

Water Conservation

Water Conservation Overview

Due to critical water shortages occurring nationally and in Utah, conservation has become a major focus of public and private concern. In response, the Utah Municipal and Industrial (M&I) Water Conservation Team was created. This article presents a summary of activities currently underway at the Division of Water Resources and other water agencies.

Water Conservation

The M&I Water Conservation Team (Team) consists of a representative of the Governor's Office, and the directors and general managers of the following agencies: Department of Natural Resources, Division of Water Resources, Central Utah Water Conservancy District, Jordan Valley Water Conservancy District, Metropolitan Water District of Salt Lake City and Sandy, Weber Basin Water Conservancy District, Rural Water Association, Utah Water Users Association, Envision Utah, and the Utah League of Cities and Towns. The Team's mission is to "develop a long-term statewide water conservation ethic with the goal to reduce municipal and industrial (M&I) per capita water use in the state by 25%." By successfully carrying out this mission, annual water demand will be reduced by about 400,000 acre-feet. The Team is in its formative stage, and its programs are still being developed. Therefore this section provides a description of current strategies and programs being implemented by the Division of Water Resources (DWR), which is expected to be the core of the program adopted by the Team.

Strategy

The state of Utah, through DWR, intends to promote efficient use of currently developed water supplies with the following six-pronged approach:

- ▶ Educate Utah residents on the need to conserve water and provide a toolbox of conservation practices to assist them.
- ▶ Assist the Department of Natural Resources and other state agencies in becoming the leaders and the examples of efficient water use at state owned facilities.
- ▶ Provide financial and technical assistance in preparing and implementing water conservation plans.
- ▶ Evaluate the effectiveness of practices that improve efficiency, i.e., incentive rate (pricing) structures.
- ▶ Study water use habits of residents, water needs for industries, and the usefulness of new water conservation technologies.
- ▶ Cooperate with others to develop new practices and products that reduce water use.

More specifically, DWR will create incentives for others to achieve more efficient water use through the following initiatives:

- ▶ Educate individuals, wholesale and retail water providers, and industry groups about effective conservation programs through a statewide media campaign, workshops, seminars, conferences and individual consultation.
- ▶ Work with department directors and the Governor's Office to prepare water efficiency plans for major state owned facilities.
- ▶ Offer direct technical assistance to water providers to help them comply with the Water Conservation Plan Act (HB 153).
- ▶ Assist wholesale and retail water providers to implement best management practices in their service areas through access to low or no interest loans and other funding programs.

- ▶ Educate consumers through a water conservation web page and hot line.
- ▶ Understand water use problems and solutions by conducting studies directed at the following objectives:
 - Discover the attitudes and habits that explain how Utah residents use water.
 - Test products and practices being used in other areas for effectiveness in Utah.
- ▶ Work with public and private agencies to develop new water conservation tools, technologies and practices such as:
 - Computer software packages for improved water utility billing in support of incentive rate structures and customer education
 - A weather station network with associated technology and equipment to make evapotranspiration and other landscape irrigation scheduling data available on the Internet.

Implementing the Water Conservation Plan Act (HB 153)

To date, DWR has received 99 plans from water systems serving more than 500 connections. Upon receiving these plans, water conservation personnel evaluated the plans based on specific criteria. The evaluation had two purposes: 1) to assist DWR and Board of Water Resources in formulating its recommendations for implementing the plans, and 2) to determine the adequacy of each plan to help DWR better understand what additional training is needed to improve the quality and usefulness of their plans.

DWR's goal is to provide the assistance needed so that all eligible systems will be able to have conservation plans scoring seven or above on a scale of one to ten by the April 2004 update deadline. Specific attention will be focused on the analysis of alternative solutions to identified problems, an area where many plans were weak. Many existing plans lack clearly defined goals and timelines for implementation. The average score for plans received so far is 4.9. A model plan has been provided to each water conservancy district and city by direct mail, and is available on DWR's water conservation web page (www.nr.utah.gov/WTRRESC/water/cons/conservation).

Water conservation plans are evaluated based on the following nine criteria:

How well does the plan:

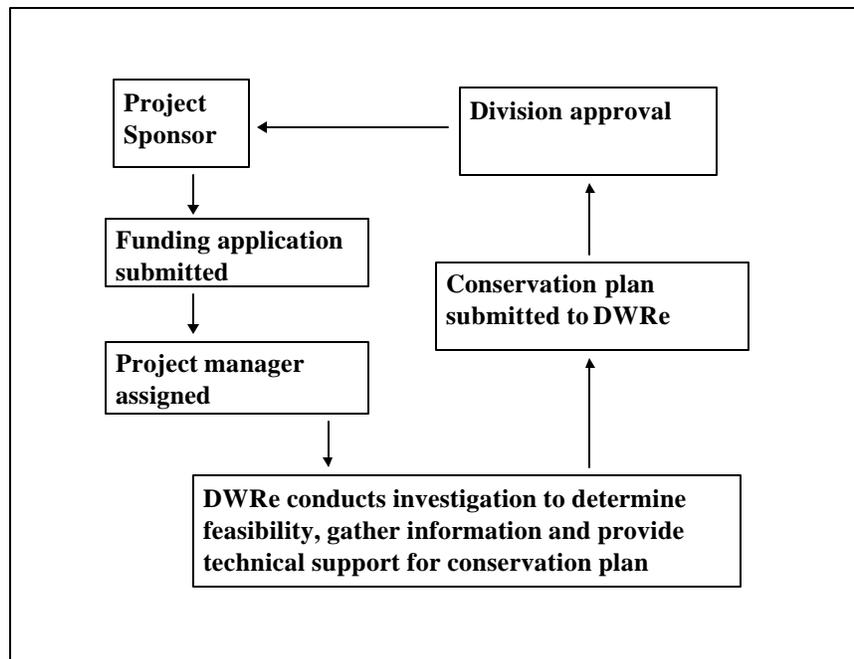
- ▶ Describe the service area and water system (population, number of connections, land use, water supply, etc.)?
- ▶ Identify water supply and demand problems, e.g., present and anticipated shortages during peak use times (day, week and month)?
- ▶ Identify demand reduction solutions to problems?
- ▶ Set measurable goal(s)?
- ▶ Describe current conservation practices?
- ▶ Identify additional conservation practices/programs needed to address problems and meet the water conservation goal(s) identified above, including incentive rate structures?
- ▶ Evaluate cost-effectiveness of all identified practices to aid in choosing the best set?
- ▶ Address budgeting and other issues necessary to implementing the conservation plan?
- ▶ Set realistic implementation schedule?

Funding Program

Costs incurred to implement water conservation practices are to be borne by those who benefit. From time to time funds are needed for capital investments in equipment for metering, incentive pricing, billing, appliance rebates, etc., to be repaid over its useful life by water system customers. In cases where cities, towns, and conservancy districts are in need of such funds, DWRe and other water funding agencies may provide low or no interest loans if the following conditions are met.¹

- ▶ All service connections are metered; meters are read and maintained.
- ▶ A conservation plan has been submitted and approved by the DWRe.
- ▶ An incentive water rate structure is in place.
- ▶ A time of day watering ordinance is adopted or is part of the water conservation plan.
- ▶ The sponsor is willing to share its water use data and billing information with DWRe .

Figure 62
Water Conservation Funding Program



Source: Division of Water Resources