

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

Wednesday, December 6, 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 "For Possible Action" in bold type. 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 October 4, 2017, meeting.](#) **(For Possible Action)**
5. [Report on the predictability of winter weather patterns and seasonal changes, and potential hazards, which may impact the local community, and affect regional water resource planning and other regional planning efforts](#) – Chris Smallcomb, National Weather Service. *
6. Report on the [Advanced Water Treatment Technologies Demonstration Project](#) being conducted by the University of Nevada, Reno ("UNR"), and related effluent management activities – Jim Smitherman, NNWPC Water Resources Program Manager, Rick Warner, Washoe County Community Services Department, and Dr. Krishna Pagilla, UNR. *

Northern Nevada Water Planning Commission Agenda for December 6, 2017

7. [Program Manager's Report](#) – Jim Smitherman. *
 - a. Report on the status of projects and Work Plan supported by the Regional Water Management Fund (“RWMF”);
 - b. Financial Report on the RWMF for fiscal year fiscal year 17-18, period 3.
8. Discussion regarding possible agenda items for the January 3, 2018 NNWPC meeting, and other future meetings; and possible direction to staff – Jim Smitherman. **(For Possible Action)**
9. Recess to move the meeting to the Washoe County Community Services Slide Mtn. Conference Room, Bldg. A, Second Floor, 1001 E. Ninth Street, Reno, Nevada (same building as Washoe County Commission Chambers), for a workshop session. See Item 10, below. *
10. [Workshop to review the Action Items listed in the 2016-2035 Regional Water Management Plan, and projects and studies listed in the Western Regional Water Commission \(“WRWC”\) Fiscal Year 2016-2017 Tentative Budget; discussion of priorities for ongoing and future projects and studies](#), possible recommendation to the WRWC, 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, October 4, 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 1:30 p.m.

1. Roll Call and Determination of Presence of a Quorum

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

Voting Members Absent: Michael Drinkwater, Darrin Price

Non-Voting Members Present: None

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

Staff Members Present: Chris Wessel; Donna Fagan; John Rhodes, Legal Counsel; Jennifer Purgitt

2. Public Comment

Cathy Brandhorst spoke on various topics.

3. Approval of Agenda (For Possible Action)

COMMISSIONER FLANSBERG MADE A MOTION TO APPROVE THE AGENDA, SECONDED BY COMMISSIONER MARTINI. THE MOTION CARRIED UNANIMOUSLY WITH TEN (10) COMMISSIONERS PRESENT.

4. Approval of Minutes from the August 2, 2017, Meeting (For Possible Action)

COMMISSIONER FLANSBERG MADE A MOTION TO APPROVE THE AUGUST 2, 2017, MINUTES, SECONDED BY COMMISSIONER SOLARO. THE MOTION CARRIED UNANIMOUSLY WITH TEN (10) COMMISSIONERS PRESENT.

5. Request for funding, in an amount not to exceed \$10,000 from the Regional Water Management Fund ("RWMF"), to partially support a proposal by the Truckee Meadows Regional Planning Agency ("TMRPA") for a Regional Sustainability Baseline Study, as part of its update of the Truckee Meadows Regional Plan; and, if approved, authorize the Program Manager to execute an interlocal agreement with TMRPA for that purpose - Jim Smitherman, Water Resources Program Manager. (For Possible Action)

Chris Wessel, Water Management Planner, reviewed information included in the staff report regarding this funding request. Staff feels this study will be important in ensuring consistency between the Regional Water Management Plan and the Truckee Meadows Regional Plan ("TMRP").

Kimberly H. Robinson, Executive Director of Regional Planning, gave a presentation including information on the TMRP and components of the Regional Sustainability Baseline Study. The

work in this study can also be used by the various agencies on the Land Use and Transportation Resiliency Committee.

Public Comment: Cathy Brandhorst spoke on various topics.

COMMISSIONER MARTINI MADE A MOTION TO AUTHORIZE THE PROGRAM MANAGER TO EXECUTE AN INTERLOCAL AGREEMENT WITH TMRPA, IN AN AMOUNT NOT TO EXCEED \$10,000 FROM THE RWMF, FOR THE REGIONAL SUSTAINABILITY BASELINE STUDY, SECONDED BY COMMISSIONER FLANSBERG. THE MOTION CARRIED UNANIMOUSLY WITH TEN (10) COMMISSIONERS PRESENT.

- 6. Report by the Desert Research Institute (“DRI”) on last winter’s cloud seeding operations for the Truckee River and Lake Tahoe Basins, and alternatives for operations for the upcoming winter; discussion and possible recommendation to the Western Regional Water Commission (“WRWC”) for funding in an amount not to exceed \$100,000 from the RWMF to support similar limited operations for the upcoming winter - Frank McDonough, DRI and Chris Wessel, Water Management Planner. (For Possible Action)**

Mr. Wessel presented the staff report and stated that the Truckee Meadows Water Authority (“TMWA”) anticipates being unable to provide co-sponsorship for the cloud seeding program this year. Mr. McDonough with DRI will present alternatives for the 2017-2018 water year.

Mr. McDonough reported on last winter’s cloud seeding operations and alternatives for the 2017-2018 water year. He also reported on his efforts to identify other potential partners.

Commissioner Enloe stated it is important that we continue on with this effort, particularly due to new permitting efforts that might be required to reinstate this program if we were to stop it for a period of time.

Mr. McDonough confirmed that this program schedule can be flexible based on weather patterns.

Mr. Wessel and Mr. McDonough confirmed that the project for the last water year has been billed to completion and is closed.

COMMISSIONER ZIMMERMAN MADE A MOTION TO **ACCEPT THE REPORT AND RECOMMEND THAT THE WRWC APPROVE THE PROPOSAL FROM DRI FOR FUNDING IN AN AMOUNT NOT TO EXCEED \$100,000 FROM THE RWMF, TO SUPPORT CLOUD SEEDING OPERATIONS FOR THE 2017-2018 WATER YEAR,** SECONDED BY COMMISSIONER HAZELWOOD. THE MOTION CARRIED WITH NINE (9) IN FAVOR AND ONE (1) OPPOSITION BY COMMISSIONER WRIGHT.

- 7. Report on DRI’s Cloud Seeding Precipitation Gauge Monitoring Project - Frank McDonough and Chris Wessel.**

Mr. McDonough reported on the status of the installation of the gauges and presented a status report on the ongoing Monitoring Project. The data for the entire network will be available this coming winter.

- 8. Authorize the Program Manager to execute an interlocal agreement with the Truckee Meadows Water Authority (“TMWA”), in an amount not to exceed \$40,000 from the RWMF, for the Bedell Flat Rapid Infiltration Basin (“RIB”) Investigation (A State of Nevada grant will reimburse the RWMF.) - Jim Smitherman. (For Possible Action)**

Mr. Wessel presented information included in the staff report regarding this request.

Public Comment: Cathy Brandhorst spoke on various topics.

COMMISSIONER FLANSBERG MADE A MOTION TO AUTHORIZE THE PROGRAM MANAGER TO EXECUTE AN INTERLOCAL AGREEMENT WITH TMWA, IN AN AMOUNT NOT TO EXCEED \$40,000 FROM THE RWMF, FOR THE BEDELL FLAT RIB INVESTIGATION, SECONDED BY COMMISSIONER SOLARO.

Commissioner Enloe confirmed for Commissioner DeMartini that this action does not lock us into anything with regard to RIBs being three to four feet deep. It is the very first step to determine initial feasibility of infiltrating water in Bedell Flat.

THE MOTION CARRIED UNANIMOUSLY WITH TEN (10) COMMISSIONERS PRESENT.

9. Discussion and possible recommendation to the WRWC to approve an amendment to the Agreement for Legal Services for the WRWC and the NNWPC, to extend the Agreement through June 2020 on the same terms and conditions – Jim Smitherman.

Mr. Wessel presented information included in the staff report.

COMMISSIONER DEMARTINI MADE A MOTION TO RECOMMEND THAT THE WRWC APPROVE AN AMENDMENT TO THE AGREEMENT FOR LEGAL SERVICES FOR THE WRWC AND THE NNWPC WITH RHODES LAW OFFICES, LTD., TO EXTEND THE AGREEMENT THROUGH JUNE 2020 ON THE SAME TERMS AND CONDITIONS, SECONDED BY COMMISSIONER FLANSBERG.

Commissioner Enloe asked about a termination clause in the event that the WRWC no longer exists.

John Rhodes, Legal Counsel, explained that the Agreement can be terminated by either party on 30 days written notice.

THE MOTION CARRIED UNANIMOUSLY WITH TEN (10) COMMISSIONERS PRESENT.

10. 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 17-18, period 3

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

11. Discussion regarding possible agenda items for the November 1, 2017, NNWPC meeting, and other future meetings, and possible direction to staff – Jim Smitherman. (For Possible Action)

If there are not sufficient items for the November agenda, staff will discuss with the Chair whether the meeting should be cancelled.

12. Commission Comments

None

13. Staff Comments

Mr. Wessel discussed Mr. Smitherman's absence due to medical issues and expects him back in time to attend the WRWC meeting.

14. Public Comment

Cathy Brandhorst spoke on various topics.

15. Adjournment (For Possible Action)

The meeting was adjourned at 2:49 p.m.

Respectfully submitted by Christine Birmingham.

Approved by:

Danielle Henderson, NNWPC Chair

APPROVED BY COMMISSION IN SESSION ON _____, 2017.

DRAFT

Northern Nevada Water Planning Commission

STAFF REPORT

DATE: November 30, 2017
TO: Chairman and Members, Northern Nevada Water Planning Commission (“NNWPC”)
FROM: Chris Smallcomb, Warning Coordination Meteorologist
SUBJECT: Report on the predictability of winter weather patterns, seasonal changes, and potential hazards, which may impact the local community, and affect regional water resource planning and other regional planning efforts.

SUMMARY

Regional water resource planning efforts currently include a number of projects which are significantly influenced by local weather patterns and events; e.g., the Long-Term Precipitation Gauge Monitoring Program, the Washoe ET Project, and the Desert Research Institute Cloud Seeding Project. Additionally, changes in weather patterns have the potential to increase localized flooding. Flood control is a planning element required and included in the Comprehensive Regional Water Management Plan, and the subject of regional planning efforts by other local entities such as the Truckee River Flood Management Authority Project, and the Truckee Meadows Regional Planning Agency.

Chris Smallcomb, Warning Coordination Meteorologist for the National Weather Service, will present a report on the predictability of winter weather patterns, seasonal outlooks and larger hazards such as atmospheric rivers, floods, and blizzards which impact the local community, and influence the regional planning efforts noted above, and other planning projects.

CW:jp

Northern Nevada Water Planning Commission

STAFF REPORT

DATE: November 30, 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”), and related effluent management activities.

SUMMARY

In July 2016, the NNWPC approved a proposal for the Advanced Water Treatment Technologies Demonstration Project and recommended that the Western Regional Water Commission (“WRWC”) execute a 4-year, \$676,475 interlocal agreement with UNR for completion of the scope of work (attached). The WRWC approved the project and the agreement in August 2016.

Work was initiated in September 2016 and has progressed according to the project schedule. Progress to date includes the completion of Task 1, Project Rationale and Justification for Advanced Treated Recycled Water in the Truckee Meadows, and Task 2, Critical Review of Technologies that can meet Nevada DEP Regulations/ Requirements. Draft reports (95 percent complete) have been delivered for review. Tasks 3, Basis of Design for the Demonstration Project, and 4, Demonstration System Testing Plan, are underway.

A PowerPoint progress report will be presented at the meeting.

JS:jp

Attachment

Advanced Water Treatment Technologies Demonstration University of Nevada, Reno Scope of Work

A. Introduction and Background

Staff from the Northern Nevada Water Planning Commission, City of Reno, City of Sparks, Truckee Meadows Water Authority, and Washoe County (Regional Team) is jointly developing a feasibility study to evaluate whether the State of Nevada's proposed "exceptional quality" standard for recycled water offers regional long-range water supply benefits. *Exceptional quality* recycled water, achieved through a series of advanced water treatment processes, is being proposed to permit the use of recycled water for groundwater augmentation. The Regional Team envisions a feasibility study occurring over the next 5 years that consists of multiple elements including cost/benefit analysis, regulatory formulation, public engagement, advanced treatment pilot testing, geotechnical investigations, and field scale treatment demonstration projects.

A growing number of national and international communities have developed advanced treated recycled water projects to offer an efficient use of water resources, defer expenditures on future water importation projects, provide a local drought proof water supply, and craft a more resilient total water management strategy. Within the water sector, projects utilizing advanced treatment for recycled water are typically referred to as potable reuse projects. While the Regional Team seeks to develop a more comprehensive assessment through a demonstration-scale groundwater replenishment project, there is no current plan to augment local potable water supplies at full scale. A panel of international water reuse experts is guiding the Regional Team's feasibility phase activities.

Independently, the advanced water treatment investigations would be conducted over the next 3 to 4 years, led by researchers at University of Nevada, Reno (UNR). UNR will develop: the technological justification for selecting the advanced water treatment systems; establish the field scale demonstration project design basis and testing plan; assist acquiring the necessary water treatment equipment; assist during the installation of the demonstration project; conduct startup of the treatment facility optimizing the treatment unit processes; perform monitoring and testing of the operating strategies, process control, and performance parameters during steady state operations; analyze data, and prepare a final report. The specific goals, tasks, and project team are described in this scope document in addition to a tentative project schedule and preliminary budget.

Technological options considered for advanced treatment of recycled water to meet drinking water standards include a reverse-osmosis (RO) based treatment train and a biological filtration based treatment train. The former has the distinct disadvantage of sidestream RO brine disposal for inland regions. Therefore, to meet the study goals, the recycled water will be further treated through a series of advanced water treatment processes, likely including biological activated carbon (BAC) filtration,

advanced oxidation, UV disinfection, and soil aquifer treatment (SAT). A further review of the applicability of this treatment vis-à-vis other alternatives will be explored during the initial stages of this project.

B. Project Goals

The overall goal of the project is to develop two field scale advanced recycled water treatment demonstration projects. Each demonstration project is envisioned to operate 9-12 months. The specific goals are as follows:

1. Develop the plans for scale and sequence of technical components for the field scale demonstration project.
2. Develop operational testing plans including day-to-day operation, monitoring, analytical testing, data analysis and modeling, and risk management for implementation.
3. Develop potential strategies for groundwater augmentation utilizing both infiltration basins and direct injection wells.
4. Operate and collect data, conduct data analysis, and prepare full scale implementation needs report.

C. Project Tasks

In order to achieve the overall project goal and specific goals identified above, UNR will perform the following tasks under this project. The tasks are further outlined below to describe the scope of the study.

C.1. Project Rationale and Justification for Advanced Treated Recycled Water in the Truckee Meadows

- a. Review current scenarios/plans of water use/reuse, water resources availability, and recycled water management in the Truckee Meadows region
- b. Determine the required level of treating recycled water to meet exceptional quality standards.
- c. Identify economic, environmental, and social benefits within the region
- d. Conduct triple bottom line analysis of current water management versus the future water management scenario including utilizing advanced treated recycled water meeting exceptional quality standards.
- e. Develop a statement of opportunity for recycled water in the region

Deliverables: Produce a vision/planning document based on current scenarios and future needs documenting whether advanced treated recycled water should be implemented for sustainable water management in the Truckee Meadows region.

Task Period: 4 months

C.2. Critical Review of Technologies that can meet Nevada DEP Regulations/ Requirements

- a. Review of Draft Nevada Regulations/Requirements
 - i. *Develop comments jointly with Regional Team and Expert Panel*
- b. Identify Potential Advanced Treatment Options
 - I. *RO based Systems*
 - II. *BAC based Systems*
 - III. *Other Treatment Options*
- c. Evaluate Case Studies
 - I. *Water Research Foundation Work*
 - II. *Pilot Studies*
 - III. *Full Scale Facilities*
- d. Identify selected alternative treatment train for demonstration project

Deliverables: Produce a Tech Memo of possible alternatives and the selected alternative for a treatment train that can meet the Nevada DEP regulations/ requirements either by infiltration and/or injection into the groundwater.

Task Period: 4 months

C.3. Basis of Design for the Demonstration Project

- a. WRF Recycled Water Characteristics
- b. Potential Method of Drinking Water Augmentation (injection or infiltration)
- c. Treatment Objectives
- d. Design Basis of Individual Treatment Units
- e. Treatment Train Alternatives
 - i. *Process units, sizing, redundancy, configuration, etc.*
 - ii. *Includes soil aquifer treatment systems developed in collaboration with hydrologists from TMWA and Washoe County.*
- f. Identification and Selection of Commercially Available Unit Operations/Processes for the Selected Treatment Train

Deliverables: Develop the document containing design basis of the demonstration project including process design of the selected train and unit selection. Detailed drawings and non-process design will be conducted by the Regional Team with assistance from UNR.

Task Period: 4 months

C.4. Demonstration System Testing Plan

UNR will prepare a testing plan summarizing goals and objectives and including the following elements:

- a. Different demonstration testing phase and the goal(s) and end points of each phase.
- b. Operating conditions of each unit and the overall treatment train under each phase
- c. Duration of operation in each phase
- d. Sampling and monitoring locations
- e. Sampling and analysis plan
- f. Data validation and QA/QC plan
- g. Reporting methodology
- h. Safety procedures
- i. Troubleshooting protocols.

Deliverables: Produce a testing plan document which will serve as the operating manual for the demonstration project advanced treatment system.

Task Period: 4 months

C.5. Demonstration System Equipment Procurement and Installation

- a. Assist the regional team in procurement of equipment and auxiliary services needed for the advanced treatment train
- b. Assist the regional team during construction/installation of the equipment, piping, control systems, etc., and ensure all the design criteria are satisfied.
- c. Review and keep on file manufacturers information on maintenance, operation, and troubleshooting of equipment

Deliverables: Produce a document that will record all the equipment and supplies procured, any variations to the equipment identified in the design basis document, and keep on file all manufacturers information including any standard procedures (for operation and maintenance).

Task Period: 4 months

C.6. Treatment System Shakedown and Startup

Once the construction of the field scale demonstration system is completed, UNR team will conduct shakedown and startup.

- a. Coordinate with each equipment vendor and conduct startup of each unit including any manufacturer training and operational procedures during startup.
- b. Conduct treatment train unit process integration and startup of all units in sequence to ensure hydraulic, process, instrumentation and control, and mechanical integrity.
- c. Develop any additional information needed for the treatment train operation and maintenance for routine, steady state operation.

Deliverables: Startup of the advanced treatment train of the demonstration system. Modify the operations and maintenance document developed during testing plan development in C.4 to include additional information needed for the operation and maintenance of the treatment train. File containing all manufacturer's information.

Task Period: 2 months

C.7. Steady State Operation of the Treatment Train and Data Collection

- a. Filtration Testing & Optimization (Granular Media, Ozone, Membrane & BAC, Advanced Oxidation (Ultraviolet and Peroxide [AOP]), and Disinfection)

UNR will maintain continuous operation of a single (or parallel units) conventional filtration with granular media filter, a single membrane filter, ozone treatment unit, a single biological activated carbon (BAC) filter, and an advanced oxidation process unit. Additional treatment process, such as pretreatment, ultra-filtration, GAC, may also be evaluated based upon the project needs.

Operations should have the flexibility to load the granular medium filters to higher hydraulic loading rates. The impacts of high hydraulic loading rates on filter performance and backwash requirements will be a study objective. Multiple influent turbidity values (high and average) will be tested. UNR team will operate the demonstration system for two years after startup and optimization period, which is expected to occur during the first two months. In addition to testing for exceptional quality standards, routine water quality monitoring such as turbidity, total suspended solids (TSS), total organic carbon (TOC), pH, temperature will be conducted over the course of the testing. The use of fluorescence excitation-emission spectroscopy (FEEM) analytical techniques for organic matter characterization will be evaluated and may be implemented during the course of the study.

Additionally for BAC, the performance of BAC filter will be evaluated by monitoring the reduction and fate of additional water quality constituents such as nitrosodimethylamine (NDMA) unregulated trace organic compounds, biodegradable ozone byproducts (e.g., aldehydes), and all other parameters identified in the testing plan.

- b. Ozonation Testing and Optimization

It is proposed to make use of a single ozone generation system that delivers gaseous ozone feed to multiple injection and contact skids. Optimal ozone dose for each case will be determined by monitoring removal of indicator compounds and formation of byproducts such as bromate. Mitigation strategies for byproducts will be developed, if necessary. Several samples will be taken before and after the ozone unit for a number of analyses including ultra-violet transmittance (UVT), TOC, and indicator screening analysis. Total coliform testing and miscellaneous field measurements (pH, turbidity, etc) will be conducted. On-line monitoring of UVT and TOC may be implemented.

c. Steady-State Operations and Monitoring

The demonstration units will be operated continuously to the extent practicable. UNR will oversee the demonstration system operations and monitoring for approximately two years. During the steady-state period, the optimized ozone dosage will be maintained and the biological activity of the carbon column will be monitored regularly. During this period, UNR will perform routine monitoring and sample analyses, for which frequency and number will be described in the sampling plan. Quality assurance sampling and testing will occur at the Truckee Meadows Water Reclamation Facility certified laboratory.

It is expected the Regional Team will contract directly with a certified laboratory for more complex or unique analyses, such as for unregulated organic compounds, specific pathogens, and specific compounds identified under Ozone-BAC system monitoring below. UNR will conduct the sampling for these samples and receive the results.

d. Data Analysis

UNR will evaluate the monitoring results and prepare a demonstration test report on the performance of the demonstration system. The report will summarize contaminant removal, system reliability, feasibility, TOC reduction, disinfection performance and byproduct formation, and long-term benefits to the community.

e. Sampling (Throughout Demonstration Testing)

Sampling will be conducted during the entire demonstration system testing from startup to completion. Under this task, UNR will conduct all of the activities outlined in the testing plan.

The following preparation activities will be conducted prior to each sampling event.

- Order required sample bottles and blank water from analytical laboratories.
- Prepare and apply sample bottle labels.
- Prepare chain-of-custody (COC) forms.
- Obtain all necessary equipment specified in testing plan.
- Provide and calibrate field meters.

All samples will be collected as grab samples using clean sampling techniques as specified in the testing plan. Under this task, UNR will conduct the following activities during each sampling event.

- Conduct preparation activities listed above prior to each event.
- Mobilize field team of two people to collect samples per testing plan guidance.
- Package collected samples in coolers with ice.
- Complete COC forms.
- Deliver samples to the analytical laboratory for analysis within maximum allowable holding times.

Clean sampling techniques will be followed during full sampling events, which include avoiding use of sunscreen, cigarettes, fragrances, deodorants, antibacterial soaps, insect sprays and caffeinated products.

f. Sampling and Analysis Plan

A Sampling and Analysis Plan (SAP) will be included in the testing plan prior to the startup of the system. SAP will contain detailed QA/QC program, sampling procedure, sample preservation, holding times, instrumentation calibration procedure and data collection and analysis methods. At the present, it is anticipated that UNR will conduct all the conventional analyses in-house, and all the advanced analyses will be conducted by an external laboratory contracted separately by the Regional Team. UNR will conduct the sampling and sample delivery to the external lab. UNR will conduct analysis of media microbial ecology from BAC filters.

Potential constituents to be monitored during Optimization and Steady-State Operation include the following shown in Table 1:

Table 1. Potential list of conventional constituents to be measured/monitored and purpose

Constituent	Advanced Recycled Water Treatment Sampling Location	Purpose
pH/Alkalinity	Influent and Effluent	General Characteristics
Turbidity	Influent and Effluent	Particle Content and Removal
Coliforms, Total and Fecal	Influent and Effluent	Disinfection Efficiency
Conductivity	Influent and Effluent	General Characteristics
Nitrogen Species and Total N	Influent and Effluent	General Characteristics and BAC Efficiency
Phosphate and Total P	Influent and Effluent	General Characteristics and BAC Efficiency
Dissolved Oxygen	Influent and Effluent	BAC Treatment Needs
Dissolved Ozone	Reactor and Effluent	Ozone Dose Determination
BOD/COD	Influent and Effluent	General Characteristics
TOC/DOC	Influent and Effluent	Organic Carbon Content
UV Transmittance	Influent	UV Transmissability for Disinfection
Bromide and Bromate	Influent and Effluent	Disinfection Byproducts

Pathogens, Contaminants of Emerging Concern and Process Monitoring Specific to Ozone-BAC System

BAC performance will be evaluated by monitoring a suite of regulated and unregulated organic compounds (e.g. CECs, TOC, AOC, THMs, HAA, Nitrosamines, Nitrosoamine precursors, DBP formation potential, SUVA, media microbial ecology). CECs monitoring will include a shortlist of indicator compounds including flame retardants (TCEP, TCPP and TDCPP), pharmaceuticals (meprobamate), contrast media (iopromide), NDMA, NDMA precursors, biodegradable organics (formaldehyde and ethyl glyoxal) and THMs (chloroform). CECs, regulated/unregulated organic compounds, and pathogens will be measured by external laboratory using the samples supplied by UNR.

Additional analyses as required will be conducted to meet regulatory requirements for advanced treated recycled water for infiltration and injection options. UNR is responsible for sample collection and delivery to the external lab as needed.

Preliminary Sampling Plan for the Advanced Treatment Train

Based on the preliminary identification of advanced treatment train for the demonstration project, the following key locations will be sampled for different analyses.

- Influent to the advanced treatment train (State of Nevada Class A reclaimed water)
- Treated water produced by the advanced treatment train
- Intermediate points in the treatment train likely to include effluents from chemical pretreatment, filtration (membrane and/or media), ozonation, biofiltration, advanced oxidation, and disinfection

The sampling frequency for routine process monitoring and unit/system performance (conventional constituent list in Table 1) will be once per week during the advanced treatment train startup and steady state operation. Furthermore, the system will be sampled and monitored for detailed performance under steady state conditions once a quarter for a week during which all parameters will be measured. This sampling campaign will collect at least 3 samples on different days within a week. A detailed sampling plan including frequency of sampling and measurement for pathogens, CECs and specific organic contaminants will be determined during the detailed sampling plan development stage.

Baseline characterization of WRF treated effluent will be conducted by weekly sampling during the period of system shakedown and startup (as in C.6) for determining the level of treatment needed for different regulated and unregulated chemical parameters. Additionally, physicochemical characterization parameters such as pH, alkalinity, temperature, conductivity, turbidity, BOD/COD,

TOC/DOC, Nitrogen Species (ammonia, nitrite, nitrate, and total nitrogen/organic nitrogen) and Phosphorous species will be conducted for the WRF effluent (feed to the advanced treatment train).

Deliverables: Quarterly progress reports documenting the performance of the individual units and overall treatment train based on the parameters monitored and measured.

Task Period: 24 months

C.8. Reporting

- a. UNR will attend monthly update meetings of the regional team and provide verbal updates to the team about the progress of the tasks.
- b. UNR will provide a task report for each task of the demonstration project that UNR is responsible for development and operation. For tasks lasting longer than 3 months, a quarterly progress report will be produced.
- c. UNR will review comments provided by the regional team and modify reports with the comments addressed within 30 days after receiving the comments.
- d. A final draft report and a final report will be prepared at the end of the project by UNR.
- e. UNR will also prepare publications and presentations for conferences and journals, with the approval of regional team.

Deliverables: Progress reports, task reports, final draft report, final report, and presentations and publications.

Task Period: Continuous for the duration of the project

C9. Workshops and Meetings

- a. UNR will conduct quarterly project meetings at UNR for the regional team to discuss the progress of the demonstration project.
- b. UNR will conduct twice a year workshops with the independent panel to discuss project progress and receive feedback.
- c. UNR will conduct once a year workshop with the regional team, other utilities conducting demonstration projects, selected and invited professional community from different agencies and organizations in Nevada and the rest of the country.

Deliverables: Meeting minutes and workshop proceedings that will be documented in progress and other project reports.

Task Period: Continuous for the duration of the demonstration project

D. Project Team

UNR project team will consist of the Principal Investigator, Dr. Krishna Pagilla, PE, two PhD students (likely Vijay Sundaram and Laura Haak), Staff Research Associate, and an undergraduate student assistant. Additional faculty and staff at UNR will be used for unique and supplementary tasks as needed with approval from the Regional Team.

E. Project Schedule

The project schedule for UNR tasks will extend over a period of 3-1/2 years as per the schedule developed for the overall demonstration project shown in Table below. A detailed project schedule for UNR involvement outlining the exact duration of each task described above and the respective deliverables will be developed during the first quarter of the project after the scope has been refined by the Regional Team. Furthermore, the schedule will include some task period overlapping during the early stages of the project.

F. Other Provisions

The following items are potential tasks during the demonstration period and are not included in the scope described above.

- a. Simultaneous operation of two advanced treatment trains (same or different) at one site or two different sites
- b. Monitoring and testing of samples collected from the injection and/or infiltration sites during SAT
- c. Procurement of equipment from different vendors (although UNR will assist in identifying and selecting the equipment) including obtaining quotes and receiving.
- d. Detailed design drawings of the demonstration system (civil site, process mechanical, electrical, instrumentation, and others)
- e. Installation of the equipment (although UNR will assist during installation) at the demonstration site
- f. UNR will provide reasonable assistance to the regional team in other tasks with the overall demonstration project as needed during the overall project duration.
- g. UNR will provide assistance to the regional team as needed for regulatory review of the demonstration project by NDEP or other regulatory bodies during the project.
- h. Any additional tasks that need to be conducted will be undertaken only after approval from the regional team.

Table: Overall Demonstration Project Schedule (Source: Regional Team)

Feasibility Phase Activities	2016				2017				2018				2019				2020			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Project Development	Green	Yellow		Yellow		Yellow		Yellow		Yellow		Yellow		Yellow		Yellow		Yellow		Yellow
Community Outreach - Public Agencies		Green	Yellow	Yellow	Yellow		Red													
Community Outreach - General Public									Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow				Red
Regulatory Framework	Yellow	Yellow		Red																
Pilot Testing		Green	Yellow	Yellow	Yellow		Red													
Hydrogeologic Work		Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Red										
Demonstration Project - UNR Involvement			Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow				Red
Demonstration Project - Equipment Procurement			Green	Yellow	Yellow	Yellow	Yellow	Red												
Demonstration Project - Infiltration Basin									Green	Yellow	Yellow	Yellow	Yellow	Red						
Demonstration Project - Injection Well/ASR										Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow				Red
Funding Strategies	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Red												

Northern Nevada Water Planning Commission

STAFF REPORT

DATE: December 6, 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.

**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	99,976.82	-37,986.21	61,990.61	38%	5/16/2013	6/30/2018
WP310101	Water Usage Review Program FY 2017/18	TRUCKEE MEADOWS WATER AUTHORITY	100,000.00	0.00	100,000.00	0%	7/1/2017	9/30/2018
WP310111	Certified Landscape Tech FY 2017/18	NEVADA LANDSCAPE ASSOCIATION	12,500.00	0.00	12,500.00	0%	7/1/2016	6/30/2018
WP310203	Advanced Water Treatment Demo FY2016-19	BOARD OF REGENTS, NSHE, obo UNR	203,954.00	-26,848.61	177,105.39	13%	7/1/2016	9/30/2017
WP310205	Regional Effluent Mgmt Strategy FY16/17	STANTEC CONSULTING SERVICES INC	18,111.50	-9,966.74	8,144.76	55%	4/1/2015	9/30/2017
WP310303	TMeadws Storm Water Quality Prog FY17-18	RENO, CITY OF	262,500.00	-30,268.37	232,231.63	12%	7/1/2017	9/30/2018
WP310305	Watershed Mgmt Plan Update FY2017-2019	RENO, CITY OF	66,466.50	-9,464.5	57,002.00	14%	4/6/2017	10/6/2018
WP310306	Regional Storm Water GIS Map-Phase 1	TRUCKEE MEADOWS REG PLAN AGENCY	21,000.00	0.00	21,000.00	0%	7/1/2017	3/31/2018

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

11/30/2017
 Fund 766
 Report 400/ZF15

Fiscal Year 2018; Period 5

**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-	5,391.25-		5,391.25-	19,804.12-	79-		19,804.12-	79-
RGL Pooled Inv.		559.03-		559.03-	559.03			559.03	
Water Surcharge 1.5%	1,394,568.00-	930,063.30-		930,063.30-	464,504.70-	33-		464,504.70-	33-
* MISCELLANEOUS	1,419,763.37-	936,013.58-		936,013.58-	483,749.79-	34-		483,749.79-	34-
** REVENUE	1,459,763.37-	936,013.58-		936,013.58-	523,749.79-	36-		523,749.79-	36-
Professional Services	1,574,926.00	287,906.13	681,550.86	969,456.99	605,469.01	38		605,469.01	38
WRWC Staff & Legal	521,591.00	142,927.53		142,927.53	378,663.47	141.23		378,663.47	141.23
Fin Consult Services	10,000.00				10,000.00	100		10,000.00	100
Invest Pool Alloc Ex		222.52		222.52	222.52-			222.52-	
Pmts to O Agencies	100,000.00	37,986.21	61,990.61	99,976.82	23.18	0		23.18	0
Seminars and Meetings	1,000.00	215.25		215.25	784.75	78		784.75	78
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		20,000.00	95
Insurance Premium		3,780.00		3,780.00	3,780.00-			3,780.00-	
Combined Utilities	400.00	166.65		166.65	233.35	58		233.35	58
Travel	1,000.00				1,000.00	100		1,000.00	100
Overhead	95,009	30,326		30,326	64,683	276		64,683	276
** EXPENDITURES	2,324,926.00	504,805.13	743,541.47	1,248,346.60	1,076,579.40	46		1,076,579.40	46
*** Total	865,162.63	431,208.45-	743,541.47	312,333.02	552,829.61	64-		552,829.61	64-

Northern Nevada Water Planning Commission

STAFF REPORT

DATE: November 30, 2017

TO: Chairman and Members, Northern Nevada Water Planning Commission (“NNWPC”)

FROM: Jim Smitherman, Water Resources Program Manager

SUBJECT: Workshop to review the Action Items listed in the 2016-2035 Regional Water Management Plan, and projects and studies listed in the Western Regional Water Commission (“WRWC”) Fiscal Year (“FY”) 2016-2017 Tentative Budget; discussion of priorities for ongoing and future projects and studies, possible recommendation to the WRWC, and possible direction to staff.

SUMMARY

The 2016-2035 Regional Water Management Plan (“RWMP”) adopted by the WRWC in June 2017, included a list of Action Items, shown in Table 9-2 (attached), intended to provide guidance to the NNWPC and the WRWC, and form the basis for annual work plans until the next RWMP update, due in January 2021. New information may result in the need to add, delete or revise certain Action Items, as may be appropriate from time to time.

This item provides the NNWPC an opportunity to review the RWMP’s Goals and Objectives, and the Action Items in Table 9-2, to evaluate their alignment with the FY 2017-18 projects budget and discuss priorities for FY 2018-19. Priority recommendations may be forwarded to the WRWC as part of the FY 2018-19 Tentative Budget, which staff will begin preparing in January 2018.

BACKGROUND

On April 6, 2016, the NNWPC held a workshop to review the projects and studies listed in the WRWC FY 2016-2017 Tentative Budget and discuss priorities for ongoing and future projects and studies. The results are attached.

JS:jp

Attachments

TABLE 9-2 WRWC/NNWPC PROPOSED ACTION PLAN

	Action Item	Cross Reference	Category	Location	Subject	Proposed Action Item	Lead Agency	Coordinating Agencies
	-a-	-b-	-c-	-d-	-e-	-f-	-g-	-h-
1	9.1.1.C		MWR	CTM	Cloud Seeding Program	Participate in the Desert Research Institute ("DRI") cloud seeding program for the Lake Tahoe basin and the Truckee River basin, and coordinate with DRI's efforts to continue the cloud seeding program statewide.	DRI	TMWA
2	9.1.1.D				Water Resources Planning	Adopt the TMWA 2035 WRP into the 2016 Regional Water Plan	WRWC	TMWA
3	9.2.A		CON	ALL	RWMP conservation chapter update	Revise Chapter 7 and "Base Case" conservation for consistency with the TMWA 2035 Water Resource Plan, Chapter 5, which is tied to drought, Floriston Rates and TROA.	NNWPC, WRWC	TMWA, Reno, Sparks, WC
4	9.2.B				Technical support for Water For The Seasons program	Support and participate in the Water For The Seasons program, led by UNR, which investigates climate variability and potential water supply risks.	UNR	Reno, Sparks, WC TMWA
5	9.3.1.A	9.5.D	WW	CTM STM	Near-Term Effluent Management Strategy Development	Continue development of near-term regional strategies to manage effluent and reduce nitrogen loading to the Truckee River, which may include additional treatment, expanded distribution of effluent within or outside the TMSA, and expanded uses which may include aquifer recharge and indirect potable reuse.	Reno, Sparks, WC, TMWA	WRWC
6	9.3.1.B	9.3.1.A			Expanded Use of Reclaimed Water	Pursue connection of additional reclaimed water users to the existing systems in Sparks and Reno, consistent with regional water quality and water rights considerations, and continue investigating the feasibility of expanded uses of reclaimed water	Reno, Sparks, WC	TMWA WRWC
7	9.3.1.C 9.3.2.C	9.3.1.A			Regional Integrated Solutions Between TMWRF and STMWRF	Continue evaluating the merits of regional integrated solutions between TMWRF and STMWRF for wastewater treatment and effluent reuse and disposal, including funding considerations. .	Reno, Sparks, WC	TMWA
8	9.3.3.A 9.3.4.A	9.3.1.A	WW	S/LV, CS	Regional Integrated Solutions Between RSWRF and CSWRF	Continue to evaluate the merits of regional integrated solutions between RSWRF and CSWRF for the treatment and disposal of wastewater, including funding considerations.	WC, Reno	
9	9.3.3.B	9.3.1.A			Effluent ASR Regulations	Continue to work with NDEP on reclaimed water groundwater augmentation feasibility/demonstration efforts, including additional groundwater modeling assessments of aquifer storage and recovery.	WC, Reno	TMWA, Sparks, WRWC

Categories:

MWR - Municipal Water Resources
CON - Water Conservation
WW - Wastewater Management
SW - Storm Water
SEP - Septic Systems and Water Quality
SWMP - Storm Water Management Program
WR - Water Rights
LUP - Land Use Planning

Locations:

TM - Truckee Meadows
CTM - Central Truckee Meadows
STM - South Truckee Meadows
S/LV - Stead/Lemon Valley
CS - Cold Springs
SS - Spanish Springs
LTR - Lower Truckee River
ALL - All Areas

Agencies:

TMWA - Truckee Meadows Water Authority
WC - Washoe County
Reno - City of Reno
Sparks - City of Sparks
WC - Washoe County
WCDHD - Washoe County District Health Department
TMRPA - Truckee Meadows Regional Planning Agency
TRFMA - Truckee River Flood Management Agency

BOR - Bureau of Reclamation
DRI - Desert Research Institute
SV - Sun Valley General Improvement District
STM - South Truckee Meadows General Improvement District

TABLE 9-2 WRWC/NNWPC PROPOSED ACTION PLAN (con't)

	Action Item	Cross Reference	Category	Location	Subject	Proposed Action Item	Lead Agency	Coordinating Agencies
	-a-	-b-	-c-	-d-	-e-	-f-	-g-	-h-
10	9.3.6.A		SEP	ALL	Public Engagement to Help Manage/Mitigate Domestic Well and Septic System Issues	Continue to provide guidance to owners of septic systems and domestic wells on how to manage/mitigate domestic well water with elevated levels of nitrate.	WC, Reno	TMWA, WCDH, WRWC, Sparks
11	9.4.A		SWMP	TM	SWMP Update	Continued SWPCC communication with NDEP as necessary to address changes/updates to the NPDES Storm Water Discharge Permit.	Reno Sparks, WC	WRWC
12	9.4.B				Watershed Management Plan Update	Support the update of the Watershed Management Plan such that it can be used to support applications for 319h grants to help fund future watershed projects.	Reno Sparks, WC	TMWA, WRWC
13	9.5.C		WR	ALL	Water Rights Recovery	Continue the analysis and development of non-structural measures to improve Truckee River water quality, enable increased TMWRF discharges to the Truckee River, and ensure the future sustainability of the river.	WC, Reno, Sparks	TMWA, WRWC
14	9.5.E	9.3.1.A 9.3.1.D 9.3.2.B			Expand Reclaimed Water Resources Benefits	Develop cooperative management strategies among local governments, reclaimed water providers and water purveyors that maximize the benefits of available reclaimed water resources to the Truckee Meadows community.	WC, Reno, Sparks	TMWA, WRWC
15	9.5.F				Monitor Plan Area Growth Projections	Monitor existing and future water demand and planning area growth projections, and develop plans to resolve any major discrepancies in consideration of available water resources and geographic constraints.	TMWA, WC, NNWPC	TMRPA, WRWC
16	9.6.A		LUP	ALL	Strengthen Linkages between TMRP and RWP	Continue working with TMRPA staff to strengthen appropriate linkages between the Regional Plan and the Regional Water Plan.	WRWC, TMRPA	
17	9.6.B				Review TMSA Boundaries and Revise Facility Plans	Review areas within the TMSA Boundary for gaps in facility planning and develop a plan to respond to changes in land use and the TMSA that affect current facility plans.	Reno, Sparks, TMWA, WC,	TMRPA, WRWC
18	9.6.C				Future Water Demands and Wastewater Flows	Coordinate with other entities on the development of a GIS parcel based tool that can be used to estimate potential water demands and wastewater flows based on approved land use.	WRWC, TMRPA	Reno, Sparks, WC, TMWA
19	9.6.D				Future Water Demands and Wastewater Flows	Coordinate with local land use planning agencies to address rural groundwater basin imbalances.	WC	TMWA, WRWC

Categories:
MWR - Municipal Water Resources
CON - Water Conservation
WW - Wastewater Management
SW - Storm Water
SEP - Septic Systems and Water Quality
SWMP - Storm Water Management Program
WR - Water Rights
LUP - Land Use Planning

Locations:
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STM - South Truckee Meadows
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LTR - Lower Truckee River
ALL - All Areas

Agencies:
TMWA - Truckee Meadows Water Authority
WC - Washoe County
Reno - City of Reno
Sparks - City of Sparks
WC - Washoe County
WCDHD - Washoe County District Health Department
TMRPA - Truckee Meadows Regional Planning Agency
TRFMA - Truckee River Flood Management Agency

BOR - Bureau of Reclamation
DRI - Desert Research Institute
SV - Sun Valley General Improvement District
STM - South Truckee Meadows General Improvement District

April 2016 Priority Ranking by Category and Project

Category/Projects	Total Votes (T)	Number of Projects (N)	Priority Ranking (T/N)
Regional Wastewater Planning	26	3	8.7
<i>N & P Reduction in Watershed</i>	13		
<i>Water Quality Standards and TMDL Review, and Compliance</i>	9		
<i>Septic System Mitigation Planning</i>	4		
Regional Reclaimed Water Planning	13	2	6.5
<i>Integrated Wastewater and Reclaimed Water System Planning</i>	8		
<i>Bedell Flat Infiltration</i>	5		
Regional Storm Water Planning	18	3	6.0
<i>Watershed Management Plan Update</i>	7		
<i>NPDES Storm Water Quality Management Program</i>	6		
<i>NPDES Storm Water Permit Update</i>	5		
Regional Water Planning	19	5	3.8
<i>Climate Variability Data Assessment</i>	5		
<i>TROA 6700 AF Water Rights Requirement</i>	5		
<i>Restoration Investments in the Truckee Watershed</i>	5		
<i>Regional Precipitation Monitoring</i>	2		
<i>Highland Canal Water Quality Project</i>	2		
Regional Conservation Planning	17	5	3.4
<i>Cloud Seeding Monitoring</i>	5		
<i>Water Usage Review Program</i>	5		
<i>Cloud Seeding</i>	4		
<i>Washoe ET Project</i>	2		
<i>Certified Landscape Technician Program</i>	1		
Regional Flood Planning	0	0	0

April 2016 Priority Ranking by Project

Projects	Total Votes
<i>N & P Reduction in Watershed</i>	13
<i>Water Quality Standards and TMDL Review, and Compliance</i>	9
<i>Integrated Wastewater and Reclaimed Water System Planning</i>	8
<i>Watershed Management Plan Update</i>	7
<i>NPDES Storm Water Quality Management Program</i>	6
<i>Bedell Flat Infiltration</i>	5
<i>NPDES Storm Water Permit Update</i>	5
<i>Climate Variability Data Assessment</i>	5
<i>TROA 6700 AF Water Rights Requirement</i>	5
<i>Restoration Investments in the Truckee Watershed</i>	5
<i>Cloud Seeding Monitoring</i>	5
<i>Water Usage Review Program</i>	5
<i>Septic System Mitigation Planning</i>	4
<i>Cloud Seeding</i>	4
<i>Regional Precipitation Monitoring</i>	2
<i>Highland Canal Water Quality Project</i>	2
<i>Washoe ET Project</i>	2
<i>Certified Landscape Technician Program</i>	1
Total	93