

Rio Rancho's Xeric Garden Blooms



By Colleen Logan, City of Rio Rancho

Fifteen months after the first public meeting on its creation, Rio Rancho's water-wise demonstration garden is in the ground. The garden, measuring approximately 24,000 square feet, is located in Veterans' Monument Park, between the library and the post office.

The purpose of the garden is educational. Even before it was completed, the exposed irrigation drip line setup was used to stage a class on water management, and the city has more classes planned for the garden. The Sandoval County Master Gardeners also plan to use the garden to teach hands-on maintenance to master gardener students, and hold joint training sessions with the city for the Parks Department personnel, who are increasingly being asked to care for low-water-use plants in xeriscapes throughout the city.

The primary target audience of the garden is local homeowners and businesses, and it has been designed to demonstrate examples of beautiful landscaping that uses little water. The garden is also designed to demonstrate a wide palette of plants (approximately 70 different species and varieties), different irrigation systems (five,

including an innovative underground drip system), several types of mulch, and techniques for harvesting water through design elements.

Initial plans developed by The Landscape Group were refined with input from public meetings, the Rio Rancho Veterans' Monument Organization, the Sandoval

County Master Gardeners (see sidebar), and the city's Public Works Department and Parks and Recreation Department.

The project cost approximately \$37,000; however, in addition to cash output, thousands more were included in the project in the form of labor hours and in-kind services, donated by city departments, city staff, local businesses, local citizens, the National Guard, Youth Diagnostic and Development Center, and Sandoval County Master Gardeners.

The garden was formally dedicated in June, with a series of workshops that were part of a "Coloring the Landscape" Festival. Approximately 80 people attended the ribbon-cutting ceremony.

The garden still has a few more things to add, such as benches, more native rose species, and permanent plant markers, but it is open to the public and many of the plants are already growing and blooming. It is located at 950 Pine Tree Road, just off of Southern Boulevard, north of the post office. Call the Water Conservation Office at 505-896-8715 to arrange a tour.



Tour of garden by Sandoval County Master Gardener Tina Forgraves (center)

County Master Gardeners, and Rio Rancho's Water Conservation Officer Colleen Logan. Major donations to the garden came from the Rio Rancho Garden Center, Santa Ana Garden Center (who designed, donated and planted a high-desert natives sec-



Group enjoying the garden after ribbon-cutting ceremony

Santa Fe Pursues Aggressive Conservation Plan

By Craig O'Hare, City of Santa Fe

Last year's drought highlighted Santa Fe's vulnerability to water shortage emergencies. In response, the city's water division staff was directed by the City Council to quickly pursue all viable options for minimizing future drought emergencies as much as possible. This has included increasing the supply production capabilities and taking a more aggressive approach to demand management.

Santa Fe is in the process of adopting a five-year water conservation action plan, with an initial two-year \$1.5 million program emphasis. The goal of the initial phase is to reduce per-capita water demands by at least 10 percent. Santa Fe, at an existing overall usage rate of 145 gallons per capita per day, is already one of the lower water-using communities in the West. A 10-percent reduction would bring the community down to about 130 gallons per capita per day, saving roughly 1,100 acre-feet of water each year.

While the plan has not been formally adopted by the council, the city's staff has recommended that the following components be included in the effort.

Focus on Top 1,000 Residential Users: Constituting 23 percent of residential demands, this sector is a high priority for irrigation audits,

indoor plumbing retrofits and targeted technical assistance.

Indoor Plumbing Retrofits for Pre-1992 Homes: 8,000 to 10,000 ultra-low-flow toilets are expected to be distributed within two years. The program will consider including the new "dual flush" toilets that have shown great promise in saving even more water than the standard 1.6 gallons-per-flush models. The council has expressed an interest in including simple energy retrofits (e.g. compact fluorescent light bulbs) in the program as well.

Targeted Commercial Training and Technical Assistance: Focusing on multi-family (apartment) customers, the lodging industry, restaurants and car washes. Audits of the 10 largest commercial accounts will also occur.

Revisions to Conservation Regulations: Tightening up the definition of and enforcement of "fugitive water" and requiring that all non-residential commercial and governmental entities retrofit their plumbing fixtures by January 2003.

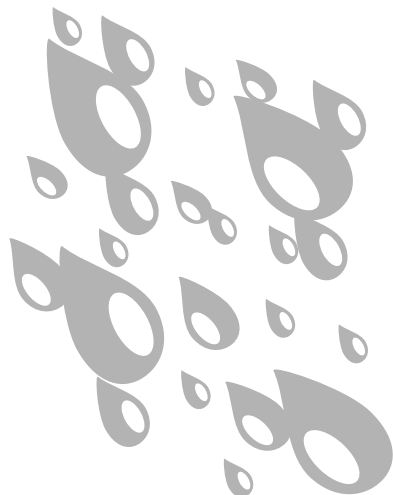
City Government "Walking Our Talk:" A concerted effort to ensure that the City of Santa Fe, as an institution, is

committed to the same indoor and outdoor water use efficiency strategies expected of the rest of the water users.

Comprehensive Public Outreach and Other Programs: All of the programs discussed above will be supported by an aggressive public education/publicity campaign. Additional program elements will be included in subsequent years, including a rain barrel distribution program and a high-efficiency washing machine rebate program.

Conservation is often called "the least expensive water supply alternative," particularly when it is used to forego or delay a water supply capital project under consideration. Since pursuing Santa Fe's next big source of supply, the San Juan-Chama project, is a "given," it is difficult to make that argument in this situation. But the conservation action plan is being looked at as a key strategy in minimizing the city's vulnerability to drought emergencies, particularly during the period before San Juan-Chama water is brought into the system. Conservation can be implemented relatively quickly - especially when compared to drilling new wells that can take years to permit.

Greenhouse Installs Innovative Rainwater System



Santa Fe Greenhouses, a Santa Fe plant nursery known for xeric and water-wise plants, has installed a state-of-the-art rainwater collection and reuse system.

The system collects rainwater from 38,000 square feet of greenhouse and coldframe roof area and diverts it to a 36,000-gallon underground cistern. The water reaches the cistern through a combination of traditional rain gutters and perforated pipes hidden beneath gravel-filled ditches. Water stored in the cistern is then pumped to irrigate plants in newly constructed coldframes.

The custom-designed system features a unique honeycomb-cell underground cistern that is strong enough to support a tree display area directly above the tank. It also includes coldframes equipped with solar-powered fans and devices that automatically raise the sides of the coldframes to cool down the temperature as needed.

Based upon average rainfall, Santa Fe Greenhouses estimates that the new rainwater collection system will collect and reuse approximately 370,000 gallons of water per year and cut onsite water use by 20 percent.

New Curriculum Needs Pilot Teachers

The New Mexico Office of the State Engineer is looking for volunteer educators to pilot a new xeriscape curriculum the OSE is creating for junior and high school students. The curriculum will be piloted in both traditional and non-traditional settings this fall, with comments due to the OSE by the end of the calendar year.

The curriculum, which is yet to be titled, will be based on the concepts of xeriscaping and wise outdoor water use in a residential setting. Using xeriscaping as an integrating context, the curriculum will place students in a decision-making position for real or fictional landscaping projects. The curriculum will use hands-on

activities, suggested extension projects, additional resources, and differentiation to accommodate learning styles.

To help with the pilot project or to learn more about the curriculum, contact Cheri Vogel at 505-827-4272 or e-mail cvogel@seo.state.nm.us.

Albuquerque Marks a Milestone

Albuquerque's water production for the first six months of this year, 17,038 billion gallons, is the lowest it has been since 1987. Over this same time period, the number of accounts served by the city's water system has increased by 28 percent. These figures indicate amazing progress for the city's water conservation effort, initiated in 1995.

While reduction in usage has moved fairly steadily downward since the program's initiation, the year-to-date low usage for 2001 reflects the reductions achieved through a number of earlier water saving measures. These include:

- conversions to xeriscaping
- accumulated reductions resulting from allowing only 20 percent of landscaping in all new development to use high-water-use grass since October 1995
- increasing replacement of high-use plumbing fixtures with low-use models
- success of the Water Watch program, which utilizes the media to advise people when to irrigate



Angel Fire Session in September

The New Mexico Water Conservation Alliance is sponsoring what should be a very informative technical session on water conservation at the annual conference of the American Water Works Association, Rocky Mountain Section, to be held in Angel Fire September 9-12. The conference attracts municipal water utility managers and operators from Colorado, New Mexico and Wyoming.

The morning portion of the water conservation session, entitled *Water Conservation 2001: New Concepts, Past Treasures* will include presentations on the connection between land use planning and water use, the integration of rainwater harvesting

and permaculture practices into communities, and achieving water use efficiency through the Green Builder program. In the afternoon, speakers from Sandia National Laboratories, Intel Corporation and the City of Albuquerque will discuss their innovative conservation programs.

The water conservation session will be held on September 12, although there are additional conservation presentations scattered through other technical sessions. Registration fees are \$55 for the one-day session, or \$110 for the whole conference. To register, go to www.rmwea.org and click on "Angel Fire," or call 303-394-2022.

Texas Enacts Conservation Laws

The 2001 legislative session of the Texas Legislature was a productive one for water conservation initiatives. That body enacted several measures related to efficient clothes washers, apartment submetering and performance contracting.

- **House Bill 2403** requires clothes washer manufacturers to report on what machines are shipped to and sold in the state. The bill initially required a lower water standard to make machines sold in Texas more water efficient, but the reporting bill was a compromise reached after a heavy lobbying effort by the manufacturers.
- **House Bill 2404** requires new apartment developments to be individually metered and served directly by a water utility or be submetered through the apartment's master meter. The bill affects developments

that are either built or begin water billing programs regulated by the Texas Natural Resource and Conservation Commission after January 1, 2003. In addition, properties would be required to perform water leak testing and have water-efficient showerheads and aerators in place. If toilets exceed 3.5 gallons per flush, they would have to be replaced with 1.6 models within a year.

- **House Bill 3286** adds water conservation to the measures eligible for performance contracting by state agencies, school districts, institutions of higher learning, and local governments. In such a contract, a performance contract company enters into an agreement with an entity and provides up-front capital to pay for improvements that will result in reduced energy or water use. The company is paid back with money saved through the resource savings.



Jean Witherspoon Honored

Jean Witherspoon receives the water conservation award from David Allen.

The U. S. Bureau of Reclamation has honored Jean Witherspoon for exceptional contributions toward water conservation. As the City of Albuquerque's water conservation officer, Witherspoon designed and has overseen implementation of the city's innovative conservation program that began in 1995.

Presented by David Allen of Reclamation's regional office in El Paso, the award recognizes Jean for changing the public attitude toward water use and

conservation. Albuquerque's program is gaining recognition around the nation as an innovative approach to reducing water use. In addition, its emphasis on public involvement is being looked at as a model for other resource conservation programs, such as air pollution reduction.

Jean professes to be delighted with the award but notes there is still much work to do to reach the water conservation programs goals over the next five years.

AWWA Conference Proceedings Available

Numerous technical sessions on current municipal water conservation issues were held at the annual conference of the American Water Works Association held in Washington, D.C. in June. Persons who were unable to attend the conference, which attracted over 14,000 attendees, may purchase the proceedings on a CD-ROM and still obtain most of the information presented.

Although expensive at \$295 for AWWA members and \$395 retail, the CD is still less costly than the registration fee and includes all the papers presented in the technical sessions.

To order, contact AWWA at 1-800-926-7337, 1-303-347-0804 (fax), or www.awwa.org.



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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.

Newsletter co-editors are Robert Matthews and Alice Darilek. Newsletter production is funded by the U.S. Bureau of Reclamation; design is provided by Kenesson Design, Inc.; and printing is by Roller Printing. The other contributors to this issue are Craig O'Hare, Colleen Logan, Jean Witherspoon, and Cheri Vogel.