Volume 39 Winter 2010

Water Lines

Featured Article:

Award Winning Project at Silver Springs Mutual Water Company

By: Bob Foerster, NvRWA

Superintendent Don Allen accepted the EPA 2010 Project of the Year Award at the ribbon-cutting ceremony.

A customer-owned water system, SSMWC was faced with reducing arsenic to meet the 10 parts per billion (ppb) standard. The three active wells and their arsenic concentrations are: Lake Street, 28 ppb; Idaho, 15 ppb; Deodar, 10 ppb. A 2005 study of private wells in the area did not find groundwater that consistently met the standard so the only alternative was treatment. Superintendent Don Allen applied for the available time extension and kept things moving. In 2008, pilot testing and a Preliminary Engineering Report (PER) were completed. Testing showed that liquid-phase adsorption on coagulated Iron III followed by filtration (C/F) was the best treatment technology for water from these sources. Verification pilot testing was done in late 2009, and design soon followed. Because the system board and management had planned and prepared, SSMWC was able to meet the March 2010 deadline for State Revolving Fund, American Resource and Recovery Act (ARRA) funding. Construction started in March 2010 and the plant went on-line in October. Largely due to these ongoing efforts, Don Allen was named 2010 Manager of the Year at the Nevada Rural Water Association Annual Conference.

Two mobile home communities located beyond the SSMWC service area had been experiencing water quality problems. One had started to see persistent bacteriological issues and the other was in need of arsenic mitigation. Consolidation of each MHP with SSMWC proved mutually beneficial, and the MHPs now have more reliable, higher quality water supplies at reasonable cost. SSMWC was able to re-define its service area, and the SRF provided funds to extend the water system out to these users. SSMWC gained system looping, a better configuration, additional customers and will gain still more users when lots located along the new lines are developed. For a small water system, growth is a way to help gain economies of scale. In November 2010, Adele Basham of the Nevada Division of Environmental Protection SRF presented the *Nevada 2010 Drinking Water State Revolving Fund Project of the Year Award,* on behalf of EPA, to SSMWC in recognition for building a successful project and reaching out to bring in small neighboring systems.

The system design scheme involved new pipe lines sending water from the three wells to a central

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Stop Monitoring - Violations

By Sam Wade, National Rural Water Association

Is there really any reason that our industry has 113,729 monitoring violations each year? As you can imagine, the first thought is those smaller systems are the culprits. The fact is that smaller systems do have the majority of violations because they make up the majority of community water supplies in the nation. However, 2008 EPA data clearly documents that monitoring and reporting violations is an industry wide issue for all size systems.

Monitoring/Reporting Violations by System Size

System Size	# of CWS Systems	# of M/R violations	% of M/R violations by system size
< 500	29,160	76,063	260%
501-3300	13,858	18,619	134%
3,300-10,000	4,838	8,602	177%
>10,000	4,132	10,895	263%

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Updates and Announcements

Change of Mailing Address Requested

Operator Certification Administrators have noted that a number of certificates are being returned to the State, because Operators have not updated their mailing addresses after moving. Operators are asked to promptly notify the State when they have changed addresses. Please contact Nan Paulson at 775-687-9447 or npaulson@ndep.nv.gov

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2010 NTC Board Members

Bob Foerster, Chair 775-841-4222 nvrwa@pyramid.net

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Dale Johnson 775-738-6816 djohnson@elkocountynv.net

Vacant

The Spigot Q & A:

Focus on Electrical Fundamentals

1. **Sedimentation is a process that _____ suspended matter:**
   a) Settles b) Coagulates c) Flocculates d) Filters

2. **The main objection to "red water" is that it**
   a) Causes pipes to corrode b) Creates hardness c) Increases trihalomethanes (THMs)
   d) Stains plumbing and clothing

3. **Which of the following elements cause hardness in water?**
   a) Sodium and potassium b) Nitrogen and sulfur c) Fluoride and oxygen d) Calcium and magnesium

4. **In a filter using gravel, anthracite and sand, the anthracite should be**
   a) The top layer of media b) Beneath the gravel c) Between the sand and the gravel d) Mixed with the sand

5. **At a pumping station equipped with centrifugal pumps, what can cause the discharge pressure to suddenly increase and the discharge quantity to suddenly decrease?**
   a) A discharge valve was closed b) A suction valve was closed c) The pump amperage was decreased
   d) The voltage was suddenly increased

6. **A method used to soften water is**
   a) Aeration b) Sedimentation c) Ion exchange d) Adsorption

7. **Check valves are used to**
   a) Permit air to escape from the pipe b) Permit flow in only one direction c) Regulate velocity
   d) Allow air into distribution system

8. **A coupon test installation in a distribution system is used to**
   a) Determine the system's water quality b) Determine the rate of scaling or corrosion
   c) Calculate the daily treatment changes d) Assist in calculating the hydrant flows

9. **An average percentage range for unaccounted-for water in a fully metered system is**
   a) 0 to 5% b) 6 to 10% c) 11 to 15% d) 16 to 20%

10. **When the pumping rate is increased, the effect on the cone of depression is to**
    a) Decrease the drawdown b) Decrease the radius of influence c) Lower the pumping level
    d) Raise the pumping level

11. **What flow can be expected from a standard 5/8-inch by ¾-inch meter?**
    a) 5 gallons per minute b) 10 gallons per minute c) 20 gallons per minute
    d) 30 gallons per minute

Answers to the Spigot questions

1) A 2) D 3) D 4) A 5) A 6) C 7) B 8) B 9) C 10) C 11) C

Many thanks to the American Water Works Assoc. for their numerous valuable publications and study guides

**The Spigot is prepared by Crystel Montecinos, Environmental Consultant for Tigren, Inc.*
You can contact her at 775-240-1396.

Cont' Award Winning Project at Silver Springs Mutual Water Company

treatment facility. The facility is located adjacent to the Lake Street well. In order to maintain flow and pressure, the well pumps were outfitted with additional stages. One booster station was added within the system to move treated water into a higher elevation zone.

The arsenic removal process uses sodium hypochlorite to oxidize, ferric chloride (2 ppm range) and cationic polymer (0.02 ppm range) to adsorb and coagulate and dual media (anthracite over sand and graded gravel) pressure filters to remove arsenic. The well water pH spikes sporadically and when needed, sulfuric acid is available for pH optimization. A chlorine residual (0.5 ppm) is carried through the process, providing residual disinfectant in the distribution system, as was the practice at each well before central treatment was installed. With a new plant, SSMWC staff has been busy adjusting the process to determine the most efficient chemical doses. The plant was designed to produce water with an arsenic concentration of 8 ppb and product water is meeting this concentration.

Operator Paul Howard at the new arsenic treatment facility. The backwash decant water reclaim pumps and polymer feed system are in the background.
** Note the use of passive solar lighting.*

Well water is used for backwash, removing accumulated material from the filters. 85% of the backwash water is reclaimed through the decant and pumping system with approximately 15% used to carry sludge to the sanitary sewer by gravity flow. The wastewater is treated at a mechanical wastewater treatment facility, now operated by Lyon County Utilities, was built in Silver Springs in the late 1990s.

The arsenic removal plant is fully automated and uses an Allen-Bradley control system. Filter backwash is normally triggered by an operator-selectable set point. Each filter was shipped as a stand-alone skid with its own control unit, a configuration which kept project costs low compared to individually wiring each point on each skid back to a controller. All of the filter control panels communicate to a main controller. Hungerford-Terry, their local representative Ward Technical Products and Farr West Engineering teamed up to design the process and system modifications. Farr West Engineering also provided construction management, with retired Carson City public works director Tom Hoffert doing the inspection work. Construction was awarded to Q&D Construction, and Western Nevada Supply provided materials.

The treatment facility processes and service area population drive the need for a certified Grade 3 Water Treatment Operator. Nevada Rural Water Association provided no-cost operator training to bring the staff up to the treatment licensure needs. NvRWA guided the staff through the CSU Sacramento *Water Treatment Operator Volume I* course, and all members of the operations staff passed the course, obtaining the higher education hours needed to apply for licensure. Superintendent Allen already had the Grade 2 certification. Additional manpower needs due to the treatment plant and extensions of the system are equivalent to about ¾ of one full-time employee. This figure will be refined as experience is gained with the new facilities.

With a design flow of 1,800 gallons per minute (gpm), the current six-filter vessel configuration can handle production from two of the three wells. There is space for two additional filter vessels, which would bring the total capacity to 2,400 gpm and enable running all three wells simultaneously. There is another well in the system which is planned for future renovation, that provides needed redundancy.

Cont' Award Winning Project at Silver Springs Mutual Water Company

Operator Duane Johnson explains the treatment process following the plant dedication

So, what does all this cost? The plant alone cost just over $2 million, and system work brought the total cost to $3.66 million including the extension to five start mobile home park. An income survey verified that 94% of the households in the service area are low and moderate income. This put the system in a position to receive principle and interest -forgiven funding from the SRF ARRA. User rates still need to meet the reasonable cost criterion of 1 ½ % of median household income for a 15,000 gallon monthly usage rate. After the last rate increase in 2009, the SSMWC rates meet that test.

It is critical for managers to understand how any added infrastructure affects their costs. Engineering reports project both capital and operation and maintenance costs, often in terms of impacts on rates. After some operating time, the actual costs should always be carefully examined. The results will depend on process conditions, for example: how much energy is used; in practice, how much manpower is needed; impacts on costs driven by the skill and licensure levels; how long an expendable media lasts under actual operating conditions; cost for media replacement; the actual costs of residuals handling and disposal; chemical costs and other O&M costs. There are many variables, but each one is critical to writing budgets and setting rates. Ease of operation and O&M costs can also be significant factors in selection of treatment technologies. The NDEP-BSDW is now surveying systems statewide to get a clear idea of actual costs and how they compare to projected costs. This will inform the industry of the real impacts of the arsenic rule as well as other rules such as the 30 ppb uranium standard. If you wish to have one of the Technical Assistance providers help you evaluate your costs, please do not hesitate to contact one of us. We all have an interest in getting this information back to BSDW, and getting it right.

Filter vessels, valves, meters, local control panels, and piping headers.

Pipeline installation at SSMWC.

Arsenic Compliance for Small Water Systems

By Steve Palmer, RCAC

The MCL (Maximum Contaminant Limit) for Arsenic in drinking water was lowered to 0.010 mg/L (10 ppb) in 2006. Is your small water system in compliance with this lower standard? Are you still trying to determine the best and most cost effective way to address Arsenic compliance? If so, you are not alone. There are many small water systems in Nevada and across the nation that are facing the same challenges, and these systems have very limited financial resources when it comes to modifying water delivery infrastructure or installing expensive treatment technologies. Furthermore, there are a bewildering number of treatment technologies available for arsenic, many of which are new and untried. Water systems have installed central treatment for arsenic only to have the vendor who supplied the treatment media go out of business. Operational costs for new treatment may end up being far higher than original estimates. It can be hard for a water system governing board to know where to turn to be able to make responsible decisions. This article will provide some basic guidelines to assist in plotting the best course of action if your system is currently not in compliance. These guidelines are not intended to replace consultation with a qualified professional engineer when making important decisions about compliance driven modifications to water systems or treatment processes. They are designed to educate water system staff and management and hopefully illuminate some of the challenges and pitfalls that might be encountered in the process of determining the appropriate steps to be taken for achieving compliance for your water system.

First of all, your system may be eligible for compliance “extensions”. These extensions will buy you more time to address your arsenic problem. Currently, all systems that are eligible for extensions in Nevada have already been granted them, but even if you do not qualify, do not panic. The Bureau of Safe Drinking Water will work with you to fix your problem. It is important to be moving forward and planning for compliance in the future, regardless of your current status.

Before considering treating your raw water, it is important to look at all possible mitigation options that do not involve treating the water. Treatment costs never go away. You may be able to partially fund the installation of a new well or other infrastructure with grant money, but there are no grant sources that cover operations and maintenance costs. Your customers alone are burdened with paying these costs, now and in the future. So to begin with, ask yourself:

- Is it possible to find a new water source?
- Can you tie into a neighboring water system?
- Can you abandon a high arsenic source and rely on other wells within your system?
- Can you blend a high arsenic source with a lower arsenic source, so that the blended product contains less than 0.010 mg/L arsenic?
- Can you run a high arsenic source only in the summer, when demand is high, and blend the raw water in such a way that the running annual average stays less than 0.010 mg/L.
- Can you drill a new well in an area that is expected to be low in arsenic?

Be aware that drilling a new well has its own risks. The new well may not produce enough water, or the water may still be high in arsenic or have some other contaminant that must be treated. You may also consider having “well profile” testing performed on existing wells. It is sometimes possible to selectively block off different intervals of a well screen in such a way that it minimizes the level of arsenic produced from the well. Even if the arsenic concentration in the well water can’t be reduced so far that it does not require treatment, the ongoing cost of treatment will be reduced. This can add up to substantial savings over the life of a well. Well profiling tests can help you determine the potential financial benefits of well modification. Even though the costs of testing and modifying your well can be significant, it may be the most cost effective alternative in the long term. Check with your engineer to see if one or more of your existing production wells might be a good candidate for profile testing. Keep in mind that well modification can potentially be used to eliminate or reduce other contaminants too, not just arsenic.

If it turns out that there are no real non-treatment options, then installing treatment may be your alternative. When it comes to removing arsenic from

water, remember that one size does not fit all. You may have spoken with treatment technology vendors (like I have) who claimed that their product is the only treatment technology that any water system would ever need. In reality, there are two factors that generally determine what type of treatment technology would be the most efficient and cost effective for your particular water system, raw water chemistry and waste disposal options.

Let's tackle waste disposal first. When a contaminant such as Arsenic is removed from drinking water, it becomes concentrated in some type of waste product, such as sludge, brine, or spent adsorptive media, depending on the treatment process. This waste product is subjected to the Toxicity Characteristics Leaching Procedure (TCLP) and other tests to determine if it has hazardous characteristics. Some arsenic treatment wastes, such as sludge and spent adsorptive media, generally pass the TCLP test and can be classed as non-hazardous. Non hazardous wastes can usually be disposed of in a landfill at minimal cost. If a waste product is classified as hazardous, however, it will probably need to be shipped to a hazardous waste processing facility, at a far greater cost to the utility. Disposal costs for hazardous wastes can be a substantial portion of the total O & M costs for a treatment plant, so it is important to have the actual wastes from a given water treatment process tested so that operational costs can be accurately estimated.

Now, what about raw water chemistry? Many times, some characteristic of the raw water may interfere with a certain type of treatment process. Common interferences include:

- *High silica content tends to "blind off" adsorptive media, shortening the effective life of the media, and increasing costs.
- *High sulfate shortens ion exchange runs, requiring frequent regeneration of the media, and increasing costs.
- *High pH drastically reduces the amount of raw water Activated Alumina media can treat before it is exhausted.

So how can you tell what technology may be appropriate for your raw water based on water chemistry? Try going online, to http://cfpub.epa.gov/safewater/arsenic/arsenictradeshow/. The Arsenic Tradeshow website is an EPA tool that asks you a series of questions about your raw water quality. You will have already collected most of the information requested from your routine water quality monitoring program, as required by your health department. Once you complete the decision tree, the site will suggest one or more types of treatment technology based on your answers.

For very small water systems, the benefits of Point of Use (POU) treatment might outweigh the disadvantages. Point of use treatment utilizes a small, commercially available treatment device, generally installed in the cabinet under the kitchen sink. US EPA has approved units that incorporate either Reverse Osmosis or Activated Alumina adsorptive media for the treatment of arsenic. Overall treatment costs can be very low for these types of units, since only the water that is used for drinking, cooking, or ice making is actually treated. The chief disadvantage to these types of units is the liability to the water system. The under sink units, which are installed in the customers home, remain the property and responsibility of the water system. The water system is responsible for sampling and testing the units so it can be demonstrated to the State that the system remains in compliance. The water system staff must be able to enter 100% of the customer's homes to maintain and sample the units to ensure they are functioning properly. There are additional insurance and liability issues such as payment of damages if piping in a treatment unit leaks and causes damage to a customer's home. For this reason, the Nevada Bureau of Safe Drinking Water (BSDW) guidelines require all POU devices to be installed by a licensed plumber. BSDW guidelines also require that all POU devices be sampled within the first year, after which one third of the units must be sampled annually. If these maintenance and monitoring issues can be adequately addressed, the treatment costs per customer can be very attractive using POU versus a central treatment plant, especially for the smallest water systems. Contact the Nevada BSDW if you have questions regarding permitting of point of use treatment for arsenic.

If your water system intends to fund an arsenic

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Water Lines is produced and funded by the NDEP Office of Financial Assistance. Questions or suggestions should be addressed to Adele Basham abasham@ndep.nv.gov or 775-687-9488

Cont' Stop Monitoring - Violations

Monitoring/Reporting Violations by Number of Systems

System Size	# of CWS Systems	# of systems in violation	% systems in violation by size
< 500	29,160	8,567	29.3%
501-3300	13,858	2,841	20.5%
3,300-10,000	4,838	930	19.2%
>10,000	4,132	746	18.0%

It is safe to say that the process of reporting is also part of the problem. Whenever there are multiple entities communicating with each other and multiple reporting points there are bound to be delays, errors and mis-communication that contribute to the problem and in this case violations.

The failure to monitor is unacceptable but should not be viewed on the same level as monitoring that was completed properly but not entered into a data base somewhere. To reduce these violations a review of the reporting process will need to be undertaken by each state to identify areas for improvement to lessen errors and ensure that system monitoring data reaches the proper destination in an accurate and timely fashion.

On the system level, our industry simply has to do better and reduce the number of monitoring and reporting violations. These types of violations whether real or just paper violations give the industry a negative image and provide fuel for political and regulatory action. In this age of technology, social networking, electronic calendars, instant cell phone notifications and other technology it should be an easy issue to resolve, we just need to focus on it and "geter done".

Cont' Arsenic Compliance for Small Water Systems

remediation project through typical funding agencies such as USDA Rural Development, the drinking water State Revolving Fund (SRF), or Community Development Block Grants (CDBG), then expect to commission a Preliminary Engineering Report (PER). The PER should include a comprehensive analysis of at least three options for bringing the system into compliance, along with the associated capital and Operations and Maintenance (O & M) costs for each option. The PER is an important tool for assisting water system management in making informed decisions about cost effective compliance. Look this report over carefully, and ask questions, such as:

- Have all the non-treatment options been fully explored, including well profile testing?
- How were the O & M cost estimated?
- What kind of guarantee can the engineer or treatment technology vendor give you that the operational costs estimates are accurate?
- Can you get a guarantee that the treatment technology will perform as advertised with your raw water?
- Has test work been done to determine if the wastes produced are hazardous, and has the cost of disposing of these wastes been calculated?
- Can the engineer train your treatment operator to run the treatment plant once it is installed?
- Is technical support available to assist your treatment operator with working through start up problems?
- Has the treatment technology suggested been proven to work with your systems actual raw water?

As a utility staff person or manager, understanding the basics of arsenic treatment and asking appropriate questions of your engineer and vendor can help prevent costly mistakes or oversights. If you have questions or require assistance with your arsenic problem, contact Bert Bellows (BSDW) at 775-687-9525.

NWEA Certification Board Update

By: Jennifer McMartin, NWEA

The Nevada Water Environment Association (NWEA) administers the mandatory Wastewater Treatment Plant Operator Certification Program for the State of Nevada. NWEA also offers 5 voluntary certification programs: Wastewater Quality Analyst, Industrial Waste Inspector, Industrial Waste Operator (Physical/Chemical & Biological), Collection System Operator and Plant Maintenance Technologist.

All of NWEA's certification programs are administered through its Certification Board. NWEA uses ABC Standardized exams for all of its programs with the exception of the Industrial Waste Inspector exam. Applications, rules, and program information can be found on the NWEA website at www.nvwea.org. A current list of certified individuals can also be found under the "What's New" section.

The education, experience and certification requirements are the same for all of the programs that NWEA administers. Any applicant can sit for a grade 1 certification exam regardless of whether they meet the grade 1 requirements. If they pass the exam they will receive an in-training certification, which they can maintain indefinitely until such time that they meet the requirements for a full grade 1. NWEA requires that the exams be taken sequentially, which means that an applicant needs to pass the grade 1 exam before taking the grade 2 exam, etc.

Grade	Education & Certification	Experience*
1	High School or equivalent & submit 6 CEUs (60 hours of related training)	1 year full-time or equivalent (FTE)
2	Grade I Certification	2 years FTE
3	Grade II Certification	3 years FTE
4	Grade III Certification	4 years FTE

Applicants may sit for a higher grade level exam up to 90 days prior to meeting the experience requirement. If they pass the exam their certification will become valid on the date they attain the required experience.

NWEA certifications are valid for 2 years from the date of passing an exam. A renewal is mailed to the certified individual's last know address at least 30 days prior to the expiration date.

NWEA also offers a Voluntary Continuing Education Program. If a certified individual has attended training during their 2 year renewal cycle they can send in documentation of the training to receive an NWEA continuing education endorsement sticker that can be added to their certificate. To receive the endorsement individuals that hold grade 1 or 2 certifications must obtain 5 contact hours of approved continuing education and individuals that hold grade 3 or 4 certifications must obtain 10 contact hours of approved continuing education. The contact hours must be related to the type of certification that they hold.

The NWEA website www.nvwea.org contains a training calendar. The calendar provides both water and wastewater training information including the date, course description and how to contact the trainer.

Each applicant that qualifies to take a certification exam receives an exam approval letter which includes the ABC Need-to-know criteria and the suggested study material. NWEA strongly encourages applicants to utilize this information when preparing to take their certification exams. The NWEA website also contains a link to ABC's Formula Conversion Table. This table is provided with the exam but it is a good idea to make yourself familiar with the table so that during the exam you will know where to find the formula that you need.

If you have questions regarding certification please feel free to contact Jennifer McMartin at (775) 465-2045 or by email jenniferm@nvwea.org.

Wastewater Operators Certified

The following wastewater professionals passed their Wastewater Treatment, Laboratory, Collection, Industrial Waste Inspector, and Nevada Plant Maintenance exams in September 2010.

WASTEWATER TREATMENT GRADES

Grade 1: Samuel Owens, Joseph Westerlund

NEVADA COLLECTION

Grade 1: Nikolai, Nikolov

WASTEWATER LABORATORY ANALYST

Grade 2: Patrick Joyce

NEVADA PLANT MAINTENANCE

Grade 1: Paul Reed

NEVADA INDUSTRIAL WASTE INSPECTOR

Grade 1: Jeffrey Martin

Grade 4: Daniel Fischer

NEVADA INDUSTRIAL WASTE OPERATOR - BIOLOGICAL

Grade 1: Wendy Prescott

Water Operators Certified

The following water professionals passed their Water Treatment and Water Distribution exams in September 2010.

WATER DISTRIBUTION GRADES

Grade 1: Darren Burner, Kenneth Dela Vega, David Duff, Darren Feduska, James Kunzi, Randy Mitchell, Kevin Olsen, Joel Pepper, Kelly Joe Reyna, Timothy Simpson, J Lee Smith, Eric Vawter, Joseph Westerlund

Grade 2: Jeffrey Carter, Blake Gudmundson, Ron Jenkins, Luis Martinez, Milton Miller, Gary Oliver, Charles Safford, John Summers, Ruth Watson

Grade 3: Kenneth Angst, Travis Bunkowski, John Phillip De Jesus, Jason Dukek

Grade 4: Christopher Carter, James Souba

WATER TREATMENTS GRADES

Grade 1: Troy Albertson, Darin Bartmess, Michael Boney, Patrick Carey, George Dean III, David Duff, Craig Eichhorn, James Kunzi, Tyler Viani, Corey Wilson

Grade 2: Ronald Besserer, Elise Hoover, John Sheridan, Goerge Tinkorang

Grade 3: Travis Bunkowski

Annual NvRWA Conference:
March 8 - 10, 2011
Grand Sierra Resort in Reno, NV
Contact: NvRWA at 775-841-4222

TRAINING CALENDAR FOR 2010

Jan 9 - 12, 2011 - Nutrient Recovery & Management - Miami, FL
by: NWEA

- More info at: nvwea.org/certification/training-calendar

February 25, 2011 - SCADA Systems (the basics) by: Ken Angst of ECO Logic Engr

- Contact: Crystel Montecinos 775-240-1396

March 18, 2011 - Pressure Reducing Valves by: Mike Landers of Cla-Val

- Contact: Crystel Montecinos 775-240-1396

April 15, 2011 - Joint Restraints (Trenchless Const.) by: Stew Harvey of GSM

- Contact: Crystel Montecinos 775-240-1396

June 17, 2011 - Pump Hydraulics

- Contact: Crystel Montecinos 775-240-1396

Ongoing On Site - Various training topics - RCAC

- Contact: Stevan Palmer at 775-750-1884

Ongoing On Site - Various Management, Board, Wastewater and Water Topics, at your request - NvRWA

- Contact: Bob Foerster at 775-841-4222

Upon Request: Instructor-Lead CSUSac Courses: Distribution or Treatment, 6 - 8 weekly trainings. Contact NvRWA for details and to schedule. Gain the approved post-secondary training while preparing for your exams - NvRWA

- Contact: Bob Foerster at 775-841-4222 send us your e-mail address to get on the announcement list.

Useful Training Contacts

University of Nevada, Reno
CABNR & Cooperative Extension

UNR videoconference classes for water system operators and managers are available in most communities. To request a workshop in your area, call Crystel Montecinos at 775-240-1396 or email at: xtelle@aol.com

Community College of Southern Nevada Wastewater Water Technology Program www.cleanwaterteam.com

LeAnna Risso at 702-668-8487; LRisso@cleanwaterteam.com

WWET Training in Clark County

Training for water treatment plant and distribution system operators, wastewater treatment plant and collection system operators, and other professionals working within these fields. Contact Jeff Butler 702-258-3296. For the current training calendar see *www.wwet.org.*

State of Nevada Water Certification Exams

All exams will be proctored on the date listed. Applications and fees are due to the State Bureau of Safe Drinking Water 45 days before exam dates. A proctor will contact examinees to schedule testing. Contact Ron Penrose at 775-834-8017 for information about the exam dates.

Water exams are scheduled in the first three calendar quarters of each year at locations throughout the state. For additional information on

Drinking water call: 775-687-9527 or go to

http://ndep.nv.gov/bsdw/cert_home.htm

Wastewater call: 775-465-2045 or go to

www.nvwea.org

Nevada Water Environment Association

Jennifer McMartin

(775)465-2045

jenniferm@nvwea.org

www.nvwea.org

Nevada Rural Water Association

Please send requests for training to www.nvrwa.org or contact staff directly at 775-841-4222.

This symbol designates Nevada Division of Environmental Protection pre-approved training for certified renewal contact hours.

3189
STATE OF NEVADA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF FINANCIAL ASSISTANCE
901 SOUTH STEWART STREET SUITE 4001
CARSON CITY NV 89701
RETURN SERVICE REQUESTED

Water Lines

Winter 2010

Nevada Drinking Water and Wastewater Training Coalition

American Water Works Association
California / Nevada Section
***www.ca-nv-awwa.org or* 909-291-2100**

Nevada Water Environment Assoc.
***www.nvwea.org or* 775-465-2045**
***Starlin Jones* 775-861-4104**
***Eric Leveque* 702-792-3711**

USDA Rural Development
www.usda.gov/rus/water/index.htm
***Cheryl Couch* 775-887-1222 ext. 22**
***Kay Vernatter* 775-887-1222 ext. 28**

UNR Dept. of Civil Engineering
***Dean Adams* 775-784-1474**

Rural Community Assistance Corporation
***www.rcac.org or* 775-323-8882**
Stevan Palmer and Preston Kinne

Tigren, Inc.
***Crystel Montecinos* 775-240-1396**

U.S. Environmental Protection Agency, Region 9
www.epa.gov/region9
Jason Gambatese, 415-972-3571

Bureau of Safe Drinking Water
http://ndep.nv.gov/bsdw/index.htm
CEU approval 775-687-9527
Jim Balderson, SWAP 775-687-9517
Patty Lechler 775-687-9529
Bert Bellows, arsenic 775-687-9525

Nevada Rural Water Association
www.nvrwa.org or 775-841-4222
Bob Foerster, Executive Director
John Allred
Andy Anderson
Curtis Duff
Lizzy Andrew
Tahnee Praiswater
Jim Renfree
Paul Strasdin
Dan Tarnowski
Teresa Taylor
Jim Weeks
David Willard
Tatiana Zehl

Indian Health Services
***Dominic Wolf* 775-784-5327**

UNR Colleges of Natural Resources and Evironmental Science, and Cooperative Extension
www.unce.unr.edu/swp
Mark Walker, 775-784-1938

NDEP Board For Financing Water Projects
http://ndep.nv.gov/bffwp/index.htm

NDEP
http://ndep.nv.gov/index.htm
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Water/Wastewater Education and Training Consortium of Southern Nevada—WWET
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