



## **LONG-RANGE WATER EFFICIENCY MANAGEMENT PLAN**

### **for the City of Durango and the properties served by the City's water utility system**

The stated goals of the 1998 Water Conservation Plan were to develop a comprehensive program of conserving water that is cost effective, achieves reliable and permanent reductions in per capita demand, and maintains the current quality of life in Durango. The programs should promote the efficient use of water and ensure a smooth transition to a reduction in demand during times of drought.

Specific goals of the 2001 Water Efficiency Management Plan are to set up a program which:

- Promotes awareness that Durango is located on the edge of a high desert and that its water resources are limited and could be seriously affected by long-term drought conditions;
- Reduces the operating costs of the Public Works Department;
- Reduces peak day per capita water demands;
- Preserves the capacity of the City's physical system, thereby delaying the costs and environmental impacts of new water supply facilities;
- Educates the public in water efficient techniques that apply to indoor and outdoor water use;
- Provides leadership through example by demonstrating practical and attractive water efficient devices and landscapes on all City lands.
- Continues to allow the scenic beauty of the area to be maintained;
- Is supported by residents of the City;
- Can be evaluated and revised as necessary to reflect and enhance the effectiveness of its various elements.

These goals could be accomplished by applying the following strategies.

### **Measure #1. PLANNING AND OVERALL APPROACH**

The City shall initiate the following actions:

- A. Encourage efficient use of water, both indoors and outdoors, for all City utility customers.
- B. Evaluate existing land use planning and zoning laws affecting water use and revise them to be consistent with the efficiency strategy.
- C. Apply stringent requirements to City-owned facilities to set an example within the community.
- D. Develop staff membership and communication with local, state and regional organizations in order to keep up with current water efficiency technology and trends.
- E. Promote the regional awareness and planning that is essential to all water resource management in the San Juan Basin such as the following:

1. A long-range water resource planning process which incorporates the goal of sustainable growth;
2. Inclusion of other (city, county and tribal) governments and water users in the planning process;
3. Addressing water quality and quantity issues.

## **Measure #2. RATES**

The City shall consider the following measures to encourage water use efficiency in a fiscally responsible manner.

- A. A 3<sup>rd</sup> tier rate for users of large amounts of water upon completion of an analysis of alternative surcharge rates and their impact on different categories of water customers.
- B. Reviewing the rate structure periodically to ensure that the system generates adequate revenues to pay the costs of operation and maintenance.
- C. Retaining residential sewer rates based on average January water usage.
- D. Investigate charging residential plant investment fees according to maximum demand of the proposed use.

## **Measure #3. EDUCATION / PUBLIC AWARENESS**

The City may consider or continue the following approaches to educate and get feedback from the community about water efficiency issues.

- A. Instituting a more aggressive, comprehensive and visible public education campaign on water efficiency. Provide adequate funding to effectively inform the public of the need for efficient water use. Possible methods are:
  1. Distribute information through a wide range of media including the internet and nurseries.
  2. Carry out public education prior to implementation of rate changes.
  3. Emphasize good watering practices and provide more information on the benefits of Xeriscape since such a large portion of water use goes to outdoor irrigation.
  4. Provide technical assistance in converting existing landscapes to conform to the seven principles of Xeriscape.
  5. During the watering season, provide a daily Lawn Watering Guide to the Durango Herald, showing how much water a lawn might need if it hadn't been watered for three, five or seven days.
  6. Create a Xeriscape exhibit that can be placed at active locations and community events.
  7. Include a bar chart of the previous month's usage and the current month's usage on the monthly bill, in addition to tips and information about how to use water more efficiently.
  8. Actively encourage owners to replace high volume fixtures with low volume ones and evaluate their landscaping approach whenever a building permit is obtained.
  9. Identify and particularly target the highest residential and commercial customers and work with them more directly to help them reduce their water bills.
  10. Provide information on the most current water-savings technologies.
  11. Offer to speak to students in all schools about water efficiency, possibly showing videos and distributing activity books.

12. Cooperatively, with the School District 9R, the Bureau of Reclamation and other interested entities, create and employ an ongoing ecological program (possibly through hiring a K-12 environmental education specialist) for water efficiency and related environmental issues in our schools. Such a program might include distribution of retrofit kits ("Learning To Be Waterwise" conservation kits), videos and/or activity books, classroom presentations, poster contests, etc.
  13. Collaborate with existing community organizations to promote water efficiency.
- B. Funding the Water Information Program.
  - C. Annual participation in the Children's Water Fest.
  - D. A water audit program to help homeowners learn how to improve their efficiency of water use. (This would include such things as evaluating sprinkler systems for proper coverage, replacing damaged heads, realigning heads, teaching owners how to program their controllers, prepare watering schedules based on weather conditions and how to repair leaking faucets or toilets.)
  - E. Providing a means to enforce any regulations which may be developed to support efficient water use.

#### **Measure #4. RESIDENTIAL USE / PLUMBING**

The City shall consider the following measures to reduce interior / plumbing uses.

- A. Encourage water-efficient plumbing fixtures and appliances for all customers, including toilets, urinals, showerheads, and faucets.
- B. Encourage owners to replace high volume toilets with low- flow toilets whenever a building permit is obtained.
- C. A voluntary residential fixture retrofit program to install water-saving retrofit devices in existing residential development.
- D. A 1.6 gallon-per-flush, low-volume toilet rebate program (after a through study of the effects) with rebates for each toilet replacement of three gallons or more per flush toilets for all residential and commercial customers.
- E. Encourage plumbing fixture wholesalers and retailers to sell only low-flow plumbing fixtures.

#### **Measure #5. LANDSCAPING WATER WASTE**

The City shall consider the following measures to support low water-use landscapes and efficient irrigation.

- A. Adopt the proposed "Water Efficient Landscape Ordinance" which makes compliance with outdoor water efficiency measures a condition of water service for new commercial customers of the Durango water utility system and is voluntary for single- or two-family residents and existing commercial accounts. It includes the following:
  1. Provision of landscape and irrigation plans and schedules;
  2. Xeriscape principles shall be applied to all new development;
  3. Limitations of water features;
  4. No watering in May through September between 10:00 a.m. and 6:00 p.m.;
  5. Discourages fugitive water from entering the public right-of-way or adjacent property;

6. No high water use plants on slopes greater than 1:4, or in areas less than eight feet in any dimension;
  7. Efficient new irrigation systems;
  8. Installation of new sprinkler heads at least eight inches from the curb.
- B. Combine all City of Durango information / requirements regarding landscaping into one document; eliminate conflicts with the efficiency strategy.
- C. Initiate a Xeriscape education program including:
1. Creation of Xeriscape demonstration gardens;
  2. Distribute Xeriscape information to citizens acquiring building permits.
  3. Investigate the establishment of evapotranspiration stations and associated public education including a lawn watering guide;
  4. Provide information regarding irrigation auditor training and certification programs;
  5. Cooperation with other agencies on public workshops, gardens, tours, videos, newsletters, events, etc.
- D. Establish evapo-transpiration stations and publicize a program to assist residents, the Parks Department, school district, golf course, and Fort Lewis College in applying the proper amount of water for irrigation.
- E. Institute a voluntary certification program for sprinkler contractors, with the qualification being the satisfactory completion of a test on water-efficient irrigation design.
- F. Investigate Xeriscape landscape retrofit and rebate program for replacement of high water use turf and landscape plants with low or medium water use turf and plants.
- G. Investigate efficient irrigation system retrofit and rebate program offering rebates or credits for replacement of old, inefficient irrigation systems with approved water-efficient systems.
- H. Initiate continued effective water waste enforcement:
1. Establish fees for offenders with increasingly higher fees for repeat offenders;
  2. Assess fee on first violation observed by enforcement officers;
  3. Apply fees to water bill.

**Measure #6. INSTITUTIONAL, COMMERCIAL, AND INDUSTRIAL USE (ICI).**

The City shall consider the following measures to reduce water use in the Commercial billing classifications.

- A. Expanding the unaccounted-for-water loss reduction program including:
1. Maintain the leak detection program to locate and repair the water distribution system on a continuous basis;
  2. Continue meter maintenance and replacement program to identify, repair, and/or replace inaccurate or malfunctioning meters;
- B. An approach for reducing excess water use for City facilities or services.
1. Repair leaks quickly at all City facilities.

2. Perform an audit of water use at City-owned facilities and implement recommendations as soon as feasible.
  3. Ensure that all newly developed City-owned property complies with the water efficiency standards for landscape and irrigation that are required of all other new developments.
  4. Provide ongoing training programs about efficient watering for all City employees who are involved with irrigation of City-owned landscapes.
  5. Consider installing raw water irrigation systems for all City lands when it is available and economically feasible.
  6. Investigate the implementation of central irrigation control for irrigated City-owned landscaping.
  7. Activate a public building plumbing fixture retrofit program, if cost-effective.
- C. Assisting Fort Lewis College and the golf course in developing water efficiency plans.
- D. A program to assess the efficiency of water use at area businesses.
- E. Explore the possibilities of potable and non-potable water reuse systems.