

1.0 Introduction

This section is for best management practices for wholesale water providers supplying potable water to their wholesale utility customers. Best management practices are **voluntary efficiency measures** that are intended to save a quantifiable amount of water, either directly or indirectly, and can be implemented within a specified timeframe. They are not exclusive of other meaningful conservation techniques that an entity might use in formulating a state-required water conservation plan.

Best management practices may be implemented individually, in whole, or in part or be combined with other best management practices or other water conservation techniques to form a comprehensive water conservation program. Adoptions are entirely voluntary, although it is recognized that once adopted as part of a water conservation program, the entire water conservation program including certain best management practice elements may have some regulatory aspects to them (e.g. implementation of a local city ordinance). Upon review, a wholesale water provider may find that it is already implementing one or more of these elements and may want to adopt additional elements outlined below. Once a wholesale water provider decides to adopt all or part of a best management practice as part of a water conservation program, it should follow the water conservation program closely in order to achieve the maximum benefit.

Wholesale water provider program measures are designed to assist its customers who purchase water and provide retail water service. Under the Technical Assistance and Outreach best management practice, the wholesale water provider will provide financial and/or technical support to wholesale purchasers to advance water conservation efforts both for the wholesale customer and its retail water customers. Financial support consisting of incentives or equivalent resources that target retail water customers should be supported when they can be shown to be cost-effective in terms of avoided cost of water from the Wholesale agency's perspective.

Financing for water conservation programs can be built into the wholesale water provider's rate structure as a dedicated fund. Where allowed by law or contract mechanism, the wholesale water provider can offer its water conservation programs both to the wholesale customer or directly to its retail customers and should provide technical assistance to implement them. When mutually agreeable and beneficial, the wholesale water provider may operate all or any part of the conservation-related activities for one or more of its retail customers.

Wholesale water providers should work in cooperation with their wholesale customers to identify and remove potential disincentives to conservation that are created by water management policies, including water rate structures. Wholesale rate structures should be designed upon the basic principal of increased cost for increased usage. Incentives to conserve can be built into the base rate/volumetric rate ratio with greater emphasis on volumetric rates or with a seasonal increment.

Implementation

Wholesale water providers are encouraged to consider stakeholder group information meetings, especially for those affected by water conservation programs. Working with stakeholder groups is important to achieving “buy in” from the stakeholders. Implementing water conservation programs may exceed the requirements of §Texas Administrative Code 288.5, Water Conservation Plans for Wholesale Water Suppliers. To implement a water conservation program, the following elements and strategies should be included:

1. Wholesale water provider baseline profile: A description of the wholesale water provider’s service area, including population and customer data, water use data, water supply system data, and wastewater data
2. Wholesale water provider goals: Specification of quantified 5- and 10-year targets for water savings including, where appropriate, target goals for municipal use in gallons per capita per day (Total “GPCD”) for the wholesale water provider’s service area, maximum acceptable water loss, and the basis for the development of these goals
3. Wholesale water system accounting and measurement:
 - a. A description as to which practice(s) and/or device(s) will be utilized to measure and account for the amount of water diverted from the source(s) of supply;
 - b. A monitoring and record management program for determining water deliveries, sales, and losses;
 - c. A program of metering and leak detection and repair for the wholesale water provider’s water storage, delivery, and distribution system
4. A requirement in every wholesale water supply contract that each successive wholesale customer develops and implements a water conservation plan that meets Texas Administrative Code 288 rule requirements for public water suppliers. Because enforcement of this requirement is difficult for the wholesale water provider to enforce, the wholesale water provider should consider developing and adopting penalties for non-compliance of this requirement.
5. Conservation-oriented water rates. During the process of contracting for water service, either new or renewed, the wholesale water provider should implement wholesale water rate structures that provide incentives to conserve.
6. Wholesale customer assistance. A program to assist customers, which could include, but not be limited to, the following:
 - a. Technical assistance with the development of plans and program implementation;
 - b. Development of consistent methodologies for accounting and tracking water loss and gallons per capita per day;
 - c. Development of procedures for calculating program savings, costs and benefits;

- d. Coordination of conservation incentive activities. Examples of pooling funds and providing grants; offering bulk purchase of equipment such as Ultra Low Flow toilets;
 - e. Implementation of wholesale service area-wide education and outreach programs, such as school education programs, public information programs, etc. (See best management practice for school education and public information); and
 - f. Cost-sharing, including joint management of retrofit and education programs and partial funding of rebates for specific conservation measures.
7. A program for reuse and/or recycling of wastewater and/or gray water.
 8. Any other water conservation practice, method, or technique which the wholesaler shows to be appropriate for achieving the stated goal or goals of the water conservation plan.
 9. A means for implementing a water conservation program, which will be evidenced by official adoption of the wholesale water provider's best management practice initiatives by the wholesale customers.

Program participants should begin implementing best management practices within 12 months of official adoption.

Determination of Water Savings and Cost Effectiveness

To track the progress of a water conservation program, the wholesale water provider should gather the following documentation:

1. Copy of wholesale water provider's assistance best management practice enacted in the service area;
2. Copy of conservation plan pursuant to §TAC 288.5;
3. Copy of any annual reports or implementation reports of measures accomplished; and
4. Copies of progress reports of conservation program implemented by wholesale customers that are in conjunction with the wholesale water provider or which are cost-shared in the water conservation program.

Using historical records as appropriate, the wholesale water provider calculates water savings due to implemented water conservation programs, such as water loss programs or programs delivered to retail customers. Calculated savings should be based upon equipment changes, quantified efficiency measures, or alternative water sources as appropriate.

The labor costs for technical services to retail customers are dependent upon the type of conservation program which the wholesale water provider decides to implement. Wholesale water providers should evaluate each of the water conservation program elements to determine the appropriate costs associated with technical assistance. Cost-share costs also depend upon the program elements and the percentage of implementation the wholesale water provider determines is appropriate. It is recommended that the wholesale water

provider determine the net present value of avoided costs for new supply projects to determine the appropriate level of financial support to offer retailers for cost-share programs.

References for Additional Information

- 1) A Water Conservation Guide for Public Utilities, New Mexico Office of the State Engineer, March 2001.
- 2) Pulling Utilities Together: Water-Energy Partnerships, Home Energy Magazine Online July/August 1993. <http://hem.dis.anl.gov/eehem/93/930709.html>
- 3) Memorandum of Understanding, California Urban Water Conservation Council, 1999.