

A Newsletter Published by the New Mexico Water Conservation Alliance

Honeywell Wins Water Conservation Award



Partners in water conservation: Kim Trinosky, Facility Manager for Honeywell, (center) with Gary Wilkinson (left) and Les Norman (right) from Industrial Water Engineering

Each year, the city of Albuquerque and the New Mexico Facilities Managers Network team up to recognize local industries for their pollution prevention efforts.

In December, Honeywell Defense Avionics Systems was awarded the 2001 Large Business Water Conservation Award for its exceptional efforts to reduce water use.

Honeywell employs over 1,300 people and is one of the largest facilities in New Mexico. Its water conservation program saved over four million gallons of water in 2001.

Honeywell's water conservation efforts matured in 2000 with the completion of a Six Sigma *Plus* management project that resulted in the formulation and implementation of an overall water conservation plan.



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Numerous opportunities were identified, and the following projects have been completed.

- Extensive leak testing of all hydronic systems was performed.
- A high-cycle water treatment program was implemented on the facility's seven cooling towers, resulting in a 40-percent savings in cooling tower water use.
- A high-cycle operation is maintained using the most advanced chemical technology, as well as a state-of-the-art controls and chemical feed system. Remote monitoring of the cooling towers with alarm notification is used to prevent scaling conditions that could damage critical equipment.
- Low-flow toilets, urinals, automatic flush valves, and faucets were installed.
- A water-saving commercial dishwasher was installed in the employee cafeteria.
- The irrigation system was retrofitted with telemetry and programmable controllers. A water metering and tracking system was installed to monitor all water use. Honeywell Site Services personnel monitor water use via computer on a real-time basis.
- Honeywell supported the North I-25 Water Reuse Project by providing land on which a one-million-gallon storage tank has been constructed.
- Recycled water is sent to the storage tank from Sumco and Philips Semiconductor for use in watering the Balloon Park. Honeywell will soon begin using recycled water from the tank for irrigation.

Sandia Audit Points Way to Irrigation Savings

Landscaping and grounds maintenance is a significant user of water all over New Mexico, and organizations with large ground areas, such as schools, hospitals, industrial parks and factories, expend a large part of their total water budget on maintaining the landscape. Landscape design approaches like xeriscaping are important in getting control of landscape water use, but another important part of the landscape water management plan is design of the irrigation system itself.

Sandia National Laboratories in Albuquerque found that its 256 acres of landscaping were consuming approximately four percent of its total water budget. While this is a small percentage, it still represents over 16 million gallons of water annually. Over the years, Sandia's landscaping has developed to the point where its replacement value is over \$13 million. Protecting an investment of this magnitude is clearly a priority, along with water conservation. In an attempt to reduce overall water use, engineers at Sandia conducted an audit to determine exactly where the water goes and whether there might be opportunities to conserve.



"A properly designed system would control water application automatically, tailoring watering to the season, weather and soil moisture."

The audit found that significant savings would be possible by tailoring water use to the actual requirements of the plants as they change throughout the year. The manual irrigation controllers were being adjusted only twice a year, leading to over- and under-watering through much of the year. Setting the controllers any more often, though, would add further burdens to already overtaxed landscape workers and more expense to the landscape maintenance budget.

In addition, the audit found leaks, broken pipes and sprinkler heads, and other water wasters. These problems are difficult to spot, since sprinkler systems generally run

automatically in the early morning before many employees are on site. An effective way to detect leaks and over-consumption is by metering, but the audit found that none of the irrigation systems had meters installed.

As a result of the audit, Sandia engineers proposed installing a central irrigation controller system to monitor and control all the landscape irrigation systems at the facility. A properly designed system would control water application automatically, tailoring watering to the season, weather and soil moisture. This would reduce over- and under-watering, saving water and reducing stress on landscape plants. The system could also detect excessive flows, which indicate broken sprinkler heads or other leaks.

Central irrigation systems are fairly expensive, but with the potential water savings and reductions in plant replacement, engineers estimate the system will pay for itself in only four years. A proposal to procure a central system for Sandia has been approved, and design is currently underway.

Workshops Promote ICI Water Efficiency

Two workshops, one in Colorado and one in Albuquerque, will promote efficient water management practices in industry, businesses and institutions this spring and summer.

The first, to be held May 16 at the reclaimed water treatment facility in Westminster, Colorado (a Denver suburb) will focus on Denver's industrial water conservation incentive program, water conservation activities in federal facilities, the results of a commercial water use study funded by the American Water Works Association, and hopefully a New Mexico industrial water conservation case study.

The four-hour workshop, which is free, is sponsored by the Water Conservation Committee of the Rocky Mountain Section of the American Water Works Association.

For more information, contact Laurie D'Audney, committee co-chair, at 970-221-6877 or ldaudney@fcgov.com.

The second workshop, entitled *Water Conservation: A Sensible Business Solution for Your Facility*, will present a day-long program at the Crowne Plaza Hotel in Albuquerque on August 29.

Featured at this workshop will be two tracks of case studies from facility managers on recycling and reclaiming water for heating, cooling, and other industrial systems; effective irrigation management; water-efficient landscaping; water harvesting and permaculture applications; use of highly efficient plumbing fixtures and appliances; and submetering water use. Speakers at the general session will discuss the importance of water conservation from various views and walk the partici-

pants through the process of conducting a water-use audit, identifying water conservation opportunities, and implementing a water conservation program.

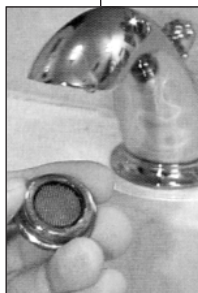
More information on the Albuquerque workshop, sponsored by the New Mexico Water Conservation Alliance, will appear in the July issue of the *Conservation Current*. You may also obtain registration information on the Alliance web page at <http://wri.nmsu.edu/wrdis/nmwca/alliance.html> beginning May 1.

In the meantime, if you would like more information regarding the program, registration fees and other workshop details, or would like to be placed on a mailing list to receive a workshop flyer, contact Christy Smith, workshop coordinator, at csmith2@ch2m.com.

Stop Those Water Leaks!

This year, when water is particularly scarce because of the drought, is an excellent time to check your home or business for water leaks and repair them quickly. Even a tiny leak can waste thousands of gallons of fresh water every month. Some leaks are obvious, such as a dripping faucet. Others, such as toilet leaks, can be silent and invisible water wasters.

To get a "how to" lesson on how to find and repair water leaks in plumbing fixtures and



appliances, get a copy of *Don't Waste A Drop: Finding, Fixing and Preventing Indoor Water Leaks* from the New Mexico Office of the State Engineer. This new, handy booklet provides step-by-step instructions, accompanied by detailed diagrams, on how to accomplish this important water-saving practice.

To order, call 1-800-WATERNM, or send an e-mail to waternm@ose.state.nm.us. Individual or multiple copies are available free of charge.

Reclamation Makes 2002 Grant Awards

The U.S. Bureau of Reclamation has awarded \$199,360 in water conservation grants to recipients in New Mexico and western Texas. Although the available grant funds were reduced from levels in previous years, and many organizations did not receive as much as requested, the agency managed to award small grants to 20 organizations.

Following is a list of the funded projects.

Children's Water Festival	\$7,000
Xeriscape Conference 2003	\$3,000
Valley Improvement Water Management Program	\$5,000
Franklin Canal Upgrade	\$15,000
Reclaimed Water Bilingual Education Video	\$5,000
Desert Water Education Kit Distribution	\$10,000
Avoiding Foliar Damage from Salinity Demonstration	\$10,000
Tri-City, Tri-State, Bi-National Water Festival	\$10,000
Discover A Watershed: Rio Grande/ Rio Bravo Workshops	\$10,000
Water Conservation Alliance Networking and Education	\$8,000
Statewide Industrial Water Conservation Workshop	\$7,360
Xeriscape Curriculum Completion	\$10,000
Administration of Water Conservation Programs (OSE)	\$5,000
Municipal Utility Conservation Workshops	\$5,000
Increasing Effectiveness of Marketing Educational Materials	\$5,000
River Ranger School Education Project	\$10,000
Sandia Mountain Natural History Center Education Project	\$5,000
Northern New Mexico Rural Education Project	\$10,000
Food, Land and People Workshops	\$5,000
Rolling Rivers Trailer Management and Maintenance	\$10,000
Rolling Rivers Trailer for Farm & Ranch Museum	\$3,000
Rolling Rivers Presentations – Greater Albuquerque Area	\$3,000
MillCorp Municipal Conservation Plan Development Assistance	\$10,000
Edgewood School Garden Project	\$3,000

Alliance Co-Sponsors Drought Workshops

The New Mexico Water Conservation Alliance is working with the New Mexico Rural Water Association to present two drought planning workshops for water utility managers and operators this spring.

One workshop will be held in Española at the City Hall Council Chambers, 405 North Paseo Del Oñate, on April 30. The second workshop is scheduled for May 2 at the Civic Center, 400 West Fourth Street, in Truth or Consequences.

Speakers from New Mexico, Texas and Colorado will discuss the importance of developing a drought contingency plan and describe the components that should be included in such a plan. They will also address the specific topics of

water use accounting, leak detection and repair, setting appropriate water rates, and implementation of water conservation measures to reduce water use. In addition, a representative from the city of Santa Fe will share what has been learned from the city's drought experiences in the last four years.

Registration for the workshops, which are free, starts at 8 a.m. The workshops will begin at 8:30 a.m. and end at about 4 p.m. Refreshment breaks and lunch will be provided through the Rural Water Association.

To register for a workshop, contact Dionne Shirley or Tracy Svanda of the Rural Water Association at 505-884-1031 or 800-819-9893.

Visit the Virtual Water-Efficient House



A new website designed to walk you through a typical home and guide you to a multitude of water-saving options is online now. Go to www.h2ouse.org and discover how to save water, energy and money by installing new water-efficient appliances, taking drought actions, using an irrigation controller, and designing a sensible outdoor landscape.

Developed by the California Urban Water Conservation Council through a grant from the U.S. Environmental Protection Agency, the website provides yet another useful tool to help homeowners and others identify the best ways for them to conserve water.

State Braces for Drought

If you've read a newspaper or listened to a news broadcast in the last couple of months, you know that New Mexico is once again in a serious drought. The latest reports on drought conditions show that most of the state is in a moderate drought, while some sections are even more abnormally dry.

Municipalities, irrigators and others are gearing up to cope with these conditions as best they can. The cities of Santa Fe and Las Vegas have issued water use restrictions and are expected to tighten them further within the next few weeks. The Middle Rio Grande Conservancy District has implemented a rotating water schedule for farmers in that valley; and irrigators are adjusting water-use practices and cropping patterns to cope with the expected dry year. Environmentalists are worried about adequate water being

available to maintain the endangered silvery minnow populations in the Rio Grande. Recreational lake users may not be able to boat in their favorite spots. This is due to unusually low lake levels because of the drought and because some lakes have been drained to minimal levels to supply water for crop irrigation downstream.

This year's drought is not new. Since 1996, the state has been in some level of drought, with 1996, 2000, and now 2002, being the worst. Some weather experts worry that this is just the beginning of a 25-year dry cycle in which New Mexico will receive only about 75 percent of the precipitation it received from 1975 through 2000.

New Mexico is only one of many states affected by the 2002 drought. About 30

percent of the country is in drought, which runs in two main strips: one from Maine to Georgia and one from Montana to Texas. The cities of New York and Baltimore are pumping water from temporary supplies usually avoided because of their poorer water quality. Communities in states such as New Jersey, Pennsylvania and Connecticut have issued water-use restrictions. Last year was Maine's driest year ever in its 107 years of record-keeping.

New Mexico Governor Gary Johnson has activated the state's Drought Task Force and its accompanying work groups, which monitor drought conditions, assess drought impacts, and participate in mitigation activities related to community drinking water supplies, agricultural operations, wildfires and wildlife, energy use, health effects and economic impacts. The task force maintains a drought information website at <http://weather.nmsu.edu/drought>.



New Mexico Water Conservation Alliance

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