

**NORTHERN NEVADA WATER PLANNING COMMISSION
("NNWPC")
AGENDA**

Wednesday, August 2, 2017

1:30 p.m.

Washoe County Commission Chambers
1001 East Ninth Street
Reno, Nevada

Notes:

1. Items on this agenda on which action may be taken are followed by the term "for possible action". Non-action items are followed by an asterisk (*).
2. Public comment is limited to three minutes per speaker and is allowed during the public comment periods, and before action is taken on any action item. Comments are to be directed to the Commission as a whole. Persons may not allocate unused time to other speakers. The public may sign-up to speak during the public comment period or on a specific agenda item by completing a "Request to Speak" card and submitting it to the clerk.
3. Items on this agenda may be taken out of order, combined with other agenda items for consideration, removed from the agenda, moved to or from the Consent Items section, or delayed for discussion at any time. Arrive at the meeting at the posted time to hear item(s) of interest.
4. Supporting material provided to the Commission for the items on the agenda is available to members of the public at the NNWPC offices, 1001 E. Ninth St., Reno, NV, from Jennifer Purgitt, (775) 954-4665, and on the NNWPC website at <http://www.nnwpc.us>
5. In accordance with NRS 241.020, this agenda closes three working days prior to the meeting. We are pleased to make reasonable accommodations for persons who are disabled and wish to attend meetings. If you require special arrangements for the meeting, please call (775) 954-4665 no later than 24 hours prior to the meeting.
6. In accordance with NRS 241.020, this agenda has been posted at the following locations: Reno City Hall (1 East First Street), Sparks City Hall (431 Prater Way), Sun Valley GID (5000 Sun Valley Blvd.), Truckee Meadows Water Authority (1355 Capital Blvd.), Washoe County Administration Building (1001 E. Ninth Street), South Valleys Library (15650A Wedge Parkway), the NNWPC website: <http://www.nnwpc.us> and the State of Nevada Website: <https://notice.nv.gov>

1. Roll Call and determination of presence of a quorum. *
2. Public Comments. * (Three-minute time limit per person.)
3. Approval of agenda. **(For Possible Action)**
4. Approval of the minutes from the June 7, 2017, meeting. **(For Possible Action)**
5. Report on the Advanced Water Treatment Technologies Demonstration Project being conducted by the University of Nevada, Reno ("UNR") – Jim Smitherman, NNWPC Water Resources Program Manager, Rick Warner, Washoe County Community Services Department, and Dr. Krishna Pagilla, UNR. *
6. Report on the One Truckee River project, a partnership between Keep Truckee Meadows Beautiful ("KTMB") and the Nevada Land Trust ("NLT") to coordinate existing efforts, and identify priorities for new efforts, for long-term management and sustainability of the Truckee River – Lynda Nelson, NLT and Christi Cakiroglu, KTMB. *
7. Report on the analysis of historical precipitation data collected by Washoe County; discussion and possible recommendation to the Western Regional Water Commission ("WRWC") to approve a proposal from the Desert Research Institute

Northern Nevada Water Planning Commission Agenda for August 2, 2017

- (“DRI”) for continuation of the regional precipitation monitoring project, in an amount not to exceed \$20,000 from the Regional Water Management Fund (“RWMF”); and possible direction to staff – Chris Wessel. **(For Possible Action)**
8. Report on Lemmon Valley flood activities and planning – John Flansberg, City of Reno and David Solaro, Washoe County. *
 9. Program Manager’s Report – Jim Smitherman. *
 - a. Report on the status of projects and Work Plan supported by the RWMF;
 - b. Financial Report on the RWMF for fiscal year 16-17 year to date and fiscal year 17-18 period 1.
 10. Discussion regarding possible agenda items for the September 6, 2017 NNWPC meeting, and other future meetings; and possible direction to staff – Jim Smitherman. **(For Possible Action)**
 11. Commission comments. *
 12. Staff comments. *
 13. Public Comments. * (Three-minute time limit per person.)
 14. Adjournment. **(For Possible Action)**

*Indicates a non-action item

DRAFT - MINUTES
NORTHERN NEVADA WATER PLANNING COMMISSION

Wednesday, June 7, 2017

The regular meeting of the Northern Nevada Water Planning Commission ("NNWPC") was held in the Washoe County Commission Chambers, 1001 East Ninth Street, Reno, Nevada and conducted the following business:

The meeting was called to order by Chair Henderson at 1:33 p.m.

1. Roll Call and Determination of Presence of a Quorum

Voting Members Present: Danielle Henderson, Michael DeMartini, Michael Drinkwater, John Enloe, Bill Hauck, Mickey Hazelwood, John Martini, Darrin Price, David Solaro, Mervin Wright

Voting Members Absent: John Flansberg and John Zimmerman

Non-Voting Members Present: None

Non-Voting Members Absent: Harry Fahnestock, My-Linh Nguyen, Thomas Pyeatte, Ron Penrose, Cindy Turiczek

Staff Members Present: Jim Smitherman; Chris Wessel; Donna Fagan; and John Rhodes, Legal Counsel

2. Public Comment

Stuart Mackie expressed concern regarding Truckee Meadows Water Authority ("TMWA") board members with Interlocal Agreements.

Cathy Brandhorst spoke on various topics.

3. Approval of Agenda (For Possible Action)

COMMISSIONER SOLARO MADE A MOTION TO APPROVE THE AGENDA, SECONDED BY COMMISSIONER DRINKWATER. THE MOTION CARRIED UNANIMOUSLY WITH TEN (10) MEMBERS PRESENT.

4. Approval of Minutes from the May 3, 2017, Meeting (For Possible Action)

COMMISSIONER MARTINI MADE A MOTION TO APPROVE THE MAY 3, 2017, MINUTES, SECONDED BY COMMISSIONER SOLARO. THE MOTION CARRIED UNANIMOUSLY WITH TEN (10) MEMBERS PRESENT.

5. Discussion and possible approval of a scope of work and budget, not to exceed \$21,000 from the Regional Water Management Fund ("RWMF") for Phase 1 of the Truckee Meadows Regional Planning Agency ("TMRPA") project to develop a regional storm water drainage network Geographic Information System ("GIS") map; and, if approved, authorize the Program Manager to execute an Interlocal Agreement ("ILA") with the Regional Planning Governing Board for that purpose, and provide limited in-kind services as specified in the scope of work – Jim Smitherman, Water Resources Program Manager, and Jeremy Smith, TMRPA. (For Possible Action)

Jim Smitherman, Water Resources Program Manager, presented information included in the staff report regarding deliverables and time lines for Phase 1 of the project.

Jeremy Smith, TMRPA, gave a presentation on the detailed scope of work for Phase 1 which includes data gathering and assessment. Mr. Smith answered questions from Commissioners regarding the project.

Chair Henderson reviewed the background of this item clarifying that the NNWPC made a recommendation to the WRWC. The WRWC decided to move forward with the project despite the concerns of the NNWPC at that point in time. Some of those concerns have been addressed and other concerns dealt with the fact that Phases 2 and 3 were uncertain. This agenda item addressed only Phase 1 of the project.

Commissioner DeMartini expressed concern regarding the scope of work deviating from what is needed to help in the flooded areas right now.

Commissioner Solaro discussed what is being done to address the flooding in the short term and clarified that this project is separate from those plans.

Public Comment: Cathy Brandhorst spoke on various issues related to water.

COMMISSIONER MARTINI MADE A MOTION TO AUTHORIZE JIM SMITHERMAN TO APPROVE THIS SCOPE OF WORK AND BUDGET AND ENTER INTO AN INTERLOCAL AGREEMENT, SECONDED BY COMMISSIONER ENLOE. THE MOTION CARRIED UNANIMOUSLY WITH TEN (10) MEMBERS PRESENT.

6. Review and possible approval of the Western Regional Water Commission (“WRWC”) Routine Operating Budget for non-staff services for Fiscal Year 2017 - 2018, and possible direction to staff – Jim Smitherman. (For Possible Action)

Mr. Smitherman reviewed information included in the staff report regarding the WRWC Routine Operating Budget for non-staff services. There were no comments or questions from the Commissioners.

COMMISSIONER PRICE MADE A MOTION TO APPROVE THE STAFF RECOMMENDATION, SECONDED BY COMMISSIONER SOLARO. THE MOTION CARRIED UNANIMOUSLY WITH TEN (10) MEMBERS PRESENT.

7. Discussion and possible approval of a proposal from the University of Nevada, Reno (“UNR”) for funding in an amount not to exceed \$25,000 from the RWMF to support the Water Innovations Campus project; and, if approved, direct the Program Manager to execute an ILA with UNR for that purpose; and possible direction to staff – Jim Smitherman. (For Possible Action)

Mr. Smitherman presented the staff report for this item and reminded the Commissioners that the budget for this project had previously been approved. This agenda item is to authorize staff to enter into a contract to make those funds available for partial funding of the Water Innovations Campus project. There were no comments or questions from the Commissioners.

Public Comment: Cathy Brandhorst spoke on various issues related to buildings.

COMMISSIONER DRINKWATER MADE A MOTION TO APPROVED FUNDING NOT EXCEED \$25,000 FROM THE RWMF TO SUPPORT THE WATER INNOVATIONS CAMPUS PROJECT AND DIRECT THE PROGRAM MANAGER TO EXECUTE AN ILA WITH UNR, SECONDED BY COMMISSIONER MARTINI. THE MOTION CARRIED UNANIMOUSLY WITH TEN (10) MEMBERS PRESENT.

- 8. Discussion and possible recommendation to the WRWC to approve three-month, no-cost time extensions for two ILAs with the Desert Research Institute (“DRI”): a) The Cloud Seeding project for the 2016 - 2017 season; and b) The Cloud Seeding Monitoring Gauges project. Possible direction to staff – Chris Wessel, NNWPC Water Management Planner, and Jim Smitherman. (For Possible Action)**

Chris Wessel, NNWPC Water Management Planner, explained that due to the significant amount of precipitation, DRI anticipates that a significant remaining snow pack will prevent the timely completion of portions of the required work. The Cloud Seeding project requires access to remove various snow generators in conformance with United States Forest Service permit conditions. In addition, DRI anticipates that the residual snow pack will restrict access and prevent installation of the last pair of automated precipitation gauges associated with the Cloud Seeding Monitoring Gauge project. For these reasons, DRI has requested three month, no-cost extensions for both ILAs.

COMMISSIONER ENLOE MADE A MOTION TO RECOMMEND TO THE WRWC APPROVAL OF THREE MONTH, NO-COST EXTENSIONS FOR BOTH THE 2016-2017 CLOUD SEEDING PROJECT, AND MONITORING GAUGE PROJECT INTERLOCAL AGREEMENTS, SECONDED BY COMMISSIONER DEMARTINI. THE MOTION CARRIED WITH EIGHT (8) IN FAVOR AND TWO (2) OPPOSITIONS BY COMMISSIONERS PRICE AND WRIGHT.

- 9. Discussion and possible approval of a Second Amendment to the ILA with DRI for continuing maintenance of the Washoe Evapotranspiration project, extending the agreement for a term of one year, in an amount not to exceed \$10,000 from the RWMF; and, if approved, authorize the Program Manager to execute the amendment for that purpose – Chris Wessel. (For Possible Action)**

Mr. Wessel presented information included in the staff report on this maintenance contract.

Mr. Wessel and Greg McCurdy, DRI, answered questions from Commissioners regarding weather stations. Mr. McCurdy discussed the criteria that must be met by the weather stations for the Evapotranspiration project. He also noted that they are now able to track the number of users, and that information will be included in upcoming reports by DRI.

Public Comment: Cathy Brandhorst spoke on various issues related to water.

(Commissioner Solaro absent at 2:30 p.m.)

COMMISSIONER MARTINI MADE A MOTION TO APPROVE A SECOND AMENDMENT TO THE ILA WITH DRI EXTENDING THE AGREEMENT FOR A TERM OF ONE YEAR IN AN AMOUNT NOT TO EXCEED TEN THOUSAND DOLLARS (\$10,000), AND AUTHORIZE THE WATER RESOURCES PROGRAM MANAGER TO EXECUTE A SECOND AMENDMENT TO THE ILA FOR THAT PURPOSE, SECONDED BY COMMISSIONER WRIGHT. THE MOTION CARRIED UNANIMOUSLY WITH NINE (9) MEMBERS PRESENT.

- 10. Discussion and possible recommendation to the WRWC to approve a proposal from DRI for continuation of the regional precipitation monitoring project, in an amount not to exceed \$20,000 from the RWMF; and possible direction to staff – Chris Wessel. (For Possible Action)**

Mr. Wessel presented the staff report and answered questions from Commissioners.

There was discussion regarding the availability of the data that has been collected for the past 18 years. Mr. Wessel confirmed for Commissioner DeMartini that he will make the raw data available to those that are interested.

Mr. Wessel explained for Commissioner Drinkwater that the analysis of the data that has been collected is being done by Dr. Dan McEvoy with DRI and will be presented to the NNWPC in August or September.

Mr. Smitherman discussed some of the history of this data collection.

There was discussion regarding the possibility of delaying the approval of this item until the report from DRI on the value of the existing data is presented.

Mr. Wessel confirmed for Chair Henderson that they will not be losing any data collection time if this item is not approved today and is continued to the August NNWPC meeting.

COMMISSIONER DRINKWATER MADE A MOTION TO CONTINUE THIS ITEM TO THE AUGUST NNWPC MEETING, SECONDED BY COMMISSIONER ENLOE. THE MOTION CARRIED UNANIMOUSLY WITH NINE (9) MEMBERS PRESENT.

11. Report on legislative activities, including Bill Draft Requests and Bills pending in the 2017 session of the Nevada Legislature that may affect or are of interest to the WRWC / NNWPC – John Rhodes, WRWC / NNWPC Legal Counsel.

John Rhodes, Legal Counsel, presented the staff report on this item. There were no questions from Commissioners.

(Commissioner Price absent at 3:03 p.m.)

12. Program Manager's Report – Jim Smitherman.

- A. Report on the status of projects and Work Plan supported by the RWMF
- B. Financial report on the RWMF

Mr. Smitherman presented an overview of the staff reports for these items.

13. Discussion regarding possible agenda items for, or cancellation of, the July 5, 2017, NNWPC meeting, and other future meetings, and possible direction to staff – Jim Smitherman. (For Possible Action)

Possible future agenda items will include:

- Progress report from UNR on the Advanced Water Treatment project;
- Report from DRI on evaluation of the long term precipitation data;
- Continuation of today's Agenda Item 10.

COMMISSIONER ENLOE MADE A MOTION TO CANCEL THE JULY 5, 2017, MEETING, SECONDED BY COMMISSIONER HAUCK. THE MOTION CARRIED UNANIMOUSLY WITH EIGHT (8) MEMBERS PRESENT.

Commissioner DeMartini expressed concern regarding the potential need for coordination of the flood mitigation efforts that are going on in the North Valleys. He also discussed the possibility of a future agenda item to consider the formation of a committee that would be involved in the coordination of some of the flood mitigation efforts.

Mr. Smitherman suggested that staff can request a report from the entities that are involved in the flood mitigation activities so the NNWPC can be fully informed and take action from there.

Commissioner Martini expressed concern about the authority of the NNWPC to form a subcommittee to review the work of two Public Works Directors and stated that he cannot support that action.

COMMISSIONER DEMARTINI MADE A MOTION TO INCLUDE A FUTURE AGENDA ITEM FOR A REPORT ON THE GENERAL PLAN FOR PROTECTION FROM THE ENTITIES INVOLVED AND WHAT THEY HAVE DONE WITH REGARD TO RESEARCHING PREVIOUS ALTERNATIVES TO PROTECT AGAINST THE POTENTIAL OF FLOODING IN THE NORTH VALLEYS; AND TO CONSIDER FORMATION OF A COMMITTEE OF THE NNWPC THAT WOULD BE INVOLVED IN COORDINATION OF SOME OF THOSE EFFORTS FROM A PLANNING STANDPOINT. THE MOTION DIED FOR LACK OF A SECOND.

Staff was directed to request a report on the status of the flood mitigation activities.

14. Commission Comments

None

15. Staff Comments

Mr. Smitherman announced that an offer has been made to a candidate for the full-time secretary position replacing June Davis. He also thanked Donna Fagan for all of her work with the NNWPC in addition to her regular duties.

16. Public Comment

Cathy Brandhorst spoke on various topics.

17. Adjournment (For Possible Action)

The meeting was adjourned at 3:26 p.m.

Respectfully submitted by Christine Birmingham.

Approved by:

Danielle Henderson, Chairman

APPROVED BY COMMISSION IN SESSION ON August 2, 2017.

Northern Nevada Water Planning Commission

STAFF REPORT

DATE: July 27, 2017
TO: Chairman and Members, Northern Nevada Water Planning Commission
FROM: Jim Smitherman, Water Resources Program Manager
SUBJECT: Report on the Advanced Water Treatment Technologies Demonstration Project being conducted by the University of Nevada, Reno (“UNR”).

SUMMARY

In August 2016, the Northern Nevada Water Planning Commission (“NNWPC”) recommended, and the Western Regional Water Commission (“WRWC”) approved, a four-year scope of work and interlocal agreement with UNR for the Advanced Water Treatment Technologies Demonstration Project. The agreement was amended in May 2017 to provide funding for the second year of the project. Two of the nine project tasks have been completed so far: 1) Project Rationale and Justification for Advanced Treated Recycled Water in the Truckee Meadows; and 2) Critical Review of Technologies that can meet Nevada Division of Environmental Protection (“NDEP”) Regulations / Requirements.

Task 1 uses a triple bottom line approach (economic-social-environmental) to determine whether potable reuse can improve the efficiency of water use among the triple bottom line parameters in the Truckee Meadows. Such improvements to water use efficiency may defer possible future expenditures on water importation, provide a drought-resistant water source, and improve water management resiliency.

The purposes of Task 2 are to summarize a critical review of advanced wastewater treatment technologies, and summarize the selection of advanced treatment processes suitable for spreading basin and groundwater injection demonstration projects that meet NDEP Reclaimed Water Regulations for exceptional quality (A+ quality) criteria, which allow for indirect potable reuse.

A verbal progress report on the Advanced Water Treatment Technologies Demonstration Project will be provided to the NNWPC on August 2, 2017.

BACKGROUND

In December 2014, the NNWPC directed staff to prepare a presentation summarizing wastewater master planning in the region and outlining a scope of work for a wastewater and effluent management master plan update. The Regional Effluent Management Team (the “Team”), consisting of technical staff from the City of Reno, the City of Sparks, Washoe County, the Truckee Meadows Water Authority, and the WRWC, has been meeting informally since April 2014 to discuss regional effluent management issues. Working together with the Team, staff provided the requested information and materials at the following two NNWPC meetings.

In January 2015, the NNWPC reviewed and discussed a proposed approach to regional effluent management planning. In February 2015, the Team recommended that the NNWPC provide funding for a project coordinator to assist the Team in working toward regionally-based solutions to several near-term effluent management issues that were outlined in the proposal reviewed at the prior meeting. The NNWPC approved the requested funding and the Team continues to use the project coordinator for ongoing effluent management planning.

In January 2016, The WRWC received a brief report on the activities of the Team. Staff discussed near-term effluent management issues including the need to reduce the nitrogen load to the Truckee River, which could be accomplished by diverting Truckee Meadows Water Reclamation Facility (“TMWRF”) effluent to locations and uses away from the river in allowable quantities and during appropriate times of the year. The Team continues to evaluate a variety of alternatives and scenarios to help develop a plan for effluent management that is most beneficial to the local community.

On August 3, 2016, the Team delivered a PowerPoint presentation, at the regular meeting of the NNWPC, covering recent Team activities; proposed (at that time and since approved) revisions to NDEP reclaimed water regulations that allow for the use of exceptional quality reclaimed water; and a proposal from UNR for an Advanced Water Treatment Technologies Demonstration project. The NNWPC recommended that the WRWC approve the UNR proposal and provide funding by way of an interlocal agreement with UNR.

FISCAL IMPACT

None.

RECOMMENDATION

None.

JS

Northern Nevada Water Planning Commission

STAFF REPORT

DATE: July 27, 2017
TO: Chairman and Members, Northern Nevada Water Planning Commission
FROM: Jim Smitherman, Water Resources Program Manager
SUBJECT: Report on the One Truckee River project, a partnership between Keep Truckee Meadows Beautiful (“KTMB”) and the Nevada Land Trust (“NLT”) to coordinate existing efforts, and identify priorities for new efforts, for long-term management and sustainability of the Truckee River.

SUMMARY

In February 2015, the Northern Nevada Water Planning Commission (“NNWPC”) approved a proposal from Keep Truckee Meadows Beautiful (“KTMB”), in partnership with the Nevada Land Trust (“NLT”), and funding in the amount of \$22,000 for pre-project planning activities related to the Truckee River Corridor Management Plan. The funding also provided match for a Truckee River Fund grant for the project.

One Truckee River leadership has requested the opportunity to provide a verbal report to the NNWPC on August 2, 2017, to highlight the project’s significant progress and accomplishments over the past two years, including:

- Establishment of a broad-based Core Planning Team,
- Involvement of an even more diverse team of stakeholders,
- Development and implementation of the One Truckee River Management Plan, and its adoption by Reno, Sparks and Washoe County.

The 2016 Regional Water Management Plan includes the following summary of the One Truckee River Management Plan:

The One Truckee River Management Plan, with four primary goals and over 120 strategies and action items, is One Truckee River’s first step toward achieving its broad vision for the Truckee River. Phase One covers the largely urban stretch of river from West McCarran Boulevard in Reno to Vista Boulevard in Sparks. The plan’s primary goals are to:

1. Protect water quality and ecosystem health;
2. Create and sustain a safe, beautiful and accessible river;
3. Build an aware community; and
4. Ensure the sustainable management of the river.

Most of the Truckee River and the Truckee River corridor is managed and regulated by federal, state and local agencies. One Truckee River seeks to coordinate existing efforts rather than create a new regulatory agency. Some important efforts and programs included in the plan are already the responsibility of individual One Truckee River stakeholders, and will gain additional support

and recognition through the plan. Other projects and tasks need additional partners and support. Finally, the plan identifies gaps in priority areas where new programs should be developed to provide for long-term management and sustainability. Nine emerging issues have been identified by One Truckee River:

1. Water Quality
2. Social Issues
3. Stewardship
4. Ecosystem
5. Quality of Life
6. Public Safety
7. Funding
8. Recreation
9. Education

The One Truckee River Management Plan, Phase One, can be viewed at:
<http://onetruckeeriver.org/>.

JS

Northern Nevada Water Planning Commission

STAFF REPORT

DATE: July 27, 2017

TO: Chairman and Members, Northern Nevada Water Planning Commission

FROM: Chris Wessel, Water Management Planner,

SUBJECT: Report on the analysis of historical precipitation data collected by Washoe County; discussion and possible recommendation to the Western Regional Water Commission ("WRWC") to approve a proposal from the Desert Research Institute ("DRI") for continuation of the regional precipitation monitoring project, in an amount not to exceed \$20,000 from the Regional Water Management Fund ("RWMF"); and possible direction to staff.

SUMMARY

Dr. Dan McEvoy of DRI has reviewed the long term data collected as part of the regional precipitation monitoring program originated by Washoe County in the mid-1990s. The original purpose of the monitoring program was to establish observed precipitation in hydrobasins identified for future potential sustainable water importation projects. The program involves data collection and maintenance of 77 manual gauges (the "Network") where measurements are collected. In order to validate the usefulness of the data, Dr. McEvoy proposed to conduct the following analysis:

- Conduct a thorough QA/QC of all Network data to eliminate any spurious measurements;
- Evaluate the Network's value on the performance of gridded data products in the data sparse regions of Washoe County by comparison of observed values to modeled grid data. Error statistics including correlation, bias, and root mean squared error will be computed at each station using the entire record;
- Develop a final report to summarize the results from the data analysis and discuss implications for potential hydrologic applications using the Network data such as groundwater recharge estimates and precipitation trend analysis.

Dr. McEvoy will present on his findings regarding his analysis of the precipitation data.

At staff's request, DRI has submitted the attached proposal to provide personnel to continue the monitoring and maintenance of the Network at a cost not to exceed \$20,000 for the Fiscal Year 2017-2018.

BACKGROUND

Washoe County sponsored a precipitation gauge monitoring program over the last 18+ years, as part of its regional water resource planning efforts. On May 4, 2016, the Northern Nevada Water Planning Commission ("NNWPC"), at its regular meeting, approved a scope of work and funding, in an amount not to exceed \$37,989 from the RWMF, for DRI's proposed "Washoe County Rain Gauge Network: Continued Operation Plan and Historical Data Analysis" project, and recommended that the Commission approve the project and enter into an Interlocal Agreement with DRI for that purpose.

The monitoring gauges are serviced twice a year. The intended use of the precipitation data was/is to validate existing perennial groundwater recharge estimates within the targeted hydrobasins. The Network data has recently been compiled electronically and provides a unique opportunity to analyze the quality of Network precipitation records and use the data to validate spatial estimates of precipitation, while potentially improving existing groundwater recharge estimates.

Support for this project is identified in Chapter 2 of the 2016 Regional Water Management Plan which was approved by the NNWPC and adopted by the WRWC in the spring of 2017. The project is discussed as follows:

As a consequence of the merger of (“WCDWR”) and TMWA, the WRWC inherited a long-term precipitation monitoring project from Washoe County which started in the mid 1990’s. The project involves the collection of rain and snow fall using precipitation “can” gauges. The precipitation gauges are inexpensive, low tech, and simple to operate. As such the project has, over the last twenty years, expanded to include 77 sites where precipitation data are being collected in seven hydrographic basins including Cold Spring Valley, Lemmon Valley, Bedell Flat, Antelope Valley, Dry Valley, Smoke Creek Desert and Duck Lake Valley. The project is unique in the planning area as it represents the only long-term historic data record collected over a wide geographic area. Findings from the US Bureau of Reclamation study were released on February 2, 2016 and indicated that the region will likely experience an increase in mean annual temperature of five degrees over the next century. In addition, the findings suggest a 10-20 percent increase in the frequency and magnitude of floods affecting the Reno Sparks area.

The significance of this data collection effort becomes apparent when attempting to understand the hydrobasin microclimates which dominate the planning area. Currently, regional precipitation and climate models fail to predict observed microclimate conditions. Long-term data collection from a precipitation “can” gauge network in Washoe County provides a means of potentially calibrating regional models so they can be downscaled to better simulate microclimate conditions. The importance of refining these regional models will provide insight into climate variability trends as well as providing a more accurate analysis of hydrobasin recharge and perennial yield estimates. The information gleaned from these analyses will be key to planning the future of available water resources.

FISCAL IMPACT

If approved, the fiscal impact to the RWMF will be \$20,000. Budget authority is located in Fund Group 766, Fund 7066, Account Number 710100, Professional Services, Cost Object WP310007.

RECOMMENDATION

Staff recommends that the NNWPC consider the report, review the proposal, and, if acceptable, recommend that the WRWC approve DRI’s proposal for continuation of the regional precipitation monitoring project for Fiscal Year 2017-2018, in an amount not to exceed \$20,000 from the RWMF.

CW

Attachment: DRI Monitoring and Maintenance Proposal for the Fiscal Year 2017-2018.

Washoe County Rain Gauge Network: Continued Operation Plan and Historical Data Analysis

Personnel: Dan McEvoy, Greg McCurdy, and Albert Wolf, Desert Research Institute (DRI) and Western Regional Climate Center (WRCC)

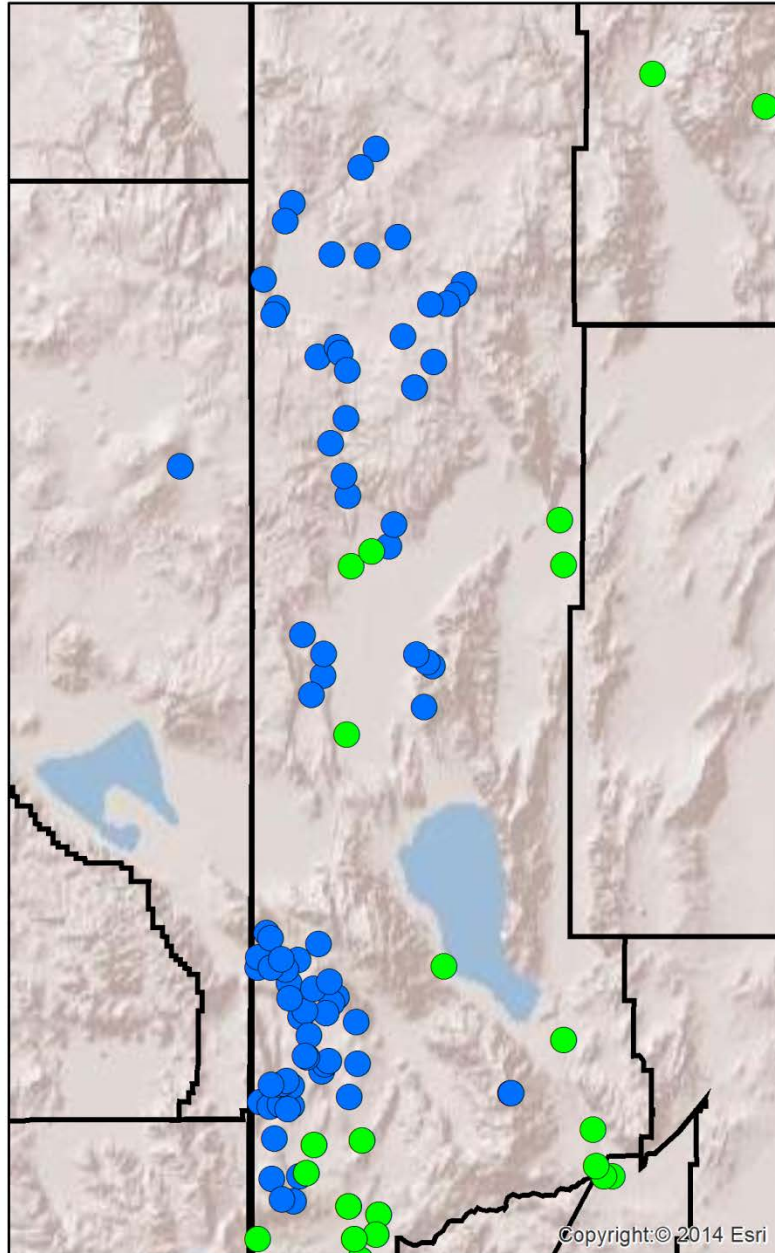
Purpose

Washoe County installed and maintained a storage rain gauge network (Network) of over 80 gauges with records that date back to the late 1990s. Following the recent merger of the Washoe County water utility with Truckee Meadows Water Authority, the Network program responsibilities have been assumed by the Western Regional Water Commission (WRWC). The program involves data collection and maintenance of manual gauges where measurements are collected and gauges are serviced twice a year. The intended use of the precipitation data was to validate and potentially improve existing groundwater recharge estimates that are commonly calculated using Hardman maps or Parameter Regression on Independent Slopes Model (PRISM; Daly et al. 1994) data. Additionally, Network could be used to provide improved monitoring of regional water sources and supplies. Precipitation measurements outside of the Network are sparse in this region, especially central and northern Washoe County, and minimal efforts have been put into validating spatial estimates of precipitation. The Network data has recently been compiled electronically and provides a unique opportunity to analyze the quality of Network precipitation records, use the Network data to validate spatial estimates of precipitation, and potentially improve existing groundwater recharge estimates. We are proposing to have Desert Research Institute (DRI) continue assisting in the monitoring and maintenance of the network.

Scope of Work

Network Monitoring and Maintenance

DRI has a long history of weather station installation and maintenance and Greg McCurdy and Albert Wolff have extensive experience in this field and have spent significant time in remote regions of Nevada. DRI will assist WRWC staff in the collection and maintenance of the Network. This partnership between WRWC and DRI staff will help to develop familiarity with the locations of gauges, routes to follow, measurement process, precipitation record keeping, and gauge maintenance. Fieldwork will be conducted twice a year, one in the Fall and one in the Spring, to the Network to empty gauges, record precipitation measurements, and perform maintenance on all gauges.



- Network locations
- PRISM control points

Figure 1. Network locations (blue dots) and PRISM control points (green dots) used in Jeton et al. (2005).

Cost Estimate

The *Network Monitoring and Maintenance* cost is estimated not to exceed \$20,000 for fiscal year 2017-2018 .

Northern Nevada Water Planning Commission

STAFF REPORT

DATE: July 27, 2017
TO: Chairman and Members, Northern Nevada Water Planning Commission
FROM: Jim Smitherman, Water Resources Program Manager
SUBJECT: Report on North Valleys flood mitigation activities and planning.

SUMMARY

On June 7, 2017, the Northern Nevada Water Planning Commission (“NNWPC”) directed staff to request a report from Reno, Sparks and Washoe County on North Valleys flood mitigation activities and planning for the future, to be presented at the August 2, 2017 NNWPC meeting.

JS

Northern Nevada Water Planning Commission

STAFF REPORT

DATE: July 24, 2017
TO: Chairman and Members, Northern Nevada Water Planning Commission
FROM: Jim Smitherman, Water Resources Program Manager
SUBJECT: Program Manager's Report

Attached are updated reports for items (a) and (b) for your review.

- a) Report on the status of Projects and Work Plan supported by the RWMF; and
- b) Financial Report on the RWMF for fiscal year 16-17 year to date and fiscal year 17-18 period 1.

**Status Report of Projects and Work Plan
Supported by the Regional Water Management Fund**

Funds Ctr/ Project #	Project	Vendor	Orig.PO	Changes	Balance	Percent Complete	Start Date	End Date
WP310002	Acquisition of water rights	TRUCKEE MEADOWS WATER AUTHORITY	132,585.53	-32,608.71	99,976.82	25%	5/16/2013	6/30/2018
WP310102	Washoe ET Program FY 2016-17	BOARD OF REGENTS/DESERT RESEARCH	10,000.00	-877.64	9,122.36	9%	7/1/2017	9/30/2018
WP310103	Cloud Seeding Monitoring	BOARD OF REGENTS/DESERT RESEARCH	25,000.00	0.00	25,000.00	0%	7/1/2013	9/30/2017
WP310103	Cloud Seeding Project FY2016-17	BOARD OF REGENTS/DESERT RESEARCH	100,000.00	-45,839.21	54,160.79	46%	9/15/2016	9/30/2017
WP310113	Cloud Seeding Monitoring	BOARD OF REGENTS/DESERT RESEARCH	25,000.00	-6,409.66	18,590.34	26%	7/1/2016	6/30/2018
WP310203	Advanced Wtr Treatment Demo. FY16-17	BOARD OF REGENTS, NSHE, obo UNR	155,699.00	-52,666.65	103,032.35	34%	7/1/2014	9/30/2017
WP310205	Regional Effluent Mgmt Strategy FY16/17	STANTEC CONSULTING SERVICES INC	25,483.50	-7,372.00	18,111.50	29%	7/1/2016	9/30/2017
WP310303	Truckee Meadows Strmwater qual	RENO, CITY OF	262,500.00	-153,161.23	109,338.77	58%	7/1/2016	9/30/2017
WP310305	Watershed Mgmt Plan Update FY2017-2019	RENO, CITY OF	70,000.00	-3,533.50	66,466.50	5%	4/1/2015	9/30/2017
WP310603	RWMP Update - Editing	STANTEC CONSULTING SERVICES INC	25,000.00	-16,018.50	8,981.50	64%	7/1/2016	6/30/2018
WP310605	Costs and Financing Chapt. revisions	HANSFORD ECONOMIC CONSULTING	1,000.00	-895.00	105.00	90%	4/6/2017	10/6/2018
WP310700	FY17 Legal Service WRWC/NNWPC	RHODES LAW OFFICES LTD	129,600.00	0.00	129,600.00	0%	11/3/2016	9/30/2017
WP310701	Minutes for FY2016-17	TRUCKEE MEADOWS REG PLAN AGENCY	7,000.00	-1,089.00	5,911.00	16%	11/21/2016	9/30/2017
WP310704	FY17 Video Coverage NNWPC	SOSUTV CORP	3,000.00	-1,657.50	1,342.50	55%	7/1/2016	9/30/2017
WP310717	TRIG Website Hosting for FY2016-17	RENO, CITY OF	20,176.00	0.00	20,176.00	0%	11/1/2009	10/31/2017

-- Indicates contracting in progress or project status being updated.

7/21/2017
 Fund 766
 Report 400/ZF15

Fiscal Year 2018; Period 1

**Financial Report on the
 Regional Water Management Fund**

Accounts	Plan Budget	Actual (Revenue & Expenses)	PO Commit (Remaining PO Balance)	Actual + PO	Available (Budget Minus Actual + PO)	Avail%	PreCommit (PO's Requested)	Available (Budget Minus PO Requisitions)	Avail%
State Grants	40,000.00-				40,000.00-	100-		40,000.00-	100-
* INTERGOVERNMENTAL	40,000.00-				40,000.00-	100-		40,000.00-	100-
Interest-Pooled Inv.	25,195.37-				25,195.37-	100-		25,195.37-	100-
Water Surcharge 1.5%	1,394,568.00-	5,242.21-		5,242.21-	1,389,325.79-	100-		1,389,325.79-	100-
* MISCELLANEOUS	1,419,763.37-	5,242.21-		5,242.21-	1,414,521.16-	100-		1,414,521.16-	100-
** REVENUE	1,459,763.37-	5,242.21-		5,242.21-	1,454,521.16-	100-		1,454,521.16-	100-
Professional Services	1,574,926.00		765,115.89	765,115.89	809,810.11	51		809,810.11	51
WRWC Staff & Legal	521,591.00		10,800.00	10,800.00	510,791.00	191.67		510,791.00	191.67
Fin Consult Services	10,000.00				10,000.00	100		10,000.00	100
Pmts to O Agencies	100,000.00		99,976.82	99,976.82	23.18	0		23.18	0
Seminars and Meetings	1,000.00				1,000.00	100		1,000.00	100
Advertising	1,000.00	336.00		336.00	664.00	66		664.00	66
Undesignated Budget	20,000.00		939.00	939.00	19,061.00	95		19,061.00	95
Combined Utilities	400.00	33.33		33.33	366.67	92		366.67	92
Travel	1,000.00				1,000.00	100		1,000.00	100
Overhead	95,009	587		587	94,422	400		94,422	400
** EXPENDITURES	2,324,926.00	956.62	876,831.71	877,788.33	1,447,137.67	62		1,447,137.67	62
*** Total	865,162.63	4,285.59-	876,831.71	872,546.12	7,383.49-	1		7,383.49-	1

7/27/2017

Fund 766

Report 400/ZF15

Fiscal Year 2017; Period 1 thru 13

**Financial Report on the
Regional Water Management Fund**

Accounts	Plan Budget	Actual (Revenue & Expenses)	PO Commit (Remaining PO Balance)	Actual + PO	Available (Budget Minus Actual + PO)	Avail%	PreCommit (PO's Requested)	Available (Budget Minus PO Requisitions)	Avail%
State Grants	40,000.00-				40,000.00-	100-		40,000.00-	100-
* INTERGOVERNMENTAL	40,000.00-				40,000.00-	100-		40,000.00-	100-
Interest-Pooled Inv.	27,985.00-	17,752.93-		17,752.93-	10,232.07-	37-		10,232.07-	37-
RGL Pooled Inv.		2,825.43-		2,825.43-	2,825.43			2,825.43	
URGL Pooled Inv.		18,634.36		18,634.36	18,634.36-			18,634.36-	
Water Surcharge 1.5%	1,416,677.00-	1,429,356.57-		1,429,356.57-	12,679.57	1		12,679.57	1
* MISCELLANEOUS	1,444,662.00-	1,431,300.57-		1,431,300.57-	13,361.43-	1-		13,361.43-	1-
** REVENUE	1,484,662.00-	1,431,300.57-		1,431,300.57-	53,361.43-	4-		53,361.43-	4-
Professional Services	1,754,976.00	724,714.91	448,661.89	1,173,376.80	581,599.20	33		581,599.20	33
WRWC Staff & Legal	512,000.00	413,701.02	10,800.00	424,501.02	87,498.98	17.37		87,498.98	17.37
Fin Consult Services	10,000.00	8,700.00		8,700.00	1,300.00	13		1,300.00	13
Invest Pool Alloc Ex		1,040.33		1,040.33	1,040.33-			1,040.33-	
Lobbying Services		600.00		600.00	600.00-			600.00-	
Pmts to O Agencies	175,000.00	32,608.71	99,976.82	132,585.53	42,414.47	24		42,414.47	24
Seminars and Meetings	1,000.00	1,092.00		1,092.00	92.00-	9-		92.00-	9-
Advertising	1,000.00	497.00		497.00	503.00	50		503.00	50
Undesignated Budget	20,000.00				20,000.00	100		20,000.00	100
Insurance Premium		3,286.00		3,286.00	3,286.00-			3,286.00-	
Combined Utilities	400.00	399.96		399.96	0.04	0		0.04	0
Travel	1,000.00				1,000.00	100		1,000.00	100
Overhead	129,600.00	85,243.37		85,243.37	44,356.63	154.76		44,356.63	154.76
** EXPENDITURES	2,604,976.00	1,271,883.30	559,438.71	1,831,322.01	773,653.99	30		773,653.99	30
*** Total	1,120,314.00	159,417.27-	559,438.71	400,021.44	720,292.56	64-		720,292.56	64-