



Current Conservation

A Newsletter Published by the New Mexico Water Conservation Alliance

Albuquerque Audits Show Water Savings

by Christy Smith, CH2MHill



Auditor Christy Smith and facility operations manager examine cooling tower at Amberly Suite Hotel.

As part of the City of Albuquerque's comprehensive water conservation program, free water-use audits are provided for residential, industrial, commercial, and institutional customers. The water auditor conducting these evaluations for industrial, commercial and institutional water users looks for opportunities to create real water and monetary savings, not city ordinance transgressions against which to assess penalties.

To conduct an evaluation, the auditor visits the facility to assess water-use patterns and to inventory water-using fixtures and equipment. The audit also includes a comprehensive look at outdoor use, e.g. cooling and irrigation. Data from the fac-

ility visit are balanced with metered water use data, and a breakdown of water use by category is calculated. The product of the audit is a comprehensive report that details water use by category, identifies the potential for water-use reductions, and estimates payback periods for each recommended measure. The information given in the audit report helps managers justify, and budget for, operational changes and equipment upgrades.

Results of the audits and the recommended changes have been noteworthy. At a paper manufacturing plant, the audit found that 86 percent of the water was being used to seal vacuum pumps in a once-through setup. Recirculating the pump water allowed the plant to save 58 percent of its total water use. With further conservation implementation, an additional 21 percent could be saved.

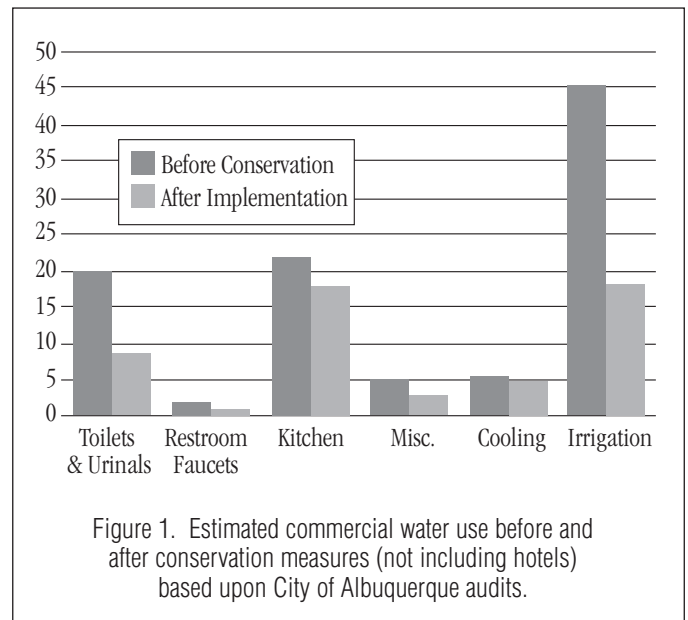
At a large, private school, recommended conservation measures for indoor use included replacing toilets and urinals with low-flow models; adding aerators on kitchen and general-use faucets, and installing low-flow showerheads. In addition, it was recommended that garbage disposals, which consume two gallons of water per minute while in use, be removed and replaced with drain screens. The cost of

implementing these measures was estimated to be \$31,300, which could be paid back in five years. With the addition of an already planned new irrigation system controller, the total water savings for the school came to 24 percent.

An audit of a large hospital complex showed that over 20 percent of water usage could be saved by installing low-flow bathroom fixtures, turning off water-cooled x-ray film processors when not in use, and fixing broken fixtures. In addition, the hospital management committed to implement a "free cooling" system to reduce cooling tower water use during the winter.

The average actual water savings at all facilities audited by the city is eight per-

Albuquerque Audit, continued on page 3



Drought Group Has Busy Summer

The Drinking Water, Health and Energy Sub-Group of the New Mexico Drought Task Force has been busy on a variety of fronts this summer, including promotion of water conservation strategies to further stretch out existing sources of water in New Mexico communities suffering from the current drought.

Numerous water systems throughout the state are being affected by the drought. Some of the incorporated communities include Aztec, Carrizozo, Alamogordo, Santa Fe, Las Vegas, Ruidoso, and Springer. The New Mexico Environment Department has developed a list of affected water systems, and the list is being updated as new information becomes available. The list is based on criteria from the Drinking Water Bureau's evaluation of a community's water source, alternative water source availability, storage and capacity, water use restrictions, compliance, distribution and water system infrastructure, and funding efforts.

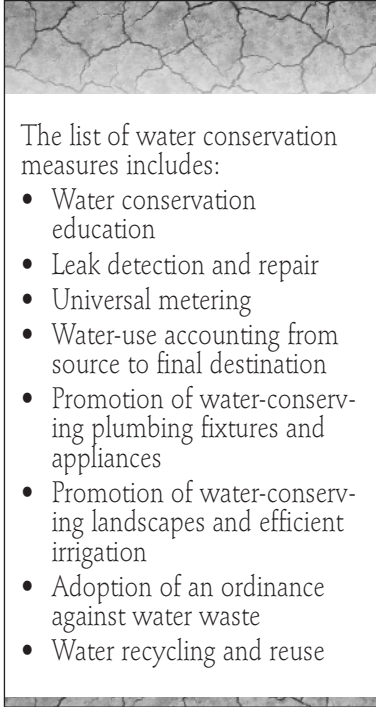
The sub-group has also identified sources of funding potentially available to water systems and helped coordinate current "triage" services at the New Mexico Department of Public Safety's Emergency Management Bureau and the New Mexico Finance Authority. Most of these funding programs are outlined in the *Catalog of Local Assistance Programs* located on the Internet at www.nmlocalgov.net/planning.

Sub-group members at the Environment Department have developed a method for evaluating water system needs for assistance and are working with the New Mexico Rural Water Association and Rural Communities Assistance Corporation to help rural systems address drought impacts. In addition, members from the Health and Environment Departments have developed a guide for individual well owners outlining steps they can take to get by during a drought.

A sample water conservation ordinance and manual have been developed by the Rural Communities Assistance Corporation, under contract to the New Mexico Environment Department. The sub-group has drafted a list of water conservation measures that should be implemented by communities as a condition for receiving state aid. The

group has also prepared a list of questions to help determine if a community seeking emergency assistance needs immediate help or can wait to request funds in the next legislative session.

Another drought effect that is sometimes overlooked is mental health stress. The New Mexico Health Department is preparing its staff to handle expected drought-related stress and coordinating those efforts with the Drinking Water Sub-Group.



The list of water conservation measures includes:

- Water conservation education
- Leak detection and repair
- Universal metering
- Water-use accounting from source to final destination
- Promotion of water-conserving plumbing fixtures and appliances
- Promotion of water-conserving landscapes and efficient irrigation
- Adoption of an ordinance against water waste
- Water recycling and reuse

Workshops and Websites

New Website Documents

Three water conservation documents have been added to the conservation page of the Office of the State Engineer website.

Website visitors can now access *A Water Conservation Guide for Public Water Utilities and A Water Conservation Guide for Commercial, Institutional and Industrial Users* on line, in addition to obtaining paper copies. The other new document is *Don't Waste a Drop: Finding, Fixing and Preventing Indoor Water Leaks*, a 23-page booklet also available in hard copy.

To reach the conservation page, go to www.seo.state.nm.us/water-info/conservation.

Site Estimates Irrigation Water

A new Denver website has been created to help property owners water their landscapes more efficiently. *The Run Time Scheduler* at www.watersaver.org allows users to create a customized irrigation schedule by selecting the plant material, type of sprinkler system, and desired frequency of watering. These choices are made through a simple picture format, making it easy for anyone to use.

The site is funded by Denver Water and the City of Aurora Water Utilities Department. Other communities in the area are expected to participate in the near future. Plans also call for expanded xeriscape features to be added.

Water Conservation Workshops

The New Mexico Water Conservation Alliance is cooperating with two other New Mexico entities to present water conservation workshops for municipal water utility managers and operators this fall.

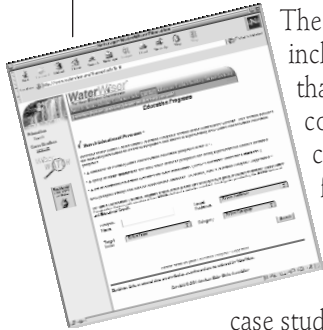
A half-day conservation session will be presented at the annual training course held by the NMSU Water Utility Technical Assistance Program in Albuquerque. It is scheduled for the morning of September 12.

Another session will be held as part of a water utility management-training workshop, sponsored by the New Mexico Rural Water Association and held in Farmington September 24-26. A specific date for the water conservation session is pending.

For more information about the workshops, call Robert Gott at the NMSU Water Utility Technical Assistance Program at 505-984-0676, or Dionne Shirley at the New Mexico Rural Water Association at 505-884-1031.

WaterWiser Adds Education Page

WaterWiser (www.waterwiser.org), the national water conservation clearinghouse housed in the American Water Works Association, has a new Education page. This addition should be of interest to municipal water utility staff and others who are initiating and implementing educational water conservation programs in their communities.



The Education page includes a database that compiles water conservation educational resources from around the country and 15 municipal water conservation case studies on both adult- and student-based educational programs. Website visitors can search the Educational Resources portion by audience, issue or category to receive a list of the educational programs that meet their specifications.

They can also click on Educational Program Suggestions and add information on their own educational resources or programs to the database. For additional information, there is also an accompanying list of educational websites that can be found on the Links page.

The WaterWiser site is currently transitioning to a new look. Therefore, the Education page does not currently appear on the home page. To get there, site visitors should click on any of the headers and then refer to the topic tabs at the top of the page. They can then click on Education to reach the education database and case studies. (Or they can go directly to the database through www.waterwiser.org/frameset.cfm?b=6.)

The development of this additional resource for WaterWiser was spearheaded by a member of the New Mexico Water Conservation Alliance, Cheri Vogel, education specialist for the New Mexico Office of the State Engineer.

Albuquerque Audit, continued from page 1

cent. Water conservation measures that have a payback period of up to ten years are considered cost effective, and are therefore encouraged by the city's Water Conservation Office. More and more upgrades will fit that criterion as increasing pressure to save water causes water rates to increase. The water audit evaluations provide information that allows industrial, commercial and institutional customers to see where they are using water and to target areas in which water conservation can be effectively implemented.

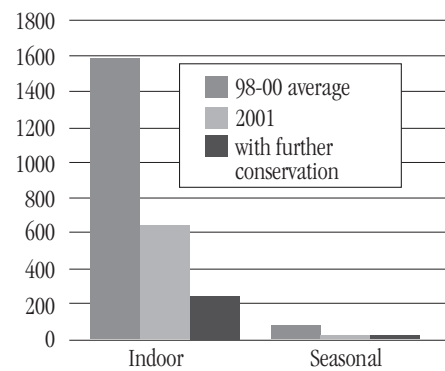


Figure 2. Industrial plant actual water use (from 2001 audit conducted at Rose's Southwest Paper, Albuquerque).

Alliance Initiates Membership Fees

In January, the New Mexico Water Conservation Alliance began requesting annual membership fees to help provide a reliable, long-term source of income to fund Alliance programs. Fees are \$25 for individuals, or \$250 for corporations, associations and governmental agencies (includes up to 10 members).

You do not have to be a fee-paying member to receive the *Conservation Current* newsletter or attend Alliance meetings. (Meeting information is posted at <http://wrrl.nmsu.edu/wrdis/nmwca/alliance.html>.) However, members who pay the fees gain voting privileges, support ongoing Alliance programs such as the workshops mentioned in this newsletter, and help extend the Alliance's statewide outreach efforts.

To become an Alliance member, or if you are already a member and would like to pay the annual membership fee, please complete the following information and mail it, along with a check for your membership fee, to:

New Mexico Water Conservation Alliance
369 Montezuma Avenue, #149 • Santa Fe, NM 87501

Name (if corporate membership, please attach a list of member names and contact information specific to each name)

Title

Organization

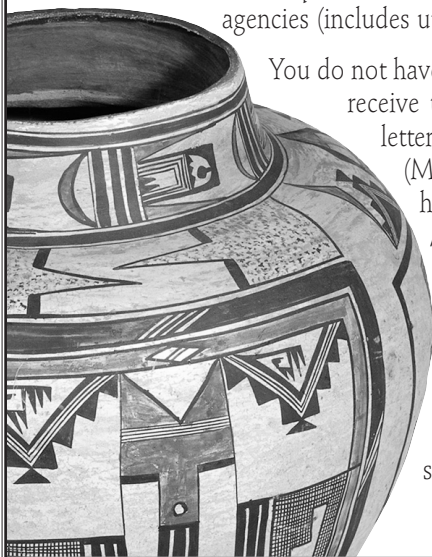
Address

City/State/Zip

Phone

Fax

E-Mail



Register Now!

If you are involved in managing an industrial, commercial or institutional facility or interested in water conservation options for those facilities, register now for *Water Conservation: A Sensible Business Solution for Your Facility*. This day-long workshop will be presented at the Crowne Plaza Hotel in Albuquerque on August 29. The registration deadline is August 12.

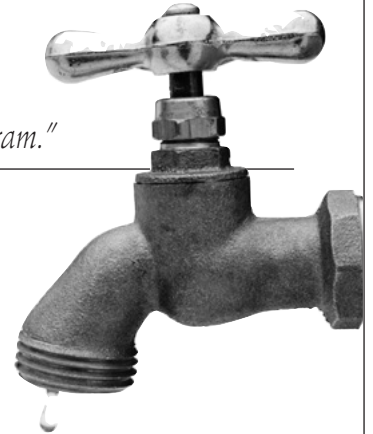
Featured at this workshop will be two tracks of case studies from facility managers on recycling and reclaiming water for heating, cooling, and other industrial systems; effective irrigation management; water-efficient landscaping; water harvesting and permaculture applications; use of highly efficient 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 participants through the process of conducting a water-use audit, identifying water conservation opportunities, and implementing a water conservation program.

The workshop is being sponsored by the New Mexico Water Conservation Alliance, with assistance from several other organizations. The registration fee is \$95 and includes lunch and materials.

More information, including a registration form that can be downloaded, appears on the Alliance web page at <http://wri.nmsu.edu/wrdis/nmwca/alliance.html>. If you have additional questions about the workshop, contact Christy Smith, workshop coordinator, at csmith2@ch2m.com, or Alice Darilek at 1-800-WATER-NM.

"Speakers will discuss water conservation from various views and walk the participants through the process of conducting a water-use audit, identifying water conservation opportunities, and implementing a water conservation program."



**Water Conservation:
A Sensible Business
Solution for Your Facility**



New Mexico Water Conservation Alliance

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The *Conservation Current* is a quarterly publication of the New Mexico Water Conservation Alliance, an organization of municipal and industrial water conservation professionals dedicated to water conservation education and networking. *Current* articles may be reprinted for use in other publications by crediting the *Current* as the source.

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