

The *Conservation Current* will have a New Look!

This summer, the *Conservation Current* will have a new look. We are taking the leap and moving from a printed format to a web page. You will receive an e-mail announcement when a new edition is online, but you have to sign up and give us your e-mail address.

Yes, we know, the thought of one more e-mail to read makes us all groan, but this new format has lots of benefits. We won't have the space limitations we've had with the printed form, and you'll be able to instantly link to pertinent information. Best of all, this format will save the Alliance money.

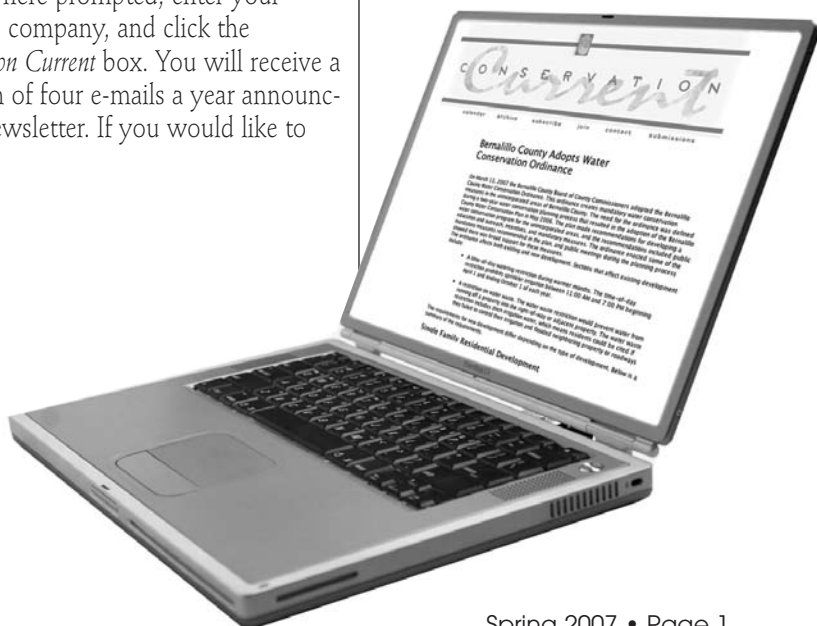
Signing up to receive the newsletter is easy. A portal has been placed on the Alliance Web site that is a quick four-step process. From the home page, click on Conservation Current, enter your e-mail address where prompted, enter your name and company, and click the *Conservation Current* box. You will receive a maximum of four e-mails a year announcing the newsletter. If you would like to

To sign up go to
<http://wrri.nmsu.edu/wrdis/nmwca/alliance.html>

sign up for the special events list, you will also receive updates on speakers and conferences.

We'll send you a postcard reminder so you do not miss the first online edition. Until then, have a great summer.

Thank you,
The New Mexico Water Conservation Alliance Board



Bernalillo County Adopts Water Conservation Ordinance

On March 13, 2007 the Bernalillo County Board of County Commissioners adopted the Bernalillo County Water Conservation Ordinance. This ordinance creates mandatory water conservation measures in the unincorporated areas of Bernalillo County. The need for the ordinance was defined during a two-year water conservation planning process that resulted in the adoption of the Bernalillo County Water Conservation Plan in May 2006. The plan made recommendations for developing a water conservation program for the unincorporated areas, and the recommendations included public education and outreach, incentives, and mandatory measures. The ordinance enacted some of the mandatory measures recommended in the plan, and public meetings during the planning process showed there was broad support for these measures.

The ordinance affects both existing and new development. Sections that affect existing development include:

- A time-of-day watering restriction during warmer months. The time-of-day restriction prohibits sprinkler irrigation between 11:00 a.m. and 7:00 p.m. beginning April 1 and ending October 1 of each year.
- A restriction on water waste. The water waste restriction would prevent water from running off a property into the right-of-way or adjacent property. The water waste restriction includes ditch irrigation water, which means

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Gallup Completes IWA/AWWA Water Audit

The Gallup Joint Utilities and the New Mexico Office of the State Engineer (NMOSE) partnered to complete Gallup's first International Water Association/American Water Works Association Water Use Audit.

The current practice in water systems is to lump undelivered and unbilled water supplies into a category called "unaccounted for water." However, "recent research has found that the practices of calculating 'unaccounted-for' water varied so widely in utilities around the world that the term has no consistent meaning.¹"

Recent work by the International Water Association (IWA) and the American Water Works Association (AWWA) indicates that a more detailed understanding of "unaccounted for water"—a Water Audit—is the first step to realizing conservation opportunities within a water system.

The IWA/AWWA Water Audit method replaces unaccounted for water with a revenue/non-revenue approach that accounts for all water in the system. The approach represents the efforts of drinking water utilities to provide stewardship and accountability in their operations by reliably auditing their supplies and keeping their system losses to a reasonable minimal level. It is effective because it fea-

tures sound, consistent definitions for the major forms of water consumption and water loss encountered in drinking water utilities. It also has a set of rational performance indicators that evaluate utilities on system-specific features².

In pursuing the effectiveness of this approach, the NMOSE piloted the methodology with the City of Gallup and Daniel B. Stephens and Associates (DBSA). Data was collected on all city water use in 2005. The most difficult component was retrieving the monthly meter/billing information in a format that could be analyzed for the audit. Where water was not metered, such as fire, city parks and street cleaning, estimates were calculated based on information gathered through interviews. Estimates were also used for meter and database errors.

For their next water audit, Gallup will build on this information to improve the data sharing with billing and to strengthen the estimates. They are also looking at metering city parks so they have actual water use instead of estimates.

AWWA offers free Water Audit Software developed by the AWWA Water Loss Control Committee (<http://www.awwa.org/waterwiser/waterloss/>). This software provides additional scrutiny by calculating financial and operational efficiency indicators, which in turn provide

baseline information used to gauge performance, program response, incentives, and any changes the city makes.

City of Gallup Water Conservation Coordinator, Elizabeth Barriga, stated that "The Gallup Water Audit Summary Report is exceedingly important, defining a City of Gallup framework to measure its water production and water consumption performance." Gallup is currently compiling their 2006 data for analysis.

"We can always enhance and make improvements to our water system to conserve water, consequently averting a dire ground water situation," said Barriga. "This Gallup Water Audit Summary Report is a citywide groundbreaking report."

The cities of Ruidoso, Las Vegas and Rio Rancho are working with NMOSE to compile data for their AWWA water audits. Santa Fe has independently completed a water audit and is working on a second phase.

The Gallup Water Audit Summary Report and Gallup's Water Loss Control Committee Audit Software is available at the NMOSE's Water Use and Conservation Web site at <http://www.ose.state.nm.us/water-info/conservation/h2o-tech-assist.html>.

- 1 December 2006 <http://www.awwa.org/WaterWiser/waterloss/Docs/02Apparent_Real_Loss.cfm>
- 2 <http://www.awwa.org/waterwiser/waterloss/>

Own Sources (Adjusted for known errors)	Water Exported 35.4	Billed Water Exported			
		Authorized Consumption	Billed Authorized Consumption	Billed Metered Consumption	Revenue Water
1,204.0 MG/YR	Water Supplied 1,168.5 100%	999.7	966.1	966.1	966.1
				Billed Unmetered Consumption 0.0	82.66%
Water Imported 0.0	Water Losses 168.9	Unbilled Authorized Consumption 33.6	Unbilled Metered Consumption 33.6	Non- Revenue Water 202.4	17.34%
		Apparent Losses 71.2	Unbilled Unmetered Consumption 0.0		
		Real Losses 97.7	Customer Metering Inaccuracies 46.6	Data Handling Errors 24.6	

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residents could be cited if they fail to control their irrigation and flooded neighboring property or roadways.

The requirements for new development differ depending on the type of development. Below is a summary of the requirements.

Single Family Residential Development

Builders or developers of single family residential properties have the option of installing a cistern system to collect rooftop runoff for irrigation use. Or they can install one of three alternatives:

Meeting the Demand for Elementary School Water Education

The past two years has seen a marked increase in teacher applications to attend the Middle Rio Grande (MRG) and Santa Fe (SF) Children's Water Festivals. Of the 150 applications to the 2006 MRG festival, we were able to accept only 50 due to space, funding and presenter limitations. The Santa Fe festival also had more applications than room. We're thrilled at the interest the festivals are generating, but now we need to address measures that will help us meet this increased demand.

What is a Children's Water Festival?

Our festivals are elementary level water education field trips for public, private and home school students. These free events are held in Albuquerque, Santa Fe and Rio Rancho, and the goal is to educate 4th graders and their teachers about water and its relationship to human and other natural resources. Participants attend five of up to two dozen activities offered during the day. The festival is held for two days.

Crossroads

For the past year, each Steering Committee has wrestled with every conceivable option to serve more students and teachers including:

We need to address measures to help us meet the increased demand.

Participants of the "Rolling River Workshop" gain a better understanding of a river watershed.



- Reserving more facility space
- Moving the event outdoors
- Increasing the number of event days
- Holding two festivals at different times of year
- Offering school-based festivals

The Rio Rancho Children's Water Festival is Born

The U.S. Bureau of Reclamation recently awarded NMWCA (festival fiscal partner) a substantial grant to launch the first Rio Rancho Children's Water Festival. Around 600 Rio Rancho students and 250 more Albuquerque students will be able to attend. Overall, this means about 850 more students and 35 more teachers in the Middle Rio Grande area will be served each year. Although we still do not meet the region's entire teacher demand, we are moving in the right direction.

Albuquerque Bernalillo County Children's Water Festival

With the advent of the new Rio Rancho festival, we changed the name of the Middle Rio Grande festival to the Albuquerque Bernalillo County Children's Water Festival to more accurately describe the population now being served. About 1,000 students and 50 teachers will be able to attend. The 2007 festival takes place in October.

Santa Fe Children's Water Festival

In February 2007, we celebrated our 5th annual water festival at the Santa Fe Community College. Although 574 students and 27 teachers attended, the venue could not accommodate even one more class. We were pleased with the smooth logistics and quality of the presenters. The solution to serving more students in Santa Fe is not clear, but perhaps expanding the festival will become an option when the Sweeney Convention Center is rebuilt in 2008. Another piece of exciting news is that project management of this festival was recently turned over to the City of Santa Fe. We wish them great success!

Our festival experiences, over the last few years, have revealed the need for more planning that focuses on how best to serve the community rather than how best to put on an event.

Katie Babuska serves as Festival Director for two area water festivals. She owns Experiential EE, LLC, an Albuquerque-based project management consulting firm. She can be reached at 505-975-0036 or k_babuska@hotmail.com. The festival website is www.waterfestnm.com.

1. Hot water on demand systems
2. High-efficiency toilets and appliances
3. Plumbing stub-outs for gray water systems

Development Other than Single Family

Requirements for all development other than single family residential include:

1. High-efficiency or dual-flush toilets in all bathrooms
2. Buildings 10,000 square feet or larger must use either rainwater harvesting or a gray water system to supplement landscape irrigation

3. Sub-metering is required for mobile home parks or housing with more than one unit

Planting Restrictions

All new development except agricultural properties must limit high water use plants to 20% of the landscape area.

Large Landscape Requirements

New parks, golf courses and large landscapes over 20,000 square feet must use gray water rainwater harvesting or non-potable water use to supply or supplement landscape irrigation

requirements. The rainwater harvesting option includes cisterns or low impact development techniques.

The ordinance becomes effective April 12, 2007. County staff will work with residents and builders to inform them of the new requirements.

The county has established a Water Waste Hotline to report water waste and time of day violations. That number is (505) 224-2100. Anyone can download a copy of the ordinance at www.bernco.gov. For more information contact Kerry Bassore, Water and Conservation Planner, at 848-1552

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New Mexico Landscaper Training “Saving Every Drop”

The New Mexico Water Conservation Alliance will be hosting a landscaper training workshop November 5, 6, and 7, 2007 at the CNM Workforce Training Center. “Saving Every Drop” will focus on current and advanced technologies for applying efficient water use. Conference format includes featured presentations, technical seminars, networking opportunities, and exhibits.

Major topics will address current water technology challenges and issues around efforts to conserve water in the landscape. Day one of the conference has three tracts: Waterwise Landscaping, Irrigation Principles, and Waterwise Design. Days two and three offer irrigation training and certification opportunities presented by the Irrigation Association (IA). Build your knowledge base with training in Sprinkler System Scheduling Electrical

Troubleshooting, Drip and Landscape Irrigation Design, and Irrigation System Installation and Maintenance. Attendees can earn valuable CEUs and will have an opportunity to become certified as a Landscape Irrigation Auditor.

If you are an irrigation or landscape designer or installer, or are involved with landscape maintenance, this conference is for you. Please join us in Albuquerque this coming November 5-7.

Sponsors are needed!

We welcome all conference sponsorships, which help the Alliance continue its water conservation education work in the state. For information, contact Christy Smith at (505) 846-8189, Christy.Smith.ctr@kirtland.af.mil, or Cheri Vogel at (505) 827-4272, cheri.vogel@state.nm.us.

Current sponsors include the New

Mexico Office of the State Engineer, Albuquerque Bernalillo County Water Utility, City of Santa Fe and Intel.

Check the Alliance Web site at <http://wrrri.nmsu.edu/wrdis/nmwca/alliance.html> for conference updates, announcements, and registration information.

