

## SECTION 1 – INTRODUCTION

### WHAT IS WATER CONSERVATION?

The term “water conservation” can mean many things. In its broadest use, it encompasses any action that stretches water supplies. People often use the term water conservation to mean some or all of the following notions:

- ✓ **Water use efficiency**—providing the same or better level of end-use service, e.g., toilet-flushing or showering, with less water;
- ✓ **Wise water use**—“water-conserving behaviors” such as not letting the water run while brushing one’s teeth or shaving, and “water-wise choices” such as installing low-water-use plants or xeric landscaping instead of conventional turf;
- ✓ **System efficiency**—improvements to a water supply and distribution system, such as operational changes or distribution system leak repairs that reduce water losses;
- ✓ **Substitution of alternative supplies**—for instance, using reclaimed wastewater; and
- ✓ **Curtailment**—where certain uses are foregone or reduced, e.g., prohibitions on lawn watering or car washing during a drought water emergency.

In the context of this Guidance Document, **water conservation will be used broadly to mean any of the first four notions—water use efficiency, wise water use, system efficiency, and supply substitution—but not curtailment.** While many people refer to water use restrictions during a drought as “water conservation,” the objective of long-term water conservation planning is not to curtail water use. Rather, it is to increase the productivity of water supply and use in order to satisfy water needs without compromising desired water services.

This document uses the term “water conservation” in the broad manner noted above, and uses “efficiency” in the narrower senses of water use efficiency and system efficiency.

Tip



#### **Water Conservation Measures and Programs**

*The distinction between actions that directly save water and actions that encourage or require implementation of water-saving practices is critical to water conservation planning. For clarity, this document adopts the term “measures” to indicate actions that directly save water, and “programs” to indicate actions taken to encourage or require implementation of water-saving measures.*



Factoids!

A technical distinction is often made in the water conservation field between **demand-side approaches to conservation (water use efficiency and wise water use)** and **supply-side approaches (system efficiency and substitution of alternative supplies)**. Some people in the industry use "efficiency" as an over-arching term that captures both supply-side and demand-side approaches, with "water conservation" capturing solely demand-side efficiency (e.g., toilets, Xeriscape, audits, etc.). People that subscribe to this terminology also then consider leak/loss reduction, reuse, and temporary agricultural transfers as "supply-side efficiency." This document makes use of the distinction between demand-side and supply-side conservation. However, in keeping with the broad definition of water conservation in the Act, **this document uses the term "water conservation" in the broad manner noted on the previous page, and uses "efficiency" in the narrower senses of water use efficiency and system efficiency.**

**Some additional terms** have specific meanings in this document but may be used differently in other settings:

- **Conservation measures** are specific technologies or practices that directly reduce water use. Many people, laws, and policies use the term "measures" more broadly, to include actions taken by water suppliers to encourage certain technologies or practices—for instance, education programs or rebates.
- **Conservation programs** are actions or policies that encourage, require, or otherwise lead to implementation of water-saving measures. Examples of programs include distributing educational brochures, providing incentives such as rebates for installing conservation measures, enacting regulations such as ordinances that prohibit water waste, establishing policies such as conservation rate structures, integrating water conservation into K through 12 education, etc.
- **Best Management Practices (BMPs)**, a current "buzzword" in many fields, may refer to measures, implementation techniques, programs, policies, or any combination.

## THE ROLE OF WATER CONSERVATION IN WATER MANAGEMENT

Water conservation is not an end in itself. Key organizations such as the U.S. Environmental Protection Agency (1998), U.S. Bureau of Reclamation (1997), and the American Water Works Association (1995; 2002) all place water conservation in the context of overall water management, as do leading experts in the water conservation field (Vickers 2001). Conservation can enable a local water provider to meet its obligations with regard to supplying

adequate, reliable water to its customers **while minimizing costs and protecting the environment**. Water conservation can help a water supplier and the community it serves to:

- ✓ Avoid or reduce the need to develop or acquire new water supplies;
- ✓ Postpone, downsize, or avoid altogether the need for new water treatment or wastewater treatment infrastructure;
- ✓ Reduce operating costs related to water and wastewater treatment (e.g., need for treatment chemicals) and source water production (e.g., pumping energy);
- ✓ Improve supply reliability/margin and mitigate impacts of future droughts;
- ✓ Comply with regulations;
- ✓ Improve public credibility by demonstrating stewardship of natural and financial resources.
- ✓ And above all, promote sustainable use of finite water supplies.

Given that water conservation should be considered in the larger context of sound water management, **water conservation planning needs to be integrated into as many aspects of local water resources planning as possible**. This Guidance Document and Model Plan, therefore, provide a process and template with instructions for use to support meaningful water conservation planning through the integration of water conservation planning with water supply planning.



**Top Five  
Actions/Measures  
to Save Water in  
the Home**

1. Stop the Leaks
2. Replace the Old Toilets
3. Replace the Old Washing Machine
4. Plant the Right Plants
5. Water Only What Your Plants Need

[www.H2ouse.org](http://www.H2ouse.org)

**Best Management Practices for Water Conservation and Stewardship**

Residential Water Use Conservation Programs  
 Commodity Rate Metering  
 Landscape Water Conservation Policies and Programs  
 School Education Programs  
 Conservation Programs for Commercial, Industrial, Institutional and Multi-Family Accounts  
 Wholesale/Contract/Allottee Assistance Programs  
 Conservation Pricing  
 Water Waste Prohibitions and Enforcement  
 Demand Reduction (during water crises)  
 Water Loss - System Audits & Leak Detection

From **Metro Mayors Caucus & Colorado WaterWise Council**