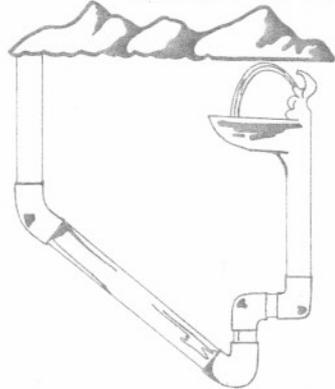


# Water

## Lines



**Water Lines** is the resource newsletter and calendar of the Nevada Drinking Water and Wastewater Training Coalition.

Volume 10 Winter 2002-2003 issue

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### Water Lines Special Insert

*Legal Responsibilities of Utility Boards of Directors*

*Safe Drinking Water Act Compliance*

*Water Lines* is funded by **Rural Community Assistance Corporation** through a contract with the Nevada State Health Division.

*Editor, Abigail Johnson, RCAC*

*Editor and Production, Julia Helmreich, RCAC*

## Featured System: Panaca

By Kay Vernatter, U.S. Department of Agriculture, Rural Development

**W**ater and system improvements have been ongoing challenges since 1864 when the first settlers arrived in what is now the town of Panaca in Lincoln County.

Originally, water came from a local spring and was distributed for irrigation and household use via hand dug ditches. In 1917, the first cement pipe was installed; water was pumped from a well to a tank on Court House Rock and then piped to homes.

The Panaca Farmstead Association, created in the 1940s to provide water service, made upgrades to the water system over the years. The Association has since expanded to include the sanitary sewer system.

The Association began system improvements with a capital improvement plan and a preliminary engineering report in the early 1990s. The reports identified major system deficiencies and needed improve-

### THE ASSOCIATION BEGAN SYSTEM IMPROVEMENTS WITH A CAPITAL IMPROVEMENT PLAN...

ments, including main and service line replacement, new well and well field construction, metering and tank improvements, and new telemetry and control valves.

The Association's board of trustees used a phased approach to replace the water system. System improvements were prioritized in a three-phase project that spanned several years. The board identified funding sources and implemented a new user rate, which is now evaluated annually. Phases I and II began in 1994 with distribution system replacements and



well field improvements. The Association's board of trustees signed a contract for final construction of the three-phase capital replacement plan in late September.

Phase III improvements include upgrading existing water mains, line looping and installing a new production well. The Association needed a well that could produce 750 gallons per minute (gpm) and would meet the newly established arsenic standard. Although production came in slightly lower, at

*(Continued on page 3)*

## State loans \$35 million to Nevada water systems

By Adele Basham,  
Nevada State Health Division

**I**f your water system needs a new storage tank, water line replacement, a new well, treatment or other upgrades to meet the U.S. Environmental Protection Agency (EPA) Safe Drinking Water Act requirements, consider the Drinking Water State Revolving Fund (DWSRF) program.

It's a fairly new program that provides improvement loans to public water systems at or below market rates. The DWSRF also provides technical assistance and water system education funds. The DWSRF's goal is to ensure that all Nevada public water systems provide customers water that is safe and pleasant to drink.

Since the DWSRF's inception, Nevada has received more than \$50 million from the EPA. In addition, the

*(Continued on page 3)*

# Wastewater circuit rider program adds new services this year

By Joe Maez, Nevada Division of Environmental Protection

The Nevada Division of Environmental Protection's Wastewater Circuit Rider Program will conduct security reviews at most of the state's rural treatment plants this year. The results will be summarized in a report to community managers. The report will assess the plant's vulnerability to acts of terrorism and vandalism. Community managers will receive recommendations to address areas of vulnerability; all report findings are confidential.

The Circuit Program also will develop a list of spare equipment available for lease or sale (such as aerators, pumps, sewer video units) in each community; participating communities will share the resulting inventory list and may reap significant equipment purchase and lease cost savings.



The Program is funded with a grant from the U.S. Environmental Protection Agency. The program provides on-site technical wastewater

treatment assistance to rural communities and Native American communities. The Division awards a three-year contract to a qualified trainer to perform these tasks; Currently, Kirk Peterson of SPB Utility Services is the contract trainer.

For more information, contact Joe Maez at 775/687-9431. ♻️

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## The Spigot Q & A

Q1. How does the water (hydrologic) cycle work?

A1. In the water (hydrologic) cycle moisture is transferred from the sea to the land and back to the sea again. Water evaporates from the sea, chills and forms clouds, and falls as precipitation over land and water. Precipitation may be stored in lakes or reservoirs before it returns to the ocean. Water may evaporate from the land or water surfaces or may be converted to water vapor by transpiration from plants. Water that reaches the ocean evaporates and the cycle begins again.

Source: *Water Treatment Plant Operation Vol I and II*, K. Kerri

Q2. What is the difference between a conductor and an insulator?

A2. Conductors allow electrical current (electrons) to flow easily, such as copper, gold, aluminum and iron. Insulators do not allow easy flow of electrons and include glass, plastic and rubber.

Source: *ACR Publications Inc., Introduction to Small Water Systems, 1999*

Q3. What are polymers and why are they used as a coagulant aid?

A3. Polymers are long, string-like chain molecules with charges along the string. The three common types of polymers are positively charged polymers called *cationic polymers*, negatively charged polymers called *anionic polymers* Polymers with no charge called *nonionic polymers*. Colloidal materials in water that do not settle out in a reasonable period of time generally carry a positive or negative charge. Because of this charge they are attracted to the oppositely charged polymer where they *coagulate*, allowing their removal from solution. There are many types and dosage variables in polymer use; use jar tests to determine the correct combination.

Source: *ACR Publications Inc., Introduction to Small Water Systems, 1999*

*The Spigot features Q&A on a variety of topics with typical certification exam questions. Crystel Montecinos, Program Development Specialist with the UNR Cooperative Extension, prepares the Spigot. ♻️*

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## New Nevada operators certified



These operators passed entry level water certification exams for distribution grades 1 & 2 and treatment grades 1 & 2. Congratulations to all!

### Distribution grades 1 & 2

Samuel Billin, D-1; Kelli Burgess, D-1; Thomas Carrigan, D-1; Ryan Collins, D-1; Ryan Dixon, D-1; Janelle Hubbard, D-1; David Jenks, D-1; Paul Miller, D-1; Johnny Moreira, D-1; Craig Moyle, D-1; Robert Murray, D-1; Irvin Paulsen, D-1; James Pizonell, D-1; Walter Raymond, D-1; Martin Reith III, D-1; Jamaine Smith, D-1; Mike Triszczuk, D-1; Daniel Wait, D-1; Don Young, D-1; Travis Zegers, D-1; Samuel DeGonia, D-2; Kylie Hatch, D-2; Richard Hill, D-2; Kenneth Howell, D-2; Eric Johnson, D-2; Casey Kelly, D-2; Thomas Manillo, D-2; Steven McNeese, D-2; Bryan Mortense, D-2; Maurice Solis, D-2; James Zidow, D-2.

### Treatment grades 1 & 2

Kelli Burgess, T-1; Ryan Dixon, T-1; Jared Dooley, T-1; Steven Gray, T-1; Kylie Hatch, T-1; Robert Hopkins, T-1; Casey Kelly, T-1; Paul Miller, T-1; Walter Raymond, T-1; Martin Reith III, T-1; Mark Russo, T-1; John Shaw, T-1; Dennis Southfield, T-1; Richard Hill, T-2; Eric Johnson, T-2; Bryan Mortense, T-2. ♻️

## Panaca

*(Continued from page 1)*

500 gpm, water quality testing indicated the water will comply with the new standard. The board concluded that production is sufficient to meet current community needs.

Total costs for all three phases are approximately \$1.8 million. Funding has been provided by the Community Development Block Grant program and loans and grants from the U.S. Department of Agriculture, Rural Development. Since the Association receives no public funding from tax revenues, all system operation and capital improvement costs are paid by local rate payers.

Presently, the population of Panaca is 800. The system has 350 water hookups and 330 sewer hookups. The average water rate is \$30 for 20,000 gallons, and the sewer rate was recently increased to \$15.50 per month. The largest user is the Lincoln County School District.

The Association is a nonprofit corporation owned by community members (water users). A board of trustees, elected from membership, oversees the Association. Victoria Gilpatrick, Office Manager and Carl Patrick run the day-to-day office and system operations. Kirk Peterson of

## DWSRF funds water system improvement

*(Continued from page 1)*

state has provided close to \$8.5 million in matching funds. Thus far, the program has lent nearly \$35 million to large and small public and private water systems.

DWSRF also funds non-construction activities—set-asides. Nearly \$9 million has been set-aside from EPA grants, which has provided a number of operator training opportunities, including University of Nevada, Reno Cooperative Extension video conference training; provisional operator certification workshops; and specialized courses on topics including water system construction; operation and maintenance skills; pumps and pumping; and electrical fundamentals. The set-

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SPB Utilities is the system's contracted certified operator.

While the current board of trustees, Gary Elmer, Lee Butler, Howard Fackrell, Lewis Kimbrough and Jim Rice were not on the board when the three-phase project began, they are committed to completing the system improvements. That commitment, combined with phasing, made major capital improvements feasible and affordable. ♠

aside funding also supports board training and technical assistance provider contracts for one-on-one training and assistance. This training and technical assistance has helped small public water systems to improve technical, managerial and financial capabilities. In addition, DWSRF set-asides fund source water protection programs, including vulnerability assessments and wellhead protection.

### Improvement loans to date

Steamboat Springs  
\$50,752-Water tank rehabilitation

Silver Knolls Mutual Water Company  
\$120,000-New well

Indian Springs  
\$203,346 - High interest lease reimbursement

Verdi Meadows Utility  
\$350,000 - Distribution and transmission lines

Country Terrace Mobile Home Park  
\$358,561 - Consolidation

Indian Hills GID  
\$643,500 -Storage and distribution upgrades

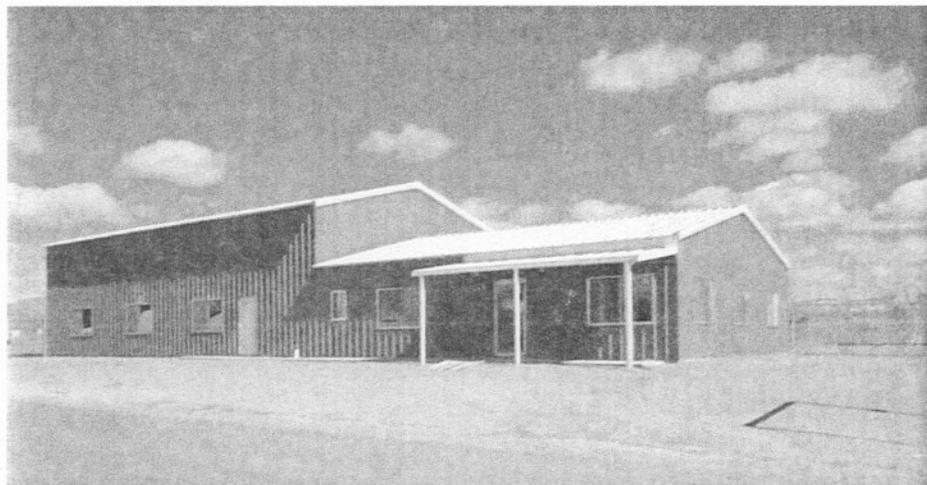
City of Fallon  
\$2 million - Arsenic treatment

Gardnerville Ranchos GID  
\$3.2 million -Distribution system improvement

City of Henderson  
\$5.5 million-UV treatment

Southern Nevada Water Authority  
\$22.2 million-Ozonation

DWSRF welcomes comments or suggestions for improvements to the loan program or set-aside activities. Call Adele Basham at 775/687-4750 ext. 265 or e-mail her at [abasham@nvhd.state.nv.us](mailto:abasham@nvhd.state.nv.us). For more information, visit the DWSRF web site at [www.health2k.state.nv.us/bhps/phe/srf.htm](http://www.health2k.state.nv.us/bhps/phe/srf.htm). ♠



*The Panaca Farmstead Association, office shown above, provides water and sewer service to Panaca's 800 residents. Panaca is in northeastern Lincoln County, Nevada.*

# University studies arsenic in Churchill County domestic wells

By Mark Walker, University of Nevada and Cooperative Extension

The University of Nevada is one of several groups studying groundwater quality in Churchill County, Nevada. Our current work focuses on arsenic occurrence in private water supplies and on exposure to arsenic through tap water consumption.

We are conducting studies in cooperation with county, state and federal partners, including the U.S. Geological Survey, the Centers for Disease Control and Prevention, the Nevada State Health Division and the Churchill County Board of Commissioners.

Approximately 4,500 private wells provide drinking water for up to 10,750 of the 23,250 residents in Churchill County. Recently completed private well sampling surveys indicated that concentrations of arsenic in groundwater supplies exceed federal drinking water standards in the majority of samples collected. In some cases, concentrations of total arsenic were more than 100 times that allowed in public drinking water supplies. However, it is unclear if residents consume water from private wells or if they rely on treatment units or alternative sources, such as bottled water.

County residents seek objective advice on drinking water-related issues, including proper sampling procedures, interpretation of sampling results, health implications, and alternatives for drinking water treatment. The University study will characterize arsenic exposure from private wells and provide residents with water quality information and treatment options.

We conducted a survey of approximately 350 residences to examine private well water quality and con-



Project team: Standing (left to right) Larry Andrews\*, Marnee Benson~, Carmen Bell\*, Irene Frey\*, Ralph Arbizu\*, Walter Richards\*, Alan Bain\*. Sitting (left to right) Patricia Whitten†, Mark Walker~, DeEtta Fosbury~.

\* Nevada GOLD Volunteer – University of Nevada Cooperative Extension, Churchill County  
~ University of Nevada, Department of Environmental and Resource Sciences

† University of Nevada Cooperative Extension, Churchill County

sumption and use habits, using graduate students and Nevada Guarding Our Local Drinking Water (GOLD) volunteers. The Nevada GOLD program is part of University of Nevada Cooperative Extension in Churchill County. Through the program, local volunteers receive formal training and then teach community members about groundwater protection and groundwater quality.

The volunteers received 15 hours of additional training to administer the questionnaire, identify and sample the point of most frequent water use in participating households, and transport water samples to the project laboratory (the Nevada State Health Laboratory on the University of Nevada campus).

Now that the samples and information have been collected, graduate student Marnee Benson will begin work with questionnaire and laboratory results to the assess actual

levels of exposure among the sampled members of the community. At the same time, the Nevada GOLD volunteers will refocus their efforts on education, especially related to water treatment options for homeowners in Churchill County. We plan to focus on point of use devices for arsenic removal. We will provide information about types of devices available, installation and maintenance costs and expected performance given chemical characteristics of water in the county.

For more information, contact Mark Walker at 775/784-1938. ♪

## Correction

In the previous issue of *Water Lines*, we listed the author of the Austin Featured System article as Georgia Greenrod of Nevada Rural Water Association (NvRWA). Actually, John Scovil, also of NvRWA, wrote the article.

## Legislative preview — 2003 Nevada state legislature

By Micheline Fairbank, Rural Community Assistance Corporation

The 2003 Nevada Legislative session will definitely be an important one for the state. With the prospect of significant financial difficulties, budget crunching, a likely shift in power from the northern parts of the state to the south, issues are growing rapidly.

The Nevada Legislature will commence its 72<sup>nd</sup> session February 3, 2003. While the session is still several months away, preparation is underway. The results of the general election are sure to be of interest to small water systems throughout the state. Let's examine some of the issues the Legislature will consider.

The Division of Environmental Protection (NDEP) submitted bill draft request (BDR) 553, which proposes to increase the amount of general obligation bonds to provide grants for certain public water systems. The text of the bill is not yet available;



however NDEP announced that it is seeking additional bonding capacity of \$10 million to continue providing grant funding under the A.B. 198 program. The Board for Financing Water Projects reported that prospects for additional funding seemed sure, but until the final budget is out, continued funding is not guaranteed.

These BDRs also are likely to be of interest to small water systems:

- BDR 196 proposes to make changes to public meeting recording and posting notices and minutes of those meetings.
- BDR 278, requested by Clark County, makes various changes to provisions governing water.
- BDR 426 would revise provisions governing the assignments of certain water rights upon the replacement of a domestic well with municipal water service.

### Nevada benefits from USDA rural business aid

Thirty-two states are receiving more than \$6.8 million in rural business loan and grant funds designed to foster economic development in rural areas, according to Agriculture Secretary Ann M. Veneman.

In Nevada, Nevada MicroEnterprise Initiative (NMI) was awarded \$124,300 in Rural Business Enterprise Grant funds. These funds will be used for business development education (technical assistance) to rural, low- and moderate-income entrepreneurs to improve their business ownership success.



"We are looking forward to working in partnership with NMI in its efforts to educate small business owners in the rural areas," said Larry Smith, U.S. Department of Agriculture, Rural Development state director.

"Additionally, this grant will enable NMI to recapitalize its micro-loan fund to assist these businesses with the financing they need to start or expand their business endeavors."

For more information, contact Nevada MicroEnterprise Initiative in Reno at 775/324-1812.

- BDR 654 proposes to revise provisions regarding water wells.

Unfortunately, the details concerning the language in the bills are not available until shortly before the legislature meets.

To monitor new BDRs, access the BDR list online at <http://www.leg.state.nv.us/72nd/BDRList>. Information about the 2003 Legislative session is available online at the Nevada State Legislature web site at <http://www.leg.state.nv.us/>. Access all election results for the state of Nevada from the Secretary of State's office at <http://sos.state.nv.us/>.

### Coming soon – Free job listings on the Internet

Having trouble finding the right employee? Soon, you can post career opportunities in your community via the Internet. The University of Nevada will list water-related job opportunities in Nevada on the Source Water Protection web site.



*The listing is free!* If your drinking water or wastewater system has a job opening, let us know, and we will help connect you. The Source Water Protection web site is widely known in Nevada and will be a great way to advertise job openings in your town. The Source Water Protection web site, sponsored by the Nevada Bureau of Health Protection Services through the Safe Drinking Water State Revolving Fund, is at [www.unce.unr.edu/swp](http://www.unce.unr.edu/swp). To list an opening or for more information, please contact Crystal Montecinos at 775/784-6853 or at [xtelle@cabnr.unr.edu](mailto:xtelle@cabnr.unr.edu).

# RESOURCE ROUND-UP

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## Source water assessment and protection guidance booklet



The Water Education Foundation (WEF), through a grant from the U. S. Environmental Protection Agency, produced a source water assessment and protection guidance booklet, *Protecting Drinking Water: a Workbook for Tribes* (July 2000). Copies are available by request from WEF or order online at [www.water-ed.org/specialprojects.asp](http://www.water-ed.org/specialprojects.asp).

## Track training opportunities

To track current water and wastewater operator, manager and board training offered in our region, bookmark these web sites and check them regularly:

American Water Works Association,  
California/Nevada Section  
[www.ca-nv-awwa.org](http://www.ca-nv-awwa.org)

Nevada Rural Water Association  
[www.nvrwa.org](http://www.nvrwa.org)

Nevada Water Environment Association  
[www.nvwea.org](http://www.nvwea.org)

Water/Wastewater Education and Training Consortium of Southern Nevada—WWET  
[www.wwet.org](http://www.wwet.org)



## Injection well guide

*Protecting Drinking Water through Underground Injection Control* is a pocket-sized guide to the five classes of injection wells and includes a list of regional/state UIC contacts. For free copies, e-mail Tony Capinpin at [capinpin.tony@epa.gov](mailto:capinpin.tony@epa.gov).



## Groundwater awareness book

*Protect Your Ground Water: Educating for Action*, a 64-page book describing how communities can implement a groundwater awareness program to safeguard groundwater supplies, is available at no cost from the National Drinking Water Clearinghouse. To order, call 800/624-8301 or e-mail at [ndwc\\_orders@ndwc.wvu.edu](mailto:ndwc_orders@ndwc.wvu.edu), and ask for item #DWBKPE66.



## Free software for assessing wastewater system vulnerability

The Vulnerability Self-Assessment Software Tool (VSAT) can help wastewater utilities analyze how vulnerable they are to both intentional threats and natural disasters. VSAT organizes data, supports and documents vulnerability analyses, and presents complex information in an easy-to-understand format for potential utility assets. To order, go to [www.amsa-cleanwater.org/about/about.cfm](http://www.amsa-cleanwater.org/about/about.cfm).



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## State of Nevada water certification exams

All exams will be proctored some time during the week of the date listed. Applications are due to the state (Steve Brockway) 30 days before exam dates. Examinees will be contacted by a proctor to schedule testing. 2003 exams are scheduled for March 7 (special sitting for NvRWA), March 10, June 2, Sept. 8, and Dec. 1. Info: Debra Kaye, 775/834-8114.

## Wastewater Certification Board testing dates

**January 9, 2003 — EXAMINATION**

**April 10, 2003 — EXAMINATION**

Wastewater certification exams will be given the second Thursday in January, April, July and October in Las Vegas and Ely. Info: 702/433-1498 or [www.nvwea.org](http://www.nvwea.org).

## Community College of Southern Nevada Wastewater and Water Technology Program

Info: LeAnna Risso, 702/434-6600 ext. 6418.

## WWET training in Clark County

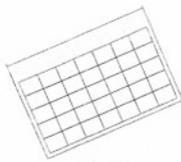
Info: Gladys Alford, 702/258-3834; see [www.wwet.org](http://www.wwet.org) for a current training calendar.

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## UNR – Colleges of Agriculture, Biotechnology, and Natural Resources & Cooperative Extension

## Videoconference Training Calendar 2003

TBD — Reno and Rural Locations — UNR videoconference classes on water systems operation, maintenance and management. For information, locations, topics or to be added to the mailing list, contact Crystel Montecinos at 775/784-6853.



# Training Calendar 2003

January 8-9 — Las Vegas — Operations and Maintenance Skills Training, Arasmith Consulting Resources. Info: 775/882-8887 or 541/928-5211.

January 8 — Pahrump — NvRWA wellhead protection (3 hours). Info: 775/884-2055.

January 9 — Elko — CA-NV AWWA small systems workshop on new water regulations at the Red Lion Hotel and Casino. Info: 909/481-7200.

January 22 — Hadley — NvRWA confined space (3 hours). Info: 775/884-2055.

February 5-6 — Reno — Operations and Maintenance Skills Training, Arasmith Consulting Resources. Info: 775/882-8887 or 541/928-5211.

February 5 — Minden — NvRWA confined space (4 hours) excavation awareness (3 hours). Info: 775/884-2055.

February 10-14 — Napa, CA — California-Nevada AWWA Educational Symposium at Napa Valley Marriot. Info: 909/481-7200.

February 12 — Napa, CA — California-Nevada AWWA Smaller Utilities Committee meeting, 6-8 p.m. at the conference. Info: Philip Walsack, 775/882-8887.

February 19 — Ely — NvRWA wellhead protection (3 hours). Info: 775/884-2055.

March — Carson City — NvRWA symposium on training needs. Date to be determined. Info: 775/884-2055.

March 4-6 — Sparks — NvRWA technical conference, at John Ascuaga's Nugget. Info: 775/884-2055.

March 6 — Sparks — Operator Certification Advisory Board meeting, held at 9 a.m. at the NvRWA Conference at John Ascuaga's Nugget. Info: 775/687-6615 ext. 267.

March 26-27 — Carson City — Operations and Maintenance Skills Training, Arasmith Consulting Resources. Info: 775/882-8887 or 541/928-5211.

June 15-18 — Anaheim, CA — AWWA 2003 Annual Conference and Exposition. Info: [www.awwa.org](http://www.awwa.org).

September 25-27 — Laughlin — Tri-State Seminar. Info: Annette Duarte, 520/740-6539, or go to [www.tristateseminar.com](http://www.tristateseminar.com).

## CA-NV-AWWA Small Systems Workshop

Elko — Jan. 9, 2003 — Red Lion Hotel and Casino

If you are a small system owner, operator, manager or board member, this workshop is for you. Learn about operator certification, the arsenic rule, ESWTR, sampling, monitoring, treatment options, and funding. Contact hours are available. This workshop is supported by the EPA. Info: CA-NV AWWA, 909/481-7200

## Nevada Rural Water Association Training and Technical Conference March 4-6, 2003

John Ascuaga's Nugget, Sparks, Nevada

Water and wastewater operators, and system managers, office workers and board members will take part in three days of CEU-credit courses at the upcoming NvRWA annual training and technical conference. One day of classes will be at Western Nevada Supply with hands-on training for water operators. A hands-on workshop and wastewater tour will also be held for wastewater operators.

Water and wastewater operator examinations will be held Friday, March 7 following the conference, and exam preparation courses will be provided during the conference.

Registration packets will be mailed to each system in January. Info: 775/884-2055.

*This symbol designates training pre-approved by the Nevada State Health Division for continuing education units (CEU) credit. Other training may be eligible for CEUs but is not yet pre-approved. Before attending any training, contact the Health Division at 775/687-6615 ext. 235 for approval. Ten hours of approved training equals 1 CEU. A different ratio applies for safety training. Contact Steve Brockway at 775/687-6615 ext.235 for details.*



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## Nevada Drinking Water and Wastewater Training Coalition

### American Water Works Association California/Nevada Section

[www.ca-nv-awwa.org](http://www.ca-nv-awwa.org)  
Philip Walsack, Smaller Utilities  
Committee Chair, 775/882-8887  
Nicole Schreuder, training, 909/291-2103

### Indian Health Service

Dominic Wolf, 775/784-5327

### Nevada Division of Environmental Protection

[www.state.nv.us/ndep/index.htm](http://www.state.nv.us/ndep/index.htm)  
Leo Drozdoff — Water Pollution Control,  
775/687-9416

Nevan Kane — Wellhead Protection,  
775/687-9426

Jon Palm — AB 198 Water Grant  
Program, 775/687-9433

### Nevada Rural Water Association

[www.nvrwa.org](http://www.nvrwa.org)  
Georgia Greenrod, 775/884-2055  
Bob Foerster, 775/721-7972  
Jonn Scovil, 775/884-2055  
Russ Crocker, 775/720-0675  
Jon Anderson, 775/884-2055  
John Pesci, 775/884-2055

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### Nevada State Health Division

[www.state.nv.us/health/bhps](http://www.state.nv.us/health/bhps)  
775/687-6615  
Jim Balderson, SWAP, ext. 228  
Adele Basham, DWSRF, ext. 265  
Steve Brockway, CEU approval, ext. 235  
Galen Denio, ext. 229  
Dana Pennington, ext. 237

### Nevada Water Environment Association

[www.wef.org](http://www.wef.org)  
Bruce Johnson, 702/369-6175  
Starlin Jones, 775/861-4104  
Rick Warner, 775/954-4621

### Public Utilities Commission of Nevada

[www.state.nv.us/puc](http://www.state.nv.us/puc)  
Steve McGoff, Utility Engineer, 775/687-6040

### Rural Community Assistance Corporation

[www.rcac.org](http://www.rcac.org)  
John Dailey, 775/882-8887  
Micheline Fairbank, 775/882-8887  
Abby Johnson, 775/882-0296  
Philip Walsack, 775/882-8887

### U.S. Environmental Protection Agency, Region 9

[www.epa.gov/region09](http://www.epa.gov/region09)  
Marvin Young, 415/972-3561

### USDA-Rural Development

[www.usda.gov/rus/water/index.htm](http://www.usda.gov/rus/water/index.htm)  
Mike Holm, 775/887-1222, ext. 26  
Kay Vernatter, 702/262-9047 ext. 113

### University of Nevada, Reno

Dept. of Civil Engineering  
Dean Adams, 775/784-1474  
Environmental & Resource Sciences  
and Nevada Cooperative Extension

[www.unce.unr.edu/swp](http://www.unce.unr.edu/swp)

Mark Walker, 775/784-1938

### Water/Wastewater Education and Training Consortium of Southern Nevada — WWET

[www.wwet.org](http://www.wwet.org)  
Marie Pollack, Chair, 702/298-3113  
Gladys Alford, Registrar, 702/258-3834

### NDWWTC Board Members

Adele Basham  
775/687-6615 ext. 265  
[abasham@nvhd.state.nv.us](mailto:abasham@nvhd.state.nv.us)

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775/784-1474  
[vdadams@unr.nevada.edu](mailto:vdadams@unr.nevada.edu)

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775/884-2055

[nvrwa@pyramid.net](mailto:nvrwa@pyramid.net)

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775/861-4105  
[rrocha@ci.sparks.nv.us](mailto:rrocha@ci.sparks.nv.us)

Philip Walsack  
775/882-8887  
[pwalsack@rcac.org](mailto:pwalsack@rcac.org)



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**Nevada Drinking Water and Wastewater Training Coalition**

*Water Lines*

**Winter 2002-2003**



This issue of *Water Lines* is printed on recycled and recyclable paper.



## Water Lines Special Insert

### Water Board Basics — Legal Responsibilities

By Micheline Fairbank, Rural Community Assistance Corporation



Water and wastewater utility boards have the same legal duties to an organization as a corporation's directors have to a corporation. This means that utility board members owe a fiduciary duty to the organization they serve. Fiduciary duties include the *Duty of Loyalty* and the *Duty of Care*, which are derived from common law; however, state law often imposes additional duties on boards. In Nevada, those duties are listed in NRS 82.121 through 82.136 and NRS 318.080 through 318.090.

The *Duty of Loyalty* prohibits self-dealing and requires that board members be faithful to the organizations they serve; the *Duty of Care* requires that the board exercise the degree of care that an ordinarily prudent person would follow in same or similar circumstances. In addition to these fundamental duties, there are other responsibilities a board has to the utility it serves. The following list details the top 10 legal board responsibilities.

#### Top 10 legal responsibilities of the board

1. *Ensure that your utility complies with all applicable federal, state and local laws and ordinances.*

Boards must have copies of applicable state statutes and regulations and an open meeting law manual available and accessible during meetings. Not only is it important to have copies of these laws available, but it is essential that each board member reads the laws, and understands the requirements, as they relate to your utility.

2. *Conduct business only as a board.*

Individual board members cannot make contracts. It is illegal for individual governing body members to use their "apparent authority" to make contracts on behalf of the utility. As such, any decision that is binding on the utility must be made by the board as a whole.

3. *Avoid a conflict of interest and the appearance of one.*

It is imperative to avoid a conflict of interest and to remove yourself from voting on matters that may affect personal interests, including those of family and close friends. If there is a question as to whether there is a conflict of interest, it is always better to err on the side of caution and refrain from voting on that matter.

4. *Ensure that the water system receives, records, and spends funds in accordance with acceptable accounting, purchasing and record keeping standards, and that all records are made available according to state and federal law.*

Understand what records must be maintained, and how long they must be retained.

5. *Ensure that your system revenue covers operations, plus debt service and reserves.*

Water and wastewater utilities are businesses, and it is imperative that they are operated as such. Income must meet expenditures. Under a board member's duty of care, it is critical that revenues provide for a debt service account to fund capital improvements and infrastructure maintenance and improvements. Often, this requires regular rate increases, which may be unpopular but are critical.

6. *Board members must remain in charge and must direct.*

A board may delegate certain tasks, such as entering into a certain sum contract or hiring employees; however, the board is always ultimately responsible for all decisions made on behalf of the utility.

7. *Board members must ensure that the organization is operating within its legal framework.*

It is essential that board members understand what their responsibilities are as well as their limitations. Not only does federal, state and local law require legal duties, board rules and regulations will demand additional duties. Board members must be familiar with their organization's additional rules and regulations.

8. *Directors have a legal responsibility to protect utility assets.*

Board members have an obligation to know the status of their utility's assets. If assets are misused or misappropriated, ultimately, the board member is responsible. Ask for clarification and understand expenditures. If you are still unclear, ask questions to better understand your utility's financial status.

9. *Board members must validate all major contracts by giving and recording formal approval.*

While the negotiation of contracts can be delegated to a staff person or another board member, the board as a whole must approve the contract.

10. *Board members must attend most board meetings.*

Attending board meetings regularly is one of the duties of loyalty and care. Board members must act in the utility's best interest and set policy for the utility. You must attend board meetings to perform your job as a board member.

### Summary

It is critical that board members meet all legal responsibilities.

Failure to do so can result in fines and criminal liability. However, if you are aware of the decisions you make as a member of the board, act



for the best interest of the utility, and assure compliance with your fiduciary responsibilities, you will effectively accomplish your role as a board member.

Put these suggestions into practice as a member of your utility board.

- ✓ Attend meetings.
- ✓ Record minutes of meetings, read minutes, and make sure they are correct.
- ✓ Record objections and debate controversial or difficult issues.
- ✓ Conduct an annual audit.
- ✓ Review financial statements and budget summaries, and insist on understanding them.



## Water Lines Special Insert

### Water Board Basics —Safe Drinking Water Act Compliance

By Micheline Fairbank, Rural Community Assistance Corporation

#### In a nutshell

The Safe Drinking Water Act (SDWA), established in 1974, protects the quality of drinking water in the United States. The SDWA focuses on all water designated for human consumption, whether from surface or groundwater sources serving more than 25 people.

The Act authorizes the Environmental Protection Agency (EPA) to establish safe standards of purity and requires all public water system owners or operators to comply with primary (health-related) standards. State governments, which assume this power from EPA through primacy, also encourage secondary standard attainment.

#### The Safe Drinking Water Act

Congress passed the SDWA in response to concerns about drinking water supply contaminants throughout the United States and the inefficient manner that states supervised and monitored these drinking water supplies.



Setting national contaminant-based primary and secondary drinking water standards was a primary focus of the 1974 SDWA.

The *primary standards* address adverse health effects. They consist of maximum contaminant levels goals (MCLGs), which are non-enforceable, and maximum contaminant levels (MCLs), which are enforceable limits set as close to MCLGs as possible. The enforceable MCLs consider attainment cost and feasibility.

*Secondary standards* address public welfare, such as the odor or appearance of drinking water but are non-enforceable.

Under the SDWA, only public water systems are subject to drinking water standards. A "public water system" is a system that provides piped water for public human consumption and has at least 15 service connections or regularly serves at least 25 individuals.

Regulations require public water systems to meet MCLs and/or to use treatment techniques to protect against adverse health effects. Regulations include prescribed testing, record keeping, reporting and timely notification of failure to meet applicable drinking water standards.

#### The 1986 SDWA amendments

When the SDWA was amended in 1986, Congress required that EPA develop 25

new MCLs every three years. The 1986 amendments also established the Surface Water Treatment Rule and the Total Coliform Rule.



The SDWA was again amended in 1996. The 1996 amendments authorized the Drinking Water State Revolving Loan Fund (DWSRF) program.

This federal grant program provides money to states, which then make loans to water systems to upgrade facilities and ensure drinking water standard compliance.

The 1996 amendments authorized \$1 billion per year from fiscal years 1995-2003 to capitalize the DWSRFs. Individual states must provide a 20 percent match to the federal share allocated to them.

The 1996 amendments also required that community water systems provide their users with a Consumer Confidence Report (CCR), which is similar to a nutritional label, by July 1 of every year.

## Compliance checklist

As a board member, how do you know whether your utility is in compliance with the SDWA? Use this checklist to be sure.

- ✓ Operator or managers report on compliance status at each board meeting, including any compliance letters from the State Health Division.
- ✓ The board maintains a file with results of water tests required by SDWA and correspondence from the State Health Division.
- ✓ The monitoring schedule is posted on the office wall showing when tests must be done.
- ✓ The board reads and approves the CCR to meet the July 1 deadline annually.
- ✓ The budget includes funds to send the operator to training to maintain certification and stay current with SDWA requirements.
- ✓ When there is a problem, the board knows who to contact for advice and assistance.

The CCR must include:

- the drinking water source and its susceptibility to contamination
- how to obtain a copy of the Source Water Assessment
- the level of any contaminant found and EPA's standard for that contaminant
- likely source and health effects of contaminants
- an accounting of the actions taken to restore safe drinking water following contamination
- an educational statement about avoiding Cryptosporidium
- information on nitrate, arsenic and lead if detected above 50 percent of EPA's standards
- compliance information on other state and federal drinking water requirements;
- the utility's telephone number and the EPA Safe Drinking Water Hotline phone number.