for consideration.*

Summary

- A total of six (6) applications were received for the three vacant positions:
 - Multi-Family Primary – One (1) Vacancy; 0 Applicants
 - Senior Alternate – One (1) Vacancy; 6 Applicants
 - Residential Representative 3 Alternate – One (1) Vacancy; 3 Applicants

The table in **Attachment 1** illustrates the SACs recommendation, for Board approval, of the applicants to fill the vacant positions by customer class.

Background

The SAC was created in 2005 to review budgets, rate proposals and other matters as directed by the Board. In 2016, the TMWA Board decided to remove the two appointments made by the Northern Nevada Water Planning Commission and the Office of Consumer Advocate and replace those with two at-large positions. The committee currently consists of Board-appointed representatives of ten customer classes and four other seats (including two alternates) held by representatives of community-interest groups (**Attachment 2**). TMWA customers interested in becoming a SAC member can submit a letter of interest at any time and will be presented to the SAC when a vacancy opens for consideration.

Discussion

The applicants, and summary of pertinent experience, are listed in the table below, and the letters of interest submitted are compiled in **Attachment 3**. The SAC was pleased to have such skilled and diverse applicants express interest in representing customer issues to the TMWA Board as part of the SAC.

In addition, **Attachment 4** is a map showing locations of all current SAC members, as well as all applicants.

APPLICANT NAME	CITY	CUSTOMER CLASS	PERTINENT EXPERIENCE
Al Black	Reno	Senior, Alternate	<ul style="list-style-type: none"> • Metered rate residential customer • Has been on the: Board of Promontory Pointe HOA, Caughlin Ranch HOA, Hayward HOA, and The Museum of Early Trades and Crafts where I was also the Chair for four years • Retired from the Chemical industry where I was a Global Procurement Manager, Marketing Manager, Product Manager, and Salesman • Master's degree in Organic Chemistry and an MBA in Management
John Russ Foreman	Reno	Senior, Alternate	<ul style="list-style-type: none"> • Worked as a computer software designer, financial auditor for the State of Nevada, construction project manager for McCarran Airport & financial manager for both the US Army & Air Force • Interested in the SAC to get involved in Reno governmental activities and learn more about Reno • BA & Master's in Finance & Business from UNLV
Jordan Graham	Reno	Senior and Residential Representative, Alternate	<ul style="list-style-type: none"> • Seven years as head of a digital transformation consulting organization working with senior executives in several key industries including energy and utilities • Previous experience in land management working with geologist, landowners, and strategic partners to explore for natural resources • Six years of marketing and sales experience with a public utility • Sixteen years as a public company board director serving as past Chairman of the Strategy Committee and current Chairman of the Finance and Investment Committee • Previous Board service as a Director of two non-profits-one with assets over \$2B • Two years' experience working as a community board member for the Department of Planning and Building, County of San Mateo, CA • CEO of two venture capital backed technology companies • Board Director and Advisor to eleven venture capital and private equity backed companies

APPLICANT NAME	CITY	CUSTOMER CLASS	PERTINENT EXPERIENCE
Thomas Kurtz	Reno	Senior and Residential Representative, Alternate	<ul style="list-style-type: none"> • Was a municipal manager in State College, PA, served 22 years as Manager of Patton Township, 5 years as Assistant Manager for Community Services at State College Borough and 10 years as Director of Administration for the Centre Region Council of Governments, a consortium of 6 local governments including Patton Township and State College Borough • Served as President of the Association for Pennsylvania Municipal Management and as regional Vice President for the International City/County Management Association • BA in Political Science from the University of New Hampshire and an MA in Political Science from Penn State
Kevin Ryan	Sparks	Senior and Residential Representative, Alternate	<ul style="list-style-type: none"> • A certified Grade II Distribution Operator, and with over 35 years experience as an environmental scientist in the drinking water field • Participated in numerous advisory committees, managed multi-million dollar drinking water infrastructure projects • Familiar with the SRF grant procedures • Trained in emergency response and have been deployed multiple times to disaster areas where he worked with impacted public water systems. experience with state, local, tribal, and federal agencies, and my knowledge of the Safe Drinking Water Act
Alex Talmant	Reno	Senior, Alternate	<ul style="list-style-type: none"> • Office manager with New York Life Insurance Company until 1986 • Transitioned to Federal Civil Service with the Nevada Army National Guard: Budget Officer, Deputy Comptroller and Comptroller • Served as a member of the Board of Directors at Greater Nevada Credit Union from 1996 until 2020: During his time on the Board I served on the Governance and Investment committees as well as Board Treasurer for six year • Volunteered at Fool 4 Thought in Carson City and Carson Tahoe Hospital

TMWA Standing Advisory Committee
Term Appointments
2021 Membership List

Customer Class	Primary Representative	Member Since	Term Ends	Alternate Representative	Member Since	Term Ends
Wholesale (Sun Valley)	Chris Melton	2020	12/31/2021	<i>Vacant</i>		
Irrigation	Neil McGuire	2005	12/31/2022	Karl Katt	2013	12/31/2022
Multi-family Residential	<i>Vacant</i>			Jonnie Pullman	2012	12/31/2021
Commercial	Donald Kowitz	2017	12/31/2022	John Krmptic	2020	12/31/2021
Senior Citizen	Robert Chambers	2005	12/31/2022	Alex Talmant	2021	12/31/2023
At-Large 1	Ken McNeil	2013	12/31/2022	Ken Becker	2017	12/31/2022
At-Large 2	Jordan Hastings	2017	12/31/2022	Susan Hoog	2019	12/31/2021
Residential:						
Representative 1	Carol Litster	2014	12/31/2022	Dale Sanderson	2017	12/31/2022
Representative 2	Harry Culbert	2006	12/31/2022	Fred Arndt	2017	12/31/2022
Representative 3	Jerry Wager	2014	12/31/2022	Kevin Ryan	2021	12/31/2023
Appointments:						
BANN	Colin Hayes	2010	12/31/2021	Jim Smith	2010	12/31/2021
Reno-Sparks Chamber	Kristine Brown	2020	12/31/2021	Ann Silver	2019	12/31/2021



TMWA Standing Advisory Committee History

Bullet Points for SAC history

- 2004: The Board formed a Rate Making Review Committee (RMRC) for the purpose of reviewing and providing customer input on the proposed second and third phases of the current rate case that was going before the Board in 2005. At the time this Committee was formed, the Board did not foresee a permanent role for it.
- The initial RMRC recommended that the Board form a committee that serves in an advisory capacity on a permanent basis. Staff supported the recommendation for a standing committee.
- January 2005: Staff first approached the Board to recommend formation of the Standing Advisory Committee (SAC).
- March 2005: the Board established a SAC consisting of eleven (11) members: one (1) each of the following customer types – commercial; irrigation; multi-family; senior citizen; wholesale; and three (3) residential users all appointed by the TMWA (Truckee Meadows Water Authority) Board. The Builders Association of Northern Nevada, Reno-Sparks Chamber of Commerce and the Regional Water Planning Commission to appoint one (1) member each. Duties of the SAC include budget and rate increase review and recommendations and other matters the Board may assign.
- July 2005: The Board appointed a subcommittee to select applicants.
- September 2005: The Board appointed the first SAC members.
- August 2007: The State of Nevada Consumer Advocates Office appointed a member to the SAC.
- The SAC reviewed rate proposals in 2009, 2010 and 2012.
- December 31, 2014: Successful consummation of the mergers of South Truckee Meadows General Improvement District and Washoe County Water Utility into TMWA.
- September 2016: The Board eliminated the Northern Nevada Water Planning Commission and the State of Nevada Consumer Advocates Office appointments and created two At-Large positions.
- The SAC reviewed rate proposals in 2016, 2017 and 2019.

March 22, 2021

Dear TMWA,

I would like to become the Senior member of the Standing Advisory Committee for TMWA. My name is Allen Black and I live in Caughlin Ranch. I have had extensive board experience. I have been on the board of Promontory Pointe HOA, Caughlin Ranch HOA, Hayward HOA, and The Museum of Early Trades and Crafts where I was also the Chair for four years. I am a 73 yr old who retired from the Chemical industry where I was a Global Procurement Manager, Marketing Manager, Product Manager, and Salesman. I have a Masters degree in Organic Chemistry and an MBA in Management. I was raised on a farm and have some knowledge of land management. I think I would provide knowledge to the board that could be useful in managing the water supply of Washoe county and the surrounding communities. Please let me know if you need further information.

Regards,

Al Black



Reno, NV 89519

February 20, 2021

Truckee Meadows Water Authority
P.O. Box 30013
Reno, NV 89520

Subject: Standing Advisory Committee Vacancies

Greetings,

I would like to be considered for the open voluntary position on the Standing Advisory Committee. I am a Truckee Meadows Water Authority residential customer, am considered a Senior Citizen as I am over the age of 65 and would be pleased to serve in either customer class. I hold Bachelor's and Master's degrees in Finance and Business Administration from UNLV, have worked as a computer software designer, a financial auditor for the State of Nevada, a construction project manager for McCarran Airport, and a financial manager for both the US Army and US Air Force.

I am interested in volunteering for the Standing Advisory Committee because I would like to get involved in Reno governmental activities on a volunteer basis and become more knowledgeable about Reno as a whole. As a Nevada native and a long-time resident of Las Vegas, I am acutely aware of the criticality of managing the water supply for the City of Reno. I look forward to the opportunity to work with the City of Reno.

Sincerely,



John Russell (Russ) Foreman

[REDACTED]
Reno, NV 89521

Home – [REDACTED]

Cell – [REDACTED]

Jordan W. Graham

[REDACTED]
Reno, NV 89519
[REDACTED]
[REDACTED]

March 30, 2021

Ms. Sonia Folsum
Truckee Meadows Water Authority
P. O Box 30013
Reno, NV 30013
(Sent via email: sfolsom@twma.com)

RE: Standing Advisory Board Membership Application

Dear Sonia:

Thank you very much for taking the time to talk with me regarding your current openings for the Standing Advisory Committee. Based on our conversation, I would like to express my interest in serving as either a resident (local homeowner) or senior (age 60) member of the Board.

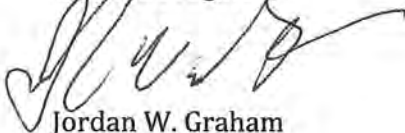
In addition to having a strong interest our water supply, I believe the following relevant experience would be an asset to your Board:

- Seven years as head of a digital transformation consulting organization working with senior executives in several key industries including energy and utilities.
- Previous experience in land management working with geologist, landowners, and strategic partners to explore for natural resources.
- Six years of marketing and sales experience with a public utility (Pacific Telephone)
- Sixteen years as a public company board director serving as past Chairman of the Strategy Committee and current Chairman of the Finance and Investment Committee.
- Previous Board service as a Director of two non-profits—one with assets over \$2B.
- Two years' experience working as a community board member for the Department of Planning and Building, County of San Mateo (California)
- CEO of two venture capital backed technology companies.
- Board Director and Advisor to eleven venture capital and private equity backed companies.
- Extensive operating and executive experience with AT&T, Sun Microsystems, Cisco Systems, and Citigroup

I have tried to highlight key elements of my background along with executive and governance related experience that I think would be helpful to your Board. Further background can be found in my LinkedIn profile at <https://www.linkedin.com/in/jordan-graham-5890531>.

Should you desire additional information, please feel free to contact me directly. I look forward to learning more about next steps.

Warmest regards,



Jordan W. Graham

Thomas S. Kurtz

[REDACTED]
Reno, NV 89523
[REDACTED]
[REDACTED]

February 25, 2021

Ms. Sonia Folsom
Truckee Meadows Water Authority
PO Box 30013
Reno, NV 89520

Subject: Standing Advisory Committee Vacancy

Dear Ms. Folsom:

I would be honored to be of service to the TMWA and our community by serving on the Standing Advisory Committee. I am a senior (age 79) and a residential customer of the Authority. My wife and I purchased our home here in Reno in 2011 and became full time residents in 2016. I have a strong interest in water service in the Truckee Meadows and have reviewed the TROA and some historical documents about water service in this area.

My professional career was as a municipal manager in State College, Pennsylvania, the host community for Penn State University. I served for 22 years as Manager of Patton Township (a suburb of State College with 15,000 residents), 5 years as the Assistant Manager for Community Services at State College Borough and 10 years as Director of Administration for the Centre Region Council of Governments, a consortium of 6 local governments including Patton Township and State College Borough. Water service in this area is provided by the State College Borough Water Authority, an authority similar to TMWA, but with a water supply consisting entirely of groundwater.

I have a BA in Political Science from the University of New Hampshire and an MA in Political Science from Penn State. I have served as President of the Association for Pennsylvania Municipal Management and as regional Vice President for the International City/County Management Association.

I am the author of the Intergovernmental Cooperation Handbook published by the Pennsylvania Department of Community and Economic Development, currently in its 7th edition (2018).

If you find my background and experience might be of service to the TMWA, I would be pleased to serve on the TMWA Standing Advisory Committee.

Sincerely



Thomas S. Kurtz

Kevin J. Ryan

Sparks, NV 89434

March 29, 2021

To whom it may concern:

I am writing to express my interest in volunteering to serve on the Standing Advisory Committee for the **residential** or the **senior citizen representative** class vacancy. I understand that the monthly responsibilities may include reviewing budgets, rate proposals and other priorities of the Truckee Meadows Water Authority. I enjoy working with utilities and believe safe, affordable drinking water is vital to the health of communities.

As a certified Grade II Distribution Operator, and with over 35 years experience as an environmental scientist in the drinking water field, I have participated in numerous advisory committees, managed multi-million dollar drinking water infrastructure projects, and I am familiar with the SRF grant procedures. I am trained in emergency response and have been deployed multiple times to disaster areas where I worked with impacted public water systems.

I trust my experience with state, local, tribal and federal agencies, and my knowledge of the Safe Drinking Water Act, will provide an opportunity to be considered for this important stakeholder position. References available on request.

Respectfully,

Kevin J. Ryan

TO: Sonia Folsom

3/6/2021

sfolsom@TMWA.com

Subject: Standing Advisory Committee

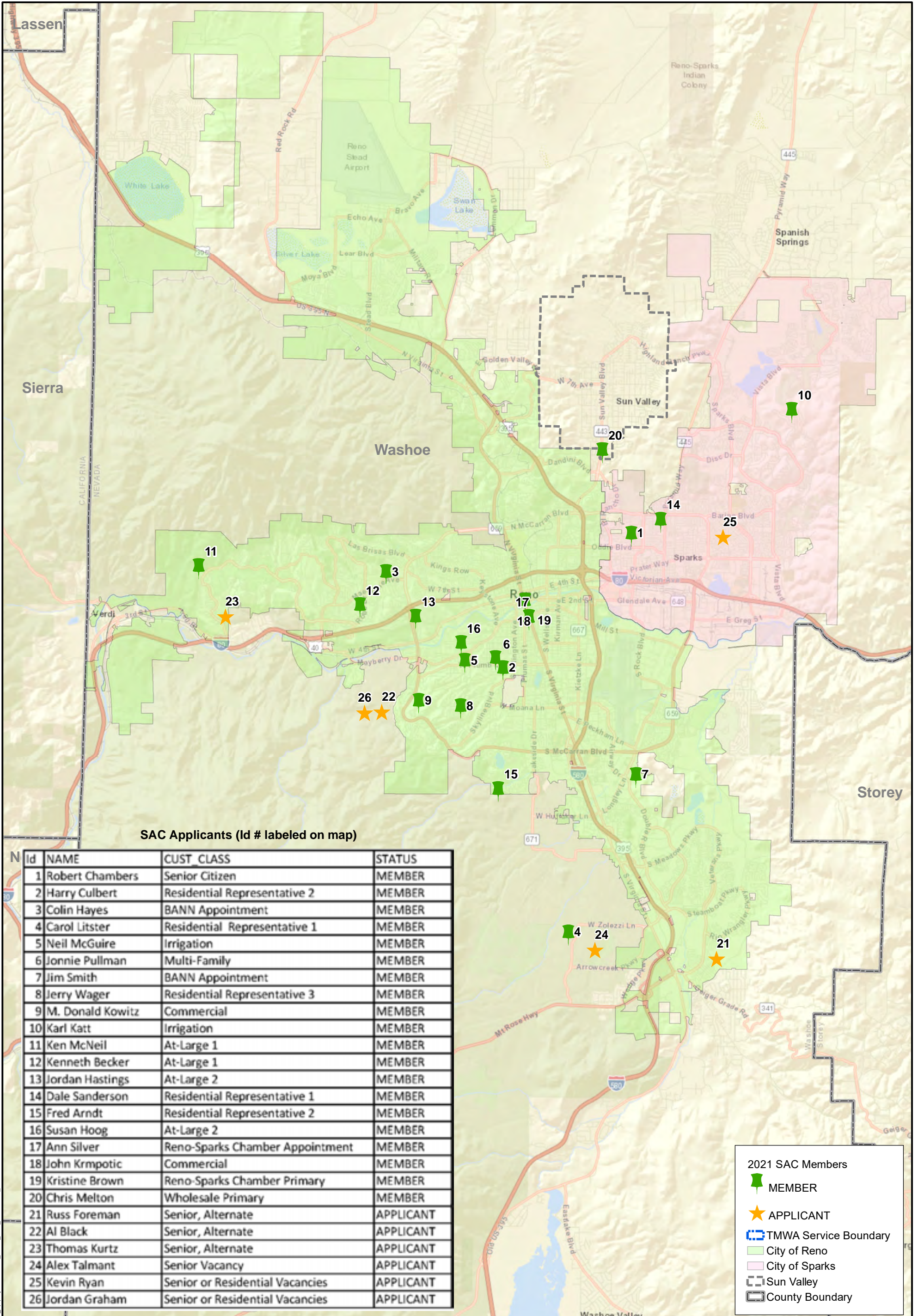
I am Alex W. Talmant Jr. residing at [REDACTED], Reno, NV 89511 for four and one half years. My customer class would be Senior and my contact information is [REDACTED], [REDACTED]. My education includes a BS in Business Administration from the University of Idaho and an MBA from Golden Gate University.

In 1975 I arrived in Reno where I was the office manger with New York Life Insurance Company until 1986 when I transitioned to Federal Civil Service with the Nevada Army National Guard. Over the next 24 years I held the positions of Budget Officer, Deputy Comptroller and Comptroller when I retired in 2010 with 34 years of combined military/Federal Civil Service.

My interest in volunteering led me to help at Fool 4 Thought in Carson City and Carson Tahoe Hospital. I served as a member of the Board of Directors at Greater Nevada Credit Union from 1996 until 2020. During my time on the Board I served on the Governance and Investment committees as well as Board Treasurer for six years. I have always had an interest in growth in the Truckee Meadows and hope I can be a contributing member of the Standing Advisory Committee.

Sincerely,

Alex W. Talmant Jr.



SAC Applicants (Id # labeled on map)

Id	NAME	CUST CLASS	STATUS
1	Robert Chambers	Senior Citizen	MEMBER
2	Harry Culbert	Residential Representative 2	MEMBER
3	Colin Hayes	BANN Appointment	MEMBER
4	Carol Litster	Residential Representative 1	MEMBER
5	Neil McGuire	Irrigation	MEMBER
6	Jonnie Pullman	Multi-Family	MEMBER
7	Jim Smith	BANN Appointment	MEMBER
8	Jerry Wager	Residential Representative 3	MEMBER
9	M. Donald Kowitz	Commercial	MEMBER
10	Karl Katt	Irrigation	MEMBER
11	Ken McNeil	At-Large 1	MEMBER
12	Kenneth Becker	At-Large 1	MEMBER
13	Jordan Hastings	At-Large 2	MEMBER
14	Dale Sanderson	Residential Representative 1	MEMBER
15	Fred Arndt	Residential Representative 2	MEMBER
16	Susan Hoog	At-Large 2	MEMBER
17	Ann Silver	Reno-Sparks Chamber Appointment	MEMBER
18	John Krmpotic	Commercial	MEMBER
19	Kristine Brown	Reno-Sparks Chamber Primary	MEMBER
20	Chris Melton	Wholesale Primary	MEMBER
21	Russ Foreman	Senior, Alternate	APPLICANT
22	Al Black	Senior, Alternate	APPLICANT
23	Thomas Kurtz	Senior, Alternate	APPLICANT
24	Alex Talmant	Senior Vacancy	APPLICANT
25	Kevin Ryan	Senior or Residential Vacancies	APPLICANT
26	Jordan Graham	Senior or Residential Vacancies	APPLICANT

2021 SAC Members

- MEMBER
- APPLICANT
- TMWA Service Boundary
- City of Reno
- City of Sparks
- Sun Valley
- County Boundary

W:\projects\Facilities\Facility_clean_up\projects\mxd\UK_11\17_SAC_MEMBERS_2021.mxd



Distribution of SAC Members & Applicants

DATE 4/1/2021
 MAP BY: JAK
 REQUESTED BY: SF
 SCALE: 1 in = 2 miles





STAFF REPORT

TO: Board of Directors
FROM: Mark Foree, General Manager
DATE: April 12, 2021
SUBJECT: **General Manager's Report**

Attached please find the written reports from the Management team including the Operations Report (*Attachment A*), the Water Resource and the Annexation Activity Report (*Attachment B*), and the Customer Services Report (*Attachment C*).

Included in your agenda packet are press clippings from March 11, 2020 through April 14, 2021.

Also, staff received a *Tell the Board* email regarding the special letter sent out to all customers informing them of the new customer service information system and their issue with the font size. Staff replied they would definitely consider font size in future correspondence to customers.



STAFF REPORT

TO: Board of Directors
THRU: Mark Foree, General Manager
FROM: Scott Estes, Director of Engineering
BY: Bill Hauck, Water Supply Administrator
DATE: April 19, 2021
SUBJECT: April 2021 Operations Report

Summary

- The water supply outlook for the region is fair
- Lake Tahoe storage is @ 38% of capacity
- Combined total upstream reservoir storage is 39% of maximum capacity
- Customer demands are at typical springtime levels (~75 MGD)
- Hydroelectric revenue for March 2021 was \$258,269

(A) Water Supply

- **River Flows** - Truckee River flows at the CA/NV state line were approximately 750 cubic feet per second (CFS) this morning.
- **Reservoir Storage** - Truckee River reservoir storage is 39% of capacity. The elevation of Lake Tahoe is 6225.35 feet (3.75' below maximum storage elevation). Storage values for each reservoir as of April 19th are as follows:

Reservoir	Current Storage (Acre-Feet)	% of Capacity (Percent)
Tahoe	284,400	38%
Boca	13,869	34%
Stampede	91,582	40%
Prosser	9,572	32%
Donner	5,364	56%
Independence	11,980	68%

In addition to approximately 17,300 acre-feet of storage in Donner and Independence reservoirs, TMWA has about 29,800 acre-feet of water stored between Lake Tahoe, Boca, and Stampede reservoirs under the terms of TROA. TMWA's total combined upstream reservoir storage is approximately 47,100 acre-feet (as of April 19th).

- **Snowpack** - The NRCS season-ending snowpack was recorded at 67% of normal in the Lake Tahoe Basin, and 68% of normal for the Truckee River basin. This winter ended up quite similar to last year, both noticeably below average. A hot, dry summer and a warm fall with very little precipitation coming into the snowpack building season left soils dry throughout the winter until the snowmelt began. And with no noteworthy storms since the first of April, snowpack values are now significantly below where they should be this time of the year. This morning 43% of normal was being reported in the Lake Tahoe Basin, and 44% of normal was being reported in the Truckee Basin.
- **Runoff Forecast** - The runoff forecast continues to be downgraded. The latest projections point toward significantly below average runoff for both Lake Tahoe @ 27% of normal, and the Truckee River at Farad @ 35% of normal.
- **Outlook** - Current snowpack conditions and projections for streamflow runoff are significantly below average. But while upstream storage numbers aren't nearly as good as we would like to see, there is still enough carry-over storage in Lake Tahoe to help provide normal Truckee River flows through TMWA's peak demand season. At this time no releases of drought reserves are anticipated in order to meet TMWA customer demand. By the end of this year however, most if not all of the carry-over storage in Lake Tahoe is expected to be exhausted. With no carry-over storage remaining going into 2022, Truckee River flows will be almost certainly be dependent upon the outcome of next winter.

(B) Water Production

- **Demand** - TMWA's customer demand averaged 75 million gallons per day (MGD) for the second full week of April. Overall, surface water made up 86% of our supply and groundwater the other 14%.

(C) Hydro Production

Generation - Truckee River flows at Farad (CA/NV state line) for the month of March 2021 averaged 503 CFS. Both the Fleish and Verdi power plants were on-line and available the entire month (100% available). The Washoe Power plant was still out of service as the flume rebuild continues. Statistics for the month as follows:

Hydro Plant	Days On-Line	Generation (Megawatt hours)	Est. Revenue (Dollars)	Est. Revenue (Dollars/Day)
Fleish	31	1,831	\$ 136,731	\$ 4,411
Verdi	31	1,642	\$ 121,538	\$ 3,921
Washoe	0	0	\$ 0	\$ 0
Totals	62	3,473	\$ 258,269	\$ 8,332



STAFF REPORT

TO: Chairman and Board Members
THRU: Mark Foree, General Manager
FROM: John Zimmerman, Manager, Water Resources
DATE: April 12, 2021
SUBJECT: Report Water Resources and Annexation Activity

RULE 7

Rule 7 water resource purchases and will-serve commitment sales against purchased water resources through this reporting period:

Beginning Balance		3,870.50 AF
Purchases of water rights	0.00 AF	
Refunds	0.00 AF	
Sales	- 102.19 AF	
Adjustments	0.00 AF	
Ending Balance		3,768.31 AF

Price per acre foot at report date: \$7,700

FISH SPRINGS RANCH, LLC GROUNDWATER RESOURCES

Through the merger of Washoe County's water utility, TMWA assumed a Water Banking and Trust Agreement with Fish Springs Ranch, LLC, a subsidiary of Vidler. Under the Agreement, TMWA holds record title to the groundwater rights for the benefit of Fish Springs. Fish Springs may sell and assign its interest in these groundwater rights to third parties for dedication to TMWA for a will-serve commitment in Areas where TMWA can deliver groundwater from the Fish Springs groundwater basin. Currently, TMWA can deliver Fish Springs groundwater to Area 10 only (Stead-Silver Lake-Lemmon Valley). The following is a summary of Fish Springs' resources.

Beginning Balance		7,693.51 AF
Committed water rights	- 0.00 AF	
Ending Balance		7,693.51 AF

Price per acre foot at report date: \$41,500 (for SFR and MFR); \$36,000 (for all other services)¹

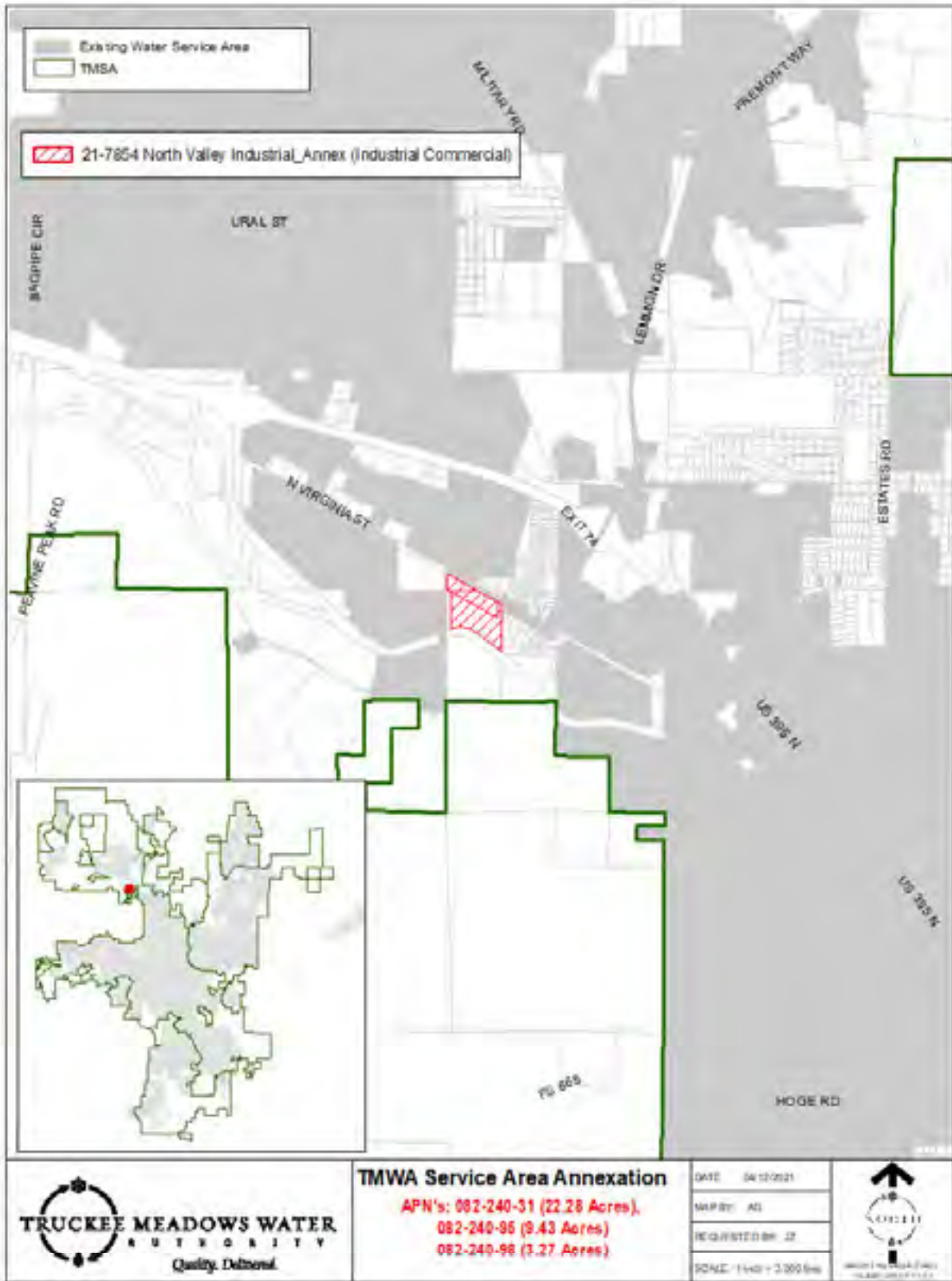
¹ Price reflects avoided cost of Truckee River water right related fees and TMWA Supply & Treatment WSF charge.

WATER SERVICE AREA ANNEXATIONS

Since the date of the last report there has been one 34.98-acre annexation (see attached map).

INTERRUPTIBLE LARGE VOLUME NON-POTABLE SERVICE

No new ILVNPS customers have been added during this reporting period.





STAFF REPORT

TO: Board of Directors
THRU: Mark Foree, General Manager
FROM: Marci Westlake, Manager Customer Service
DATE: April 9, 2021
SUBJECT: **March Customer Service Report**

The following is a summary of Customer Service activity for March 2021.

Ombudsman

- Customer called regarding payment, crossed in the mail with current bill. Explained and customer was good.
- Customer wanted his account number.
- Customer called regarding deceased persons account and that it is in probate and will bring current as soon as they have the funds.
- Customer called with pressure complaints- sent out a pressure test with tech.
- Customer called to compliment TMWA on how wonderful we are in all that we do. From delivering the water to Customer Service this gentleman was very complimentary in all aspects of the Utility.
- Customer wanted our email address.
- Customer wanted to sign up for AutoPay, we signed them up.

Communications

- On March 12 Sonia Folsom had a virtual College and Career fair for Nevada Virtual Academy about TMWA, different careers, education/experience requirements. We had 15 attendees.
- On March 23 Angel Lecroix held a virtual panel discussion for UNR Theta Tau Engineering Fraternity on experiences moving from school into the workforce, what the job is like, what our companies look for in employees, favorite thing about the job. We had 15 attendees.
- On March 25 John Enloe held a virtual Closing session panel discussion about Regional Collaboration on water recycling projects in Northern NV, 200 people attended.
- On March 31 Chuck Swegles, Robert Charpentier and Sonia Folsom had a virtual Irrigation start-up workshop and 5 people attended.

Conservation (2021 Calendar year)

- 10 Water Watcher Contacts
- 157 Water Usage Reviews

Customer Calls –March

- 11,978 phone calls handled
- Average handling time -5 minutes, 04 seconds per call
- Average speed of answer –5 minutes, 17 seconds per call

Billing –March

- 109,037 bills issued.
- 1 (0.00%) corrected bills.
- 9,510 customers (7%) have signed up for paperless billing to date.

Service Orders March (% is rounded)

- 1,188 service orders taken
- 716 (60%) move-ins / move-outs
- 1 (1%) cut-out-for-non-payment and cut-in after receiving payments, including deposits and checks for tamper only
- 122 (10%) zero consumption meter checks
- 91 (7%) re-read meters
- 101 (9%) new meter sets and meter/register/ERT exchanges and equipment checks
- 43 (3%) problems / emergencies, including cut-out for customer repairs, dirty water, no water, leaks, pressure complaints, safety issues, installing water meter blankets, etc.
- 13 (1%) high-bill complaints / audit and water usage review requests
- 101 (9%) various other service orders

Remittance –March

- 24,579 mailed-in payments
- 4,758 electronic payments
- 14,242 payments via AutpPay (EFT)
- 16,541 one-time bank account payments
- 1,249 credit card payments
- 208 store payments
- 180 payments via drop box or at front desk

Collections –March

- 3,831 accounts received a late charge

- Mailed 1,354 10-day delinquent notices, 0.01% of accounts
- Mailed 473 48-hour delinquent notices, 0.01% of accounts
- 0 accounts eligible for disconnect
- 1 account was disconnected (including accounts that had been disconnected-for-non-payment that presented NSF checks for their reconnection)
- 0.14% write-off to revenue

Meter Statistics – Fiscal Year to Date

- 0 Meter retrofits completed
- 3,551 Meter exchanges completed
- 1,981 New business meter sets completed
- 131,297 Meters currently installed



Biden delays Trump changes to lead and copper drinking water rule

BY RACHEL FRAZIN - 03/10/21 04:36 PM EST

853 SHARES

SHARE

TW

Just In...

Illinois to expand vaccine eligibility to all adults on April 12

STATE WATCH — 6M 7S AGO

Republicans launch fundraising vehicle for Newsom recall

CAMPAIGN — 9M 54S AGO

GOP senator blocks bill to prevent private debt collectors from seizing stimulus checks

SENATE — 10M 28S AGO

GOP lawmaker makes reference to lynching during Asian-American hearing

HOUSE — 10M 46S AGO

Poll finds Clarence Thomas is GOP's most popular Supreme Court Justice

NEWS — 15M 12S AGO

Blinken warns of possible sanctions on Russia's Nord Stream 2 pipeline

INTERNATIONAL — 18M 24S AGO

GOP lawmaker introduces bill targeting tech liability protections

TECHNOLOGY — 23M 56S AGO

Joe Biden can build back better on more



© iStock

The Biden administration announced on Wednesday that it is delaying the implementation of a Trump administration update to a rule governing lead and copper in drinking water.

The [rule in question](#) is expected to quicken the speed at which cities need to notify people who may have been exposed to lead but gives utilities a longer timeline to replace lead-tainted service lines.

A new statement from the Environmental Protection Agency (EPA) said that it is extending the date that the rule becomes effective, delaying it until at least June 17. It was originally expected to go into effect next week.

Radhika Fox, the agency's acting assistant administrator for water, said in the statement that the EPA is extending the rule so it can review it and "fully consult with stakeholders, including those that have been disproportionately impacted by lead in drinking water."

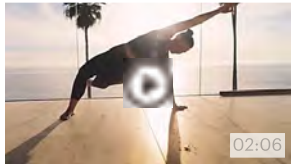
"Exposure to lead in drinking water can be a very serious problem for children's health. It is essential that EPA takes the time now to review this important rule to ensure that we are protecting current and future generations," Fox said.

The EPA said that it will also take public comment on an action that would extend the effective date until Dec. 16.

The Trump administration's rule would require monitoring for lead at

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The Trump administration's rule would require monitoring for lead at primary schools and child care centers. It would also require cities to notify residents of potential lead exposure within 24 hours.

However, the rule extends the amount of time utilities have to replace the lead service lines that connect homes to the water supply. Critics argue that the extension could allow lead-tainted pipes to remain underground for another 30 years.

The rule also does not enact a stricter limit on lead levels in water, which advocates say is necessary to protect health. The rule creates a 10 parts per billion (ppb) "trigger" level at which cities would need to reevaluate their water treatment processes and possibly add corrosion-control chemicals to city water.

But it keeps the previously set 15 ppb level that requires cities to begin replacing the nation's estimated 6 million lead service lines that connect homes to city water supplies — the underlying source of lead contamination.

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According to the Centers for Disease Control and Prevention, exposure to lead can harm children's health and can cause brain and nervous system damage, slowed growth and development, and problems with learning, behavior, hearing and speech.

The decision to delay the rule comes after the Biden administration issued a memo freezing pending regulations for review.

The White House also separately identified the lead and copper rule as one of dozens of Trump administration environmental rules that it would seek to review.

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TWEET



Fernley fears future water shortage as \$148M plans to line Truckee Canal move forward



Amy Alonzo

Reno Gazette Journal

Some rural Nevada water users will be on the hook to help fund a project that could ultimately dry up their city's main source of water, although neither the state or federal government recognizes it as a valid water right.

Following a 2008 Truckee Canal breach that flooded nearly 600 Fernley residences, the Bureau of Reclamation has ordered nearly 13 miles of the canal be lined with an impermeable membrane – a roughly \$148 million project. But the canal has been unlined for more than 100 years, and groundwater that percolates from the canal and into Fernley's aquifer has served as the city's primary source of water.

"You can address safety without impacting the future water of the residents of Fernley," City Manager Daphne Hooper told the RGJ. "How can you just take away the water we've been dependent on for so many years?"

According to the Bureau, in 2012 the Fernley area received anywhere from 14,000 to 22,000 acre-feet of water from canal seepage. In a recently released record of decision that finalized the project, the Bureau acknowledged that without the groundwater recharge, the city could face water shortages if groundwater is the only supply to the city. In addition to the city, roughly 400 domestic well users rely on the canal for groundwater recharge.

But in previous legal challenges regarding water rights, the state has opined that artificial water recharge is not a valid water right.

Since at least 1945, the Supreme Court of Nevada has held that valid water rights in the state are obtained only from natural sources. In a 2007 case regarding Fallon water rights and the Truckee Canal, the ruling stated that groundwater recharge from the canal could not be relied upon permanently by surrounding communities.

More: Fernley facing 'a real problem' as Bureau of Reclamation plans to line Truckee Canal

The Bureau also does not recognize the water rights, as the water is not a contractually obligated delivery from the canal.



And federal officials say that lining the canal and making additional repairs are the only way to shore up the aging infrastructure.

“The things that will make the canal safe are also the things that cut off seepage, because that’s what makes the canal unsafe,” said Terry Edwards, Lahontan Basin area manager for the Bureau. “There is a need to fix the canal to make it safe, and people on the other end of it have a water right. If the canal can’t operate, they can’t get their water. We have the same mixed feelings. Yeah, we need to fix it, but it’s going to hurt people to do it.”

Fixing aging infrastructure or a knee-jerk reaction?

The Truckee Canal was built more than 100 years ago as part of the Newlands Project, one of the Bureau of Reclamation’s first endeavors. The canal originates at the Derby Diversion Dam on the Truckee River, 20 miles east of Reno and terminates at Lahontan Reservoir near Silver Springs.

“When the canal was built, the intent was that there’s this water system that’s going to go through this community that will support agriculture and growth, and that’s what happened,” Hooper said. “Our community grew up around this water system that was intended for those purposes.”

The canal provides irrigation water for about 57,000 acres of cropland in the Fernley and Fallon areas, as well as entities including the U.S. Fish and Wildlife Service, Churchill County, Fallon and Fernley.

More projects: Historic Steamboat Ditch could get piped under proposed project

In January 2008, after more than 100 years of operation, the canal’s north embankment breached about 12 miles downstream of Derby Dam, flooding nearly 600 properties on the east side of Fernley.

Nobody was killed in the flood, but more than a dozen people were rescued from rooftops by helicopter. Others were rescued by boat after a 2-foot-tall wave of water roared into town.



When the canal breached, Valerie and Ben Roberds lived across town, near the canal – and they watched as the floodwaters rushed toward their house.

“We watched as it blew through the field across from the house and then down the street,” she said “We could see it, that’s how close it was. It was probably a couple thousand feet away from where we used to live.”

Related: Fernley suing Reclamation for public comment extension on canal project

The couple said they understand where the Bureau is coming from with its plan to line the canal, but they don’t agree with it.

“I can't help but think much of the motive for lining the canal is a knee-jerk reaction to the flood and the concern about liability. This is a valid concern,” he said. “However, the canal is now managed far better than it was during the time of the flood, and there are several less expensive, more practical options which need to be vetted before knee-jerk reactions are implemented.”

Project 'could take decades'

Prior to the breach, the canal operated at flows of 750 cubic feet per second. Since the breach, flows have run much lower as a permanent solution was sought for the canal.

Over the years, the Bureau proposed and studied various solutions — all included lining the canal.

“Throughout this process, Fernley has advocated that the Bureau implement one of several solutions that would fix the long-term maintenance issues with the canal without the need to line the canal,” according to a Fernley report.

“The Bureau refused to include any of these solutions as alternatives and instead analyzed only alternatives that included a lining of significant portions of the canal.”

The Bureau did consider other options, according to project manager Laurie Nicholas. But those options all had larger drawbacks than lining the canal, including environmental impact, cost and engineering feasibility, she said.

During the public comment period, more than 200 comments opposing the project were submitted to the Bureau.

In December, the Bureau approved a record of decision to line 12.7 miles of the ditch in the Fernley area with an impermeable membrane and a concrete liner, as well as to update structures associated with the canal. Just under three miles of the canal will remain unlined in the Fernley area to still allow some groundwater recharge.

The Bureau owns the Newlands Project, but since 1926, the Truckee-Carson Irrigation District has had a contract with the Bureau for its operation and maintenance.

TCID was also on the hook for the canal breach, which an investigation showed was caused by burrowing rodents weakening the canal. Again, TCID and its customers will also need to find funding for the costly lining project.

“As a small district, we can’t handle that kind of massive outlay. We can only do it a tiny little chunk at a time,” said Rusty Jardine, general manager at TCID. “And it’s going to take a long, long time to do that. It could take decades.”

Jardine did not say whether or not customers would see rate increases due to the project.

Looking ahead

Not long after the canal breach, the Roberds moved across town to two acres in west Fernley – still near the canal.

With the closest city water line roughly an eighth of a mile away, they rely on the canal to recharge their 75-foot deep domestic well. During strong water years, the water level sits around 25 feet below the surface. In drought years, the water level drops to about 37 feet below the surface.



An 11-year resident of the property, she said she's watched as multiple neighbors have had to re-drill their wells over the past few years.

"I'm concerned about the city of Fernley's water situation. We've been told the drainage out of the bottom of the canal helps replenish the aquifers out here," Valerie said. "I'm concerned about my own well and my neighbors, but I'm really concerned about the city and development ... I don't see it working out very well having the whole canal lined like that."

Jardine estimates that it will take the district five to six years to pay off the \$3.5 million in debt it incurred for the project's environmental impact statement – construction will not start before that debt is paid off.

"It's not going to happen in our lifetime, but it's going to happen in somebody's lifetime," Valerie said. "I just hate to see it happen."

Amy Alonzo covers the outdoors, recreation and environment for Nevada and Lake Tahoe. Reach her at aalonzo@gannett.com or (775) 741-8588. [Here's how you can support ongoing coverage and local journalism.](#)

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BUSINESS

Western states chart diverging paths as water shortages loom

BY SOPHIA EPPOLITO AND FELICIA FONSECA ASSOCIATED PRESS/REPORT FOR AMERICA

MARCH 10, 2021 07:34 PM



This Aug. 21, 2019 image shows Lake Powell near Page, Arizona. A plan by Utah could open the door to the state pursuing an expensive pipeline that critics say could further deplete the lake, which is a key indicator of the Colorado River's health. (AP Photo/Susan Montoya Bryan) SUSAN MONTOYA BRYAN AP

SALT LAKE CITY

As persistent drought and climate change threaten the Colorado River, several states that rely on the water acknowledge they likely won't get what they were promised a century ago.

But not Utah.

Republican lawmakers approved an entity that could push for more of Utah of water as seven Western states prepare to negotiate how to sustain a river serving 40 million people. Critics say the legislation, which the governor still must sign, could strengthen Utah's effort to complete a billion-dollar pipeline from a dwindling reservoir that's a key indicator of the river's health.

Other states have had similar entities for decades, but Utah's timing raised questions about its commitment to conservation and finding a more equitable way of surviving with less.

"There's a massive disconnect all centered around climate change," said Zach Frankel, executive director of the Utah Rivers Council, which opposed the legislation. "The other six basin states know the Colorado River is dropping, and they know they have to decrease their usage, while Utah is running around in this fantasy."

The river supplies Arizona, California, Colorado, Nevada, New Mexico, Utah, Wyoming and Mexico as well as a \$5 billion-a-year agricultural industry. As the states face a dire environmental future and negotiations over a new plan to protect the waterway from drought, it's forced a shift in thinking.

The goal of renegotiating is figuring out how to use less, "not staking out political turf to try to figure out how to use more," said John Fleck, director of University of New Mexico's Water Resources Program.

"It's just not clear Utah has a willingness to do that," he said.

The six members of the Colorado River Authority of Utah would oversee the state's negotiations on the drought plan and other rules that expire in 2026. Opponents worry parts of the legislation would allow the authority to avoid scrutiny by keeping some documents secret and permitting closed meetings.

House Speaker Brad Wilson said Utah will pursue conservation, but that alone won't meet the needs of one of the nation's fastest growing states. Utah is entitled to water under longstanding agreements among the states.

"We just need to make sure that as we kind of preserve and protect our interests in the Colorado River, that we have the expertise and the tools we need at our disposal to do that," Wilson said.

The bill comes six months after the other states rebuked Utah's plan to build an underground pipeline that would transport billions of gallons of water 140 miles (225 kilometers) from Lake Powell to a region near St. George, Utah, close to the Arizona border. Other states, such as Colorado and Wyoming, also are pursuing projects to shore up their water supply.

Utah began pursuing the pipeline 15 years ago to serve the city that's seen a 23% population jump since 2010, according to census figures, likely driven by a warm climate, red rock landscape and outdoor recreation. The project is under federal review.

Water experts worry Utah, which experienced its driest year ever in 2020, is banking on water that might not be available and could further deplete Lake Powell. Utah is one of the so-called upper basin states that get their share of water based on percentages of what's available but historically haven't used it all. The lower basin states — Arizona, California and Nevada — get specific amounts that are subject to cuts.

Utah plans to tap 400,000 acre-feet of water on top of the 1 million acre-feet it typically uses. An acre-foot is enough to serve one to two average households a year.

"Using more out of the Colorado River system might be on some piece of paper somewhere as a legal entitlement, but it is not a practical reality in the system that we've got today," said James Eklund, former director of the Upper Colorado River Commission, an interstate agency that helps states administer water rights.

With conservation in mind, states have passed laws focused on safeguarding other water supplies.

In Arizona, Gov. Doug Ducey recently signed a bill allowing farmers, ranchers and others to file a conservation plan and not lose their full water entitlements. Colorado and New Mexico also have eased up on "use it or lose it" laws.

The Arizona law doesn't affect the Colorado River but could boost water in other streams and rivers for wildlife habitat, recreation or city use.

"Everyone in the state needs to take a good, long look at the water that they're using and how much water they expect to use in the future and how to properly manage that so we can have long-term water security for everybody," said Kim Mitchell of Western Resource Advocates, which supported the Arizona bill.

Utah isn't alone in a history of lawsuits, disagreements and posturing to defend its share of water, though much of it recently has come from lower basin states that use most of their water.

The Imperial Irrigation District in Southern California, which holds the single largest share of Colorado River water, refused to join the drought plan without federal money to address a briny inland sea that's become a health hazard as evaporation leaves behind contaminated dust. The Salton Sea also will be a sticking point in renegotiations, the district said.

Southern Nevada has built a pipeline near the bottom of Lake Mead to ensure taps will keep flowing to Las Vegas homes and casinos even if the reservoir no longer can deliver water to Arizona, California and Mexico.

And Native Americans want to ensure their voices aren't missing from talks as they say they have been in the past. The 29 tribes in the Colorado River basin collectively hold rights to about 20% of its flow.

"The days of tribes standing silently by as the federal government, states and other entities set the terms for managing and distributing water to which our people are entitled and depend upon for survival are over," Gila River Indian Community Gov. Stephen Roe Lewis said in a statement.



This Aug. 20, 2019 image shows the Colorado River flowing south of Page, Arizona. A plan by Utah could open the door to the state pursuing an expensive pipeline that critics say could further deplete Lake Powell, which is a key indicator of the Colorado River's health. (AP Photo/Susan Montoya Bryan) SUSAN MONTOYA BRYAN AP

What to know about increased capacity limits, public gatherings in Nevada amid COVID-19

Kristin Oh

Reno Gazette Journal

Public gatherings and some capacity limits are allowed to increase under the state's updated COVID-19 mitigation measures.

The following guidelines are effective as of March 15 for all Washoe County residents and businesses. However, wearing face masks and maintaining social distancing measures remain in effect.

Public gatherings and events may now operate at 50% of their fire code capacity or at 250 individuals, whichever is less. They must also follow strict social distancing requirements.

Large public gatherings are open for submission and approval. If an organizer wants to host a large gathering or event, including conferences, conventions and trade shows, with more than 250 people they may now have up to 50% capacity, according to the new guidelines. However, they must complete and submit a form to the Department of Business and Industry (B&I).

COVID restrictions:Nevada easing convention restrictions, allowing 50 percent capacity with approval

The following businesses may now operate at 50% capacity:

- Libraries, museums, art galleries, aquariums and zoos
- Retail stores and indoor malls
- Medicinal and recreational cannabis establishments
- Community/recreational centers (including public pools)
- Food and beverage establishments: restaurants, bars, pubs, wineries distilleries and breweries (those that serve food and those that do not)
- Places of worship
- Gyms, fitness studios, yoga studios, dance studios, martial arts studios and similar establishments
- Gaming floors
- Arcades, racetracks, bowling alleys, mini-golf, pool halls/billiards rooms, amusement and theme parks and similar activities

Vaccine eligibility: COVID-19 in Nevada: Those 55 and older with underlying conditions eligible for vaccinations

The following businesses may operate under strict social distancing requirements and protocols established by existing guidelines:

- Spas, massage therapy and massage establishments
- Hair salons, barbershops, nail salons and businesses that provide aesthetic skin services
- Body art and piercing establishments

Youth and recreational adult sports are allowed to hold tournaments if a Preparedness & Safety Plan is approved by applicable state authorities.

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Adult entertainment establishments, dayclubs, nightclubs, brothels and karaoke will remain closed through May 1.

Kristin Oh is a public safety reporter for the Reno Gazette Journal. She can be reached at koh@rgj.com or at 775-420-1285. Please help support her work by subscribing.

Judge orders City of Reno to pay Lemmon Valley flood victims \$1 million

By [Bob Conrad](#) March 15, 2021



The City of Reno is planning to appeal verdicts that found the city caused damages to Lemmon Valley homeowners for being flooded out of their homes.

But District Court Judge Barry Breslow in a late afternoon hearing, and in two separate orders published today, ordered the city to pay three plaintiffs \$1.1 million in damages, interest, costs and attorney fees. [Breslow previously awarded plaintiffs more than \\$750,000.](#)

The judge cited Nevada law: “Nevada Revised Statute 37.170(1) provides that the Court may require deposit of ‘...such further sum as may be required by the court as a fund to pay any further damages and costs that may be recovered in the proceedings, as well as all damages that may be sustained by the defendant...”

The city tried to avoid paying because of its planned appeal.

“We’re just requesting a stay pending the appeal and, lacking that, if we could get a period of time to make a stay request of the Supreme Court, and get some time for that...” Deputy City Attorney Jonathan Shipman requested of the court.

Breslow ordered the city to pay now.

The city has 24 hours to cut a check to be deposited to the court. Should the city prevail on appeal, plaintiffs will have to pay back the money — unless the Nevada Supreme Court determines otherwise.

Breslow previously fined the city, as first reported by This Is Reno, for failing to admit to basic facts in the case.

Another 27 cases against the city are making their way through the legal system.



BOB CONRAD

Bob Conrad is publisher, editor, and co-founder of This Is Reno. He has served in communications positions for various state agencies and earned a doctorate from the University of Nevada, Reno in 2011, where he completed a dissertation on social media, journalism and crisis communications. In addition to managing This Is Reno, he holds a part-time research appointment for the Mineral County University of Nevada Extension office.

TIME TO PUT TEETH IN NEVADA'S PUBLIC RECORDS LAW



RICHARD KARPEL

MARCH 15TH, 2021 - 2:00AM

Unbeknownst to Nevada officials, the state has been conducting a natural experiment in public policy for many years now: What would happen if the Open Meeting Law had an enforcement mechanism and criminal penalties for government officials who violate the law, while the Public Records Act — the state's other primary open-government statute — left malfeasors completely unmolested?

You probably won't be surprised to learn that the law that imposes sanctions and a means to enforce them has been more effective in shaping the behavior of the state's elected officials and civil servants.

Nevada's Open Meeting Law was approved by the state legislature in 1960. It was intended to ensure that the actions of all public bodies "be taken openly and that their deliberations be conducted openly." In 1977, the statute was amended to establish criminal penalties for government officials who knowingly participate in a meeting in which members of the public are unlawfully barred from attendance. It also authorized the Attorney General to investigate and prosecute infractions of the law. In 2011, civil penalties now as high as \$2,500 were added. In 2015, a process was established for local residents and open-government organizations to file open-meeting complaints with the Attorney General's office.

By and large, the enforcement mechanisms and penalties have worked. Most public officials in our state are keenly aware of the law's mandates and generally do their best to comply with them. In the two-plus years I've been executive director of the Nevada Press Association, I've heard few complaints from journalists about state officials holding unlawful secret meetings.

Meanwhile, Nevada's Public Records Act (NPRA) is chockfull of rights but has few practical remedies. If a government official unlawfully withholds a document or other public record, a requestor's only option is to file an expensive lawsuit and hope for eventual redress in the court system. It's a slow, cumbersome and prohibitively expensive process. Only relatively large corporations and the wealthy can afford to pursue it.

NPRA's toothlessness incentivizes public officials to slow-walk or stonewall records requests they view as problematic or just plain irksome. Civil penalties and fines of up to \$10,000 were added to the law in 2019, but they apply only to government entities, not the individuals who violate the law. Those fines may ultimately prove to have some deterrent effect, but the record suggests the effect will be limited.

Take a recent case involving the Clark County Coroner's Office. The *Las Vegas Review-Journal* sued the coroner's office in 2017 for access to juvenile autopsies it sought for an investigation into failures by child protection workers to protect children from neglect or abuse. It took almost four years and two rulings by the Nevada Supreme Court to finally convince Clark County to release the records a day after the deadline set by now-retired District Judge Jim Crockett.

"Everything demonstrates the coroner's office is bound and determined to circumvent and avoid the Nevada Public Records Act by stonewalling and obfuscating," said Judge Crockett.

Obstructing the *Review-Journal's* records request also cost Clark County at least \$80,000 in legal fees, and earlier this month the district court ordered the county to pay the news organization \$167,000 to cover some of its legal expenses as well. Would the government officials who decided to spend so much time and taxpayer money on this obviously losing battle have made different decisions if their own money and criminal records were on the line?

The evidence accumulated over the years of official compliance with Nevada's Open Meeting Law suggest they would have

Richard Karpel is the executive director of the Nevada Press Association, which represents newspapers, online news websites and magazines based in the Silver State.

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ENVIRONMENT

Eight States Are Seeding Clouds to Overcome Megadrought

But there is little evidence to show that the process is increasing precipitation

By Chelsea Harvey, E&E News on March 16, 2021



Credit: John Finney *Getty Images*

The mountaintops rumble to life unnaturally each year as snow clouds darken the sky across the West.

Open flames burst from the throats of metal chimneys, mounted on squat towers nestled among the peaks. With a low hiss, puffs of particles belch from their mouths into the air, where the wind catches them and whisks them away.

These aren't ordinary particles. They're tiny bits of crushed-up silver iodide, a crystal-like photosensitive substance once used in photography.

But it's not used to take pictures out in the mountains. It's meant to make snow.

As the wind whips the particles across the mountaintops, drafts of air sweep them higher into the sky—so high that some of them eventually touch the clouds. There, an elegant transformation takes place.

The crystalline silver iodide particles have a structure similar to ice—and inside a cloud, like attracts like. Water droplets begin to cluster around the particles, freezing solid as they gather together.

These frozen clusters eventually grow too heavy to stay in the air. They fall from the cloud and drift gently toward the Earth, dusting the mountaintops with fresh snow.

This is not a page from a science fiction novel. “Cloud seeding” is a real practice—in fact, it's been around for decades. It's used today to boost precipitation in at least eight states across the western U.S. and dozens of countries around the world.

Interest in cloud seeding is growing as temperatures steadily rise, increasing drought risks in places like the Mountain West. But there's a catch. Scientists aren't sure how well cloud seeding works today, let alone in a warmer climate.

Amid growing concerns about water resources in the western U.S., scientists are working to answer those questions. Today, cloud seeding research represents the cutting edge of weather and climate science—a convergence of questions about the influence of warming on our dwindling water resources and our ability to control those consequences.

“Certainly we're in a better position now to address that question than we were 10 years ago,” said Jeff French, an atmospheric scientist at the University of Wyoming. “The state of the science has progressed to the point that it is a question that we can and should be trying to address now.”

Cloud seeding can take a few different forms. In some places, it's used to boost rainfall or prevent hailstorms. But in the U.S., it most commonly aims to enhance snowfall, and usually with silver iodide.

Extra snow can be a boon for water resources, especially in places like the drought-plagued West. Snowpack is a vital source of fresh water for millions of people across the country when it melts in the spring.

Boosting snowpack is being pursued with growing urgency. Much of the western U.S. has been gripped by drought for the last 20 years.

Scientists recently concluded that the past two decades represent the driest span in the region since at least the late 1500s. This “megadrought” has been heavily influenced by climate change, they found.

Rising temperatures and the ongoing drought have taken a major toll on Western water resources.

Recent studies find that large patches of the Mountain West have experienced major snowpack declines over the last few decades (*Climatewire*, Dec. 13, 2018). The snow season is also growing shorter as the climate warms and spring gets an early start.

Meanwhile, Western water managers are contending with the growing threat of shortages. Flow has dwindled on major water systems like the Rio Grande and the Colorado River, which each supply water to millions of people.

With temperatures steadily rising, cloud seeding poses one attractive solution.

“Water managers basically have two choices, and both of them are implemented,” said French. “One is to somehow reduce the demand through conservation, and the other is to somehow increase the supply. And cloud seeding is a relatively inexpensive proposition.”

Proving that it works, though, is another matter.

Weather experiments are notoriously difficult to conduct. The scientific gold standard would be a study that proves cloud seeding produced an outcome that definitely would not have happened without it. But that kind of research requires a combination of specialized experimental design and highly advanced technology.

For most of cloud seeding's long history, it just wasn't possible. Only within the last few years has technology advanced enough for researchers to really dig into the problem.

“We now have much better tools to try to observe cloud seeding as it’s happening,” French said. “So it’s sort of about taking this new technology that has been developed over the last 20 years, or improved upon over the last 20 years, and applying it to really a very old problem.”

DECADES OF QUESTIONS

Humans have been experimenting with weather control for the better part of the last century. Vincent Schaefer, a researcher with General Electric, is often credited with the first cloud seeding experiments in the 1940s. Much of Schaefer’s work during and after World War II centered on preventing aircraft from icing over in midair. So he designed a special homemade freezer to help him better understand the way ice forms inside clouds.

As the story goes, Schaefer entered the lab one day to discover that his freezer had been turned off. Hoping to cool it as quickly as possible, he placed a block of dry ice inside the box. A cloud of glistening ice crystals instantly formed in the air.

In 1946, Schaefer conducted the first true cloud-seeding experiment by aircraft. He dropped 6 pounds of crushed dry ice into a cloud in the Adirondack Mountains of New York. Almost immediately, snow began to fall.

In later experiments, Schaefer and other GE colleagues would discover that certain types of particles are more effective at helping ice crystals form. Silver iodide, they found, is one of the best.

Weather modification quickly captured the attention of the U.S. government. Over the next few decades, it would fund cloud seeding experiments on everything from drought management to military applications.

In 1947, Project Cirrus—a collaboration between GE and the U.S. military—made history as scientists’ first attempt to modify a hurricane. On Oct. 13, the operation dumped nearly 200 pounds of dry ice into a cyclone that was churning off the coast of Florida.

In the 1960s and early 1970s, the federal government continued to experiment with the idea of cloud seeding hurricanes—but to little avail. Scientists eventually concluded that it wasn’t effective.

Beginning in the early 1960s, the Bureau of Reclamation funded a series of cloud seeding experiments known as Project Skywater, aimed at boosting water resources in the Western states. Reports suggest the project had mixed results.

In the late 1960s and early 1970s, the U.S. military even experimented with weather modification as a weapon of war. Operation Popeye, as it was dubbed, aimed to generate enough rainfall to disrupt enemy supply routes in Vietnam.

These efforts were short-lived. In 1977, an international treaty banned the use of weather modification for military purposes.

There was a common thread among many of these early experiments: Either they weren’t useful, they were quickly discontinued or scientists couldn’t tell how well they were working.

“There was a ton of research done in the ‘60s and ‘70s and ‘80s,” said French, the University of Wyoming scientist. “But all of that kind of came to a halt when I think there was a realization that agencies were spending millions upon millions of dollars year after year, and the results continued to sort of be inconclusive.”

The problem, he said, is that weather modification studies are really difficult to design and carry out.

To prove that cloud seeding has a real effect, scientists have to demonstrate that whatever outcome it produces would not have happened without it. That requires setting up an experiment with at least two tests—one with cloud seeding and one without it—in the same location and under identical weather conditions.

Because the weather changes so quickly, that’s really difficult to do. And even when it’s possible, such studies require advanced monitoring technology, including high-tech radar. This kind of tech just wasn’t widely available until recently.

That means cloud seeding research has mainly relied on statistical studies instead. These studies measure the precipitation produced with cloud seeding in one location, and then they compare it to a different location where no cloud seeding took place.

The two settings aren’t identical in these kinds of studies. That means they don’t definitively prove that the precipitation produced by cloud seeding in one area would not have happened without it.

In 2003, the National Research Council published a comprehensive report on weather modification, highlighting these problems. It concluded that “there is still no convincing scientific proof of the efficacy of intentional weather modification efforts.”

Still, NRC recommended continued research on weather modification—in no small part because of its potential to address the West’s worsening water concerns.

That same hope has led state water agencies to keep funding cloud seeding operations, even after federal research efforts dropped off in the 1980s.

“I think there’s a pretty easy explanation for why it continued,” French said. “Cloud seeding is rooted in a pretty solid, well-understood physical basis of why it *should* work.”

STATES EMBRACE UNCERTAINTY

Today, cloud seeding operations take place in at least eight states across the western U.S., with varying levels of investment often shared among state agencies, utilities and private companies such as mountain resorts.

Cloud seeding programs in the upper Colorado River Basin, for instance, cost around \$1.5 million each year. The costs are split among state agencies in Colorado, Utah and Wyoming, where the majority of the operations take place, as well as Nevada, California, New Mexico and Arizona, which also stand to benefit from increased flow on the Colorado River.

In the last few years, cloud seeding has featured more prominently in drought management strategies across the West. The cost-sharing agreement in the Colorado River Basin was finalized in 2018, after states had spent years individually managing their cloud seeding operations. The agreement extends through the fall of 2026.

Since 2018, Wyoming and Colorado have strengthened their programs by investing in aerial cloud seeding operations—that’s seeding conducted by aircraft—in addition to the ground-based machines they already have scattered throughout the mountains.

These are relatively inexpensive investments, all things considered—a low risk for a potentially high reward. But is it actually making a difference?

Most programs point to statistical studies to justify their efforts. These studies indicate that seeded clouds can produce around 5% to 15% more snowfall compared with areas where no cloud seeding took place.

If that's right, it puts the cost of cloud seeding at around a few dollars per acre-foot of water (equivalent to about half an Olympic-size swimming pool). That's far less expensive than the cost of many other water-saving interventions, such as water conservation, recycling or desalination, which can cost hundreds of dollars per acre-foot.

Still, statistical studies don't prove that cloud seeding is actually causing the heavier snowfall. That requires a more specialized scientific experiment—and only within the last few years have scientists finally been able to make that happen.

As recently as 2015, an extensive report prepared for the Bureau of Reclamation concluded that continued research is still warranted, but it noted that “the ‘proof’ the scientific community has been seeking for many decades is still not in hand.”

CUTTING-EDGE RESEARCH

On Jan. 19, 2017, a research plane roared through the gray skies above Idaho's Payette River Basin, spewing silver iodide into the air. Assembled on the snow-capped peaks below, snow gauges and portable radar machines were poised to measure the snow that scientists hoped would follow.

It was the beginning of an experiment that would turn cloud seeding science on its head. Known as the SNOWIE project—short for “Seeded and Natural Orographic Wintertime Clouds”—the study provided some of the first quantitative evidence that cloud seeding actually works.

For three days that January, weather conditions would align to set up the perfect cloud seeding experiment. The sky was cold and cloudy—but no snow was falling. Over the course of these three days, the research plane would make more than a dozen trips over the mountaintops, releasing the same amount of silver iodide each time.

“For three days there was cloud cover, but no snowfall, no natural precipitation,” said Katja Friedrich, an atmospheric scientist at the University of Colorado, Boulder, who helped lead the SNOWIE project. “We put the seeding material into the supercooled liquid cloud, and we were able to generate precipitation. And that was very revolutionary.”

Thanks to high-tech radar equipment, the scientists were able to monitor the response of the clouds from the moment the silver iodide was released into the air until the moment snow began to fall. Over the course of those three days, the scientists estimated that around 286 Olympic swimming pools' worth of snow fell from the clouds they seeded.

Friedrich and her colleagues, including scientists from Colorado, Wyoming, Illinois and Idaho, published their findings in a groundbreaking paper last year in *Proceedings of the National Academy of Sciences*.

SNOWIE came in the midst of a kind of a renaissance for cloud seeding research in the United States. After years of relatively little scientific interest in weather modification, a series of projects over the last decade have paved the way for new insights.

The Wyoming Weather Modification Pilot Project, launched in 2008, was among the first of these. Funded by the state of Wyoming, the project aimed to evaluate the success of cloud seeding efforts spanning three target areas in mountain ranges across the state.

“The results that came out on that—they were positive, but they weren’t sort of 100%fully conclusive,” said French.

But the project did highlight some major advancements in cloud seeding research over the last few decades, including improvements in radar and other observation tools, as well as major leaps in computer modeling.

With these new and improved technologies, the SNOWIE project catapulted cloud seeding research to the cutting edge of weather and climate science.

“The question is not anymore, ‘Does cloud seeding work?’” said Sarah Tessendorf, an atmospheric scientist with the National Center for Atmospheric Research and another scientist who worked on the SNOWIE project. “The questions really are, ‘How and when does it work? How effective is it under different conditions?’”

As droughts and warming squeeze water supplies in the American West, scientists are busy trying to answer those questions.

The SNOWIE project is still lending insight four years after it ended, Tessendorf said. Thanks to recent advancements in computer models, scientists can now simulate the effects of silver iodide on clouds—and they can use these simulations to conduct

controlled experiments, exactly the kinds of studies that cloud seeding research has been missing.

At the same time, the data collected by the SNOWIE project is helping scientists validate their models and make sure their simulations are realistic.

“I really feel like today, in this day and age, we are at a pretty exciting stage with the science behind cloud seeding, being that we’ve been able to collect some really great data over the last few years,” Tessendorf said. “And with the computer capabilities, there’s really a lot of promise to make advancements in this field.”

But experts also advise keeping expectations in check. The science so far suggests that cloud seeding is far from a silver bullet when it comes to dealing with drought.

For one thing, the SNOWIE experiments generated a fairly modest amount of snowfall.

“As we’ve shown in the paper, we cannot really generate an awful lot of snow,” Friedrich said. “We can generate snow, but not that we can really overcome a drought situation.”

Moreover, the SNOWIE project took place across a single, small slice of Idaho over the course of just three days.

With the momentum from the SNOWIE project still strong, scientists are hopeful they’ll be able to answer many of the biggest questions still remaining about how well cloud seeding works. But it may take time and much more research.

“The bigger question is does it ‘work’—and I put ‘work’ in quotes—on the scale of an entire season over an entire mountain range?” said French, the University of Wyoming scientist, who also contributed to the SNOWIE project.

“Can we really make an impactful difference? And in my mind we’re still quite a ways away from answering that question.”

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PUBLIC HEALTH



This water meter can shut off leaks before they cause damage

By Michelle Cohan, [CNN Business](#)

Updated 12:34 PM ET, Wed March 17, 2021

(CNN Business) — Israeli engineer Moshe Ravid came home one day to find his house flooded by a burst water pipe. Once he'd finished mopping up, he immediately went to work on a solution to prevent it from happening again.

Ravid created an artificial intelligence-powered water meter called WINT. The unit integrates into existing pipe systems, where it can learn the normal water flow, detect when things go wrong, and shut off malfunctioning parts before any damage is done, according to Yaron Dycian, chief product and strategy officer at WINT Water Intelligence, a startup based in Tel Aviv.

WINT communicates with the cloud over a cellular network to deliver real-time analytics and alerts through its app.

Launched in 2012, the company's technology was originally designed for homes but has since started targeting companies that are looking not only to prevent damage but also to waste less water.

Nine years and many algorithms later, WINT is gaining [recognition for its water saving tech](#). In 2019, the company expanded into the United States and Europe -- where the technology has already been adopted by companies such as Microsoft, HP and Mastercard.

The huge cost of water damage

According to the Association of British Insurers, water damage is one of the most common household property claims [in the United Kingdom](#). On average, a burst pipe claim can cost nearly £9,000 (\$13,000).

Other water-saving tech on the market include home monitors Flo by Moen and Belkin's Phyn Plus system. But Dycian says what makes WINT stand out is its ability to [deal with large-scale office buildings, factories and construction sites](#).

The damage caused by burst water pipes can cost businesses millions of dollars.

"It's quite amazing the amount of damage that water can cause in a building," he tells CNN Business. "A pipe breaks on the 20th floor, water trickles down and anything in its wake is really destroyed. We have customers who have lost tens of millions of dollars in a single event like this."

This problem was all too familiar for UK-based construction company Mace, which built London icons like [The Shard](#) and the London Eye.

"We've had a number of issues around leaking pipes in the final throes of construction that caused millions of pounds' worth of damage," says Paul Connolly, technical director for Mace.

Beyond the financial cost, Connolly says damage to reputation and rising insurance premiums forced the company to look for solutions. Today, WINT is incorporated into each new Mace construction site, which Connolly says has helped their bottom line and their sustainability goals.

WINT typically saves users 20 to 25% in water consumption, according to Dycian.





Saving water

With water supplies under pressure globally, it's more important than ever to cut down on consumption and wastage. Even a small or slow leak can waste a lot of water; a 3-millimeter crack in a pipe can waste about 946 liters (250 gallons) of water per day, according to American Water Resources.

Dycian says 25% of water that enters any building is wasted through small things like a running toilet or a dripping faucet.

"Here's water scarcity (and) here's a huge business problem that's causing massive damages -- and a solution that manages to solve both," he says. "That's exciting to me."

Correction: An earlier version of this article misidentified the founder of WINT.

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Drought May Lead to Elevated Levels of Naturally Occurring Arsenic in Private Domestic Wells

Release Date: MARCH 18, 2021

An estimated 4.1 million people in the lower 48 states are potentially exposed to arsenic levels that exceed EPA’s drinking water standards

A new [U.S. Geological Survey study](#) highlights the importance of homeowners testing their well water to ensure it is safe for consumption, particularly in drought-prone areas. The first-of-its-kind national-scale study of private well water, conducted in collaboration with the Centers for Disease Control and Prevention, showed that drought may lead to elevated levels of naturally occurring arsenic and that the longer a drought lasts, the higher the probability of arsenic concentrations exceeding U.S. Environmental Protection Agency’s standard for drinking water.

Researchers estimate that during drought conditions, 4.1 million people in the lower 48 states who use private domestic wells are potentially exposed to unsafe levels of arsenic. This is an increase of 54% from the estimated 2.7 million people exposed to unhealthy arsenic levels in private wells during normal, non-drought conditions.

Arsenic is a metal that can occur naturally in bedrock and sediments around the world and is commonly reported in drinking-water supply wells. However, chronic exposure to arsenic from drinking water is associated with an increased risk of several types of cancers, including [bladder](#), [lung](#), [prostate](#) and [skin cancers](#). [Other adverse effects](#) include developmental impairments, cardiovascular disease, adverse birth outcomes and impacts on the immune and endocrine systems.



Jacks Pond in Hancock, New Hampshire. Groundwater from this area supplies nearby private wells. (Credit: Melissa Lombard, USGS. Public domain.)

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The study's findings can help public health officials and emergency managers notify well owners in areas potentially affected and further refine their strategies for addressing the issue. The EPA regulates public water supplies, but maintenance, testing and treatment of private water supplies are the responsibility of the homeowner. Private well owners can work with their local and state officials to determine the best way to test and, if necessary, treat their water supply.

"The population potentially exposed to arsenic levels exceeding the EPA standard during simulated drought conditions amounts to roughly one-tenth of the estimated 37.2 to 43.2 million people in the conterminous U.S. who use domestic wells for household water supply," said Melissa Lombard, a USGS hydrologist and lead author of this study.

This is the first national-scale study to assess the potential impact of drought on arsenic levels in private domestic wells. It is also the first to estimate the population of private well users who are potentially exposed during droughts to arsenic levels above [EPA's limits](#), which are intended to protect human health.

The study also estimated that 2.7 million people are exposed to elevated arsenic levels above EPA standards under normal conditions. This is an increase from [a 2017 study](#) by the USGS and CDC that estimated 2.1 million people were exposed to elevated arsenic levels. The increase reflects new estimates of well locations and the population reliant on private wells.

The new study, which did not examine private domestic wells in Alaska or Hawaii, includes maps showing where simulated drought conditions are likely to increase the probability of high arsenic levels and the number of people potentially exposed.

The states with the largest populations facing elevated arsenic levels in private domestic well water during the simulated drought conditions are Ohio (approximately 374,000 people), Michigan (320,000 people), Indiana (267,000 people), Texas (200,000 people) and California (196,000 people).

Even without drought conditions, relatively large numbers of people are estimated to be exposed to elevated arsenic levels in private domestic well water. Under normal conditions, the largest populations potentially exposed to high levels of arsenic are in Ohio (approximately 241,000 people), Michigan (226,000 people), Indiana (162,000 people), California (157,000 people) and Maine (121,000 people).

This study is the first to explore the potential large-scale impact of drought on naturally occurring arsenic in private drinking water wells," said Lombard. "While the results suggest that drought will have a negative impact, the study cannot predict what might happen at an individual well, further highlighting the importance of testing."

The occurrence of arsenic in groundwater is due to a variety of complex interactions, added Lombard. The reasons for the increase in arsenic during drought and as drought persists could vary depending on changes to groundwater flow, alterations in water chemistry and other factors.

Further exacerbating these challenges, climate models predict increasing temperatures and decreasing precipitation in portions of North America during the 21st century. USGS findings suggest that as the duration of drought increases, the probability of arsenic concentrations greater than EPA's drinking water standard will also increase.

This study used an existing [USGS statistical model](#) that predicts the probability for elevated arsenic concentrations in domestic well water. In the new research, scientists used the model to simulate drought conditions by changing precipitation and groundwater levels. The researchers also used data from the drought of 2012, one of the worst on record in the U.S., to investigate how drought duration can impact arsenic levels.

Read the study "Assessing the Impact of Drought on Arsenic Exposure from Private Domestic Wells in the Conterminous United States" published in *Environmental Science and Technology* at <https://pubs.acs.org/doi/full/10.1021/acs.est.9b05835>.



View from Hedgehog Hill in Deering, New Hampshire. Groundwater from this area supplies nearby private wells. (Credit: Melissa Lombard, USGS. Public domain.)



View from Thumb Mountain in Hancock, New Hampshire. Groundwater from this area supplies nearby private wells. (Credit: Melissa Lombard, USGS. Public domain.)



New Report Shows U.S. Water Utilities Sector Still in Early Stages of Digital Transformation

Findings highlight how data and technology resources will serve as critical assets to improve future efficiencies and operational performance.

March 18, 2021 08:35 AM Eastern Daylight Time

HAMILTON, N.J.--(BUSINESS WIRE)--Water utilities have been chronically underfunded for decades and an estimate from the American Water Works Association found that a \$1 trillion investment is needed to meet the drinking water system needs in the U.S. To better understand how this industry is leveraging digital capabilities to its benefit in order to address these historical challenges, Dodge Data & Analytics and partner Bentley launched a new study and report titled, *The Digital Capabilities of US Water Utilities SmartMarket Brief*, which established a benchmark for municipal water systems and the readiness of this market for digital transformation. The findings showed that the ability to gather, share and analyze data and other digital resources are essential to improving the effectiveness of operations and maintenance, capital planning, and emergency preparedness and will play a significant role in digital transformation and their future capabilities.

While water utilities clearly understand the value of data, and 87% report that they gather data digitally, 50% of all respondents believe that they are gathering less than half of the data available to them. In addition, two common issues prevent them from conducting their work efficiently across their organizations:

- 90% say that data is either isolated in disconnected IT systems, spreadsheets or paper records, which prevents effective operations and maintenance at their organization on occasion (45% say frequently)
- 68% report that lack of visibility across stakeholders interferes with effective capital planning on occasion (43% say frequently)

Nearly three quarters report that they are in the process of digital transformation at their organization, demonstrating a commitment to improving their digital capabilities. However, when it comes to how engaged they are with eight different types of digital capabilities, the findings indicate that they are still in the early stages of that process.

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two-thirds have moderate to good capabilities, and between one-quarter and one-third still have limited to no capabilities.

- Gathering information in real-time whether directly from the assets or from reality capture tools like drones and laser scanning is a particular challenge, with around half reporting that they have no or limited capabilities in these areas.
- Only about 4% report that they have digital twins in place (i.e., a digital version of the asset with real-time data that can be used for planning and operational purposes).

“In the four decades that we have been providing software-based applications and guidance for water professionals, a lot has changed. What hasn’t changed is this: the utilities that leverage their technology best will serve their customers best,” says Gregg Herrin, Vice President, water infrastructure at Bentley Systems.

“Openness has been a driving focus for Bentley for many years, which leads to flexibility, interoperability and scalability. That helps make the technology accessible to the people who need it, combining information from systems like GIS, SCADA, simulation tools, and beyond to create, extend, and apply digital twins to help make better decisions throughout the organization.”

To achieve their digital priorities and future potential, water utilities need to overcome several challenges. While issues such as data quality and quantity are a concern for 80% of respondents, nearly as many are concerned about the lack of internal staff with the necessary digital skills (74%) and resistance to change (70%). In addition, when asked to consider the top means of advancing their digital capabilities, respondents most frequently rank increasing the skills of their staff and improving their understanding of the value of digital capabilities among their top three. Better technology is a distant fourth, suggesting that improvement in these areas is focused more on people than on making big technology investments at this time.

“We find consistently in our research that people are at the heart of a successful adoption of new technology,” says Steve Jones, Senior Director of Industry Insights for Dodge Data & Analytics. “The technology is the tool, but as the case study featured in the SmartMarket Brief reveals, the real value comes from the insights it provides to help them to do their work more effectively.”

The *Digital Capabilities of US Water Utilities SmartMarket Brief* includes more detailed examination of the current status of many operations and maintenance, capital planning and emergency preparedness and response activities and functions, and helps to benchmark the industry’s progress toward its digital future. The report is available for free download at: <https://www.construction.com/toolkit/reports/Digital-Capabilities-of-US-Water-Utilities>

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NONPOINT SOURCE POLLUTION: KILLING THE TRUCKEE RIVER BY DEGREES

Leading cause of water pollution in Nevada poses complex problem and solution

By **Richard Bednarski** - March 18, 2021



Foamy effluent from the Truckee Meadows Water Reclamation Facility discharges into Steamboat Creek just

before it enters the Truckee River on the eastern side of the valley - photo: Brian Bahouth/the Ally

As more people move into the Truckee River watershed, demand for water is increasing while more and more nonpoint source (NPS) pollution is making its way to the river. Nearly half a million people get their water from the Truckee River, and nonpoint source pollution threatens the quality of not just the drinking water, but the greater ecosystem of the entire watershed.

Nonpoint source contaminants are the largest single source of water pollution in Nevada and across the nation. Here in the Truckee Meadows, things such as fertilizers, herbicides, insecticides, motor oil, engine coolant, septic tanks, chemical runoff, silt from erosion, and *e. Coli* bacteria, to list a few, all affect the overall quality of ground, surface, and ultimately, drinking water.

NPS pollution accumulates in the Truckee River like a snowball rolling downhill, growing with each rotation.

"Water flowing over the lands, not coming directly out of a pipe, is making its way into our waterways," explains Birgit Widegren, the nonpoint source branch manager with the Nevada Division of

Environmental Protection (NDEP), "either from storm drain inlets, or directly discharged into the waterways." Close

At numerous points along the Truckee River's 125 mile path from Lake Tahoe to Pyramid Lake, water is diverted from the river. A serpentine network of ditches, canals, and natural creeks wind through highly developed areas of Reno and Sparks before flowing into the Truckee laden with a complex mix of pollutants. Click on the colored areas in the interactive map below for more detailed information. This map is not an exhaustive visualization of NPS pollution sources for the Truckee River, merely a rendering of major sources. Use the scroll wheel on your mouse or the controls at the top left to explore the Truckee River watershed.

In 1985 the Environmental Protection Agency (EPA) defined nonpoint source pollution as “runoff, precipitation, atmospheric deposition, drainage, seepage or hydrologic modification.”

As water flows over the ground it dissolves and collects chemicals, solids, and other matter and flushes it into the watershed. Ultimately, this pollution gets deposited into lakes and rivers—and our water supply.

One of the most prevalent sources of NPS pollution in Reno comes from grass and lawns. Every year, potable water is sprayed through dry desert air onto untold tonnage of fertilizer and other chemicals spread across the region on decorative turf.

“If you’re looking in a typical neighborhood, it could be over-fertilization [and] over watering,” said Widegren. This introduces nitrogen, phosphorus, and other chemicals into the waterways that compound in terminal sources, which can lead to toxic algae blooms.

Most storm drains in Reno enter the Truckee River untreated. The pipe pictured here channels runoff from a neighborhood adjacent to the river near downtown Reno. This pipe is tufted with bright green grass, evidence that plenty of fertilizer and other street runoff are making their way to the river – photo: Brian Bahouth/the Ally

When nitrogen levels increase, we start to see overstimulation of aquatic vegetation. As these nutrients are elevated in the watershed there is an increase in the likelihood of algae blooms. Though rare in the Truckee River watershed, algae blooms steal oxygen and other nutrients from the water.

“And that’s where you actually get a toxic algae that could hurt your pet or make people sick,” explained Widegren “[but we] don’t really have that in this area.”

There have been recent algae blooms in Red Lake and Indian Creek near Markleeville, and in Pyramid Lake.

Where is Pyramid Lake? The End of the Line, the Catchall

“In my young life, it’s been really important for me to educate people upstream, especially within the cities of Reno and Sparks,” explained Autumn Harry, a member of the Pyramid Lake Paiute Tribe.

Her father, the late Norm Harry, was a local advocate for water quality. He played a pivotal role in the adoption of the Truckee River Operating Agreement. This agreement “brought an end to historic uncertainty between Nevada and California over distribution of the river’s water, allocating 90 percent to Nevada,” according to the Truckee Meadows Water Authority website.

Along its 125-mile route, a significant amount of water is still diverted from the river for domestic, industrial, and agricultural use. A major diversion is made at the Derby Dam near Pyramid Lake, where water flows into the Truckee Canal for agriculture and potentially domestic use in far-ung Fernley and Fallon.

The tribe holds the oldest water rights on the river, and the Truckee River Agreement ensures Pyramid Lake gets a carefully proscribed amount of water to protect both the endangered cui-ui and Lahanton cutthroat trout. But the impact of regional development on water quality in the river is a worsening problem.

“I’m seeing that there is a lot of privilege, just to be able to live within Lake Tahoe. You can use that water, but you don’t have to know where it’s going, because it doesn’t affect those people up there, you know, but we’re affected downstream,” elaborated Harry.

Harry urges communities upstream to educate themselves about the unique watershed – to truly know where water comes from and where it goes when it leaves their homes.

“Because when I talk to people there’s still so many people who haven’t even heard of Pyramid Lake,” she said. “Even when people are like, where are you from? And I said, I’m from Pyramid Lake, and they’re like, Where’s that? Well, it’s the terminal end of this watershed that you’re living on.”

Using direct community action, Harry and her mother, Beverly have organized four river cleanups in the past couple of months. She said volunteers have focused on the east end of the valley. Most of the trash they have collected was near the low water level line in the river.

"Once that snow melts," Harry said "those river levels are going to come up."

In just six weeks, Harry and volunteers collected and disposed of at least 320 cubic yards of trash, all paid for through donations. All this trash would have beenushed by the spring thaw and carried downstream.

Effluent from the Truckee Meadows Water Reclamation Facility mingles with the polluted waters of Steamboat Creek on the east side of the Truckee Meadows just before joining the Truckee River. The spray nozzles are spraying water meant to suppress foam – photo: Brian Bahouth/the Ally

Harry explained the tribal community has traditionally relied on sh` for survival. And fishing remains a big tourist attraction on Pyramid Lake, but the tribe is concerned about desecration of the sh` through nonpoint source pollution.

"If there's an increase in pollution coming down the river, that could aect the` amount of nitrogen and phosphorus, which could eventually aect the` health of the sh`. It's become part of our cultural identity," Harry said. "There's all these factors that go into the protection of the sh` because those sh` are such a big part of our identity as people."

"Being at the bottom of the watershed, we are an important stakeholder," said Kameron Morgan, water quality manager for the Natural ResourcesC IDosee department with the Pyramid Lake Paiute Tribe. "Part of my job is to be a partner to the state, the federal government, to Reno and Sparks and work with those partners to ensure that their project is not going to have any major impacts on us downstream."

According to Morgan, there was an algae bloom in Pyramid Lake last summer. This bloom prompted Morgan and his team to go out and collect samples to determine if any cyanobacteria, a type of blue-green algae that produces cyanotoxins, were present. In addition to test strips, small samples were sent to a lab in California for additional analysis.

Free pet bags on the Hunter Creek trail. When pet owners do not pick up animal waste, it can pollute the watershed with nitrogen, e. Coli bacteria, and other contaminants – photo: Richard Bednarski

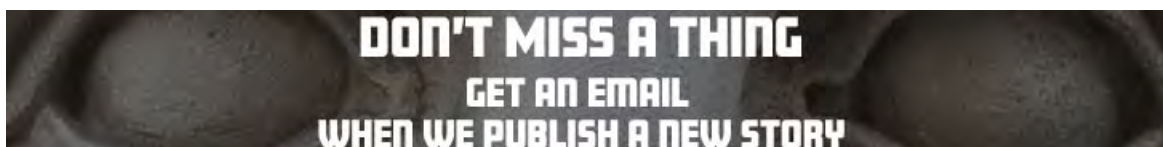
Initially, the test came back negative for the toxic bacteria.

"About a week, maybe ten days later, there was a huge algae bloom on the surface of the lake," Morgan said.

This prompted Morgan and his team to resample the algae. The test strips revealed the presence of deadly cyanotoxins.

The levels were found to be above the threshold set by the World Health Organization (WHO), prompting Morgan to close public access to the lake. Pyramid Lake remained closed until

Close



samples revealed a reduced amount of cyanotoxins, as these present the greatest threat to human and animal health.

"Because Pyramid Lake is at the bottom of a terminal watershed, everything ends up in the lake from upstream areas," Morgan explained. This results in some pollutants never leaving the lake, and an increase in total dissolved solids (TDS). These diverse particles suspended in the water directly impact the endangered cui-ui sh, a species located only in Pyramid Lake.

The Derby Dam was built in 1903. gates on the left of center direct water to Pyramid Lake. Gates to the right of center direct water into the Truckee Canal. Since the diversion began, Pyramid Lake level has dropped some 80 feet, and the adjacent Winnemucca Lake is dry - photo: Brian Bahouth/The Ally

According to US Census data, the Washoe County population has increased from roughly 422,000 in 2010 to 486,000 in 2020, which is cause for concern for Morgan. He cited the industrial development happening in the USA Parkway area as a threat to water quality. While the chemical and industrial plants in this area do not necessarily dump anything into the water, "they have air emissions that have the potential to be transported to the water through atmospheric deposition," said Morgan.

Pyramid Lake water quality has been monitored extensively since the early 1980s. Monthly water samples from the river as it enters the Pyramid Lake Reservation have been collected for over 20 years. "One parameter that is consistently impaired is temperature," explained Morgan.

Urban development is increasing upstream from Pyramid Lake resulting in more and more impervious surfaces. Cement and asphalt lead to faster runoff and elevated stormwater temperatures. As river water warms, dissolved oxygen decreases, causing potential problems for fish. "Our temperature standard was actually developed to protect the propagation of Lahontan cutthroat trout," said Morgan.

The trout species require cooler water temperatures during the spawning season and into the summer, but the Truckee River has been consistently warmer over the past several years.

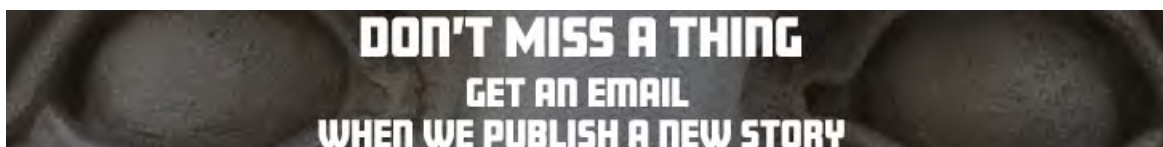
Another source of NPS pollution Morgan identified is the presence of mercury from the legacy mining era below Virginia City around Little Washoe Lake. "That basically discharges into Steamboat creek and Steamboat leads to the Truckee river. One of our concerns is the development that is going on in the South Meadows because that area has ooded with waters containing mercury," Morgan said.

This is where the North Truckee Drain enters the Truckee River in Sparks, Nevada. In late February, the ditch is not flowing, but when it does, it delivers a chocolate brown stream into the Truckee after flowing through densely developed areas. The remnants of past years can be seen in the significant silt deposit pictured here - photo: Brian Bahouth/the Ally

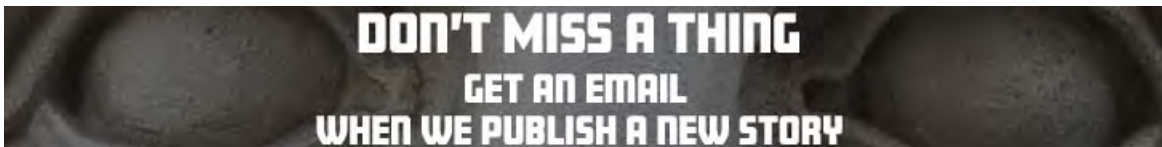
Residential developments in this area have stirred up this sediment and created the possibility of redistributing the mercury downstream. Morgan is concerned about this mercury ending up in Pyramid Lake.

"Especially if it's redistributed into a wetland-type environment," Morgan explained "that's when mercury can change into methyl-mercury and that's when it's bioavailable to the fish."

Morgan is currently working with the Bureau of Reclamation to remove a sediment island that has formed above Marble Blu Dam. This island has blocked ship passage. Working with the



Close



Bureau of Reclamation on this ongoing project, Morgan said “they found elevated levels of mercury in all their samples.”

Still in the early stages of the project, Morgan did not say what the next steps were.

Solutions

“The leverage we have is our water quality standards,” said Morgan. “This helps keep developers upstream from creating any sort of development that affects the water quality. They have to ensure that their discharge is not going to violate our water quality standards downstream.”

The Truckee River flows through downtown Reno and a whitewater park where many swim and kayak during warmer months- photo: Richard Bednarski

As more commercial and residential development is approved in the Truckee River watershed, Morgan wants the community to construct low-impact projects. Things like stormwater basins slow down water and better enable pollution to be filtered out before it enters the watershed. He also described the importance of stream buffers, essentially a natural area which keeps development away from the edge of the river.

Nonpoint Source Pollution is Complex and Ubiquitous

Nonpoint source pollution is a complex issue with many stakeholders and community groups working together to mitigate the problem.

“As long as we prevent the nonpoint source pollution,” said Widegren “it’s a high quality water source.”

One way NDEP is addressing NPS pollution is by studying the individual watersheds within the Truckee River basin. These are smaller watersheds composed of one or two tributaries that

flow into the river. Creeks such as Hunter Creek, Chalk Creek, and Peavine Creek all move water and pollution into the Truckee Meadows. By studying these tiny watersheds, NDEP and river advocacy groups can identify key pollutants and zero in on the problems.

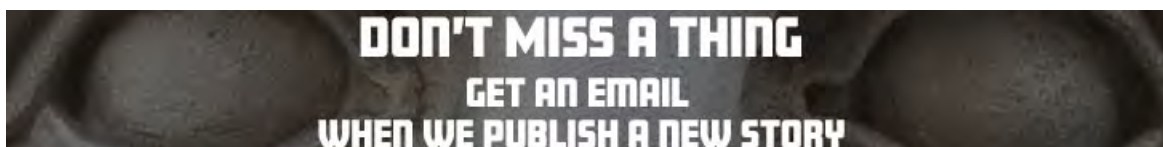
The Truckee River just east of downtown Reno, Nevada - photo: Richard Bednarski/the Ally.

Nonpoint source pollution comes from a dizzying number of sources, large and small, so solving the problem requires an equal number of preventive steps.

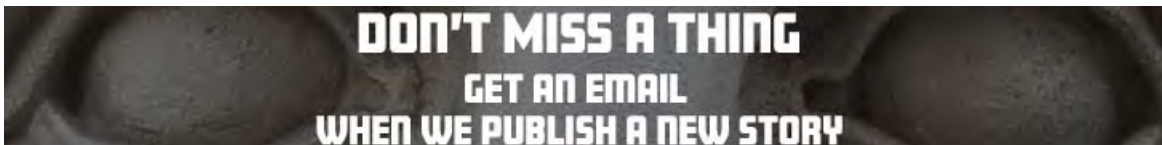
“Every single person in the Truckee Meadows can help prevent nonpoint source pollution,” believes Widegren.

“The best solutions include all of the collaboration between these different groups, whether they’re governmental, or nonprofit, to implement the plan and implement the projects that

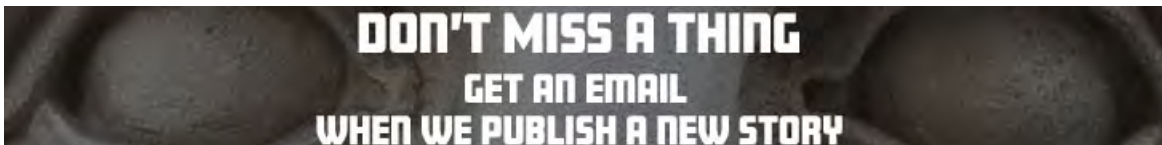
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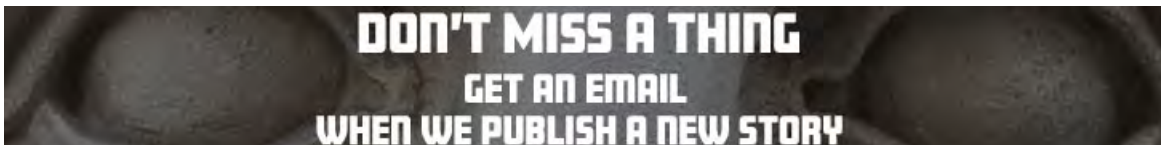
are identified and prioritized through the plan,” said Widegren.

Local nonprofit organizations such as Keep Truckee Meadows Beautiful and Sierra Nevada Journeys are working to educate the public about nonpoint source pollution.

The mission of Sierra Nevada Journeys is to “deliver innovative outdoor, science-based education programs for youth to develop critical thinking skills and to inspire natural resource stewardships.” The group has received several NDEP grants and works with school-aged children. They take them into the environment to teach them about the Truckee River watershed. On these excursions, children learn about water quality and what they do has a direct impact on the environment.

“A lot of people still mistakenly think that our storm drains are linked to the wastewater treatment system,” said Widegren. “In fact, they are not and anything that goes down the storm drain will eventually find its way into the Truckee River.”

Close



"Everybody lives downstream from somebody," explained Brian Be. ort, the president of the Toiyabe Chapter of the Sierra Club.

Echoing Kameron Morgan's hope for more equitable and natural-focused construction upstream, Be. ort believes individual community members can be part of the solution to reduce runoff and NPS pollution.

"We need more green infrastructure," he said. Things like natural landscapes, such as rain gardens and bioswales; channels designed to collect and move stormwater while also removing debris and pollution. While there has been some local interest in permeable pavement, Be. ort said the biggest impact comes from creating green spaces around streets, parking lots, and developed areas.

"Use nature and nature's tools," explained Beffort "to remove pollution." He understands this is a broad issue not easily solved but that it "starts with each of us and that we look at our own property."

Beffort feels that the biggest impact an individual can have in addressing NPS pollution is to reduce the use of toxic lawn chemicals like Roundup.

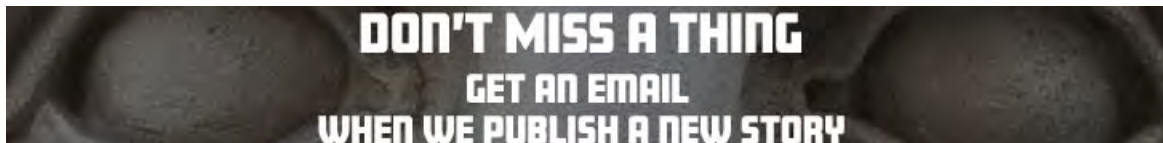
"Most people don't think when they flush their toilet, take a shower, or water their lawn, where the water goes," Kameron Morgan said "most watersheds end in the ocean, whereas the Truckee River ends up in Pyramid Lake."

"I really want upstream communities to know where their water comes from," said Autumn Harry.

She hopes people can start to "know the traditional territories that you're living on. I get that because of all of these different industries that are coming into northern Nevada like Tesla and Panasonic, it's creating jobs and causing people to move here. But when people are moving here from other states or other places, they're not realizing their own impact in moving to a place that's so arid."

Richard Bednarski is a freelance photo journalist and graduate journalism student at UNR. He focuses on crafting solutions and advocacy-based stories that move the community forward. [Support his work in the Ally.](#)

Close





Fires and low levels in reservoir amid significant drought

BY CELINE CASTRONUOVO - 03/19/21 11:19 AM EDT

NOAA warns of water use cutbacks, fires and low...

Dry weather is likely to persist in the U.S. in the coming months, with the possibility of water use cutbacks in California and the Southwest as more than half of the country experiences moderate to severe drought conditions, the National Oceanic and Atmospheric Administration (NOAA) said Thursday.

NOAA's [Spring Outlook](#) report stated that the U.S. could face the most significant spring drought since 2013, with the potential to impact roughly 74 million people across the country.

The federal weather agency said that the drought conditions stretching from the Pacific Coast to the Great Plains and upper Midwest have largely been spurred by the drier weather in the Southwest and a failed 2020 summer monsoon season.

NOAA predicts that warmer-than-average temperatures this spring and low soil moisture will cause drought conditions to further expand into the southern and central Great Plains and southern Florida.

Mary Erickson, deputy director of NOAA's National Weather Service, said in a statement along with Thursday's report that the Southwest, "which is already experiencing widespread severe to exceptional drought, will remain the hardest hit region in the U.S., and water supply will continue to be a concern this spring in these drought-affected areas."

"This is a major change from recent years where millions were impacted by severe flooding," she added.

"Nonetheless, NOAA's forecasts and outlooks will continue to serve as a resource for emergency managers and community decision-makers as they navigate all potential extreme seasonal weather and water events."

The weather conditions going into April, May and June have prompted concerns from weather service and agriculture
o
wild

The chances of wildfires come after the country faced an unprecedented 2020 season of burning throughout the West, though UCLA climate scientist Daniel Swain told [The Associated Press](#) Thursday that wildfires may not be as bad this year with so much vegetation already burned and the drought slowing regrowth.

Thursday's national [Drought Monitor](#) showed almost 66 percent of the U.S. in abnormally dry conditions, which the AP noted is the highest mid-March level recorded since 2002.

With the more intense droughts, however, NOAA on Thursday said there will be limited moderate flooding this spring, with no areas having greater than a 50 percent chance of major flooding for the first time since 2018.

TAGS NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE CALIFORNIA SOUTHWEST DROUGHT WILDFIRES FLOODING MIDWEST

MATT SIMON SCIENCE 03.19.2021 07:00 AM

Why Covering Canals With Solar Panels Is a Power Move

Covering waterways would, in a sense, make solar panels water-cooled, boosting their efficiency.



PHOTOGRAPH: DIANE MILLER/GETTY IMAGES

PEANUT BUTTER AND jelly. Hall & Oates. Now there's a duo that could literally and figuratively be even more powerful: solar panels and canals. What if instead of leaving canals open, letting the sun evaporate the water away, we covered

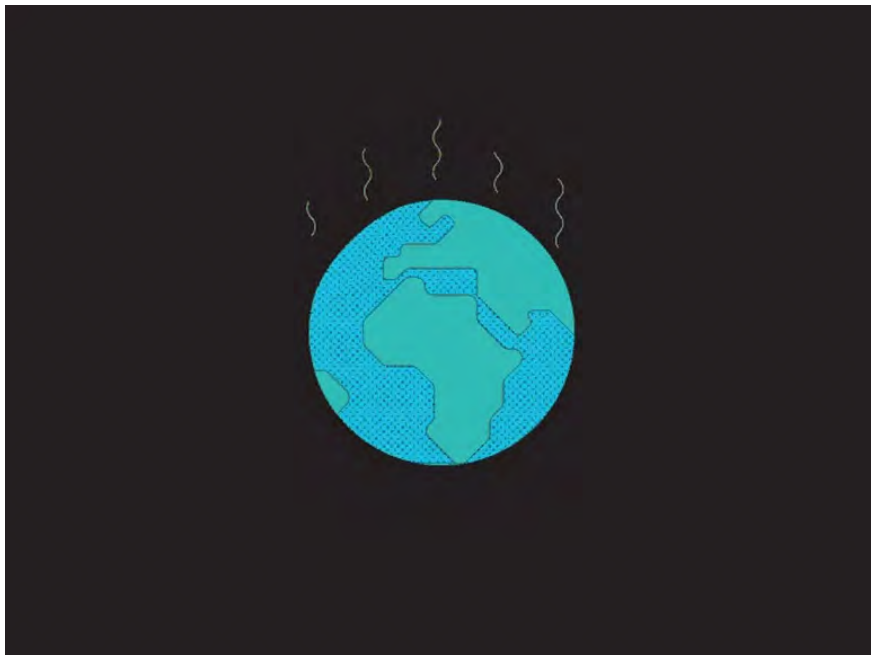
them with panels that would both shade the precious liquid and Hoover up solar energy? Maybe humanity can do it. Clips
that.

Scientists in California just ran the numbers on what would happen if their state slapped solar panels on 4,000 miles of its canals, including the major California Aqueduct, and the results point to a potentially beautiful partnership. Their feasibility study, published in the journal *Nature Sustainability*, finds that if applied statewide, the panels would save 63 billion gallons of water from evaporating each year. At the same time, solar panels across California's exposed canals would provide 13 gigawatts of renewable power annually, about half of the new capacity the state needs to meet its decarbonization goals by the year 2030.

California's water conveyance system is the world's largest, serving 35 million people and 5.7 million acres of farmland. Seventy-five percent of available water is in the northern third of the state, while the bottom two-thirds of the state accounts for 80 percent of urban and agricultural demand. Shuttling all that water around requires pumps to make it flow uphill; accordingly, the water system is the state's largest single consumer of electricity.

Solar-paneling canals would not only produce renewable energy for use across the state, it would run the water system itself. "By covering canals with solar panels, we can reduce evaporation and avoid disturbing natural and working lands, while providing renewable energy and other co-benefits," says environmental engineer Brandi McKuIn of the University of California, Merced, and the University of California, Santa Cruz, lead author on the paper.

Ironically enough, the performance of solar panels falls as temperatures rise. In a solar cell, photons from the sun knock electrons out of atoms, producing an electric current. When a panel gets too hot, that puts electrons into an already excited state, so they don't create as much energy when dislodged by photons. Spanning panels over canals would, in a sense, make them water-cooled, boosting their efficiency. "And additionally," McKuIn adds, "shade from the panels mitigates aquatic weed growth, which is a major canal maintenance issue."



The world is getting warmer, the weather is getting worse. Here's everything you need to know about what humans can do to wrecking the planet. Press Clips

BY KATIE M. PALMER **AND** MATT SIMON

The engineering wouldn't be all that complicated, either. You could throw a steel truss over a canal and cover it with panels. India has actually been experimenting with solar canals like this, and it has commissioned one 25-mile-long stretch for an estimated cost of \$14 million.

To be clear, this new paper is not a full-throated pitch to state officials to immediately cover all canals with solar panels. "Our paper is not a detailed engineering design or conceptual design—it's a feasibility study, a proof of concept for taking it to the next phase of investing in a demonstration project," says engineer Roger Bales of the University of California, Merced. "But I think the amount of electricity could be significant, both statewide and locally."

Bales and McQuin calculated all of this by incorporating a variety of models. Evaporation rates, for instance, came from hydrological models. They folded in climate models, too, to predict how the state will warm over the coming years. They got so granular that they also calculated how the cooling effect of the canal water would improve the panels' generating efficiency.

Ultimately, they landed on a potential annual savings of 63 billion gallons of water across California. But they also took into account the human benefits of such a project, which are more nebulous. For example, many farmers pump their water with diesel generators. If solar panels provided that energy instead, that could cut local emissions, thus improving air quality. "You can look at the economic costs, but you can also look at the social benefit," says Bales.

An added social benefit could be that by situating the panels over canals, the state wouldn't have to convert croplands or disrupt natural habitats to set up sprawling solar farms—a canal is already on long-disturbed land. Think about how you'd install a solar array in your own home. "I can put it on my roof, rather than mowing down the yard next to my house and putting panels there," says Michael Kiparsky, director of the Wheeler Water Institute at the UC Berkeley School of Law. "You're taking something that's already been altered by human activity and doubling up on the benefits it provides. *That's* the profound piece."

Solar-paneling California's canals could also prepare the state for the widespread adoption of electric cars. The California Aqueduct runs right along Interstate 5, the major artery carrying traffic between the northern and southern halves of the state. Where there are now gas stations dotted along the way, in the future there might be car-charging stations that draw power from the nearby aqueduct.

The plan could also help California prepare for future climate change. "Droughts are part of our history and part of our future," says Kiparsky. "It's just that under climate change, they're projected to become both more frequent and more severe." As the state gets hotter, more and more water will evaporate away from its canals, which the panels can help attenuate.

While the researchers focused on California in this study, this kind of modeling "could easily be applied to other locations," McQuin says. "In water-stressed regions of the world with open canals, it makes a lot of sense to consider this." For instance, that might include California's neighbors, like the increasingly molten-hot southwestern states and Texas, which just showed it needs to overhaul its energy system anyway.

There are, of course, some challenges when mulling such a large infrastructure project. For instance, these researchers didn't take into account the potential effects on wildlife—covering canals might cut off access for waterbirds who depend on it for habitat, especially considering that California has lost more than 90 percent of its wetlands. Also, situating solar panels and their trusses over water could lead to rusting of equipment, raising maintenance costs. And then there's the cost of solar-paneling canals on a wide scale. (The study didn't suggest an overall price tag. McKuin says it will be hard to estimate without a demonstration project first, and it would depend on variables like which sites are chosen for development.)

But then again, this isn't an all-or-nothing idea: Some canals here and there could be converted, while others remain open. While that might not provide the full boost of saving 63 billion gallons of water each year, it would still provide power to water pumps and local car-charging stations, all while reducing evaporation at a smaller scale. "With or without climate change, the supply of water in California is tightening, and the demand for water in California is increasing," says Kiparsky. "And those two facts together mean that, indeed, any water savings is good, and it's welcome."

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[Matt Simon](#) is a science journalist at WIRED, where he covers biology, robotics, cannabis, and the environment. He's also the author of [Plight of the Living Dead: What Real-Life Zombies Reveal About Our World—And Ourselves](#), and [The Wasp That Brainwashed the Caterpillar](#), which won an Alex Award.

STAFF WRITER

Featured Video

A \$28K donation is bringing back a water-generating cloud seeding program for Tahoe Basin

Amy Alonzo

Reno Gazette Journal

A program that modifies cloud structures in the Tahoe area to increase the chance of precipitation is back online after a lack of funding left it high and dry.

A \$28,000 donation from the William N. Pennington Foundation has Desert Research Institute's cloud seeding program in the Lake Tahoe and Truckee basins up and running through the end of the year.

The donation came shortly after the program was highlighted in a February story by the RGJ.

Others are reading: Program that helps generate water for 40,000 Reno homes paused after funding shortfall

"They volunteered the money unsolicited," DRI Associate Research Scientist Frank McDonough said. "When they saw the article, that's what stimulated their interest."

The foundation declined to comment on the donation.

Cloud seeding is a method of altering the amount of precipitation formed in clouds by adding substances such as silver iodide to increase rain or snowfall. DRI uses ground generators strategically located in the mountains to introduce the silver iodide.



DRI oversees multiple cloud seeding programs throughout the west. While many of those programs remained funded in late 2020 and early 2021, McDonough had a hard time securing funding for the Tahoe Basin Project, which generates water for up to 40,000 Reno households.

The cost to fully operate the Tahoe-Truckee Basin Project's eight generators runs around \$150,000 to \$200,000.

The Pennington Foundation's donation is enough to run three cloud seeding generators – one in the Little Truckee River area, one at Squaw Valley/Alpine Meadows and one that targets the Sierra Crest.

If storms stay steady, the three generators could generate up to 9,000 acre-feet of water for the area, McDonough said. The generators started running in early March, right after the donation was made.

“We had a couple storms last week and I've run them at least three times since. We've had some nice cold storms, and everything's been perfect for it,” he said. “I've been watching the longer-term forecast, and there are definitely some storms rolling through for the rest of the month.”

The state funded the Tahoe-Truckee Basin Cloud Seeding Project from 1977 to 2009. Since then, DRI has relied on agencies including the Truckee River Fund, Truckee Meadows Water Authority, Western Regional Water Commission, Mt. Rose Ski Tahoe and the Pennington Foundation to fund the project.

Amy Alonzo covers the outdoors, recreation and environment for Nevada and Lake Tahoe. Reach her at aalonzo@gannett.com or (775) 741-8588. [Here's how you can support ongoing coverage and local journalism.](#)

Nevada Today



University of Nevada, Reno researchers and City of Sparks staff collect samples of wastewater to test for prevalence of SARS-CoV-2 virus in the community.

Wastewater testing finds SARS-CoV-2 in Truckee Meadows wastewater

University partners with cities, county for wastewater environmental surveillance during pandemic. Sampling Truckee Meadows wastewater for the SARS-CoV-2 virus found a very clear upward spike approximately seven days before the spike appeared in the community in the form of people testing positive for the virus, according to a study conducted by the University of Nevada, Reno and community partners.

“The latest data shows very low to non-detect viral levels in wastewater suggesting a consistent reduction in COVID-19 prevalence in our community,” Krishna Pagilla, an environmental engineering professor at the University and leader of the study, said.

Sampling and testing were conducted at the three water reclamation facilities and at 12 sewer sites in the region beginning in April 2020.

Research & Innovation (<https://www.unr.edu/nevada-today/news/research-innovation-x132079>) | March 23, 2021

Mike Wolterbeek (<https://www.unr.edu/nevada-today/about/authors/mike-wolterbeek>)

“The data we collected from the many sites shows that the monitoring reflects what’s happening in the community,” Pagilla said. “It clearly reflects the extent of the disease as it was determined by human testing, so it is a good leading indicator of what’s happening in the community.”

He said that by doing this type of wastewater monitoring, tracking the virus can be done without interrupting people’s lives, and it includes asymptomatic people who may not go in for testing. Coupled with the human testing, this gives health officials another tool in development of management actions to deal with the pandemic in the region

“And it’s predictive for seven days ahead, telling us the trend in new positive cases we’ll see in the community in that timeframe,” Pagilla said. “It’s predictive because people don’t get tested until they have symptoms, but our marker concentrations are real time – as soon as the virus is discharged into the wastewater.”

Virus on the increase or decrease?

The data indicates whether COVID-19 is increasing or decreasing in the community.

“Using the monitoring samples, we can’t separate out just the vaccine effect, but overall if the pandemic is decreasing and the number of cases is going down – that we are able to clearly see through wastewater-based monitoring,” Pagilla said. “So, by doing more frequent monitoring we can really see whether the pandemic is going away or if a resurgence is happening. Now we are in position to do that.”

Pagilla is also the chair of the Department of Civil and Environmental Engineering and director of the Nevada Water Innovation Institute based at the University, which includes regional agency partners. In this ongoing study, the group began monitoring the Truckee Meadows wastewater at the Truckee Meadows Water Reclamation Facility in April 2020 to determine the level of COVID-19 in the community. The Truckee Meadows Water Reclamation Facility receives and treats wastewater from the majority of the Truckee Meadows.

In addition, from August through December, the group collected samples from 12 community locations. They expanded the sampling and survey to collection systems of the region to identify hot spots in the community.

“Looking for prevalence of COVID in the wastewater system, the environmental surveillance of wastewater, was funded by the cities of Sparks and Reno and Washoe County, using CARES Act funding,” Sparks Assistant City Manager John Martini said. “It was a regional effort to get the data, and the results are remarkable. We can see the amount of genetic material in wastewater rise as we hit the spike in October, November and into January; it tracked very well with testing results on people in our communities.”

Another project goal was to determine what happened to the virus as it passed through the treatment plant.



“The majority of wastewater in the community comes through the Truckee Meadows Water Reclamation Facility,” TMWRF Manager Michael Drinkwater said. “So, testing the wastewater is a good leading indicator of what’s happening in the community.

“We looked at the entire treatment process, which included the influent and effluent. The virus was clearly detected when coming into the plant, but not detected in the outgoing, so we can say definitively that the virus does not survive the wastewater plant and the water going back to the Truckee River is free of the virus.”

About 20 people from the University worked on the monitoring. They sampled each of the 12 sites, all in one day, on a weekly basis. Pagilla said it takes many resources to conduct the sewer monitoring.

“We had students and faculty working weekends, Thanksgiving and Christmas to collect samples,” Pagilla said. “It was a complicated collection procedure, using a long telescopic handle to capture the sample. The team took multiple samples and measurements on-site before bringing them back to the lab for analysis. The samples were transported on ice within two hours of collection to the University’s biomolecular engineering laboratory.”

The University crew had tremendous support from the agencies throughout the process.

“City and county staff helped with safety and traffic control at the collection sites,” Pagilla said.

“There was also a two-member crew at the sites that built a safe area around the sewer access hole and helped with proper protocols for safety.”

The University team included co-authors on the study, Lin Li, a post-doctoral scholar in Pagilla’s research group, Laura Haak, and Niloufar Gharoon, a doctoral candidate under Pagilla.

Li is an expert in biomolecular testing and has developed the method to measure the viral signatures (an inactive RNA fragment of the SARS-CoV-2 virus) of COVID-19, which allows them to determine the presence of COVID-19 in the community, using the existing qPCR system (a technology used to measure DNA) in the lab.

In-house capabilities

“Since the pandemic began, we have developed in-house capability at the University to do this study,” Pagilla said. “And not just for COVID. We are now able to apply our knowledge, experience and resources to other substances in wastewater, to do further research related to wastewater and community health.”

This field of study is known as Wastewater Based Epidemiology and is being looked into by many cities around the world to determine COVID-19 prevalence in the absence of extensive clinical testing of humans. The purpose of this future work is to develop predictive tools that can complement clinical testing and other human testing data in assessing the prevalence of COVID-19 in the community.



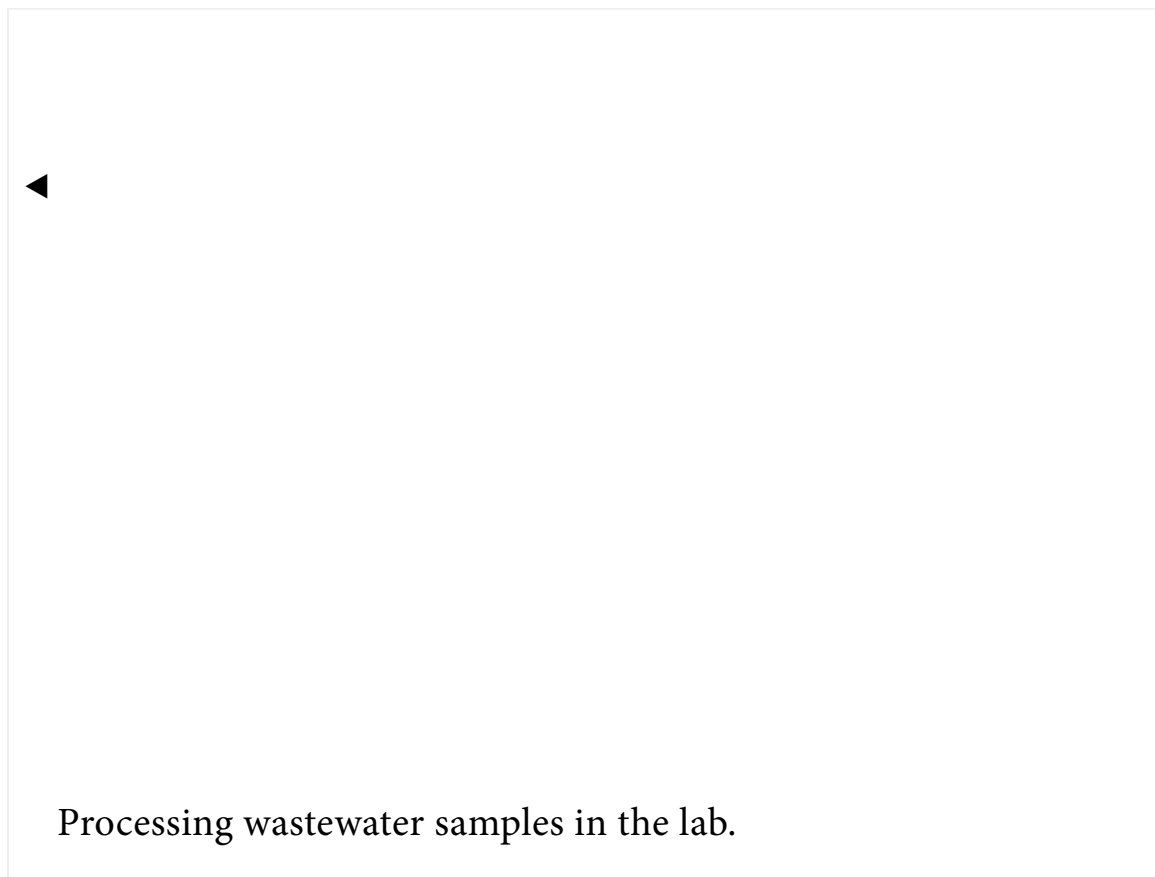
“Environmental observations of wastewater is not new, it’s been around for a while,”^{Press Clips} Martini said. “But what is new is that we now have the ability to do it at our university. Having this tool in the toolbox up at the University will help this community for the next pandemic, to understand it and to find more efficient and better ways to manage a future pandemic.”

Monitoring of sewage or other environmental media (air, soil and water) has been an important method to determine community prevalence of disease due to disease-causing pathogens by measuring certain molecular markers of their DNA/RNA and is known as environmental surveillance.

“While TMWRF has been treating wastewater for the community since 1966, being part of a proactive effort to improve our understanding of public health is new to us,” Drinkwater said. “We are very happy to be able to contribute to this effort in addressing the COVID-19 pandemic.”

While continuing on a limited scale, sampling duration could last throughout the COVID-19 pandemic and is likely to continue for at least one year. Sample sites at each plant will include raw sewage and the finished effluent.

The project work was supported by faculty, staff and students from multiple research groups of the University. Staff from the City of Reno, City of Sparks, Washoe County and contractors provided additional field sampling support and personal safety protective measures. Technical support was provided by Washoe County Health District (Health Statistical Data) and Truckee Meadows Regional Planning Agency (GIS Support).



Press Release

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Water Leak Repair Services in Reno on the Rise with Cold Weather and Increased Population Growth

Experienced companies continue to provide professional services to protect households

Reno, NV - The city of Reno, Nevada, is a wonderful place to be with all the beauty and peace. That's why more people want to live here and enjoy their family life. Another reason is the quality service offered by professionals who help homeowners in emergency times.

Water leaks can be devastating for anyone, no matter where they're living. When it happens, the first thing people want to do is fix the problem themselves. That usually leads to unwanted situations that make things worse.

Reno City's growth and the cold weather have led to an increase in the number of high-quality, professional, and reliable water leak repair services.

To learn more, please visit [here](#).

While there are many water leak repair services in Reno, the one that stands out among the rest is SuperBest Water Damage & Flood Repair Reno. The company offers exceptional quality service based on the experience of the Reno City area. They have a deep understanding of the terrain and provide great work to help clients protect their homes from water leak damage.

They offer 24/7 emergency services that respond to clients in minutes. Just call them, and they will be at the doorstep as soon as possible. They never make estimates on the phone; they come to the location, look at the work level to be done, and then come up with a fair and affordable estimate.

What makes the people of Reno, NV, fall in love with this water repair company is their experience and use of the latest flood and water damage restoration equipment. These gadgets have the latest technology that makes it easy to quickly and easily locate the water leak source, seal it up, and get to work restoring the items damaged in the home.

They're passionate and committed people who love what they do and have a genuine purpose of helping other people. Every job they do always comes out perfect, so

Media Contact

Company Name: SuperBest Water Damage & Flood Repair Reno

Contact Person: Management

Email: [Send Email](#)

Phone: 775-302-9638

Address: 2966 S Virginia St #R55

City: Reno

State: NV 89502

Country: United States

Website: https://superbestwaterdamagefloodrepair.com/Northern_Nevada/emergency/

POLITICS

Bills aimed at safe water in tribal communities, repealing racist laws advance after historic cabinet change



By **Emily Cureton** (OPB)

March 24, 2021 3:36 p.m. **Updated:** March 26, 2021 8:48 a.m.



Volunteer Emergency Manager Dorothea Thurby of Warm Springs takes inventory of bottled water Aug. 2, 2019.

Emily Cureton / OPB



STREAMING NOW
All Things Considered

money could help ease [a longstanding water crisis on the Warm Springs Reservation](#) in Central Oregon.

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The bill passed through the Senate Indian Affairs Committee, which heard testimony from Indigenous leaders at a hearing Wednesday. Confederated Tribes of Warm Springs Chairman Raymond Tsumpti, Sr. said the unmet infrastructure needs on his reservation alone exceed \$40 million.

The bill would raise \$62 million over the next four years for tribal water infrastructure, and would specifically direct the Environmental Protection Agency to fully finance 10 projects serving Indigenous people in the Columbia River Basin.

Tsumpti's testimony linked the water problems in Warm Springs to chronic unemployment.

"That's the reason why we don't have any taxpayers to invest in our system," he said.

Director of the Navajo Department of Water Resources Jason John said tribal water systems were not originally built by federal trust agencies to support growth and development.

"To be able to afford the delivery of water, we need businesses to be part of the plan," John said. "It's really hard to build businesses in the Navajo Nation because of the lack of infrastructure."

Colorado River Indian Tribes Chairwoman Amelia Flores told lawmakers: "You don't need to just throw money at the problem," adding that more than money has held back tribal community development.

Flores cited policies and laws affecting water rights and water quality. She said water management needs to improve with infrastructure.

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Committee Chair Sen. Brian Schatz, D-Hawaii, asked her and the other three Indigenous leaders on the panel a “yes” or “no” question: Does the federal trust responsibility extend to providing sanitation facilities? The only panelist to say “no” was Tsumpti.

Committee Vice Chair Sen. Lisa Murkowski, R-Alaska, opened the hearing by citing dangerous conditions in her home state, descriptions that echoed the problems in Warm Springs.

“Boil water notices have become a way of life,” Murkowski said.

The Alaska Native Tribal Health Consortium serves 229 federally recognized tribes in the state. Interim president Valerie Nurr’araaluk Davidson told lawmakers it’s long been time to make a significant investment in water infrastructure.

“What we found is that infants in communities without adequate sanitation facilities are 11 times more likely to be hospitalized for respiratory infections and five times more likely to be hospitalized for skin infections,” Davidson said, citing a study by the CDC.

“Put another way: Every year, we expect that one out of every three infants in those communities will be hospitalized, simply because they don’t have running water,” she said.

The Western Tribal Water Infrastructure Act languished after it was introduced in 2019 by Oregon’s U.S. Sens. Ron Wyden and Jeff Merkley, both Democrats. The bill passed through the Senate Indian Affairs committee less than a week after the first Native American cabinet secretary in U.S. history was sworn into office. Secretary of the Interior Deb Haaland, who is Laguna Pueblo, now oversees the federal agencies with trust obligations to tribal governments.

In a press release, Wyden’s office said it had received a commitment from Haaland “to improve water infrastructure for Tribal Nations.”

At Wednesday’s oversight hearing, the Senate Indian Affairs committee also advanced the Respect Act, which its Republican sponsors say would repeal 11 laws that discriminate against Native Americans.

“Throughout history, Native Americans have been subjected to federal laws that are

stigma of subjugation and paternalism from that time period.”

Laws that would be repealed by the Respect Act include permitting the forced labor of Native Americans, and allowing for children to be taken away, said Sen. James Lankford, a Republican from Oklahoma and co-sponsor of the bill. He called congressional action long overdue.

“I’m embarrassed that we as a nation ever had these laws in the books. I’m really embarrassed that they’re still on the books,” Lankford said.

Correction: *An earlier version of this story misstated the year the Western Tribal Water Infrastructure Act was first introduced. OPB regrets the error.*

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Recovering Stronger: State Innovations - West Region: Respond, Recover, and Reimagine

Joya Banerjee and Sarah Huckins | March 24, 2021

The West, and the nation, are facing myriad challenges. Years of devastating climate impacts, like droughts, wildfires, and heat waves, have left many in the West struggling to make ends meet. This has been compounded over the last year by the COVID-19 pandemic, which laid inequities bare and highlighted how deeply embedded those inequities are. But times of upheaval can lead to lasting change. The US Water Alliance believes our country has a unique opportunity to recover stronger—and to center One Water policy as a driving force.

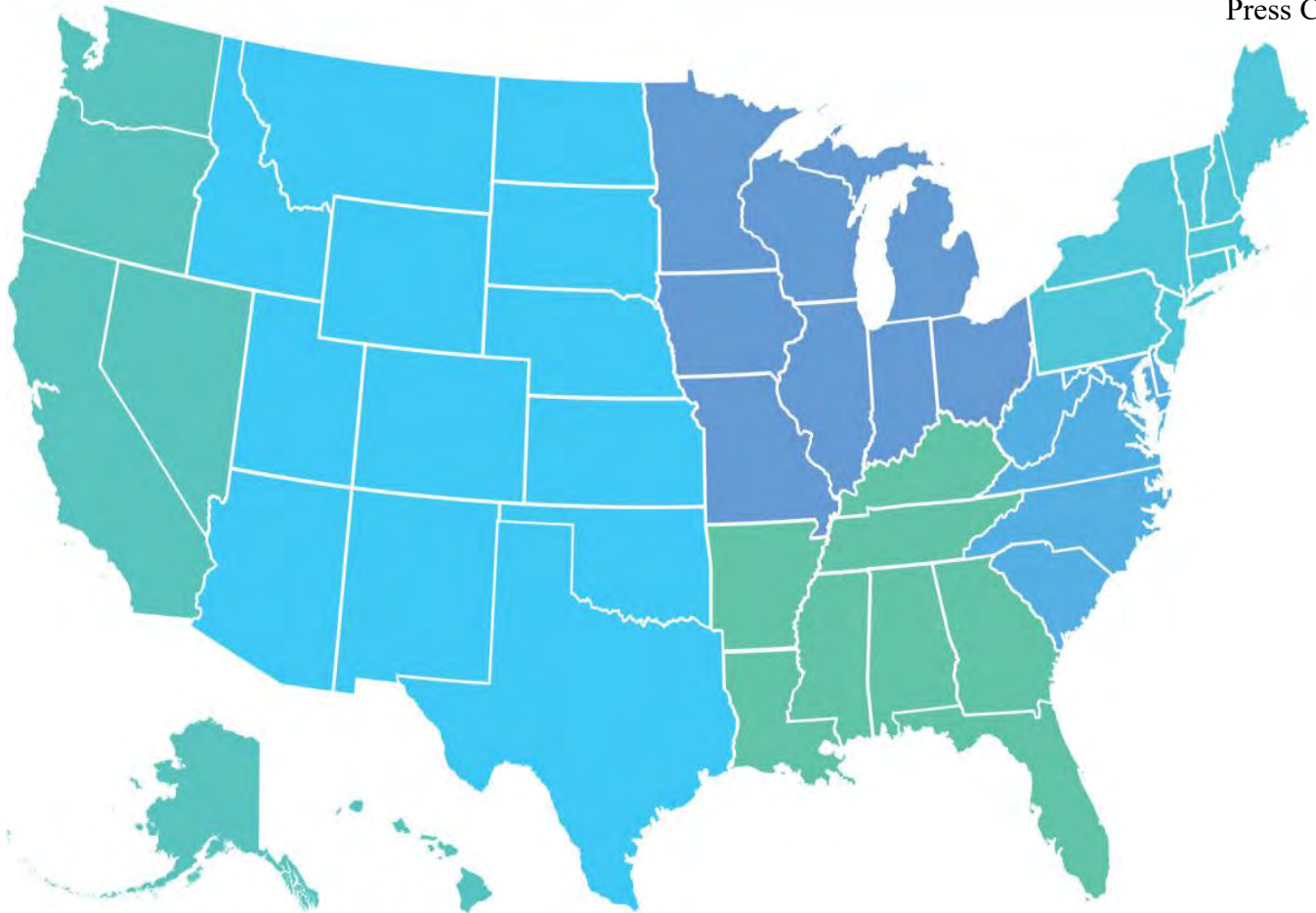
As a part of the US Water Alliance's Recovering Stronger Initiative (<http://www.uswateralliance.org/initiatives/recovering-stronger>), and as a companion to the recently released Federal Blueprint

(<http://uswateralliance.org/sites/uswateralliance.org/files/publications/Recovering%20Stronger%20Fe>) the Alliance set out to identify state policies and projects that are enabling the water sector to

recover stronger. This project started with conversations in the West and included a survey of the Alliance network, targeted interviews, and a dialogue with 30 changemakers from California, Oregon, Washington, and Nevada to discuss innovative state policy approaches that leverage One Water practices.

What We Heard:

Water Can and Must Collaborate. Leaders throughout the water sector and beyond emphasized the importance of collaboration and the willingness of those that were once adversaries to work together. After decades of making decisions in silos, leaders are now seeing stakeholders embracing new partnerships and adopting new technologies to move projects forward. The urgency for water solutions is real, but to truly recover stronger, the water sector in the West must take the time to address agency integration, improve coordination across agencies, advance new governance models, and engage communities.



● West ● Mountain & Southwest ● Midwest ● South ● Mid-Atlantic ● Northeast

Water Can and Must Adapt. While the challenges facing the region are great, participants expressed hope for a more resilient future. Amid the upheaval of the past year, One Water leaders have adapted to keep communities safe and healthy – demonstrating that the water sector can and will adapt to new conditions. Across all four states, participants shared a collective recognition that leaders need to be looking for and implementing new solutions. In the words of one participant: “We don’t want to recover by going back to where we were, but rather by going where we need to be.” Participants also emphasized the need to center equity and justice in recovery efforts and acknowledged there will be no equitable recovery without equitable access to safe, affordable, and reliable water and wastewater services. Finally, even in communities that had previously been resistant to change, leaders are adapting rapidly and demonstrating openness to new ways of operating.

Water Policy and Projects Can Advance Recovery. Participants highlighted the policies and projects that have enabled them not just to respond and recover from the pandemic, but to reimagine what is possible. Polling data (https://f.hubspotusercontent10.net/hubfs/6000718/Water%20Hub/March%202021%20National%20Polling&utm_campaign=Water%20%7C%20Polling&utm_medium=email&_hsmi=116802218&_hsenc=p2ANqtz-97YhIKjIJPq9_ePagntQla0hP0_QgRRnCx1DuLEapYe7Bx6y2Y038_rIDPee015r39Am77VpCOogF2HN3ZuT) shows that voters share the belief that water projects and infrastructure investments are important economic recovery objectives. The examples of policy and programs that are enabling recovery efforts span the breadth of the One Water movement and can serve as inspiration for those across the country working to recover stronger. A few are listed below:

Climate Adaptation and Mitigation

- In Nevada, Governor Sisolak issued Executive Order 2019-22 (<http://dcnr.nv.gov/news/gov.-sisolak-signs-exec.-order-directing-administration-to-collaborate-on-n>) directing the Department of Conservation and Natural Resources and the Governor's Office of Energy to collaborate with public, private, and tribal partners to implement Nevada's climate goals. Emerging from this foundational effort came the Nevada State Climate Strategy (<https://climateaction.nv.gov/our-strategy/>). Multiple agencies developed the Strategy together, with input from more than 1,500 residents. To learn about the Strategy's stakeholder engagement, read more here (<https://climateaction.nv.gov/policies/introduction/#stakeholder-engagement>). 
- In California, the Natural Resources Agency, the Department of Environmental Protection, the Department of Food and Agriculture, and the State Water Resources Control Board launched an interagency effort called Cutting the Green Tape (<https://resources.ca.gov/Initiatives/Cutting-the-Green-Tape>). The goal of the initiative is to accelerate environmental restoration. In collaboration with the California Landscape Stewardship Network, the Natural Resources Agency developed a report to forward these efforts: Regulatory Efficiencies for the a Resilient Environment (https://calandscapestewardshipnetwork.org/sites/default/files/2020-11/GCT_FINAL_hires.pdf). 
- Also in California, Governor Newsom issued Executive Order N-10-9 (<https://www.gov.ca.gov/wp-content/uploads/2019/04/4.29.19-EO-N-10-19-Attested.pdf>) calling for a portfolio of actions to ensure the state's long-term water resilience. The final product, California's 2020 Water Resilience Portfolio (https://waterresilience.ca.gov/wp-content/uploads/2020/07/Final_California-Water-Resilience-Portfolio-2020_ADA3_v2_ay11-opt.pdf), resulted from the collaboration of an interagency working group and input from more than 20 public listening sessions.

Affordability and Access

- In Washington, state legislation provides utilities more flexibility in offering low-income customers a discount on their rates. Section 80.28.068 (<https://app.leg.wa.gov/rcw/default.aspx?cite=80.28.068>) of the Revised Washington Codes states, "Expenses and lost revenues as a result of these discounts shall be included in the company's cost of service and recovered in rates to other customers."
- Washington, Oregon, and California are all states that offer broad-based categorical eligibility (<https://www.fns.usda.gov/snap/broad-based-categorical-eligibility>) (BBCE), a policy in which households may become eligible for Supplemental Nutrition Assistance Program (SNAP) because they qualify for other assistance programs. While BBCE currently is used to address food insecurity, there are ongoing conversations at the state level to develop categorical eligibility for water rate assistance programs to lower the barriers to enrollment.

Innovation and New Models of Partnership

- In Nevada, Oregon, and California, state and local agencies, as well as agricultural partners, have engaged in a project to make evapotranspiration data freely accessible. The OpenET (<https://openetdata.org/>) Project strives to enable more accurate water budgets and innovative water management programs. [L] [SEP]
- In California, the state Department of Conservation and the California Water Data Consortium (<https://cawaterdata.org/>), a nonprofit organization that was developed in partnership with state agencies, are working together to align around an investment in mapping the state with LiDAR technology (<https://cadoc.maps.arcgis.com/apps/Cascade/index.html?appid=4a63a54438f74d5db21114bec266baf4>). LiDAR has been used to support water quality modeling and to plan major environmental restoration efforts. [L] [SEP]

Water Quality

- In Washington, Seattle's Duwamish Valley Program (<https://www.seattle.gov/environment/equity-and-environment/duwamish-valley-program>) is a multi-departmental effort led by the Office of Sustainability & Environment and the Office of Planning and Community Development. The Duwamish Valley Action Team bring together 18 city departments, and with feedback from over 500 Duwamish Valley residents, developed the Duwamish Valley Action Plan (http://greenspace.seattle.gov/wp-content/uploads/2018/06/DuwamishValleyActionPlan_June2018.pdf), which aims to improve water quality while advancing environmental justice. [L] [SEP]
- In California, the Cleanup and Abatement Account (https://www.waterboards.ca.gov/water_issues/programs/grants_loans/caa/cleanup_and_a) was established to provide grants for the cleanup of instances of pollutions where there are no responsible parties to undertake the work. Public agencies, tribal governments, and non-profits serving a disadvantaged community are all eligible to apply for grant funding. [L] [SEP]

These bright spots, among many others, provide insights that extend far beyond the West. Different stakeholders each have their own levers they can pull, but all are important in the advancement of a One Water future. State policy can enable local action, but local action also can inform state policy. Recovery efforts will require both top-down and bottom-up efforts, as well as new levels of information sharing and communication across the water sector. And a thread through all of what we heard was the need for coordination and alignment with current and future federal relief and recovery efforts. But it is important to recognize these policies and projects, while key to recovery efforts, are not a panacea. There are many challenges for which solutions have not yet been generated. But together, through collaboration and innovation, the water sector can help America recover stronger.

What's Next:

The West Regional Listening Session is the first of six Listening Sessions to bring together state policymakers and One Water leaders identify opportunities for action and shape recovery efforts. The Alliance's Recovering Stronger Initiative aims to share and spread how different stakeholders across the country can drive recovery efforts. The Initiative seeks to reknit a local, state, and federal partnership for water. To learn more about the local, state, and federal components of transforming the nation's water management, read more here:

<http://www.uswateralliance.org/initiatives/recovering-stronger>
(<http://www.uswateralliance.org/initiatives/recovering-stronger>).



Western Water | March 26, 2021 | By Gary Pitzer

CALIFORNIA WEIGHS CHANGES FOR NEW WATER RIGHTS PERMITS IN RESPONSE TO A WARMER AND DRIER CLIMATE

WESTERN WATER NOTEBOOK: STATE WATER BOARD REPORT RECOMMENDS ALIGNING NEW WATER RIGHTS TO AN UPENDED HYDROLOGY

As California's seasons become warmer and drier, state officials are pondering whether the water rights permitting system needs revising to better reflect the reality of climate change's effect on the timing and volume of the state's water supply.

A report by the State Water Resources Control Board recommends that new water rights permits be tailored to California's increasingly volatile hydrology and be adaptable enough to ensure water exists to meet an applicant's demand. And it warns that the increasingly whiplash nature of California's changing climate could require existing rights holders to curtail diversions more often and in more watersheds — or open opportunities to grab more water in climate-induced floods.

"California's climate is changing rapidly, and historic data are no longer a reliable guide to future conditions," according to the report, [Recommendations for an Effective Water Rights Response to Climate Change](#). "The uncertainty lies only in the magnitude of warming, but not in whether warming will occur."

The report says [climate change](#) will bring increased frequency and intensity of extreme weather events, such as [atmospheric rivers](#) and [drought](#), prolonged fire seasons with larger fires, heat waves, floods, rising sea level and storm surges. Already, the state is experiencing a second consecutive dry year, prompting worries about drought. "The wet season will bring wetter conditions during a shorter period, whereas the dry season will become longer and drier," the report said.

The State Water Board report catalogues 12 recommendations — inserting climate-change data into new permits, expanding the stream-gauge network to improve data and refining the means to manage existing water rights to ensure sufficient water is available to meet existing demands. At the same time, the report says, the State Water Board should build on its existing efforts to allow diverters to capture climate-driven flood flows for underground storage.

Because floods and the magnitude of the peak flows are expected to increase under [many climate change projections](#), "there may be greater opportunity to divert flood and high flows during the winter to underground storage," the report said. The State Water Board could build on the flood planning data used by the Department of Water Resources to help inform water availability analyses and to spell out conditions for the resulting water right permits for floodwater capture.



[The American River in Sacramento in 2014 shows the effects of the 2012-2016 drought. Climate change is expected to result in more frequent and intense droughts and floods. \(Source: California Department of Water Resources\)](#)

"Water rights can either be something that helps us adapt

"The recommendations are a menu of options," said Jelena Hartman, senior environmental scientist with the State Water Board and chief author of the report. The goal, she said, was to "clearly communicate what the water rights issues are and what we can do."

and create resiliency ... or it can really hinder us.”

~Joaquin Esquivel, State Water Resources Control Board Chair

The result of a [2017 State Water Board resolution](#) detailing its comprehensive response to climate change, the report could be the first step toward a retooled permitting system for new water rights applications. (The Board has averaged about a dozen newly issued permits per year, mostly for small diverters, since 2010.) The State Water Board is [seeking public comments](#) on the report through March 31.

And while the report does not call for reopening existing permits, it does sound a warning for those permit holders: With droughts projected to become longer and more severe, the State Water Board may need to curtail water diversions more often and in more watersheds.

Time to ‘Reset Expectations’?

During a March 18 webinar on the report, Erik Ekdahl, the State Water Board’s deputy director for the Division of Water Rights, said it may be time to “reset expectations” regarding curtailments for water use permits, given that curtailments have only been implemented by the state in 1976-1977 and 2014-2015.

“That’s not an overuse of curtailments,” he said. “If anything, it’s an underuse. We may need to look at curtailment more frequently.”

Some water users fear the report could be the beginning of a move to restrict their access.

“To the extent climate change is incorporated into water rights administration, it should be to respond to a changing hydrology in a manner that is protective of existing users ... and not to turn back the clock on water rights or to service new ambitions for instream flows that aren’t in the law,” said Chris Scheuring, senior counsel with the California Farm Bureau Federation.

The report notes that many of California’s existing water rights are based on stream gauge data drawn during a relatively wet period (since about 1955). Although California has had some of its most severe droughts on record since the 1970s, annual flow on many streams is highly variable due to California’s Mediterranean climate. Fluctuations in year-to-year precipitation are greater than any state in the nation, ranging from as little as 50 percent to more than 200 percent of long-term averages.

If climate conditions swing drier overall, the report says, it will be difficult for those existing water right holders to divert their permitted volume. Expanding the network of stream and precipitation gauges will be critical, the report says, to improving the accuracy of water availability analyses.

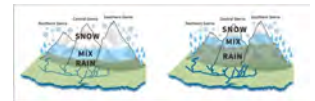
But the report’s focus is on new water rights applicants and the need to weave climate change data into their permits to provide a clear description of projected water availability. “We take the long view in asking if there is sufficient water available for a new appropriation,” Hartman said.

State Water Board leaders said the water rights response is part of the umbrella of actions needed to confront climate change.

“Water rights can either be something that helps us adapt and create resiliency ... or it can really hinder us,” Chair Joaquin Esquivel said at the Board’s Feb. 16 meeting where the report was presented.

Writing Climate Change into New Permits

The fingerprints of climate change are increasingly evident in California’s seasonal weather. Extreme conditions are on the upswing. Peak runoff, which fuels the state’s water supply, has shifted a month earlier during the 20th century. The four years between 2014 and 2017 were especially warm, with 2014 the warmest on record. Annual average temperatures in California are projected to rise significantly by the end of the century.



[Climate change is expected to move the snow line in Sierra Nevada watersheds higher, which will likely change the timing and volume of winter and spring runoff.](#) (Source: [California Department of Water Resources](#))



[Joaquin Esquivel, chair of the State Water Resources Control Board.](#) (Source: [State Water Resources Control Board](#))

"We are already experiencing the impacts of climate change," said Amanda Montgomery, environmental program manager with the State Water Board. The continuous warming creates an "unambiguous trend" toward less snow, she said, and shifts in snowpack and runoff are relevant for water management and water rights.

[Jennifer Harder, a professor at McGeorge School of Law in Sacramento and an expert on water rights law. \(Source: McGeorge School of Law\)](#)

Jennifer Harder, a water rights expert who teaches at the University of Pacific's McGeorge School of Law in Sacramento, said integrating climate change considerations into water rights permits is good policy that aligns with the State Water Board's mission of ensuring the highest and most beneficial use of water.

"It's beyond dispute that the changes in precipitation and temperature patterns resulting from climate change will affect water availability," she said.

Kimberly Burr, a Sonoma County environmental attorney and member of [the North Coast Stream Flow Coalition](#), told the State Water Board at the Feb. 16 meeting that knowledge about the effects of climate change on water is sufficient enough to be incorporated into new water rights permits. It's an important issue, she said, because the state must ensure adequate flows exist to protect endangered species, vulnerable communities and public needs under the [public trust doctrine](#).

"There is a finite amount of water and we have to prepare for the worst and move forward with great caution," she said.

A Challenging Water Rights System

[Water rights in California](#) are based on a permitting system that includes several specifics, such as season and point of diversion and who can continue taking water when there is not enough to supply all needs. Getting a water right permit can take from several months for a temporary permit to several years for a permanent right.

In deciding whether to issue permits, the State Water Board considers the features and needs of the proposed project, all existing and pending rights, and the necessary instream flows to meet water quality standards and protect fish and wildlife.

The priority of a water right is particularly important during a drought, when some water right holders may be required to stop diverting water according to the priority of their water right. Suspension of right is done through curtailments of the user's ability to divert water.

If the State Water Board implemented the recommendations in the water rights and climate change report, critics say, it would add another component in a system that aims to meet the demand for additional water. Already, local groundwater agencies are lining up to get access to available water sources for aquifer recharge and groundwater banking so they can comply with the state's Sustainable Groundwater Management Act.

[Dorene D'Adamo, a member of the State Water Resources Control Board. \(Source: State Water Resources Control Board\)](#)

Some question whether putting the report's recommendations into action would possibly hinder the permitting process.

"The concern I have is we have quite a big backlog already and it's already challenging to get through the system," said State Water Board Vice Chair Dorene D'Adamo, who serves as its agriculture member. "How do we incorporate all of this and still be nimble and move with deliberate speed?"

Incorporating a climate change response into new water rights permits would be complicated, but necessary, State Water Board member Tam Doduc said.

Striving For Complete Data

Adding climate change data to water rights permits applications is problematic because of questions about the precision of existing data and the degree to which it can be localized.

[A State Water Board report on adapting water rights permits to address climate change impacts says the state needs to improve its system of stream and precipitation](#)

"Current climate change models have disparate findings, and many are calibrated for a global scale but not regional areas," Lauren Bernadett, regulatory advocate with the Association of

[gauges to better track climate change impacts on water availability.](#) (Source: California Department of Water Resources)

California Water Agencies, told the Board. “The recommendations insert significant ~~upstream~~ ^{Permitting} for any person or agency applying for a permit.”

Harder, the law professor, said good data is critical for determining water availability, but perfect data to achieve absolute certainty is unattainable. “There are many different facets of water management and it requires us to give careful thought into how we make decisions in the face of the data we have, knowing it will never be perfect and always be changing” she said.

Better streamflow data is crucial to knowing whether the water exists to support new permits. The report notes that [the low number of gauges](#), particularly on the smaller stream systems in California, means there is often [not enough information](#) to accurately characterize hydrologic variability over years or decades. That significantly limits the ability to reliably estimate water availability.

The report says the state may need to rethink how it estimates water availability. It added that one way to improve accuracy may be temporary installation of portable stream gauges at requested diversion points.

Moving From Theoretical To Practical

Addressing how to respond to climate change in water rights permitting would be a substantial undertaking, particularly given the existing array of complex and controversial matters on the State Water Board’s agenda.

“We don’t have all the details yet and this won’t be an easy task,” Doduc said.

“Too often we focus on our water quality activities because water rights are too difficult.”

Said Esquivel: “There is a lot of work to be done and it can seem overwhelming. But there is a lot of great groundwork and a commitment to making sure the water rights system is going to adapt and be here for us when we need it most.”

The State Water Board already has broad authority under existing law to take on climate change in water rights permits should it decide to do so, said Harder, with McGeorge Law School.

“What the board is trying to do,” she said, “is snap those tools together in a new way and polish up the edges.”

However the issue proceeds, Harder said, the state should recognize that water resources are best understood by the local agencies that have the most pertinent information about them.

“We need to approach this as a partnership as opposed to looking at it through the lens of ... state power vs. local power,” she said. “There is an important role for both here.”

“We don’t have all the details yet and this won’t be an easy task. Too often we focus on our water quality activities because water rights are too difficult.”
~Tam Doduc, State Water Board member

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CORNELL CHRONICLE



Provided

The Kaveri River in India is the source for an extensive irrigation system and for hydroelectric power.

Study exposes global ripple effects of regional water scarcity

By Syl Kacapyr | March 26, 2021

Water scarcity is often understood as a problem for regions experiencing drought, but a new study from Cornell and Tufts universities finds that not only can localized water shortages impact the global economy, but changes in global demand send positive and negative ripple effects to water basins across the globe.

“We are looking at water scarcity as a globally connected and multi-sector phenomenon,” said Jonathan Lamontagne, M.S. ’14, Ph.D. ’15, assistant professor of civil and environmental engineering at Tufts University, who co-authored the study with Patrick Reed, the Joseph C. Ford Professor of Civil and Environmental Engineering at Cornell. Tufts graduate student Flannery Dolan is lead author of the study, which suggests water scarcity dynamics are more complicated than traditionally acknowledged.

The study, “[Evaluating the economic impact of water scarcity in a changing world](https://www.nature.com/articles/s41467-021-22194-0)” (https://www.nature.com/articles/s41467-021-22194-0),” was published March 26 in Nature Communications, and uniquely captures the interdependent effects of global trade consistently with differences in regional climate policies as well as river basin-specific capacity to address water scarcity risks.

The researchers coupled physical and economic models to simulate thousands of potential climate futures for 235 major river basins – a technique known as scenario discovery – to better understand how water scarcity is a globally-connected phenomenon, with local conditions having reverberations across the globe in industries such as agriculture, energy, transportation and manufacturing.

The research found that global trade dynamics and market adaptations to regional water scarcity result in positive and negative economic outcomes for every regional river basin considered in the study.

For instance, in the lower Colorado River basin, the worst economic outcomes arise from limited groundwater availability and high population growth, but that high population growth can also prove beneficial under some climatic scenarios. In contrast, the future economic outcomes in the Indus Basin depend largely on global land-use policies.

“What is happening elsewhere in the world through differences in regional choices related to energy transitions – how land is being managed as well as different regional water demands and adaptive choices – can shape relative advantages and disadvantages of water intensive economic activities,” said Reed.

Restrictions in water availability usually lead to a negative regional economic impact, but the research revealed that some regions can experience a positive economic impact if they hold an advantage over other water basins and can become a virtual exporter of water. The Orinoco basin in Venezuela, for example, usually has a reliable supply of water and is often in a relative position that can benefit when other regions are under stress, according to the researchers.

The study also found that small differences in projections for future climate conditions can yield very large differences in the economic outcomes for water scarcity.

“Human activities and market responses can strongly amplify the economic effects of water scarcity, but the conditions that lead to this amplification vary widely from one basin to the next,” said Lamontagne.

A river basin can be considered economically robust if it is able to adapt to drought with alternative sources of water or adjust economic activity to limit usage. If a basin is unable to adapt its supply options and if prolonged water scarcity leads to persistent economic decline, then the researchers describe the loss in water basin adaptive capacity as having reached an ‘economic tipping point.’

For example, in the Indus region in South Asia, the water supply is under stress due to heavy agricultural use and irrigation leading to unsustainable consumption of groundwater, which places it close to the tipping point.

The conditions that lead to these tipping points are highly variable from basin to basin, depending on a combination of local factors and global conditions. In the Arabian Peninsula, low groundwater availability and pricing of carbon emissions are key factors. In the lower Colorado River basin, a mixture of low groundwater availability, low agricultural productivity, and strong economic demands from the U.S. and Europe lead to tipping points.

“It is noteworthy that the lower Colorado River basin has some of the most uncertain and widely divergent economic outcomes of water scarcity of the basins analyzed in this study,” said Reed. “This implies that assumed differences in regional, national and global human system conditions as well as the intensity of climate change can dramatically amplify the uncertainty in the basin’s outcomes.”

As climate change makes the physical and economic effects of water scarcity more challenging for policy makers to understand, the researchers hope their work will provide the basis for similar analyses and draw attention to the importance of expanded data collection to improve modeling and decision making.

The study was co-authored by researchers from the Joint Global Change Research Institute at the Pacific Northwest National Laboratory, and was supported by the U.S. Department of Energy’s Office of Science.

MEDIA CONTACT

An indigenous river

THE TRUCKEE ENDURED MANY INSULTS OVER 160 YEARS



PHOTO/LARRY GEVERT: Spring runoff water tumbles down the Truckee River west of Verdi in this undated photo.

Born amid an uplift of mountains millions of years ago, the Truckee River still flows 125 miles from Lake Tahoe to Pyramid Lake. It carries life from the Sierra Nevada to the Great Basin Desert, where all the rivers flow inland and never know the sea.

The waterway has nurtured countless generations of indigenous people. The Wa She Shu (the Washoe Tribe of California and Nevada) lived on the shores of Lake Tahoe in the warm seasons and moved to villages in what is now Douglas County, Carson City and the Truckee Meadows in advance of winter's wrath. The homeland of the Numu (Northern Paiutes) stretches across high desert of Northern Nevada, with the Newe (Western Shoshone) as eastern neighbors. The branch of the Numu known as the Cui-ui Tuccutta (cui-ui eaters) prospered at Pyramid Lake.

Caretakers of the water

The native people are, and have always been, stewards of the water of life. They maintained an ecological equilibrium that lasted from the late Ice Age until the late 18th century, when European-American newcomers flooded into their territories. In the 150 years of development that followed, the lives of the original inhabitants – and the health of the watershed – spun out of balance.

It is only in the last several decades that some of that damage has been reversed, but threats to the region's water system remain. History attests that ignorance, arrogance and greed are the forces that have always worked to destroy the region's vital watershed.

An ancient lake

During the glacial eras from 75,000 to 10,000 years ago, the Truckee entered the Basin at what is now Lockwood to feed ancient Lake Lahontan. That inland ocean waxed and waned with the rhythm of climate changes over millions of years. At its greatest depth, at what is now Pyramid Lake, Lahontan was 886 feet deep. What is now Fallon was beneath 420 feet of water.

People fished in the great lake, perhaps as early as fifteen millennia ago. The **oldest known petroglyphs** in North America, carved in calcium carbonate rock on what is now the Pyramid Lake Paiute Reservation, have been dated at between 10,500 and 14,800 years before the present.



WIKIMEDIA: Ancient Lake Lahontan. Pyramid and Walker lakes are its last remnants.

The river was a highway

Humans have been crossing the Sierra Nevada for thousands of years. Shells from the Pacific Ocean have been found at archaeological sites far to the east of what is now Reno. In the Truckee Meadows, fishing villages hugged the river. For more than 4,000 years, tribal people returned to a camp on the Truckee at what is now the Vista Boulevard/Interstate-80 interchange in Sparks.

In wet cycles and dry, the site was a base for hunting, food preparation and winter camping. It was most used from A.D. 500 to 1400, according to archaeologists who investigated the site for Nevada's Department of Transportation.

The Indians ate antelope, mule deer, mountain sheep, cottontails and jackrabbits. Fish were plentiful: cutthroat trout, cui-ui, chub and Tahoe suckers were caught in gill nets. The greatest shing activity came during the winter spawning runs, when the Truckee thrashed with sh; families ate their ll.



IMAGE/DETAIL OF AN ILLUSTRATION BY RON ODEN: Tribal people lived in a marsh near what is now Fallon as Lake Lahontan was drying up 10,600 years before the present.

Continuous occupation at Pyramid

At Pyramid Lake, the Numu thrived; the cui-ui and Lahonthan cutthroat trout were staples of their diets. They began their day with a prayer to the Father of All People as they washed their faces in the lake or the river.

“Give me a good day. Take away any sicknesses I may have and drop them on the other side of the mountains.”

– *Paiute prayer.*

Across the desert, the Numu lived in small bands. The family was the main unit of society. They had no word for cousins, who were addressed as brothers and sisters. Food was shared with visitors.

For more than 300 years after 1492, the Great Basin was a blank space on maps of North America. Until the early 19th century, most Great Basin Indians never had seen a European-American. Once they did, changes came swiftly.

The strangers arrive

Fur trappers arrived in the 1820s and 1830s, but did not linger. In January of 1844, explorer John C. Fremont followed a canyon southward to the shores of a bright blue desert lake. “It broke upon our eyes like the ocean,” **he wrote**. “For a long time we sat enjoying the view.” The lake, “set like a gem in the mountains,” had a singular feature: a triangular rock formation that Fremont fancifully described.

"It rose, according to our estimate, 600 feet above the water; and from the point we viewed it, presented a pretty exact outline of the Great Pyramid of Cheops... I called it Pyramid Lake."

– *Capt. John C. Fremont, 1844.*

Fremont dubbed the waterway that fed the lake the "Salmon-Trout River." Nine months later, the leaders of a wagon train bound for California called the same river the Truckee, in honor of the friendly Paiute who directed them to what would become a new emigrant route across the Sierra at Donner Pass.

Fremont's name for the river appeared on early maps, but pioneer journals show that calling the waterway the Truckee River caught on as early as 1845. By the 1850s, the moniker was well established.

"We beheld the green banks and crystal clear waters of the Truckee River by the morning sun. It was to us, the river of life."

– *Elisha Brooks, journal, 1852.*

In 1859, the Rush to Washoe brought tens of thousands of miners to Western Nevada. Chinese laborers carved a railroad line across the Sierra and through the Truckee Meadows after the Civil War. Reno was founded in 1868. Ditches and canals soon sliced up the landscape.

IMAGES/NEVADA HISTORICAL SOCIETY: Left, a handbill announces the founding of Reno. A metal bridge, on the right, spans the Truckee River at Virginia Street in 1877.

"Fearful stenches"

Beginning in the 1870s, the Truckee River through Reno became an open sewer. In summer, human waste festered in ditches along the parched river banks. In spring, rushing waters washed away the sewage, which ended up downstream at Pyramid Lake. Tanneries, butcher shops, hotels, eateries and all manner of other businesses used the ditches and the river for waste disposal.

"There has been a great deal of talk lately both in print and personally about the fearful stenches that greet the uncultured nose at almost every point in Reno"

– *Nevada State Journal, Aug. 12, 1882.*

Throughout the 1880s and 1890s more dams, ditches and industry made matters worse. Laws were passed and then diluted. Powerful interests teamed up to squeeze every penny of profit from an already overexploited river. Press Clips

In February 1879, the Reno Evening Gazette reported the Truckee was the color of melted butter because of oil dumped in the water. The newspaper reported the river “is a tumbling mass of sawdust...A poor lonesome fish would not even know its mother two feet away.” From the 1900 until 1930, sawdust from the Floriston Pulp and Paper Company operations upstream in California clogged the waterway, mixing with human and animal waste generated by Reno residents and businesses. Residents referred to the water as noxious “Reno chowder.”

Dams and dead sh

The industrial boom of the late 19th century swept up the river in its wake and left pollution behind. Few voices came to its defense. By the end of the 1800s, the Truckee River was on its way to becoming the most dammed stream in the West. At the same time, the Sierra was being stripped of its trees to prop up the mines of the Silver State.

PHOTO/TAHOE-TRUCKEE HISTORICAL SOCIETY: The Floriston Pulp and Paper Company.

Less than three decades after the first settler’s cabins were built in the Truckee Meadows, the fish in the river were severely depleted. Between overfishing and dozens of dams blocking the spawning runs, the Truckee River fishery was doomed. On Sept. 6, 1898, the Tuscarora Times-Review reported: “The Truckee River, once the grandest trout stream on the coast, is now declared to be depopulated of all but catfish.”

The passage of the **Newlands Act** in 1902 paved the way for the diversion of Truckee River water into the Carson River system at Derby Dam. The federal project to “make the desert bloom” came at the expense of the fish and the people at Pyramid Lake. The Pyramid Lake species of Lahontan cutthroat trout could no longer navigate the river to spawn; they became extinct. The cutthroats in the lake today, a species designated as “threatened,” are relatives of the original species.

PHOTO/NEVADA HISTORICAL SOCIETY: A tribal member drying fish at Pyramid Lake around 1900.

Flood control projects

By 1903, the Reno Evening Gazette reported that the river flowing through downtown was “a blend between black and brown with soapy bubbles covering its surface.” Reno’s water supply – already filthy and crawling with microbes – became the dirty joke of the West. A 1915 newspaper editorial complained that “even cows won’t drink from the Truckee.”

In the late 1950s and early 1960s, the U.S. Army Corps of Engineers began major flood control projects that removed some of the river’s natural features and turned its banks into a shallow canyon in downtown Reno. Dams and reservoirs were built upstream at Prosser and Stampede.

The cui-ui fish, a staple of Paiute life for thousands of years, seemed destined to vanish by 1967. That year, Pyramid Lake reached its lowest level in recent history: 3,783.9 feet above mean sea level. That measurement was 86.1 feet lower than in July 1911, shortly after the **Derby Dam** began diverting water to the Newlands Project in Churchill County. The Pyramid Lake cui-ui no longer could swim to the river from the lake during the annual spawning season. Because of water diversions, the lake was slowly drying up.

A turning point

In the 1970s, federal environmental laws – including the Endangered Species Act and the Clean Water Act—were passed. Those measures had a positive effect on the Truckee River and the lakes at its beginning and its terminus. In the 1970s and 1980s environmental groups and the Pyramid Lake tribe filed lawsuits to protect the water. Indian voices, ignored for so many years, were finally heard in courtrooms from Nevada to Washington, D.C.

In 1988, U.S. Sen. Harry Reid kicked off negotiations aimed at resolving a century of conflicts over the Truckee River.

The late **Norman Harry**, who served several terms as chairman and vice-chairman of the Pyramid Lake Paiute Tribe, along with his team, eventually completed a multi-party negotiation of the **Truckee River Operating Agreement**. That compact settled decades of litigation over water rights in Northern Nevada. The settlements returned water rights to the tribe.

“What’s good for the fish is good for the people”

– Norman Oliver Harry, water protector, Pyramid Lake Paiute Tribe.

A trend toward balance

In the last 150 years on the Truckee River, nothing has changed and everything has changed.

Truckee River water is no longer “Reno chowder,” but challenges remain. In the 160 years since wagon trains trundled across the meadows, error has ruled the river and in time some of those mistakes have been corrected.

Community groups stepped up to defend the resource. The indigenous people of Northern Nevada, stewards of the water since prehistoric times, have a long-awaited seat at some of the tables of power. Advances have been made.

No time for complacency

Yet, the clear, rushing water beneath the Virginia Street Bridge in Reno doesn’t tell the whole story.

Increased development upstream sends more and more pollution downstream. Fragmented planning and short-sighted avarice still threaten a resource that has existed from the dawn of time and now is essential to the survival of half a million people.

The river does not heal itself. History teaches us what the original inhabitants of the Great Basin always knew: we are all guardians of the water – or will be counted among its destroyers.

Environment & Energy

Industry Eyeing EPA's Hustle to Control 'Forever Chemicals'

By Pat Rizzuto

March 29, 2021, 3:01 AM

- Agency moving toward finalizing four PFAS rules
 - Attorneys predict more regulation, lawsuits coming
-

Industry attorneys say they're bracing for a wave of corporate liability and litigation as the Biden administration works swiftly to fulfill a campaign promise to control "forever chemicals."

The Environmental Protection Agency this month announced it's working on three water-related regulations for per- and polyfluoroalkyl substances, or PFAS. It sent a fourth chemical data-collection proposal to the Office of Management and Budget, or OMB, for approval.

In the near future, the agency is likely to list some or all PFAS as hazardous waste, triggering cleanups and financial obligations for companies nationwide, attorneys counseling chemical and other manufacturers said.

One of the the four regulations the EPA announced would provide a needed, national drinking water limit for two PFAS, said Robert J. Simon, a vice president at the American Chemistry Council. He said the others would help the agency determine whether controls are needed for additional PFAS, and when.

Enforcement Liability

More regulation "increases potential enforcement liability for manufacturers across the country making PFAS and using them," Eric Gotting, a partner with Keller and Heckman LLP, who specializes in litigation.

"It may also give fodder to the plaintiffs bar to cite to those regulations in tort suits," he said.

Industries making products with PFAS and manufacturers in states such as Kansas and Missouri that haven't focused on the chemicals likely will face new liabilities and lawsuits, said Allyson Cunningham, a partner in the environmental and tort practice group in Lathrop GPM LLP's Kansas City, Mo., office.

Even before the coming regulatory wave, her law firm has seen "more and more lawsuits against companies that have used PFAS in their production process," she said.

Emerging Rules

The EPA declined interview requests but pointed to its recent activities on PFAS, including:

- its determination to set drinking water limits for the two most well-recognized and toxic PFAS: perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA);
- a proposed rule to require drinking water utilities to monitor 29 PFAS as unregulated contaminants;
- and; an advanced notice of proposed rulemaking to collect effluent discharge information from chemical, plastic, textile, food packaging, and other manufacturers known to make or use PFAS.

Those rulemakings began under the Trump administration, so they show actions it delayed rather than the new administration's initiatives, said Elizabeth "Betsy" Southerland, a retired a 30-year EPA veteran and former Office of Water science and technology director.

But the EPA sent a fourth proposed rule to the OMB on March 1—earlier than environmental organization attorneys said they expected.

The proposed rule would enact a section of the 2020 National Defense Authorization Act that required the agency to issue a particular Toxic Substances Control Act (TSCA) rule that would order chemical manufacturers to submit information about PFAS they made or imported since Jan. 1, 2011.

The information the EPA could collect includes the identities and volumes of PFAS, how they've been used, any PFAS byproducts, and number of exposed workers.

The proposed rule could generate a lot of information useful for other regulatory efforts, said David Lennett, a senior attorney with the Natural Resources Defense Council.

For example, the data it would collect—combined with the information from water utilities through the unregulated contaminants monitoring rule—would help to clarify possible sources of the 29 PFAS, said Chris Moody, regulatory technical manager at American Water Works Association (AWWA).

That's why the association, which represents drinking and wastewater utilities, asked the Biden administration to issue the TSCA rule quickly, Moody said.

Another rule that Cunningham predicts the EPA will issue would designate at least some PFAS as hazardous substances. That designation would trigger increased liabilities and litigation due to the Superfund law's extensive cost recovery mechanisms, she said.

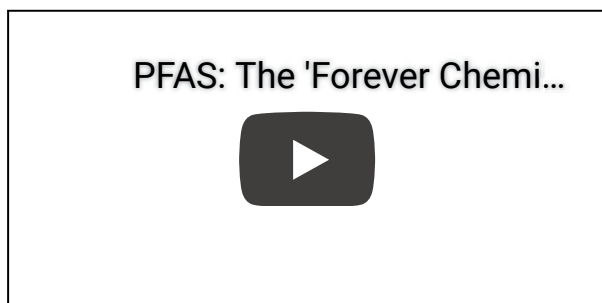
The EPA can seek to recover costs for planning and implementing hazardous waste cleanups, waste investigations and monitoring, and contractor costs, according to its website.

Water utilities already face anywhere from \$3 billion to an excess of \$38 billion to remove just two types of PFAS—PFOA and PFOS—from drinking water, Moody said. That doesn't include the costs of managing water remediation equipment, biosolids, or other materials as hazardous wastes due the presence of PFAS, he said.

Beyond potential costs, utilities are preparing to face a public that's worried about PFAS in their water and asking questions with few answers, Moody said. EPA has readily available information for only two of the 29 PFAS listed in the proposed monitoring rule, he said.

What's known about PFAS now is raising public concerns, Moody said, including links to health problems such as higher cholesterol, decreased vaccine effectiveness, and cancer, according to the Centers for Disease Control and Prevention.

'Every Dollar Spent'



Billions of Dollars

The EPA has seven more PFAS health effects analyses underway, and other agencies have some information, he said. But the EPA needs to do more, Moody said.

Utilities need to better understand the science on PFAS, so they can answer the public's questions and address demands to reduce concentrations of more PFAS if monitoring detects them, he said.

"AWWA's stance is always to follow the science," Moody said. But, he said, "water systems are faced with a lot of other issues. We need to make sure every dollar spent is another dollar going toward public health."

EPA said by email that it's "committed to taking action to better understand and ultimately reduce the potential risks caused by these chemicals."

The EPA must use more of the regulatory tools available to both get the information it needs and prevent problems from getting worse, attorneys representing environmental groups said.

Robert Sussman, the principal with Sussman and Associates, which represents Safer Chemicals Healthy Families, urged the agency to limit environmental releases of PFAS and the entry of more PFAS onto the marketplace.

Just this month, an EPA Federal Register notice showed it approved a new PFAS and a new use of an existing one of these chemicals. A coalition of 18 environmental health groups sent the EPA's chemicals office a letter March 26 asking it to stop approving new PFAS and revise certain assumptions it makes to better protect workers who could be exposed to them.

Sussman also said it should collect more information about PFAS being produced now; gather more data on the chemicals' release into the air, water, and land; and require PFAS manufacturers to provide the EPA with their methods for detecting the chemicals.

"We are allowing companies to put these chemicals into the environment" and that has to be stopped, Lennett said. "PFAS are a big public health crises facing our country."

To contact the reporter on this story: Pat Rizzuto in Washington at prizzuto@bloombergindustry.com

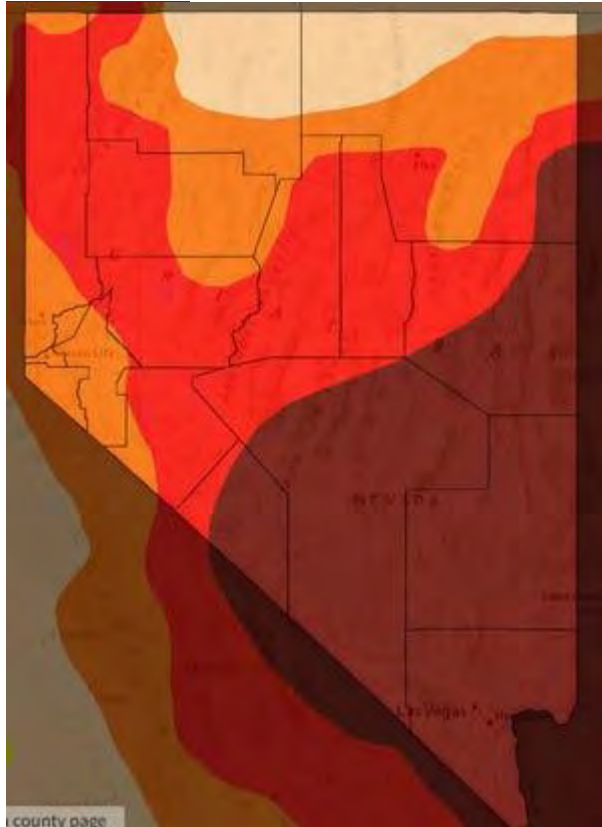
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How bad is Nevada's drought? It depends where you live

Amy Alonzo

Reno Gazette Journal

[View Comments](#)



Nevada is facing serious drought conditions heading into summer.

According to water and fire experts, the nation's driest state is getting even drier – the entire state has been flagged for dry conditions, with 92 percent of the state in what climatologists classify a “severe” drought.

According to the U.S. Drought Monitor, a joint effort of the National Drought Mitigation Center, National Oceanic and Atmospheric Administration and the U.S. Department of Agriculture, 100 percent of Nevada is in drought of moderate severity or worse.

The drought monitor issues five stages of drought warning – abnormally dry, moderate, severe, extreme and exceptional.

Washoe County is among the 92 percent of the state in a “severe drought.” During times of severe drought, residents can expect to see things such as increases in bear and other wildlife encroaching into residential areas and more dust.



The majority of southern and eastern Nevada are facing an even more dire situation, with 40 percent of land in an “exceptional drought.” Residents in those regions can expect to see impacts such as boat ramps closed, water allotments for farmers and ranchers curtailed, alfalfa and hay yields decrease, and fire season and activity extended.

“The natural systems are definitely feeling the impacts. The soil moisture in the Sierra Nevada is seeing near-record lows. Rangelands are reporting reduced forage,” said Dan McEvoy, regional climatologist with the Western Regional Climate Center. “And this is before we are really even getting into the hot and dry season.”

Amy Alonzo covers the outdoors, recreation and environment for Nevada and Lake Tahoe. Reach her at aalonzo@gannett.com or (775) 741-8588. [Here's how you can support ongoing coverage and local journalism.](#)

The Truckee's blighted banks

INDIANS LEAD EFFORT TO CLEAN RIVER'S EDGE BEFORE HIGH WATER FLUSHES WASTE TO LAKE



PHOTO/PYRAMID LAKE PAIUTE TRIBE: Tribal Chairwoman Janet Davis at Pyramid Lake March 27. The lake is the terminus of the Truckee River and the destination of pollution that flows downstream.

A woman's birthday wish to provide food to unsheltered people along the Truckee River last month evolved into an ongoing effort to remove mountains of trash from the river's edge before the rushing waters of spring can sweep the effluent downstream to Pyramid Lake.

Beverly Harry and 16 friends and family members, including many members of the Pyramid Lake Paiute Tribe, brought 150 burritos to people living in tents along the Truckee in Sparks on Feb. 4. All along the waterway, they saw campsites – along with mounds of garbage, including human waste. Homeless people have found refuge along the river for decades, but during the pandemic their numbers **increased exponentially**.

Much of the refuse from the camps, once swept downstream, will wind up at Pyramid Lake, the terminus of the Truckee. The mission to provide food morphed into a cleanup effort.

Volunteers assemble

Since then, Avory Wyatt, a member of the Washoe Tribe, inspired the original group to team up with other indigenous people and community volunteers to make the cleanups a longer-term campaign. So far, the River Justice volunteers have collected and hauled away more than 200 cubic yards of refuse scattered along the river banks. The next cleanup day is scheduled for April 3 and a larger effort to cleanse the river banks is being planned for April 24, the week of Earth Day.

"It was very surprising, shocking, to see first-hand what has happened to the river," said Pyramid Lake Tribal Chairwoman Janet Davis. "There is so much trash along the banks, a lot right at the edge of the water. There are a lot of syringes... The people are living in terrible conditions; there are no restrooms."

The trash problem isn't limited to the many camping spots in the Truckee Meadows, she said. "What happens upstream affects everything downstream," Davis said. "It all ends up in our lake, which has no outlet." The tribe's people, the lake's fish, crops and livestock all depend on the health of the river that has **fed the desert lake for millions of years**.



SCREEN GRAB/RIVER JUSTICE VIDEO: Volunteers from the Pyramid Lake Paiute Tribe, the Reno-Sparks Indian Colony, the Washoe Tribe of Nevada and California and other indigenous people at a Truckee River cleanup east of Sparks.

DONATIONS TO RIVER JUSTICE: USPS: River Justice c/o Autumn Harry, PO Box 76, Nixon, NV 89424; through **VenMo:** @autumnharry; or at **Zelle:** autumnharry24@gmail.com

The sacred lake

“It’s our obligation to monitor the river and remind the people upstream that we need to keep it safe, we need to keep the ecosystem clean, not just for us, but for everyone,” Davis said. “We need to be mindful of what we do to the water; water is life for everybody and we can’t take it for granted.”

The tribe, which has left nearly all of Pyramid Lake’s shoreline undeveloped, considers the lake a sacred place whose health is its ancient responsibility, she said.

Beverly Harry’s late husband, **Norman Harry**, was a former tribal chairman who was at the forefront of water quality and environmental issues for decades. He was a key negotiator during years of legal battles that ultimately led to a regional water pact and the restoration of the tribe’s water rights.

‘A holistic approach’

Beverly Harry said the effort to clean up the upstream river corridor is a continuation of that legacy. “Norm always said ‘what’s good for the fish is good for the people.’ We need to take a holistic approach to taking care of the water.”

Everything that happens along the river affects everything else along the course of the waterway, she said.

In addition to the trash generated by the camp sites, the cleanup teams noted that the route from the Waste Management transfer station, located at Kirman Street and the river, follows the Truckee's route to the landfill at Lockwood. Garbage blows off the trucks, creating a trail of litter on the way to the dump.

PHOTOS/RIVER JUSTICE: A shelter near the Truckee Meadows wastewater treatment facility, left. An abandoned camp near the Truckee River east of Vista Boulevard in Sparks.

Pollution into the river

Runoff from new developments in the Truckee Meadows also increases what environmentalists call non-source-point pollution. Rain sweeps trash and other pollutants, including pesticides from lawns and gardens, into storm drains, then into the river.

"Anything that flows into the river ultimately comes down to our lake. That's always a concern. Development upstream has an effect downstream... This is looking like it's going to be a dry year, with decreased water flow. Anything coming down the river is going to be even more of a detriment to the lake."

– Chairwoman Janet Davis, Pyramid Lake Paiute Tribe.

"It's a real big mess," said Beverly Harry, who is a member of the Navajo Tribe. "The counties and the cities need to step up to the plate. Approving all these new developments not only increases that pollution, but when these industrial parks and luxury housing developments get approved, rents go up even more and that contributes to homelessness. Renters get pushed out.

"We'll be seeing an increasing amount of water pollution and we're not getting the environmental justice for the river that we'd like to see," she said. "The local governments, the state and the developers need to be taking care of the river."

PHOTO/FRANK X. MULLEN: Beverly Harry on the Truckee River bank near the Kuenzli Street overpass March 24. Her birthday wish to bring food to unsheltered people led to an ongoing cleanup effort along the river.

Food, water and respect

So far, the volunteers have made six trips to the encampments. They bring food, water, trash bags, sharps containers and other equipment. Josh Myers, of Myers Brothers Tree Care, brings a dump truck. Keep Truckee Meadows Beautiful supplied a 20-yard waste container.

The group raised \$1,723 in donations on social media, including \$450 from the Progressive Leadership Alliance of Nevada. Members of the effort are trying to raise \$450 for each future cleanup to cover the costs of equipment.

Autumn Harry, Norm and Beverly's daughter, is among the volunteers who contributed the elbow grease during the six river cleanups to date. The camps along the river are the most recent and visible effect of what has been happening upriver, she said.

"It's a concern when we see all these large industries coming in along USA Parkway (in Storey County east of Reno)," she said. The people who work at Tesla and the other large employers there increase the traffic

along the Interstate-80 river corridor. In Reno, massive housing projects for high-end homes have been approved, often in flood plains, she said.

Fast growth; limited resources

“We have to think about where the water is coming from to support that growth and where the runoff from all that developed land will go,” Autumn Harry said. “In (Reno’s) North Valleys, the growth will have an effect on the ground water at Pyramid Lake.”

Politicians often rubber-stamp approvals for large projects against wide opposition from communities, she noted.

“That connects back to the houseless issue we see along the river,” she said. Increased demand for housing and high property values raise the costs of rent beyond many people’s ability to pay. “In addition to the pandemic, a lot of people **just can’t afford to rent** a place in Reno anymore.”

Much of the recent cleanup effort has been focused on the river banks on the eastern edge of Reno and in Sparks. Camps are scattered at intervals and in small tent villages at or near parks or street overpasses. The people who live there have few options for their sanitation needs, Beverly Harry said.

“Between trail marker 51.5 and mile 59 we counted just eight trashcans and 2 bathrooms,” she said. “I know where they are going to relieve themselves.”

The river’s edge

The volunteers bring food and water to the campers. They supply bundles of firewood at camps where residents are stripping branches from trees and bushes that line the river banks and are essential to prevent erosion. On their cleanup missions, volunteers start conversations with unsheltered people about the river and where the water goes.

They hand out trash bags and return later with a dump truck to pick them up. People whose shelters are close to the river’s edge are encouraged to move their camps to higher ground so that they are not washed out when the water rises.

The cleanup crew members treat campers with respect, but it’s often hard to make connections. “They are focused on day-to-day survival,” Beverly Harry said. “It’s difficult to think about anything past that immediate need.”

PHOTOS/FRANK X. MULLEN: Tents on both sides of the Truckee River on Feb. 19 near the Kirman Street Bridge, left. A shelter built on the river’s edge, on right, is shown across the river from John Champion Park on March 24.

‘Embarrassing to be out here’

On a recent walk along the bike trail along the river just east of downtown Reno, Beverly Harry visited the camp of a married couple who have been using the trash bags and are moving their tent higher on the Truckee’s banks. Jane, whose husband was not in camp, explained that they received one of their two pandemic stimulus checks and are moving to a weekly-rental motel. The windfall will buy them at least two months of a roof over their heads.

Jane, 19, who said she has lived on the streets on and off since she was 15, was asked how she and her husband are treated by people who have homes.

“I wish people would be more empathetic than sympathetic. I know what motivates me to do better is someone who has been there; they have wisdom. It’s embarrassing being out here. It sucks. People are always judging. It’s not my fault I was raised in a shitty home. I don’t want people to put me down. That doesn’t give me the motivation to get better. Being out here is not really a choice; it’s not for most people out here. People don’t really see us. I would ask people not to be such dicks to us, to be understanding about it. Then it would be a lot better.”

Jane, 19, who lived along the banks of the Truckee River this winter.

PHOTOS/FRANK X. MULLEN: On left, an encampment alongside the Truckee River near Gateway Park in Sparks in February. Police swept the campers from the area Feb. 17 and crews cleaned up the site; some of the people who left relocated to other spots along the river. An encampment, right, along the river bank near the Kuenzli Street Bridge shown on Jan. 20. Reno officials are reexamining ordinances pertaining to camping within city limits. A court decision limits what enforcement actions are allowed when local governments do not provide adequate resources to help unsheltered people.

Causes and effects

The volunteers said that cleaning up the river banks is a start, but the problems the squatters' camps bring into focus go far beyond the pandemic. Like the river system, all is connected; causes and effects are intertwined.

A lack of affordable housing, social services and mental health care; runaway development; fractured planning processes; political indifference; the overriding influence of wealthy corporations on decision makers; and many other factors affect the health of the river, they said.

"It comes back to the cities and the counties being accountable," Beverly Harry said. "(Jane) gets a motel for two months, that's what \$1,400 in stimulus is going to do for them. It's not a solution. The cities build more houses for elite people and more people are left without homes, or they have to rent without ever being afforded the opportunity to buy a home."

"People have to realize that what's happening along the river is connected to what happens with development... They have to realize there needs to be justice for the river."

– Beverly Harry, River Justice volunteer.

Autumn Harry said the unsheltered people should not be demonized. Their camps merely underline a greater threat to the area's most vital resource – the fragile watershed that half a million people depend upon to survive. When people in Reno turn on their taps and water flows, then flush impure water away, they take that resource for granted, she said.

A matter of privilege

"I don't really see a difference between the tent camps and the beautiful houses along the river on California Street," she said. "We have people coming to our houses and picking up our trash, whereas the people on the river aren't afforded those same luxuries. We're not exempt from creating waste ourselves."

Just like the campers at the river's edge, Autumn Harry said, comfortable people in houses have a hard time seeing the effect of their actions on the environment – and the people – downstream. "It's a really complex issue, there are a lot of parts to it," she said. "But a lot of the responsibility falls back on the local governments."

Education and awareness are keys to solving problems, she said.

"It's a whole different thing when you are down at the river and see all the trash and what's happening there," Autumn Harry said. "When you're aware of where that water is going afterward, of course you want to clean it up; of course you want to help. It's not just a cosmetic thing. It's a bigger issue that affects everyone."

WALL STREET WANTS NEVADA'S WATER

Will Lawmakers Let Them Have It?

By **Kyle Roerink** - April 3, 2021



Water tanks above Fernley, Nevada. The Fernley Public Lands Act makes adjacent federal land available for auction and development. The availability of water is a limiting factor as long-time agricultural users compete with a growing demand for residential and commercial uses - photo: Brian Bahouth/the Ally

Opinion

If Wall Street wanted to have more control over Nevada's water supply what would it do: Look no further than [AB354](#) and [AB356](#).

If I were thirsty and deep-pocketed, I would limit the due process rights of Nevadans, bar access to the courts, and make a mockery of things like public comment. I would legitimize dangerous and speculative water plays (currently illegal) and throw out the fundamentals that have guided our water law for more than a century.

Lastly, I would create a loose framework for a marketplace that allows those with the most money and power to buy, sell, and export our water resources with as little oversight as possible. I would let regulators have unfettered discretion to pick winners and losers. Then I would let me -- the Wall Street power broker -- manage the water. Lastly -- and most importantly -- I would let entities with water rights sit on their water without putting it to use.

Guess what? AB354 and AB356 do all the above in grotesque fashion. The beguiling thing about the bills is that they are dolled up with piggish lipstick, painted with terms like conservation and transparency. Those catch-all terms are nice ways to give unsuspecting lawmakers warm and fuzzy feelings. But they are unbecoming provisions designed to do one thing: Ship rural water to urban areas.

AB354 and AB356, proposals crafted and being pushed by the state's top water regulators, are meant to work in tandem.

AB354 creates a framework for water markets, referred to in the bill as banks. But these are not like checking accounts for water. Water banking is a di use term in the West. In the case of this bill, the bank is a transactional marketplace where water can be commoditized with little oversight or concern for the public interest. Indeed, the bill allows for large-scale, inter-basin transfers of water i.e. massive pipeline projects. But it also allows for fancy accounting mechanisms where paper water can be traded and moved around despite physical limitations on the ground. AB356 aids in this e ort by allowing entities to acquire water and not put it to use. That is speculation masquerading as conservation.

So where does Wall Street come into play in all of this? Look no further than [Water Asset Management \(WAM\)](#). It's a New York hedge fund that operates a massive potato farm in Winnemucca. WAM isn't merely interested in farming. It's unabashedly interested in shipping water from places like Winnemucca to cities further west. For WAM, current laws are a bit of a nuisance. Statutory provisions that protect the public interest, property rights, and due process foil exportation goals.

In the name of conservation, AB354 and AB356 could allow an entity to follow its elders, sit on the water, ~~and~~ create a marketplace for selling, leasing, or trading that water across a vast swath of the state.

Right now, there's nothing stopping WAM or another entity from doing that. The problem for WAM is the existing laws. These bills allow entities to sidestep the safeguards while attempting to convince the public that they are safeguards.

To give you another example, let's go with Blockchains – the tech company that wants its own government system and, basically, its own county. It also wants its own water. Blockchains --notwithstanding their promises of innovation -- bought land without much water in the desert east of Reno. Bills like AB354 and AB356 are the cornerstones to fixing their water issues. Right now, Blockchains is in the farming business south of Gerlach – having purchased more than 2.9 billion gallons of water for annual use. With these bills, they will be able to follow their elders, create a so-called “marketplace” and figure out some fancy ways to move water around the desert.

Lastly, let's look at our neighbors in California. They have a long-established system of water banking aided by millions of acre-feet running off the western Sierra Nevada mountains, billions of dollars worth of conveyance infrastructure like the State Water Project, and the gall to test the limits of Mother Nature. Nevada only has the latter.

Over the years, entities with the most money and power seem to get the most of water banks. Government entities in metro areas and private entities cut deals. Small farmers get pushed out, big operations take over, rural water gets exported, and rural communities suffer along with the environment.

Additionally, consider the recent headlines about Wall Street's California water play via the Nasdaq California Water Index, a marketplace for trading water futures. This is not an index that moves physical water – it's all cash-settled – but it is a way to legitimately hedge and speculate on water.

What's the next step. One of the masterminds of the Index was pretty clear. Lance Coogan, the CEO of Veles Water Limited, said in a recent interview that he hopes the index will expand into other investment vehicles: options, bonds, mutual funds, swaps, and physical trades of water.

In theory, water markets could save water. But the implication is that greed won't get in the way of that utopic vision. Conservation is only conservation when water currently used goes unused. Putting ag water in banks for big-city use isn't conservation. It's more of the same.

Don't fall for the charade. Tell lawmakers to oppose these bills.

Editor's note: The Sierra Nevada Ally invites local writers to pen approved opinion columns for the publication. We invited Kyle Roerink to write columns on natural resource issues throughout Nevada and the West. Kyle is the executive director of the [Great Basin Water Network](#). He lives in Reno. [Support his writing](#).

The opinions expressed above are not necessarily those of the Sierra Nevada Ally. Our newsroom remains entirely independent of our opinion page. Published opinions further public conversation to fulfill our civic responsibility to challenge authority, act independently of corporate or political influence, and invite dissent.

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Final snow survey of season shows snowpack at 63%

April 1st snow depth was 63 inches with just under 24 inches of snow water



By [Ben Deach](#)

Published: Apr. 5, 2021 at 3:57 PM PDT



INCLINE VILLAGE, Nev. (KOLO) - It was hydrologist Jeff Anderson's last snow survey of 2021, which was a lot different than that of last year.

"It peaked below normal and it's starting to melt earlier than normal," he explained. "This year's snowpack is kind of disappointing."

The survey revealing an April 1st snow depth of 63 inches with just under 24 inches of snow water at the site located within Mount Rose Ski Tahoe. The snowpack is currently only 63% of average

"This is a natural cycle that we go through, and hopefully it will turn around," said Federal Water Master Chad Blanchard.

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Bill Hauck of TMWA was on hand for the survey to see about the impact on our water supply. He says Truckee river flows should still be normal this year, but that's not the case with other rivers, and the reason why is simple.



Nevada water rights bill raises concerns over “water banking”



Nevada Legislature (Gurajpal Sangha)

By [Associated Press](#)

Published: Apr. 5, 2021 at 10:57 PM PDT

CARSON CITY, Nev. (AP) - Rural water users are panicking over a proposal to create a market for the sale and purchase of water rights in Nevada. A Monday legislative hearing about so-called “water banking” proposals pitted state water bureaucrats against a coalition of farmers, conservationists and rural officials who were unconvinced by arguments that the concept would encourage conservation.

Nevada State Engineer Adam Sullivan said water banking would encourage conservation by offering water rights holders an option beyond using, abandoning or selling their allocations.

Opponents argued creating a market would lead to water being exported from rural areas and potentially financial speculation.

Throughout the West, rural water users have been pursued by New York-based hedge fund Water Asset Management, which has reportedly purchased water rights from farmers in central Nevada’s Humboldt River basin, in Colorado’s Grand Valley and in central Arizona.

Nevada Department of Conservation & Natural Resources spokesperson Samantha Thompson said the proposal, which was submitted by the Governor’s Finance Office on behalf of the state division of water resources, wasn’t geared toward a particular basin or seeker of water rights.

Deputy Administrator for the Nevada Division of Water Resources Micheline Fairbank said she wasn’t aware of any hedge funds seeking to use water banking frameworks for speculation.

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INNOVATION ZONES/SMART CITY CAMPAIGN HEATS UP



IMAGE/BLOCKCHAINS LLC: An artist's conception gives a glimpse of the environment imagined for Painted Rock Smart City.

The road to building a high-tech, smart city in the desert east of Reno has so far been paved with cash and propaganda, and will soon reach a crossroads as the Nevada Legislature lurches past the half-way point in the 2021 session.

Nevada lawmakers soon are expected to consider a proposal for the creation of Innovation Zones that would allow a tech company to carve a new political jurisdiction out of the desert hills and valleys of Storey County for its **Painted Rock Smart City**. The official bill had yet to be introduced as of April 5, but the concept has been promoted by Gov. Steve Sisolak and others who say it is the Silver State's best shot at a golden future. Critics, meanwhile, see the measure as a stew of potential pitfalls and boondoggles wrapped in a thin layer of shiny promises.

In a legislative session in the grip of a pandemic, person-to-person lobbying is limited. At the beginning of the session in February, **Blockchains LLC**, the company behind the smart-city scheme, floated its bill draft among the lawmakers. Since then, the company launched a media campaign of positive messages about the Innovation Zones concept. The first phase of the battle for public support is winding down, but is about to advance to the next level.

A multi-platform effort

Since late February, **social media ads** steered by algorithms have followed some web surfers from click-to-click, the **governor hosted** a virtual media event to tout the idea, and **guest opinion pieces** in favor (and **some against**) the plan have popped up in local newspapers and on websites. Blockchains also has been the beneficiary of what is called "earned media" – articles and television reports appearing everywhere from the **BBC** to CNN to the **Wall Street Journal**.

"These times call for a more urgent pace. Confronting the reality of this pandemic, moving forward boldly in rebuilding our economy, getting people back to work. We cannot wait for economic recovery to come to us."

– Gov. Steve Sisolak, Feb. 26, speaking in support of the Innovation Zones proposal.

Television commercials have aired regularly in the **Reno** and Las Vegas markets. The TV spot features drone-camera shots of clear water rushing down the Truckee River and wild horses racing through the sagebrush. The voiceover says: Innovation Zones can provide "124,000 jobs and \$16 billion in economic impact with no financial risk to the state and accelerate the path to recovery" from the pandemic.

SCREENGRABS: The Blockchains' Innovation Zones 30-second TV commercials have aired daily during popular programs, including "Jeopardy."

The message is simple and positive; for some viewers it has the whiff of snake oil.

Promises made of ‘vapor’

Sheila Parker of Reno said it’s ironic that the ad uses the wide-open spaces and iconic mustangs of Northern Nevada as a backdrop to sell an idea that, if approved, is sure to threaten those things.

“I feel strongly about this and have informed my neighbors and friends as well,” Parker said. “Selling out our present and future for the vapor of Innovation Zones is so short sighted. I am very concerned about self-governing zones, where the resources, such as water, air quality, density of population, and effect on wild horses and wildlife are issues... I have no doubt major (impacts) will happen if Innovation Zones happen.”

She’s not alone in her skepticism. **Critics**, both inside **and outside** of the state’s halls of government, **have derided** the self-governance part of Blockchains’ proposal. Those naysayers, as well as people who haven’t yet formed an opinion, are the targets of the ad campaign.

“Gov. Sisolak is asking that we take this scheme seriously. Fine. Let’s start with some (independent) analysis... And then, in the unlikely event independent objective analysis indicates it is in fact a reasonable idea to give some libertarian tech bro his own town just because he made a cryptocurrency killing that one time, let’s acknowledge that seriously examining the ‘mechanics and consequences’ of the proposal is not something that is going to happen in the confines of a time-constrained pandemic-era legislative session. Take Blockchainsville seriously? You first, governor.”

— **Hugh Jackson**, Nevada Current, Feb. 28, 2021.

Propaganda, then specifics

Todd Felts, an associate professor who teaches classes on public relations and advertising at the Reynolds School of Journalism at the University of Nevada, Reno, said the early stage of Blockchains’ marketing effort introduces Nevadans to the Innovation Zones idea. He compared the campaign to initial ads for a presidential hopeful, which focus on the candidate’s positive attributes.

“Then if the candidate wins a few primaries, the ads start getting more meaningful and offering some ideas,” he said. “The early ads increase public perception.”

The commercials offer vague promises, he said, and so qualify as propaganda. “Propaganda can be lies, but that’s not the only definition. In this case, they paint a beautiful picture, but there’s not a lot of there, there.(The spots) are meant to grip the emotions of the viewer... They will have to be backed with some solid information at some point.”

All ink is good ink

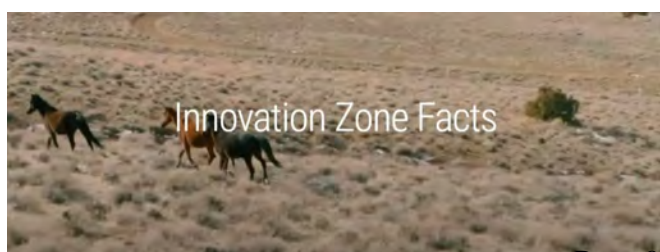
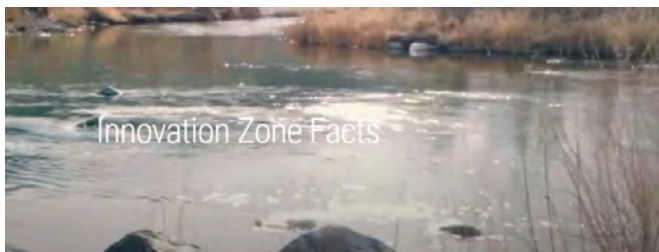
The Innovation Zones proposal has gotten a lot of attention around the nation and some of it has been as skeptical as Parker’s comments. Late-night talk show host Stephen Colbert, for example, devoted a **segment**

of his show to mocking the Nevada plan as feudalism. He compared the idea to something hatched by a James Bond movie villain. Yet, Felts said, even negative mentions can help Blockchains get its positive message out to the public.

“Historically speaking, as long as people are having a conversation about what you are offering – as long as you aren’t harming people – you are in a good place, whether they are saying good or bad things,” Felts said. Blockchains is “talking to people multiple times in multiple ways, and that’s what’s needed. Attention spans are short and the audience is fragmented across multiple platforms. The awareness stage of a campaign is critical.”

A textbook campaign

Don Vetter, a Reno marketing and advertising consultant, agreed that even non-flattering mentions of Innovation Zones can assist Blockchains’ effort to swing public opinion. “The mention on Colbert’s show is incredible earned media,” he said. “Things like that keep the issue front and center.”



“The tax structure’s already business-friendly. The problem is our education system, and healthcare system, and the services we give people are abysmal. So, if you want to attract the businesses here that will actually contribute to the economy the way to do that is to actually invest in education, in health care and mental health to bring good businesses to Nevada and keep them here.”

– Annette Magnus, director of Battle Born Progress, quoted in the [Nevada Independent](#).

Blockchains’ campaign “checks all the boxes” for a political issue, he said, “It’s a quality campaign.”

Vetter said the association of the project with a tech magnate cuts both ways. While some people may be wary of a millionaire who claims to have a path to prosperity, others will see that as a selling point. Tech tycoons like Bill Gates, Elon Musk and others have big ideas that can change the world. “There’s a cachet associated with them,” he said. “... They are seen as riding the wave of the future.”

The campaign has a way to go to change some hearts and minds. Aside from members of the public and some state lawmakers, “I know that many of our local officials throughout this region are very nervous about this,” Vetter said.

IMAGES: BLOCKCHAINS LLC: Artists’ renderings of scenes in Painted Rock Smart City, the self-governing development proposed on a 100-acre parcel about 12 miles east of Reno. Blockchains’ founder Jeffrey Berns envisions a city where tech firms develop innovative technology. People who live and work there would not only purchase goods and services with digital currency, but also use the Blockchains’ digital ledger technology for just about all their records. Blockchain is a decentralized, digital ledger known mostly for recording cryptocurrency transactions, but also has been adopted by some local governments for data transactions and storage.

Shooing away ‘boogiemen’

Pete Ernaut, a former Nevada legislator who is president of government affairs at R&R Partners advertising and public relations firm, is at the helm of Blockchains’ campaign. The effort soon will move from an awareness phase to public education, he said.

“There will eventually be a call to action,” he said. “...This is such an unprecedented idea that getting people comfortable with what it doesn’t do is as important as getting them comfortable with what it does do. We’re trying to eliminate bogeymen as much as possible.”

The claim of big benefits to the state at no cost to its taxpayers will be backed up, he said, and fears that creating a self-governing district will mean the return to a company-town model will be allayed. He understands that those objections may be “instinctive,” he said, but they aren’t valid.

[Summary-of-Bill-Draft-Authorizing-Creation-of-Innovation-Zones.update.1.31.2021](#) Download

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No public price tag?

“Other big projects have had tax incentives and this has none,” Ernaut said. “There is no investment from the state or counties.” He agreed that such a large development will have impacts on surrounding cities and counties, but said the proposed tax on Blockchains’ transactions built into the Innovation Zone proposal will mitigate them. That revenue “will be distributed to the county, the state general fund, and also a higher share goes to the most impacted counties, Storey, Lyon and Washoe.”

The new county carved out of Storey County would be governed by a panel of three appointed commissioners during the building stage, but by the time services are needed the residents of the new jurisdiction will be voting in elections, he said. The Innovation Zone, rather than being a “company town,” will start off like a general improvement district, a common mechanism used by developers to make improvements during the early stages of large projects.

A game-changer

In the smart city, up to 35,000 residents will live and work within the new county’s borders. “It will be a fully-integrated community between work and living. That’s a selling point that nobody else at this point can make. It will be the second actual smart city in the world, after [Songdo, South Korea](#).”

“People need to understand the magnitude of this, the total environment; people will live and work in this community... It’s a big dream. Lots of big dreams seemed like pie in the sky (when proposed), but now they have become integral for life. That includes the Internet itself. Blockchains’ technology has that range of possibilities, that effect on people’s lives. It’s not something you can build out one building at a time.”

– Pete Ernaut, R&R Partners.

Ernaut noted that the new county would be subject to all state laws that govern Nevada’s 17 existing counties. Blockchains would build the city, but wouldn’t run it. “It’s really more like a (general improvement district), which is common when developers take on all the risk at the front end.”

A pivot to democracy

By the time taxes would be levied and services would be needed, governance would be in the hands of elected officials. “There would be an elected board by the time they need to spend public money,” he said. “There would be hundreds if not thousands of individual businesses within the zone. The residents who live there will not be Blockchains’ employees across the board. The idea that Blockchains would control the city is sort of ridiculous... They build it, but those who live there, who operate businesses there, are completely independent.”

Still, even if state lawmakers pass the Innovation Zones measure into law, there are mountains of obstacles in the way of constructing the utopia on the Truckee. Civil libertarians worry that smart cities **pose a threat to privacy**, and attempts to create smart cities elsewhere **have failed**.

Blockchains has about 66% of **the water rights needed** to support the city, but the water is **100 miles away**. Past efforts to transport water to Storey County via a pipeline fell to **overwhelming opposition** from environmental groups and the Pyramid Lake Paiute Tribe. Other **regional water battles** have spawned decades of litigation.

Some local governments oppose the plan, including the Storey County commissioners, who on **March 2 voted** to “oppose separatist governing control” within their county. Tens of thousands more vehicles would eventually be using the Interstate-80 corridor through a narrow river canyon where the highway can’t be widened.

Forging ahead

Those concerns, and many more, could stymie the smart city even if the measure clears the Legislature this session. Ernaut said Blockchains will meet any challenges.

“We’re going to keep putting our best foot forward; we’re very passionate about it,” he said. “... The rewards exponentially outweigh any perceived risk. If it doesn’t happen, there’s nothing to claw back, no public dollars will have been lost. It would be a lost opportunity for the state, but no massive financial loss except for the developer itself. If it does happen, it’s transformative.”

When the bill is introduced, all efforts will be made to get it passed, Ernaut said, and to keep informing Nevadans about Innovation Zones and their benefits.

As people become educated about the concept, he said, “some of those bogeymen will disappear.”

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Lake Tahoe license plate proceeds help fund several Nevada environmental projects in 2021

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Submitted by Jeff Munson on Tue, 04/06/2021 - 2:01pm



Nevada Division of State Lands

From Lake Tahoe's crystal-clear water, to the surrounding forests and serene backcountry, the Tahoe Basin is an amazing natural and recreational treasure. As part of continuing efforts to keep Lake Tahoe beautiful for generations to come, every year, proceeds from Nevada Lake Tahoe License Plate sales and annual renewal fees are invested in projects that help protect Lake Tahoe's unique natural environment.

This year, the [Nevada Division of State Lands](#) is excited to announce that over \$186,000 in NV-LTLP proceeds will help fund the following environmental preservation and restoration projects:

— **SCUBA-enabled underwater litter clean-up in Lake Tahoe.** As a world-class destination enjoyed by thousands of residents and visitors every year, keeping Lake Tahoe clean is key to protect the "Jewel of the Sierra" for future generations. Clean up the Cayes, a 501(c)(3) nonprofit organization, will remove underwater litter across 22 miles of Nevada's Lake Tahoe shoreline. Last summer, SCUBA divers removed about 9,000 pounds of litter to help restore and enhance the lake's underwater environment and famed water clarity.

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— **Permanent Aquatic Invasive Species Boat Inspection Station.** Aquatic invasive plants and animals can spread quickly in Lake Tahoe, threatening the health and vibrancy of Lake Tahoe's sensitive natural environment and native ecosystems. To help prevent aquatic invasive species from entering the lake, a permanent boat inspection station is being planned near Spooner Summit. Station design plans will include: a decontamination unit, restroom facilities, shade structure, educational kiosk and more. Over the past 21 years, the NV-LTLP program has funded over a dozen aquatic invasive species prevention and control projects that have helped restore and enhance vital habitat for native plant and wildlife species.

— **Stormwater treatment options in a changing climate.** The combined pressures of climate change, population growth, and increased visitation have challenged the health and clarity of the Lake. As part of ongoing efforts to address these pressing challenges, the Desert Research Institute and Tahoe Resource Conservation District are partnering to conduct research that targets urban stormwater management and treatment options to limit the flow of pollutants and fine sediment particles into the Lake.

The challenges in Lake Tahoe continue to change and grow every day. As wildfire risks, climate change, and ever-growing demands for outdoor recreation continue to compound in Lake Tahoe, supporting the long-term sustainable health of the Tahoe Basin is more pressing than ever.

Right now, over 22,000 Nevadans are helping to protect Lake Tahoe through the purchase and annual renewal of their Nevada Lake Tahoe license plates. Since the first license plates were sold in February 1998, the NV-LTLP program has generated over \$9 million through sales and annual renewal fees, funding over 165 preservation and restoration projects on the Nevada side of Lake Tahoe.

All Nevadans can help preserve and protect Lake Tahoe by purchasing a Lake Tahoe license plate for \$61 with an annual renewal fee of \$30. Learn more by [clicking here](#).

To learn more about the projects funded by the NV-LTLP program, [go here](#). You can also follow @NevDCNR on Facebook, Twitter, and Instagram using #EveryPlateCounts.

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America First Credit Union, Shaheen Beauchamp Builders team up for successful project

Business - Thursday, April 1, 2021 - 1:19pm



In Plain Sight Marketing

CARSON CITY — Shaheen Beauchamp Builders LLC announces the completion of tenant improvements on the America First Credit Union branch on Topsy Lane. The project remodeled the 2,200-square-foot suite previously occupied by Five Guys Burgers.

Carson City arrests: Man jailed for battery, parole and probation violation

News - Thursday, April 1, 2021 - 10:17am

A 53-year-old man was arrested early Thursday for suspicion of misdemeanor battery and a felony parole and probation violation, according to a Carson City Sheriff's Office booking report.

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Third-driest year reported in California

BY CELINE CASTRONUOVO - 04/06/21 04:54 PM EDT

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The California Department of Water Resources (DWR) has marked 2021 as the third-driest water year, a period marked from October to March, on record for the Golden State, potentially setting up another deadly wildfire season after last year's record setting blazes.

The department's [annual snow survey](#) released this month recorded precipitation levels at 50 percent the annual average for the water year.

The dry conditions can also be seen in the state's water supply, with the department reporting that California's major reservoirs are at just 50 percent of overall capacity.

At Lake Oroville, the State Water Project's largest reservoir, water levels are currently at 53 percent of the average, DWR found.

Department Director Karla Nemeth said in a statement along with the report that there is "no doubt California is in a critically dry year."

"State agencies, water suppliers and Californians are more prepared than ever to adapt to dry conditions and meet the challenges that may be ahead," she continued. "With climate change impacting how precipitation falls in California, ongoing water efficiency and long-term efforts like recycling water, capturing stormwater, and planting water-friendly landscapes are essential to securing California's water future."

The 2021 water year is tied for third-driest with the 2014 season, following the second driest recorded in 1924.

California's driest year on record was in 1977, when recorded precipitation was less than 35 percent the average, according to a report that year the U.S. comptroller general.

The DWR said in its report that compared to years past, California is better prepared to handle drought conditions. The state following the 2012 to 2016 drought enacted programs "focused on managing the state's water through a strategic, integrated approach with a strong emphasis on water use efficiency and conservation," according to DWR.

This month's DWR report comes after 2020 brought a record-breaking year of weather and climate disasters, with the western drought and record-high temperatures causing a series of wildfires across California that burned more than 4 million acres and caused an estimated \$10 billion in property damage.

TAGS CALIFORNIA CALIFORNIA DROUGHT DROUGHT WILDFIRES WATER RESOURCES WATER SUPPLY CLIMATE CHANGE

Commissioners vote 4 to 1 in favor of amended reopening plan



Published: Apr. 7, 2021 at 11:53 AM PDT | Updated: Apr. 8, 2021 at 12:54 PM PDT



RENO, Nev. (KOLO) - **UPDATE:** Washoe County Commissioners voted 4 to 1 to move forward with a reopening plan with proposed amendments.

Amendments include removing social distancing minimums as soon as 50 percent of the population in Washoe County is vaccinated.

The transition of mitigation management to local authorities begins May 1, but proposed plans must be submitted to the State COVID Task Force on April 15.

Washoe County Assistant County Manager and Incident Commander David Solaro consulted and collaborated with the business community, as well as the City of Reno, City of Sparks, the Washoe County Health District and the Washoe County School District to develop the plan.

"I appreciate you, Mr. Solaro, and the manager for putting this together, being the local leader and being acknowledged by the governor as the local leader and the expert as to how we're going to open up," Commissioner Kitty Jung said. "I know this is a working draft, but I think it is the best and most thoughtful. There has been a lot of crafting of this behind the scenes, and let's continue the conversations and get through this."

"COVID will always be here, it's how we manage it," Chair Bob Lucey said. Lucey made a motion to approve the plan with the following amendments:

- Allow 10 people to a group in restaurants and event settings
- Eliminate social distance minimums for outdoor events
- Private gatherings are un-enforceable, so they should not be addressed in the plan

Masks will not be required during exercise, such as working out at a gym or athletic activities.

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Vaccination rate of 50 percent to lessen current restrictions (for example, to move from 6 feet of distancing to 3 feet indoors).
Remove 75 percent vaccination rate as a trigger to move to full pre-COVID operations. Full reopening would depend on hospitalization rates instead.
Metrics to be brought to the board every two weeks for review.



Commissioners will need to ratify the amended version on April 14. The proposed plan will be then be reviewed by the State of Nevada COVID Task Force on April 15. Upon approval by the Task Force and governor, it may go into effect on May 1.

ORIGINAL STORY: A new COVID-19 mitigation plan calls for state restrictions to ease once the vaccination rate in Washoe County reaches 75 percent. [Back in February](#), Governor Steve Sisolak announced a goal of transitioning mitigation management to local authorities starting May 1.

A plan released by Washoe County outlines objectives and guidelines to mitigate the spread of COVID-19 including monitoring the virus in the community, protecting vulnerable populations, contact tracing efforts, mitigation enforcement, and more.

The plan also outlines certain benchmarks that must be reached in order for the easing of restrictions.

Under the new plan, if 60 percent of the county gets vaccinated, the county will relax social distancing from six feet to four feet indoors and three feet outdoors.

If 75 percent of the county gets vaccinated, all social distancing requirements will be dropped except the mask mandate.

Currently, the vaccine rate in Washoe County is more than 23 percent of people 16 and older.

A state mask mandate will continue to be in place after May 1. The governor has not announced criteria for the mask mandate to be lifted.

Both the county and State COVID Task Force must give their approval of the plan.

County Commissioners will discuss the plan during a special meeting Thursday, April 8.

See the full plan below:



[Learn more...](#)



(/live-stream)
LIVE NOW: 2 News at 4:30pm



NEWS

Drought Outlook and Impacts

After a lack luster snow season our region is still in a drought. This will cause some problems going forward.

Wednesday, April 7th 2021, 5:27 PM PDT

By **Angela Schilling**



While we still have some snow up in the mountains it is also very dry in the valley. It's been a while since we've received any good precipitation and we usually see the bulk of our precipitation during the winter months. We only had one good atmospheric river event this year. Without it, our drought situation would be even worse.

"We're expecting very low runoff conditions this year. The outlook for spring does not look particularly promising," said hydrologist Tim Bardsley.

The lack of precipitation will have an impact on our recreation, stream flows, air quality, ranching, and fire threat this summer. Bardsley says roughly twenty percent of our snowpack has already melted.

"With the drier conditions we're more prone to air quality issues from blowing dust. We've seen a few of these dust events already," said Bardsley.

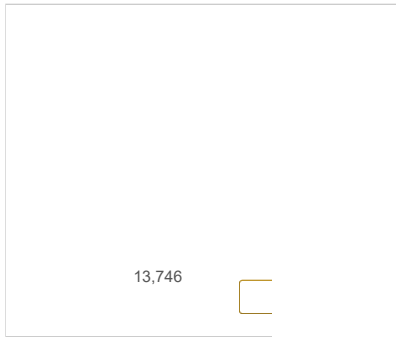
The drought monitor shows slightly worse conditions in the Great Basin eastward. It is still significant in the Sierra though.

"The fire hazard is an interesting complex this year. In the grass and brush area you may have slightly normal to lower fire hazard because we do not have a lot of carry over or a lot of grass growth. But the timber is another story up in the Sierra. Of course last year we were impacted by air quality and poor air and we could again," said Bardsley.

Some experts are not as concerned about Reno's water supply.

"In Reno itself we're in pretty good condition in terms of water supply because the Truckee Meadows water authority already has assigned a number of reservoirs and reservoir storage," said Bardsley.

With that being said, our vegetation is quite dry and more precipitation would be more than welcomed. What we don't want is dry lightning.



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ENVIRONMENT

Nevada farmers and conservationists balk at “water banking,” an idea also being weighed in Colorado

Proponents argue crediting people for conservation will help prevent future shortages and offer water rights holders an option beyond use, abandonment or selling.

The Associated Press 6:44 AM MDT on Apr 6, 2021



By Sam Metz, *AP/Report for America*

CARSON CITY, Nevada — Rural water users are panicking over a proposal to create a market for the sale and purchase of water rights in Nevada, unconvinced by arguments that the concept would encourage conservation.

Lawmakers on Monday weighed whether so-called “water banking” would be preferable to prevailing water law doctrines that govern surface and groundwater rights disputes in the driest state in the U.S.

A legislative hearing about two proposals to allow water rights holders to sell their entitlements pitted state water bureaucrats against a coalition of farmers, conservationists and rural officials.

One proposal would allow for basins to create “banks” where surface and groundwater rights holders can sell or lease water they conserve. The other would create programs to manage the conserved water, allowing the state to purchase “conservation credits” or pay water rights holders to “retire” their claims.

“What we’ve heard all the time for years is that this is incentivizing people to use more water than they need; or they are being punished for not using their entire water right; or they’re forced to sell off what they don’t use. There’s no really satisfying response to that except that it’s how (the law) was written,” acting Nevada State Engineer Adam Sullivan said.

MORE: Colorado’s ornery, independent water guardians finally agree on one thing: Wall Street can look elsewhere

As the U.S. West contends with a hotter and drier future, water banking is becoming an increasingly prevalent management strategy in states including Colorado and Utah. Proponents argue crediting people for conservation will help prevent future shortages and offer water rights holders an option beyond use, abandonment or selling.

A working group in the Colorado Legislature is evaluating the concept and the proposals under consideration in Nevada are based off policies in place in Utah and Oregon. The state's proposals were among the most anticipated bills in the Nevada Legislature this year. In his presentation to lawmakers, even Sullivan said he was skeptical about creating an account to allow the state to purchase conservation credits and told lawmakers "it should only move forward with great caution."

"Criticism that we've heard about creating an account like this are that it could accelerate the cost of water rights, creating more problems than it solves," he said.

In rural Nevada, where limited groundwater has long sustained industries like ranching and mining, local officials worry that creating a market for water rights will encourage their constituents to lease their water for use elsewhere. They also worry water banking facilitates speculation from investors betting that water will become more valuable as perennial drought makes it more scarce.

"I think there needs to be more work before you open that Pandora's box, because when you open it, you can't shut it," Edwin James, the General Manager Carson Water Subconservancy District, said of the idea to start buying water in order to conserve it for the future. "You have to really be careful before you start buying water rights that are not being used."

Throughout the West, rural water users have been pursued by New York-based hedge fund Water Asset Management, which has reportedly purchased water rights from farmers in central Nevada's Humboldt River basin, in Colorado's Grand Valley and in central Arizona.

Nevada Department of Conservation & Natural Resources spokesperson Samantha Thompson said the proposal, which was submitted by the Governor's Finance Office on behalf of the state division of water resources, wasn't geared toward a particular basin or seeker of water rights.

Deputy Administrator for the Nevada Division of Water Resources Micheline Fairbank said she wasn't aware of any hedge funds seeking to use water banking frameworks for speculation.

Sam Metz is a corps member for the Associated Press/Report for America Statehouse News Initiative. Report for America is a nonprofit national service program that places journalists in local newsrooms to report on undercovered issues.

THE LEGISLATURE

Water authority looks for a turf removal law: Toward the end of a long committee hearing on two controversial state-backed water bills Monday, the Southern Nevada Water Authority made some big news. The authority testified in neutral on [AB356](#), one of the bills being pushed by the Nevada Division of Water Resources, and then went on to propose an alternative:

- The proposed bill, AB356, seeks to establish a [conservation credit program](#) that state water officials argue would create an incentive to use less water. But the bill faces broad opposition from agricultural interests and conservationists who are concerned that such a program is out of step with how water is managed on-the-ground and could potentially lead to speculative behavior. **Enter the Southern Nevada Water Authority.**
- After lawmakers heard opposition to AB356, a water authority lobbyist, Andy Belanger, asked the committee to consider an amendment to the bill or separate legislation for its own conservation initiative. **The water authority, for weeks, has indicated that it was seeking a legislative vehicle to remove unused turf by the end of 2026.**
- Across the Las Vegas Valley, there are about 5,000 acres of non-functional turf — grass that is decorative and used for landscaping in medians, along sidewalks or in entryways to communities. “It is purely for show,” Belanger said. “And it is a luxury our community can no longer afford.” Non-functional turf is a leading driver of water use across the Las Vegas Valley, and while the water authority has long offered incentives to remove grass at residences, it has run into some opposition with HOA boards and other hold-outs.
- **Backing from groups:** The water authority’s push yesterday came with buy-in from key groups. The Vegas Chamber, the Southern Nevada Homebuilders Association, the city of Henderson and the city of North Las Vegas all backed the water authority’s proposal at the hearing. And shortly after the hearing ended, the Center for Biological Diversity put out a statement in favor of the water authority’s proposal.

Farmers, conservationists criticize water banking bill: The AP’s Sam Metz [has an update](#) on another bill ([AB354](#)), which the Assembly Committee on Natural Resources heard Monday. Rural water users, agricultural interests and conservationists expressed concerns that a bill to create “water banks” had not been fully vetted and could lead to unintended consequences.

POLITICS

Lucey unsuccessfully pushes to drop mask mandate in Washoe as counties take over COVID mitigation measures

County seeks state's approval for big changes in virus-prevention efforts

James DeHaven Reno Gazette Journal

Published 1:22 p.m. PT Apr. 8, 2021 | Updated 1:41 p.m. PT Apr. 8, 2021

Washoe County on Thursday punted on a plan to handle its share of Nevada's ongoing fight against the coronavirus, delaying passage of a heavily amended blueprint for keeping COVID-19 under control once counties take over that responsibility on May 1.

Washoe's plan, set for consideration by the state's COVID-19 Task Force next week, allows for the resumption of all sports activities and eliminates an existing 50 percent cap on attendance at restaurants, bars, churches and retail businesses.

The proposal also permits expanded body art and piercing services, as well as get-togethers of more than 500 people with a county-approved large gathering plan. Officials said any additional easing of those rules should depend on the county's ability to get 75 percent of its residents vaccinated while keeping the disease's transmission rate under control.

More: Unemployment claims in Nevada declined last week

More: How to book appointments for COVID-19 vaccine in Washoe County

But conservatives on the board of county commissioners loudly objected to that vaccination goal, along with the plan's reliance on the Truckee Meadows COVID Risk Meter developed at the University of Nevada, Reno.

They wanted, and got, the plan's inoculation target dropped to 50 percent, while nixing all of its recommended social distancing requirements at outdoor venues.

Chairman Bob Lucey agreed with Commissioner Vaughn Hartung that many of the plan's mask-wearing requirements should also be dropped, though county attorneys cautioned that could invite a clash with the governor's office.

Eventually, the pair joined two other commissioners in adopting major changes that will, among other things, leave the enforcement of outdoor mask-wearing rules up to individual businesses and entertainment venues. Commissioner Jeanne Herman cast the lone vote against the amendments.

"Viruses never go away," Lucey said ahead of the vote. "They're always here. It's how we deal with them.

"I can't, in good conscience, call this a medical emergency, when we have 500,000 people living in this county and 30 people in the hospital."

Washoe's plan does not call for the immediate reopening of adult entertainment establishments or buffets.

Newly approved revisions to the blueprint will have to be adopted at a separate hearing tentatively set for Wednesday, one day before the proposal's scheduled review by the state's COVID task force.

That panel hasn't hesitated to reject Washoe's previous pandemic-era reopening plans. The governor-appointed task force bounced back two of those proposals over a two-week period late last summer.

Gov. Steve Sisolak in February announced plans to turn over the bulk of ongoing virus-containment efforts to local officials by the end of April, though he said the state would continue to play a role in supporting city and county health officials.

Sisolak has repeatedly said that statewide protocols would remain in place to mitigate the virus' spread, including but not limited to mask-wearing and social distancing requirements.

Washoe's initial plan abided by those rules, prompting fierce pushback from residents who wanted commissioners to join rural county leaders who have bucked the governor's guidelines.

Several took turns reading a lengthy citizen petition calling on the county to break away from Sisolak's "dictatorial" statewide mask-wearing and social distancing protocols.

Commissioner Kitty Jung told residents she understood their concerns, but pleaded with them to understand the strict limits Nevada law has long placed on local government power.

"We're still going to the task force on April 15th and saying 'please governor, will you let us have local control?'" she said. "I don't pick fights with people when I know I'm going to lose.

"I feel you, I want to hug you, I honestly do. ... But we don't have home rule here. Google it."

Jung ultimately voted in support of changing the county's plan because she wanted it to emphasize hospitalizations, not vaccination rates, as the primary benchmark for the future roll back of pandemic restrictions.

County leaders said some 37 percent of Washoe residents have already received a COVID vaccine. Staffers expect the county to reach 60 percent inoculation by mid-June.

James DeHaven is the politics reporter for the Reno Gazette Journal. He covers campaigns, the Nevada Legislature and everything in between. Support his work by subscribing to RGJ.com right here.

Experts urge saving water while landscaping after dry winter



By [Elizabeth Rodil](#)

Published: Apr. 9, 2021 at 7:23 AM PDT | Updated: 9 hours ago



RENO, Nev. (KOLO) - The dry winter means homeowners will need to be more careful with how they use water while landscaping. "I think the latest water level shows we were only 65% of normal, that is a drought," said [BrightView Landscape Services](#) Branch Manager Aurora Marin. She continued, "We are probably looking at a couple more years of a drought, it's going to get worse before it gets better."

Marin said your lawn and garden are one of the biggest uses of water and people should be mindful this spring. She said to turn on your irrigation system, make sure it's working properly, and there are no leaks. "If we are going to water especially in a drought prone area we want to make sure we are making the best of the water usage."

Marin also said to consider aeration, fertilization, and start mowing your lawn to get your grass green. Lastly, water three times a week, twice a day, between 8 a.m. to 11 a.m. and 4 p.m. to 6 p.m. in the evening.

"It doesn't need a lot of water right now, its not very hot, there's not very much evaporation occurring, so all that water is going to go do down and soak into the ground."

BrightView Landscape Services also said now is the time to clear your yard and create defensible space. "Because of the drought we are going to experience [a high fire season](#)," said Marin.

She said the closer we get to June the more stringent water regulations become with [Truckee Meadows Water Authority](#).

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GBs Northumbrian Water launches smart water metering rollout

Apr 12, 2021



Image: Northumbrian Water



Northumbrian Water is launching rollout of its smart metering network in Essex, where the company operates as Essex & Suffolk Water.

The rollout, over five years by UK infrastructure provider Arqiva, will see implementation and monitoring of a fixed network infrastructure, delivering connectivity to up to 11,000 domestic meters. These meters will replace both meters already installed and new meters for already

identified un-metered supplies.

The infrastructure includes the Sensus FlexNet communication network and Sensus meters, with installations due to begin in May when also the network is planned to go live.

The initiative is in line with Northumbrian Water's commitment to deliver smart metering to customers within the current regulated Asset Management Plan, which runs to 2025, a statement reads. The company is targeting all domestic water meters being smart by 2035.

Related articles:

[Welsh water utility improves metering processes with Itron](#)
[Southern Water intensifies Customer Services Improvement programme](#)

Lessons learned from this initial implementation will be used to guide the subsequent smart-meter rollout over the rest of Northumbrian Water Group's operating regions.

"This accelerator project will enable us to further understand the role smart metering can play in improving our water management capabilities and the service our customers receive," says Gary Adams, head of smart programme at Northumbrian Water.

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Alex Pannell, executive director, commercial broadcast and utilities at Arqiva, points out that this initial process should help to identify and reduce leakage alongside communicating consumer consumption behaviour.

“The reduction of water leakage and consumption are just two of the ways in which the industry can reduce its carbon footprint too. It goes without saying that the less water lost in the network, the less energy is needed to treat and supply it to the network.”

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In addition to its operations in the southeast, Northumbrian Water operates under its own name in the northeast of England.

The company’s business plan for 2020-25 envisages installation of over 473,000 water meters with smart technology as part of its customer metering programme.



Jonathan Spencer Jones

Jonathan Spencer Jones is a writer and analyst with more than 20 years covering the energy transition and the evolution of digitalisation in metering and the grid. He is a former editor of Smart Energy International and ESI Africa and was involved with the digital offerings of these publications from their conception. He is a physicist by training and began his career as a research astronomer before transitioning to STM publishing.



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The Nevada Legislature Building in Carson City on Tuesday, July 14, 2020. (David Calvert/The Nevada Independent)

Indy Environment: Natural gas legislation, water bills fail to advance after legislative deadline

Good morning, and welcome to the Indy Environment newsletter.

Friday was a major deadline day at the Legislature, and hundreds of bills failed to make it out of committee. They are effectively dead (though nothing is actually dead until the end of session). This week, the newsletter is looking at what environmental bills died and what bills are still alive.

THE LEGISLATURE (Deadline Day Edition)

Natural gas legislation, efficiency bills die on deadline day: Two closely watched pieces of natural gas legislation failed to make it out of committee. The first bill, [AB380](#), was aimed at requiring natural gas utilities undergo more rigorous resource planning, an effort to align the utility's infrastructure investment with the state's climate goal of net-zero emissions by 2050.

[SB296](#), backed by Southwest Gas, sought to harden the utility's infrastructure by establishing a pipeline replacement program. The legislation from Senate Majority Leader Nicole Cannizzaro (D-Las Vegas) did not get a hearing and was not given a special exemption to move forward.

Why did these bills die so early in the session? I'm working on a piece with my colleague Riley Snyder about what happened and the gas utility's lobbying efforts around the bills.

[As our legislative team, Michelle Rindels, Tabitha Mueller and Riley Snyder, reported](#), an energy efficiency bill ([SB382](#)) also died. “NV Energy opposed the bill, and said advocates should go through other avenues at the state Public Utilities Commission to accomplish their goals,” they wrote.

Mining oversight bill moves forward as regulatory reorganization stalls: The Assembly Committee on Natural Resources advanced [AB148](#). The bill seeks to prevent so-called “bad actors” — companies or executives with a track-record of not meeting mine-cleanup obligations — from doing business in Nevada. Another bill, [AB240](#), seeking to dissolve the Nevada Division of Minerals by splitting up its regulatory and advocacy roles, did not advance out of committee.

State’s water bills: Several proposed bills backed by the state’s Division of Water Resources died before the Friday deadline. [SB155](#), legislation to change the requirements for Nevada’s top water regulator, the state engineer, did not advance past a key Senate committee. Similarly, two controversial proposals died, at least in their original form. [AB354](#), legislation to create “water banks,” did not make it out of a committee after conservationists and rural interests argued that the proposal could lead to speculation and was not specific to Nevada water issues. Companion legislation, [AB356](#), passed, but was amended with a largely unrelated conservation proposal backed by the Southern Nevada Water Authority. [Its proposal seeks to remove unused turf.](#)

There are still many bills to keep watching (this is by no means an exhaustive list):

- **Water legislation:** An amended version of [AB146](#), which passed out of committee on Friday, seeks to better manage water quality issues arising from indirect pollution. **It also declares the state’s policy to a right to clean water.** [AB97](#) seeks to require regulators to form a working group to look at PFAS, often called “forever chemicals.” And of course, there’s the Southern Nevada Water Authority’s bill ([AB356](#)). It’s going to be interesting to watch how it is received in Carson City, in Las Vegas and in the Colorado River Basin.
- **Energy/Emissions legislation:** [AB349](#) seeks to close the “classic car” loophole, which allows cars that are not, by most reasonable definitions, “classic” to evade regulations for tailpipe emissions. Another bill, [AB383](#), looks to direct the state to adopt energy efficiency standards for appliances. And while most bills have been introduced at this point, Sen. Chris Brooks (D-Las Vegas) could still offer [an omnibus clean energy bill.](#)

- **Mining resolutions:** Lawmakers could still consider three resolutions to raise taxes on mining ([AJR1](#), [AJR2](#), [SJR1](#)), first passed during the special session over the summer.
- **Land and conservation legislation:** [AB171](#) aims to make it the state's policy to protect stands of swamp cedars, geographically isolated populations of Rocky Mountain juniper trees that are sacred for Indigenous communities in the Great Basin ([our story](#) on the bill from March). And [SB52](#) looks to create a program for awarding dark sky designations.



The Humboldt River flows near Elko on Tuesday, Feb. 6, 2018. (Jeff Scheid/The Nevada Independent)

WATER AND LAND

State senator raises concerns about hedge fund's water marketing proposal:

Sen. Pete Goicoechea (R-Eureka) said last week that he is concerned about a hedge fund's proposal to market water in Humboldt County, *Nevada Newsmakers'* [Ray Hagar reports](#). Last summer, we co-published [a three-part series](#) on concerns about the hedge fund's activities across the West.

The push to protect Tiehm’s buckwheat: Tiehm’s buckwheat, a rare plant that is threatened by proposed lithium mining outside Tonopah, has been targeted for special protection, [according to new documents](#) reported by Scott Sonner with the *Associated Press*. The records show that state and federal officials, recognizing the threats to the buckwheat, found only on a small stretch of land in Nevada, considered measures to conserve its habitat.

Restoring a wetland where few remain: Amy Alonzo, with the *Reno Gazette Journal*, [reports on wetland restoration](#) in southeast Reno – with sobering statistics about the loss of wetlands.

Coming up in the Supreme Court: A newly formed Supreme Court commission to study water law in Nevada plans to have its first meeting on April 16, [the court announced this week](#).

What I’m reading: *The Atlantic* [published a powerful essay by David Treuer](#) making the case for returning the stewardship of the national parks to Indigenous communities. Weaving history with our present moment, the essay is worth spending time with. “We live in a time of historical reconsideration, as more and more people recognize that the sins of the past still haunt the present,” Treuer writes. “For Native Americans, there can be no better remedy for the theft of land than land. And for us, no lands are as spiritually significant as the national parks.”

CLIMATE CHANGE

What the snow tells us about intensifying drought: Across the West, the snowpack holds much-needed water for ecosystems, irrigators and communities. The timing of when that snow melts is critical. As the climate changes, the timing is changing, with significant ramifications. *InsideClimateNews* reporters Bob Berwyn and Judy Fahys [look at what research tells us](#) about the effects of longer dry spells and earlier snowmelt. **One quote that stood out:** “We’ve grown up in a world in which snowpack has been a reliable reservoir, but it’s not that way anymore.”

ENERGY AND MINING

Deseret News’ [Sofia Jeremias writes an in-depth piece](#) **about the Thacker Pass lithium mine.** “In Nevada, mining has a long legacy of offering economic opportunity, giving it an influential voice among policymakers eager to accommodate the industry’s interests,” Jeremias writes. “It appears that may remain the case when it comes to mining the state’s lithium resources.”

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From: [WEBSITE: Comments to the Board](#)
To: [Folsom, Sonia](#)
Subject: New submission from Comments to the Board
Date: Monday, March 22, 2021 10:33:49 PM

Name
Janice [REDACTED]
Email
[REDACTED]
Account Number
[REDACTED]
Comments
Michele Sullivan I am reading your special edition letter dated March 9, 2021. I am deeply disappointed that you would send a letter of such importance in a small italic font that is so difficult to read. I think your special edition letter needs to be re-sent in a format that can be easily read by all.

From: Gebhardt, Andy
Sent: Wednesday, March 24, 2021 9:26 AM
To: 'jagcarry@sbcglobal.net' <jagcarry@sbcglobal.net>
Subject: Comment to TMWA Board of Directors

Hello Janice-

Thank you for taking the time to contact us regarding your concern. We are sorry that the font size of our recent letter caused an issue for you. We will certainly take your comments and concerns into account for this mailing and evaluate the best way to proceed. In addition, we will definitely take font size into consideration in any future correspondence with customers.

Please let me know if you have any further questions.

Thank you.

Andy Gebhardt
Director Operations and Water Quality
Truckee Meadows Water Authority
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agebhardt@tmwa.com | www.tmwa.com



Our vision is to enhance the quality of life in the Truckee Meadows by delivering exceptional, customer-focused water services.