

Water Loss, Use, and Conservation Workshop

Agenda:

1. Introductions

- *Conservation Manager John Sutton*

2. New Login Application (okta)

- *Conservation Team Lead Daniel Rice*

3. Water Use Survey and Viewer

- *Jane Bullan*

- *Genera Navarra*

4. Water Loss Audit Parts 1 & 2

- *Mark Mathis*

5. Water Conservation

- *Conservation Staff*

6. Financial Assistance

- *Scott Galaway*

Specific questions?

Be sure to ask questions with the **'question feature'** on the side panel!

For those seeking TCEQ 4 CEU Hours, they will be given upon full attendance of the entire workshop presentation.

File View Help    

▼ Audio 

Sound Check  ?

 Computer audio

Phone call

No audio

 **MUTED**

Microphone (USB Audio Device) ▼

DELL S2340L (Intel(R) Display Audio) ▼

Talking:

▼ Questions 

Thank you for attending the Water Loss Use and Conservation Webinar.

The Webinar will begin at 8:30 a.m. CST. If you arrived early please feel free to return at that time.

Enter question here

Send

Water Loss, Use, and Conservation Workshop

Webinar ID: 863-114-523



Water Loss, Use, and Conservation Workshop

PLEASE REMEMBER!

1. Training certificates will be emailed and *may* take up to two weeks to be sent out to the individual registrants. (make sure we have your operator number)
2. Copies of the presentation will be available in PDF format.
3. Those seeking TCEQ credit hours must be individually registered and viewing today's presentation in full to receive credit or contact us immediately at WLA-Group@twdb.Texas.gov with proof.
4. You can always email the presenters directly with specific questions.

New Login Application *and requesting access to your reports*



Daniel Rice
Municipal Conservation Team Lead

Wait, what's happening?

- Transition the login application for reporting your water use survey, water loss audit, and water conservation reports (LUC apps) from APM to okta
- If you have an existing account with a good/accessible email, then you still have access to your water systems in LUC
 - Your email is your username
 - You must “Sign-up” in okta (you can do it today!)
 - Any bookmarked links to APM will take you to okta
 - Replace with okta links

Okta Walk-through

The screenshot shows the Texas Water Development Board website. At the top left is the logo with the text "Texas Water Development Board". To the right is a search bar with the text "Search site" and a "Search" button. Below the search bar are social media icons for Facebook, Twitter, LinkedIn, YouTube, Instagram, and Email, with the text "Connect with us:". A navigation menu is located below the search bar, with "Data & Apps" highlighted by a red box. Under "Data & Apps", there are two columns of links. The left column is titled "DATA, APPS AND MAPS" and includes "TWDB Web Applications" (highlighted with a red box), "GIS Datasets", "Map Resources", "Data Services", and "Flood Planning Data". The right column is titled "TNRIS RESOURCES" and includes "DataHub", "Stratmap", "TNRIS Map Catalog", and "Geographic Information Office". To the right of these columns is a large banner for TNRIS (The Texas Natural Resources Information System) featuring a globe, a map, and a group of people. The banner text reads: "The Texas Natural Resources Information System acquires, stores, and distributes geographic data and facilitates GIS collaboration across the state. www.tnris.org".

Texas Water Development Board

Search site Search

Connect with us: [f](#) [t](#) [in](#) [v](#) [i](#) [e](#)

Home Board Financial Assistance Water Planning Groundwater Surface Water Flood Conservation Innovative Water **Data & Apps**

DATA, APPS AND MAPS

- TWDB Web Applications**
- GIS Datasets
- Map Resources
- Data Services
- Flood Planning Data

TNRIS RESOURCES

- DataHub
- Stratmap
- TNRIS Map Catalog
- Geographic Information Office

TNRIS
The Texas Natural Resources Information System acquires, stores, and distributes geographic data and facilitates GIS collaboration across the state.
www.tnris.org

TWDB Web Applications

Water Use Survey

Launch Application:



Sign-in Help:

[Okta User Guide](#)

Summary:

The Water Use Survey application can be used by reporting entities to complete and submit their survey to TWDB. Texas State Law requires entities using self-supplied or purchased groundwater, surface water or reuse for municipal, industrial, power generation or mining to submit a completed annual water use survey. For more information, please see:

- [Water Use Survey webpage](#)
- [How to use Online Water Use Survey](#)

Contact:

 waterusesurvey@twdb.texas.gov

TWDB Web Applications (Overview)

[Okta User Guide](#)

[APM User Guide](#)

[Water Loss Audit](#)

[Water Conservation](#)



Sign In

Username

Next

Need help signing in?

Don't have an account? [Sign up](#)

Create Account

Email * Use same as APM

Password *

First name *

Last name *

Primary phone *

Multi-Factor
Authentication
(MFA) for
Enhanced
Account
Security

Turn on MF... ▲

Turn on MFA

Turn off MFA

* indicates required field

Register

Back to sign in

✓
Verification email sent

To finish signing in, check your email.

Back to sign in

Okta <noreply@okta.com>
to me ▾

9:57 AM (6 minutes ago)



Welcome to the Texas Water Development
Board Application Portal!

Hi Daniel Test,

The Texas Water Development Board (TWDB) is managing its web applications through Okta. This means you may conveniently access all TWDB applications you normally use through a single, secure portal page.

Click the following link to activate your Okta account:

[Activate Okta Account](#)

This link expires in 7 days.

Your username is

Our new TWDB sign-in page is <https://apps.twdb.texas.gov>.



Sign In

Username

Daniel.Rice@twdb.texas.gov

Password

Sign In

Need help signing in?

Welcome to Texas Water Development Board, Daniel Test!
Create your Texas Water Development Board account

Choose a forgot password question
What is the food you least liked as a child?

Answer

Add a phone number for resetting your password or unlocking your account using SMS (optional)
Okta can send you a text message with a recovery code. This feature is useful when you don't have access to your email.

Add Phone Number

Click a picture to choose a security image
Your security image gives you additional assurance that you are logging into Okta, and not a fraudulent website.



Create My Account

Forgot Password Text Message



Enter the phone number you'll use to receive codes via text message, then click Send Code to verify that it works.

Country

Select the country where your phone is registered.

Phone number

Enter your number the way you normally dial it. Do not add your [country code prefix](#).

Send Code

Add a phone number for resetting your password or unlocking your account using SMS (optional)
Okta can send you a text message with a recovery code. This feature is useful when you don't have access to your email.

Add Phone Number

Forgot Password Text Message



Check your phone for the passcode and enter it below. Your message should arrive in less than a minute.

Enter code

Verify

Back

Done

Choose a forgot password question
What is the food you least liked as a child?

Answer

Add a phone number for resetting your password or unlocking your account using SMS (optional)
Okta can send you a text message with a recovery code. This feature is useful when you don't have access to your email.

Add Phone Number

LUC Apps from okta

The screenshot displays the Okta dashboard interface for the Texas Water Development Board. At the top left, the logo for the Texas Water Development Board is visible. A search bar with the placeholder text "Search your apps" is located at the top center. In the top right corner, the user's name "Daniel" and their role "Texas Water Developm..." are shown. The main content area is titled "My Apps" and includes a "Sort" button. Below this, there is a section labeled "Work" containing two application tiles. The first tile is for "LUC" (Water Loss, Use, and Conservation...) and the second is for "TWSBV" (Texas Water Service Boundary Viewer...). A "Add section" button is located at the bottom of the application area. The left sidebar contains navigation options: "My Apps", "Work", "Add section", "Notifications" (with a notification count of 2), and "Add apps".

Welcome to the Water Loss, Use and Conservation Home Page

Based on previously submitted information, the following reports will need to be completed for your water system.

Water Use Survey
Frequency: Annual
Due Date: March 1* every calendar year

[- Water Use Survey List](#)

No record found

If a retail public water supplier has more than 3,300 retail connections or has an active financial obligation with TWDB, a water loss audit is required to be submitted annually. Otherwise, the next required water loss audit will be for the reporting year of 2020, due by May 1, 2021. If you are unsure about your requirements, please email us at WLA-Group@twdb.texas.gov.

Water Loss Audit
Frequency: Varies (See Audit List Table below)
Due Date: May 1* every calendar year when required

[- Water Loss Audit List](#)

No record found

Water Conservation Annual Report

[- WC Annual Report List](#)

No record found

Water Conservation Utility Profile

[- WC Utility Profile List](#)

No record found

Water Conservation Plan

[- WC Plan List](#)

No record found

Please Note: Please Note: The Water Loss Audit cannot be completed in full until the Water Use Survey has been completed and submitted. The Water Conservation Annual Report cannot be completed in full until both the Water Use Survey and Water Loss Audit have been completed and submitted.

If you have any questions or feel that any of this information is incorrect, please contact:

Water Use Team: Team at 512-463-7952 or waterusesurvey@twdb.texas.gov
Water Loss/Conservation Team: WLA-Group@twdb.texas.gov

If you use your APM email, then your systems will show up here as they always have. You can begin filling them out (after the new year!).

Requesting Access to Reports – Water Use Survey

The screenshot shows the Texas Water Development Board website. At the top left is the logo for the Texas Water Development Board. To the right, the text "Water Loss, Use and Conservation" is displayed. Below the logo, there are three tabs: "WLUC", "Water Use Survey", "Water Loss Audit", and "Water Conservation". The "Water Use Survey" tab is highlighted with a red box. The main content area is titled "Welcome to the Water Loss, Use and Conservation Home Page". Below this, a message states: "Based on previously submitted information, the following reports will need to be completed for your water system." There are three sections: "Water Use Survey" (Frequency: Annual, Due Date: March 1st every calendar year), "Water Loss Audit" (Frequency: Varies, Due Date: May 1st every calendar year when required), and "Water Conservation Annual Report". Each section has a button labeled "- [Section Name] List" and the text "No record found". A blue-bordered box contains a note: "If a retail public water supplier has more than 3,300 retail connections or has an active financial obligation with TWDB, a water loss audit is required to be submitted annually. Otherwise, the next required water loss audit will be for the reporting year of 2020, due by May 1, 2021. If you are unsure about your requirements, please email us at WLA-Group@twdb.texas.gov."

Request Access to Water Use Survey



Water Use Survey

Hello, Daniel Test Rice [Sign out](#) Menu

Home **Survey List** WLUC Home

Request Access to Surveys

Survey List 2022

At the bottom of this page, below the search filter section, are the surveys which you currently have access to. Simply click on the name of your system/facility under the survey name column to begin entering the survey data. If the list below the search filter section on this page is blank or you need access to additional surveys, please click on the [Request Access to Surveys](#) link at the top left of this screen under the blue bar which will direct you to another page where you can search for the survey by Survey Number or Survey Name and request access to a particular survey. (Please note that requests are generally approved within an hour but may be as long as one business day during extremely busy periods. Once you receive an email that indicates that you are approved access to a survey, simply refresh this screen or log back in and the survey will appear below the search filter on this page. You can then click on the name of your system/facility under the survey name column to begin entering the survey data.) Click [here](#) to watch a quick video on how to request access to a survey that is not listed below.

NOTES:

The TWDB is legislatively directed to plan for, and to assist financially, the development and management of the water resources of Texas. This water use survey data is specifically used to estimate water demand projections in the regional and state water planning process and to aid in groundwater availability modeling. Therefore, it is critical that data is accurately submitted by qualified personnel familiar with your system/facility.

To streamline data entry and to improve data collection, for those community public water systems that may also be required to submit a separate Water Loss Audit, Water Conservation Plan, Utility Profile, or Annual Report, certain common fields will auto-populate into those applications when the water use survey data is submitted.

If you have logged-in using another person's username and password, that email address is linked to that user's first and last name and email address. Attempting to change another user's name or email address or removing them as a contact, if you are logged in as them, will immediately deny further access to the application. Please logout now and register as a new user to create your own unique username and password using your own unique email address (NOT a shared email address).

If you need to change your current user profile information, please click on APM Home at the top right and then Profile. Click [here](#) to watch a quick video on how to change your user profile information.

If your system is an active community Public Water System and you have a PWS Code with the Texas Commission on Environmental Quality associated with your system/survey, either before you start or after you submit your survey, please additionally review and submit any changes to your service area boundary at [Texas Water Service Boundary Viewer](#).

If you need copies of your past surveys, click on [Historical Water Use Surveys](#) and select today's date from the calendar icon and then the desired survey year from the dropdown menu. You must also enter your SurveyNo. This number must total 7 digits so add the correct number of preceding zeros "000" if needed to make 7 digits. After these three parameters are entered, click on 'View Report' on the top right of the screen to run the report. The survey can then be printed or exported and saved as a PDF.

The status of all surveys for the past three years can be found at [Prior Three-Year Survey Status](#).

Historical water use estimates by region, county, or basin can be found at [Historical Water Use Estimates](#) and the interactive state water plan can be found at [Interactive 2017 State Water Plan Website](#).

For questions, please contact us at:

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

Request Access to Water Use Survey

Texas Water Development Board Hello, Daniel Test Rice [Sign out](#) Menu

Water Use Survey

To request access to a particular survey for data entry, please search for the survey by the TWDB Survey Number or by the surveyed system/facility name (Survey Name). **Please note that access to a survey is for data entry purposes only by an authorized individual of the system/facility.**

When the intended system/facility survey is found, please check the box to the left and select **Next** at the top or bottom of the page.

[OAReqAccessSurvey]

Search Filter

Show All

by Survey Number

by Survey Name

Select Survey(s)

<input type="checkbox"/>	<u>Survey Number</u>	<u>Survey Name</u>	<u>System Name</u>	<u>County Name</u>	<u>Survey Type</u>
<input type="checkbox"/>	10	CANADIAN RIVER MWA	CANADIAN RIVER MWA	HUTCHINSON	Municipal Short
<input type="checkbox"/>	20	GREENBELT MIWA	GREENBELT MIWA	DONLEY	Municipal Short
<input type="checkbox"/>	25	ATHENS MUNICIPAL WATER AUTHORITY	ATHENS MUNICIPAL WATER AUTHORITY	HENDERSON	Municipal Short
<input type="checkbox"/>	60	NORTHEAST TEXAS MWD	NORTHEAST TEXAS MWD	MARION	Municipal Short
<input type="checkbox"/>	140	LOWER NECHES VALLEY AUTHORITY	LOWER NECHES VALLEY AUTHORITY	JEFFERSON	Municipal Short
<input type="checkbox"/>	160	NORTH TEXAS MWD-WYLIE WTP LAKE LAVON	WYLIE WTP LAKE LAVON	COLLIN	Municipal Short
<input type="checkbox"/>	220	HOUSTON COUNTY WCID 1	HOUSTON COUNTY WCID 1	HOUSTON	Municipal Short
<input type="checkbox"/>	280	UPPER LEON RIVER MWD	UPPER LEON RIVER MWD	COMANCHE	Municipal Long
<input type="checkbox"/>	290	WHITE RIVER MWD	WHITE RIVER MWD	CROSBY	Municipal Long
<input type="checkbox"/>	300	EASTLAND COUNTY WSD 1	EASTLAND COUNTY WSD 1	EASTLAND	Municipal Short
<input type="checkbox"/>	420	WEST CENTRAL TEXAS MWD	WEST CENTRAL TEXAS MWD	STEPHENS	Municipal Short
<input type="checkbox"/>	911	NORTH CAMERON REGIONAL WTF	NORTH CAMERON REGIONAL WTF	CAMERON	Municipal Short

Request Access to Water Use Survey



Water Loss, Use and Conservation

Hello, DanielTest Rice [Sign out](#) Menu

[WLUC](#) [Water Use Survey](#) [Water Loss Audit](#) [Water Conservation](#)

Welcome to the Water Loss, Use and Conservation Home Page

Based on previously submitted information, the following reports will need to be completed for your water system.

Water Use Survey
Frequency: Annual
Due Date: March 1st every calendar year

Water Use Survey List

Survey Number	PWS Code	System Name	Status	Submitted Date	Authorized Users
0187427	1290038	COUNTRY CLUB WATER SUPPLY	Submitted	02/15/2021	Okta User Okta@okta.com
0000290	540015	WHITE RIVER MWD	Not Started		Okta User Okta@okta.com
0041010	2270001	CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM	SUBMITTED2	11/16/2021	Okta User Okta@okta.com
0008860	1110007	ACTON MUD	Submitted	03/05/2021	Okta User Okta@okta.com
0626055	1520067	114TH STREET MHP	Submitted	03/01/2021	Okta User Okta@okta.com

If a retail public water supplier has more than 3,300 retail connections or has an active financial obligation with TWDB, a water loss audit is required to be submitted annually. Otherwise, the next required water loss audit will be for the reporting year of 2020, due by May 1, 2021. If you are unsure about your requirements, please email us at WLA-Group@twdb.texas.gov.

Requesting Access to Reports – Water Loss Audit

The screenshot shows the Texas Water Development Board website. At the top left is the logo for the Texas Water Development Board. To the right of the logo is the text "Water Loss, Use and Conservation". Below the logo is a navigation menu with four items: "WLUC", "Water Use Survey", "Water Loss Audit", and "Water Conservation". The "Water Loss Audit" item is highlighted with a red rectangular box. Below the navigation menu is a header that says "Welcome to the Water Loss, Use and Conservation Home Page". The main content area contains the following text: "Based on previously submitted information, the following reports will need to be completed for your water system." This is followed by three sections: "Water Use Survey" (Frequency: Annual, Due Date: March 1st every calendar year) with a button labeled "- Water Use Survey List" and the text "No record found"; a highlighted box containing a note: "If a retail public water supplier has more than 3,300 retail connections or has an active financial obligation with TWDB, a water loss audit is required to be submitted annually. Otherwise, the next required water loss audit will be for the reporting year of 2020, due by May 1, 2021. If you are unsure about your requirements, please email us at WLA-Group@twdb.texas.gov."; and "Water Loss Audit" (Frequency: Varies (See Audit List Table below), Due Date: May 1st every calendar year when required) with a button labeled "- Water Loss Audit List" and the text "No record found". Below this is the "Water Conservation Annual Report" section with a button labeled "- WC Annual Report List" and the text "No record found".

Requesting Access to Water Loss Audit

Texas Water Development Board Water Loss Audit

Home **Request Access** WLUC Home

Request Access To Water Utilities

Select the box in the Utility List for each Utility that you want to access -- then click the Submit button.

Records: 7688 Page: 1 of 769

Select	TCEQ Number	Utility Name	Contact Name	Contact Phone	City Name
	<i>TCEQ # Filter</i>	<i>Utility Name Filter</i>	<i>Contact Name Filter</i>		<i>City Name Filter</i>
<input type="checkbox"/>	2140030	1017 Cafe			
<input type="checkbox"/>	260049	130 Regional WSC			
<input type="checkbox"/>	1012765	1350 Hugh Road Water System			
<input type="checkbox"/>	1012239	14200 Stuebner Airline Off...			
<input type="checkbox"/>	1013173	147Th T A n G			
<input type="checkbox"/>	1700580	1485 Limited Crystal Spring...			
<input type="checkbox"/>	1700432	1964 Northpark Water Well			
<input type="checkbox"/>	1013100	1977 KINDRED II			
<input type="checkbox"/>	200513	2 Js Cafe & Marina			
<input type="checkbox"/>	1700814	242 Express Mart			

Requesting Access to Water Loss Audit

Texas Water Development Board Water Loss, Use and Conservation Hello, DanielTest Rice [Sign out](#) Menu

[WLUC](#) [Water Use Survey](#) [Water Loss Audit](#) [Water Conservation](#)

Water Loss Audit
 Frequency: Varies (See Audit List Table below)
 Due Date: May 1st every calendar year when required

Water Loss Audit List

PWS Code	System Name	Year Due	Status	Submitted Date	Authorized Users
1110007	ACTON MUD	2021	Submitted	04/16/2021	Okta User Okta@okta.com
1290038	COUNTRY CLUB WSC	2021	Submitted	11/05/2021	Okta User Okta@okta.com
540015	WHITE RIVER MWD	2021	Submitted	04/06/2021	Okta User Okta@okta.com
2270001	CITY OF AUSTIN WATER & WASTEWATER	2021	Submitted	04/30/2021	Okta User Okta@okta.com
200764	BRAZORIA COUNTY MUD 53	2021	Not Submitted		
1520067	114TH STREET MOBILE HOME PARK	2021	Not Submitted		Okta User Okta@okta.com

Requesting Access to Reports – Water Conservation

The screenshot shows the Texas Water Development Board website. At the top left is the logo for Texas Water Development Board. To the right of the logo is the text "Water Loss, Use and Conservation". Below the logo are four navigation tabs: "WLUC", "Water Use Survey", "Water Loss Audit", and "Water Conservation". The "Water Conservation" tab is highlighted with a red box. Below the navigation tabs is a horizontal line. To the right of the line is the text "Welcome to the Water Loss, Use and Conservation Home Page". Below this text is a paragraph: "Based on previously submitted information, the following reports will need to be completed for your water system." Below this paragraph are three sections, each with a title and a button: "Water Use Survey" with a button labeled "- Water Use Survey List" and the text "No record found"; "Water Loss Audit" with a button labeled "- Water Loss Audit List" and the text "No record found"; and "Water Conservation Annual Report" with a button labeled "- WC Annual Report List" and the text "No record found". A text box with a black border is positioned between the "Water Use Survey" and "Water Loss Audit" sections. It contains the text: "If a retail public water supplier has more than 3,300 retail connections or has an active financial obligation with TWDB, a water loss audit is required to be submitted annually. Otherwise, the next required water loss audit will be for the reporting year of 2020, due by May 1, 2021. If you are unsure about your requirements, please email us at WLA-Group@twdb.texas.gov."

Request Access to Water Conservation Reports

Texas Water Development Board Water Conservation Hello, DanielTest Rice [Sign out](#) Menu

[WC Home](#) **[Request Access](#)** [WLUC Home](#)

Request Access To Water Utilities [Apply Filter:](#) [Reset Filter:](#) [Submit](#)

Select the box in the Utility List for each Utility that you want to access -- then click the Submit button.

Records: 927 Page: 1 of 93 Show records on page: 10 20 30 50 100 250

Select	TCEQ Number <small>TCEQ # Filter</small>	Utility Name <small>Utility Name Filter</small>	Comments
<input type="checkbox"/>	0	Adams Gardens ID #19	
<input type="checkbox"/>	0	AEP PSO Oklaunion Power Station	
<input type="checkbox"/>	0	AEP SWEPCO Knox Lee	
<input type="checkbox"/>	0	AEP SWEPCO Pirkey	
<input type="checkbox"/>	0	AEP SWEPCO Welsh	
<input type="checkbox"/>	0	AEP SWEPCO Wilkes	
<input type="checkbox"/>	0	AES Western Power	
<input type="checkbox"/>	1080022	Agua SUD	
<input type="checkbox"/>	0	Alcoa Inc - Point Comfort 15-4792B	
<input type="checkbox"/>	0	Alcoa Inc - Point Comfort 15-4794	

Request Access to Water Conservation Reports


Water Loss, Use and Conservation
Hello, DanielTest Rice [Sign out](#) Menu

WLUC
Water Use Survey
Water Loss Audit
Water Conservation

Water Conservation Annual Report

Our records indicate that your Annual Report has not been completed for 2020. The Annual Report was due on 5/1/2021. Please complete and submit your Annual Report as soon as possible.

- WC Annual Report List						
PWS Code	Utility Type	System Name	Year Due	Status	Submitted Date	Authorized Users
1110007	Retail Water Supplier	Acton MUD	2021	Review Completed	04/23/2021	Okta User Okta@okta.com
1250001	Retail Water Supplier	City of Alice	2021	Review Completed	04/29/2021	Okta User Okta@okta.com
430025	Retail Water Supplier	City of Allen	2021	Review Completed	04/05/2021	Okta User Okta@okta.com
200001	Retail Water Supplier	City of Alvin	2021	Review Completed	05/04/2021	Okta User Okta@okta.com
1390004	Retail Water Supplier	City of Blossom	2021	Not Started		Okta User Okta@okta.com

Water Conservation Utility Profile

Our records indicate that your Utility Profile is five or more years old and a new Utility Profile was due on 5/1/2021. Please complete and submit your Utility Profile as soon as possible.

- WC Utility Profile List						
PWS Code	Utility Type	System Name	Year Due	Status	Submitted Date	Authorized Users
1390004	Retail Water Supplier	City of Blossom	2021	Not Started		Okta User Okta@okta.com

Water Conservation Plan

Our records indicate that your Water Conservation Plan is five or more years old and a new Water Conservation Plan was due on 5/1/2021. Please complete and submit your Water Conservation Plan as soon as possible.

- WC Plan List						
PWS Code	Utility Type	System Name	Year Due	Status	Submitted Date	Authorized Users
1390004	Retail Water Supplier	City of Blossom	2021	Not Started		Okta User Okta@okta.com

Please Note: Please Note: The Water Loss Audit cannot be completed in full until the Water Use Survey has been completed and submitted. The Water Conservation Annual Report cannot be completed in full until both the Water Use Survey and Water Loss Audit have been completed and submitted.

If you have any questions or feel that any of this information is incorrect, please contact:
 Water Use Team: Team at 512-463-7952 or waterusesurvey@twdb.texas.gov
 Water Loss/Conservation Team: WLA-Group@twdb.texas.gov

TWDB Web Applications

Water Use Survey

Launch Application:



Sign-in Help:

[Okta User Guide](#)

Summary:

The Water Use Survey application can be used by reporting entities to complete and submit their survey to TWDB. Texas State Law requires entities using self-supplied or purchased groundwater, surface water or reuse for municipal, industrial, power generation or mining to submit a completed annual water use survey. For more information, please see:

- [Water Use Survey webpage](#)
- [How to use Online Water Use Survey](#)

Contact:

 waterusesurvey@twdb.texas.gov

TWDB Web Applications (Overview)

[Okta User Guide](#)

[APM User Guide](#)

[Water Loss Audit](#)

[Water Conservation](#)

Okta User Guide

The Texas Water Development Board has partnered with Okta, an industry leading, cloud-based identity and access management solution, to provide Single Sign-On (SSO) access to our business applications in one, easy-to-manage user portal.

Benefits and Objectives

- SSO means easy access to applications without the need to remember dozens of usernames and passwords
- A single dashboard to organize and access commonly used applications
- Streamlined user access and simplified, self-serve password reset processes
- Improved IT support
- Ability to implement Multi-Factor Authentication (MFA) functionality for accessing sensitive applications and data

For Additional Support

Please [request help](#) for assistance in using Okta.

TWDB Web Applications (Overview)

Okta User Guide

- [Create your Okta account](#)
- [Sign in to Okta](#)
- [Update your Okta user profile](#)
- [Organize your Okta TWDB Application Portal](#)
- [Reset your Okta password](#)
- [Unlock your Okta account](#)
- [Request help with Okta](#)
- [Set up Multi-Factor Authentication \(optional\)](#)

Sign-In Help

[← Back to Sign-In Page](#)

Okta is an on-demand service that allows you to easily sign-in to all the applications your organization uses through a single login.

Once you sign in, your Okta home page displays all your applications in one location. Simply, click the application's corresponding icon and each application opens in a new browser window or tab and you are automatically logged-in.

More Help

- [Request help](#)
- [Send feedback](#)
- [Report a bug](#)

Table of Contents

Frequently Asked Questions

- [What should I do if I forget my username or password?](#)

How Tos

- [Sign-in to your Organization](#)
- [Report a Security Issue](#)

Send Message



Enter the email we should use to contact you:

twdb.okta@gmail.com

What do you need help with?

- Cannot log in
- Request help with using the system
- Cannot log in**
- Report a potential security issue
- Request access to an application
- Send feedback about the system
- Report a bug in the system

Send Message

SAVE YOUR WORK

The screenshot shows the Texas Water Development Board dashboard. At the top left is the logo and name. A search bar is at the top center. The top right shows the user name 'Daniel Test' and a dropdown arrow. The main content area is titled 'My Apps' and contains a 'Work' section with two app cards: 'SARA' (Secured Agency Reporting...) and 'LUC' (Water Loss, Use, and Conservation...). A 'Sort' button is in the top right of the main area. A modal dialog box is centered on the screen with the text: 'Your session has expired', 'Please log in again to continue using your dashboard.', and a 'Sign in' button.

Questions and Links

- Type your questions in the question box
- Links to sites:
 - TWDB Web Applications Overview and User Guide (okta)
 - <https://www.twdb.texas.gov/apps/overview.asp>
 - Okta Application (to login to complete your reports)
 - <https://apps.twdb.texas.gov/>

Water Use Survey 2023

Jane Bullan and Genera Navarra
Water Use, Projections & Planning



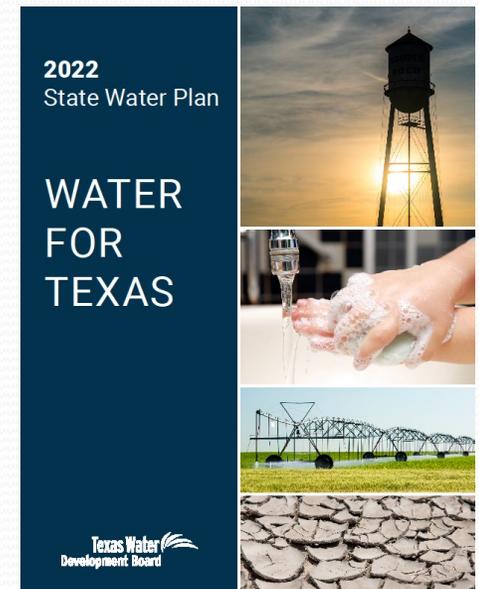
What is the Water Use Survey?

- 7,000 annual surveys
 - 4,500 public water systems
 - 2,500 industrial facilities
- Began in 1955
- Became mandatory in 1999
- Online application launched in 2011



Why Should You Care About Water Use Survey?

- Future municipal water demands in the State Water Plan are based on projections developed using historical water use survey data
- Used to calculate Gallons per Capita Daily (GPCD)
- Supports State Water Implementation Funds for Texas (SWIFT) Prioritization
- Provides Support in other Areas:
 - Groundwater Availability Models (GAMSs)
 - Groundwater Conservation Districts (GCDs)
 - United States Geological Survey (USGS)
Texas Water Science Center



Water Loss, Use & Conservation (WLUC) Water Data Consolidation

- Online Applications
 - Water Use Survey
 - Water Loss Audit
 - Water Conservation Plan Annual Report
- Certain data pushed from one application to the others



Okta

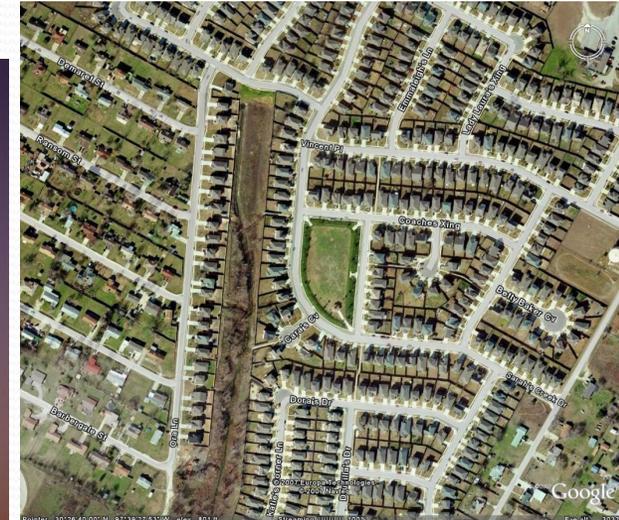
- **Important reminders**

- New users must create an account!
- Returning users use same account credentials as last year
- Your username must be your email (email must be accessible)
- You should provide a phone number, security question, and security image for account recovery

- **Help with Okta:** <https://www.twdb.texas.gov/apps/okta-how-to/index.asp>

Required Survey Information

- **Intake volumes from sources**
 - Self-supplied groundwater, surface water, or reuse water
 - Purchased water
- **Water sales**
 - Wholesale to other PWS
 - Industrial facilities buying 10 million+ gallons
- **Number of retail connections**
- **Volume of retail water sold broken down by customer type**
 - Metered Residential - Single-family, Residential - Multi-family, Institutional, Commercial, Industrial, Agricultural, Reuse; Unmetered



Water Loss, Use and Conservation Home Page



Water Loss, Use and Conservation

- WLUC**
- Water Use Survey**
- Water Loss Audit
- Water Conservation

Search Filter

Year:



PWS Code



PWS Name



Survey Number



WUS System Name

Water Use Survey

[Water Use Survey List](#)

Water Loss Audit

[Water Loss Audit List](#)

Water Conservation Annual Report

[WC Annual Report List](#)

Water Conservation Utility Profile

[WC Utility Profile List](#)

Water Conservation Plan

[WC Plan List](#)

Welcome to the Water Loss, Use and Conservation Home Page

From this home page, click the Water Use Survey tab at the top heading.

Requesting Access to Surveys



[Request Access to Surveys](#)

Survey List 2022

may also be required to submit a separate Water Loss Audit, Water Conservation Plan, Utility Profile, or Annual Report, certain common fields will auto-populate into those applications when the Water Use Survey is submitted.

Do not log in using another person's username and password. This application is not designed for more than one person to share or inherit the same account. Each individual should register as a new user with a unique username and password and unique email address (NOT a shared organization's email address).

If you need help with Okta or you need to change your current user profile information, please refer to the [Okta User Guide](#). Click [here](#) to watch a quick video on how to change your user profile information.

If you need copies of your past surveys, click on [Historical Water Use Surveys](#) and select the date from the calendar. Enter the SurveyNo. This number must total 7 digits so add the correct number of preceding zeros "000" if needed to make 7 digits. Then click on the SurveyNo. The survey can then be printed or exported and saved as a PDF.

The status of all surveys for the past three years can be found at [Prior Three-Year Survey Status](#).

Historical water use estimates by region, county, or basin can be found at [Historical Water Use Estimates](#) and the interactive map.

For questions, please contact us at:

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

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

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

Water Service Boundary Viewer: WSBViewer@twdb.texas.gov

Search Filter

Show All

by Survey Number

by Survey Name

Search

No data found

First time users need to request access to surveys by clicking "Request Access to Surveys".

Accessing Your Survey



Water Use Survey

Hello, John Doe [Sign out](#) ☰ Menu

[Home](#) **Survey List** [Home](#)

[Request Access to Surveys](#)

1 After your request has been approved, refresh your page or return to the Survey List tab. Scroll to the bottom of the page.

Do not log in using another person's username and password and unique email address (NO

If you need help with Okta or you need to change your current user profile information, please refer to the [Okta User Guide](#). Click [here](#) to watch a quick video on how to change your user profile information.

If you need copies of your past surveys, click on [Historical Water Use Surveys](#) and select today's date from the calendar icon and then the desired survey year from the dropdown menu. You must also enter your SurveyNo. This number must total 7 digits so add the correct number of preceding zeros "000" if needed to make 7 digits. After these three parameters are entered, click on 'View Report' on the top right of the screen to run the report. The survey can then be printed or exported and saved as a PDF.

The status of all surveys for the past three years can be found at [Prior Three-Year Survey Status](#).

Historical water use estimates by region, county, or basin can be found at [Historical Water Use Estimates](#) and the interactive state water plan can be found at [Interactive 2022 State Water Plan Website](#).

For questions, please contact us at:

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

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

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

Water Service Boundary Viewer: WSBViewer@twdb.texas.gov

Search Filter

Show All

by Survey Number

by Survey Name

Search

Select Survey

Status	Survey Number	Survey Name	System/Facility Name	Survey Type	Primary Used County Name	File Date	Mailing Address 1	Mailing Address 2	Mailing City	Mailing Zip
Not Started		CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM	GENERAL DISTRIBUTION SYSTEM	Municipal Long	TRAVIS		PO BOX 1088		AUSTIN	78767

2 To start the survey, click the Survey's name.

Survey Navigation Overview

Tab 1: Instructions

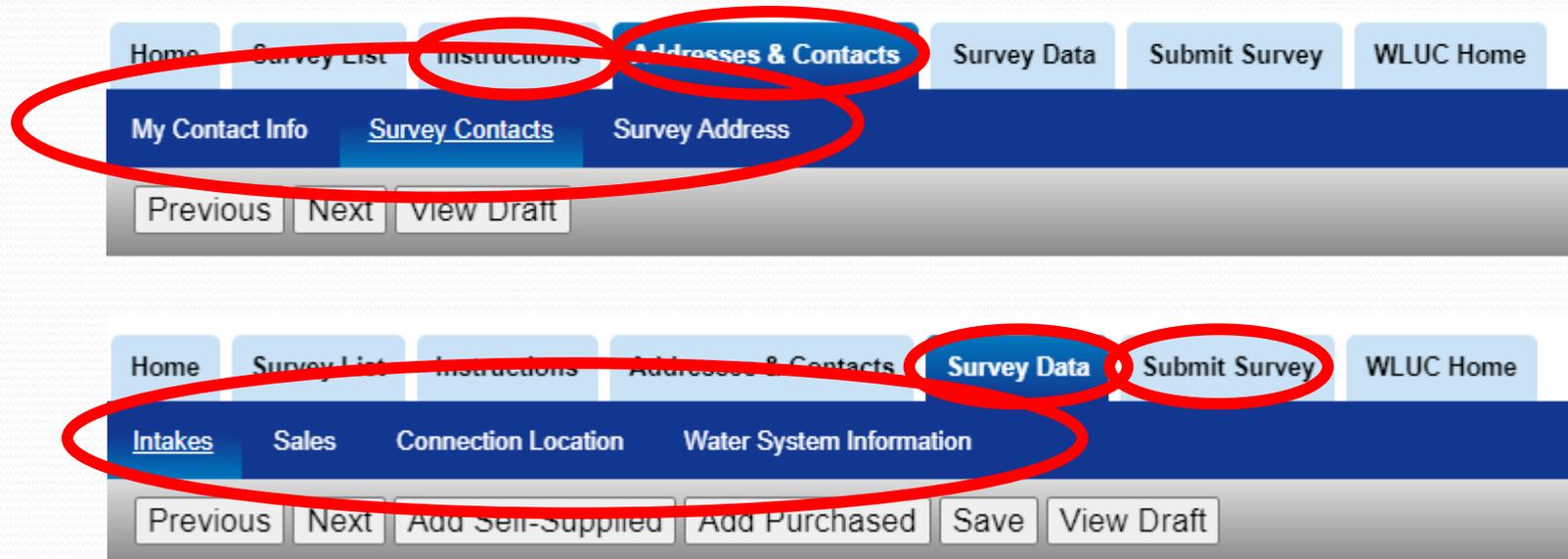
Tab 2: Address & Contacts

My Contact Info, Survey Contacts, Survey Address

Tab 3: Survey Data

Intakes, Sales, Connection Location, Water System Information

Tab 4: Submit Survey



Instructions Page

The 1st tab for all surveys is “Instructions”
Includes agency contact information

Texas Water Development Board

Water Use Survey

Hello, John Doe [Sign out](#) ☰ Menu

Home Survey List **Instructions** Addresses & Contacts Survey Data Submit Survey WLUC Home

Previous Next

CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM 2022

Overall Instructions:

1 of 1 Automatic Zoom

- **Sales** – Report all wholesale water sales to other water systems and sales to industrial facilities that are more than 10 million gallons.
- **Connection Location** - Report the county(ies) served and the number of active/inactive connections within.
- **Water System Information** – Report the permanent population served, retail water sales volumes and connections by use category, and unmetered use.

5. **Submit Survey** – Final survey page, to submit you must press the **Next**, review any **Errors** (will need to be fixed prior to submission) or **Warnings** (should be reviewed but can be ignored if the information is correct), then click the **Submit**.

6. **WLUC Home** – Navigates back to the list of applications that you have access to.

When filling out the survey we encourage you to answer all applicable questions, as staff will contact you to obtain missing information. If you need to submit additional information to TWDB staff, please utilize the comments boxes or contact us directly. If you would like more detailed instruction about each step of data entry, please see our [step-by-step video instructions](#).

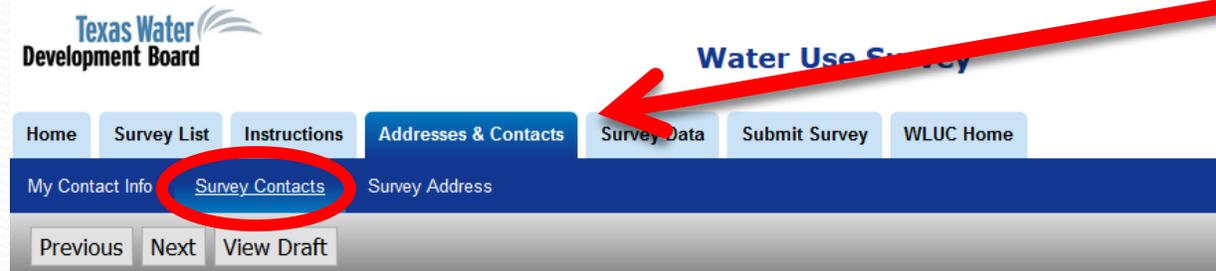
Remember, you can use the **Save** buttons to save the survey at any time and return to complete it later. The **View Draft** button will let you see and save a copy of the draft survey. The survey is not considered administratively complete until you click the **Submit** button. Once submitted, a copy of the survey will automatically be emailed to the email address that you used to register your account after submission.

Thank you again for your time and effort in completing the Water Use Survey. **Please note that the water service boundaries are not available for editing during the current reporting year of 2022. If there have been significant changes in your service area boundary, please contact WSBViewer@twdb.texas.gov.**

If you have trouble or suggestions for improvement, please feel free to contact the Water Use Survey Team at:

Phone: 512-463-7952
Fax: 512-936-0889
Email: waterusesurvey@twdb.texas.gov

Addresses & Contacts - Survey Contacts



CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM 2022

Below are the current contacts authorized to complete this survey. Only a listed contact can access the online

It is no longer possible to add new contacts from this page. In order to add a contact to this survey, the user must create their own TWDB account [here](#). Once a contact has logged in successfully, they will need to click on the LUC homepage Survey tab, and request access to this survey using the blue link at the top left of the Survey List page.

If an individual below is no longer associated with this survey. After confirming that the contacts are correct

This application is not designed for more than one person's username and password, and it is not designed for a shared organization's email address.

[CONTACTSMAIN]

Current Contacts For This Survey

Last Name	Middle Name	First Name	
			Remove Access
			Remove Access
			Remove Access

YOU CANNOT ADD CONTACTS TO A SURVEY. The new contact should create their own TWDB account and request access to the survey to be added to this page.

The 2nd tab is "Address & Contacts"
It has 3 lower subtabs

The 1st subtab is "My Contact Info"
It has a link to where you can change your account information.

The 2nd subtab is "Survey Contacts"
Contacts are people that can complete the survey and answer staff questions.

they will no longer be able to access this component of the survey.

account. If if you have logged-in using your own unique email address continue.

Addresses & Contacts - Survey Address



Water Use Survey

Hello, John Doe [Sign out](#)

Home Survey List Instructions **Addresses & Contacts** Survey Data Submit Survey WLUC Home

My Contact Info Survey Contacts **Survey Address**

Previous Next Save View Draft

CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM 2022

Below is the current information that we have for this system/facility. Please correct the information as necessary. If you need to change the systems name, the requested name will be sent to TWDB staff to ensure consistent naming with other agencies.

System Name: [Click here to request system name change](#)

Primary Used County:

Primary Used Basin:

TCEQ Community Public Water System (PWS) Code: CITY OF AUSTIN WATER & WASTEWATER

[Edit/Add](#) — Operating Firm

[Edit/Add](#) — Multiple Survey Organization (MSO)
[Remove MSO](#)

[Edit](#) — Mailing Address

Address 1:
Address 2:
City:
State:
Zip:

[Edit/Add](#) — Attn:
[Remove](#)

— General Organizational Information

Phone:
Phone Ext.:

The 3rd subtab is "Survey Address"
It contains system information
and mailing address.

If a System name change is
needed, click the link to request
an update.

Add/Remove an
Operating Firm or
Multiple Survey
Organization (MSO) if
applicable.

Add/Remove an existing contact as a
ATTN for mailed correspondence.
Will NOT add the contact as an
authorized survey contact.

Edit your
mailing
address here.



Survey Data - Intakes

The 3rd tab is "Survey Data"
It includes all the water use survey information
The 1st subtab is "Intakes"

If intake sources were carried over from a previous year, click "Edit" to enter monthly gallons.

Water Source

CITY OF AUSTIN - GENERAL DISTRIBUTION SYSTEM 2022

If you have Reuse Water that is distributed from your system, please include your total Reuse volume as an intake.

Note To Groundwater Users: In an effort to aid groundwater modeling, intake from wells can be listed individually. Pumping wells and locations provided better information for the groundwater models. Providing water volumes by well is optional, as you can still report combined pumping volumes if the wells are within the same county and aquifer, as in previous years.

- Click [here](#) to watch a quick video on how to add a new Self-Supplied Groundwater source.
- Click [here](#) to watch a quick video on how to add a new Self-Supplied Surface Water source.
- Click [here](#) to watch a quick video on how to add a new Self-Supplied Reuse source.
- Click [here](#) to watch a quick video on how to add a new Purchased source.

To add a new intake source, click "Add Self Supplied" or "Add Purchased".

[[LIST]]

		Display Order	Water Type	Self Supplied / Purchased	County Name	Basin Name	Aquifer Name	Well Name	Water Right	Surface Water Name	Reuse Type				
Delete	▼	1	Edit	Surface Water	Self-Supplied	TRAVIS	COLORADO		05471-1-6-A	TOWN LAKE/RESERVOIR					
Delete	▲ ▼	2	Edit	Reuse	Self-Supplied	TRAVIS	COLORADO			UNKNOWN	Direct Non-Potable		N/A		0
Delete	▲ ▼	3	Edit	Surface Water	Purchased	TRAVIS	COLORADO			COLORADO-LAVACA RUN OF RIVER		480	LOWER COLORADO RIVER AUTHORITY-LCRA LAKE TRAVIS 14230		0
Delete	▲ ▼	4	Edit	Surface Water	Purchased					UNKNOWN		512080	AWR SERVICES INC-LOOP 360 WSC		0
Delete	▲	5	Edit	Groundwater	Self-Supplied	TRAVIS	COLORADO	EDWARDS-BFZ AQUIFER		UNKNOWN			N/A		0

Adding a New Self-Supplied or Purchased Water Source

Self-Supplied

- **Groundwater**
 - By Aquifer
 - By Individual Well
- **Reuse**
 - Direct Non-Potable
 - Indirect Non-Potable
 - Direct Potable Reuse (DPR)
 - Indirect Potable Reuse (IPR)
 - Texas Land Application Permit (TLAP)
- **Surface Water**
 - By Major River Basin and Surface Water Name
 - By TCEQ Water Right

Purchased

- **Groundwater**
 - By Seller only
 - By Seller and Aquifer
- **Reuse**
 - Direct Reuse By Seller and River Basin
 - Indirect Reuse By Seller and TCEQ Water Right
- **Surface Water**
 - By Seller only
 - By Seller and Surface Water Name
 - By the Seller's TCEQ Water Right
- **Unknown Water Type**
 - By Seller

Edit Intake Source to Include Water Volumes



Water Use Survey

Hello, John Doe [Sign out](#) ☰ Menu

[Previous](#) [Next](#) [Delete](#) [Reset](#) [Save](#) [View Draft](#) [Return To Intake List](#)

Water Source Edit Volume

CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM 2022

Self Supplied Groundwater By Aquifer

Please enter the monthly volumes of Groundwater pumped by Major Aquifer and answer the questions at the bottom of the page regarding if the water is metered, treated, or brackish and the number of active wells.

Notes:

These volumes by aquifer may be for a single well or a summation of more than one well.

You may enter the volumes in various units: gallons, thousand gallons, acre-feet, etc. Please confirm that the volumetric units are set to the correct type.

If raw water prior to extraction, this would be 0% treated

[SSGWBYAQEDITVOL...]

— Source Base Information

Sort Order: 5

Aquifer: EDWARDS-BFZ AQUIFER

County: TRAVIS

Basin: COLORADO

— Volume Information

Source Base Information shows your earlier selection of Aquifer/County/Basin, etc. This selection is NOT editable. If incorrect, you'll have to delete the source and re-add a new source.

Edit Intake, continued

Previous Next Delete Reset Save View Draft Return To Intake List

CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM 2022

Volume Information

Enter Volumes By: 

	In Gallons	In Whole Gallons
January:	<input type="text" value="0"/>	0
February:	<input type="text" value="0"/>	0
March:	<input type="text" value="0"/>	0
April:	<input type="text" value="0"/>	0
May:	<input type="text" value="0"/>	0
June:	<input type="text" value="0"/>	0
July:	<input type="text" value="0"/>	0
August:	<input type="text" value="0"/>	0
September:	<input type="text" value="0"/>	0
October:	<input type="text" value="0"/>	0
November:	<input type="text" value="0"/>	0
December:	<input type="text" value="0"/>	0
Annual Total:	<input type="text" value="0"/>	0

Calculated Total: 0 [Insert Calculated Total](#)

Water Source Edit Volume

Make sure that you are using the desired unit!

Drop down options:
Gallons, Thousand Gallons, Million Gallons,
Acre Feet, Barrels, Cubic Feet

Enter each monthly volume of
water used.

Click "Insert Calculated Total"
to sum up the Annual Total.

TWDB Estimate: N

Questions

Edit Intake, continued



Previous Next Delete Reset Save View Draft Return To Intake List

Water Source Edit Volume

CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM 2022

	In Gallons	In Volume Gallons
January:	<input type="text" value="0"/>	0
February:	<input type="text" value="0"/>	0
March:	<input type="text" value="0"/>	0
April:	<input type="text" value="0"/>	0
May:	<input type="text" value="0"/>	0
June:	<input type="text" value="0"/>	0
July:	<input type="text" value="0"/>	0
August:	<input type="text" value="0"/>	0
September:	<input type="text" value="0"/>	0
October:	<input type="text" value="0"/>	0
November:	<input type="text" value="0"/>	0
December:	<input type="text" value="0"/>	0
Annual Total:	<input type="text" value="0"/>	0

Calculated Total: 0 [Insert Calculated Total](#)

TWDB Estimate: N

Questions

Was the volume metered or estimated?

What percent of the volume was treated prior to intake? %

Was the water saline/brackish prior to treatment?

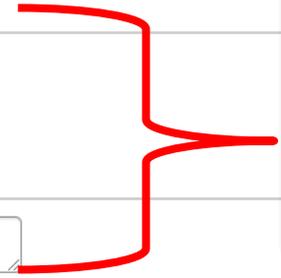
Number of active wells?

External Remarks

Under Questions,

- Select from the drop-down if water was metered or estimated,
- Water is usually untreated prior to intake if self-supplied and treated if purchased,
- Select Yes or No from the drop-down to report if water was brackish/saline,
- Self-supplied groundwater sources only: Enter the number of wells that were combined in the total monthly volumes for this aquifer source, and
- Enter External Remarks (if any).

2



Back to the Intakes Page

Previous Next Add Self-Supplied Add Purchased Save View Draft

Water Source

CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM 2022

If you have Reuse Water that is distributed from your system, please include your total Reuse volume as an intake.

Note To Groundwater Users: In an effort to aid groundwater modeling, intake from wells can be listed individually. Pumping volumes for specific wells and locations provided better information for the groundwater models. Providing water volumes by well is optional, and groundwater users can still report combined pumping volumes if the wells are within the same county and aquifer, as in previous years.

Click [here](#) to watch a quick video on how to add a new Self-Supplied Groundwater source.

Click [here](#) to watch a quick video on how to add a new Self-Supplied Surface Water source.

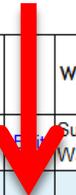
Click [here](#) to watch a quick video on how to add a new Self-Supplied Reuse source.

Click [here](#) to watch a quick video on how to add a new Purchased source.

[LIST]

	Display Order	Water Type	Self Supplied / Purchased	County Name	Basin Name	Aquifer Name	Well Name	Total Volume Gallons	
Delete ▼	1	Surface Water	Self-Supplied	TRAVIS	COLORADO			0	
Delete ▲ ▼	2	Reuse	Self-Supplied	TRAVIS	COLORADO			0	
Delete ▲ ▼	3	Surface Water	Purchased	TRAVIS	COLORADO		Potable LOWER COLORADO RIVER AUTHORITY- LCRA LAKE TRAVIS 14230	480	
Delete ▲ ▼	4	Surface Water	Purchased		UNKNOWN		512080 AWR SERVICES INC LOOP 360 WSC	512080	
Delete ▲	5	Groundwater	Self-Supplied	TRAVIS	COLORADO	EDWARDS-BFZ AQUIFER	UNKNOWN	N/A	1,460,000

Newly entered data shows Total Annual Volume.



Edit Intake to Include Reuse Water Volume

[Previous](#) [Next](#) [Delete](#) [Reset](#) [Save](#) [View Draft](#) [Return To Intake List](#)

Water Source Edit Volume

CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM 2022

Please enter the annual volume of Reuse Water used and answer the questions regarding water metering and the percentage of the total water used for the listed categories.

Direct reuse water is water that is treated and then conveyed via "purple pipe" to the end source for use. Such reuse water is also described as recycled water and is often used for irrigation or industrial purposes.

Notes:

You may enter the volumes in various units: gallons, thousand gallons, acre-feet, etc. Please confirm that the volumetric units are set to the correct type.

[SSRUBYBASEDITVO...]

Source Base Information

Sort Order: 2
Surface Water Name: UNKNOWN
Basin: COLORADO
County: TRAVIS
210 Permit Number: 0

Volume Information

Enter Volumes By:
In Gallons In Thousands
Annual Total: 0

Questions

Was the volume metered or estimated?
What percent of total volume used for industrial? %
What percent of total volume used for landscape? %
What percent of total volume used for agriculture? %
What percent of total volume used for other? %



1 Enter the annual volume of wastewater effluent that was treated by the system.

2 Percentage(s) must total 100%.

Removing Intake Sources

Previous Next Add Self-Supplied Add Purchased Save View Draft

Water Source

CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM 2022

If you have Reuse Water that is distributed from your system, please include your total Reuse volume as an intake.

Note To Groundwater Users: In an effort to aid groundwater modeling, intake from wells can be listed individually. Pumping volumes for specific wells and locations provided better information for the groundwater models. Providing water volumes by well is optional, and groundwater users can still report combined pumping volumes if the wells are within the same county and aquifer, as in previous years.

Click [here](#) to watch a quick video on how to add

to watch a quick video on how to add

to watch a quick video on how to add

to watch a quick video on how to add

Are you sure you want to remove this water source?

OK

Cancel

2

If Intake source is no longer active or is incorrect, click "Delete" to remove.

1

	Display Order		Water Type	Self Supplied / Purchased	County Name	Basin Name	Aquifer Name	Well Name	Water Right	Surface Water Name	Reuse Type	Seller Survey No	Seller Name	Total Volume Gallons
	1	Edit	Surface Water	Self-Supplied	TRAVIS	COLORADO			05471-1-6-A	TOWN LAKE/RESERVOIR			N/A	0
Delete	2	Edit	Reuse	Self-Supplied	TRAVIS	COLORADO				UNKNOWN	Direct Non-Potable		N/A	0
Delete	3	Edit	Surface Water	Purchased	TRAVIS	COLORADO				COLORADO-LAVACA RUN OF RIVER		480	LOWER COLORADO RIVER AUTHORITY-LCRA LAKE TRAVIS 14230	0
Delete	4	Edit	Surface Water	Purchased						UNKNOWN		512080	AWR SERVICES INC-LOOP 360 WSC	0
Delete	5	Edit	Groundwater	Self-Supplied	TRAVIS	COLORADO	EDWARDS-BFZ AQUIFER			UNKNOWN			N/A	1,460,000

Survey Data - Sales

Texas Water Development Board

Water Use Survey

Home Survey List Instructions Addresses & Contacts Survey Data Submit Survey

Intakes Sales Connection Location Water System Information

Previous Next Add Sale Save View Draft

CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM 2022

Listed below are the historically-reported water sales to Public Water Systems and **are not listed below, please select **Add Sale** and carefully search to make sure creating a new facility name. Please contact us at 512-463-7952 or [WaterUseSu](#)**

Industrial Sales

Include both wholesale and retail water sales (also include any Reuse sales) to industrial production facilities (**manufacturers, mining facilities, and power plants**). Please individually list industrial buyers ONLY when the volumes are greater than 10 million gallons. Industrial use is the use of water in processing, manufacturing, or other uses that transform raw materials of a lower order of value into forms having greater usability and commercial value.

Municipal Sales

Please list ALL wholesale water sales (also include any Reuse sales) to other Public Water Systems. Please do not include retail sales to homes, businesses, schools, hospitals, day care facilities, retail stores, or similar sales unless your system is a city water utility and the facilities are outside of the city limits.

Click [here](#) to watch a quick video on how to add a new Sale.

[SLIST]

		Display Order	Sale Type	Buyer Name	Total Volume Gallons	Water Type	County Name	Basin Name	Aquifer Name	Surface Water Name	Reuse T
Delete	▼	1	Edit	Industrial	NXP USA, Inc.-ED BLUESTEIN BLVD FACILITY	0	Surface Water			UNKNOWN	
Delete	▲ ▼	2	Edit	Industrial	SAMSUNG AUSTIN SEMICONDUCTOR LLC	0	Surface Water			UNKNOWN	764155
Delete	▲ ▼	3	Edit	Industrial	SPANSION LLC	0	Surface Water			UNKNOWN	9826

The 2nd subtab of “Survey Data” is “Sales”

If your System did not wholesale any water, skip this tab.

Include ALL wholesales to other Public Water Systems.

Itemize sales to manufacturers, mining operations, or power plants (10 MILLION GALLONS +)

If sales were carried over from a previous year, click “Edit” to enter the sale amount.

Click “Add Sale” to add a new sale.

Adding a New Sale

- **Groundwater**
 - By Buyer only
 - By Buyer and Aquifer
- **Reuse**
 - Direct Reuse By Buyer and River Basin
 - Indirect Reuse By Buyer and TCEQ Water Right
- **Surface Water**
 - By Buyer only
 - By Buyer and Surface Water Name
- **Unknown Water Type**
 - By Buyer

Enter Water Volume Sold to Buyer

Texas Water Development Board Hello, John Doe [Sign out](#) ☰ Menu

Water Use Survey

Previous Next Delete Reset **Save** View Draft Return To Sales List

Water Sale Edit Volume

CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM 2022

Sales Surface Water By Buyer

Please report the volume of Surface Water sold to this customer.

Notes:

You may enter the volumes in various units: gallons, thousand gallons, acre-feet, etc. Please confirm that the volumetric units are set to the correct type.

Please make sure to indicate if RAW or TREATED water sold.

[SALESSWBYPURB...]

Source Base Information

Sort Order: 1
Buyer Number: 0580552
Buyer: NXP USA, Inc.-ED BLUESTEIN BLVD FACILITY
Water Type: Surface Water

Volume Information

Enter Volumes By:

Annual Total: 0

Raw or Treated:

External Remarks

1 Enter the Annual Total volume of water sold to this Buyer.

2 Indicate if sale is raw or treated.

For Municipal Long Surveys Only Entering Total Connections Served

The 3rd subtab of “Survey Data” is
“Connection Location”

Texas Water Development Board

Water Use Survey

Hello, John Doe [Sign out](#) ≡ Menu

Home Survey List Instructions Addresses & Contacts **Survey Data** Submit Survey WLUC Home

Intakes Sales **Connection Location** Water System Information

Previous Next **Add County** Save View Draft

County Retail Connections

CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM 2022

In order to estimate water use by county, surveyed water systems are asked the number of retail connections that they directly serve. All water systems with retail connections should have at least ONE county and accompanying number of connections. The percentage of the connections in each county from the total number of connections is used to create an estimate of the water use within each county. If a county is not selected, then please select **Add County** tab above.

Note: If the volume of water provided in a county is significantly different than the number of connections might indicate, information in the comments field. For instance, if 10 percent of a system’s connections are within a county, but those connections provide 50 percent of the system’s water, please make note of this.

Click [here](#) to watch a quick video on how to add a new county and total number of connections.

If counties were carried over from a previous survey, click “Edit” to enter the number of connections.

[CNTYLIST]

		Display Order	County Name	Total Connections
Delete	▼	1	Edit TRAVIS	0
Delete	▲▼	2	Edit WILLIAMSON	0
Delete	▲	3	Edit HAYS	0

Click “Add County” button if a county your system serves is not included.

For Municipal Long Surveys Only Entering Total Connections Served, continued



Water Use Survey

Hello, John Doe [Sign out](#) ☰ Menu

Previous Next Delete Reset Save View Draft Return To County List

Edit County Retail Connections

CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM 2022

Retail Connection By County

Please enter the number of DIRECT RETAIL active and inactive connections that this system serves inside of the specified county. If the system has direct retail customers in more than one county, the total active and inactive connection counts should be reported for each county.

[RETAILCONNBYCNTY]

— Source Base Information

Sort Order: 1

County Number: 227

County Name: TRAVIS

— Connection Information

Number of Connections:

— External Remarks

Enter the total number of active and inactive connections served within this county's boundary.



Entering Water System Information



Water Use Survey

Hello, John Doe [Sign out](#) Menu

Home Survey List Instructions Addresses & Contacts **Survey Data** Submit Survey WLUC Home

Intakes Sales Connection Location **Water System Information**

Previous Next Save View Draft

Water System Information

CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM 2022

This page collects information regarding the water system and how water is used within the system.

1. **Retail Population Served Directly by the System below should ONLY include permanent residents served directly and not include** any wholesale customers or seasonal/transient populations. The Population is specifically used to estimate water demand in the long-term water planning process so please make sure that the information is accurate. **Population and Connection numbers are NOT the same.**
2. The number of Connections includes both active and inactive connections.
3. **For the Residential Multi-Family category, report the number of individual UNITS for Connections.**
4. **When you enter Total Retail Metered Connections & Volumes, list the Connections and Volumes by at least one category.** Connections and Volumes in the Total Retail Metered row. **Note that the Total Retail Volume cannot be greater than the Intake Total from the system during the year cannot be greater than the water that entered the system for the year.** This will result in an error warning.
5. Retail Water Un-Metered below would include known back-flushing, line-flushing, or fire department use water volumes (hydrant flushing).
6. **For industrial retail metered water volumes, please include large industrial sales also reported in the "Sales" tab in the survey.**
7. **If you have Reuse Water, please include your total reuse volume under the "Intakes" tab as well.**

Click [here](#) to watch a quick video about completing the water system information.

[WATERSYSINFOLF]

What is the permanent retail population directly served by this system? ?

people



Retail Water Metered

Please provide the total active and inactive connection and volume information for the following recommended retail customer categories. If you are unable to report for a category, please leave the field blank.

Residential - Single-family Homes ?

Connections

Volume

In Gallons

Volume

In Gallons

The 4th subtab of "Survey Data" is "Water System Information"

Enter the Retail Population served.

Population SHOULD NOT = number of connections.

Include only PERMENANT residents excluding wholesale, transient, and seasonal customers.

1

For Municipal Long Surveys Only

Entering Water System Information, continued

[Home](#)
[Survey List](#)
[Instructions](#)
[Addresses & Contacts](#)
[Survey Data](#)
[Submit Survey](#)
[WLUC Home](#)

[Intakes](#)
[Sales](#)
[Connection Location](#)
[Water System Information](#)

[Previous](#)
[Next](#)
[Save](#)
[View Draft](#)

CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM 2022

Retail Water Metered
Please provide the total active and inactive connection and volume information for the following recommended retail customer categories. If you are unable to report for a category, please leave the field blank.

	Connections	Volume In Gallons	Volume In Gallons
Residential - Single-family Homes	0	0	0
Residential - Multi-family Units	0	0	0
Institutional	0	0	0
Commercial	0	0	0
Industrial	0	0	0
Agriculture	0	0	0
Reuse	0	0	0
Total Retail Metered	0	0	0

Retail Water Un-Metered

What is the total number of Un-Metered Connections and the estimate of Un-Metered Water Use?

Un-Metered Connections	Un-Metered Volume In Gallons	Un-Metered Volume In Gallons
0	0	0

TWDB Estimate: N

Please provide any additional comments or remarks

Cnxs for AW use are in Institutional.; use for those cnxs in unmetered since unbilled. Reuse cnxs don't include those that got temp. potable while reuse unavailable; potable use at those cnxs is Commercial. Sandhill zeroed to sync with Industrial sales.

253 (Max: 255 characters)

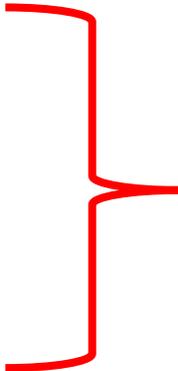
Water System Information

Report unmetered water connections and volumes here.

The same unit as selected above will apply.

Break down connections and retail water volumes into the separate customer categories.

The sums will auto-calculate to the Total fields.



Submit Survey Warning



Water Use Survey

Hello, John Doe [Sign out](#) ☰ Menu

Home Survey List Instructions Addresses & Contacts Survey Data **Submit Survey** WLUC Home

Previous Next

Almost done!
The 4th tab is "Submit Survey".

Data Submission Error/Warning List

CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM 2022

WARNINGS: If warnings appear below, please review the survey questions identified as potential errors. This application compares the data in the current survey to last year's data to identify any potential errors. If you find that the data is correct, the survey CAN be submitted by selecting "Next" and then "Submit"

ERRORS: If errors appear below, please review the survey questions identified as being incomplete and enter the missing information. submitted without providing or correcting this information. If you need additional assistance regarding errors, please email WaterUseSurvey@twdb.texas.gov.

Click [here](#) to watch a quick video on how to submit the survey.

[SUBMIT ERRORS]

Warnings:

Intake Monthly Vol: C-TRAVIS, B-COLORADO, SW-COLORADO-LAVACA RUN OF RIVER: January: data (672410718)

"WARNING": verify the data.
If it is correct, then click "Next".

"ERROR": you must correct the error.
You will then be able to click "Next"

Submit Survey: Final



Water Use Survey

Hello, John Doe [Sign out](#) ≡ Menu

[Home](#) [Survey List](#) [Instructions](#) [Addresses & Contacts](#) [Survey Data](#) [Submit Survey](#) [WLUC Home](#)

[Previous](#) [Submit](#)

Final

CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM 2022

The final remaining step is to submit the water use survey. Before you submit, please make note of the following:

If you wish to review all of the information that you have entered before submitting the water use survey, please click on the Survey Data tab above, and then on the gray **View Draft** button. This will produce a PDF report to be viewed, saved, and/or printed. If any of the information is incorrect, you can edit the information before submitting the survey.

Click the **Submit** button again to complete the submission. Once submitted, "You have successfully submitted this survey" should appear below. If it does not appear, please click the **Submit** button again. Once submitted, the application will indicate below that you have successfully submitted the survey.

Once the survey shows as submitted, you DO NOT need to additionally fax or email the survey to us. You will receive a copy of the completed survey in an email after submission.

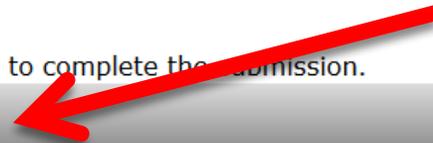
Click the "Submit" button to complete your survey.

There will be a link on this page for the **Service Boundary Viewer**. Please click the link to complete this submission

[SUBMITINFO]

Click 'Submit' button to complete the submission.

[Previous](#) [Submit](#)



Final Copy of Survey

TEXAS WATER DEVELOPMENT BOARD WATER USE SURVEY

WATER USE IN CALENDAR YEAR: 2012

SYSTEM NAME:
OPERATOR NAME:
MULTIPLE SURVEY ORG:
MAILING ADDRESS 1:
MAILING ADDRESS 2:
CITY / STATE / ZIP:

SURVEY NUMBER:
PRIMARY USED COUNTY:
PRIMARY USED RIVER BASIN:

ORGANIZATION MAIN PHONE:
MAIN EMAIL:

PWS NAME:

INTAKE:

Water Type		County	Basin	S
GROUND WATER PURCHASED		CHEROKEE	NECHES	
JANUARY	FEBRUARY	MARCH	APRIL	
3,623,100	2,449,300	3,062,800	3,122,800	

Congratulations, you have successfully submitted your survey!

PLEASE NOTE:
You will receive a copy of the survey in a confirmation email.

Estimated Prior Intake	Total Volume (gallons)		
0.00	46,620,900		
OBER	NOVEMBER	DECEMBER	
3,508,600	2,695,200	3,647,100	

CONNECTIONS & USAGE:

TOTAL METERED RETAIL:

Residential - Single Family
Residential - Multi Family
Institutional
Commercial
Industrial
Agriculture
Reuse

CONNECTIONS

	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
TOTAL UNMETERED:	0	0

WATER SYSTEM INFORMATION:

Estimated full-time residential population served directly by this system 1,422

DUE DATE

Water use surveys are due March 1st ANNUALLY

Past Copies of Water Use Surveys



← → ↻ 🏠 🔒 https://www3.twdb.texas.gov/apps/WU/surveylist.aspx 📄 ⋮ ⌵ ⌲ ⌵ ⋮

Texas Water
Development Board

Water Use Survey Hello, John Doe [Sign out](#) ☰ Men

Home **Survey List** WLUC Home

[Request Access to Surveys](#)

Survey List 2022

At the bottom of this page, below the search filter section, are the surveys which you currently have access to. Click on the name of your system/facility under the survey name column to begin entering the survey data.

If the list below the search filter section on this page is blank or you need access to additional surveys, please click on the [Request Access to Surveys](#) link at the top left of this screen under the blue bar which will direct you to another page where you can search for the survey by Survey Number or Survey Name and request access to a particular survey. Requests are generally approved within an hour but maybe as long as one business day during extremely busy periods. Once you receive an email that indicates that you are approved access to a survey, refresh this screen or log back in and the survey will appear below the search filter on this page. You can then click on the name of your system/facility under the survey name column to begin entering the survey data. Click [here](#) to watch a quick video on how to request access to a survey that is not listed below.

NOTES:

Water use survey data is used to estimate water demand projections in the regional and state water planning process and aid in groundwater availability modeling. Therefore, it is critical that data is accurately submitted by qualified personnel familiar with your system/facility.

To streamline data entry, all non-numerical information (such as water source and water sale information) submitted this year will be saved and displayed in the survey next year. For community public water systems that may also be required to submit a separate Water Loss Audit, Water Conservation Plan, Utility Profile, or Annual Report, certain common fields will auto-populate into those applications when the Water Use Survey is submitted.

Do not log in using another person's username and password. This application is not designed for more than one person to share or inherit the same account. Each individual should register as a new user with a unique username and password and unique email address (NOT a shared organization's email address).

If you need help with Okta or you need to change your current user profile information, please refer to the [Okta User Guide](#). Click [here](#) to watch a quick video on how to change your user profile information.

If you need copies of your past surveys, click on [Historical Water Use Surveys](#) and select today's date from the calendar icon and then the desired survey year from the dropdown menu. You must also enter your Survey No. This number must total 7 digits so add the correct number of preceding zeros "000" if needed to make 7 digits. After these three parameters are entered, click on 'View Report' on the top right of the screen to run the report. The survey can then be printed or exported and saved as a PDF.

The status of all surveys for the past three years can be found at [Prior Three-Year Survey Status](#).

Historical water use estimates by region, county, or basin can be found at [Historical Water Use Estimates](#) and the interactive state water plan can be found at [Interactive 2022 State Water Plan Website](#).

TWDB Website

<https://www.twdb.texas.gov/>

The screenshot shows the Texas Water Development Board website. The navigation menu includes: Home, Board, Financial Assistance, **Water Planning**, Groundwater, Surface Water, Flood, Conservation, Innovative Water, and Data & Apps. The main content area is divided into four columns:

- STATE WATER PLAN**: Interactive State Water Plan, 2022 State Water Plan, 2017 State Water Plan, 2012 State Water Plan, 2007 State Water Plan, 2002 State Water Plan, 1997 State Water Plan, 1992 State Water Plan, 1990 State Water Plan, 1984 State Water Plan, 1968 State Water Plan, 1961 State Water Plan.
- REGIONAL WATER PLANNING**: Planning Group Meeting Schedule, Planning Group Information, 6th Planning Cycle Information (2026 RWPs), 2021 Regional Water Plans & Previous Plans, Educational Information, Frequently Asked Questions, Interregional Planning Council, Regional Water Planning Related Research, Water Planning Rules & Statutes.
- PLANNING DATA**: Regional Water Planning Database, Planning Data Dashboard, Population & Water Demand Projections, Socio-Economic Impact Analysis, Other Data Resources.
- WATER USE SURVEY**: Online Water Use Survey, Printable Water Use Survey, Historical Water Use Estimates, Data Dashboard, Historical Groundwater Pumpage, Service Boundary Editor, Water Use Survey FAQs.

At the bottom, there are sections for 'WATER BANK & TRUST' (Water Bank, Water Trust) and 'TRAINING VIDEO RESOURCES' (Regional Water Planning Data Entry Application (RWP22) Training, Water Use Survey (WUS) Training).

Link to Online application

Link to public water use data (including past water use surveys)

Link to Data Dashboard

Online Historical Water Use Estimates

<https://www.twdb.texas.gov/waterplanning/waterusesurvey/estimates/index.asp>

Available by Region, County, & Basin

Year	Region	Population	Municipal	Manu- facturing (Mfg)	Mining	Power	Irrigation	Livestock
2020	A	390,129	86,991	29,253	1,018	10,512	2,041,932	49,068
2020	B	194,174	22,472	1,619	6	2,191	84,264	9,190
2020	C	7,709,194	1,260,778	41,278	4,361	13,280	29,316	16,268
2020	D	795,645	109,568	26,230	4,554	31,636	33,056	22,028
2020	E	889,480	138,317	6,529	3,870	8,153	327,381	2,362
2020	F	694,245	129,165	7,071	150,279	7,813	437,400	12,007
2020	G	2,330,872	377,133	9,776	16,388	129,262	310,817	44,064
2020	H	7,307,988	1,001,617	583,568	6,221	56,843	250,599	11,343
2020	I	1,084,479	174,292	219,615	10,951	29,457	75,830	18,156
2020	J	128,344	23,151	18	214	0	11,654	1,808
2020	K	1,755,004	266,422	23,959	4,817	44,423	357,119	11,749
2020	L	3,006,892	492,051	70,529	45,799	87,370	311,248	23,881
2020	M	1,721,610	275,972	2,770	2,967	10,074	1,125,666	3,960
2020	N	575,933	78,212	52,064	5,043	2,865	14,501	4,832
2020	O	509,782	86,234	5,585	2,089	13,134	2,558,858	52,193
2020	P	51,734	5,913	1,374	963	0	131,039	2,796
2020	STATE TOTAL	29,145,505	4,528,288	1,081,238	259,540	447,013	8,100,680	285,705

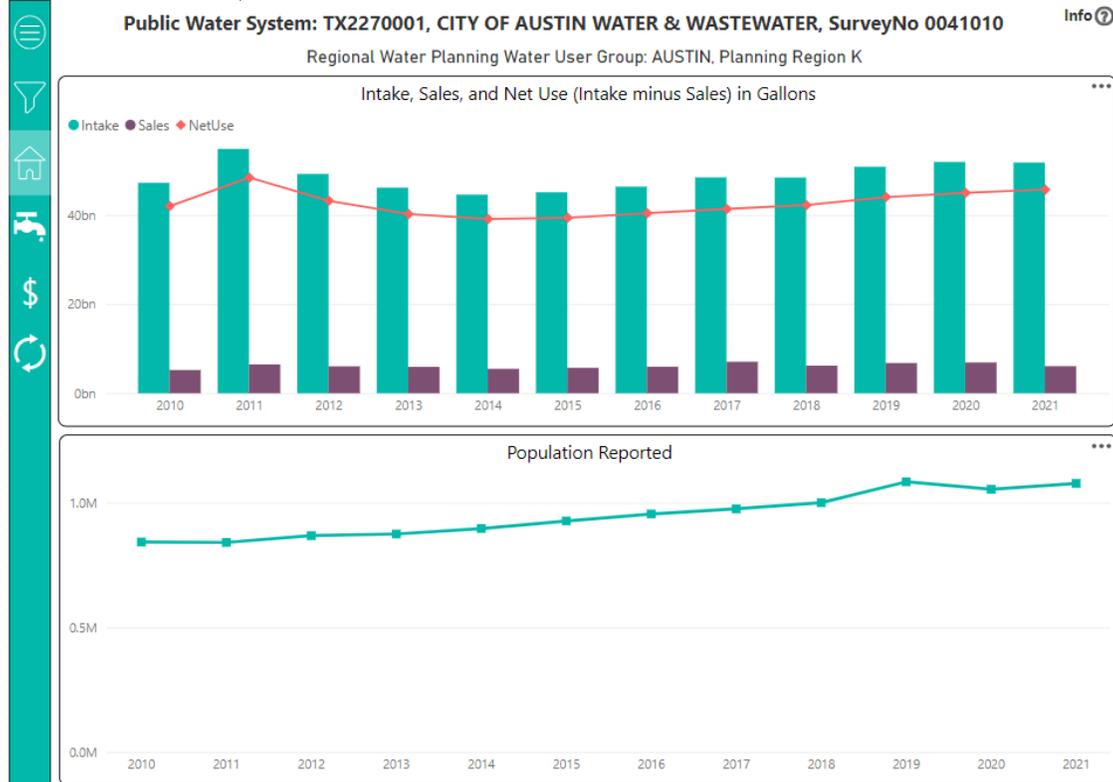
Municipal Ground Water	Municipal Surface Water	Municipal Reuse
64,533	12,032	10,426
5,221	17,131	120
63,804	1,154,576	42,398
32,984	76,163	421
94,443	40,358	3,516
43,009	69,300	16,856
116,767	252,798	7,568
403,126	591,516	6,975
83,660	89,924	708
18,750	3,572	829
53,267	203,446	9,709
375,207	64,937	51,907
25,288	230,425	20,259
14,022	63,197	993
54,726	21,323	10,185
5,913	0	0
1,454,720	2,890,698	182,870

Data Dashboard

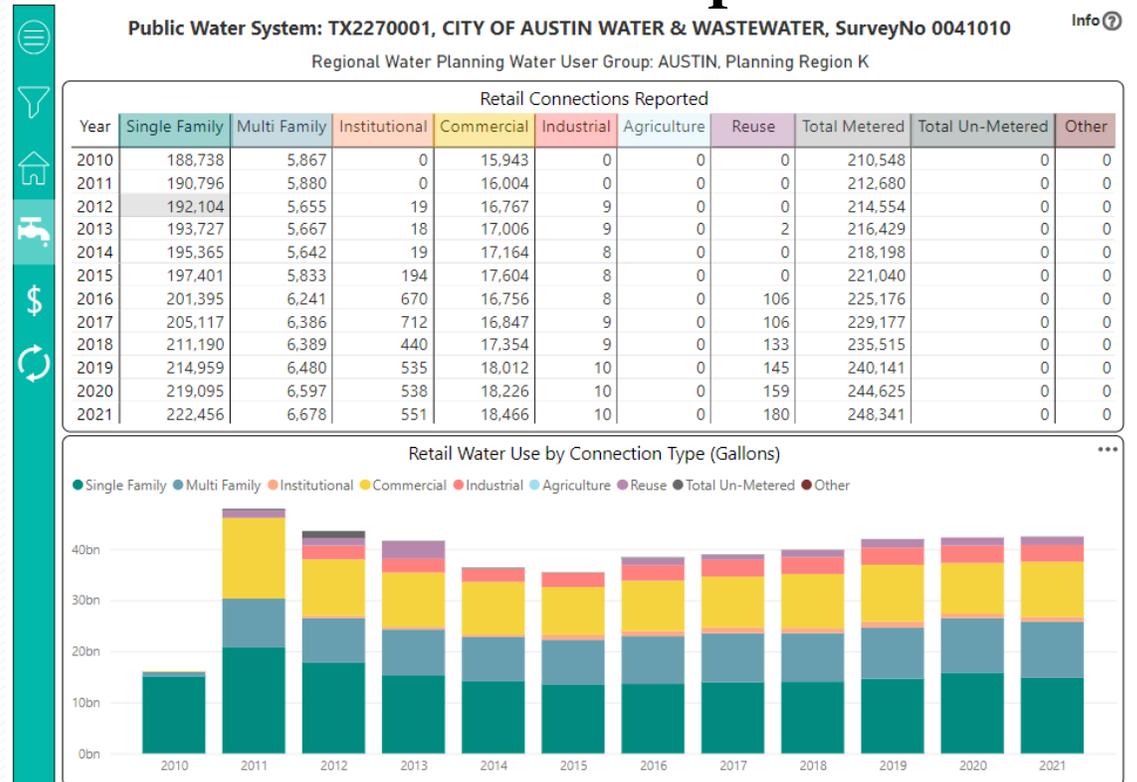
<https://www.twdb.texas.gov/waterplanning/waterusesurvey/dashboard/index.asp>

Email WaterUseSurvey@twdb.texas.gov to submit any changes to your information by 3/31/2023

Intakes, Sales and Net Use



Retail Connections Reported



Texas Water Service Boundary Viewer

Genera Navarra Water Use, Projections & Planning



Texas Water Service Boundary Viewer (TWSBV)

Water Service Boundary Viewer

1. Locate

Click on your PWS to get started

2. Verify

Review your boundary and upload to replace or edit as needed

3. Submit

When satisfied with the boundary on the map click Submit (even if no changes have been made)

The interface includes a search table with columns for PWS ID, Survey Number, and PWS. A search filter is applied, showing results for TX0000000 and 1104874. The 'Submit' button is highlighted, and a message indicates 'PWS not yet Submitted'.

PWS ID	Survey Number	PWS
TX0000000	1104874	MY WAT

Please note the Water Service Boundary Editor will reopen on January 2, 2023

TWSBV - Benefits and Purpose

- Creates & maintains a clearinghouse of all drinking water service area boundaries
- Geographically displays state-collected water data & system information to the public:
 - PWS ID, PWS Name, PWS Review date, Area, County
 - historical WUS data
 - TCEQ DWW data
 - more to come!
- Data collected assists with estimating State Water Plan population and demand projections.

TWSBV - Background

- Original map produced in 2009 through a TWDB research grant
- Grant from USGS Water Use Data & Research Program:
 - Identify, update, & maintain the retail water service area boundaries of all active community public water systems (4,500+) in Texas
 - December 2016 – Contract between USGS & TWDB
 - **January 2019 – Application Deployed**

TWSBV - User Types

Editors

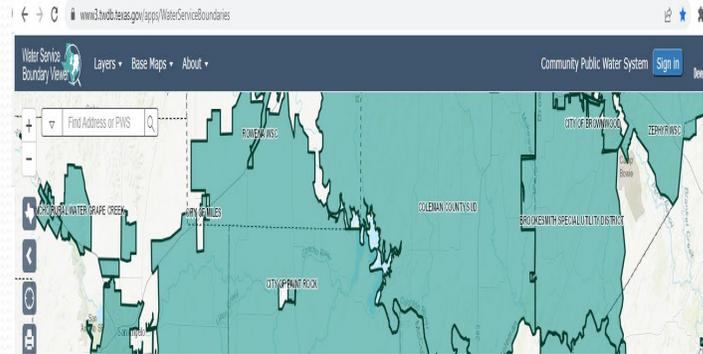
- Editors include Water Use Survey application users & authorized representatives
- Can edit, add, clip, delete, or verify water system boundary annually

Public

- Can view, create a map, or download a shapefile of the water system boundaries
- Use reporting links to Water Use Survey, Water Loss Audit, Water Quality Data, and demographic information

TWSBV-Ways to Access

- Directly through the website:
<https://www3.twdb.texas.gov/apps/WaterServiceBoundaries>



Final

41010 CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM 2019

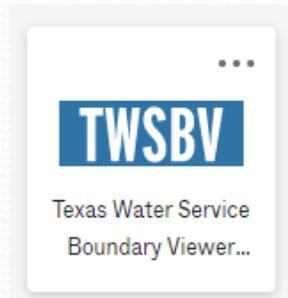
The final remaining step is to submit the water use survey. Before you submit, please make note of the following:

- If you wish to review all of the information that you have entered before submitting the water use survey, please click on the **Survey Data** tab above, and then on the gray **View Draft** button. This will produce a pdf report to be viewed, saved and/or printed. If any of the information is incorrect, you can edit the information before submitting the survey.
- Once submitted, the application will indicate below that you have successfully submitted the survey.
- Click the **'Submit'** button again to complete the submission. Once submitted, "You have successfully submitted this survey" should appear below. If it does not appear, please click the **'Submit'** button again.
- **Once the survey shows as submitted, you do NOT need to additionally fax or email the survey to us.**
- **NEW: If your system is a Public Water System and you have a TCEQ PWS Code associated with your system/survey, after your survey shows to have been successfully submitted below, if you have not already done so prior to starting the survey, please additionally review and submit any changes to your service area boundary a Texas Water Service Boundary Viewer.**

Click 'Submit' button to complete the submission.



- Through the Okta dashboard



- Using the link at the end of the Water Use Survey

TWSBV – Editor Application

Water Service Boundary Viewer

Layers ▾ Base Maps ▾ About ▾

Find Address or PWS

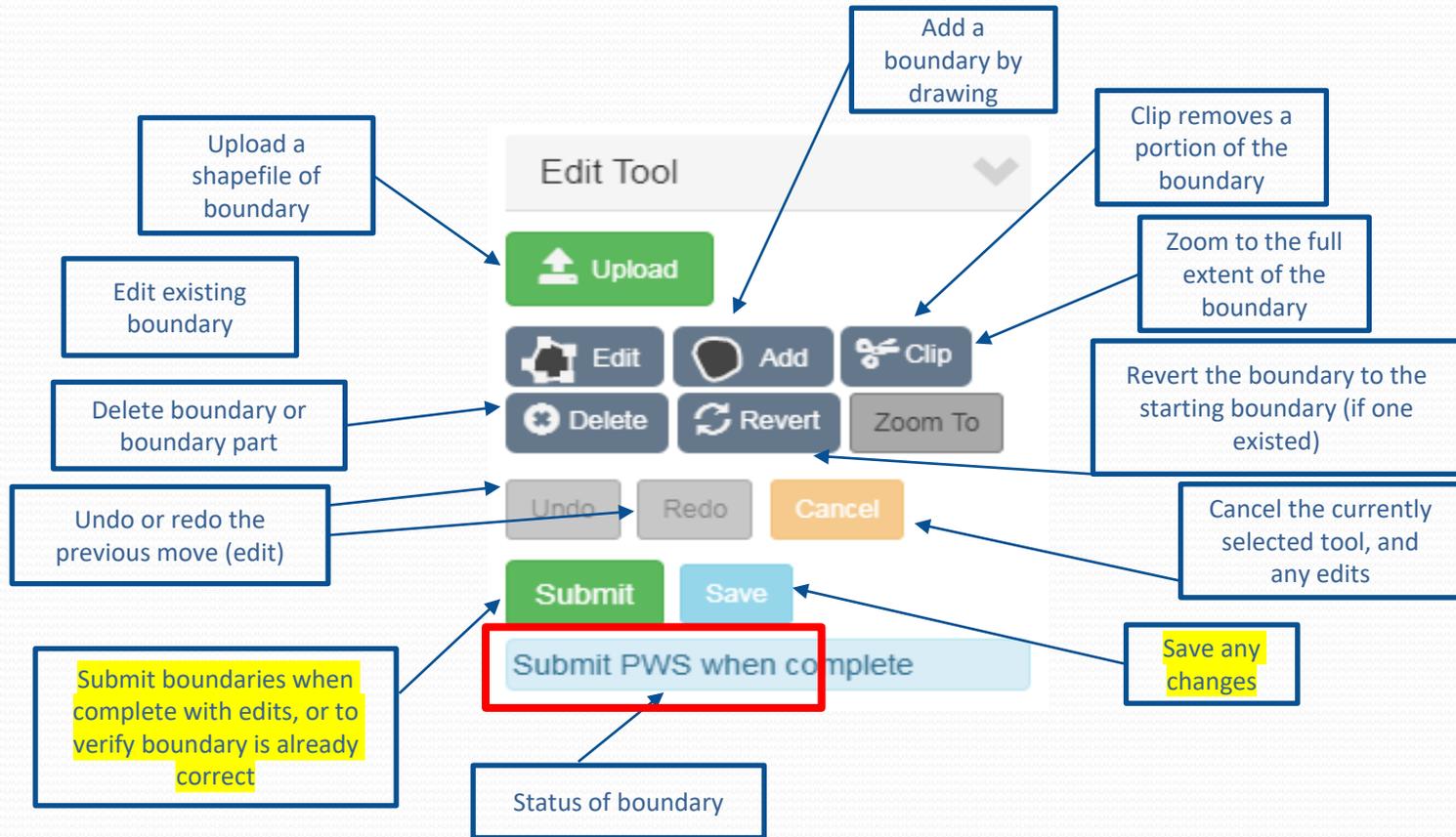
Provisional Service Areas **10** Download

Service Areas **4514** Download

PWS ID	Survey Number	PWS Name	Status	Submit Comments	TWDB Comments	Last Submitted Date	Submitted By	Last Update Date	Last Update Time	Last Update User
TX1300001	0084000	CITY OF BOERNE	In Progress	Testing the Submit date	5/7/20--approved, no major changes or overlaps.	11/30/2022	Twis Biv	12/1/2022	10:38:09 AM	Twis Biv
TX1010009	0315800	CITY OF GALENA PARK	In Progress		5/18/21--approved, no changes per PWS email.	1/16/2020	David Kent	12/1/2022	10:39:02 AM	Twis Biv
TX0880001	0331400	CITY OF GOLIAD	Not Started	CCN no.10540	Approved by TWDB staff after a review	5/4/2020	earl henning	5/4/2020	10:46:54 AM	earl henning
TX0890001	0331950	CITY OF GONZALES	Not Started		5/17/21--approved, no changes per PWS email.	2/26/2020	Ryan Wilkerson	2/26/2020	2:39:42 PM	Ryan Wilkerson

TWSBV – Application Editing Tools

Edit
or
Save



Quick Links

- Editor User Guide:
https://www.twdb.texas.gov/waterplanning/waterusesurvey/doc/TWSBV_UserGuide_Editor.pdf
- Service Boundary Editor:
<https://www.twdb.texas.gov/waterplanning/waterusesurvey/serviceboundaryeditor.asp>

Water Service Boundary Editor



**If you require assistance, please contact us at
WSBViewer@twdb.Texas.gov.**

Questions?

Water Use Survey Hotline

8am-5pm Monday – Friday

(512) 463-7952

Water Use Survey Email

WaterUseSurvey@twdb.texas.gov

Water Loss, Use, and Conservation (WLUC) Workshop

75

First Break - 5 mins

1. **Grab some coffee**
2. **Stretch the Legs**
3. **Check your emails**

▶ Training Certificates will be presented at a later time!

▶ PDF copies of these slides will be available!

Water Loss Audit – Part 1 – Data

- ▶ Municipal Water Conservation
- ▶ Texas Water Development Board (TWDB)

- ▶ Unless specifically noted, this presentation does not
- ▶ necessarily reflect official Board positions or decisions.

Why Complete a WLA?

- ▶ System efficiency
- ▶ Extend supply
- ▶ Required
- ▶ - Loan/Grant
- ▶ Regional Water Planning



What is a Water Audit?

A water audit identifies how much water is lost, where, and how much that loss cost the utility.

Records and system control measures such as meters are checked for accuracy to ensure a valid result.

The goal is to help the utility select and implement programs to reduce and sustain water losses to better manage the utility as an efficient business

Once started it never stops.

Who Completes the WLA?

79

- 3,300 or > connections?
- Active financial obligation?
- Utilities < 3,300 connections are required to submit every 5 years unless it has a loan with TWDB.
- All audits are to be submitted on May 1st.





WLA Training Requirement

31 TEXAS ADMINISTRATIVE CODE (TAC)
§ 358.6(b)(4)

- ▶ *Effective January 1, 2019, the water loss audit must be performed by a person who has completed water loss audit training.....agency website, can be the one-hour training or this 4-hour webinar.*
- ▶ *The person who completes the water loss audit is required to upload the training acknowledgement with their name on it .*

TWDB Website

www.twdb.texas.gov/conservation/municipal/waterloss/index.asp

- Accessing the Water Loss Audit application
- Registered user instructions
- Email address and contact information
- Training webinar



Balance Sheet

System Input Volume	Authorized Consumption	Billed Authorized Consumption	Billed Metered Consumption	Revenue Water	
			Billed Unmetered Consumption		
		Unbilled Authorized Consumption	Unbilled Metered Consumption	Non Revenue Water	
			Unbilled Unmetered Consumption		
	Water Loss	Apparent Loss	Unauthorized Consumption		
			Customer Meter Under-Registering		
			Billing Adjustment/Waivers		
		Real Loss	Reported Loss		
			Unreported Loss		

12/8/2022

Welcome to the Water Loss, Use and Conservation Home Page

Based on previously submitted information, the following reports will need to be completed for your water system.

Water Use Survey
 Frequency: Annual
 Due Date: March 1st every calendar year

Water Use Survey List

Survey Number	PWS Code	System Name	Status	Submitted Date	Authorized Users
0187427	1290038	COUNTRY CLUB WATER SUPPLY	Submitted	02/15/2021	
0000290	540015	WHITE RIVER MWD	Not Started		
0041010	2270001	CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM	SUBMITTED2	11/16/2021	
0626055	1520067	114TH STREET MHP	Submitted	03/01/2021	

If a retail public water supplier has more than 3,300 retail connections or has an active financial obligation with TWDB, a water loss audit is required to be submitted annually. Otherwise, the next required water loss audit will be for the reporting year of 2020, due by May 1, 2021. If you are unsure about your requirements, please email us at WLA-Group@twdb.texas.gov

Water Loss Audit
 Frequency: Varies (See Audit List Table below)
 Due Date: May 1st every calendar year when required

Water Loss Audit List

PWS Code	System Name	Year Due	Status	Submitted Date	Authorized Users
1290038	COUNTRY CLUB WSC	2021	Submitted	11/05/2021	
540015	WHITE RIVER MWD	2021	Submitted	04/06/2021	
2270001	CITY OF AUSTIN WATER & WASTEWATER	2021	Submitted	04/30/2021	
200764	BRAZORIA COUNTY MUD 53	2021	Not Submitted		
1520067	114TH STREET MOBILE HOME PARK	2021	Not Submitted		

Water Conservation Annual Report

WC Annual Report List

PWS Code	Utility Type	System Name	Year Due	Status	Submitted Date	Authorized Users
1110007	Retail Water Supplier	Acton MUD	2021	Review Completed	04/23/2021	

Water Conservation Utility Profile

WC Utility Profile List

No record found

Water Conservation Plan

WC Plan List

No record found

Please Note: Please Note: The Water Loss Audit cannot be completed in full until the Water Use Survey has been completed and submitted. The Water Conservation Annual Report cannot be completed in full until both the Water Use Survey and Water Loss Audit have been completed and submitted.

If you have any questions or feel that any of this information is incorrect, please contact:

Water Use Team: Team at 512-463-7952 or waterusesurvey@twdb.texas.gov
 Water Loss/Conservation Team: WLA-Group@twdb.texas.gov

Open Instructions
*** FIELDS MARKED WITH A RED STAR MUST BE FILLED OUT BEFORE THIS FORM CAN BE SUBMITTED.**

A. Water Utility General Information

1. Water Utility Name: [Redacted]

1a. Regional Water Planning Area: ←

1b. Address: [Redacted]
HOUSTON, TX 77005-2802

2. Contact Information:

* 2a. Name: [Redacted] ←

* 2b. Telephone Number: [Redacted]

* 2c. Email Address: [Redacted]

* Have you completed Water Loss Auditor Training? Yes No ←

3. Reporting Period:

* 3a. Start Date: (m/d/yyyy) ←

* 3b. End Date: (m/d/yyyy)

4. Source Water Utilization:

4a. Surface Water: %

4b. Ground Water: % ←

The **Save** button will save any data you enter for retrieval on future visits to this site. Use the **Submit Worksheet** button to save your data and indicate that your form is completed and ready for TWDB review.

IMPORTANT - Read this - How to use the **Save, Submit Worksheet and Un-Submit Worksheet** buttons -->

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*** FIELDS MARKED WITH A RED STAR MUST BE FILLED OUT BEFORE THIS FORM CAN BE SUBMITTED.**

5. Population Served:

5a. Retail Population Served: 15,016

5b. Wholesale Population Served:

* 6. Utility's Length of Main Lines: miles Assessment Scale:

* 7. Total Retail Metered Connections - Active and Inactive: 6,179

* 7b. Service Connections: Assessment Scale:

8. Number of Wholesale Connections Served:

9. Service Connection Density: 116.58 connections per mile

* 10. Average Yearly System Operating Pressure: psi Assessment Scale:

11. Volume Units of Measure: gallons

System Input Volume

Total amount of water supplied to the distribution system and should be validated and include an adjustment for master meter inaccuracy.

Total amount of water supplied to the distribution system.





Water Loss Audit

Home **Worksheet** Audit Report Request Access WLUC Home

Water Audit Report for [redacted] Year 2019

* FIELDS MARKED WITH A RED STAR MUST BE FILLED OUT BEFORE THIS FORM CAN BE SUBMITTED.

B. System Input Volume

12. Volume of Water Intake:	300,469,000 gallons	←
* 13. Produced Water:	<input type="text" value="300,469,000"/> Assessment Scale: 4	←
13a. Production Meter Accuracy:	<input type="text" value="96.0"/> % Assessment Scale: 1	←
13b. Corrected Input Volume:	312,988,542 gallons	
14. Total Treated Purchased Water:	492,123,000 gallons Assessment Scale: 1	
14a. Treated Purchased Water Meter Accuracy:	<input type="text" value="96.0"/> % Assessment Scale: 3	←
14b. Corrected Treated Purchased Water Volume:	512,628,125 gallons	
15. Total Treated Wholesale Water Sales:	0 gallons Assessment Scale: N/A	
15a. Treated Wholesale Water Meter Accuracy:	<input type="text" value="0.0"/> % Assessment Scale: N/A	←
15b. Corrected Treated Wholesale Water Sales Volume:	0 gallons	
16. Total System Input Volume:	825,616,667 gallons	←

C. Authorized Consumption

Authorized Consumption

Water that is used by customers that are known to the water system.

$$\begin{aligned} & \text{Billed Metered} \\ + & \text{Billed Unmetered} \\ + & \text{Unbilled Metered} \\ + & \text{Unbilled Unmetered} \\ = & \text{Authorized Consumption} \end{aligned}$$





Water Loss Audit

Home | **Worksheet** | Audit Report | Request Access | WLUC Home

Water Audit Report for [redacted] Year 2019 | Save | Un-Submit Worksheet | Help for Form Completion | Assessment Scale | Change Year | Cancel

Open Instructions

* FIELDS MARKED WITH A RED STAR MUST BE FILLED OUT BEFORE THIS FORM CAN BE SUBMITTED.

16. Total System Input Volume: 825,616,667 gallons

C. Authorized Consumption

* 17. Billed Metered: 792,592,000 gallons | Assessment Scale: 4.5

18. Billed Unmetered: [0] gallons | Assessment Scale: 5

19. Unbilled Metered: [0] gallons | Assessment Scale: 5

20. Unbilled Unmetered: 10,320,208 gallons | Assessment Scale: 3

Use 1.25% of System Input Volume

21. Total Authorized Consumption: 802,912,208 gallons

D. Water Losses

22. Water Losses: 22,704,458 gallons

E. Apparent Losses

* 23. Average Customer Meter Accuracy: 98.0% | Assessment Scale: 4.5

24. Customer Meter Accuracy Loss: 16,175,347 gallons

Water Losses

Water losses in the distribution system are categorized as either apparent or real loss.

System Input Volume

- Authorized Consumption

= Water Loss



Apparent Loss

Financial Losses - water that is lost that could have been sold. Non-Revenue Water, Water Theft, Slow Meters and Billing Issues

- Unauthorized Consumption
- + Customer Meter Inaccuracies
- + Systematic Data handling Errors
- = Apparent Loss



ANALOG

Real Loss

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Physical Losses – water that enters the distribution system but never reaches a user. Leakage on transmission and distribution mains, storage tank overflows, and service line leaks.

▶ *Non-revenue water*

Water Loss

- Apparent Loss

= Real Loss

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*** FIELDS MARKED WITH A RED STAR MUST BE FILLED OUT BEFORE THIS FORM CAN BE SUBMITTED.**

E. Apparent Losses

* 23. Average Customer Meter Accuracy: % [?](#) Assessment Scale: [?](#)

24. Customer Meter Accuracy Loss: gallons [?](#)

* 25. Systematic Data Handling Discrepancy: gallons [?](#) Assessment Scale: [?](#)

Use 0.25% of Billed Authorized Volume

* 26. Unauthorized Consumption: gallons [?](#) **←** Assessment Scale: [?](#)

Use 0.25% of Billed Authorized Volume

27. Total Apparent Losses: gallons [?](#) **←**

F. Real Losses

28. Reported Breaks and Leaks: gallons [?](#) Assessment Scale: [?](#)

29. Unreported Loss: gallons [?](#) Assessment Scale: [?](#)

30. Total Real Losses: gallons [?](#)

31. Total Water Losses: gallons [?](#)

32. Non-Revenue Water: gallons [?](#)

Indicators



- ▶ Technical & Financial Performance Indicators
 - ▶ Quantitative measures of key aspects within your water system.
 - ▶ Use these indicators to develop history and track your performance from year to year.

Open Instructions

* FIELDS MARKED WITH A RED STAR MUST BE FILLED OUT BEFORE THIS FORM CAN BE SUBMITTED.

G. Technical Performance Indicator for Apparent Loss

33. Apparent Losses Normalized: 8.09 gallons lost per connection per day

H. Technical Performance Indicators for Real Loss

34. Real Loss Volume: 4,465,070 gallons

35. Unavoidable Annual Real Losses Volume: 25,691,489 gallons

36. Infrastructure Leakage Index: 0.17 I.L.I.

37. Real Losses Normalized - Service Connections: 1.98 gallons lost per connection per day

38. Real Losses Normalized - Main Lines: 0.00 gallons lost per mile per day

I. Financial Performance Indicators

39. Total Apparent Losses: 18,239,389 gallons

* 40. Retail Price of Water: 0.00232 \$ per gallon Assessment Scale: 3

41. Cost of Apparent Losses: \$42,315

[+ Open Instructions](#)

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I. Financial Performance Indicators

- 39. Total Apparent Losses: 18,239,389 gallons
- * 40. Retail Price of Water: \$ per gallon Assessment Scale:
- 41. Cost of Apparent Losses: \$42,315
- 42 Total Real Losses: 4,465,070 gallons
- * 43. Variable Production Cost of Water: \$ per gallon Assessment Scale:
- 44. Cost of Real Losses: \$1,072
- 45. Total Cost Impact of Apparent and Real Losses: \$43,387
- 46. Total Assessment Score: 67

J. System Losses and Gallons Per Capita per Day (GPCD)

Water Loss Indicators

Line 36 - Infrastructure Leakage Index: performance indicator used by large system > 3,000 connections.

Lines 41 and Line 44 - Costs of Apparent (revenue) and Real Losses - \$\$ + \$\$

Line 45 - Cost of Total Water Loss - \$\$\$\$

Line 48 & 49 - GPCD (gallons per capita per day) becomes important if you are completing a Water Conservation Plan

*** FIELDS MARKED WITH A RED STAR MUST BE FILLED OUT BEFORE THIS FORM CAN BE SUBMITTED.**

J. System Losses and Gallons Per Capita per Day (GPCD)

47. Total Water Loss per Connection per Day:	10.07 gallons	?
48. GPCD Input:	151	?
49. GPCD Loss:	4	?

K. Wholesale Factor Adjustments

50. Percent of Treated Wholesale Water Traveling through General Distribution System:	<input type="text" value="0.00"/> %	?
51. Volume of Treated Wholesale Water Traveling through General Distribution System:	0	?
52. Wholesale Factor:	0.00	?
53. Adjusted Real Loss Volume:	4,465,070	?
54. Adjusted Cost of Real Losses:	\$1,072	?
55. Adjusted Total Water Loss Volume:	22,704,458	?

[+ Open Instructions](#)

* FIELDS MARKED WITH A RED STAR MUST BE FILLED OUT BEFORE THIS FORM CAN BE SUBMITTED.

55. Adjusted Total Water Loss Volume:	22,704,458	
56. Adjusted Total Cost Impact of Apparent and Real Losses:	\$43,387	
57. Adjusted Real Loss Per Connection:	1.98	
58. Adjusted Real Loss Per Mile:	0.00	
59. Adjusted Infrastructure Leakage Index:	0.17	
60. Adjusted Total Water Loss - Percentage:	2.75 %	
61. Adjusted GPCD Loss:	4	

Comments



Water Loss Audit – Why is Unreported loss a negative volume?

100

Negative or Zero Values

- Sales and input volumes are the same
- Purchased water or produced water meter accuracy is left blank
- Sold and lost more than System input volume.

Accuracy of Data

- ▶ *It is very imperative that the WL data be as accurate as possible as all the performance indicators are based on the data.*
 - ▶ *System input volume*
 - ▶ *Miles of main*
 - ▶ *Retail population*
 - ▶ *System pressure*
 - ▶ *Number of connections*
 - ▶ *Apparent loss/connection/day*
 - ▶ *Real loss/connection/day*
 - ▶ *UARL*





Water Loss Resources

- ▶ Troubleshooting, guidance, assessment scales, leak detection loan form, WUS and WLA checklist, monthly water loss report, and more:
- ▶ <http://www.twdb.texas.gov/conservation/resources/waterloss-resources.asp>



Questions



Water Loss Audit



mark.mathis@twdb.texas.gov

Water Loss, Use, and Conservation (WLUC) Workshop

105

Second Break - 10 mins

1. **Grab some more coffee**
2. **Stretch the Legs**
3. **Check your emails**

▶ Training Certificates will be presented at a later time!

▶ PDF copies of these slides will be available!

Water Loss Audit – Part 2 - Assessments

- ▶ Municipal Water Conservation
- ▶ Texas Water Development Board (TWDB)

- ▶ Unless specifically noted, this presentation does not
- ▶ necessarily reflect official Board positions or decisions.

Assessment Scale Benefits

Self-reported Assessments complete the WLA to determine how accurate your data is

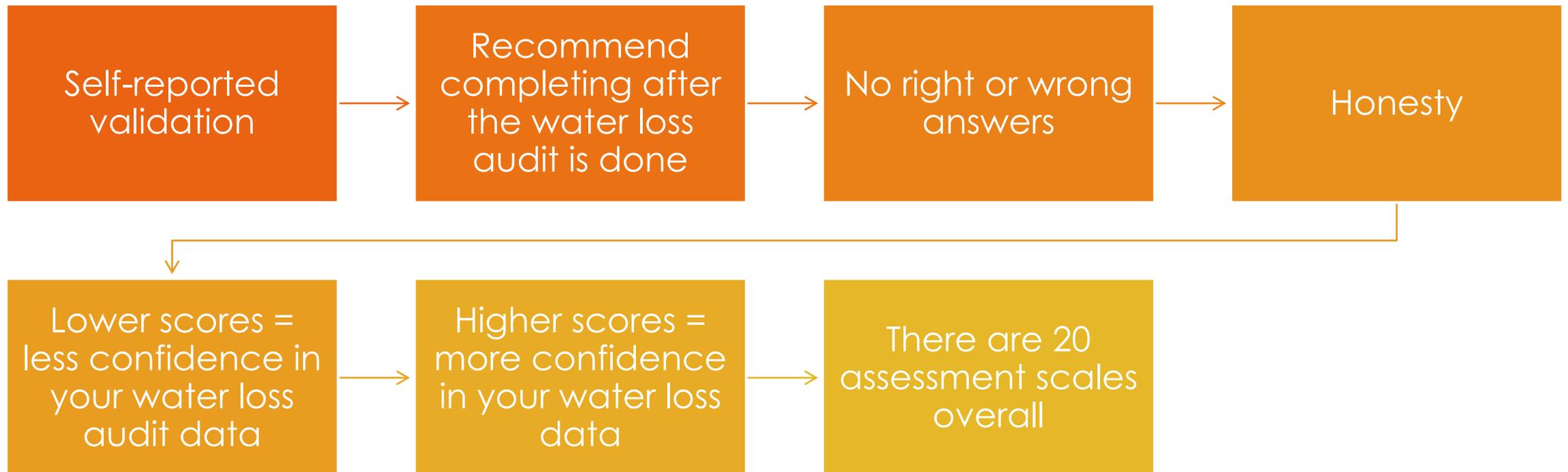
Consider your options and **take action**

Also known as Water Loss Audit validation

Bridge from WLA to Action to Water loss mitigation

Assessment Scales Tips

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Close Instructions

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5. Population Served: ?

5a. Retail Population Served: 15,016

5b. Wholesale Population Served: 0

* 6. Utility's Length of Main Lines: 53.00 miles ? Assessment Scale: 4 ?

* 7. Total Retail Metered Connections - Active and Inactive: 6,179 ?

* 7b. Service Connections: 6,179 ? Assessment Scale: 3 ?

8. Number of Wholesale Connections Served: 0 ?

9. Service Connection Density: 116.58 connections per mile ?

* 10. Average Yearly System Operating Pressure: 58.00 psi ? Assessment Scale: 2 ?

11. Volume Units of Measure: gallons ?

B. System Input Volume

12. Volume of Water Intake: 300,469,000 gallons ?

Component	<p style="text-align: center;">Length of Main Lines Assessment Scale Table Adapted from American Water Works Association Free Water Audit Software©</p>										
SYSTEM DATA	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	N/A
<p style="text-align: center;"><i>Line 6</i> <i>Length of main lines, miles</i></p>	<p><i>Current condition:</i> Poorly assembled and maintained paper as-built records of existing water main installations makes accurate determination of system pipe length impossible. Length of mains is estimated.</p>	<p><i>Current condition:</i> Paper records in poor or uncertain condition (no annual tracking of installations & abandonments). Poor procedures to ensure that new water mains installed by developers are accurately documented.</p>	<p><i>Conditions between 1 and 2</i></p>	<p><i>Current condition:</i> Sound written policy and procedures exist for documenting new water main installations, but gaps in management result in a uncertain degree of error in tabulation of mains length.</p>	<p><i>Conditions between 2 and 3</i></p>	<p><i>Current condition:</i> Sound written policy and procedures exist for permitting and commissioning new water mains. Highly accurate paper records with regular field validation; or electronic records and asset management system in good condition. Includes system backup.</p>	<p><i>Conditions between 3 and 4</i></p>	<p><i>Current condition:</i> Sound written policy and procedures exist for permitting and commissioning new water mains. Electronic recordkeeping such as a Geographical Information System (GIS) and asset management system are used to store and manage data.</p>	<p><i>Conditions between 4 and 5</i></p>	<p><i>Current condition:</i> Sound written policy exists for managing water mains extensions and replacements. Geographic Information System (GIS) data and asset management database agree and random field validation proves truth of databases. Records of annual field validation should be available for review.</p>	<p>Not a choice</p>
<p><i>Improvements in quantifying the length of mains</i></p>	<p><i>To improve to 1:</i> Assign personnel to inventory current as-built records and compare with customer billing system records and highway plans in order to verify poorly documented pipelines. Assemble policy documents regarding permitting and documentation of water main installations by the utility and building developers; identify gaps in procedures that result in poor</p>	<p><i>To improve to 2:</i> Complete inventory of paper records of water main installations for several years prior to audit year. Review policy and procedures for commissioning and documenting new water main installation.</p>	<p><i>To improve to 3:</i> Finalize updates/improvements to written policy and procedures for permitting/commissioning new main installations. Confirm inventory of records for five years prior to audit year; correct any errors or omissions.</p>	<p><i>To improve to 4:</i> Launch random field checks of limited number of locations. Convert to electronic database such as a Geographical Information System (GIS) with backup as justified. Develop written policy and procedures.</p>	<p><i>To improve to 5:</i> Link Geographic Information System (GIS) and asset management databases, conduct field verification of data. Record field verification information at least annually.</p>	<p><i>To maintain a 5:</i> Continue with standardization and random field validation to improve the completeness and accuracy of the system.</p>	<p>Not a choice</p>	<p>Not a choice</p>			

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B. System Input Volume

12. Volume of Water Intake:	300,469,000 gallons		
* 13. Produced Water:	<input type="text" value="300,469,000"/>	Assessment Scale:	<input type="text" value="4"/>
13a. Production Meter Accuracy:	<input type="text" value="96.0"/> %	Assessment Scale:	<input type="text" value="1"/>
13b. Corrected Input Volume:	312,988,542 gallons		
14. Total Treated Purchased Water:	492,123,000 gallons	Assessment Scale:	<input type="text" value="1"/>
14a. Treated Purchased Water Meter Accuracy:	<input type="text" value="96.0"/> %	Assessment Scale:	<input type="text" value="3"/>
14b. Corrected Treated Purchased Water Volume:	512,628,125 gallons		
15. Total Treated Wholesale Water Sales:	0 gallons	Assessment Scale:	<input type="text" value="N/A"/>
15a. Treated Wholesale Water Meter Accuracy:	<input type="text" value="0.0"/> %	Assessment Scale:	<input type="text" value="N/A"/>
15b. Corrected Treated Wholesale Water Sales Volume:	0 gallons		
16. Total System Input Volume:	825,616,667 gallons		

C. Authorized Consumption

Component	Produced Water Assessment Scale Table Adapted from American Water Works Association Free Water Audit Software©											
	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5		
WATER SUPPLIED												
Line 13 Produced water (volume of treated water entering distribution system from own sources)	Current condition: Less than 25% of water production sources are metered, remaining sources are estimated. No regular meter accuracy testing or electronic calibration conducted.	Current condition: 25% - 50% of treated water production sources are metered; other sources estimated. No regular meter accuracy testing or electronic calibration conducted.	Conditions between 1 and 2	Current condition: 50% - 75% of treated water production sources are metered, other sources estimated. Occasional meter accuracy testing or electronic calibration conducted.	Conditions between 2 and 3	Current condition: At least 75% of treated water production sources are metered, or at least 90% of the source flow is derived from metered sources. Meter accuracy testing and/or electronic calibration of related instrumentation is conducted annually. Less than 25% of tested meters are found outside of +/- 6% accuracy.	Conditions between 3 and 4	Current condition: 100% of treated water production sources are metered, meter accuracy testing and electronic calibration of related instrumentation is conducted annually, less than 10% of meters are found outside of +/- 6% accuracy.	Conditions between 4 and 5	Current condition: 100% of treated water production sources are metered, meter accuracy testing and electronic calibration of related instrumentation is conducted semi-annually, with less than 10% found outside of +/- 3% accuracy. Procedures are reviewed by a third party knowledgeable in the M36 methodology.	Sele the p imp wat (so	
Improvements in quantifying produced water volume	To improve to 1: Organize and launch efforts to collect data for determining volume from own sources	To improve to 2: Locate all water production sources on maps and in the field, launch meter accuracy testing for existing meters, begin to install meters on unmetered water production sources and replace any obsolete/defective meters.		To improve to 3: Formalize annual meter accuracy testing for all source meters; specify the frequency of testing. Complete installation of meters on unmetered water production sources and complete replacement of all obsolete/defective meters.		To improve to 4: Conduct annual meter accuracy testing and calibration of related instrumentation on all meter installations on a regular basis. Complete project to install new, or replace defective existing, meters so that entire production meter population is metered. Repair or replace meters outside of +/- 6% accuracy.		To improve to 5: Maintain annual meter accuracy testing and calibration of related instrumentation for all meter installations. Repair or replace meters outside of +/- 3% accuracy. Investigate new meter technology; pilot one or more replacements with innovative meters in attempt to further improve meter accuracy.		To maintain a 5: Standardize meter accuracy test frequency to semi-annual, or more frequent, for all meters. Repair or replace meters outside of +/- 3% accuracy. Continually investigate/pilot improving metering technology.		

Open Instructions

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16. Total System Input Volume: 825,616,667 gallons

C. Authorized Consumption

* 17. Billed Metered: 792,592,000 gallons Assessment Scale: 4.5

18. Billed Unmetered: 0 gallons Assessment Scale: 5

19. Unbilled Metered: 0 gallons Assessment Scale: 5

20. Unbilled Unmetered: 10,320,208 gallons Assessment Scale: 3

Use 1.25% of System Input Volume

21. Total Authorized Consumption: 802,912,208 gallons

D. Water Losses

22. Water Losses: 22,704,458 gallons

E. Apparent Losses

* 23. Average Customer Meter Accuracy: 98.0 % Assessment Scale: 4.5

24. Customer Meter Accuracy Loss: 16,175,347 gallons

Billed Metered Assessment Scale Table

Adapted from American Water Works Association Free Water Audit Software©

Component	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	N/A
AUTHORIZED CONSUMPTION											
<p><i>Line 17 Billed metered</i></p> <p><i>Volume for Line 17 is populated from the Water Use Survey</i></p>	<p><i>Current condition:</i> Less than 50% of customers with volume-based billings from meter readings; flat or fixed rate billing exist for the majority of the customer population.</p>	<p><i>Current condition:</i> At least 50% of customers with volume-based billing from meter reads; flat rate billing for others. Manual meter reading is conducted, with less than 50% meter read success rate, remaining accounts' consumption is estimated. Limited meter records, no regular meter testing or replacement. Billing data maintained on paper records, with no auditing.</p>	<p><i>Conditions between 1 and 2</i></p>	<p><i>Current condition:</i> At least 75% of customers with volume-based, billing from meter reads; flat or fixed rate billing for remaining accounts. Manual meter reading is conducted with at least 50% meter read success rate; consumption for accounts with failed reads is estimated. Purchase records verify age of customer meters; only very limited meter accuracy testing is conducted. Customer meters are replaced only upon complete failure. Computerized billing records exist, but only sporadic internal auditing conducted.</p>	<p><i>Conditions between 2 and 3</i></p>	<p><i>Current condition:</i> At least 90% of customers with volume-based billing from meter reads; consumption for remaining accounts is estimated. Manual customer meter reading gives at least 80% customer meter reading success rate; consumption for accounts with failed reads is estimated. Good customer meter records exist, but only limited meter accuracy testing is conducted. Regular replacement is conducted for the oldest meters. Computerized billing records exist with annual auditing of summary statistics conducting by utility personnel.</p>	<p><i>Conditions between 3 and 4</i></p>	<p><i>Current condition:</i> At least 97% of customers exist with volume-based billing from meter reads. At least 90% customer meter reading success rate; or at least 80% read success rate with planning and budgeting for trials of Automatic Meter Reading (AMR) or Advanced Metering Infrastructure (AMI) in one or more pilot areas. Good customer meter records. Regular meter accuracy testing guides replacement of statistically significant number of meters each year. Routine auditing of computerized billing records for global and detailed statistics occurs annually by utility personnel, and is verified by third party at least once every five years.</p>	<p><i>Conditions between 4 and 5</i></p>	<p><i>Current condition:</i> At least 99% of customers exist with volume-based billing from meter reads. At least 95% customer meter reading success rate; or minimum 80% meter reading success rate, with Automatic Meter Reading (AMR) or Advanced Metering Infrastructure (AMI) trials underway. Statistically significant customer meter testing and replacement program in place on a continuous basis. Computerized billing with routine, detailed auditing, including field investigation of representative sample of accounts undertaken annually by utility personnel. Audit is conducted by third party auditors at least once every three years.</p>	Not a choice
<p><i>Improvements in quantifying volume of billed</i></p>	<p><i>To improve to 1:</i> Conduct investigations or trials of customer meters to select appropriate meter models. Budget funding for meter installations. Investigate volume based water rate structures.</p>	<p><i>To improve to 2:</i> Purchase and install meters on unmetered accounts. Implement policies to improve meter reading success. Catalog meter information during meter read visits to identify age/model of existing meters. Test a minimal number of meters for accuracy. Install computerized billing system.</p>	<p><i>To improve to 3:</i> Purchase and install meters on unmetered accounts. Eliminate flat fee billing and establish appropriate water rate structure based upon measured consumption. Continue to achieve verifiable success in removing manual meter reading barriers. Expand meter accuracy testing. Launch regular meter replacement program. Launch a program of annual auditing of global billing statistics by utility personnel.</p>	<p><i>To improve to 4:</i> Purchase and install meters on unmetered accounts. If customer meter reading success rate is less than 97%, assess cost-effectiveness of Automatic Meter Reading (AMR) or Advanced Metering Infrastructure (AMI) system for portion or entire system; or otherwise achieve ongoing improvements in manual meter reading success rate to 97% or higher. Refine meter accuracy testing program. Set meter replacement goals based upon accuracy test results.</p>	<p><i>To improve to 5:</i> Purchase and install meters on unmetered accounts. Launch Automatic Meter Reading (AMR) or Advanced Metering Infrastructure (AMI) system trials if manual meter reading success rate of at least 99% is not achieved within a five-year program. Continue meter accuracy testing program. Conduct planning and budgeting for large scale meter replacement based upon meter life cycle analysis using cumulative flow target. Continue annual detailed billing data auditing by utility personnel and</p>	<p><i>To maintain a 5:</i> Continue annual internal billing data auditing, and third party auditing at least every three years. Continue customer meter accuracy testing to ensure that accurate customer meter readings are obtained and entered as the basis for volume based billing. Stay abreast of improvements in</p>	Not a choice				

Open Instructions

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E. Apparent Losses

* 23. Average Customer Meter Accuracy:	<input type="text" value="98.0"/> %	Assessment Scale:	<input type="text" value="4.5"/>	
24. Customer Meter Accuracy Loss:	16,175,347 gallons			
25. Systematic Data Handling Discrepancy:	<input type="text" value="0"/> gallons	Assessment Scale:	<input type="text" value="4"/>	
26. Unauthorized Consumption:	2,064,042 gallons	Assessment Scale:	<input type="text" value="2"/>	
<input checked="" type="checkbox"/> Use 0.25% of System Input Volume				
27. Total Apparent Losses:	18,239,389 gallons			

F. Real Losses

28. Reported Breaks and Leaks:	<input type="text" value="1,000,000"/> gallons	Assessment Scale:	<input type="text" value="3.5"/>	
29. Unreported Loss:	3,465,070 gallons	Assessment Scale:	<input type="text" value="1"/>	
30. Total Real Losses:	4,465,070 gallons			
31. Total Water Losses:	22,704,458 gallons			
32. Non-Revenue Water:	33,024,667 gallons			

Component	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	N/A
APPARENT LOSSES											
Line 23 Average customer meter accuracy	<p><i>Current condition:</i> Customer meters exist, but with unorganized paper records on meters; no meter accuracy testing or meter replacement program for any size of retail meter. Metering workflow is driven chaotically with no proactive management. Loss volume due to aggregate meter inaccuracy is estimated.</p>	<p><i>Current condition:</i> Poor recordkeeping and meter oversight is recognized by water utility management who has allotted staff and funding resources to organize improved recordkeeping and start meter accuracy testing. Existing paper records gathered and organized to provide cursory disposition of meter population. Customer meters are tested for accuracy only upon customer request.</p>	<p><i>Conditions between 1 and 2</i></p>	<p><i>Current condition:</i> Reliable recordkeeping exists; meter information is improving as meters are replaced. Meter accuracy testing is conducted annually for a small number of meters (more than just customer requests, but less than 1% of inventory). A limited number of the oldest meters are replaced each year. Inaccuracy volume is largely an estimate, but refined based upon limited testing data.</p>	<p><i>Conditions between 2 and 3</i></p>	<p><i>Current condition:</i> A reliable electronic recordkeeping system for meters exists. The meter population includes a mix of new high performing meters and dated meters with suspect accuracy. Routine, but limited, meter accuracy testing and meter replacement occur. Inaccuracy volume is quantified using a mix of reliable and less certain data.</p>	<p><i>Conditions between 3 and 4</i></p>	<p><i>Current condition:</i> Ongoing meter replacement and accuracy testing result in highly accurate customer meter population. Testing is conducted on samples of meters of varying age and accumulated volume of throughput to determine optimum replacement time for various types of meters.</p>	<p><i>Current condition:</i> Ongoing meter replacement and accuracy testing result in highly accurate customer meter population. Statistically significant number of meters are tested in audit year. This testing is conducted on samples of meters of varying age and accumulated volume of throughput to determine optimum replacement time for these meters.</p>	<p><i>Current condition:</i> Good records of all active customer meters exist and include as a minimum: meter number, account number/location, type, size and manufacturer. Ongoing meter replacement occurs according to a targeted and justified basis. Regular meter accuracy testing gives a reliable measure of composite inaccuracy volume for the customer meter population. New metering technology is embraced to keep overall accuracy improving. Procedures are reviewed by a third party knowledgeable in the M36 methodology.</p>	Not a choice
Improvements to average customer meter accuracy	<p><i>To improve to 1:</i> Gather available meter purchase records. Conduct testing on a small number of meters believed to be the most inaccurate. Review staffing needs of the metering group and budget for necessary resources to better organize meter</p>	<p><i>To improve to 2:</i> Implement a reliable record keeping system for customer meter histories, preferably using electronic methods typically linked to, or part of, the Customer Billing System or Customer Information System. Expand meter accuracy testing to a larger group of meters.</p>	<p><i>To improve to 3:</i> Standardize the procedures for meter recordkeeping within an electronic information system. Accelerate meter accuracy testing and meter replacements guided by testing results.</p>	<p><i>To improve to 4:</i> Expand annual meter accuracy testing to evaluate a statistically significant number of meter makes/models. Expand meter replacement program to replace statistically significant number of poor performing meters each year.</p>	<p><i>To improve to 4.5:</i> Continue efforts to manage meter population with reliable recordkeeping. Test a statistically significant number of meters each year and analyze test results in an ongoing manner to serve as a basis for a target meter</p>	<p><i>To improve to 5:</i> Continue efforts to manage meter population with reliable recordkeeping, meter testing and replacement. Evaluate new meter types and install one or more types in 5-10</p>	<p><i>To maintain a 5:</i> Increase the number of meters tested and replaced as justified by meter accuracy test data. Continually monitor development of new metering technology and Advanced Metering Infrastructure (AMI) to grasp opportunities for</p>	Not a choice			

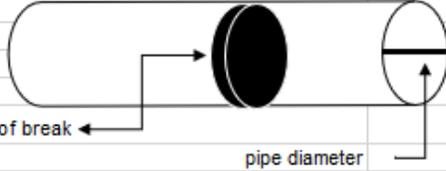
Reported Breaks and Leaks Assessment Scale Table
Adapted from American Water Works Association Free Water Audit Software®

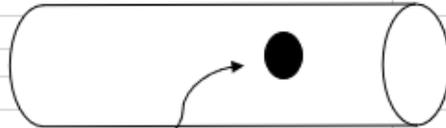
Component	Reported Breaks and Leaks Assessment Scale Table Adapted from American Water Works Association Free Water Audit Software®										
REAL LOSSES	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	N/A
<p align="center">Line 28 Reported breaks and leaks</p>	<p><i>Current condition:</i> Arbitrary estimates of reported breaks and leaks repaired. Repairs of reported breaks and leaks not documented.</p>	<p><i>Current condition:</i> Reported breaks and leaks estimated by repair crew is suspect. No written procedures exist for estimating or documenting breaks and leaks.</p>	<p><i>Conditions between 1 and 2</i></p>	<p><i>Current condition:</i> Reported breaks and leaks are estimated by repair crew. Written procedures exist for estimating or documenting breaks and leaks.</p>	<p><i>Conditions between 2 and 3</i></p>	<p><i>Current condition:</i> Breaks and leaks reported by customers and city staff fixed <75% of time. Call-to-repair times known, but are greater than one week average. Good records of breaks and leaks exist.</p>	<p><i>Conditions between 3 and 4</i></p>	<p><i>Current condition:</i> Breaks and leaks reported by customers and city staff fixed >75% of time. Call-to-repair times average less than one week. Computerized maintenance management system is used to document leak repair trends.</p>	<p><i>Conditions between 4 and 5</i></p>	<p><i>Current condition:</i> Breaks and leaks reported by customers and city staff fixed >90% of time. Call-to-repair times average less than three days. Outstanding computer maintenance records track system deficiencies and repair crew performance.</p>	Not a choice
<p><i>Improvements in quantifying reported breaks and leaks</i></p>	<p><i>To improve to 1:</i> Document reported breaks and leaks. Use leak rates calculation to estimate volume lost from reported breaks and leaks.</p>	<p><i>To improve to 2:</i> Develop standards to find, repair, and document leaks and breaks. Continue to use of leak rates calculation to estimate volume lost from reported breaks and leaks.</p>	<p><i>To improve to 3:</i> Standardize recordkeeping of leak incidents, location, response time, and other repair data.</p>	<p><i>To improve to 4:</i> Continue to standardize recordkeeping process. Begin planning a computerized maintenance management system. Reduce average leak run time to less than one week.</p>	<p><i>To improve to 5:</i> Implement computerized maintenance management system to document repairs. Reduce average leak run time to less than two days. Begin planning a proactive leak detection program.</p>	<p><i>To maintain a 5:</i> Use capabilities of computerized maintenance management system to track failure trends in distribution system and repair crew activity costs. Conduct a proactive leak detection program.</p>	Not a choice				

► www.twdb.texas.gov/conservation/resources/waterloss-resources.asp

► <https://morrualwater.org/water-tools/>

Rectangular Break					
	Long Break	Length of break	0	in feet	PSI
		Width of break	0	in inches	
		Leak Time	0	in hours	Area of Hole
					0
		GPM water loss	0		
		Total Loss	0		

Circular Break					
	around whole pipe	Pipe Size (Dia.)		in inches	
		Width of Break		in inches	Area of Hole
		Leak Time		in hours	0
		PSI			
		GPM	0		
		Total loss in gals	0		

Hole in Pipe					
		Dia. Of Hole		in inches	area of hole
		Leak Time		in hours	0
		PSI			
		GPM	0		
		Total Loss in gals	0		

The **Save** button will save any data you enter for retrieval on future visits to this site. Use the **Submit Worksheet** button to save your data and indicate that your form is completed and ready for TWDB review.

IMPORTANT - Read this - How to use the **Save, Submit Worksheet and Un-Submit Worksheet** buttons -->

If further assistance is needed contact WLA-Group@twdb.texas.gov or 512.463.0987.

*** FIELDS MARKED WITH A RED STAR MUST BE FILLED OUT BEFORE THIS FORM CAN BE SUBMITTED.**

38. Real Losses Normalized - Main Lines: 0.00 gallons lost per mile per day

I. Financial Performance Indicators

39. Total Apparent Losses: 18,239,389 gallons

* 40. Retail Price of Water: \$ per gallon Assessment Scale:

41. Cost of Apparent Losses: \$42,315

42 Total Real Losses: 4,465,070 gallons

* 43. Variable Production Cost of Water: \$ per gallon Assessment Scale:

44. Cost of Real Losses: \$1,072

45. Total Cost Impact of Apparent and Real Losses \$43,387

46. Total Assessment Score: 67

Customer Retail Price of Water Assessment Scale Table Adapted from American Water Works Association Free Water Audit Software®											
Component	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	N/A
<p><i>Line 10</i> Customer retail price of water (applied to apparent losses)</p>	<p><i>Current condition:</i> Antiquated, cumbersome water rate structure is used, with periodic historic amendments that were poorly documented and implemented; resulting in classes of customers being billed inconsistent charges. The actual composite billing rate likely differs significantly from the published water rate structure, but a lack of auditing leaves the degree of error indeterminate.</p>	<p><i>Current condition:</i> Dated, cumbersome water rate structure, not always employed consistently in actual billing operations. The actual composite billing rate is known to differ from the published water rate structure, and a reasonably accurate estimate of the degree of error is determined, allowing a composite billing rate to be quantified.</p>	<p><i>Conditions between 1 and 2</i></p>	<p><i>Current condition:</i> Straight-forward water rate structure in use, but not updated in several years. Billing operations reliably employ the rate structure. The composite billing rate is derived from a single customer class such as residential customer accounts, neglecting the effect of different rates from varying customer classes.</p>	<p><i>Conditions between 2 and 3</i></p>	<p><i>Current condition:</i> Clearly written, up-to-date water rate structure is in force and is applied reliably in billing operations. Composite customer rate is determined using a weighted average residential rate using volumes of water in each rate block.</p>	<p><i>Conditions between 3 and 4</i></p>	<p><i>Current condition:</i> Effective water rate structure is in force and is applied reliably in billing operations. Composite customer rate is determined using a weighted average composite consumption rate, which includes residential, commercial, industrial, institutional (CII), and any other distinct customer classes within the water rate structure.</p>	<p><i>Conditions between 4 and 5</i></p>	<p><i>Current condition:</i> Current, effective water rate structure is in force and applied reliably in billing operations. The rate structure and calculations of composite rate - which includes residential, commercial, industrial, institutional (CII), and other distinct customer classes - are reviewed by a third party knowledgeable in the M36 methodology at least once every five years.</p>	<p>Not a choice</p>
<p><i>Improvements in quantifying the retail price of water</i></p>	<p><i>To improve to 1:</i> Formalize the process to implement water rates, including a secure documentation procedure. Create a current, formal water rate document and gain approval from all stakeholders.</p>	<p><i>To improve to 2:</i> Review the water rate structure and update/formalize as needed. Assess billing operations to ensure that actual billing operations incorporate the established water rate structure.</p>	<p><i>To improve to 3:</i> Evaluate volume of water used in each usage block by residential users. Multiply volumes by full rate structure.</p>	<p><i>To improve to 4:</i> Evaluate volume of water used in each usage block by all classifications of users. Multiply volumes by full rate structure.</p>	<p><i>To improve to 5:</i> Conduct a periodic third-party audit of water used in each usage block by all classifications of users. Multiply volumes by full rate structure.</p>	<p><i>To maintain a 5:</i> Keep water rate structure current in addressing the water utility's revenue needs. Update the calculation of the customer unit rate as new rate components, customer classes, or other components are modified.</p>	<p>Not a choice</p>				

Total Assessment Score

121

- ▶ As you enter your confidence values, the program will give you a Total Assessment Score out of 100.
- ▶ Measures the policies and processes used currently when you gather data for the audit.
- ▶ The assessment is a number that should be increasing every year.
- ▶ Improve the accuracy of the data in order to identify opportunities for water loss reduction.

Water Loss Control Planning Guide

Functional Focus Area	Level I (0-25)	Level II (26-50)	Level III (51-70)	Level IV (71-90)	Level IV (91-100)
Audit Data Collection	Launch auditing and loss control team; address production meter deficiencies.	Analyze business process for customer metering/billing functions and water supply operation.	Establish/revise policies and procedures for data collection.	Refine data collection practices and establish as routine business process.	Annual water audit is reliable gauge of year-to-year water efficiency standing.
Short-term loss control	Research information on leak detection programs. Begin flowcharting analysis of customer billing system.	Conduct loss assessment investigations on a sample portion of system: customer meter testing, leak survey, theft.	Establish ongoing mechanisms for customer meter accuracy testing, active leakage control, and infrastructure monitoring.	Refine, enhance, or expand ongoing programs based on economic justification.	Stay abreast of improvements in metering, meter reading, billing, leakage management, and infrastructure rehabilitation.
Long-term loss control	N/A	Begin to assess long-term needs requiring large expenditure: customer meter replacement, water main replacement, new customer billing system, or Automatic Meter Reading.	Begin to assemble economic business case for long-term needs based upon improved data becoming available through the water audit process.	Conduct detailed planning, budgeting, and launch of comprehensive improvements for metering, billing, or infrastructure management.	Continue incremental improvements in short-term and long-term loss control interventions.
Target-setting	N/A	N/A	Establish long-term apparent and real loss reduction goals (+10 year horizon).	Establish mid-range (5 year horizon) apparent and real loss reduction goals.	Evaluate and refine loss control goals on a yearly basis.
Benchmarking	N/A	N/A	Preliminary Comparisons – can begin to rely upon Infrastructure Leakage Index (ILI) for performance comparison for real losses.	Performance Benchmarking – ILI is meaningful in comparing real loss standing.	Identify Best Practices – the ILI is very reliable as a real loss performance indicator for best in class service.

From Audit to Action

Compare audits year to year

Understand water losses through improved data collection.

Understanding of data collection for each division of the water utility

Strive to become more knowledgeable in data collection process

Validation of WL Data

124

- ▶ Develop and conduct round table discussion of interested parties
 - ▶ Invite staff from relevant departments
 - ▶ Unmetered connections
 - ▶ Contractor meters
 - ▶ Monthly main line breaks
 - ▶ How is volume lost at each break calculated?
 - ▶ Disconnects – any issues
 - ▶ How many meters were replaced during the month

Validation – Grading data

125

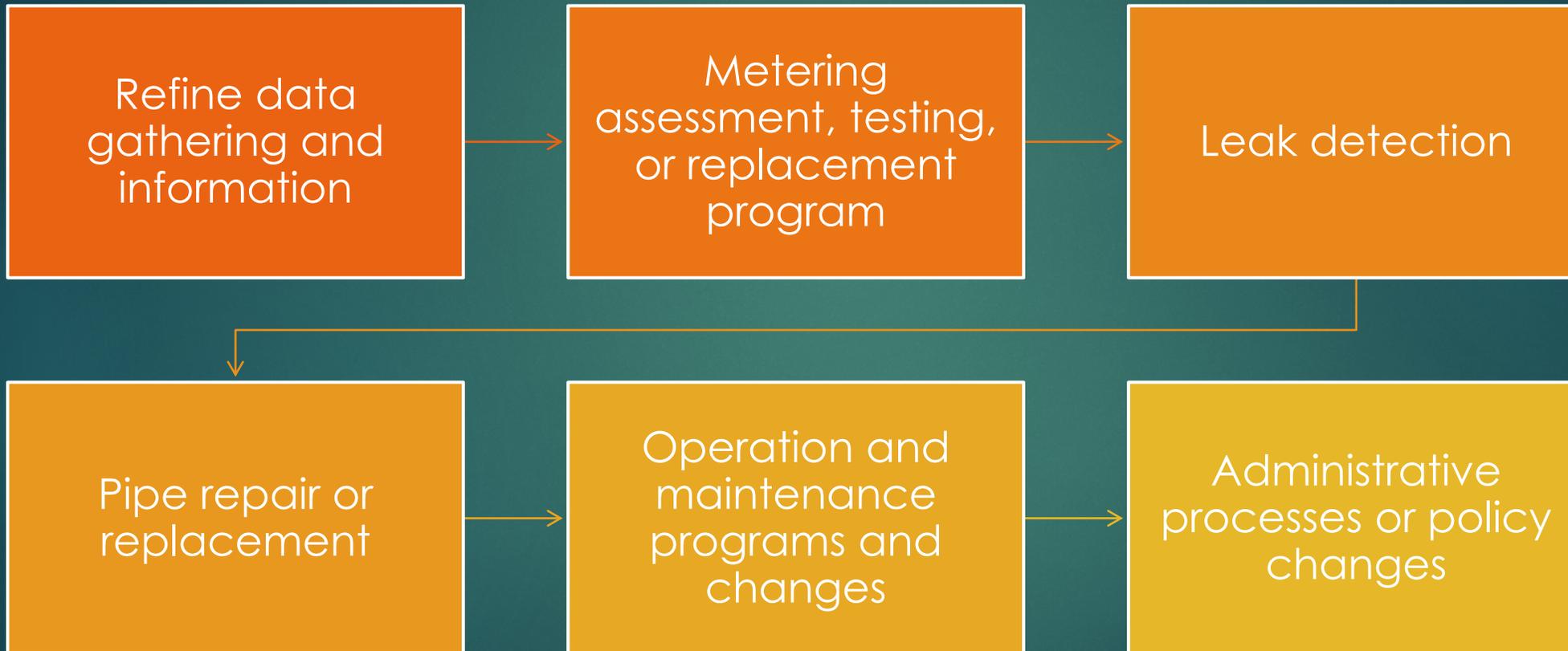
- ▶ Essentially grading/scoring own data
- ▶ Have a staff member audit your scores
 - ▶ Validate the auditor's scores

Validation – Next level

126

- ▶ Examples of Validation measures
 - ▶ Measure supply meter accuracy
 - ▶ Volumetric testing using insertion meter
 - ▶ Testing in situ (in place)
 - ▶ Field verify system wide pressure
 - ▶ Install temporary loggers to monitor pressure dynamics
 - ▶ Improve understanding of Apparent loss by conducting random tests
 - ▶ Test wide range of consumption volume meters

Taking Action



Data Validation

Apparent Loss Management Tools

Billing Data Analysis

Accurate Metering Process

Accounting for Meter Loss

Leak Detection Methods

Real Loss Management Tools

Leak Detection Methods

Pressure Management

Questions for Review

129

- ▶ Were your goals met? If not, why not?
- ▶ Where do you need more accurate information?
- ▶ Are you asking the right questions?
- ▶ Is there another performance indicator that should be considered?
- ▶ Look at trends by reviewing historic data – has water loss improved?
- ▶ How can the system improve water loss performance?
- ▶ Mark Mathis is always available; remember he is with the gov't and is here to help.

Water Loss Resources

- ▶ Troubleshooting, guidance, assessment scales, leak detection loan form, WUS and WLA checklist, monthly water loss report, and more.
- ▶ <http://www.twdb.texas.gov/conservation/resources/waterloss-resources.asp>
- ▶ <http://www.twdb.texas.gov/conservation/municipal/waterloss/historical-annual-report.asp>

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Questions

Contact



Water Loss Audit



mark.mathis@twdb.texas.gov

Water Loss, Use, and Conservation (WLUC) Workshop

133

Last Break - 5 mins

1. **Grab some water**
2. **Stretch the Legs**
3. **Check your emails**

▶ Training Certificates will be presented at a later time!

▶ PDF copies of these slides will be available!

Water Loss, Use, and Conservation Workshop

Water Conservation

Municipal Water Conservation
Water Science & Conservation
Texas Water Development Board (TWDB)

Unless specifically noted, this presentation does not necessarily reflect official Board positions or decisions.

Content and Topics

- ▶ Water Conservation
- ▶ Statutes and Requirements
- ▶ Reports, Forms, and Plans
 - ▶ Annual report
 - ▶ Utility Profile
 - ▶ Water Conservation Plan
- ▶ Municipal Water Conservation Planning Tool
- ▶ Flow of data
- ▶ Resources and Information Available
- ▶ Questions or Concerns...

Statutes and Requirements

Report Name	Who is Required to Report	When is Report Due
<u>Water Conservation Plan</u>	Entities with loans greater than \$500,000 (TWDB), 3,300 connections or greater (TWDB), a non-irrigation surface water right greater than 1,000 ac-ft/yr. (TCEQ), or an irrigation surface water right greater than 10,000 ac-ft/yr. (TCEQ).	Plans are revised every 5 years. The next revision for many entities is due to TWDB, May 1, 2024 . TWDB shall be provided a copy of Plans submitted to TCEQ.
<u>Water Conservation Plan Annual Report</u>	All entities with a Water Conservation Plan.	Reports are due to TWDB every year by May 1st.
<u>Water Loss Audit</u>	Retail public water suppliers with either an active financial obligation with the TWDB or having more than 3,300 connections should submit an annual water loss audit. All retail public water suppliers must submit a water loss audit once every five years.	Annual water loss audits are due by May 1 of each year for the previous year. The next audit for the five-year cycle is due by May 1, 2026, for the year 2025.
<u>Water Use Survey</u>	Entities that have received a letter, generally municipalities with a population of 25 or greater, or high-volume industrial water use.	Surveys are due every year, 60 days after receiving a letter.

Statutes and Requirements

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1. Entities with loans greater than \$500,000 (TWDB)
2. 3,300 connections or greater (TWDB),
3. A non-irrigation surface water right greater than 1,000 ac-ft/yr. (TCEQ), or an irrigation surface water right greater than 10,000 ac-ft/yr. (TCEQ).

However...

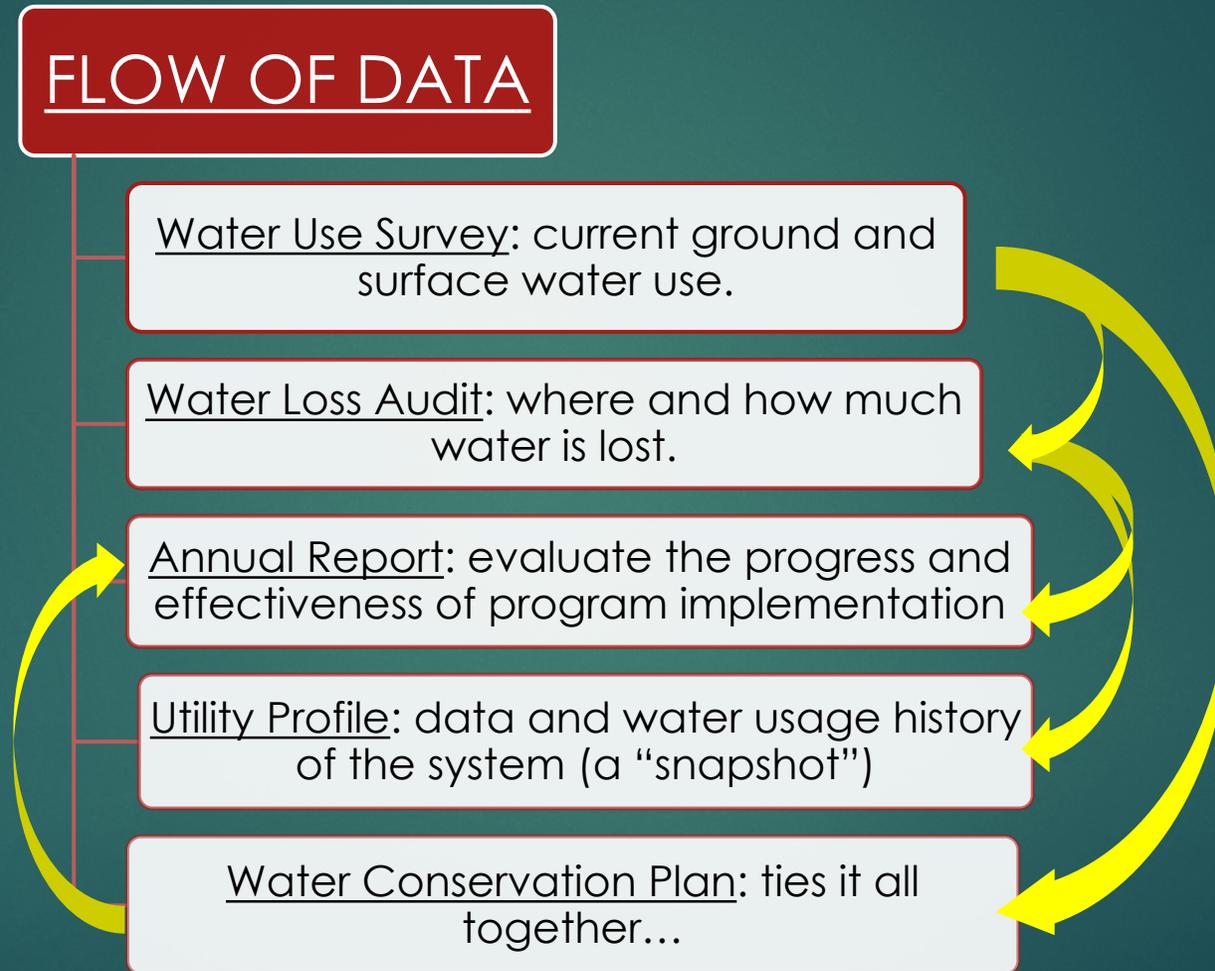
The purpose of a **Water Conservation** is to ensure water use efficiency within your operation and/or system. The Water Conservation Plan is a strategy or combination of strategies for...

1. reducing the overall consumption of water,
2. efficiency in the use of water,
3. reducing the loss or waste of water,
4. or increasing recycling and reuse of water.

Even if you are not required, having a water conservation plan can only serve to benefit your system...

- ▶ Conservation strategies
- ▶ Best Management strategies
- ▶ Cost saving measures
- ▶ Accountability

The why...



Quiz

141

Which of these is not a report?

1. Water Use Survey
2. Water Loss Audit
3. Annual Report
4. Utility Profile
5. Water Conservation Plan

Quiz

142

Which of these is not a report?

1. Water Use Survey
2. Water Loss Audit
3. Annual Report
4. Utility Profile
5. Water Conservation Plan

▶ Does that make it better though?

Welcome to the Water Loss, Use and Conservation Home Page

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Texas Water Development Board Water Loss, Use and Conservation [Home](#) [Logout](#) [Agency Policies](#) [Contact Webmaster](#)

WLUC [Water Use Survey](#) [Water Loss Audit](#) [Water Conservation](#) [APM Home](#)

Welcome to the Water Loss, Use and Conservation Home Page

Name: Daniel Rice

Search Filter

Year:

PWS Code

PWS Name

Survey Number

WUS System Name

Water Use Survey

Water Loss Audit

Water Conservation Annual Report

Water Conservation Utility Profile

Water Conservation Plan

Welcome to the Water Loss, Use and Conservation Home Page

Name: Daniel Rice

Search Filter

Year: ▼

PWS Code

PWS Name

Survey Number

WUS System Name

Water Use Survey

+ [Water Use Survey List](#)

Water Loss Audit

+ [Water Loss Audit List](#)

Water Conservation Annual Report

+ [WC Annual Report List](#)

Water Conservation Utility Profile

+ [WC Utility Profile List](#)

Water Conservation Plan

+ [WC Plan List](#)

Water Conservation Home Page

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Texas Water Development Board Water Conservation

WC Home Request Access WLUC Home

Welcome to the Water Conservation Home Page

Name: Travis Brice

Search Filter

PWS Code

PWS Name/Utility Name

Search Reset

Annual Report

+ Annual Report List

Utility Profile

+ Utility Profile List

Conservation Plan

+ Conservation Plan List

Water Conservation Home Page

146

Texas Water Development Board Water Conservation

WC Home **Request Access** WLUC Home

Request Access To water Utilities

Select the box in the Utility List for each Utility that you want to access -- then click the Submit button.

Records: 928 Page: 1 of 93

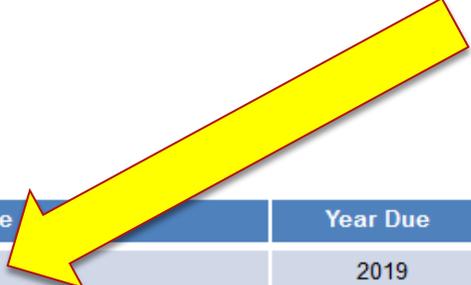
Select	TCEQ Number	Utility Name	Comments
<input type="checkbox"/>	<input type="text" value="TCEQ # Filter"/>	<input type="text" value="Utility Name Filter"/>	

Name: Travis Brice

Based on previously submitted information, the following reports will need to be completed for your water system.

Annual Report

- Annual Report List						
PWS Code	Utility Type	System Name	Year Due	Status	Submitted Date	
2270001	Retail Water Supplier	City of Austin Water & Wastewater	2019	Review Completed	04/29/19	Remove Remove Remove



Utility Profile

- Utility Profile List						
PWS Code	Utility Type	System Name	Year Due	Status	Submitted Date	
2270001	Retail Water Supplier	City of Austin Water & Wastewater	2024	N/A		Remove Remove Remove

Conservation Plan

- Conservation Plan List						
PWS Code	Utility Type	System Name	Year Due	Status	Submitted Date	
2270001	Retail Water Supplier	City of Austin Water & Wastewater	2024	N/A		Remove Remove Remove

Annual Reporting

148

Utility Name: City of Austin Water & Wastewater
PWS Code: 2270001

- Annual Report List				
Edit	View	Status	Reporting Year	
Fill Out	View	Not on File	2010	
Fill Out	View	Review Completed	2011	
Fill Out	View	Review Completed	2012	
Fill Out	View	Review Completed	2013	
Fill Out	View	Review Completed	2014	
Fill Out	View	Review Completed	2015	
Fill Out	View	Review Completed	2016	
Fill Out	View	Review Completed	2017	
Fill Out	View	Review Completed	2018	

“Rolling” history of submitted annual reports creating a water usage and conservation history for your system.

Annual Reporting

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PWS Code: N/A

- Annual Report List			
Edit	View	Status	Reporting Year
	View	Not on File	2010
	View	Not on File	2011
	View	Review Completed	2012
	View	Review Completed	2013
	View	Review Completed	2014
	View	Review Completed	2015
	View	Review Completed	2016
	View	Review Completed	2017
	View	Saved	2018
	View	Not Started	2019
Fill Out	View	Review Completed	2020

- “Rolling” history of submitted annual reports.
- If some previous reporting years have been missed or left unsubmitted, that’s ok.
- Reach out to us and TWDB staff can help back fill those reports.

	Total Gallons During the Reporting Period
1. Corrected Input Volume: The volume of treated water input to the distribution system from own production facilities. Same as line 13b of the Water Loss Audit for reporting periods >= 2015. Same as line 14 of the Water Loss Audit for reporting periods <= 2014.	47,999,230,963
2. Corrected Treated Purchased Water Volume: The amount of treated purchased wholesale water transferred into the utility's distribution system from other water suppliers system. Same as line 14b of the Water Loss Audit for reporting periods >= 2015. Same as line 15 of the Water Loss Audit for reporting periods <= 2014.	940,000
3. Corrected Treated Wholesale Water Sales Volume: The amount of treated wholesale water transferred out of the utility's distribution system, although it may be in the system for a brief time for conveyance reasons. Same as line 15b of the Water Loss Audit for reporting periods >= 2015. Same as line 16 of the Water Loss Audit for reporting periods <= 2014.	2,385,015,400
4. Total System Input Volume: This is the sum of the corrected input volume plus corrected treated purchased water volume minus corrected treated wholesale water sales volume. Same as line 18 of the Water Loss Audit for reporting periods >= 2015. Same as line 17 of the Water Loss Audit for reporting periods <= 2014. Produced + Imported - Exported = Total System Input Volume	45,615,155,563
5. Billed Metered: All retail water sold and metered. Same as line 17 of the Water Loss Audit for reporting periods >= 2015. Same as line 18 of the Water Loss Audit for reporting periods <= 2014.	38,442,953,800
6. Other Authorized Consumption: Water that is authorized for other uses such as back flushing, line flushing, storage tank cleaning, fire department use, municipal government offices or municipal golf courses/parks. This water may be metered or unmetered. Same as lines 18, 19, and 20 of the Water Loss Audit for reporting periods >= 2015. Same as lines 19, 20, and 21 of the Water Loss Audit for reporting periods <= 2014.	107,439,938
7. Total Authorized Consumption: All water that has been authorized for use. Same as Line 21 of the Water Loss Audit for reporting periods >= 2015. Same as line 22 of the Water Loss Audit for reporting periods <= 2014. Total Billed and Metered Retail Water + Other Authorized Consumption = Total Authorized Consumption	38,550,393,738
8. Total Apparent Losses: Water that has been consumed but not properly measured or billed (losses due to customer meter inaccuracy, systematic data handling discrepancy and/or unauthorized consumption such as theft). Same as line 27 of the Water Loss Audit for reporting periods >= 2015. Same as line 28 of the Water Loss Audit for reporting periods <= 2014.	938,656,919
9. Total Real Loss: Physical losses from the distribution system prior to reaching the customer destination (losses due to reported breaks and leaks, physical losses from the system or mains and/or storage overflow). Same as line 30 of the Water Loss Audit for reporting periods >= 2015. Same as line 31 of the Water Loss Audit for reporting periods <= 2014.	6,126,104,906
10. Total Water Loss: Apparent + Real = Total Water Loss	7,084,781,825

Annual Report – Retail Conservation Programs and Activities (Page 4)

1. What year did your entity adopt or revise their most recent Water Conservation Plan?
2. Does The Plan incorporate Best Management Practices? Yes No

* 3. Using the table below select the types of Best Management Practices or water conservation and reuse strategies actively administered during this reporting period and estimate the savings incurred in implementing water conservation and reuse activities and programs. Leave fields blank if unknown. Please separate reuse volumes from gallons saved.

Methods and techniques for determining gallons saved are unique to each utility as they conduct internal cost analyses and long-term financial planning. Texas Best Management Practices can be found at TWDB's Water Conservation Best Management Practices [webpage](#). The Alliance for Water Efficiency's Water Conservation [Tracking Tool](#) may offer guidance on determining and calculating savings for individual BMPs.

Best Management Practice	Check if implemented	Estimated Gallons Saved	Estimated Gallons Reused
Conservation Analysis and Planning			
Conservation Coordinator	<input checked="" type="checkbox"/>	<input type="text" value="0"/>	<input type="text"/>
Cost Effective Analysis	<input checked="" type="checkbox"/>	<input type="text" value="0"/>	<input type="text"/>
Water Survey for Single Family and Multi-family Customers	<input type="checkbox"/>		
Financial			
Wholesale Agency Assistance Programs	<input checked="" type="checkbox"/>	<input type="text" value="0"/>	<input type="text"/>
Water Conservation Pricing	<input checked="" type="checkbox"/>	<input type="text" value="0"/>	<input type="text"/>
System Operations			
Metering New Connections and Retrofitting Existing Connections	<input checked="" type="checkbox"/>	<input type="text" value="0"/>	<input type="text"/>
System Water Audit and Loss Control	<input checked="" type="checkbox"/>	<input type="text" value="0"/>	<input type="text"/>

Annual Report – Retail Conservation Programs and Activities (Page 4)

Residential Clothes Washer Incentive Program	<input type="checkbox"/>		
Water Wise Landscape Design and Conversion Programs	<input checked="" type="checkbox"/>	172,572	
Showerhead, Aerator, and Toilet Flapper Retrofit	<input checked="" type="checkbox"/>	11,194,638	
Residential Toilet Replacement Programs	<input type="checkbox"/>		
ICI Incentive Programs	<input checked="" type="checkbox"/>	8,444,835	
Conservation Technology & Resuse			
New Construction Graywater	<input type="checkbox"/>		
Rainwater Harvesting and Condensate Reuse	<input checked="" type="checkbox"/>	4,120,452	
Reuse for On-site Irrigation	<input checked="" type="checkbox"/>		0
Reuse for Plant Washdown	<input checked="" type="checkbox"/>		0
Reuse for Chlorination/Dechlorination	<input checked="" type="checkbox"/>		0
Reuse for Industry	<input checked="" type="checkbox"/>		753,826,217
Reuse for Agriculture	<input type="checkbox"/>		
Regulatory and Enforcement			
Prohibition on Wasting Water	<input checked="" type="checkbox"/>	5,347,478,100	
Retail			
Other	<input checked="" type="checkbox"/>	188,340	1,873,907,300
Totals		5,379,519,437	3,303,906,117

Describe Other Best Management Practices from Section Above.

Included in "Other:

Estimated Gallons Saved: Pressure Regulating Valve Rebate

Estimated Gallons Reused: Toilet flushing, Plant Washdown, Chlorination/Dechlorination, and Onsite Irrigation.

Annual Report - Retail Conservation Programs and Activities

4. For this reporting period, estimate the savings from water conservation activities and programs.

Gallons Saved/Conserved	Gallons Recycled/Reused	Total Volume of Water Saved ¹	Dollar Value of Water Saved ²
5,379,519,437	3,303,906,117	8,683,425,554	3,351,802

¹Estimated Gallons Saved + Estimated Gallons Recycled/Reused = Total Volume Saved

²Estimated this value by taking into account water savings, the cost of treatment or purchase of water, and deferred capital cost due to conservation.

5. Comments or Explanations Regarding Data Entered in Sections Above.

Files to support or explain this may be attached below.

Saving water can and will save you money,
...but it can be hard to quantify.



NEVER FEAR!

154

The Municipal Water Conservation Planning Tool is here!

- ▶ A method for calculating water savings via annual reporting was created.
- ▶ It provides an accounting framework for projecting future conservation program costs and water savings as well as estimating the water savings from previous implementation of conservation measures.



Municipal Water Conservation Planning Tool

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Water Conservation Plans

[Water Conservation Plan \(New Users\)](#)

[Water Conservation Plan \(Registered Users\)](#)

The purpose of a Water Conservation Plan is to ensure water use efficiency within your operation. The Water Conservation Plan is a strategy or combination of strategies for reducing the consumption of water, reducing the loss or waste of water, improving or maintaining the efficiency in the use of water, or increasing recycling and reuse of water. It contains best management practice measures to try to meet the targets and goals identified within the plan. The effectiveness of your water conservation plan is in the implementation of your water conservation program. Reviewing your program annually will help to evaluate program successes and needs. The water conservation plan, [including targets and goals](#), must be revised every 5 years.

- [Municipal Water Conservation Planning Tool](#) - This MWCPT contains pre-loaded data to assist in the development of conservation plans. A [guide to using the tool](#) is available. In addition, a [training workshop for the tool](#) is also available.

Water for Texas Conference 2019

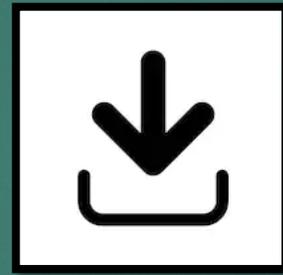
- Best Management Practices
- Agriculture
- Literature
- Resources
- Education
- Outreach
- Municipal Water Conservation Plans

- Water Conservation Plans
 - Water Conservation Plan ~ Utility Profile

You can access the tool on the TWDB's website and the associated guide to have a VERY DETAILED explanation on its use.

Municipal Water Conservation Planning Tool

Completely downloadable and editable.



Please save a copy to your desktop and manipulate the scenarios as you see fit!

Here's the Breakdown...

157

1. Outdoor Conservation
2. Education
3. Washing machines
4. Landscape Design
5. Showers and Bathtubs
6. Residential Restrooms
7. Rainwater Reuse
8. Business (ICI)
9. All the above...

Municipal Water Conservation Planning Tool

158

BMP: Residential Toilet Replacement Program(s)

<u>Predefined Measures*:</u>	<u>Saved GPD</u>
▶ SF: HE Toilet Rebate...	25.385
▶ SF: Bathroom Retrofit...	28.888
▶ MF: HE Toilet Rebate...	32.691
▶ MF: Bathroom Retrofit...	42.600

***This data is only applicable to Region A (16 Regions total)**

Municipal Water Conservation Planning Tool

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REGION A:

ICI Rebate, Retrofit, and Incentive Programs

High-Efficiency Sprinkler Nozzle Rebate

...**88.235 GPD**

REGION I:

ICI Rebate, Retrofit, and Incentive Programs

High-Efficiency Sprinkler Nozzle Rebate

...**46.272 GPD**

The region matters, because water use varies across the State.

Utility: 0
 Scenario: Empty
 Volume Units: kGal

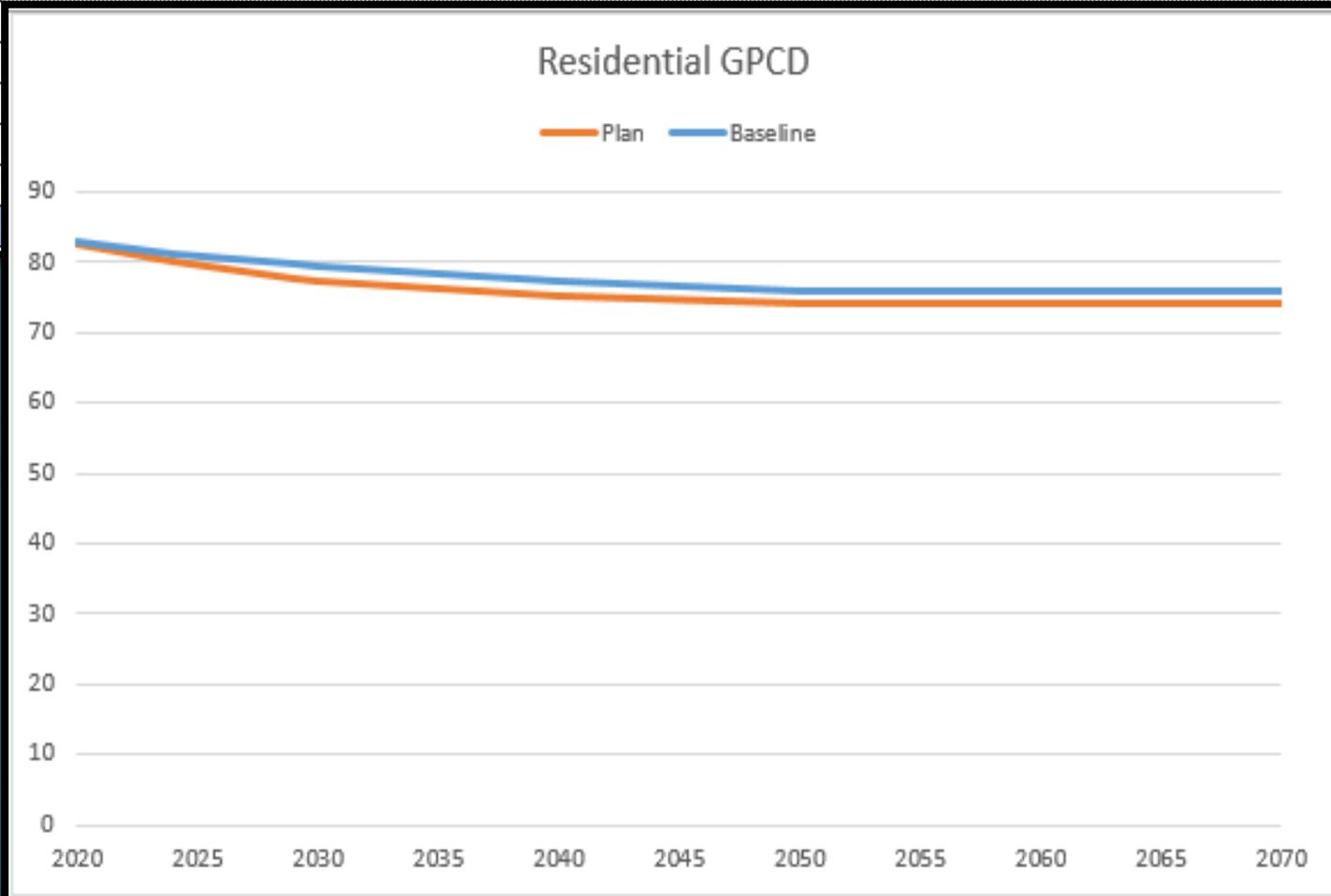
Avg Annual
 Growth %

160

Projections 2020 2024 2029 2030 2040 2050 2060 2070 2020-70

Plan Active Savings (in kGal)

- Single Family
- Multi Family
- ICI
- Other
- Water Loss
- Total Plan Savings



Upon entering the conservation measures, a graph can be generated to show the general reduction (or not) in water use and the potential savings. (Baseline vs. WCP)

Annual Report – Retail Conservation Programs and Activities (Page 4)

Residential Clothes Washer Incentive Program	<input type="checkbox"/>		
Water Wise Landscape Design and Conversion Programs	<input checked="" type="checkbox"/>	172,572	
Showerhead, Aerator, and Toilet Flapper Retrofit	<input checked="" type="checkbox"/>	11,194,638	
Residential Toilet Replacement Programs	<input type="checkbox"/>		
ICI Incentive Programs	<input checked="" type="checkbox"/>	8,444,835	
Conservation Technology & Reuse			
New Construction Graywater	<input type="checkbox"/>		
Rainwater Harvesting and Condensate Reuse	<input checked="" type="checkbox"/>	4,120,452	
Reuse for On-site Irrigation	<input checked="" type="checkbox"/>		0
Reuse for Plant Washdown	<input checked="" type="checkbox"/>		0
Reuse for Chlorination/Dechlorination	<input checked="" type="checkbox"/>		0
Reuse for Industry	<input checked="" type="checkbox"/>		753,826,217
Reuse for Agriculture	<input type="checkbox"/>		
Regulatory and Enforcement			
Prohibition on Wasting Water	<input checked="" type="checkbox"/>	5,347,478,100	
Retail			
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Included in "Other":
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Annual Report – Retail Conservation Programs and Activities

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¹Estimated Gallons Saved + Estimated Gallons Recycled/Reused = Total Volume Saved
²Estimated this value by taking into account water savings, the cost of treatment or purchase of water, and deferred capital cost due to conservation.

5. Comments or Explanations Regarding Data Entered in Sections Above.

Files to support or explain this may be attached below.



Now with these new estimates from the tool we can better report our water and MONEY savings.

Search Filter

PWS Code

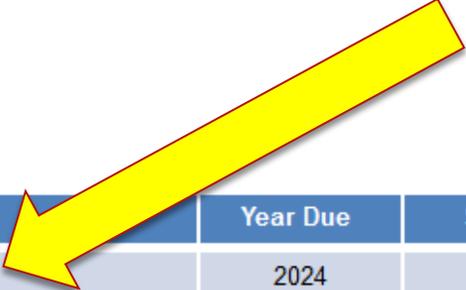
PWS Name/Utility Name

Annual Report

- Annual Report List					
PWS Code	Utility Type	System Name	Year Due	Status	Submitted Date
2270001	Retail Water Supplier	City of Austin Water & Wastewater	2019	Review Completed	04/29/19

Utility Profile

- Utility Profile List					
PWS Code	Utility Type	System Name	Year Due	Status	Submitted Date
2270001	Retail Water Supplier	City of Austin Water & Wastewater	2024	N/A	



Conservation Plan

- Conservation Plan List					
PWS Code	Utility Type	System Name	Year Due	Status	Submitted Date
2270001	Retail Water Supplier	City of Austin Water & Wastewater	2024	N/A	

Utility Profile

164

- ▶ The Utility Profile serves as the first component in developing a Water Conservation Plan.
- ▶ The purpose of the Utility Profile is to assist you with water conservation plan development and to ensure that important information and data about your utility system be considered when preparing your water conservation plan and the associated target and goals.

Utility Profile

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- ▶ Completion of the utility profile is required and should be submitted with the water conservation plan.
- ▶ In fact, the utility profile should be considered a component of the plan, NOT a separate form or report.
- ▶ It is the overarching data element of the water conservation plan.

Utility Profile

By using the 5-year rolling history of your system, you can set appropriate goals.

Provide system input data for the previous five years.
Total System Input = Self supplied + Imported - Exported

Year	Water Produced in Gallons	Purchased/Imported Water in Gallons	Exported Water in Gallons	Total System Input	Total GPCD
2018	47,999,230,963	940,000	2,385,015,400	45,615,155,563	124
2017	48,366,392,060	689,000	2,783,459,800	45,583,621,260	128
2016	45,653,599,594	1,494,000	2,527,643,397	43,127,450,197	123
2015	44,743,637,572	8,800,000	2,538,933,179	42,213,504,393	124
2014	29,148,336,469	15,443,172,848	2,579,530,487	42,011,978,830	128
Historic Average	43,182,239,332	3,091,019,170	2,562,916,453	43,710,342,049	125

Utility Profile

Also, the data flows through the reports and self calculates within, so CONSISTENCY and ACCURACY are important.

Water Use Category	Total Residential GPCD
2018	65
2017	66
2016	66
2015	66
2014	70
Historic Average	67

Water Conservation Plan

Annual Report

- Annual Report List

PWS Code	Utility Type	System Name	Year Due	Status	Submitted Date
2270001	Retail Water Supplier	City of Austin Water & Wastewater	2019	Review Completed	04/29/19

Utility Profile

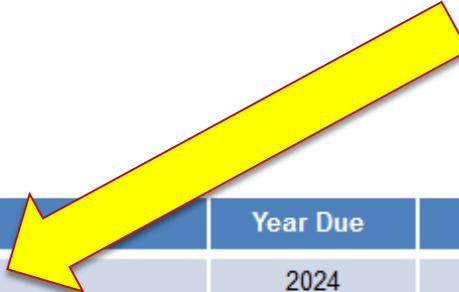
- Utility Profile List

PWS Code	Utility Type	System Name	Year Due	Status	Submitted Date
2270001	Retail Water Supplier	City of Austin Water & Wastewater	2024	N/A	

Conservation Plan

- Conservation Plan List

PWS Code	Utility Type	System Name	Year Due	Status	Submitted Date
2270001	Retail Water Supplier	City of Austin Water & Wastewater	2024	N/A	



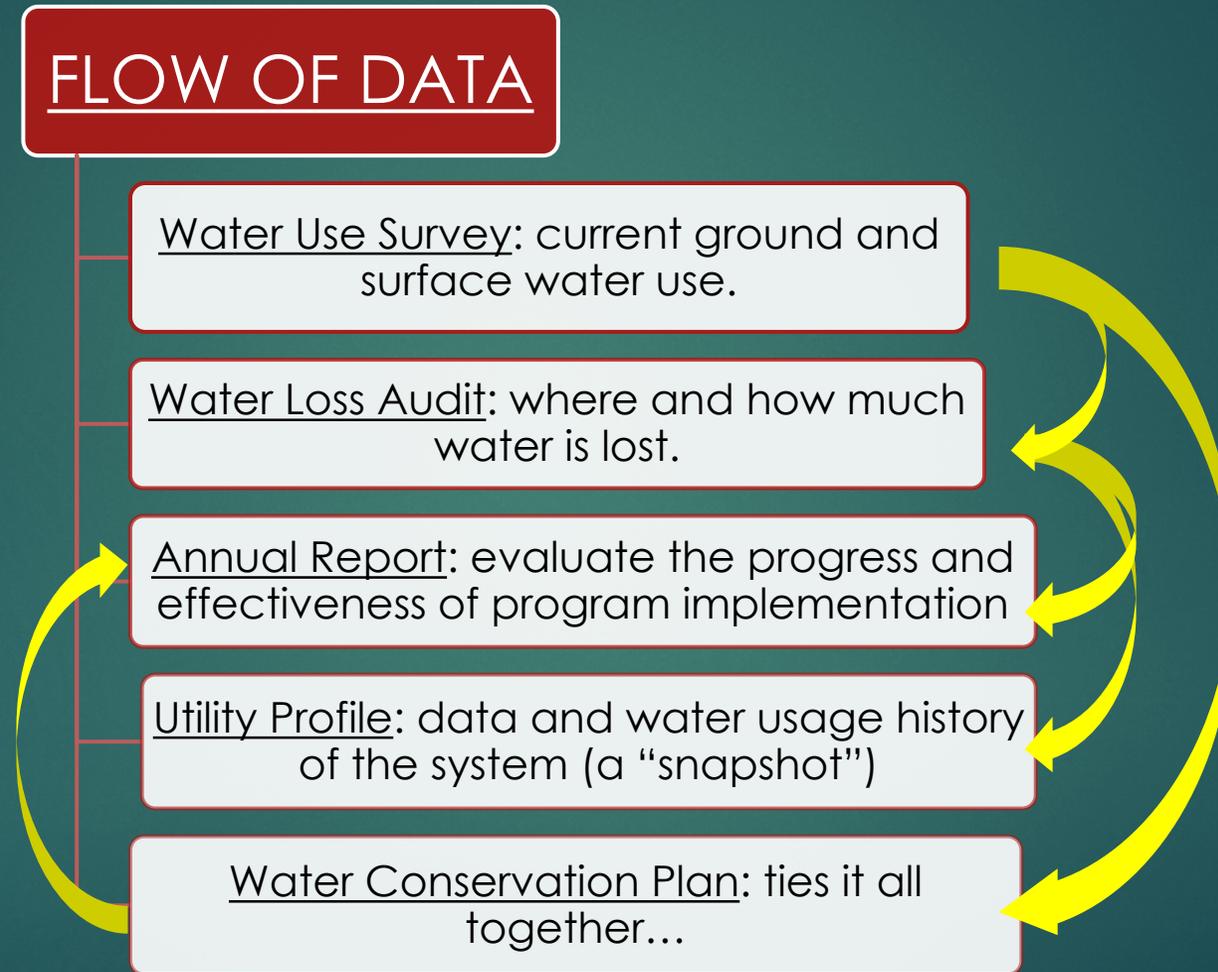
Water Conservation Plan

- ▶ By using the information and data discussed in the previous section from the utility profile, a system can better adjust and create more realistic goals.

2014	29,110,330,103	19,113,172,810	2,373,330,107	42,011,370,030	120
Historic Average	43,182,239,332	3,091,019,170	2,562,916,453	43,710,342,049	125

- ▶ 5-year historic average is **125 GPCD**... “I’ll set my 5-year goal as **123**, and 10-year goal as **120**...”
- ▶ Is this goal appropriate?

Full circle!



Water Conservation Plan Checklist

Entity: [redacted]

Plan Date: [redacted]

Review Date: [redacted]

Reviewed By: [redacted]

- A complete Utility Profile
- Baseline GPCD
- 5- and 10- year goals:
 - Total GPCD
 - Residential GPCD
 - Water Loss GPCD
 - Water Loss Percentage
- Schedule for implementation of Plan to achieve goals listed
- Method for tracking the effectiveness of Plan
- Master meter
- Universal metering program
- Measures to determine water loss
- Leak detection program
- Education/information program
- Non-promotional water rate structure
- Means of implementation and enforcement of Plan
- Documentation of notification to Regional Water Planning group
- Official adoption of Plan
- Drought Contingency Plan
- Wholesaler Requiring WCP from Customers

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- ▶ These are the bare minimum requirements for a WCP.
- ▶ This checklist can be used as the framework for the creation of a new WCP.
- ▶ However, the details are more important.
- ▶ Make the plan your own!

Water Conservation Plan

- ▶ If you have identified that you must submit a Water Conservation Plan (WCP) then please use all available resources and references to create the best plan possible.
- ▶ **This plan is for the benefit of your system. It is a “living” document, NOT a report.**

Water Conservation

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- ▶ BMPs are a great starting place!

For Example:

- ▶ Utility Water Audit and Water Loss (Updated 2020)
 - Ensuring the validity of the water loss audit data helps the utility identify cost-effective steps in controlling water loss. They can use their data to guide their water loss control mitigation programs.

Best Management Practices Page

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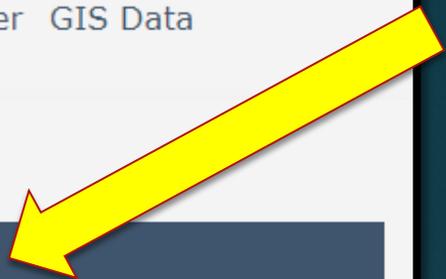
[Home](#) [Board](#) [Financial Assistance](#) [Water Planning](#) [Groundwater](#) [Surface Water](#) [Flood](#) [Conservation](#) [Innovative Water](#) [GIS Data](#)

Best Management Practices for Municipal Water Providers

[The Complete Guide: BMPs for Municipal Water Providers](#)

- **Introduction to BMPs for Municipal Water Providers**
 - [About BMPs for Municipal Water Providers](#)
- **Conservation Analysis and Planning**
 - [Conservation Coordinator](#)
 - [Cost Effective Analysis](#)

- Best Management Practices
 - Agricultural BMPs
 - Commercial and Institutional BMPs
 - Industrial BMPs
 - **Municipal BMPs**
 - Wholesale BMPs



Water Conservation Plan

Helpful tips and information...

1. Water Conservation Plan Checklist
2. WCP Goals Table Form
3. Water Conservation Plan FAQs
4. Refer to your previous plan (2009, 2014, 2019...)
5. Call the TWDB for help

Water Conservation Plan Goals Table
TWDB Form No.1964

Title 31 TAC Chapter 363, Rule §363.15 (B)

WATER CONSERVATION PLAN 5- AND 10-YR GOALS FOR WATER SAVINGS

Name:

Water Conservation Plan Year:

	Historic 5-yr Average	Baseline*	5-yr Goal for year _____	10-yr Goal for year _____
Total (GPCD) ¹				
Residential (GPCD) ²				
Water Loss (GPCD) ³				
Water Loss (Percentage) ⁴	%	%	%	%

1. Total GPCD = (Total Gallons in System ÷ Permanent Population) ÷ 365

2. Residential GPCD = (Gallons Used for Residential Use ÷ Residential Population) ÷ 365

3. Water Loss GPCD = (Total Water Loss ÷ Permanent Population) ÷ 365

4. Water Loss Percentage = (Total Water Loss ÷ Total Gallons in System) x 100; or (Water Loss GPCD ÷ Total GPCD) x 100

GPCD - Gallons Per Capita Per Day

Goals Table Form

Most common errors...

1. Goals are NOT represented in Gallons per Capita per Day or **GPCD**.
 - ▶ (TOTAL, RESIDENTIAL, and WATER LOSS)
2. Adoption by resolution is NOT included or is unsigned.
3. Using a template WCP that does NOT address the specific(s) needs/problems of the system.
4. Please proof-read your submissions; check for ordinance numbers, signatures, items that are listed in appendices are listed, etc.

Water Conservation Historical Resources

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Reports

AR GPCD

Connections Data

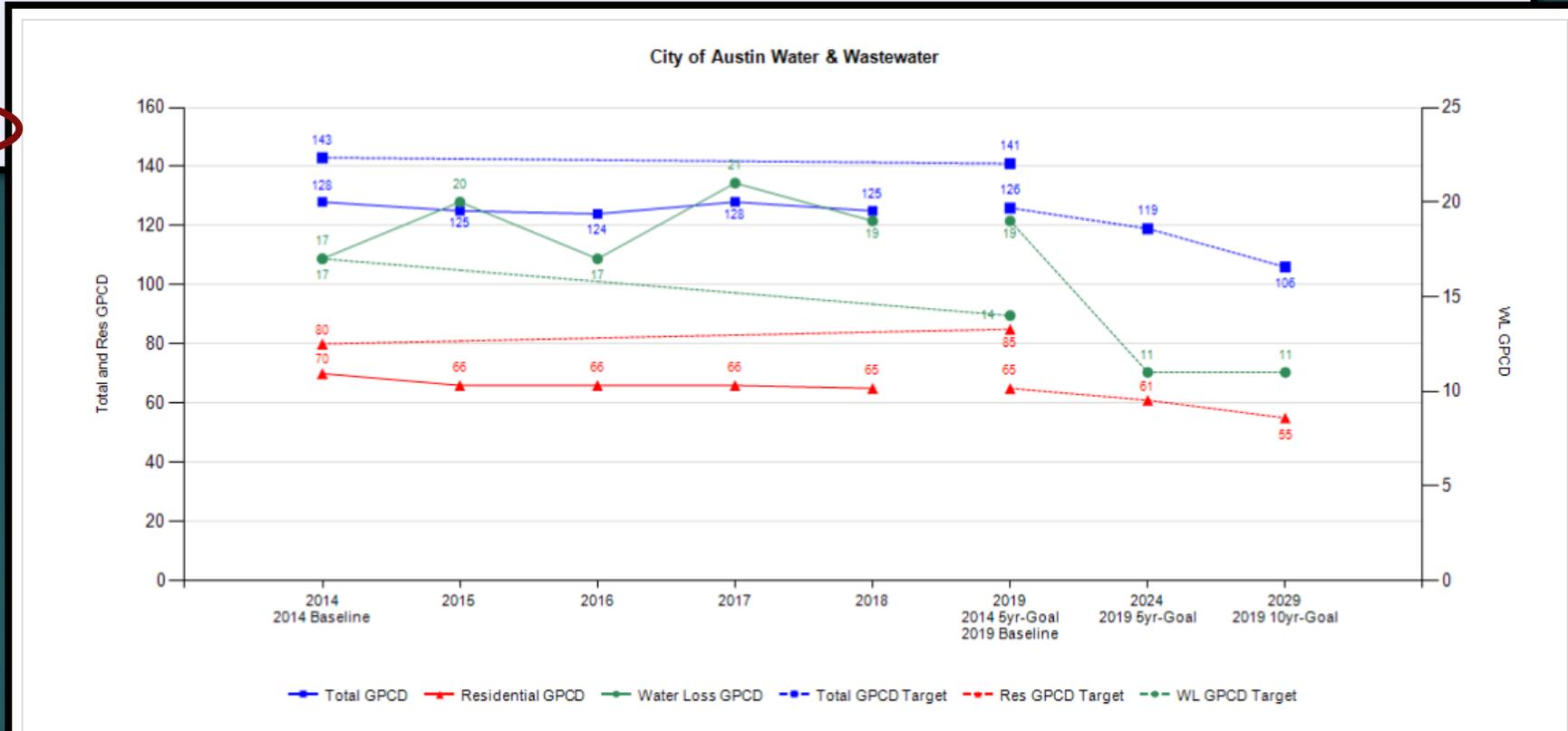
Water Use Data

Targets & Goals

Water Conservation 5-Year and 10-Year GPCD Targets and Goals

Utility Name:

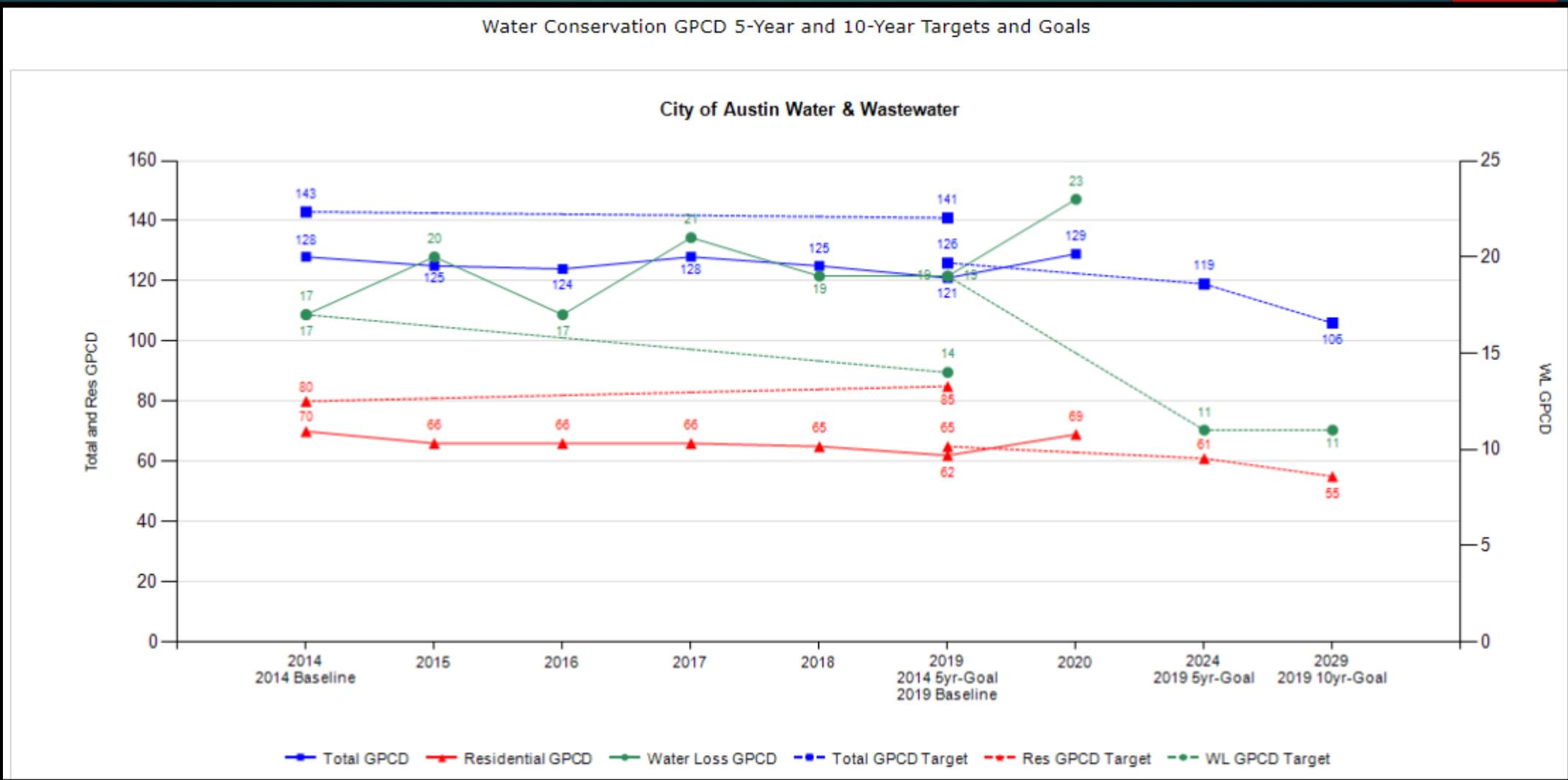
Get Graph Report



Please note that there may be gaps in the graphs displaying the GPCD Targets and/or actual data reported in the Annual Reports. This may signify that the data was missing due to:

Water Conservation Historical Resources

Water Conservation GPCD 5-Year and 10-Year Targets and Goals



Conclusion

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Contact

- ▶ Phone: 512-463-7988
- ▶ wcpteam@twdb.texas.gov

POLL

TWDB Financial Assistance Programs



Drinking Water State Revolving Fund (DWSRF)



Clean Water State Revolving Fund (CWSRF)



Texas Water Development Fund (Dfund)



State Water Implementation Fund for Texas (SWIFT)

Financial Assistance Programs



Infrastructure Investment & Jobs Act –
A supplement to the existing CWSRF & DWSRF programs.



Economically Distressed Areas Program

Drinking Water State Revolving Fund (DWSRF)

- Offers below-market fixed interest rates
- Principal forgiveness subsidies for qualifying projects:
 - Disadvantaged
 - Small/Rural Disadvantaged
 - Green
 - Very Small Systems
 - Emergency Preparedness
 - Urgent Need
- Up to 30-year repayment period



Clean Water State Revolving Fund (CWSRF)

- Offers below-market fixed interest rates
- Principal forgiveness subsidies for qualifying projects:
 - Disadvantaged
 - Disadvantaged Small/Rural
 - Emergency Preparedness
 - Green
 - Urgent
- Up to 30-year repayment period

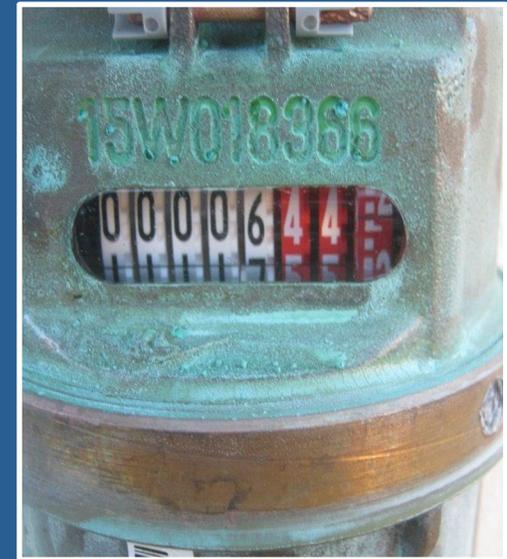


Clean Water State Revolving Fund (CWSRF)

- A wastewater financial assistance program funding water meter replacements?

YES!!! It is eligible as a conservation measure.

- Green Project Reserve Funding
<http://www.twdb.texas.gov/financial/programs/green/index.asp>
- At least 30% of a project needs to be “green” and of that 30% up to 15% of the costs are eligible for principal forgiveness
- Water meters are 100% green!



Texas Water Development Fund (Dfund)



- TWDB's original financial assistance program
- Flexible, available year-round
- Low rates based on TWDB's cost of funds
- AAA Bond Rating
- Can fund both water/wastewater projects in a single commitment
- Repayment terms up to 40 years

State Water Implementation Fund for Texas (SWIFT)*



- Offers low-interest loans reflecting TWDB's low cost of funds
 - Rural/Agricultural additional interest rate subsidy
- Up to 30-year repayment
- Flexible financing structures
 - Low-interest loans
 - Deferred Loans
 - Board Participation
- No maximum funding limit

* The SWIFT program includes two funds, the State Water Implementation Fund for Texas (SWIFT) and the State Water Implementation Revenue Fund for Texas (SWIRFT). Bonds for the program are issued through SWIRFT.

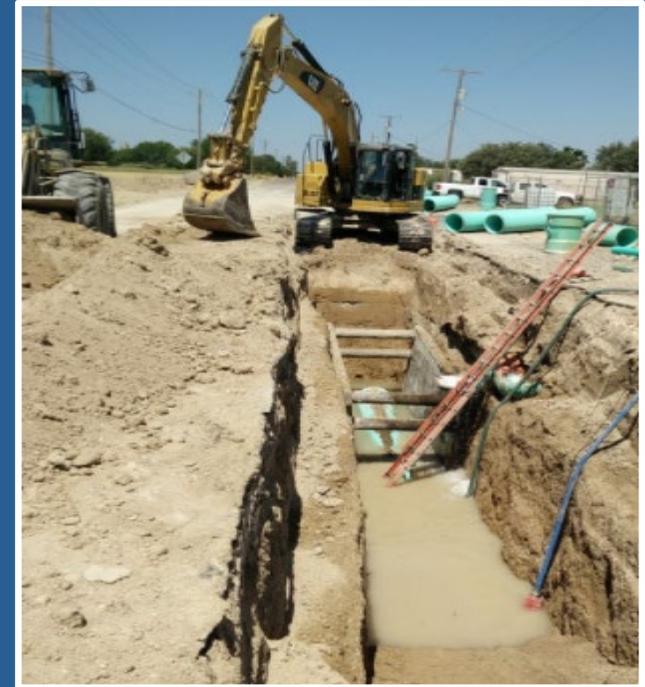
Infrastructure Investment & Jobs Act

- Signed into law November 15, 2021
- Supplemental State Revolving Funds
- Offers below market fixed Interest Rates
- Principal forgiveness subsidies
- Infrastructure priorities
 - DWSRF
 - DWSRF Lead Service Line Replacement
 - DWSRF Emerging Contaminants
 - CWSRF
 - CWSRF Emerging Contaminants
 - Water Infrastructure Improvements for the Nation (WIIN) Grants to address emerging contaminants



Economically Distressed Areas Program

- Financial assistance provided in form of combination grant and loan.
 - Portion not paid by a grant must be provided as an EDAP loan.
- Maximum of 70% grant per project
 - Grant percentage may not exceed 50% unless a public health nuisance exists, as determined by DSHS or TWDB (see EDAP IUP)
 - Grant also subject to availability of funds (see next slide)
- Long-term loans with low-interest rates based on TWDB's cost of fund
- Prioritization process will determine funding for eligible projects, including criteria for those that address public health and safety concerns and those in areas under enforcement action.



Eligible Applicants

	DWSRF	CWSRF	DFund	SWIFT	EDAP
Political Subdivisions (Cities, Counties, Districts, etc.)	💧	💧	💧	💧	💧
Non-profit WSC's	💧	💧	💧	💧	💧
Investor-owned Utilities	💧	💧			
Private Entities		💧			



Nonpoint
Source
Pollution
Control
Projects
Only

Eligible Projects

	DWSRF	CWSRF	DFund	SWIFT	EDAP
Water Supply: Current Need					
Water Supply: Future Need					
Water Treatment					
Water Transmission & Distribution					
Potable Reuse					
Wastewater Collection					
Wastewater Treatment					
Conservation (Meters)					

Program Requirements

Requirement*	DWSRF	CWSRF	DFUND	SWIFT	EDAP
Davis Bacon Wage	💧	💧			
Disadvantaged Business Enterprise (DBE – Equivalency projects)	💧	💧			
American Iron & Steel	💧	💧			
US Iron & Steel	💧	💧	💧	💧	💧
Loan Origination Fee	💧	💧			
Consistent with State Water Plan (SWP)	💧	💧	💧	💧	💧
Recommended Water Management Strategy with capitalized cost in the SWP				💧	
Water Conservation & Drought Contingency Plan for projects > \$500K	💧	💧	💧	💧	💧
Review of water loss threshold limits	💧	💧	💧	💧	💧
Project in current DWSRF/CWSRF IUP	💧	💧			

Note: there may be more program requirements than listed; please refer to website for further details.

Outreach

Scott Galaway
737-226-3381

Enriqueta “Keta”
Caballero
512-435-9071

SRF Coordinator
Alyssa Azari
512-463-5801

DWSRF Coordinator
Heather O’Keefe
512- 475-1835

State Programs
Coordinator
William Alfaro
512-463-4741

Team #1 - Panhandle/West (regions A/O/E/F)

Jesse Milonovich, P.E. (512) 463-8657

Team #2 - Brazos (regions G/B)

Tom Barnett, (512) 475-1919

Team #3 - Northeast (regions C/D)

Joe Koen, P.E. (512) 936-8169

Team #4 - East (regions H/I)

Nancy Richards, (512) 463-0250

Team #5 - Central (regions J/K/L/P)

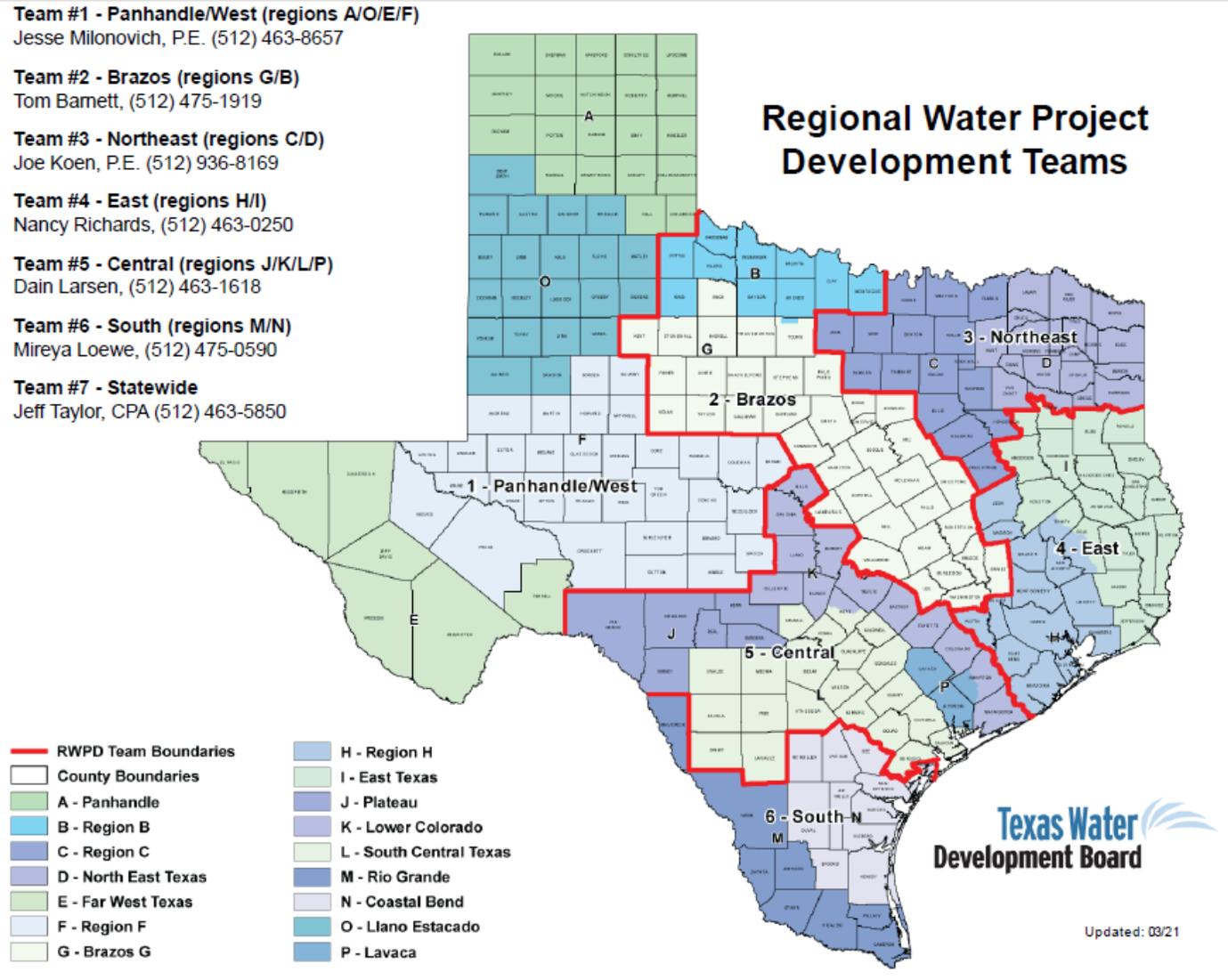
Dain Larsen, (512) 463-1618

Team #6 - South (regions M/N)

Mireya Loewe, (512) 475-0590

Team #7 - Statewide

Jeff Taylor, CPA (512) 463-5850



financial_assistance@twdb.texas.gov

Financial Assistance Weblinks

Financial Assistance Page:

<https://www.twdb.texas.gov/financial/index.asp>

Clean Water State Revolving Fund, Drinking Water State Revolving, Texas Water Development Fund:

<https://www.twdb.texas.gov/financial/programs/CWSRF/index.asp>

<https://www.twdb.texas.gov/financial/programs/DWSRF/index.asp>

<https://www.twdb.texas.gov/financial/programs/TWDF/index.asp>

State Water Implementation Fund for Texas:

<https://www.twdb.texas.gov/financial/programs/SWIFT/index.asp>

For specific questions on SWIFT:

SWIFT@twdb.texas.gov

Financial Assistance Webinars

State Revolving Funds Webinar:

<https://www.twdb.texas.gov/financial/programs/DWSRF/index.asp#SRF-2021-02-05>

SRF Programs Overview pdf:

https://www.twdb.texas.gov/financial/programs/doc/SRF_OVERVIEW_2022.pdf

SWIFT webinar:

<https://www.twdb.texas.gov/financial/programs/SWIFT/index.asp#swift-webinar>

FINANCIAL, MANAGERIAL, AND TECHNICAL (FMT) ASSISTANCE PROGRAM

APRIL 12, 2022

TWDB WATER LOSS, USE, AND CONSERVATION WORKSHOP



**Texas Commission on
Environmental Quality**

OUR PROCESS

- When assistance is requested, a referral is sent to TRWA
- TRWA schedules a visit with you; then
- TRWA delivers the assistance (USUALLY this is on-site, but can also offer some assistance virtually)
- If more help is needed, follow-up assistance may be requested



POPULAR FMT ASSISTANCE TASKS

- Water Loss And Conservation
 - Water Loss Tracking
 - Water Loss Audit
 - Water Conservation Plan (WCP)
 - Drought Contingency Plan
 - Leak Detection
- Monitoring Plan
- Nitrification Action Plan
- Capital Improvement Plans And Asset Management
- Funding
 - Funding Information And Sources
 - Funding Application Assistance
- Emergency Planning
 - Emergency Preparedness Plan (EPP)

LEAK DETECTION ASSIGNMENT



HOW TO REQUEST ASSISTANCE

EMAIL: FMT@TCEQ.TEXAS.GOV

PHONE: (512) 239-4691

WEBSITE:

www.tceq.texas.gov/drinkingwater/fmt



Water Loss, Use, and Conservation Workshop

Full Panel

QUESTION and ANSWER