

**NORTHERN NEVADA WATER PLANNING COMMISSION
MINUTES**

Wednesday, June 1, 2011

The regular meeting of the Northern Nevada Water Planning Commission (“NNWPC”) was held on Wednesday, June 1, 2011 in the Washoe County Commission Chambers, 1001 East Ninth Street, Reno, Nevada.

- 1. Roll Call and determination of presence of a quorum** – Chairman Ball called the meeting to order at 1:31 p.m. There was a quorum present.

Voting Members Present:

George W. Ball, Jr., Chairman
Neil Krutz, Vice Chairman
Michael DeMartini
John Erwin
John Flansberg
Darrin Price
Jerry Schumacher
Stan Shumaker

Voting Members Absent:

Mickey Hazelwood
John Jackson
Rosemary Menard

Non-Voting Members Present:

John Bird
Harry Fahnestock

Non-Voting Members Absent:

Mark Clarkson
Kelvin Hickenbottom
Jon Palm

Staff Members Present:

Jim Smitherman
Chris Wessel
June Davis
John Rhodes, Legal Counsel

- 2. Approval of the agenda.**

Commissioner Erwin made a motion to approve the June 1, 2011 NNWPC agenda as posted. Commissioner Schumacher seconded the motion, which carried unanimously.

- 3. Approval of minutes from the May 4, 2011 meeting.**

Commissioner Krutz made a motion to approve the minutes as submitted. Commissioner Flansberg seconded the motion, which carried unanimously.

- 4. Public Comments.**

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

- 5. Status report on the third party review of the Total Maximum Daily Load for Nutrients (“TMDL”) in the Truckee River, and possible direction to staff.**

Chairman Ball invited Terri Svetich, City of Reno, and John Buzzone, Washoe County Department of Water Resources (“DWR”), to present this item. Ms. Svetich and Mr. Buzzone referred to a PowerPoint presentation on the history of the project and the progress being made.

Ms. Svetich stated that the goals of the Clean Water Act (CWA) are restoration and maintenance of the waterways from a chemical, physical and biological perspective. She added that we need to ensure that

the beneficial uses on the Truckee River are protected. She explained that the beneficial uses are for municipal or domestic supply; propagation of aquatic life by protecting the cui-ui and Lahontan cutthroat trout, irrigation, watering of livestock, contact and noncontact recreation and industrial supply.

Ms. Svetich reported that the State of Nevada sets the water quality standards to protect the beneficial uses. If a water body is impaired, the State is required to establish total maximum daily loads ("TMDLs"). She explained that Nevada is advanced (in comparison to the rest of the United States) by having the TMDLs established for the Truckee River. She stated that the most difficult task is protection of wildlife and fisheries, primarily from low dissolved oxygen (for which no TMDL is established). The TMDLs that are established are for the nutrients, total nitrogen and total phosphorus.

Ms. Svetich stated that although TMDL refers to the "daily" load, measurements are not actually measured on a daily basis. She explained that the TMDL breaks down into point sources, represented by the wasteload allocation ("WLA") and the non-point source or load allocation ("LA"). Compliance with the TMDLs is measured at Lockwood.

Ms. Svetich reported that the goal of the nutrient is to maintain the dissolved oxygen, so the total nitrogen TMDL is established at 1,000 pounds per day ("ppd") and total phosphorus, is established at 214 ppd. She referred to tables showing the TMDL levels for the constituents. She stated that the WLA for the Truckee Meadows Water Reclamation Facility ("TMWRF") is 500 ppd for total nitrogen; and 138.75 ppd for total phosphorus.

Ms. Svetich stated that the National Pollutant Discharge Elimination System ("NPDES") requires industrial, municipal and other facilities to obtain permits if they discharge to surface waters. The TMDL WLA typically forms the basis of the NPDES permit limitations. She reported that the NPDES program also applies to municipal storm water. She then turned the presentation over to Mr. Buzzone.

Mr. Buzzone stated that both TMDLs and water quality standards have an impact on how we view or manage discharges on the Truckee River. He stated there are a series of WLAs for the different point sources, adding that TMWRF and storm water are the two major point sources to the river. He added that currently the storm water discharge permit does not have a WLA but that is expected to change in the near future. It is expected that the Environmental Protection Agency ("EPA") will issue a WLA for the storm water program, for which a numeric requirement must be met.

Mr. Buzzone reported that TMWRF has a very sophisticated process, which is very expensive to operate. He added that TMWRF is on the cutting edge of what is achievable with regards to phosphorus and nitrogen removal. He referred to a graph showing the relationship of TMWRF's discharge permits and the WLA. He stated that currently the discharge from the plant is approximately 26 million gallons per day ("mgd"), which is within the limits; however, in the future the permitted number would probably be exceeded.

Mr. Buzzone stated that in the future, some very expensive upgrades to the plant will be needed in order to continue to meet discharge limits. He added that alternatives were reviewed that would meet the nitrogen constraint, the most probable of which would be reverse osmosis (RO). He explained that an RO system is estimated at \$28 million for a 2.5 million gallon treatment capacity RO system, with an additional \$2.2 million annually to operate the system. He summarized that meeting the TMDLs has some significant financial implications to the community.

Commissioner Price asked if any other treatment options were evaluated. Mr. Buzzone stated there are other treatment options available; however, there are other benefits associated with the RO system. For instance, if State Regulations were changed, the water could be used for indirect potable reuse. Ms. Svetich added that Michael Drinkwater would present the next agenda item, which will address the topic

of indirect potable reuse of reclaimed water.

Mr. Buzzone reported that other approaches were examined if the goal were simply to remove the amount of discharge of nitrogen and phosphorus; however, he reiterated there are other benefits with RO.

Commissioner DeMartini referred to the 3 mgd Sparks Marina denitrification plant and stated he does not believe it is currently in use. He asked if the option of piping effluent to that facility has been explored to provide additional removal of the nitrogen. Mr. Buzzone stated that he does not believe the option was explored.

Commissioner Shumaker stated the process at the denitrification plant mimics that of TMWRF by removing ammonia and nitrate so there would be no additional benefit. He added that another benefit of RO is the removal of total dissolved solids (TDS), which also has a WLA.

Mr. Buzzone summarized that there is an ongoing examination of other ways to stay in compliance with the Water Quality Standards and TMDLs. He stated that the least cost approach would probably be to revise the Water Quality Standards and TMDL. He added that they have met with the State, which has concurred that a re-evaluation of the standards would be appropriate.

Mr. Buzzone reported that the nitrogen standards were set based on a model that used assumptions that are not necessarily appropriate at this time because many flow conditions have changed in the river. He added we also have a better scientific understanding of the river operations and reactions to nitrogen and phosphorus loading.

Mr. Buzzone referred to a slide showing the tools needed in order to perform an analysis on the river, which include:

- TRHSPF, which is a water quality simulation model that predicts concentrations of phosphorus and nitrogen and dissolved oxygen
- TROM (or Riverware) is an input model, which describes the flow regimes of the river
- WARMF is an input model, which predicts the background loadings that would be attributed to the Truckee River

Mr. Buzzone reported that a contract is in place with LimnoTech, which developed and operates TRHSPF. LimnoTech is able to run the models with various loading scenarios. He referred to some of the modeling results.

Mr. Buzzone stated that currently background work provides a good understanding that a change in the phosphorus and nitrogen standards could be achievable. He added that they also believe the TMDL can be increased for nitrogen and possibly phosphorus. He reported that currently work is being done in conjunction with Nevada Division of Environmental Protection (“NDEP”) and the Environmental Protection Agency (“EPA”) and they are participating in monthly meetings. He explained that a Work Plan has been adopted to guide us through the “Third Party Review” process, which lays out the steps to get through the water quality standards review and recommendations and subsequently for review of the TMDL and its possible revision.

Mr. Buzzone reported that a public participation process has been developed to engage stakeholders from the region. The models are being updated and refined. The dataset is also being updated with information to 2008. Legal and technical work is also being performed. He added that part of the public process includes meeting with U.S. Fish and Wildlife Service (“USFWS”) and the Pyramid Lake Paiute Tribe (“PLPT”), both of which have committed to participating in the process.

Mr. Buzzone referred to the upcoming events for the project:

- Completion of the report is scheduled for February 2012, which includes recommended revisions to the phosphorus and possibly nitrogen standards. The State Environmental Commission (“SEC”) meets in June 2012, at which time they could review the recommendations.
- If the SEC accepts the recommendations, a TMDL Review and Recommendation Report will be completed hopefully by December 2012.
- Based on the above, the goal is to have revised TMDLs in place in June 2013.

Commissioner Price asked if the SEC would adopt recommendations or a standard. Mr. Buzzone stated that NDEP is supportive of the recommendation at least for phosphorus. Commissioner Price asked if the SEC does not approve the recommendations in June, if a further request would have to wait another two years for the next meeting. Mr. Buzzone stated that is correct. He added that it is important to engage the public as much as possible in support of the recommendations.

Commissioner Flansberg mentioned the February 2012 deadline and asked if there would be an effort to complete the report sooner, possibly December. Mr. Buzzone stated that is the goal.

Commissioner DeMartini referred to the models and asked if they are trying to simulate what the Brock model did in the 1990s. He stated that the Regional Water Planning Commission spent a lot of money to verify and calibrate the Brock model; however, it was found to be proprietary and unusable. He asked if those issues have been addressed for the models being considered for this project. Mr. Buzzone stated that TRHSPF is an open-sourced model that is available to anyone. He added that it has already been calibrated and validated; it will be updated with additional data. He added that the TRHSPF model includes many of the aspects of the Brock model. Ms. Svetich stated that trainings on the use of the TRHSPF model have been hosted in the past. Commissioner DeMartini stated he was happy to hear that.

Chairman Ball asked for clarification that LimnoTech created the TRHSPF model. Mr. Buzzone clarified that HSPF is an EPA-supported program and model. LimnoTech rescripted the model to be specific to the Truckee River, which is why it is called the “TRHSPF”. Chairman Ball referred to the WARMF model and Riverware model and asked who the developer was. Mr. Buzzone stated that the Riverware model has been around for a number of years, which he refers to as the “mass balance” model.

Mr. Buzzone explained that Riverware calculates the flow of the river and WARMF calculates runoff through precipitation, as well as calculating the effects of land use and the resulting phosphorus and nitrogen. He added that those calculations are then input into the TRHSPF model. He reiterated that we have to be cognizant of the dissolved oxygen, for which phosphorus and nitrogen are used to determine the concentrations.

Chairman Ball stated that since all the members of the NNWPC are familiar with different models, it would be beneficial to learn more about how the model works at a future meeting. Mr. Buzzone offered to provide the information.

Chairman Ball stated that storm water bothers him because it is so unregulated. He asked if when the storm drains are full and running into the Truckee River, if water is being sampled. He asked Ms. Svetich what EPA will do related to storm water discharge and how that would be managed. Ms. Svetich stated that the Storm Water Permit Coordinating Committee (“SWPCC”) has been in communication with NDEP and is seeing guidance issued by the EPA related to the imposition of WLAs on storm water programs across the country.

Ms. Svetich reported that in 2002, the EPA issued guidance that the intent of the WLA for storm water would be met as long as a storm water quality management program is being implemented to the maximum extent practicable. She agreed that it is very difficult to control loading of storm water. She reported that EPA revised the guidance document in that they would like to see more numeric limitations,

which went out for public comment. She stated that the SWPCC wrote a comment letter that the “guidance document” proposes to require *regulation* rather than *guide*. She summarized that the SWPCC anticipates that in the next permit cycle for the Storm Water Program, in 2015, there will be more pressure to quantify the loading and have a WLA in place. She added that the group is very excited about the opportunity to bring better science to the SEC, particularly for phosphorus.

Commissioner Flansberg stated that the staff report recommends a motion to approve the report; however, there is mention that originally a contract was in place in the amount \$197,500, plus a \$400,000 amendment. He added that to date, approximately \$88,000 of the \$400,000 has been spent. He stated that the report says that the funding should take LimnoTech through spring of 2012, with the potential need of \$150,000 more, and asked Ms. Svetich to comment.

Ms. Svetich stated that when this item was presented to the Western Regional Water Commission (“WRWC”) in 2009, it was determined that this project would be a multi-year project that would cost a fair amount. She stated that the “Third Parties” include Reno, Sparks, Washoe County and TMWA, which had to develop the Work Plan so it was mostly staff time working with NDEP and EPA representatives. She mentioned that the project also includes a contract with Bobbi Larson, Attorney, who has expertise in the TMDLs. She stated that in January, the project kicked off with a formalized process to move forward.

Commissioner DeMartini stated that Peter Krenkel was always concerned with the model’s two steps, the verification and the calibration. Mr. Buzzone stated that his understanding is that the WARMF and TRHSPF models have been validated and calibrated. Commissioner Shumaker stated that both models have gone through peer review.

Chairman Ball made a motion to accept the update regarding the Third Party TMDL Review, with a request that a presentation will be provided at an upcoming meeting related to the use of the model. Commissioner Price seconded the motion, which carried unanimously.

Ms. Svetich and Mr. Buzzone thanked Commissioners.

6. Discussion and possible approval of an Interlocal Agreement with the City of Reno for a scope of work for consulting services by Stantec, not to exceed \$23,000, to coordinate a workshop with the Nevada Division of Environmental Protection, and other stakeholders, on indirect potable reuse of reclaimed water, and possible direction to staff.

Chairman Ball invited Michael Drinkwater to present this item. Michael Drinkwater, City of Reno Public Works, reported that he is requesting an Interlocal Agreement in the amount of \$23,000 from the Regional Water Management Fund to fund a Workshop with NDEP and to prepare the final report for the Reno-Stead Advanced Oxidation Pilot Test. He stated that the pilot test began in 2008, with the testing concluding in 2010. He explained that the test was initiated by Stan Shumaker in an effort to examine possibilities of using effluent in the North Valleys and disposing of it in a potable reuse manner, as opposed to current discharge to Swan Lake. He stated that the discharge is currently volume-limited to 2.35 million gallons per day. He explained that any volume over that amount would have to be discharged elsewhere, which is difficult in the North Valleys. Based on the need to dispose of the effluent, ECO:LOGIC Engineering (now Stantec) was hired to partner with Reno on the pilot test.

Mr. Drinkwater reported that based on the good results of the pilot test investigation, City of Reno wishes to present the results to NDEP. Following the workshop, the final report will be prepared and published after incorporating public comments and questions from stakeholders. He added that the event has statewide implications in the sense that Clark County Reclamation District is pursuing similar work so Reno is working in coordination with them to ensure that any regulations promulgated by NDEP are appropriate for our area.

Mr. Drinkwater mentioned Mr. Buzzone's comment that RO is the preferred treatment; however, it generates a waste stream, for which Northern Nevada does not have a place for disposal. Mr. Drinkwater stated that the pilot test demonstrated that there are alternative treatment techniques that create similar results with the water being of suitable standard for a potable reuse project. He stated that the results would be presented to NDEP to help guide them in consideration of promulgating any related regulations.

Commissioner Price asked if the pilot study report was prepared or if it just consists of data. Mr. Drinkwater stated that a report was prepared. Commissioner Price referred to Task 1 – Preparation of the Pilot Study Presentation, and asked how in depth that would be based on the report being available. Mr. Drinkwater explained that the report is in "Draft" form because public comment is needed prior to finalizing the report. He stated that the plan is to consolidate a substantial amount of data into a one-hour presentation for NDEP. He explained that the draft report would be condensed into a presentation to a large group. He added that in addition to NDEP, various stakeholders would be invited to participate.

Commissioner Erwin made a motion to adopt staff's recommendation. Commissioner Price asked Mr. Smitherman about the reference to *fund group*, *account number*, etc. under the fiscal impact portion of the staff report. Mr. Smitherman stated that those numbers are in line with the County's accounting system. Commissioner Schumacher seconded the motion.

Chairman Ball referred to personal care products and pharmaceuticals related to wastewater treatment and asked how successful the reduction was based on the pilot test. Mr. Drinkwater stated that in general, removal was greater than 90% on almost all of the parameters be sampled. He added that major and minor testing events were performed, most of which resulted in excellent removal based on the process. Chairman Ball stated that he would be interested in hearing more about the pilot test.

Commissioner Shumaker reported there is a table in the report that could be provided to the NNWPC that demonstrates the secondary effluent concentrations and the final results after the two-step process.

John Rhodes, Legal Counsel, noted that because this contract is within Mr. Smitherman's spending authority, if approved by the NNWPC, it does not need to go to the WRWC for approval. He added that the fund and account numbers are not required to be included in the staff report; however, he suggested including them.

Chairman Ball called for a vote on the motion, which carried unanimously. He thanked Mr. Drinkwater for his presentation.

7. Discussion of the Western Regional Water Commission ("WRWC") Fiscal Year 2011 – 2012 Work Plan, and possible direction to staff.

Chairman Ball invited Jim Smitherman to present this item. Mr. Smitherman reported that the WRWC adopted the final budget as recommended by the NNWPC. He stated that the Work Plan (from the Regional Water Management Plan) was attached to the budget. He reported that the only changes to the Work Plan were the addition of the budget for water rights purchases to meet the Truckee River Operating Agreement (TROA) provisions and the TMWA/DWR consolidation analysis reimbursement.

Mr. Smitherman referred to the items listed in the Work Plan as follows:

- Third Party Review of the TMDL – presentation heard today. Contracts are in place for LimnoTech and for legal services; will need to renew to extend the legal services agreement, which will go the WRWC later in the month.
- Reclaimed Water Aquifer Storage and Recovery Regulations – presentation provided today, with approval to move forward with a Workshop and finalization of the report.
- Septic System Density – staff has discussed nitrate occurrences in groundwater with

representatives of Reno, Sparks and Washoe County. The plan is to discuss the issue with Washoe County District Health and Community Development regarding use of septic systems in the future. A report was developed by Christian Kropf, DWR, that was published a couple of years ago on the septic issue. Mr. Smitherman stated that following discussions with District Health and Community Development, he might bring a scope of work to the NNWPC for a consultant to research what is being done in other parts of the country. Addressing groundwater pollution based on septic systems in the past has hit a snag based on a lack of solution alternatives.

- Storm Water Quality Management Program – The WRWC agreed that the Regional Water Management Fund should pay for the program. He explained that there is an existing agreement that will expire June 30, 2011; however, a new agreement has been approved for the next fiscal year in the amount of \$262,500. He added that the amount should be sufficient to cover all of the SWPCC’s activities. He stated that compliance with the new permit remains to be seen. He added that he expects the WRWC to continue funding in the following years. Mr. Smitherman stated that he attends the SWPCC meetings and can provide updates to the NNWPC.
- Assistance to the Truckee Meadows Regional Planning Agency – Mr. Smitherman’s time will be divided so that he can assist with the population disaggregation model after the first of July. Chairman Ball asked for updates to the NNWPC on this issue, with which Mr. Smitherman agreed. Commissioner Price stated that he would like to see regular updates to the NNWPC as the project proceeds.

Commissioner Price commended Mr. Smitherman on the Work Plan and asked if the timeframe is based on completion by the next Water Plan update. Mr. Smitherman stated that is the assumption.

8. Review and possible approval of the WRWC Fiscal Year 2011-2012 Routine Operating Budget for non-staff services, and possible direction to staff.

Commissioner Price stated that the NNWPC has seen this budget many times and there are no changes. He made a motion for approval of the Fiscal Year 2011-2012 Routine Operating Budget. Commissioner Erwin seconded the motion, which carried unanimously.

9. Report on legislative activities, including Bills pending in the 2011 Nevada Legislature that may affect the WRWC and NNWPC, and possible direction to staff, John Rhodes, NNWPC Legal Counsel.

Mr. Rhodes reported that the Legislature is winding down and will close in five days. The WRWC subcommittee has taken a neutral position on all the remaining bills, except two:

- Assembly Bill (AB) 237, submitted by the Legislative Committee to Oversee the activities of the WRWC (“LOC”), regarding the issuance of bonds to assist those required to hook up to the municipal water or sewer systems. This bill passed and was approved by the Governor.
- AB 238, submitted by the LOC, which would allow issuance of County Bond Bank bonds for refinancing securities. The bill was amended to only apply to Washoe County and only to water-related projects. He stated there is an indication that the bill will pass.

Mr. Rhodes stated that AB 59 related to Open Meeting Law, which initially provided for a civil penalty of up to \$500 for any member of a public body that was present at a meeting with a violation of Open Meeting Law, whether or not it was known. He reported that the bill was protested and amended to say that the civil penalty remains but one would have to *know* that the Open Meeting Law was being violated. He explained that his stand has always been that if Legal Counsel advises that you are *not* in violation, it is not considered to be a *known* violation. He stated that a decision on this bill has not been made.

Mr. Rhodes invited questions.

Commissioner Erwin referred to the WRWC Legislative Oversight Committee and asked if there is a

sunset clause. Mr. Rhodes stated he believes it expires in two years. Commissioner Erwin asked if new members would be appointed to the Committee or if an agenda has been set for the next year. Mr. Rhodes stated he is not aware of any appointments or an agenda; however, he offered to find the information and present an update to the NNWPC.

Commissioner Schumacher asked Mr. Rhodes if he had seen any bills related to revision of term limits. Mr. Rhodes reported that his focus was on water-related bills, ethics issues and Open Meeting Law bills.

10. Program Manager's Report

- a. Status report of projects and Work Plan supported by the Regional Water Management Fund**
- b. Financial report on the Regional Water Management Fund**
- c. Truckee River Flood Management Authority Press Release**
- d. Informational report from the NNWPC representative on the Truckee Meadows Water Authority Standing Advisory Committee ("TMWA SAC")**

Mr. Smitherman reported that the items included in the agenda packet are provided as informational items.

11. Discussion regarding agenda items for the July 6, 2011, NNWPC meeting, and other future meetings, and possible direction to staff.

Chairman Ball stated that his recommendation would be to cancel the July meeting. Commissioner Erwin made a motion to cancel the July 6, 2011 meeting. Commissioner Price seconded the motion, which carried unanimously.

Mr. Smitherman reported that items for the August NNWPC meeting include:

- Septic System Scope of Work
- Possible update on the TMRPA Progress
- Program Manager's Report

Mr. Rhodes stated that if desired, the August meeting could be canceled by staff advising the chairman.

12. Commission Comments.

Chairman Ball stated that he is very impressed with the knowledge of the Commissioners and the constant interest in the presentations. He added that there is a lot of talent on the NNWPC.

13. Staff Comments.

None

14. Public Comments.

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

15. Adjournment.

With no further business, the meeting was adjourned at 2:47 p.m.

Respectfully submitted by,

Niki Linn, Recording Secretary

Approved by Commission in session on _____ 2011.

George W. Ball, Jr., Chairman