

WESTERN REGIONAL WATER COMMISSION ("WRWC")
AGENDA
Friday, February 10, 2012 @ 1:30 p.m.
Sparks Council Chambers, Legislative Building
745 Fourth St., Sparks, Nevada

NOTICE OF POSSIBLE QUORUM OF THE BOARD OF DIRECTORS OF THE TRUCKEE MEADOWS WATER AUTHORITY ("TMWA"), BOARD OF COUNTY COMMISSIONERS OF WASHOE COUNTY ("BCC"), AND BOARD OF TRUSTEES OF THE SOUTH TRUCKEE MEADOWS GENERAL IMPROVEMENT DISTRICT ("STMGID")

(See 'Notes')

Notes: Because several of the WRWC Trustees are also members of the Board of Directors of TMWA, it is possible that a quorum of the TMWA Board may be present. Such members will not take action at this meeting as members of the TMWA Board, but may take action solely in their capacity as WRWC Trustees. A quorum of the BCC and STMGID may also be in attendance but will not be taking action.

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, or delayed for discussion at any time. Arrive at the meeting at the posted time to hear item(s) of interest.
4. 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 834-8002 no later than 24 hours prior to the meeting.
5. 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), Sparks Justice Court (630 Greenbrae Dr.), Sun Valley GID (5000 Sun Valley Blvd.), TMWA (1355 Capital Blvd.), Washoe County Administration Building (1001 E. 9th Street), Washoe County Clerk's Office (Court and Virginia Streets), Washoe County Central Library (301 South Center St.), Washoe County Department of Water Resources (4930 Energy Way), Galena Market (19990 Thomas Creek Rd.), Galena High School (3600 Butch Cassidy Way), South Valleys Library (15650A Wedge Parkway), and the WRWC website: <http://www.wrwc.us>

1. Roll Call and Determination of presence of a Quorum*
2. Pledge of Allegiance*
3. Public comment — limited to no more than three minutes per speaker*
4. Approval of Agenda **(for possible action)**
5. Approval of the minutes of the November 16, 2011 meeting **(for possible action)**
6. Election of Chairman, Vice-Chairman, Secretary and Treasurer for the 2012 calendar year – Jim Smitherman, WRWC Water Resources Program Manager **(for possible action)**

7. Report by the Desert Research Institute ("DRI") on its Cloud Seeding Operations for the Truckee River and Lake Tahoe Basins for the past water year, and status of its Cloud Seeding Coalition efforts; discussion and possible approval of funding in an amount not to exceed \$100,000 from the Regional Water Management Fund ("RWMF") to support similar Cloud Seeding Operations for the upcoming water year; and, if approved, authorize the Chairman to execute an Interlocal Agreement with DRI for that purpose – Arlen Huggins, DRI **(for possible action)**
8. Discussion and possible designation of Schettler, Macy & Silva, LLC as the WRWC's external auditors for the Fiscal Year 2011-2012 financial statement audit – Ben Hutchins, Washoe County **(for possible action)**
9. Report on TMWA's Water Usage Review Program for 2010 and 2011; discussion and possible approval of a funding in the amount of \$126,470 from the RWMF for the 2011 and 2012 Water Usage Review Program; and, if approved, authorize the Chairman to execute an Interlocal Agreement with TMWA for the 2012 Program – Lora Richards, TMWA **(for possible action)**
10. Report on responses to the Request for Qualifications for a groundwater management study to identify strategies and potential funding mechanisms to address regional groundwater quality and quantity issues, including nitrate concentrations related to septic tanks; discussion and possible approval of funding in an amount not to exceed \$60,000 from the RWMF for the study; and, if approved, authorize the Chairman to execute an Agreement with the selected consultant for that purpose – Chris Wessel, NNWPC Water Management Planner **(for possible action)**
11. Presentation on membership and proposed 2012 meetings of the Legislative Committee to Oversee the WRWC ("LOC"); discussion and possible direction to staff regarding the LOC meeting set for February 24, 2012 – Rosemary Menard, Washoe County **(for possible action)**
12. Discussion and possible direction to staff regarding agenda items for the March 9, 2012 meeting and other future meetings **(for possible action)**
13. Commission Comments*
14. Staff Comments*
15. Public comment — limited to no more than three minutes per speaker*
16. Adjournment **(for possible action)**

WESTERN REGIONAL WATER COMMISSION BOARD OF TRUSTEES **DRAFT** MINUTES

Wednesday, November 16, 2011

The regular meeting of the Western Regional Water Commission (WRWC) Board of Trustees was held on Wednesday, November 16, 2011, at Sparks Council Chambers, 431 Prater Way, Sparks, Nevada.

- 1. Roll Call and Determination of presence of a Quorum** – Chairman Carrigan called the meeting to order at 9:30 a.m. There was a quorum present.

Commissioners Present:

Mike Carrigan, Chair
Dave Aiazzi
Bob Cashell
Geno Martini
Margaret Reinhardt
Ron Smith

Representing:

Truckee Meadows Water Authority (TMWA)
City of Reno
Truckee Meadows Water Authority
Truckee Meadows Water Reclamation Facility (TMWRF)
Sun Valley General Improvement District (SVGID)
City of Sparks

Commissioners Absent:

Bob Larkin, Vice-Chair
John Breternitz
Steve Cohen

Representing:

Washoe County
Truckee Meadows Water Authority
South Truckee Meadows General Improvement District (STMGID)

- 2. Pledge of Allegiance**

Chairman Carrigan asked Commissioner Martini to lead the Western Regional Water Commission in the Pledge of Allegiance.

- 3. Public Comment**

Chairman Carrigan called for public comments and hearing none, closed the public comment period.

- 4. Approval of Agenda**

Commissioner Martini made a motion to approve the November 16, 2011 WRWC agenda as posted. Commissioner Smith seconded the motion, which carried unanimously.

- 5. Approval of the Minutes of the June 10, 2011 meeting.**

The minutes of the June 10, 2011 Western Regional Water Commission meeting were submitted for approval. Commissioner Smith made a motion to approve the minutes as submitted. Commissioner Martini seconded the motion, which carried unanimously.

- 6. Discussion and possible approval of the WRWC fiscal year 2010/11 Financial Statements and audit opinion — Zeth Macy, CPA, partner in Schettler, Macy & Silva, LLC**

Ben Hutchins, Finance & Customer Services Manager for Washoe County Department of Water Resources, invited Zeth Macy, CPA, partner in Schettler, Macy & Silva, LLC, to present this item. Mr. Macy stated that he enjoys working with Mr. Hutchins and the WRWC. He referred to WRWC Financial

Statements that were included in the agenda packet. He summarized that revenues were approximately \$1.38 million; expenditures were approximately \$1.39 million; for an ending fund balance of \$3,475,715.

Commissioner Smith made a motion to accept the report. Commissioner Aiazzi seconded the motion, which carried unanimously.

7. Discussion and possible approval of a Second Amendment to the Agreement for Legal Services for the WRWC and the NNWPC, to extend the term of the Agreement and provide for an additional reduction in attorney compensation; and, if approved, authorize the Chairman to execute the Amendment — Jim Smitherman, WRWC Water Resources Program Manager, and John Rhodes, WRWC Legal Counsel

Chairman Carrigan invited Mr. Rhodes or Mr. Smitherman to present this item. Mr. Smitherman reported that the Northern Nevada Water Planning Commission (NNWPC) reviewed this item and made a recommendation for approval by the WRWC. He added that Rhodes Law Office has served as legal counsel for the NNWPC and WRWC since 2008.

Mr. Smitherman stated that this proposal is for a three-year amendment, which can be terminated by either party with 30 days notice. He added that the two-year contracts seem to pass quickly so he suggested three years. He stated that Mr. Rhodes proposed a 10% decrease in his compensation, in line with County salary reduction proposals.

Commissioner Martini made a motion to approve the proposed Amendment No. 2 with Rhodes Law Office to continue to provide legal services to the NNWPC and the WRWC, and authorize the Chairman to execute the Amendment. Commissioner Smith seconded the motion, which carried unanimously.

8. Discussion and possible direction to staff regarding proposed purchase of general and public officials liability insurance coverage for the WRWC; and, if approved, authorize Jim Smitherman to complete the application process and obtain the insurance with coverage in the amount of \$1,000,000 — John Rhodes

Commissioner Martini asked if this is a new item. Mr. Rhodes stated it is and recommended that the WRWC obtain liability insurance. He solicited quotes from Wells Fargo insurance brokers, Brandon Lewis and Gary Roberts. A quote was provided for \$1 million in coverage and another for an additional \$1 million.

Chairman Carrigan asked for the record, what the policy would cover. Mr. Lewis reported that the policy provides:

- General liability for bodily injury and property damage
- Professional liability for “wrongful acts”, which is similar to errors and omissions for private firms – It would cover allegations of misstatement, error, omission, neglect or breach of duty. It does not cover property damage.
- The policy provides coverage for the limited amount of property the WRWC owns, which basically consists of servers for the website.
- It covers hired and non-owned automobile liability for the commission and board members. If a commissioner were driving his/her own automobile on behalf of the commission; if an accident and lawsuit occurred and it was found that the driver was driving on behalf of the WRWC, coverage would be provided.

Commissioner Martini stated that he is covered by City of Sparks and represents Sparks on the WRWC. He asked if this insurance would cover him in case of an accident. Mr. Rhodes stated that he believes Risk Management would determine that since Commissioner Martini was statutorily appointed to the WRWC, although representing Sparks, the WRWC would be responsible for coverage. Mr. Rhodes stated that this policy would prevent that argument from arising.

Mr. Lewis reported that in general, the coverage in place for Reno, Sparks and Washoe County, does not automatically cover an outside board (or legal entity).

Chairman Carrigan asked about the cost. Mr. Rhodes stated that the initial policy would cost just over \$2,000 and the policy with an additional million dollars in coverage would cost just over \$3,000.

Commissioner Aiazzi asked questions about coverage if he is representing Reno, but driving to a meeting of the WRWC, followed by a meeting of the TMWA Board. Mr. Lewis stated that his own auto insurance would be primary. Commissioner Aiazzi stated that his insurance rate would still increase and asked how this policy would help him. Mr. Lewis offered to check into further benefits of the policy if desired. Mr. Rhodes stated that the policy says it would cover over what is covered privately.

Commissioner Cashell made a motion to approve the policy for \$2 million. Commissioner Martini seconded the motion, which carried unanimously.

9. Report on amendments to the Open Meeting Law made by the 2011 Nevada Legislature — John Rhodes.

Mr. Rhodes stated that the two bills supported by the WRWC presented by the Legislative Committee to Oversee the WRWC (LOC) were Assembly Bills (AB) 257 and AB 59. He explained that both passed.

Mr. Rhodes stated that under the ethics bill, AB 59, each member of a public body who attends a meeting of that public body, where action is taken in any violation of a provision of Open Meeting Law, he or she is subject to a civil penalty in an amount not to exceed \$500; however, it was amended that the violator must have knowledge of the violation. Chairman Carrigan asked if the new laws apply to the legislature. Mr. Rhodes stated they do not.

10. Discussion and possible direction to staff regarding agenda items for the December 2011 meeting and future meetings.

Chairman Carrigan asked if pending items were scheduled for the December meeting. Mr. Smitherman stated that Desert Research Institute (DRI) is ready to present an update on the cloud seeding program with a request for continued funding. He stated that if desired, the presentation could be scheduled in January. He offered to provide an update on work he is doing with the Truckee Meadows Regional Planning Agency on growth projection models.

Chairman Carrigan suggested cancelling the December meeting, with the next meeting to be scheduled in January 2012.

11. Commission Comments

None

12. Staff Comments

Rosemary Menard provided an update on the Interim Oversight Committee for the WRWC. She explained that the Act required oversight for three interims, next year being the third. She stated that the members include Senator Lee, Senator Gustafson, Senator Schneider, Assemblywoman Benitez-Thompson, Assemblyman Daly, and Assemblyman Goicoechea. She added that Pat Guinan would serve as staff for the committee. She stated that a meeting would probably be scheduled in February 2012, followed by a workshop in August.

She stated that many of the legislators are new to the process.

13. Public Comment

Chairman Carrigan called for public comments and hearing none, closed the public comment period.

14. Adjournment

With no further business, the meeting was adjourned at 9:52 a.m.

Respectfully submitted by,

Niki Linn, Recording Secretary

Approved by Commission in session on _____ 2011.

Mike Carrigan, Chairman

Note: DRAFT Minutes not approved by Board.

Western Regional Water Commission

STAFF REPORT

DATE: February 1, 2012

TO: Chairman and Members, Western Regional Water Commission

FROM: Jim Smitherman, Water Resources Program Manager

SUBJECT: Election of Chairman, Vice-Chairman, Secretary and Treasurer for the 2012 calendar year.

SUMMARY

Chapter 531, Statutes of Nevada 2007, Section 27.1, provides that “The Board shall elect one of its members as Chairman and one of its members as Vice Chairman, and shall elect a Secretary and a Treasurer, who may be members of the Board. The Secretary and the Treasurer may be the same person. The terms of the officers expire on December 31 of each year.”

PREVIOUS ACTION

On January 14, 2011, the WRWC Board Members elected the following officers:

Mike Carrigan, Chairman
Bob Larkin, Vice-Chairman
Margaret Reinhardt, Secretary
Steve Cohen, Treasurer

On January 8, 2010, the WRWC Board Members elected the following officers:

Mike Carrigan, Chairman
Bob Larkin, Vice-Chairman
Patricia Lancaster, Secretary
Steve Cohen, Treasurer

On January 9, 2009, the WRWC Board Members elected the following officers:

Mike Carrigan, Chairman
Dave Aiazzi, Vice-Chairman
Patricia Lancaster, Secretary

Steve Cohen, Treasurer

On April 11, 2008, the WRWC Board Members elected the following officers:

Mike Carrigan, Chairman

Dave Aiazzi, Vice-Chairman

Jim Ainsworth, Secretary

Steve Cohen, Treasurer

JS:jd

Western Regional Water Commission

STAFF REPORT

DATE: February 2, 2012

TO: Chairman and Members, Western Regional Water Commission

FROM: Jim Smitherman, Water Resources Program Manager

SUBJECT: Report by the Desert Research Institute ("DRI") on its Cloud Seeding Operations for the Truckee River and Lake Tahoe Basins for the past water year, and status of its Cloud Seeding Coalition efforts; discussion and possible approval of funding in an amount not to exceed \$100,000 from the Regional Water Management Fund ("RWMF") to support similar Cloud Seeding Operations for the upcoming water year; and, if approved, authorize the Chairman to execute an Interlocal Agreement ("ILA") with DRI for that purpose

SUMMARY

On December 7, 2011, the Northern Nevada Water Planning Commission ("NNWPC") received a report from DRI on its cloud seeding operations for the 2010-2011 water year and its efforts to form a cloud seeding coalition to establish broader-based funding and support for the program. DRI also presented a proposal (attached) for the 2011-2012 water year including a request for \$100,000 from the RWMF. The NNWPC unanimously approved a motion to recommend that the WRWC approve the budgeted funding (\$100,000 from the RWMF) to continue the cloud seeding program.

The DRI cloud seeding budget for the 2011-2012 water year is \$254,815. The WRWC budget for FY 2011-2012 includes \$100,000 for the cloud seeding program. Late last year, the Truckee River Fund ("TRF") awarded \$154,815 to DRI for the proposed project, having been made aware of the WRWC budget amount.

Mr. Arlen Huggins, DRI Project Manager, will be available to provide a presentation and answer questions.

BACKGROUND

DRI funding cuts three years ago affected its cloud seeding operations such that outside financing was necessary to continue the program. Beginning in 2009, the RWMF helped pay for cloud seeding operations during water years 2009-2010 and 2010-2011

PREVIOUS ACTION

On September 10, 2010, the WRWC unanimously approved an amount not to exceed \$100,000 from the RWMF to support cloud seeding operations for the upcoming water year and authorized the Chairman to execute an Interlocal Agreement with DRI for that purpose.

On November 13, 2009, the WRWC unanimously approved funding up to a maximum of \$45,000 from the RWMF, which could be reduced by successful efforts of the cloud seeding coalition to raise funds.

FISCAL IMPACT

The fiscal impact to the RWMF, should this item be approved, will be \$100,000. Budget authority is located in Fund Group 766, Fund 7066, Account Number 710100, Professional Services, Cost Object WP310100.

RECOMMENDATION

The NNWPC recommends that the WRWC approve the budgeted funding of \$100,000 from the RWMF to continue the cloud seeding program, and authorize the Chairman to execute an Interlocal Agreement with DRI for that purpose.

JS:jd



Proposal and Scope of Work

Cloud Seeding Project for the Tahoe and Truckee Basins for WY2012

Submitted to

**Mr. Jim Smitherman
Water Resources Program Manager
Western Regional Water Commission
4930 Energy Way
Reno, NV 89502**

By

**Desert Research Institute
2215 Raggio Parkway
Reno, NV 89511**

**Project Contact: Mr. Arlen Huggins, Project Manager
Associate Research Scientist
775-674-7140
Arlen.Huggins@dri.edu**

FY2012 Truckee River Fund Project Goals and Measurable Outcomes

The goal of this project is to enhance snowfall from winter storms and to increase the snowpack of the Tahoe and Truckee Basins through the application of wintertime cloud seeding technology. This goal is consistent with the mission of the Truckee River Fund; “to protect and enhance water quality or water resources of the Truckee River or its watershed”. The enhanced snowfall from cloud seeding is in fact expected to enhance the water supply of the Truckee River System. The well above normal snowpack during the 2011 water year (WY2011) greatly improved water supplies on the Truckee River System. On 1 September 2011 Lake Tahoe was about three feet above average, and water storage was about 150% of average. This situation is in sharp contrast to the fall of 2010 when there was almost no storage in the lake going into the winter. A continuation of the cloud seeding effort will help maintain ample water storage for the entire Truckee River system, a situation that is of benefit now and in the future when snowfall is again below normal. Results from carefully conducted experiments in the Sierra Nevada and other mountainous regions in the western U. S. have shown that snowfall can be increased by 5-15% annually in the specific basins targeted by cloud seeding operations. Past environmental assessments have all indicated that no negative impacts to watersheds are produced by cloud seeding operations.

The primary measureable outcome of the project will be an estimate of the enhancement in snow water computed for each seeded storm period, and for the entire winter season, based on the hours of seeding, the amount of seeding material released, the expected increase in precipitation rate, and the average areal coverage of the fallout from each seeding site. Historical research results from ground-based cloud seeding projects have documented the hourly increases in precipitation rate due to seeding to be in the range of a few hundredths to greater than 2 mm per hour. As a conservative estimate of the effect for the Tahoe-Truckee project a value of 0.25 mm per hour will be used in the enhancement estimates. Prior estimates from the DRI state program yielded snow water increases ranging from 8,000 to 30,000 acre-feet, an annual average of about 14,145 acre-feet over the past 14 seasons. The TRF-sponsored project in WY2011 resulted in an estimated snow water increase of 11,120 acre-feet, somewhat below the annual average due to the suspension of seeding as a result of the above normal snowpack.

Project location

The WY2012 proposal focuses on a cloud seeding effort for the Tahoe Basin and the Truckee River Basin where DRI conducted seeding for the state of Nevada for more than 25 years. Figure 1 shows the location of the project. The red-shaded region approximately encloses the cloud seeding target area for the two basins. The DRI ground-based cloud seeding generator (CSG) sites used in WY2011 are shown as yellow squares. A new site is planned for WY2012 at the location marked by the purple triangle which if used would replace the northernmost site from 2011. A conceptual seeding plume with a southwest wind is depicted by the blue lines starting from the Barker CSG site. The blue shaded area over the Carson Range shows a probable impact area for “seeded” snowfall from the Barker site. Trace chemical analyses of snow samples from the blue shaded area in 2004 and 2005 showed that 34-52% of the samples contained enhanced concentrations of silver (Huggins et al, 2006), indicative of snow frequently being created by cloud seeding with AgI.

Scope of Work for the TRF-WRWC Project

The work to be performed on this project is described below. Although the project is being funded by two separate sponsors the work in each phase is the same. The project budget indicates how the funding will be partitioned between the TRF and the Western Regional Water Commission (WRWC).

The project design and method of operation will be the same as those used for the TRF project conducted in WY2011. Seeding will be conducted from a line of five ground-based CSGs positioned on, or a few miles upwind of, the main Sierra Nevada crest to the west of Lake Tahoe (Fig. 1). The generators have been positioned to take advantage of the generally southwest wind directions in winter storms in the Tahoe area, and are remotely activated by DRI staff when the proper weather and cloud conditions for seeding have been verified.

Ground-based cloud seeding is based on the following sequence of events. The seeding material is silver iodide (AgI). The seeding “generators” burn a solution containing AgI dissolved in acetone. The burning process produces a “smoke” of microscopic AgI particles (about 0.0001 mm is size) that are transported downwind and dispersed into clouds over the mountains. Vertical dispersion up to at least 2000 feet above the surface is produced by the turbulence created by wind moving over the uneven terrain. In the presence of cloud droplets existing at temperatures below -5°C the silver iodide particles act as ice-forming nuclei and enhance the ice particle concentration in the natural clouds. Once initiated by silver iodide the ice particles grow in size and mass as they move downwind and begin falling to the surface when they have sufficient mass to overcome the upward motion in the clouds. In the time frame of 20 to 30 minutes snowfall within a seeding plume can reach the surface in and around the Tahoe Basin. This “chain-of-events” in the cloud seeding process has been verified by numerous detailed experiments conducted in the Sierra Nevada and other mountainous regions of the western U.S. (Huggins, 2009).

Phase 1 of the project will include preparation of the five seeding generators at the locations shown in Fig. 1. This will require several weeks, and involves one new installation at a site yet to be determined; but potentially at or near the Phillips site in Fig. 1. The Barker generator which is always removed in the spring will be reinstalled, and the Bunker generator which is being replaced with a rebuilt unit will be reinstalled. Phase 1 also includes refilling the seeding solution tanks, refilling propane tanks, and testing all generator components and communications links. Generators will be filled with a minimum of 100 gallons of solution, which allows for about 250 hours of seeding per unit, or 1250 hours of seeding per season. Because seeding operations were curtailed prematurely in WY2011 some solution will be remaining in the tanks at most sites, so generators will likely have in excess of 100 gallons to begin the season.

The meteorological forecasts and observations needed to conduct the project are available either

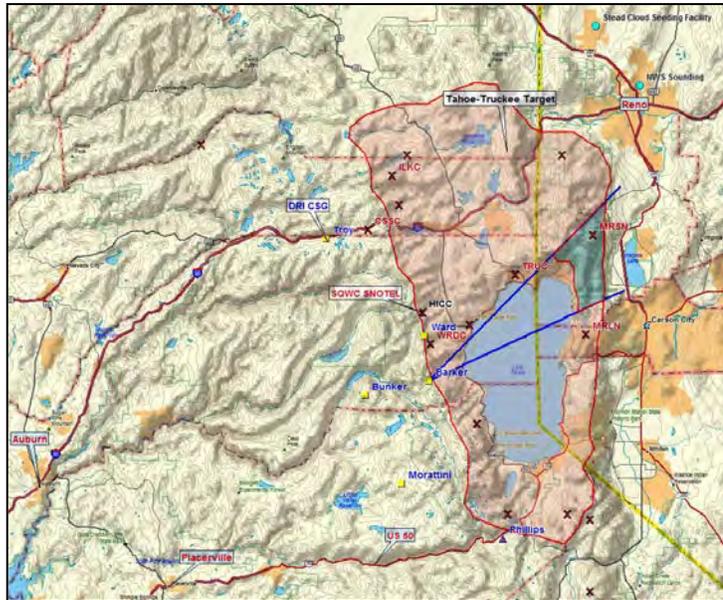


Figure 1. Map of the area surrounding Lake Tahoe showing the DRI cloud seeding target area (red shaded area). Cloud seeding generator (CSG) sites are shown as yellow squares. A new site for WY2012 is marked with a purple triangle and labeled Phillips. Blue lines and hatched area is explained in Section 2. Snow and precipitation monitoring sites (NRCS SNOTEL network) are shown as red Xs. Various weather, snow and precipitation monitoring sites are shown as red Xs.

through the DRI Western Regional Climate Center or through public web-based weather data links. These data links are combined in a special cloud seeding weather web page (<http://cloudseeding.dri.edu/Weather/>) that will be revised as needed for the 2011-12 season. The DRI cloud seeding web page was redesigned in 2010 to focus on several Nevada projects including the Tahoe-Truckee project. Water year snow conditions and the progress of seeding operations for the Tahoe area can also be monitored throughout the winter at the following site: http://cloudseeding.dri.edu/Operations/tahoe_truckee.php. All operational guidelines, safety restrictions and suspension criteria for the project have previously been developed and can also be found on the DRI cloud seeding web site at: <http://cloudseeding.dri.edu/>. These guidelines specify the cloud conditions, wind and temperature conditions in which a seeding operation can be initiated, and also specify certain hazardous weather conditions (such as potential flooding situations) during which no seeding can be done. A new forecast form is being designed for WY2012, and this form will also be made available through a link on the cloud seeding weather page.

Phase 2 of the project will involve the actual cloud seeding operations, beginning on or somewhat before 15 November 2011. In Phase 2 the project manager will begin monitoring the weather and making forecasts for seeding events to be expected within three to five days. A second DRI meteorologist will assist the project manager to ensure that 24/7 operations can be conducted. As a storm begins to affect the Tahoe region cloud and weather conditions will be monitored more frequently to determine when seeding criteria are satisfied. When one of the meteorologists determines that conditions for conducting a seeding operation are satisfied, seeding will commence using the remotely controlled CSG communication network. The Tahoe communication links are internet-based and a generator can be started from any computer with internet access. Seeding commences when all pre-established seeding criteria are met, and continues until conditions in the storm fail to meet the criteria. Based on prior experience in the Tahoe region, 15 to 30+ seeding events can be expected during the period from mid-November through mid-April, the 5-month period proposed for Phase 2 of this project. In WY2011 there were a total of 23 separate seeding events, less than half the number conducted in WY2011 due to the suspensions invoked in December, March and April. The end date for Phase 2 could occur sooner if generators run out of solution or other expendable supplies. The DRI technical staff will monitor and maintain seeding generators throughout the operational period.

Phase 3 of the project will begin on 1 May and includes the documentation of weather events to verify that seeding occurred during optimal time periods. Each period will be evaluated and a seedability factor will be applied to quantify the fraction of time when seeding was potentially effective. The estimates of snow water enhancement will be made and adjusted by the seedability factor. A report on project operations, including the measureable outcome, will be completed as part of the 3rd Quarterly Report for the project. Phase 3 also includes the removal of seeding units as dictated by some of the Forest Service special use permits. Removal of generators is only possible after snow has melted and the roads to the sites become useable. In some years this can be mid- to late July (as occurred in 2011). Phase 3 will be extended to 30 September 2012 to allow time for all generators to be checked for problems, and repaired as needed either in the field or at the Stead, Nevada Cloud Seeding Facility.

Permitting

One new cloud seeding site is being planned. The site may or may not require a permit. We prefer a non-federal site that can be secured by mid-October 2011. If the process is delayed past mid-October we will use an old site which has already been permitted.

Future phases

As evidenced by the lengthy duration of the previous state-funded cloud seeding program, and by the likelihood that water resources in northern Nevada will frequently be below normal, the Tahoe-Truckee project could be an ongoing one. To date funding sources for seeding projects within the State of Nevada include Southern Nevada Water Authority in northeast Nevada and the U.S. Bureau of Reclamation in the Walker Basin. As indicated in the budget for this proposal the cost share portion of the budget will come from the Western Regional Water Commission, and also possibly from the Heavenly Valley Ski Resort. In addition to ski resorts, the Truckee Carson Irrigation District, and other Washoe County agencies could be contributors to the project in future years.

Principals involved

The project will be managed by Mr. Arlen Huggins, an Associate Research Scientist with the Division of Atmospheric Sciences at DRI. Mr. Huggins managed the Nevada Program for 13 years and has worked in the field of weather modification research and operations for more than 30 years.

Staff positions involved

The project involves five part-time positions, a project manager (Huggins) at 0.17 FTE, a meteorologist (Fearon) at .125 FTE, and three field technicians (Swafford, Dean and Orr) at 0.25 FTE each, for a total of 1.045 FTE.

Volunteers involved

DRI anticipates no volunteer involvement in the project.

Time Line

Start Phase 1: 15 Oct 2011, or as soon as a contract is signed. Delay could preclude some equipment installations due to early snowfall making roads impassable.

End Phase 1: 1-15 Nov 2011. All seeding generators are installed, tested and ready for use. Bad weather could produce delays, but testing and other work can be done if units have been installed. All web-based computer products are ready for use in Phase 2.

Start Phase 2: 15 Nov 2011. Cloud seeding occurs as storm conditions dictate. Cloud seeding equipment is monitored and maintained as needed. A log of seeding operations is maintained and the weather data needed to assess operations are archived. The cloud seeding update page is revised on a weekly basis.

End Phase 2: 15 April 2012. The 1st and 2nd Quarterly Reports have been completed. This is the approximate end of the operational cloud seeding period.

Start Phase 3: 1 May 2012. Weather data are analyzed to assess the seeding operations. Estimates of water augmentation from seeding operations are made. The 3rd Quarterly Report is completed by 10 July 2012.

End Phase 3: 30 Sept 2012. All seeding equipment has been checked and repaired as needed. The Final Report is submitted in the latter part of October 2012.

Project Budget

The total project budget is shown below. The WRWC portion of the budget (\$100,000) is itemized in the center of the three main budget columns. The WRWC budget will be used to cover about 45% of personnel costs and 21% of the project operating costs. The TRF requested a quarterly billing and

reporting system for the FY12. Unless the WRWC has an alternative request we will follow the same quarterly reporting and billing for our contract with the WRWC. The billing for TRF is also being done on a cost reimbursable basis each quarter, and we will also follow this method for the WRWC.

Desert Research Institute						
Title: Cloud seeding project for Tahoe and Truckee Basins for WY2012						
Sponsors: Community Foundation of Western Nevada (Truckee River Fund) and Western Regional Water Commission						
Option 2 with one Grant Match Source						
	Rate	Truckee River Fund		Grant Match WRWC		Total Project
		Units	Amount	Units	Amount	Amount
Personnel Costs						
Huggins, A. (Project Manager)	\$159.48	80	\$12,758	225	\$35,883	\$48,641
Fearron, M. (Meteorologist)	\$93.57	124	\$11,603	125	\$11,696	\$23,299
Swafford, T.	\$109.88	338	\$37,139	160	\$17,581	\$54,720
Dean, J.	\$84.93	338	\$28,706	160	\$13,589	\$42,295
Orr, J.	\$53.87	338	\$18,208	160	\$8,619	\$26,827
Total Personnel Costs			\$108,414		\$87,368	\$195,782
Operating Costs						
DRI 4x4 vehicle expenses (per month)	\$364.00	10	\$3,640	2	\$728	\$4,368
Fuel	\$3.75	550	\$2,063	50	\$188	\$2,251
Cloud Seeding Solution (55 gal mix)	\$4,256	7.27	\$30,953	1.95	\$8,299	\$39,252
Propane and nitrogen	\$1,060	4	\$4,240	1	\$1,060	\$5,300
Wireless Comm	\$35	24	\$840	12	\$420	\$1,260
Generator Parts	\$500	4	\$2,000	1	\$554	\$2,554
Heavenly Wx Station	\$12,000	0	\$0	0	\$0	\$0
Land use fee	\$500	0	\$0	1	\$500	\$500
Snowmobile expenses	\$300	2	\$600	0	\$0	\$600
Shop equipment expenses	\$250	4	\$1,000	1	\$250	\$1,250
Total Operating Costs			\$45,336		\$11,999	\$57,335
Other Direct Costs						
General supplies			\$171		\$279	\$450
Copying/Communications			\$894		\$354	\$1,248
Total Other Direct Costs			\$1,065		\$633	\$1,698
TOTAL COST			\$154,815		\$100,000	\$254,815

Western Regional Water Commission

Staff Report

DATE: January 27, 2012

TO: Chairman and Members, Western Regional Water Commission ("WRWC")

FROM: Ben Hutchins, Finance & Customer Services Manager,
Washoe County Department of Water Resources

SUBJECT: Discussion and possible designation of Schettler, Macy & Silva, LLC as the WRWC's external auditors for the Fiscal Year 2011/12 financial statement audit.

SUMMARY

Schettler, Macy & Silva, LLC has performed the WRWC audit for the past three fiscal years. Staff is recommending that WRWC designate Schettler, Macy & Silva, LLC as the auditor for fiscal year 2011/12, approve the engagement Letter, and direct staff to report this designation to the State of Nevada by the March 31, 2012 deadline.

PREVIOUS ACTION

On February 11, 2011 the Commission selected Schettler, Macy & Silva, LLC as the external auditors for fiscal year ended June 30, 2011.

On April 9, 2010 the Commission ratified the WRWC Program Manager's designation of Schettler, Macy & Silva, LLC as the external auditors for fiscal year ended June 30, 2010.

On March 13, 2009 the Commission selected Schettler, Macy & Silva, LLC as the external auditors for fiscal year ended June 30, 2009.

BACKGROUND

Nevada Revised Statutes require the selection of external auditors to be made and communicated to the State no later than March 31st of each year. In keeping with this deadline, staff secured an engagement letter and price proposal from Schettler, Macy & Silva, LLC since they performed the audit for the past three fiscal years.

For the first two years Schettler, Macy & Silva, LLC charged a fee of \$7,800 to perform the annual audit. Their audit fee for fiscal year 2010/11 was \$8,000 and their audit fee proposal for fiscal year 2011/12 is a not-to-exceed amount of \$8,300. This fee is much lower than another audit firm that submitted a proposal for the 2008/09 audit (\$14,000 - \$15,300). Since they have performed the audits during the last three years in a professional and cost effective manner, and are proposing only a modest fee increase for the 2011/12 audit, staff recommends that WRWC designate Schettler, Macy & Silva, LLC as the external auditors for fiscal year ending June 30, 2012.

FISCAL IMPACT

The proposal received from Schettler, Macy & Silva, LLC indicates audit services would be billed based on their standard hourly rates, plus out-of-pocket costs, with a not-to-exceed total fee of \$8,300.

RECOMMENDATION

Staff recommends that the WRWC designate Schettler, Macy & Silva, LLC as the external auditors for fiscal year ending June 30, 2012, approve the related Engagement Letter, and direct staff to report the designation to the State by the statutory deadline.

POSSIBLE MOTION

Should the Commission agree with the above recommendation, a suggested motion is: "Move to designate Schettler, Macy & Silva, LLC as the WRWC's external auditors for Fiscal Year ending 2011/12, approve the related Engagement Letter, and direct staff to report the designation to the State by the statutory deadline."

January 10, 2012

Mr. Ben Hutchins, CPA
Western Regional Water Commission
c/o Washoe County Department of Water Resources
4930 Energy Way
Reno, NV 89502

Dear Ben,

We are pleased to confirm our understanding of the services we are to provide the Western Regional Water Commission (WRWC) for the year ended June 30, 2012. We will audit the financial statements of the governmental activities, each major fund, and the aggregate remaining fund information, which collectively comprise the basic financial statements of WRWC as of and for the year ended June 30, 2012. Accounting standards generally accepted in the United States provide for certain required supplementary information (RSI), such as management's discussion and analysis (MD&A), to accompany the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. As part of our engagement, we will apply certain limited procedures to WRWC's RSI in accordance with auditing standards generally accepted in the United States of America. These limited procedures will consist of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We will not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance. The following RSI is required by generally accepted accounting principles and will be subjected to certain limited procedures, but will not be audited:

- 1) Management's Discussion and Analysis
- 2) Budgetary Comparison Schedule

Audit Objectives

The objective of our audit is the expression of opinions as to whether your basic financial statements are fairly presented, in all material respects, in conformity with U.S. generally accepted accounting principles and to report on the fairness of the supplementary information referred to in the second paragraph when considered in relation to the financial statements as a whole. Our audit will be conducted in accordance with auditing standards generally accepted in the United States of America and the standards for financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States, and will include tests of the accounting records of WRWC and other procedures we consider necessary to enable us to express such opinions. If our opinions on the financial statements are other than unqualified, we will fully discuss the reasons with you in advance.

If, for any reason, we are unable to complete the audit or are unable to form or have not formed opinions, we may decline to express opinions or to issue a report as a result of this engagement.

We will also provide a report (that does not include an opinion) on internal control related to the financial statements and compliance with laws, regulations, and the provisions of contracts or grant agreements, noncompliance with which could have a material effect on the financial statements as required by *Government Auditing Standards*. The report on internal control and compliance will include a statement that the report is intended solely for the information and use of management, the body or individuals charged with governance, others within the entity, and specific legislative or regulatory bodies and is not intended to be and should not be used by anyone other than these specified parties. If during our audit we become aware that WRWC is subject to an audit requirement that is not encompassed in the terms of this engagement, we will communicate to management and those charged with governance that an audit in accordance with U.S. generally accepted auditing standards and the standards for financial audits contained in *Government Auditing Standards* may not satisfy the relevant legal, regulatory, or contractual requirements.

Management Responsibilities

Management is responsible for the basic financial statements and all accompanying information as well as all representations contained therein. As part of the audit, we will assist with preparation of your financial statements and related notes. You are responsible for making all management decisions and performing all management functions relating to the financial statements and related notes and for accepting full responsibility for such decisions. You will be required to acknowledge in the management representation letter our assistance with preparation of the financial statements and that you have reviewed and approved the financial statements and related notes prior to their issuance and have accepted responsibility for them. Further, you are required to designate an individual with suitable skill, knowledge, or experience to oversee any nonaudit services we provide and for evaluating the adequacy and results of those services and accepting responsibility for them.

Management is responsible for establishing and maintaining effective internal controls, including monitoring ongoing activities, to help ensure that appropriate goals and objectives are met; for the selection and application of accounting principles; and for the fair presentation in the financial statements of the respective financial position of the governmental activities, each major fund, and the aggregate remaining fund information of the WRWC and the respective changes in financial position and cash flows, where applicable, in conformity with U.S. generally accepted accounting principles.

Management is also responsible for making all financial records and related information available to us and for ensuring that management and financial information is reliable and properly recorded. Your responsibilities include adjusting the financial statements to correct material misstatements and for confirming to us in the representation letter that the effects of any uncorrected misstatements aggregated by us during the current engagement and pertaining to the latest period presented are immaterial, both individually and in the aggregate, to the financial statements taken as a whole.

You are responsible for the design and implementation of programs and controls to prevent and detect fraud, and for informing us about all known or suspected fraud affecting the government involving (1) management, (2) employees who have significant roles in internal control, and (3) others where the fraud or illegal acts could have a material effect on the financial statements. Your responsibilities include informing us of your knowledge of any allegations of fraud or suspected fraud affecting the government received in communications from employees,

former employees, grantors, regulators, or others. In addition, you are responsible for identifying and ensuring that the entity complies with applicable laws, regulations, contracts, agreements, and grants for taking timely and appropriate steps to remedy any fraud, illegal acts, violations of contracts or grant agreements, or abuse that we may report.

Management is responsible for establishing and maintaining a process for tracking the status of audit findings and recommendations. Management is also responsible for identifying for us previous financial audits, attestation engagements, performance audits or other studies related to the objectives discussed in the Audit Objectives section of this letter. This responsibility includes relaying to us corrective actions taken to address significant findings and recommendations resulting from those audits, attestation engagements, performance audits, or other studies. You are also responsible for providing management's views on our current findings, conclusions, and recommendations, as well as your planned corrective actions, for the report, and for the timing and format for providing that information.

Audit Procedures—General

An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements; therefore, our audit will involve judgment about the number of transactions to be examined and the areas to be tested. We will plan and perform the audit to obtain reasonable rather than absolute assurance about whether the financial statements are free of material misstatement, whether from (1) errors, (2) fraudulent financial reporting, (3) misappropriation of assets, or (4) violations of laws or governmental regulations that are attributable to the entity or to acts by management or employees acting on behalf of the entity. Because the determination of abuse is subjective, *Government Auditing Standards* do not expect auditors to provide reasonable assurance of detecting abuse.

Because an audit is designed to provide reasonable, but not absolute assurance and because we will not perform a detailed examination of all transactions, there is a risk that material misstatements may exist and not be detected by us. In addition, an audit is not designed to detect immaterial misstatements or violations of laws or governmental regulations that do not have a direct and material effect on the financial statements. However, we will inform you of any material errors and any fraudulent financial reporting or misappropriation of assets that come to our attention. We will also inform you of any violations of laws or governmental regulations that come to our attention, unless clearly inconsequential. Our responsibility as auditors is limited to the period covered by our audit and does not extend to later periods for which we are not engaged as auditors.

Our procedures will include tests of documentary evidence supporting the transactions recorded in the accounts, and may include tests of the physical existence of inventories, and direct confirmation of receivables and certain other assets and liabilities by correspondence with selected individuals, funding sources, creditors, and financial institutions. We will request written representations from your attorneys as part of the engagement, and they may bill you for responding to this inquiry. At the conclusion of our audit, we will require certain written representations from you about the financial statements and related matters.

Audit Procedures—Internal Controls

Our audit will include obtaining an understanding of the entity and its environment, including internal control, sufficient to assess the risks of material misstatement of the financial statements and to design the nature, timing, and extent of further audit procedures. Tests of controls may be performed to test the effectiveness of certain

controls that we consider relevant to preventing and detecting errors and fraud that are material to the financial statements and to preventing and detecting misstatements resulting from illegal acts and other noncompliance matters that have a direct and material effect on the financial statements. Our tests, if performed, will be less in scope than would be necessary to render an opinion on internal control and, accordingly, no opinion will be expressed in our report on internal control issued pursuant to *Government Auditing Standards*.

An audit is not designed to provide assurance on internal control or to identify significant deficiencies. However, during the audit, we will communicate to management and those charged with governance internal control related matters that are required to be communicated under AICPA professional standards and *Government Auditing Standards*.

Audit Procedures—Compliance

As part of obtaining reasonable assurance about whether the financial statements are free of material misstatement, we will perform tests of WRWC's compliance with the provisions of applicable laws, regulations, contracts, agreements, and grants. However, the objective of our audit will not be to provide an opinion on overall compliance and we will not express such an opinion in our report on compliance issued pursuant to *Government Auditing Standards*.

Engagement Administration, Fees, and Other

We understand that your employees will prepare all cash or other confirmations we request and will locate any documents selected by us for testing.

We will provide copies of our reports to WRWC; however, management is responsible for distribution of the reports and the financial statements. Unless restricted by law or regulation, or containing privileged and confidential information, copies of our reports are to be made available for public inspection.

The audit documentation for this engagement is the property of Schettler, Macy & Silva, LLC and constitutes confidential information. However, pursuant to authority given by law or regulation, we may be requested to make certain audit documentation available to the State of Nevada or its designee, a federal agency providing direct or indirect funding, or the U.S. Government Accountability Office for purposes of a quality review of the audit, to resolve audit findings, or to carry out oversight responsibilities. We will notify you of any such request. If requested, access to such audit documentation will be provided under the supervision of Schettler, Macy & Silva, LLC personnel. Furthermore, upon request, we may provide copies of selected audit documentation to the aforementioned parties. These parties may intend, or decide, to distribute the copies or information contained therein to others, including other governmental agencies.

The audit documentation for this engagement will be retained for a minimum of five years after the report release date or for any additional period requested by the State of Nevada.

Zeth M. Macy is the engagement partner and is responsible for supervising the engagement and signing the reports. Our fee for these services will be at our standard hourly rates plus out-of-pocket costs (such as report reproduction, word processing, postage, travel, copies, telephone, etc.) except that we agree that our gross fee, including expenses, will not exceed \$8,300. Our invoices for these fees will be rendered each month as work progresses and are payable on presentation. In accordance with our firm policies, work may be suspended if your account becomes 30 days or more overdue and may not be resumed until your account is paid in full. If we elect

January 10, 2012

to terminate our services for nonpayment, our engagement will be deemed to have been completed upon written notification of termination, even if we have not completed our report. You will be obligated to compensate us for all time expended and to reimburse us for all out-of-pocket costs through the date of termination. The above fee is based on anticipated cooperation from your personnel and the assumption that unexpected circumstances will not be encountered during the audit. If significant additional time is necessary, we will discuss it with you and arrive at a new fee estimate before we incur the additional costs.

We appreciate the opportunity to be of service to the WRWC and believe this letter accurately summarizes the significant terms of our engagement. If you have any questions, please let us know. If you agree with the terms of our engagement as described in this letter, please sign the enclosed copy and return it to us.

Thank you.

Very truly yours,

SCHETTLER, MACY & SILVA, LLC

Zeth M. Macy, CPA
Partner

RESPONSE:

This letter correctly sets forth the understanding of the Western Regional Water Commission.

By: _____

Title: _____

Date: _____

Western Regional Water Commission

STAFF REPORT

DATE: February 2, 2012

TO: Chairman and Members, Western Regional Water Commission

FROM: Jim Smitherman, Water Resources Program Manager

SUBJECT: Report on TMWA's Water Usage Review Program for 2010 and 2011; discussion and possible approval of funding in the amount of \$126,470 from the Regional Water Management Fund ("RWMF") for the 2011 and 2012 Water Usage Review Program; and, if approved, authorize the Chairman to execute an Interlocal Agreement with TMWA for the 2012 Program

SUMMARY

On February 1, 2012, the Northern Nevada Water Planning Commission ("NNWPC") received a report from TMWA on its Water Usage Review Program for 2010 and 2011, and a scope of work for the 2012 program with a request for funding in an amount not to exceed \$126,470 from the RWMF. The amount requested is to cover 2012 program costs, not to exceed \$63,235, and reimbursement of 2011 program costs in the amount of \$63,235. The NNWPC unanimously approved a motion to recommend that the WRWC approve an amount not to exceed \$126,470 from the RWMF to cover program costs for 2011 and 2012.

The TMWA report and scope of work are attached. Ms. Lora Rose Richards, TMWA Conservation & Community Education Administrator, will be available to provide a brief presentation and answer questions.

PREVIOUS ACTION

The RWMF has supported this program with 60 percent of its funding since its inception in 2003.

FISCAL IMPACT

The fiscal impact to the RWMF, should this item be approved, will be \$126,470. Budget authority is located in Fund Group 766, Fund 7066, Account Number 710100, Professional Services, Cost Object WP310100.

RECOMMENDATION

The NNWPC recommends that the WRWC approve an amount not to exceed \$126,470 from the RWMF to cover program costs for 2011 and 2012, and authorize the Chairman to execute an Interlocal Agreement with TMWA for the 2012 program.

JS:jd



STAFF REPORT

TO: Northern Nevada Water Planning Commission
Western Regional Water Commission

FROM: Lora Rose Richards, TMWA Conservation & Community Education Administrator

DATE: January 18, 2012

SUBJECT: **2011 and 2012 Water Usage Review Program**

Recommendation

Staff requests the Northern Nevada Water Planning Commission ("NNWP"C) to make a recommendation to the Western Regional Water Commission ("WRWC") regarding a scope of work and request for funding in the amount of \$126,470 from the Regional Water Management fund ("RWMF") for the 2011 and 2012 Water Usage Review Program, consisting of \$63,235 per year for both the 2011 and 2012 programs. The WRWC, and its predecessor, the Regional Water Planning Commission ("RWPC"), have supported the program with 60% of its funding since its inception in 2003. The program continues to be highly successful for TMWA and effective with water customers.

Background

In 2003, TMWA initiated a pilot residential water audit program to help the Regional Water Planning Commission further its water conservation goals. The pilot was considered a success and the program has expanded over time. The table below summarizes the number and type of water use reviews conducted to-date.

	Total	Residential	Commercial	Reno	Sparks	Washoe Co.
2011	2,044	1,838	206	1,379	643	22
2010	3,277	2,902	375	2,311	947	19
2009	2,675	2,375	300	1,766	787	122
2008	2,461	2,196	265	1,601	769	91
2007	2,025	1,804	221	1,290	645	90
2006	731	661	70	469	238	24
2005	894	771	123	538	281	75
2004	497	431	66	324	135	38
2003	444	402	42	275	149	20

In 2010, more than 3,250 water use reviews were conducted, an increase of 23% over 2009. In 2011, water usage reviews totaled 62% of what was completed in 2010. Staff attributes the peak volume in 2010 to changes to TMWA's Assigned-day Watering schedule (see discussion below).

In 2010, 88% of the reviews completed were for residential customers and 12% were commercial reviews. In 2011, 90% of the reviews were for residential customers and 10% were commercial reviews.

In 2010, water use reviews by jurisdiction were 71% in Reno, 28% in Sparks, and 1% in Washoe County. In 2011, we see similar results: 67% in Reno, 31% in Sparks, and 2% in Washoe County. The water use reviews were provided for TMWA retail customers.

Discussion

In general, the findings from the 2010 and 2011 program year are similar to past years. Customers respond very positively to this program. Working directly with customers at their homes and businesses where water use specialists can advise customers how to manage their water use based on their specific site characteristics is highly effective. While some of the education that takes place during a water usage review may address indoor water use (such as opportunities to increase the efficiency of a toilet or other water-using appliance), the majority of recommendations to customers involve outdoor water use during irrigation season. Settings on automatic sprinkler and drip irrigation systems provide the best opportunity for customers to change the amount of water they use.

The 2010 total for the Water Usage Review Program is the highest to-date and the trend did not continue in 2011. In 2010, TMWA transitioned its Assigned-Day Watering schedule from twice per week to three times per week. A requirement of the Truckee River Operating Agreement, twice-per-week watering had been in place for more than 20 years; changes to the longstanding schedule required all customers to reset their watering days and times. While communications around the watering schedule changes were effective (72% were aware of their new watering days as measured by December 2010 customer satisfaction survey), many customers experienced challenges with resetting their irrigation systems for the new schedule.

Staffing levels and related costs to complete water usage reviews during the 2010 calendar year were higher than originally budgeted and are summarized below. TMWA did not hire new staff to complete the high volume of reviews in 2010; however, work hours for the two half-time staff for the season were increased to nearly three-quarter time (each) to cover program demand. In 2011, staffing for the program returned to normal levels (equivalent of two full-time staff members). Increases in program costs in 2010 are primarily related to increased hours worked to cover increased volume and the need to update outreach materials around Assigned-Day Watering changes.

TMWA considers the Water Usage Review Program a success in expanding awareness of responsible water use through on-site customer education. Based on strong customer interest, TMWA will continue the program in 2012. In previous years, TMWA has received an allocation of 60% of the program budget from the NNWPC and the Western Regional Water Commission.

TMWA may shift funding between line items if costs necessitate a transfer of funds. Any funds remaining after December 2012 will either be refunded to the WRWC or used for program continuation in 2013.

2011 & 2012 Funding Proposal

Cost Item	Comment	Total Costs for 2010	Total Costs for 2011	Estimated Total Costs for 2012
Salaries & Expenses	(1)	\$107,450	\$91,892	\$91,892
Vehicle(s) & Fuel	(2)	\$10,750	\$8,000	\$8,000
Equipment & Supplies	(3)	\$3,000	\$3,000	\$3,000
Outreach Materials		\$10,000	\$2,500	\$2,500
Total Estimated Program Cost		\$131,200	\$105,392	\$105,392
Approved NNWPC/WRWC Funding for 2010		\$64,100		
Recommended NNWPC/WRWC Funding for 2011			\$63,235	
Recommended NNWPC/WRWC Funding for 2012				\$63,235

(1) Average hourly rate of \$22.10 includes auditor salary plus FICA, Medicare, and workman's comp.

Assumes 1 full-time auditor (2080 hours) and 2 half-time auditors (1,039 hours per auditor).

(2) 2010 mileage rate of \$0.50 per mile; 2011 mileage rate of \$0.55 per mile

(3) Includes wireless computers, telephones, auditing equipment & supplies, office supplies, and clothing

Western Regional Water Commission

STAFF REPORT

DATE: February 1, 2012

TO: Chairman and Members, Western Regional Water Commission ("WRWC")

FROM: Chris Wessel, Water Management Planner

SUBJECT: Report on responses to the Request for Qualifications ("RFQ") for a groundwater management study to identify strategies and potential funding mechanisms to address regional groundwater quality and quantity issues, including nitrate concentrations related to septic tanks; discussion and possible approval of funding in an amount not to exceed \$60,000 from the RWMF for the study; and, if approved, authorize the Chairman to execute an Agreement with the selected consultant for that purpose.

SUMMARY

Staff developed a RFQ to provide consulting services to conduct a literature search for methods on how to manage/mitigate water quality issues associated with high-density septic system developments within existing regional communities. The desired deliverables include a compilation of technologies and strategic approaches that are suited to local conditions and an analysis of alternatives relative to certain local developments with high densities of septic systems.

Staff received Statements of Qualification ("SOQ") from four firms: AMEC/Lombardo & Associates; Farr West Engineering; Manhard Consulting; and, Stantec. As indicated in the RFQ, a selection team, made up of NNWPC member agency personnel, reviewed and ranked the SOQ's. Based on the review process, the top-ranked firm was AMEC/Lombardo & Associates. Staff will negotiate with the AMEC/Lombardo & Associates team on a final scope of work and cost.

Staff determined that the FY 2011-2012 budget amount of \$20,000 would not be sufficient to negotiate the desired deliverables. The issue was presented to the NNWPC during its February 1, 2012 meeting, and the NNWPC approved a recommendation to the WRWC to increase the budget for this project by \$40,000, for total funding not to exceed \$60,000. Sufficient FY2011-2012 budget authority exists for the augmentation. In addition, the WRWC, as the appointed 208 agency, is eligible to apply for a \$40,000 state grant for Section 208 planning activities under the Clean Water Act. If the application for the grant funding is successful, the funds would be used to offset the project budget.

BACKGROUND

The Truckee Meadows Water Authority ("TMWA") provides water service to almost 90,000 water customers within the Truckee Meadows Service Area ("TMSA"), and the Washoe County Department of Water Resources ("WCDWR") provides water service to approximately 22,000 additional residential customers. The majority of the WCDWR demand and approximately 15%

of TMWA demand is met with groundwater. Studies conducted by WCDWR have concluded that groundwater quality in certain locations is threatened by nitrate contamination from both natural and anthropogenic sources. The studies also indicated that water quality degradation is a result of septic tank effluent, occurring predominantly in areas with high septic tank densities. There are approximately 18,300 septic tanks in Washoe County and at least fifteen areas that may have densities high enough to threaten potable groundwater supplies. In addition to high densities, contributing factors include shallow depths to groundwater, permeable soil conditions, and proximity to sensitive receptors. These conditions are present in Spanish Springs Valley, Washoe Valley, and Lemmon Valley, and have been shown to impact water quality.

In Spanish Springs Valley, fifteen years of groundwater quality monitoring has shown increasing levels of nitrate contamination in municipal wells. Almost 2,000 septic systems are located within a four square-mile area, with almost half of these systems within 2,000 feet of one or more municipal water supply wells. Two of six municipal wells in the highly developed portion of Spanish Springs Valley have nitrate-nitrogen concentrations at or approaching the maximum contaminant level ("MCL") of 10 ppm nitrate-nitrogen. A 1999 U.S. Geological Survey ("USGS") study suggested that increasing nitrate levels may be linked to local septic systems. A recent study by WCDWR (Kropf, 2007) and the USGS found that nitrate-nitrogen concentrations of 44 ppm from septic effluent in the densely populated portion of Spanish Springs Valley account for approximately 30 tons of nitrogen entering the groundwater system every year. An on-going study by the WCDWR shows nitrate concentrations increasing to over 57 ppm in the shallow aquifer.

Kropf (2007) concluded with a prioritized list of areas that require further investigation, based on knowledge gained from areas known to be impacted. As expected, the most well documented and most highly-contaminated areas were found to have the highest ranking.

The attached figure shows areas of concern and the color-coded raking indicates areas that require additional information to help understand the full impact of high densities of septic systems on sensitive receptors. Based on the information collected and analyzed in the report, there is sufficient data in the areas coded green to consider recommendations for management actions. There is insufficient information, however, to propose actions with respect to the areas coded in yellow. Areas coded in blue are suspected to be of low risk to receptors and are of low priority.

In light of these conclusions, staff recommends that the NNWPC and the WRWC seek to investigate strategic approaches, technologies, funding mechanisms and life cycle costs of measures being implemented or proposed elsewhere in the country to support future local decision-making concerning septic system densities and management recommendations.

DISCUSSION

The proposed project involves research to identify and summarize various ways in which communities elsewhere in the United States have developed management or mitigation solutions to septic system pollution of groundwater. At present, the only solution employed locally to solve septic system groundwater contamination problems has been conversion of septic systems to sanitary sewer, which, while effective, is extremely costly. Other ideas, which have been considered locally or elsewhere, include:

- Septic system management program (fee-based septic system maintenance program)
- De-nitrifying septic systems
- Small flow systems

- Leachate collection system and connection to water reclamation facility
- Leachate collection system and connection to local package plant
- Composting toilets

The intent of the scope of work for this project is to identify successful approaches and methods employed in other communities, using these or other technologies that would be best suited to manage septic system contamination issues locally. The proposed scope of work includes the following:

1. Literature search to identify the following:
 - a. Technologies
 - b. Practices
 - c. Management techniques
 - d. Regulatory frameworks
 - e. Funding and financing strategies, including:
 - i Life cycle cost analysis of technology, practice, etc.
 - ii Financing alternatives such as assessment districts, development fees, grants and loans
2. Evaluate impacts of alternatives to:
 - a. Existing services (e.g., Water Reclamation Facilities, interceptor capacity)
 - b. Septic owners
 - c. Development community
 - d. Community at large
 - e. Regulatory agencies, codes and regulations; including legal aspects of mitigating grandfathered parcels “entitled” to septic systems, such as by conservation easement; Truckee Meadows Regional Plan and TMSA
 - f. Existing Law: Is new legal authority necessary?

Analyses and evaluations should be focused on technologies, practices, techniques, etc. that are applicable to local conditions. Those that are not applicable should be screened out as early as possible in the identification process.

Deliverables for this project will be in the form of a written report. The report will include the following elements:

- A description of technologies with references
- Impacts to property owners, community, municipal services and others identified in 2.b, above
- Financing options
- Case studies
- Life Cycle Cost Analysis of alternatives
- Recommendations for alternatives best suited to specific local areas to be identified by the NNWPC.

FISCAL IMPACT

The fiscal year 2011/2012 budget includes \$20,000 for septic system studies. Staff will convene with the top ranked firm and negotiate a scope of work and cost. Staff anticipates that the desired deliverables will not be obtainable within the current budget, and is therefore requesting approval of funding in an amount not to exceed \$60,000 from the RWMF for the study. The NNWPC made a recommendation that the WRWC approve the requested funding, and increase the project budget up to \$60,000. The 208 grant for \$40,000 from the State of Nevada, if obtained, will offset the funding from the RWMF requested for the study.

RECOMMENDATION

Based on the recommendation of the NNWPC, staff requests that the WRWC approve funding in an amount not to exceed \$60,000 from the RWMF for the study, authorize staff to apply for the 208 grant funding; and, if approved, authorize the Chairman to execute a contract with AMEC/Lombardo & Associates for the project.

CW:jd

Attachment

Western Regional Water Commission

Staff Report

DATE: February 2, 2012

TO: Chairman and Members, Western Regional Water Commission ("WRWC")

FROM: Rosemary Menard, Washoe County

SUBJECT: Presentation on membership and proposed 2012 meetings of the Legislative Committee to Oversee the WRWC ("LOC"); discussion and possible direction to staff regarding the LOC meeting set for February 24, 2012 .

Rosemary Menard will present a verbal report on the above subject.