



WATER CONSERVATION PLANNING GUIDE

Welcome to the [Texas Water Development Board](#) (TWDB) Water Conservation Department. This guide is intended to help you develop a water conservation plan or program for your utility.

[Texas Administrative Code](#) requires entities that are applying for or receiving financial assistance greater than \$500,000 to develop, submit, and implement a water conservation plan for the life of the loan and report annually on the progress of the program.

A water conservation plan is also required for a water supplier with 3,300 or more connections or an entity that has surface water rights with the Texas Commission on Environmental Quality (TCEQ). Entities with a water right will need to submit their water plan to TCEQ and provide a copy to TWDB. Please review [TCEQ's website](#) for more guidance.

When creating a water conservation plan, it is important to keep in mind that this is your utility's plan. Like a community's comprehensive plan, a water conservation plan can be a critical tool in helping fulfill a utility's desired vision for the future and assist with directing public investment in infrastructure improvement.

The TWDB Conservation Department is dedicated to helping utilities be successful in their water conservation planning. Please contact us with any questions or suggestions on how we can better serve you.

In addition, direct links to more information on TWDB's website can be found throughout this document for your convenience.

Thank you.

Water Use Survey: 512-463-7952 or WaterUseSurvey@twdb.texas.gov

Water Service Boundary Viewer: 512-463-6867 or WSBViewer@twdb.texas.gov

Water Loss Audit: 512-463-0987 or WLA-Group@twdb.texas.gov

Water Conservation Annual Report, Utility Profile, and Conservation Plan:
512-475-1639 or WCPteam@twdb.texas.gov

INTRODUCTION

A water conservation plan should be more than the minimum requirements found in state statute. It is meant to be a self-serving written document, in which a utility can plan, program, and create a sustainable and efficient water secure future. A program that, over time, can help the utility prepare for increasing population growth, water shortages, high seasonal demand, and potential water scarcity.

Consider a community's growth. Texas' population is projected to increase by more than 70 percent from 29.7 million in 2020 to 51.5 million in 2070. * Increased population will create an increased demand for the state's water resources. Water conservation alone may not be enough to meet the future water needs, but it is usually the least expensive and easiest option for a water source.

Even though the State of Texas may require your entity to develop a water conservation plan, there are additional reasons why your community would benefit from a conservation program.

STATE STATUTE REASONS	OTHER REASONS
Applying for financial assistance in an amount exceeding \$500,000	Conserving water reduces the burden on the distribution and wastewater treatment facilities. Therefore, your community saves money and energy.
An entity that has surface water rights with Texas Commission on Environmental Quality (TCEQ)	Water conservation helps protect the environment by keeping water in the rivers and lakes, keeping the environment and your community healthy and vibrant.
A water supplier with 3,300 or more connections	Keeping water in the environment means it is available for water recreational activities.
	Minimizes the effects of drought.
	Prevents groundwater depletion
	Eliminates or postpones the need for capital improvement projects
	Helps avoid new source development costs.
	Helps maintain the health of your community by maintaining the integrity of the community's critical infrastructure.
	It is the right thing to do for future generations.

* Population projections, historical water use and projected demand can be further reviewed in the TWDB's [state water plan](#) and through the state water plan's comparison tool, www.twdb.texas.gov/waterplanning/data/dashboard/index.asp

GETTING STARTED

First time requests for funding from TWDB's financial assistance programs require the following information to be submitted with your application and on a regularly scheduled timeline throughout the life of the financial assistance:

- Water use survey. Annual submissions required by March 1st.
 - Most current 3-year submissions need to be on file.
- Water loss audit. Annual submissions required by May 1st.
 - Most recently required water loss audit needs to be on file.
- [Water conservation annual report](#). Annual submissions required by May 1st.
- Utility profile, and,
- Water conservation plan.
 - Plans, including the utility profile, must be updated every five years.

It is important to note that a draft of a utility's water conservation plan must be approved by TWDB prior to commitment of any funds and proof of the plan's adoption by the utility is required to close on funding.

Systems that are required to submit a water conservation plan and annual reporting will need to set up a Water Loss, Use and Conservation (LUC) account through the [OKTA application](#) found on the TWDB website. All reporting must be completed through the OKTA application program.

COMPONENTS OF A WATER CONSERVATION PLAN

Below are the TWDB's minimum [required components](#) that need to be addressed in your water conservation plan.

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|--|--|
| <input type="checkbox"/> Water Conservation Utility Profile | <input type="checkbox"/> Universal Metering Program |
| <input type="checkbox"/> Conservation Coordinator | <input type="checkbox"/> Water Loss Control Program |
| <input type="checkbox"/> 5 and 10-year goals for total, residential and water loss expressed in gallons per capita per day (GPCD). | <input type="checkbox"/> Leak Detection Program |
| <input type="checkbox"/> Achieving Targets | <input type="checkbox"/> Public Education and Information |
| <input type="checkbox"/> Tracking Effectiveness of the Plan | <input type="checkbox"/> Water Rate Structure |
| <input type="checkbox"/> Production Meters | <input type="checkbox"/> Signed Official Ordinance |
| | <input type="checkbox"/> Wholesale or Contract |
| | <input type="checkbox"/> Regional Water Group Notification |

What is a water conservation plan?

A *water conservation plan* is a strategy or combination of strategies for reducing the consumption of water, reducing the loss or waste of water, improving the efficiency in the use of water, or increasing recycling and reuse of water.

The minimum requirements for water conservation plans detailed below, can be found in state statute:

[Title 30 TAC Chapter 288, Rule §288.2](#)

[Title 31 TAC Chapter 363, Rule §363.15](#)

However, a water conservation plan may also include other conservation methods that the applicant deems viable for their community. Lists of [Best Management Practices](#) (BMPS) can be reviewed on the TWDB website:

A. Water Conservation Utility Profile: An evaluation of the applicant’s water and wastewater system and customer use characteristics to identify water conservation opportunities and potential targets and goals. Completion of the *Utility Profile* as part of the evaluation is required and should be submitted with the plan, it should be considered the data portion of the plan. The utility profile should include the water sales and use for the following classifications: residential (both for single-family and multi-family), commercial, institutional, industrial, agricultural, and wholesale; as appropriate.

*If submitting a new water conservation plan for an application, a utility profile must be submitted along with the plan. Please reach out to TWDB conservation staff to receive a fillable PDF copy of the utility profile: wcpteam@twdb.texas.gov. The profile should be filled out in its entirety so a baseline water usage profile for the system can be established.

For applicants with existing water conservation plans, you must login to your entity’s online Water Loss Use Conservation (LUC) account to update your utility data. Please DO NOT send in a fillable PDF to the conservation team. You must use LUC to update your information.

B. Conservation Coordinator: Include a designated person as the water conservation coordinator who is responsible for implementing the water conservation plan.

Best Management Practice: Conservation Coordinator

C. 5- and 10-year goals in GPCD: Five and ten-year goals that are specific and quantified for water savings. This must include goals for total water loss, goals for residential use and goals for water loss in gallons per capita per day (GPCD). Include a baseline to calculate your estimated savings. Typically, the previous 5-year averages from the utility profile are used for the baseline, although not required. However, the plan needs to explain the figures used for the baseline. Consider regional targets and goals, local climate, and demographics (*i.e., wet year versus dry year, high usage versus low usage*). Consider the anticipated savings that may be achieved by utilizing appropriate best management practices and other conservation techniques. For more information: [Targets and Goals Guidance](#)

D. Achieving Targets: Schedule for implementing the plan to achieve the applicant’s or utility’s

targets and goals.

- E. **Tracking:** Describe the method for tracking the implementation and effectiveness of the plan. The method should track annual water use and provide information to evaluate the implementation of conservation measures. The plan should measure progress annually and evaluate the progress towards meeting the goals.
- F. **Production Meter(s):** Meter(s) to measure and account for water diverted from the source of supply to the system.
- G. **Universal Metering Program:** A program of universal metering of both customer and public uses of water, for routine meter testing, repair, and periodic replacement of aged meters.
Best Management Practice: [Metering of All New Connections and Retrofit of Existing Connections](#)
- H. **Water Loss Control Program:** Measures to determine and control water loss. A program that helps to identify real or physical losses of water from the water system and apparent losses, or the water that is consumed but not accounted for (some examples are, periodic visual inspections along distribution lines; annual or monthly auditing of the water system to determine illegal connections, or abandoned services, and repairing or replacing meters regularly to ensure efficiency and meter accuracy).
Best Management Practice: [Utility Water Audit & Water Loss](#)
- I. **Leak Detection Program:** A continuous program of leak detection, repair, and water loss accounting for the transmission, delivery, and distribution system to control water loss. Estimate the amount of water the utility can save by repairing the leaks in the system.
Best Management Practice: [Utility Water Audit & Water Loss](#)
- J. **Public Education and Information:** A program of ongoing education regarding water conservation. This should include providing water conservation information to residential, industrial, and commercial customers at least annually via multiple media sources, as well as providing water conservation literature to new customers. The goal is continual awareness and education of customers about the status of water resources in the community and how conservation is important to sustaining existing and future water supplies. An equally important part of the program is to provide data and information on specific actions the customers should take to help achieve the community's goals.
Best Management Practice: [Public Information](#)
Best Management Practice: [School Education](#)
Best Management Practice: [Public Outreach and Education](#)
- K. **Water Rate Structure:** A water rate structure which is not "promotional," i.e., a rate structure which is cost-based, and which does not encourage the excessive use of water. Please, include a copy of the rate structure (i.e., Rate Table or Rate Ordinance)
Best Management Practice: [Water Conservation Pricing](#)
- L. **Signed Official Ordinance:** A means of implementation and enforcement, evidenced by adoption of the plan:
 1. a copy of the ordinance, resolution, or tariff indicating official adoption of the water conservation plan by the applicant, and,
 2. a description of the authority by which the applicant will implement and

- enforce the water conservation plan.
3. No water conservation plan is complete without formal adoption by the governing body of the utility.

M. Wholesale or Contract: If the utility furnishes water or wastewater services to another supplying entity, the requirements for the water conservation plan also pertains to the supplier entities.

To comply with this requirement the utility shall:

- Submit its own water conservation plan.
- Submit the other entity's (or entities) water conservation plan.
- Require, by contract, that the other entity (or entities), adopt a water conservation plan that conforms to the board's requirement and submit it to the board. If the requirement is to be included in an existing water or wastewater service contract, it may be included, at the earliest at the renewal or substantial amendment of that contract, or by other appropriate measures. *(Conditional requirement)*

N. Regional Water Planning Group Notification: A copy of your water conservation plan should be sent to the appropriate regional water planning group. A copy of the letter, email, or fax cover page should be submitted with your water conservation plan. A copy must be sent to the appropriate parties. [Regional Water Planning Group Contact Information](#)

O. Drought Contingency Plan: It is important to note that the Drought Contingency Plan has requirements listed in both [Title 30 TAC Chapter 288, Subchapter B](#) and [Title 31 TAC Chapter 363, Rule §363.15\(M\)](#). However, it is important to refer to the [Texas Commission on Environmental Quality \(TCEQ\) website](#) for more information on [Drought Contingency Planning](#) to meet TCEQ's requirements.

P. Reporting Requirement: Identify who will be responsible for preparing the annual report on the utility profile. Financial assistance recipients must maintain an approved water conservation program in effect until all financial obligations to the state have been discharged and shall report annually through the [LUC portal](#) on the progress in implementing each of the minimum requirements in its water conservation plan and the status of any of its customers' water conservation plan required by contract. The content and format for the annual reporting is included in the forms:

1. *Water Conservation Plan Annual Report.* This needs to be completed through your LUC account. Documents sent to TWDB staff will not be entered into the system. Please contact staff if there is an issue with logging into the database.

ADDITIONAL RESOURCES

Best Management Practice (BMPs)

To help communities tailor their plans to meet their individual needs, the TWDB has a comprehensive guide of BMPs with detailed descriptions on implementation, determining water savings and other useful information, please click the hyperlinks below.

[The Complete Agricultural BMP Guide](#)

[The Complete Commercial and Institutional BMP Guide](#)

[The Complete Industrial BMP Guide](#)

[The Complete Municipal BMP Guide](#)

[The Complete Wholesale BMP Guide](#)

Here are examples of low cost and easily implemented BMPS utilities are already using:

[Prohibition on wasting water](#). Water waste prohibition is a low-cost measure using enforceable actions and measures that prohibit specific wasteful activities such as failure to fix outside water leaks and wasteful irrigation.

[Proper installation of meters](#) by size and type is essential for good utility management. Using and maintaining the most accurate meter for each type of connection will generate adequate revenues to cover the expenses of the utility, equity among customers, reduce water waste and reduce flows to wastewater facilities.

[Public outreach and education programs](#), though not directly related to equipment or operational change, can result in short and long-term water savings.

[Water Conservation Pricing](#) is the use of rate structures that discourage the inefficient use or waste of water.

TWDB Water Conservation Plan (User Portal) OKTA:

<https://www.twdb.texas.gov/apps/overview.asp>

Municipal Water Conservation Planning Tool:

https://www.twdb.texas.gov/conservation/municipal/plans/doc/TWDB_MWCPT_v1.xlsm

Water Conservation Plan Resources:

<http://www.twdb.texas.gov/conservation/municipal/plans/index.asp>

Best Management Practices Information:

<http://www.twdb.texas.gov/conservation/bmps/index.asp>

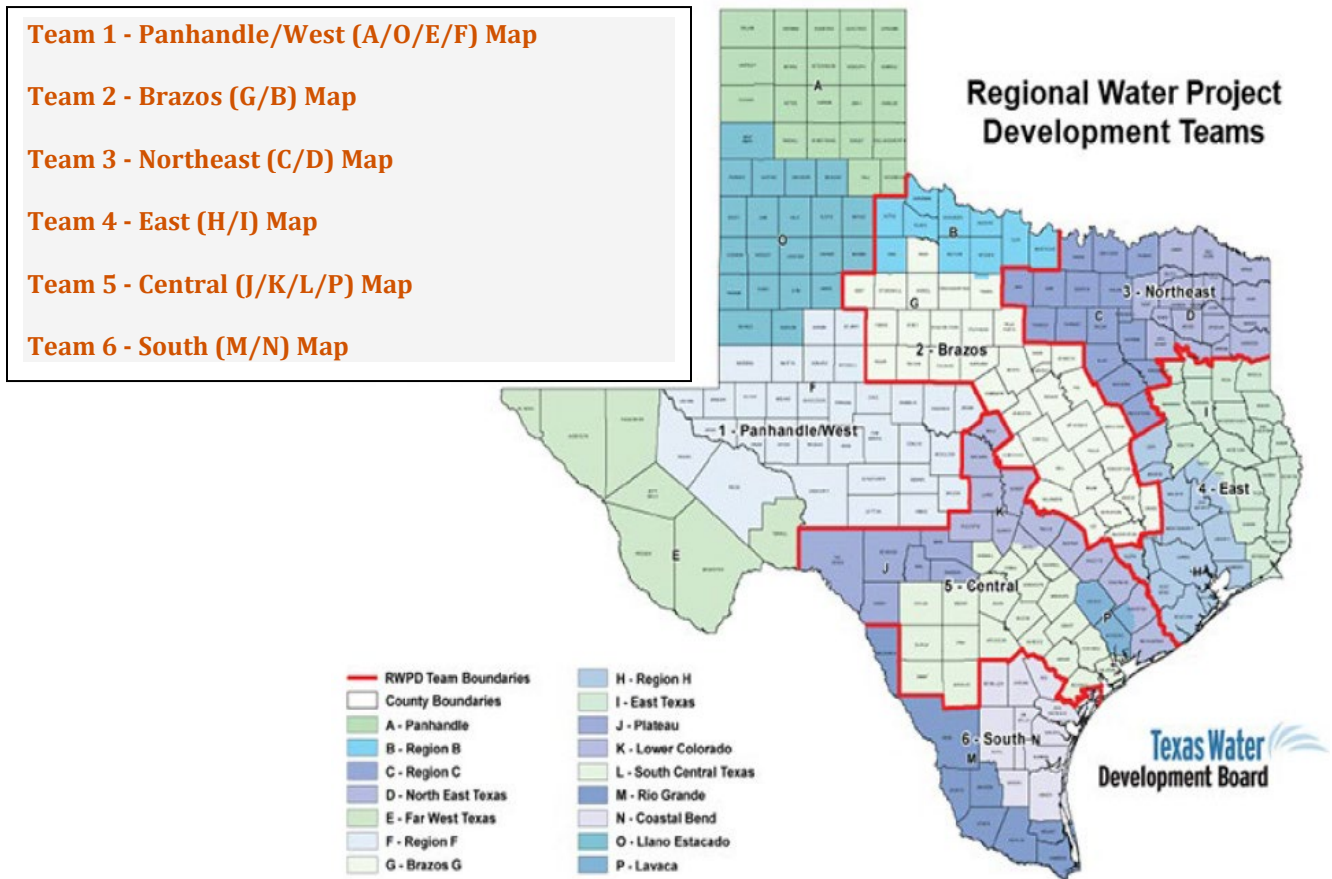
Statewide Water Conservation Quantification Project:

<https://www.twdb.texas.gov/conservation/doc/StatewideWaterConservationQuantificationProject.pdf>

CONTACT US:

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For utilities requesting information on TWDB financial assistance [contact the Regional Water Manager](#) for your [region](#):



Texas Water Development Board (TWDB) [Financial Assistance Programs](#):

- [Financial Assistance Program](#)
- [Rural Water Assistance Fund](#)
- [Drinking Water State Revolving Fund](#)
- [Clean Water State Revolving Fund](#)

Check out these sites for additional information on water conservation efforts in Texas:

Texas Water Newsroom – TWDB
Save Texas Water
Alliance for Water Efficiency
Defend Your Drain
EPA WATER SENSE
Imagine a Day Without Water
Take Care of Texas
Texan by Nature (TxN)
Texas Commission on Environmental Quality
Texas Livings Waters
Texas Runs on Water
Texas Water Resources Institute
Water Efficiency Resources
Water Environment Federation News

