



**TO:** Chairman and Board Members  
**THRU:** Mark Foree, General Manager  
**FROM:** Paul Miller, Manager, Operations and Water Quality  
**DATE:** April 12, 2011  
**SUBJECT:** **Request for Board Adoption of Resolution No. 174 supporting the week of May 1-7, 2011 as National and Local Drinking Water Week**

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Attached to this Staff Report is Resolution No. 174 (Attachment No. 1) requesting the TMWA Board of Directors to PROCLAIM that the week of May 1-7, 2011 is "National and Local Drinking Water Week" as a means for education and a call to action for residents throughout Washoe County to become involved in local water issues in our community.

This request was initiated by the Board of County Commissioners through the Department of Water Resources (DWR). Attached is the DWR Staff Report (Attachment 2) to the Board of County Commissioners for their April 26, 2011 meeting. This report was requested by a County Commissioner because of the continued misrepresentation of local drinking water by the Environmental Working Group (EWG). The EWG's erroneous portrayal of TMWA's water may have resulted in unnecessary concerns by consumers throughout the County regarding the quality and safety of water delivered in our area. Also attached (Attachments A, B, and C) is correspondence between TMWA and EWG which have previously been discussed with this Board of Directors.

For the Board of County Commissioners Meeting on April 26, in recognition of the quality of Truckee Meadows drinking water, both TMWA and DWR staff recommends that the Board of County Commissioners proclaim May 1 to 7, 2011 as National and Local Drinking Water Week. The excellent quality and reliability of tap water in our community is an asset that many communities in our country would envy and is definitely worth celebrating.

#### **RECOMMENDATION**

It is recommended that the TMWA Board of Directors proclaim May 1 to 7, 2011 as National and Local Drinking Water Week.

**TRUCKEE MEADOWS WATER AUTHORITY**  
(TMWA)

**RESOLUTION NO. 174**

**A RESOLUTION TO PROCLAIM NATIONAL AND LOCAL DRINKING WATER  
WEEK AS MAY 1 through 7, 2011**

**WHEREAS**, Water is our most valuable natural resource and is the basis for Safe, Secure and Healthy communities; and

**WHEREAS**, Only tap water delivers public health protection, fire protection, support for our economy and the quality of life we enjoy; and

**WHEREAS**, Truckee Meadows Water Authority (TMWA) and the Washoe County Department of Water Resources (DWR) carefully and conscientiously protect and manage water quality from the source to customer's tap to produce and deliver a high quality, aesthetically pleasing and reliable product for the use and enjoyment of residents of and visitors to the Truckee Meadows area; and

**WHEREAS**, The federal Environmental Protection Agency has delegated oversight of our community's drinking water to the Nevada Division of Environmental Protection and the Washoe County Health District. Regulators from these agencies are in unanimous agreement that the evaluations of local drinking water quality by a national group, the Environmental Working Group, has mis-portrayed the quality of local drinking water and, as a result of their erroneous portrayal may have caused unnecessary concerns by consumers regarding the quality and safety of water delivered in our area; and

**WHEREAS**, Annual Consumer Confidence Reports prepared to comply with federal standards and delivered to all TMWA and DWR water utility customers document the consistently high quality of tap water delivered by TMWA and DWR and demonstrate that tap water complies with all applicable drinking water standards and in many cases is significantly better than the minimum required; and

**WHEREAS**, Tap water is available to everyone in our community twenty-four hours a day, three hundred and sixty five days a year and at hundreds of convenient locations throughout the community; and

**WHEREAS**, Our community's high quality tap water is one of the best values anywhere, with a quart of tap water costing less than six one-hundredths of a cent (0.0006) per quart; and

**WHEREAS**, Any measure of a successful society – economic growth and diversity, productivity, and public health and safety – are in some way related to access to safe water; and

**WHEREAS**, We are all stewards of the water infrastructure upon which future generations depend; and

Truckee Meadows Water Authority  
Resolution 174 (continued)

**WHEREAS**, Each citizen of our community is called upon to help protect our source waters from pollution and to practice water conservation;

**NOW, THEREFORE, BE IT PROCLAIMED** by the Board of Directors of the Truckee Meadows Water Authority, that the week of May 1-7, 2011 is “National and Local Drinking Water Week” as a means for education and a call to action for residents throughout Washoe County to become involved in local water issues in our community.

Upon motion of \_\_\_\_\_, seconded by \_\_\_\_\_, the foregoing Resolution was passed and adopted April 20, 2011, by the following vote of the Board:

Ayes: \_\_\_\_\_

Nays: \_\_\_\_\_

Abstain: \_\_\_\_\_ Absent: \_\_\_\_\_

Approved April 20, 2011

\_\_\_\_\_  
Mike Carrigan, Chairman



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CM/ACM\_\_\_\_\_

Finance\_N/A\_

DA\_N/A\_

Risk Mgt.\_N/A\_

HR\_N/A\_

Other\_N/A\_

## STAFF REPORT

BOARD MEETING DATE: **April 26, 2011**

**DATE:** April 1, 2011

**TO:** Board of County Commissioners

**FROM:** Rosemary Menard, Director, Department of Water Resources  
954-4666, [rmenard@washoecounty.us](mailto:rmenard@washoecounty.us)

**SUBJECT:** **Presentation by the Washoe County Department of Water Resources and the Truckee Meadows Water Authority recognizing the high quality of drinking water delivered to the residents of the Truckee Meadows with adoption of a Proclamation declaring May 1-7, 2011 as National and Local Drinking Water Week. (All Commission Districts)**

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### SUMMARY

Drinking water provided to residents in the Truckee Meadows is produced and delivered by professional staff from two locally owned and operated water utilities under a stringently applied and enforced regulatory framework overseen by the federal Environmental Protection Agency, the Nevada Division of Environmental Protection and the Washoe County Health District. The evaluations of local drinking water quality by a national group, the Environmental Working Group (EWG), has mis-portrayed the quality of local drinking water based on misunderstanding, misinterpreting and misrepresenting the data submitted by the Truckee Meadows Water Authority (TMWA) to the national Safe Drinking Water Information System (SDWIS). The EWG's erroneous portrayal of TMWA's water as one of the nation's worst may have resulted in unnecessary concerns by consumers regarding the quality and safety of water delivered in our area.

Annual Consumer Confidence Reports (CCRs) prepared by both the Washoe County Department of Water Resources (DWR) and TMWA tell a completely different story about the quality of our drinking water. Since 1998, EPA has required that annual CCRs containing specific and detailed information about water quality be prepared by all public and private water utility providers and distributed to all water utility customers.

DWR and TMWA CCRs demonstrate that Truckee Meadows area residents receive consistently high quality water that complies with all applicable drinking water standards and in many cases is significantly better than the minimum required. TMWA and DWR manage water quality from the source to customer's tap to produce a product that is not

**AGENDA ITEM # \_\_\_\_\_**

only critical to the protection of public health but also is one of the best values anywhere, with a quart of tap water costing less than six one-hundredths of a cent (\$0.0006) per quart. This great product is available to everyone twenty-four hours a day, three hundred and sixty five days a year in individual homes and businesses and at hundreds of convenient locations throughout the community – a claim that few if any other products can match.

In recognition of the quality of Truckee Meadows drinking water, TMWA and DWR staff recommends that the Board of County Commissioners proclaim May 1 to 7, 2011 as National and Local Drinking Water Week. The excellent quality and reliability of tap water in our community is an asset that many communities in our country would envy and is definitely worth celebrating.

**Strategic Objective supported by this item:** Safe, Secure and Healthy Communities.

**Strategic Outcome supported by this item:** Healthy communities. The DWR will manage and protect regional water resources in a sustainable, cost-effective manner.

### **PREVIOUS ACTION**

None

### **BACKGROUND**

Drinking water provided to community water system customers in the United States is one of the most rigorously regulated products that is produced and delivered to millions of citizens every hour of every day. Some 52,000 public and private water systems in this country serve more than 290 million people with a high quality and reliable supply of drinking water that is treated as a perishable product and carefully and consciously managed from the source to the customer's tap to protect public health and ensure product quality and safety.

TMWA and DWR are the two largest water purveyors in Washoe County. TMWA operates one system serving approximately 275,000 people and the DWR operates 18 water systems serving approximately 53,000 people.

The water supplied to customers by TMWA and DWR is used primarily for domestic use, fire suppression and irrigation. All water provided by public water systems like those operated by TMWA and DWR must comply with federal and state regulations developed under the federal Safe Drinking Water Act (SDWA) adopted by Congress in 1974 and substantially amended in 1986 and 1996.

### **Federal Safe Drinking Water Act:**

The SDWA is a comprehensive regulatory framework which establishes nationwide limits for contaminants that could potentially occur in public drinking water and that pose or may pose a threat to public health. The SDWA requires EPA to set standards for

contaminants of concern and to periodically review and revise these standards as the scientific, toxicological, epidemiological and occurrence information evolves.

Historically EPA has regulated two basic types of contaminants in drinking water:

- microbial contaminants including bacteria, parasites, and viruses; and
- organic and inorganic contaminants such as tetrachloroethene, the dry cleaning fluid we know as PCE, and arsenic, respectively.

Microbial contaminants are typically regulated because they are associated with major water borne disease outbreaks, such as the April 1993 water borne disease outbreak in Milwaukee, Wisconsin that caused some 400,000 area residents to become acutely ill with gastro-intestinal symptoms. The organism responsible for the Milwaukee problem was identified as *Cryptosporidium parvum*, a chlorine resistant parasite, that wasn't effectively removed during a treatment process upset at the Milwaukee Surface Water Treatment Plant. Because *Cryptosporidium parvum* is resistant to chlorine, it passed through the treatment process unaffected and contaminated the drinking water system for the whole community.

Cholera and typhoid are additional examples of water borne disease that we often read about after natural disasters in places like Haiti or as occurring in third world countries. Drinking water regulations that require rigorous treatment of surface water sources (streams, rivers, lakes, reservoirs) and maintaining a disinfectant residual, usually chlorine or chloramines, throughout the distribution system have virtually eliminated water borne disease from community water systems in this country.

Organic and inorganic contaminants have been and continue to be a major focus of EPA's drinking water program. The impetus for this emphasis include notorious cases such as the 1970s soil contamination from a chemical waste dump under the Love Canal subdivision in Niagara, New York and the contamination of local groundwater resources in Hinkley, California with hexavalent chromium made famous by Erin Brockovitch in the 1980s. Both of these cases showed the potentially significant impact to human health of exposure to toxic chemicals, usually in the form of increased incidences of cancer, miscarriages and birth defects.

Historically, organic and inorganic chemicals have been regulated due to health concerns related to long-term or chronic exposure, usually but not always through consumption of drinking water, that increases an individual's risk of experiencing cancer. As part of its process for developing or revising drinking water standards, EPA conducts health risk assessments, including evaluating several possible exposure pathways, for example, consumption of drinking water, dermal exposure, and inhalation exposure, with both of the last two occurring as a result of showering, for example. Regulatory levels are typically set to protect the more sensitive parts of the population, for example pregnant women, children who tend to consume more water per pound of body weight than adults, and elderly consumers whose health and immune systems are often more fragile than the general population.

EPA's Arsenic Standard is a good example of a regulation for a naturally occurring inorganic contaminant that is based on concerns about increased instances of skin cancer resulting from long term dermal exposure. PCE, on the other hand, is regulated due to concerns about increased incidents of liver cancer associated with consuming water contaminated with this dry cleaning solvent.

### **Delivering Safe Water 24/7**

Although somewhat different in system configuration and sources utilized, TMWA and the DWR perform many of the same tasks to comply with the federal SDWA and work together to ensure that safe water is delivered to customers. TMWA utilizes the Truckee River as its primary source; with groundwater wells serving as a secondary supply. DWR utilizes groundwater wells as its primary source and purchases Truckee River water from TMWA on a wholesale basis to meet some of its customer demand. Before it can be supplied to customers, the water produced by TMWA and the DWR is screened for more than 125 different contaminants. The utilities are actively looking for contaminants such as solvents, gasoline constituents, herbicides, pesticides, inorganic elements, radioactive particles, protozoans and bacteria. The SDWA has established individual maximum contaminant levels (MCLs) for each of these constituents. The MCLs are set at a level designed to reduce the risk of any adverse health effects that might be associated with a lifetime of tap water consumption. Once the water is treated as required for its source, the water flows into transmission, distribution storage and water distribution system facilities which are further monitored and operated to recognize that drinking water is a perishable product and must be carefully managed from the source to the tap to protect public health.

Both TMWA and the DWR have taken a proactive approach to managing water quality, including a major emphasis on source water protection. By identifying and preparing inventories of potential sources of drinking water contaminants that occur within the watershed, the goal is to prevent the introduction of contaminants into drinking water sources. For more than 100 years, source water protection has been acknowledged to be the first step in supplying safe drinking water as well as a key part of the "multi-barrier" approach water utility and public health professionals use to protect public health.

### **Emerging Contaminants including Endocrine Disrupting Compounds**

In the last decade, EPA and other water industry interest groups have identified an additional category of contaminants of potential concern that have become known as Emerging Contaminants. Included in this group are contaminants that cause neither the acute illnesses associated with microbial contaminants, nor the cancer-end points associated with chronic and long term exposure, but rather mimic human or natural hormones or are or may be associated with developmental or reproductive effectiveness in either sex.

This sub-group of contaminants is known as endocrine disrupting compounds and includes pharmaceuticals, personal care products, as well as other organic compounds that may be formed as a result of the interaction of total organic carbon naturally occurring in water and disinfection or other treatment processes. In general, this group of compounds is not yet regulated by EPA. EPA has collected and continues to collect information about the occurrence of these suspected endocrine disrupting compounds in sources used for drinking water supplies throughout the country through required monitoring programs for unregulated contaminants. Organizations such as the EWG have targeted this group of contaminants for regulation and have used mechanisms such as its December 2009 report on water quality to create political pressure and generate political momentum, particularly with Congress, to require these contaminants to be regulated.

The most typical source of this group of contaminants in drinking water is treated wastewater effluent that is discharged back into a surface water source that then becomes the source of supply for a downstream user. Another typical source is septic tank effluent that becomes part of groundwater resources that are used for municipal supply or for domestic wells. In general, these compounds are detected, when they are detected at all, at extremely low levels in source waters used for drinking water supplies. Quantities detected are often in the parts per trillion range.

To translate these minute levels into something more understandable, Dr. Shane Snyder, formerly of the Southern Nevada Water Authority's Research and Development Department created the following examples:

- 1 part per million (1 milligram per liter) = ¼ of a teaspoon in a typical hot tub;
- 1 part per billion (1 microgram per liter) = 1 drop in 500 beer barrels;

Most of the contaminants regulated by EPA are regulated at the parts per million or parts per billion level.

Over the last decade, detection technology has significantly improved our ability to identify natural or man-made constituents in drinking water and in the future we may see regulations that require water utilities to meet even more stringent standards. For example new standards could regulate at the parts per trillion or even lower level. At these levels,

- 1 part per trillion (1 nanogram per liter) = 1 grain of sand in an olympic sized swimming pool;
- 1 part per quadrillion (1 picogram per liter) = 1 tablespoon of water in all the water flowing through the Mississippi River (at 600,000 cubic feet per second) for 10 days; and
- 1 part per quintillion (1 femtogram per liter) = 1/10 of a teaspoon in Lake Erie.

One of the challenges EPA faces in considering whether to regulate endocrine disrupting or other emerging contaminants in drinking water is that although we have the

technology to detect some of these contaminants at nanogram or picogram levels, there is virtually no reliable science establishing the human health impacts of any of these compounds. Generating the science needed to support sound rule making on both the occurrence of these compounds and their health effects, will require years of research. National water utility professional organizations believe that customers ought not be asked to pay for treatment processes that aren't justified by sound science and solid health risk assessments, and in general, EPA has promulgated new regulations only when these conditions have been met.

### **The December 2009 Environmental Working Group Report**

The Environmental Working Group (EWG) is a non profit group whose mission is to “use the power of public information to protect public health and the environment.” In December 2009, EWG published its “Tap Water Quality Database” in which “EWG rated big city water utilities on three factors:

- the total number of chemicals detected since 2004;
- the percentage of chemicals found of those tested; and
- the highest average level for an individual pollutant, relative to legal limits or national average amounts, including for the most common pollutants (disinfection byproducts, nitrate and arsenic).”

Based on the EWG criteria Reno (TMWA) water ranked fifth lowest. Understandably, this result caused some concern from water customers in the Reno area, and when the report was republished in early 2011, customers were again exposed to misinformation that created a cause of concern for some customers.

In response to this, TMWA immediately contacted EWG and began to attempt to set the record straight. After a number of interactions that failed to address TMWA's concerns, TMWA sent the letter provided as Attachment A to EWG in August 2010. The key points of the letter are summarized below.

Of 233 data points showing detected values in the 2005 data set used by EWG, TMWA provided 82 corrections (35% error rate). Among the most glaring errors are the following:

- In 2005 the arsenic regulation was 50 parts per billion (ppb). EWG reported values over 10 ppb (the current standard, which was revised and became effective in 2006) to be “over legal limit.” (4 occurrences)
- PCE/TCE (tetrachloroethene and trichloroethene, respectively) results were reported from untreated groundwater. Although certain source wells do have low levels of these solvents, the well water is treated to non-detect prior to being introduced into TMWA's distribution system. This resulted in PCE being reported as “over legal limit” and TCE being reported “over health guidelines. (16 occurrences)

- Data values were transcribed incorrectly in the database. This resulted in manganese being reported as “over legal limit” when the samples were within legal limits. (5 occurrences)

The EWG “ranking/scoring system” is based in part on the total number of constituents detected in a water supply. For the EWG report additional reporting errors resulting in over counting were as follows:

- The same sample data point was reported in duplicate or triplicate. (33 occurrences)
- Incorrectly reported data – Samples were reported for wells that were not operated during the reporting period – no value should have been reported. (12 occurrences)
- Double counting of same results. Nitrate results, and Nitrate plus Nitrite results counted twice by EWG. (12 occurrences)

Perhaps the most significant distortion of water quality occurred as a result of EWG’s failure to weight sources in reporting “average/maximum” levels of contaminants. In calculating these average levels, EWG assumed each water source contributes equally to TMWA’s water supply. The average value needs to be calculated based on the amount of water produced by each source (weighted average).

TMWA provided the corrected information for the 2005 data shown in their report, and for the 2008 data. A few examples of the corrected data are as follows:

- EWG showed system average arsenic at 7.06 ppb. The correct annual average arsenic value is 2.58 ppb for 2005, and 1.57 ppb for 2008.
- EWG showed average PCE at 1.67 ppb. The correct value is <0.05 ppb for both 2005 and 2008.
- EWG showed average manganese at 29.84 ppb. The correct value is 3 ppb in 2005 and 4 ppb in 2008.
- EWG did not take into account that 90% of TMWA’s water supply came from the Truckee River in 2005, and 88.5% in 2008.

Through all of 2010 and into the early part of 2011, TMWA continued to work with EWG in an effort to have them correct the data and republish their rankings. EWG finally responded to TMWA’s August 2010 letter in March 2011. TMWA again responded to EWG providing several corrections to misinformation and reiterating much of what was covered in the initial correspondence to them. TMWA’s March 9, 2011 and March 17, 2011 letters to EWG are attached as Attachments B and C, respectively. As stated in all of correspondence to EWG, TMWA has continually emphasized that

“EWG’s failure to correct the inaccurate information published in your report in a timely manner as previously promised calls into question your organization’s credibility. The majority of customers know the facts from various media interviews, public meetings and website postings where TMWA has set the record straight. It is time for EWG to do the same.

We (TMWA) cannot stress enough TMWA's commitment to providing high quality water to our customers and our dedication to ensuring the safety of our water supplies. We take the quality of our water seriously and that is why we will continue to pursue correct reporting of our water's quality from EWG."

TMWA and the DWR proudly stand behind the high quality drinking water they produce and serve to Washoe County residents. In recognition of the quality of Truckee Meadows drinking water, TMWA and DWR staff recommends that the Board of County Commissioners proclaim May 1 to 7, 2011 as National and Local Drinking Water Week. The excellent quality and reliability of tap water in our community is an asset that many communities in our country would envy and is definitely worth celebrating.

**FISCAL IMPACT**

No fiscal impact

**RECOMMENDATION**

It is recommended that the Board of County Commissioners proclaim May 1 to 7, 2011 as National and Local Drinking Water Week.

**POSSIBLE MOTION**

Should the Board agree with staff's recommendation, a possible motion would be:  
"Move to proclaim May 1 to 7, 2011 as National and Local Drinking Water Week."



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August 31, 2010

Environmental Working Group  
1436 U Street, NW Suite 100  
Washington DC 20009

Attn: Chris Campbell

Subject: Corrected Data Submitted to Environmental Working Group (EWG)  
Truckee Meadows Water Authority, Reno, Nevada

Dear Mr. Campbell:

This certified letter is sent to you to further document the attempts Truckee Meadows Water Authority (TMWA) has made to correct the numerous egregious errors made by EWG in its Drinking Water Quality Report dated December 14, 2009, concerning the quality of water delivered by TMWA. The EWG report grossly misrepresents the quality of that water. When TMWA learned of the widely-circulated report, it immediately contacted you regarding correction of the data. Although you assured TMWA that EWG would correct the information on its website and adjust TMWA's ranking, EWG has yet to do so.

In the beginning of 2010, we had several conversations with you and sent you email showing corrected data from 2005 and 2008 for your use. *A CD with that data is enclosed.* Of 233 data points showing detected values in the 2005 data set used by EWG, TMWA provided 82 corrections (35% error rate). Among the most glaring errors are the following:

- In 2005, the arsenic regulation was 50 parts per billion (ppb). EWG reported values over 10 ppb (the current standard) to be "over legal limit". (4 occurrences)
- PCE/TCE results were reported from untreated groundwater. Although certain source wells do have low levels of these solvents, the well water is treated to non-detect prior to being introduced into TMWA's distribution system. This resulted in PCE being reported as "over legal limit" and TCE being reported "over health guidelines". (16 occurrences).
- Data values were transcribed incorrectly in the database. This resulted in manganese being reported as "over legal limit" when the samples were within legal limits. (5 occurrences).
- The EWG "ranking/scoring system" is based in part on the total number of constituents detected in a water supply. For the EWG report, additional reporting errors resulting in over counting were as follows:
  - The same sample data point was reported in duplicate or triplicate (33 occurrences)
  - Incorrectly reported data – Samples were reported for wells that were not operated during the reporting period – no value should have been reported. (12 occurrences)

*Truckee Meadows Water Authority is a not-for-profit, community-owned water utility,  
overseen by elected officials and citizen appointees from Reno, Sparks and Washoe County.*

August 31, 2010  
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- Double counting of same results. Nitrate results, and Nitrate plus Nitrite results counted twice by EWG. (12 occurrences)

Perhaps the most significant distortion of water quality occurred as a result of EWG's failure to weight sources in reporting "average/maximum" levels of contaminants. In calculating these average levels, EWG assumed each water source contributes equally to TMWA's water supply. Although all TMWA sources meet all drinking water standards, the Truckee River source of supply (Chalk Bluff and Glendale water treatment plants) is our highest quality source and accounts for 85-90 percent of our total water supply while our groundwater sources account for the remaining 10-15 percent. The average value needs to be calculated based on the amount of water produced by each source (weighted average). TMWA provided the corrected information for the 2005 data shown in their report, and for the 2008 data. A few examples of the corrected data are as follows:

- EWG showed system average arsenic at 7.06 ppb. The correct annual average arsenic value is 2.58 ppb for 2005, and 1.57 ppb for 2008.
- EWG showed average PCE at 1.67 ppb. The correct value is <0.05 ppb for both 2005 and 2008.
- EWG showed average manganese at 29.84 ppb. The correct value is 3 ppb in 2005 and 4 ppb in 2008.
- EWG did not take into account that 90% of TMWA's water supply came from the Truckee River in 2005, and 88.5% in 2008.

TMWA last communicated with you in an email on April 2, 2010, to follow-up on your assurances that EWG was "halfway completed with correcting the water quality data and would post to the website". We have had no further communications from EWG since this time.

Given the wide publicity EWG sought and received regarding the safety of the nation's water supplies, it is troublesome to learn that you apparently have little regard for the veracity of the information you disseminate. In the long run, your use of erroneous and distorted data can only undermine the cause you purport to be promoting. We cannot stress too strongly TMWA's commitment to providing high quality water to our customers and our dedication to ensuring the safety of our water supplies. We would like to have responsible partners in this effort.

Sincerely



Mark Foree  
General Manager  
Truckee Meadows Water Authority

cc: Ken Cook/President EWG  
Greg Kail, AWWA Public Affairs Director  
David B. LaFrance, AWWA Executive Director  
Sylvia Harrison, TMWA General Counsel

March 9, 2011

Mark Foree  
General Manager  
Truckee Meadows Water Authority  
1355 Capital Blvd  
Reno, NV 89502

Via email and FedEx

**Subject:** Tap water quality in Reno, Nevada (Truckee Meadows Water Authority)

Dear Mr. Foree:

Thank you for your comments about the quality of drinking water the Truckee Meadows Water Authority provides to Reno residents.

The Environmental Working Group's tap water quality database shows that the U.S. Environmental Protection Agency has recorded no violations of drinking water regulations for the Truckee Meadows Water Authority (<http://www.ewg.org/tap-water/whatsinyourwater/NV/Truckee-Meadows-Water-Authority/0000190/>). We congratulate the utility for its long-standing compliance with state and federal drinking water standards. However, information Truckee Meadows has disclosed to the state and to its customers highlights the same water-quality issues reflected in EWG's tap water quality database. The water quality data EWG publishes are derived from test results Truckee Meadows has provided to the Nevada Division of Environmental Protection, supplemented by additional test results published in the utility's annual water quality report.

– **Arsenic** – It appears that some neighborhoods served by Truckee Meadows receive water contaminated with relatively high levels of arsenic. Truckee Meadows' "Water Quality Lookup" database ([http://tmh2o.com/water\\_system/quality/lookup](http://tmh2o.com/water_system/quality/lookup)) allows customers to see area-specific test results. For example, residents in the Central Reno/Sparks area can see that they are drinking nearly 6 times more arsenic than their neighbors in Northwest Reno (an average of 3.85 micrograms per liter [ug/L] versus 0.66 ug/L).

We agree with Truckee Meadows' decision to give residents area-specific water quality information, rather than a system-wide average that does not reflect what individuals are actually drinking. Since the utility breaks down its contaminant testing by neighborhood, we do not understand why you advise us to publish only a system-wide average. Certainly, Reno residents drinking higher amounts of arsenic than the system-wide average deserve to know.

Arsenic is a known human carcinogen, linked to skin, bladder and lung cancer as well as other health problems. The U.S. Environmental Protection Agency's ideal, known as the Maximum Contaminant Level Goal, or MCLG, for arsenic in drinking water is zero. The EPA set its legal

limit, technically, Maximum Contaminant Level, or MCL, higher to take into account high water treatment costs for reducing arsenic contamination. That legal limit translates to a 1-in-300 lifetime risk for bladder and lung cancer, according to the National Academy of Sciences, the nation's premier scientific advisory body (NAS. 2001 Update: *Arsenic in Drinking Water*. National Academies Press).

Truckee Meadows' customers undoubtedly appreciate neighborhood-specific data. We urge you to expand your disclosures by publishing area-specific information on peak arsenic levels recorded during the year, because short-term spikes could be a concern for pregnant women, young children and other vulnerable people. It is particularly important that pregnant women and parents of young children have access in real time to accurate information about water contamination.

– **Perchloroethylene (PCE)** – On its website, Truckee Meadows alerts customers to contamination with perchloroethylene, an industrial solvent, in ground water that is a source for some neighborhoods' drinking water. The notice attributes this contamination to pollution from “hundreds of businesses in the central Reno area including dry cleaners, paint stores and auto repair shops [that] have used PCE” ([http://www.tmh2o.com/water\\_system/quality/news/pce/](http://www.tmh2o.com/water_system/quality/news/pce/)).

Truckee Meadows' comments to EWG say that all wells are treated to non-detect levels, meaning, close to zero, before water is served to customers. But the utility's 2010 water quality report discloses test results of drinking water with PCE contamination as high as 2.91 micrograms per liter, clearly above detection limits. If particular neighborhoods are drinking PCE-contaminated water, we recommend that Truckee Meadows publish area-specific information, similar to its practice for arsenic contamination.

Perchloroethylene is linked to cancer and liver problems, according to the EPA. The agency's health-based goal for the compound is zero, but the legal limit is 5 micrograms per liter, higher than the ideal due to high contaminant removal costs.

– **Disinfection byproducts** – EWG's tap water database and Truckee Meadows' annual water quality report show relatively high levels of disinfection byproducts in Reno water. These compounds are formed when disinfecting chemicals added at a treatment facility react with residual pollution in the treated water. They have been linked to cancer and nervous system and liver disorders, according to EPA. While Reno residents can reduce their exposure to these toxic chemicals with inexpensive home filters, the best long-term solution is protecting drinking water sources from pollution in the first place, as Truckee Meadows advocates in its annual water quality report.

Additional responses to Truckee Meadows' comments:

- EWG compares arsenic tests to EPA's current legal limit in drinking water, 10 micrograms per liter (ug/L). Prior to 2006 EPA's legal limit was 50 micrograms per liter. The agency lowered the arsenic limit in 2006, to better protect the public from arsenic-induced cancer. The utility suggests that its water be rated under the looser, pre-2006

regulation. We find this suggestion inexplicable given the current law and well-established science.

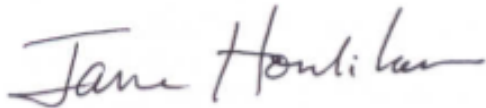
- Of the more than 2,000 tests of Truckee Meadows water that appear in EWG's tap water quality database, Truckee Meadows' letter notes that 5 tests for manganese may be inaccurate. If the utility provides us with the test results in question, we can make any necessary corrections. We would also recommend that the utility notify the Nevada Division of Environmental Protection, the source of the manganese test data in EWG's database. We believe it is reasonable to expect EPA and state agencies to maintain complete and accurate records of water quality tests.
- Truckee Meadows' letter says that 12 water quality tests EWG received as part of the Nevada state database, came from wells that the utility was not using as drinking water sources when tests detected spikes of contamination. Such tests in EWG's database can reflect contamination just before a well was shut down. The state database did not indicate whether the wells in Reno were taken offline because of contamination spikes or for other reasons. In general, well contamination reflects pervasive issues of source-water pollution with which utilities across the country struggle. Pollution in any well that may be used for water supplies is a concern for customers and utilities alike.
- Truckee Meadows' letter says that some individual water quality tests appear in EWG's tap water quality database multiple times. Tests shown in EWG's database are from the Nevada state database. Tests that may appear multiple times do not affect city ratings in EWG's tap water database because the calculations underpinning the ratings filter out multiple entries.

Truckee Meadows is not alone in its struggle to produce high quality tap water from polluted source water. The nation has long neglected its source waters, which are used for its drinking water. We share Truckee Meadows' belief, expressed in its 2010 annual water quality report, that "preventing pollution is far less expensive than spending money on water treatment." EWG's research has found that water utilities spend 19 times more money treating polluted water to make it safe enough to drink than federal, state and local governments spend on projects to reduce pollution in rivers and groundwater. Until the nation's public policies on clean water are strengthened, it is no wonder that residents of Reno and other cities are drinking a complex mixture of pollutants with every glass of tap water.

More than half the contaminants detected in tap water nationwide are unregulated. We encourage Truckee Meadows to test for a wide range of unregulated contaminants in order to build a fuller picture of tap water quality in Reno.

We heartily applaud Truckee Meadows' "commitment to [provide] high quality water to our customers and... dedication to ensuring the safety of our water supplies." We look forward to following its efforts in the years ahead.

Regards,

A handwritten signature in cursive script that reads "Jane Houlihan". The signature is written in dark ink on a white background.

Jane Houlihan, MSCE  
Senior Vice President for Research  
Environmental Working Group



*Quality. Delivered.*

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March 17, 2011

Environmental Working Group  
1436 U Street NW Suite 100  
Washington, DC 20009

Attn: Jane Houlihan

Subject: Response to EWG letter of March 9, 2011  
Truckee Meadows Water Authority, Reno, Nevada

Dear Ms. Houlihan:

Thank you for responding to my letter to EWG dated August 31, 2010. I appreciate your comments where you “congratulate the utility for its long-standing compliance with state and federal drinking water standards,” and for acknowledging the fact that the U.S. Environmental Protection Agency has recorded no violations of drinking water regulations for Truckee Meadows Water Authority (TMWA).

Our goal, after the issuance of EWG’s Drinking Water Quality Report dated December 14, 2009 has always been to have the report corrected to reflect that TMWA has never had any water quality violation of any kind as (inaccurately) reported by EWG. Due to recent events where the original article was reported again by both national and local media, it continues to cause customer and community concerns due to the misrepresentation of our water quality by EWG. We again request that you utilize the corrected information we provided EWG per our previous discussions and agreements.

As everything we do is subject to review by our customers and local, state, and federal regulatory staff, we need to respond to several of the inaccurate statements contained in your letter so that the facts are correctly represented.

- Information “highlighted” in the EWG December 2009 report states that TMWA had several values “over legal limits.” This is not correct as TMWA has always met all federal and state drinking water standards and has never had a violation.
- TMWA remains in compliance with the arsenic regulation. For our customers knowledge and benefit (not a state or federal requirement), we publish a “Water Quality Lookup” page based on where the customer lives. It is generally updated quarterly. The information provided is above and beyond regulatory requirements and lets customers make their own decisions based on the information provided.

- Also in regards to arsenic, EWG stated “the utility suggests that its water be rated under the looser, pre-2006 regulation”. That statement is a gross misrepresentation of what TMWA said. The fact is that EWG stated that a 2005 value of greater than 10 ug/L (ppb) was “over the legal limit”. TMWA simply pointed out that the Arsenic regulation in 2005 was 50 ug/L (ppb) and in fact in 2005, TMWA was completing improvements required to comply with the new standard. We have always been in compliance with both former and new arsenic regulations.
- TMWA did not advise EWG to “publish only a system-wide average” as stated in your letter. In the December 2009 report, “Average” results were reported by EWG. From our review of the December 2009 report and discussion with EWG staff (Chris Campbell), it was learned that the method EWG used to calculate these “average” values was incorrect (as EWG assumed incorrectly that all sources contribute equally) and therefore the results were inaccurate. TMWA informed EWG how to calculate the correct values based on a weighted average considering that 85-90 percent of our supply comes from Lake Tahoe and the Truckee River (an outstanding source of supply), and provided the correct calculated values to EWG for their use in preparing a revised report and ranking. At that time EWG (Chris Campbell) agreed that a weighted average calculation was appropriate for our water system and agreed to change the data accordingly.
- The December 2009 report by EWG showed Perchloroethylene (aka Tetrachloroethylene, PCE) to exceed the legal limit. Review of the data used by EWG resulted in the fact that EWG reported untreated water test data (tests taken prior to treatment) as water delivered to customers! We explained this to EWG and included the correct data with the explanation for EWG’s use in preparing a revised report and ranking as Chris Campbell promised. In the Excel spreadsheets we sent to EWG showing water quality data from 2005 and 2008 for every source, there are a few wells that have concentrations of PCE below the MCL that clearly meet EPA’s drinking water standards without treatment. This was clearly reported to EWG and is clearly reported in our annual water quality report that is sent to all customers. Maybe the language used by TMWA in the certified letter to you dated August 31, 2010, could have been clearer regarding this distinction.
- TMWA is in compliance with the Disinfection By-Product Rule.
- Several items seem to be related to the database EWG used. We asked EWG to provide us the information/data they used. We reviewed the information EWG sent us and sent back the appropriate comments for each error we noted. There was a 35 percent error rate for detected values in this database. We asked EWG to provide revisions to their analysis and ranking based on the corrected information. We were assured several times that a revision would be prepared. A statement from EWG on its Tap Water Database on December 15, 2009 said “Since the release of the report this past Saturday, not a single municipal water utility has contacted EWG with data corrections. EWG researchers continue to

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welcome utilities' comments and we will revise the results whenever valid data are provided to us." We provided the accurate information that was requested a year ago, yet EWG has still not revised the results as previously promised.

EWG's failure to correct the inaccurate information published in your report in a timely manner as previously promised calls into question your organization's credibility. The majority of customers know the facts from various media interviews, public meetings and website postings where TMWA has set the record straight. It is time for EWG to do the same.

We cannot stress enough TMWA's commitment to providing high quality water to our customers and our dedication to ensuring the safety of our water supplies. We take the quality of our water seriously and that is why we will continue to pursue correct reporting of our water's quality from EWG.

I request again that you follow through on your previous promise to correct your inaccurate data and revise your results.

Sincerely



Mark Foree  
General Manager  
Truckee Meadows Water Authority

cc: U. S. Senator Harry Reid  
U. S. Senator John Ensign  
U. S. Representative Dean Heller  
Marcus Faust