

Total Water Loss Control Workshop

2020

Melissa Rothrock

Water Use, Projections & Planning



Texas Water Development Board

To provide leadership, information, education, and support for planning, financial assistance, and outreach for the conservation and responsible development of water for Texas.

- Regional Water Planning Groups
- Regional & State Water Plan
- SWIFT, DWSRF, CWSRF, (loans and grants)
- Flood, Groundwater, Surface Water, Innovative, Conservation

Water Use Survey Data in Water Planning

Projections are based on historical water use

- Municipal
- Manufacturing
- Mining
- Steam-Electric Power



LOSS, USE & CONSERVATION (LUC) Water Data Consolidation

- Online Applications
 - Water Use Survey
 - Water Loss Audit
 - Water Conservation Plan Annual Report
- Unified Reports



What is the Water Use Survey?

- Survey 7,500 water systems & industrial facilities
- Since 1955
- Mandatory in 1999, Online application in 2011



Why Should We Care About Water Use Survey?

- Better estimates future municipal water demands for the State Water Planning Process
- 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

Creating a new user account in the Online Water Use Survey Application

 [Home](#) [Login](#) [Agency Policies](#) [Contact Webmaster](#)

Application Program List

Applications

Login to Texas Water Development Board System

User Name: [Forgot Username?](#)

Password: [Forgot Password?](#)

To use this site, you are required to sign in with a Texas Water Development Board ID.

To **get started**, request a Texas Water Development Board ID

If you have previously registered then enter your user name & password, and click "Sign In"

Click the "Register Now" button



Accessing the Water Use Survey from Application List

Once you are logged in, scroll down until you find the Water Use Survey application

Texas Water Development Board Application Program List [Home](#) [Logout](#) [Agency Policies](#) [Contact Webmaster](#)

Applications [Change Password](#) [Profile](#)

Melissa Rothrock - Welcome To The TWDB Program List [Log Out](#)

Instructions
Some TWDB applications are public applications and do not require a login. If you are not logged in, the applications listed under the "TWDB Web Applications You Have Access To" section below are applications that do not require a login. Other TWDB applications require a login. If you want access to the applications that require a login, please click on the login button above and to the right.

My Favorite TWDB Web Applications

TWDB Web Applications You Have Access To

Intended Use Program Public Comment for Intended Use	Add to Favorites
Water IQ "Water IQ: Know your water" is a statewide public awareness water conservation program to learn about about	Add to Favorites
Desalination Plant Database The desalination plant database was updated in 2010 by the TWDB staff. The database contains information o	Add to Favorites

TWDB Applications You may Request Access to

Water Loss Audit Click the link above to access the Water Loss Audit Worksheet for data-entry purposes.	Add to Access List
Water Use Survey Click the link above to access the Water Use Survey for data-entry purposes. To access historical water use data, please contact survey staff at 512-463-7952 or Waterusesurvey@twdb.texas.gov	Add to Access List
Regional Water Planning Regional Water Planning	Add to Access List

Then click, "Add to Access List"

Start the Water Use Survey

When you are logged in, click
“Water Use Survey” link to start

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My Favorite TWDB Web Applications

[Water Use Survey](#) [Remove From Favorites](#)
Click the link above to access the Water Use Survey for data-entry purposes.
To access historical water use data, please contact survey staff at 512-463-7952 or Waterusesurvey@twdb.texas.gov

TWDB Web Applications You Have Access To

[Intended Use Program](#) [Add to Favorites](#)
Public Comment for Intended Use

[Water IQ](#) [Add to Favorites](#)
"Water IQ: Know your water" is a statewide public awareness water conservation program to learn about about water conservation in Texas

[Desalination Plant Database](#) [Add to Favorites](#)
The desalination plant database was updated in 2010 by the TWDB staff. The database contains information on 44 public water supply desalination plants currently operating in Texas.

TWDB Applications You may Request Access to

[Water Loss Audit](#) [Add to Access List](#)
Click the link above to access the Water Loss Audit Worksheet for data-entry purposes.

[Regional Water Planning](#) [Add to Access List](#)
Regional Water Planning

Water Loss, Use and Conservation Home Page



Welcome to the Water Loss, Use and Conservation Home Page

Name: MelissaA Rothrock

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](#)

We've changed our online application home page to consolidate other TWDB required forms to reduce duplicate data-entry. From this home page, click the [Water Use Survey](#) tab at the top heading.

Requesting Access to Surveys

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Water Use Survey

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[Request Access to Surveys](#)

If first time user or need to access new surveys, click link "Request Access to Surveys"

Survey List 2012

your survey is already listed below, you do not need to request access to the survey again.)

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 by 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 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.)

[SURVEYLIST]

Search Filter

Show All

by Survey Number

by Survey Name

Search

No data found

If you previously completed online survey, scroll down this page to see current accessible surveys.

Time to Enter Data!

Return to the Survey List tab to see the approved surveys you've been granted access.

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[Request Access to Surveys](#)

Survey List 2012

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 by 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.)

Search Filter

Show All

by Survey Number

by Survey Name

Search

To start the survey, click the Survey's name link



Select Survey

Status	Survey Number	Survey Name	System/Facility Name	Survey Type	Primary Used County Name	File
Not Started		CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM (AUSTIN)	GENERAL DISTRIBUTION SYSTEM (AUSTIN)	Municipal Long	TRAVIS	

Survey: Instructions

The 1st tab for all surveys is “Instructions”. Includes general and contact information.

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Water Use Survey

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CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM (AUSTIN) 2012

TEXAS WATER DEVELOPMENT BOARD

SURVEY OF GROUND AND SURFACE WATER USE

GENERAL INSTRUCTIONS

Thank you for using the Texas Water Development Board's new online Water Use Survey. Our new online system was built with both the customer and the data in mind. Our goal is to make the process of completing your Water Use Survey as convenient as possible. All non-numerical information submitted this year will be saved and displayed in the survey next year.

If you experience difficulty or have suggestions for improvement, please feel free to share your comments with us. Please direct comments and questions to the Water Use Survey Team at:

Phone: 512-463-7952

Fax: 512-936-0889

Email: waterusesurvey@twdb.texas.gov

Addresses & Contacts/ Survey Contacts

The 2nd tab is “Address & Contacts” and has three lower secondary tabs. Skipping the first tab, My Contact Info, the second is ‘Survey Contacts’.

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CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM (AUSTIN) 2012

Below are the current contact(s) for this survey. Only a Contact can access the online survey. Additional contacts can be added to allow additional people to work on the survey by clicking **Add Contacts To Survey**. From there you will be asked to first search our database for the individual in case they are already listed as a contact. If they are not, you can add them.

If the contact(s) are correct, please click **Next**.

Current Contacts For This Survey

	Last Name	Middle Name	First Name	Email	Title	Phone	Phone Ext
Remove Access	Musgrove		Judy				
Remove Access	Rothrock		Melissa				

[Previous](#) [Next](#) [View Draft](#) [Add Contacts To Survey](#)

The Survey Contacts are people that can provide water use data and answer questions regarding this system's survey.

Addresses & Contacts/Survey Address

The third secondary tab is “Survey Address”, which includes System information and mailing address

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

My Contact Info Survey Contacts **Survey Address** Administration

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CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM 2019

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

System Name:

Primary Used County:

Primary Used Basin:

TCEQ Community Public Water System (PWS) Code: ⓘ

	PWS Code	PWS Name
Remove	2270001	CITY OF AUSTIN WATER & WASTEWATER

[Edit/Add](#) — Operating Firm ⓘ

[Edit/Add](#) — Multiple Survey Organization (MSO) ⓘ
[Remove MSO](#) CITY OF AUSTIN

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

If editing a new MSO, confirm correct address on this page

Survey Data/Intakes

Survey Data tab includes all the water use survey information

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Intakes Sales Connection Location Water System Information

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If intake sources were carried over from previous survey, click the "Edit" link to enter monthly gallons.

Water Source

CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM (AUSTIN) 2012

Below are the water sources historically reported. To report the volumes pumped, diverted or purchased sources need to be included, please click **Add Self Supplied** or **Add Purchased** below.

If need to add a new intake water source, Click either "Add Self Supplied" or "Add Purchased" button to begin.

Note To Groundwater Users: In an effort to aid groundwater modeling, wells of public water Pumping volumes for specific wells and locations provided better information for the groundwater and groundwater users can still report combined pumping volumes if the wells are within the same county and aquifer as in previous years.

[LIST]

	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
Delete ▼		Surface Water	Self-Supplied	TRAVIS	COLORADO			05471-1-6-A	TOWN LAKE/RESERVOIR			N/A	33,176,053,598
Delete ▲ ▼	2	Reuse	Self-Supplied	TRAVIS	COLORADO				UNKNOWN	Direct		N/A	1,488,000,000
		Surface							COLORADO LAKE			LOWER COLORADO RIVER	

The new Self-Supplied Groundwater by Aquifer Source is ready for data

New source is now ready for intake data to be entered. Click "Edit" to enter the monthly use in gallons.

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 Water Use Survey

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Water Source

CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM (AUSTIN) 2012

	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
Delete ▼	1	Edit	Surface Water	Self-Supplied	TRAVIS	COLORADO			05471-1-6-A	TOWN LAKE/RESERVOIR			N/A	33,176,053,598
Delete ▲ ▼	2	Edit	Reuse	Self-Supplied	TRAVIS	COLORADO				UNKNOWN	Direct		N/A	1,488,000,000
Delete ▲ ▼	3	Edit	Surface Water	Purchased	TRAVIS	COLORADO				COLORADO-LAVACA RUN OF RIVER		480	LOWER COLORADO RIVER AUTHORITY-LCRA LAKE TRAVIS - 14230	16,068,775,083
Delete ▲	4	Edit	Groundwater	Self-Supplied	TRAVIS	COLORADO	EDWARDS-BFZ AQUIFER			UNKNOWN			N/A	0

Previous Next Add Self Supplied Add Purchased Save View Draft

New 'Self-Supplied Groundwater by Aquifer' source page

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Water Source Edit Volume

CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM (AUSTIN) 2012

Self Supplied Groundwater By Aquifer

Please enter the monthly volumes of groundwater pumped by major aquifer.

These volumes by aquifer may be for a single well or a summation of more than one well. Groundwater is a very important resource for the state of Texas and the accuracy of groundwater models is dependent upon the amount of data available, both volumes pumped and the location of pumpage. For this reason, the TWDB encourages surveyed groundwater users to submit the monthly volumes pumped by well when appropriate.

Source Base Information

Sort Order: 4
Aquifer: EDWARDS-BFZ AQUIFER
County: TRAVIS
Basin: COLORADO

Volume Information

Enter Volume By:

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

SWBYAQEDITVOL...]

Entering the new Self-Supplied Groundwater by Aquifer Intake data monthly volume in gallons

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Water Source Edit Volume

CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM (AUSTIN) 2012

	In Gallons	In Whole Gallons
January:	<input type="text" value="100,000"/>	100,000
February:	<input type="text" value="100,000"/>	100,000
March:	<input type="text" value="120,000"/>	120,000
April:	<input type="text" value="120,000"/>	120,000
May:	<input type="text" value="130,000"/>	130,000
June:	<input type="text" value="130,000"/>	130,000
July:	<input type="text" value="140,000"/>	140,000
August:	<input type="text" value="140,000"/>	140,000
September:	<input type="text" value="130,000"/>	130,000
October:	<input type="text" value="130,000"/>	130,000
November:	<input type="text" value="120,000"/>	120,000
December:	<input type="text" value="100,000"/>	100,000
Annual Total:	<input type="text" value="1,460,000.000"/>	1,460,000

Enter each monthly volume of groundwater pumpage in gallons.

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

Calculated Total: 1,460,000.000 [Insert Calculated Total](#)



Questions section in the new Self-Supplied Groundwater by Aquifer Intake data continued

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Water Source

CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM (AUS)

September:	<input type="text" value="130,000"/>	130,000
October:	<input type="text" value="130,000"/>	130,000
November:	<input type="text" value="120,000"/>	120,000
December:	<input type="text" value="100,000"/>	100,000
Annual Total:	<input type="text" value="1,460,000.000"/>	1,460,000

Calculated Total: 1,460,000.000 [Insert Calculated Total](#)

Questions

Was the volume metered or estimated?

What percent of the volume was treated prior to intake?

Was the water brackish prior to treatment?

Number of active wells?

External Remarks

Under Questions,

- Select from drop-down if groundwater wells were metered or estimated,
- Leave the % treated as 0,
- Select either Yes or No if groundwater was brackish, and
- Enter the number of wells that were combined in the total monthly volumes for this Aquifer source.
- Enter External Remarks (if any).
- Click "Save" before clicking "Return To Intake List".

Back to the Survey Data/Intakes page

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Water Source

CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM (AUSTIN) 2012

		Display Order		Water Type	Self Supplied / Purchased	County Name	Basin Name	Aquifer Name	Well Name	Water Right	Surface Water Name	Reuse Type	Seller Survey	Seller Name	Total Volume Gallons
Delete	▼	1	Edit	Surface Water	Self-Supplied	TRAVIS	COLORADO								33,176,053,598
Delete	▲ ▼	2	Edit	Reuse	Self-Supplied	TRAVIS	COLORADO								1,488,000,000
Delete	▲ ▼	3	Edit	Surface Water	Purchased	TRAVIS	COLORADO							OLORADO HORORITY- TRAVIS -	16,068,775,083
Delete	▲	4	Edit	Groundwater	Self-Supplied	TRAVIS	COLORADO	EDWARDS-BFZ AQUIFER			UNKNOWN			N/A	1,460,000

Newly entered data shows Total Annual Volume on Intakes page



[Previous](#) | [Next](#) | [Add Self Supplied](#) | [Add Purchased](#) | [Save](#) | [View Draft](#)

Add a new Self-Supplied Reuse source

NEW Update!

Add New Self Supplied Water Source

CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM 2019

A field with an asterisk (*) before it is a required field.

* Select Water Type

Reuse

Click dropdown arrow to select source Water Type: Reuse.

For a self-treated reuse water source, please select whether this water source is Direct (potable or non-potable) or Indirect (potable or non-potable) reuse.

- **Direct Non-potable Reuse:** Adding a new direct nonpotable reuse source will require the major river basin and county where the water was treated. This includes the use of reclaimed water, for non-potable purposes not requiring drinking water quality, that is piped directly from the wastewater treatment plan to the place where it is used. Examples of beneficial uses include golf courses and park irrigation, power plant cooling, and industrial manufacturing.
- **Indirect Non-potable Reuse:** Adding a new indirect reuse source requires the source will be used for non-potable purposes. This source will not be used for drinking water. The location of the source will be represented by the location the water is diverted from. This includes surface water (reservoir, river, lake) or groundwater (aquifer, surface water/groundwater) then are diverted from the water source. The location of the source will be represented by the location the water is diverted from. This includes surface water (reservoir, river, lake) or groundwater (aquifer, surface water/groundwater) then are diverted from the water source.
- **Direct Potable Reuse (DPR):** Adding a new direct potable reuse source requires the source will be used for drinking water. This source will be used for drinking water. The location of the source will be represented by the location the water is diverted from. This includes surface water (reservoir, river, lake) or groundwater (aquifer, surface water/groundwater) then are diverted from the water source. The location of the source will be represented by the location the water is diverted from. This includes surface water (reservoir, river, lake) or groundwater (aquifer, surface water/groundwater) then are diverted from the water source.
- **Indirect Potable Reuse (IPR):** Adding a new indirect potable reuse source requires the source will be used for drinking water. This source will be used for drinking water. The location of the source will be represented by the location the water is diverted from. This includes surface water (reservoir, river, lake) or groundwater (aquifer, surface water/groundwater) then are diverted from the water source. The location of the source will be represented by the location the water is diverted from. This includes surface water (reservoir, river, lake) or groundwater (aquifer, surface water/groundwater) then are diverted from the water source.

There are now 5 reuse sources to select from. Definitions of each type are included on this page to assist in determining your system's type of reuse.

* How should we identify this source?

Direct Non-Potable

[OVERSSRUADD]

Self-Supplied Direct Reuse data-entry page

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

Water Source Edit Volume

CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM 2019

Source Base Information

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

Shows your previously made selections.

Survey Remarks

Volume Information

Enter Volumes By: Gallons
Annual Total: In Gallons In Whole Gallons

Enter the annual volume of wastewater effluent that was treated by the system with the purpose of direct reuse.

TWDB Estimate: N

Questions

Was the volume metered or estimated? Metered
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?

Percentage(s) must total 100%.

Removing Intake Sources

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Water Use Survey

If Intake source is no longer active, or incorrect, click “Delete” link to remove.

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Intakes Sales Connection Location Water System Information
Previous Next Add Self Supplied Add Purchased Save View Draft

41010 CITY OF AUSTIN-GENERAL DISTRIBUTION

		Display Order	Water Type	Self Supplied / Purchased	County Name	Name	Reuse Type	Seller Survey No	Seller Name	Total Volume Gallons
Delete	▼	1	Edit	Surface Water	Self-Supplied	TRAVIS COLORADO			N/A	33,176,053,598
Delete	▲ ▼	2	Edit	Reuse	Self-Supplied	TRAVIS COLORADO			N/A	1,488,000,000
Delete	▲ ▼	3	Edit	Surface Water	Purchased	TRAVIS COLORADO		480	LOWER COLORADO RIVER AUTHORITY-LCRA LAKE TRAVIS - 14230	16,068,775,083
Delete	▲	4	Edit	Groundwater	Self-Supplied	TRAVIS COLORADO EDWARDS-BFZ AQUIFER			N/A	1,460,000

Message from webpage

Are you sure you want to remove this water source?

2 

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1



Survey Data/Sales

If System sold water to another water system or to an industrial facility, click “Add Sale” button.

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Intakes **Sales** Connection Location Water System Information

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Water Sales

CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM 2019

If your System did not wholesale any water to another municipal water system, then skip the Sales tab. If your system has large industries, please itemize those as industrial sales. To continue, click the “Connection Location” tab.

Listed below are the historically-reported water sales to public water systems and industrial production systems. **select Add Sale and carefully search to make sure the facility name doesn't already exist in the database on how to add a new sale.**

Industrial Sales

Include water sales (also include any Reuse sales) to industrial production facilities (**manufacturers**). Please individually list the buyers when the volumes are greater than 10 million gallons. Industrial is the use of water in processes designed to convert materials of a lower order of value into forms having greater usability and commercial value.

Municipal Sales

Please list ALL water sales (also include any Reuse sales) to other public water systems. Please do not include sales to hospitals, schools, correctional facilities, retail stores or similar sales unless your system is a city water utility and the facilities are outside of the city limits.

[SLIST]

		Display Order		Sale Type	Buyer Name	Total Volume Gallons	Water Type	County Name	Basin Name	Aquifer Name	Surface Water Name	Reuse Type	Raw or Treated	Buyer Survey No
Delete	▼	1	Edit	Industrial	NXP USA, Inc.-ED BLUESTEIN BLVD FACILITY	0	Surface Water				UNKNOWN			580552
Delete	▲ ▼	2	Edit	Industrial	SAMSUNG AUSTIN SEMICONDUCTOR LLC	0	Surface Water				UNKNOWN			764155
Delete	▲ ▼	3	Edit	Industrial	SPANSION LLC	0	Surface Water				UNKNOWN			9826

Survey Data/Sales

Select the type of water that was sold (Groundwater, Surface or Combined) from drop-down menu.

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Next Cancel

Add New Water Sale

CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM (AUSTIN) 2012

and water source or by individual water right.

Please note that information that you enter this year will be carried over to next years surveys to lessen data entry next year.

A field with an asterisk (*) before it is a required field.

* Select Water Type

Groundwater



Please select the best method of describing the Groundwater sale:

- By Buyer only or
- By Buyer and source Aquifer.

If you select By BuyerName only, the water sold will be assumed to be from the same source(s) that you reported as intake.

* How should we identify this source?

--
By Buyer
By Buyer and Aquifer



Next Cancel

Then select to identify your Buyer by only Name or by Name and Aquifer (if Groundwater)."

[OVERSALESGWADD]

Enter Sale data

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Water Sales

CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM (AUSTIN) 2012

						Water						
Delete	▲ ▼	19	Edit	Industrial	FREESCALE SEMICONDUCTOR, INC- ED BLUEST	Surface					UNKNOWN	580552
Delete	▲ ▼	20	Edit	Industrial	FREESCALE OAK HILL P						UNKNOWN	580553
Delete	▲ ▼	21	Edit	Industrial	HOSPIRA, I						UNKNOWN	5808
Delete	▲ ▼	22	Edit	Industrial	SAMSUNG SEMICOND						UNKNOWN	764155
Delete	▲ ▼	23	Edit	Industrial	SEMATECH						UNKNOWN	782800
Delete	▲ ▼	24	Edit	Industrial	EXPANSION, LLC	402,846,000	Surface Water				UNKNOWN	9826
Delete	▲	25	Edit	Municipal	CITY OF SAN MARCOS	0	Ground Water				UNKNOWN	769000

Click "Edit" link in newly added Sale to enter the volume of gallons sold to Buyer.



Previous Next Add Sale Save View Draft

Enter Total Water Volume Sold to Buyer

[Contact Webmaster](#)
[Accessibility Policy](#)
[Link Policy](#)
[Privacy Policy](#)

Texas Water Development Board



Water Use Survey

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

Sale Save Successful



Water Sale Edit Volume

CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM (AUSTIN) 2012

Source Base Information

Sort Order: 25
Buyer Number: 0769000
Buyer: CITY OF SAN MARCOS
Water Type: Ground Water

Enter the Total annual amount
of gallons sold to this Buyer

1

Volume Information

Enter Volumes By:
Annual Total:

In Gallons	In Whole Gallons
<input type="text" value="250,000.000"/>	<input type="text" value="250000"/>

Click "Save" button before
clicking "Return To Sales List".

External Remarks

Entering total connections served within County Boundaries

Contact Webmaster
Accessibility Policy
Link Policy
Privacy Policy

Texas Water Development Board
Water Use Survey

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

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

Intakes Sales Connection Location **Water System Information**

Previous Next **Add County** Save View Draft

County Retail Connections

CITY OF AUSTIN-GENERAL DISTRIBUTION SYSTEM (AUSTIN) 2012

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.

Please Note: If the volume of water provided in a county is significantly different than the number of connections might indicate, please provide additional information in the comments field. For instance, if 10 percent of a system’s connections are within a county, but those connections consume 40 percent of the system’s water, please make note of this.

	Display Order	County Name	Total Connections
Delete ▼	1	Edit TRAVIS	208,167
Delete ▲	2	Edit WILLIAMSON	6,438

Click “Edit” link to enter the number of connections.

[CNTYLIST]

Previous Next **Add County** Save View Draft

Entering total connections served within County boundaries

Previous | Next | Delete | Reset | **Save** | View Draft | Return To County List

2 Edit County Retail Connections 3

2016

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.

Source Base Information

Sort Order: 1
County Number: 054
County Name: CROSBY

Survey Remarks

Connection Information

Number of Connections:

Click "Save" button before clicking "Return To County List".

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



1

For Municipal Long surveys only: Water System Information

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

APM Home

Intakes Sales Connection Location **Water System Information**

Previous Next Save View Draft

Water System Information

GENERAL DISTRIBUTION SYSTEM 2019

This page collects information regarding the water system and how water is used within the system. [Click here](#) to watch a quick video about completing the water system information.

- **Retail Population Served Directly by the System** below should ONLY include those served directly and should NOT include the population of any wholesale customers. Population and connection numbers are not the same and would imply one person per connection. The population is specifically used to estimated water demand projections in the regional and state water planning process so please make sure that the information is accurate.
- When you enter the number of **connections**, include both active and any inactive connections.
- When you enter **Total Retail Metered Connections & Volumes**, you must have at least one of the categories completed as well. For example, if you just have Residential - Single Family connections and volumes, make sure that info goes in that category as well as in the Total Retail Metered. Note that the total volume cannot be greater than the intake total from what was reported under the "Intakes" tab. Water that went out of the system during the year cannot be greater than the water that entered the system for the year. This will result in an error when attempting to submit the survey.
- **Retail Water Un-Metered** below would include known back-flushing, line-flushing, or fire department use water volumes.
- If you have **reuse** water that is distributed from your system, please include your total reuse volume under the "Intakes" tab as well.

[WATERSYSINFOLF]

Survey Remarks:

System Class

5 = Municipal ▼

Wholesale Only?

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

0

Entering Water System Information

Water System Information

2016

System Class: 2 = District

Wholesale Only?

What is the retail population served directly by this system? 867,692

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
Residential - Single Family	314,554	40,703,408.000
Residential - Multi Family	192,104	17,796,456.000
Institutional	5,655	8,685,755.000
Commercial	39	480,880,500.000
Industrial	9	11,030,546,190.000
Agriculture	0	0.000
Reuse	0	0.000
Total Retail Metered	512,361	11,578,612,309.000

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
	0	1,365,208.000

For the Total Metered Connections and Volume, break down numbers into the separate customer categories.

The sum of the connections and metered breakdown volumes will auto-calculate to the Total fields.

SAVE your work.

Submit Survey Warning

Almost done! Click "Submit Survey" tab once previous tabs are complete.

The screenshot shows a web application interface for survey submission. At the top, there is a navigation bar with tabs: Home, Survey List, Instructions, Addresses & Contacts, Survey Data, **Submit Survey** (circled in red), WLUC Home, and APM Home. Below the navigation bar, there are two buttons: Previous and Next, with a red arrow pointing to the Next button. The main heading is "Data Submission Error/Warning List" followed by "GENERAL DISTRIBUTION SYSTEM 2019". Below this, there is a link: "Click [here](#) to watch a quick video on how to submit the survey." The "WARNINGS" section states: "If warnings appear below, please review the survey questions identified as **potential** errors. This application compares current survey data 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'.**" The "ERRORS" section states: "If errors appear below, please review the survey questions identified as being incomplete and enter the necessary information. The survey cannot be submitted and considered complete without providing this information. If you need additional assistance regarding errors, please contact TWDB staff at 512-463-7952 or WaterUseSurvey@twdb.texas.gov." At the bottom, there is a "Warnings:" section with the text: "Intake Monthly Vol: C-TRAVIS, B-COLORADO, SW-COLORADO-LAVACA RUN OF RIVER: January: d".

If you receive a "Warning", verify the data the warnings refer to are in-fact correct. If it is, click "Next" button. If you receive an "Error", you will need to make the correction before submitting survey.

Submit Survey: Final

Final



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 at [Texas Water Service Boundary Viewer](#).

Click "Submit" button to complete your survey.

Click 'Submit' button to complete the submission.



Updating your profile

Applications Change Password **Profile**

Change User Information

Save Changes

Make any changes to your user information and click on "Save Changes" when you're finished. Duplicate user names and email addresses are not allowed in the system so you may use the "Check User Name" and "Check Email Address" buttons to make sure the new user name or email address you're changing to is not already in use by another user.

Update Personal Information

The UserName may be a valid email address OR it must be at least five characters long, it must contain only letters, numbers, and the special characters of dash, period, or an underscore. In any case no spaces are allowed with either format.

* UserName:

* First Name:

* Last Name:

* Contact Phone Number: Extension:

* Email Address:

Company/Organization Name:

Street Address/PO Box:

City:

State: ▼

Zip Code: Zip Plus-4:

When logged in, click the "Profile" tab. Click "Save Changes" button after updating your profile.

Changing your Password

Texas Water Development Board **Application Program List**

Applications: **Change Password** Profile

Change password for user: mrothrock **Change Password**

Fill out the fields as indicated, below.
NOTE: Characters in the "New Password" and "Confirm New Password" fields must match EXACTLY.
Click on **Change Password** when complete.

Change Password

Old Password:

Passwords must have a minimum of 7 characters,
at least 1 must be a numeric character,
at least 1 must be a special character !@#%^&*()

New Password:

Confirm New Password:

Change Password

When logged in, click the "Change Password" tab. Confirm changes by clicking the button "Change Password"

Online Water Use Reports

Available by Region, County, & Basin

Year	Region	Population	Municipal	Manu- facturing (Mfg)	Mining	Power	Irrigation	Livestock
2017	A	392,421	86,301	31,786	2,543	10,151	1,779,348	55,787
2017	B	197,643	26,249	1,565	13	3,105	72,718	8,709
2017	C	7,413,309	1,226,289	40,260	7,508	36,694	29,795	17,941
2017	D	786,558	112,250	34,076	699	54,635	29,582	21,243
2017	E	866,632	135,715	6,014	4,891	6,379	314,263	2,252
2017	F	683,918	119,220	7,439	162,674	8,853	484,102	11,327
2017	G	2,214,184	362,506	10,821	13,730	153,229	315,648	44,035
2017	H	7,076,414	1,019,030	501,322	1,213	36,294	207,080	10,870
2017	I	1,094,113	171,843	216,792	4,168	28,399	42,504	14,776
2017	J	132,403	23,258	9	179	0	10,556	1,619
2017	K	1,649,246	250,836	21,608	3,740	88,792	343,006	10,747
2017	L	2,920,137	452,652	70,967	63,641	83,225	268,431	23,076
2017	M	1,722,958	266,101	3,350	8,511	8,404	1,241,370	3,794
2017	N	590,407	76,992	50,509	5,422	3,335	14,779	4,658
2017	O	513,463	85,045	5,636	8,122	11,943	2,213,321	54,093
2017	P	50,790	6,023	1,029	1,035	1,683	123,558	2,852
2017	STATE TOTAL	28,304,596	4,420,310	1,003,183	288,089	535,121	7,490,061	287,779



Water Service Boundary Viewer

Mapping Application

To collect and provide the most up-to-date and best data available on the water service areas for all community Public Water Systems within Texas.

Overview

- Purpose
- Background
- Application Overview
- Response & Outreach
- Benefits
- Potential Future Plans



Purpose

- Create & maintain a clearinghouse of all drinking water service area boundaries
- Geographically display state-collected water data & system information to the public
- Better estimate population & projections for the State Water Plan

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**

Application Overview

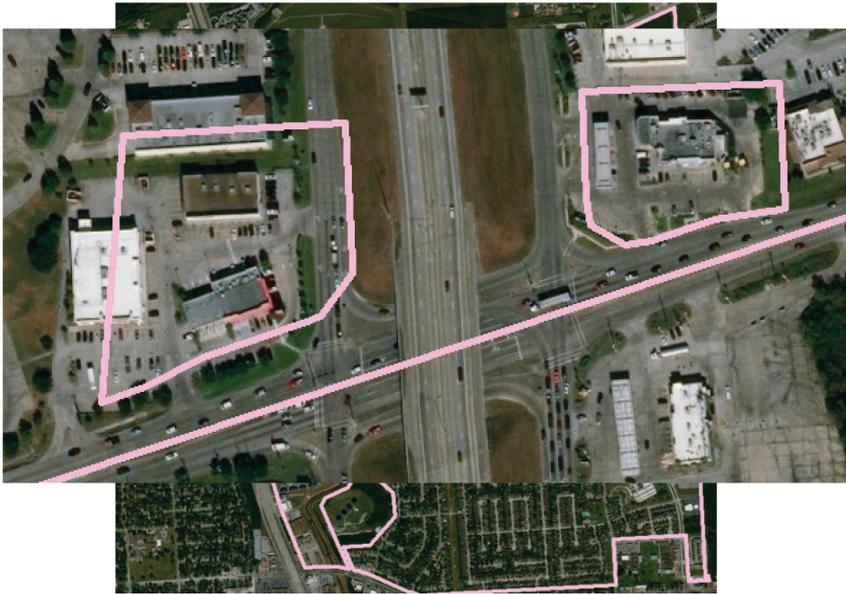
Three Components

- Public: View, create a map, or download a shapefile of the water system boundaries & view linked reports
- Editor: Allow system representatives to update or verify boundaries
- Admin: Review & provide customer support



What is a Water Service Boundary?

- Where a utility serves customers. Boundary that encompasses all of the resident locations the utility serves

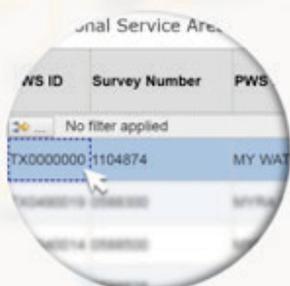


Editor

Water Service Boundary Viewer

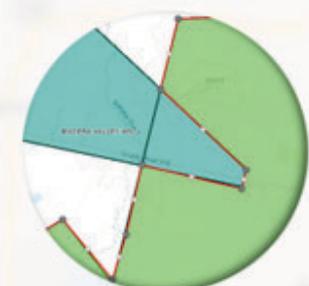


- ### 1. Locate

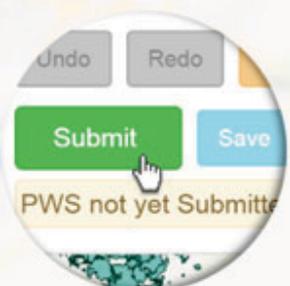


PWS ID	Survey Number	PWS
TX0000000	1104874	MY WAT

Click on your PWS to get started
- ### 2. Verify

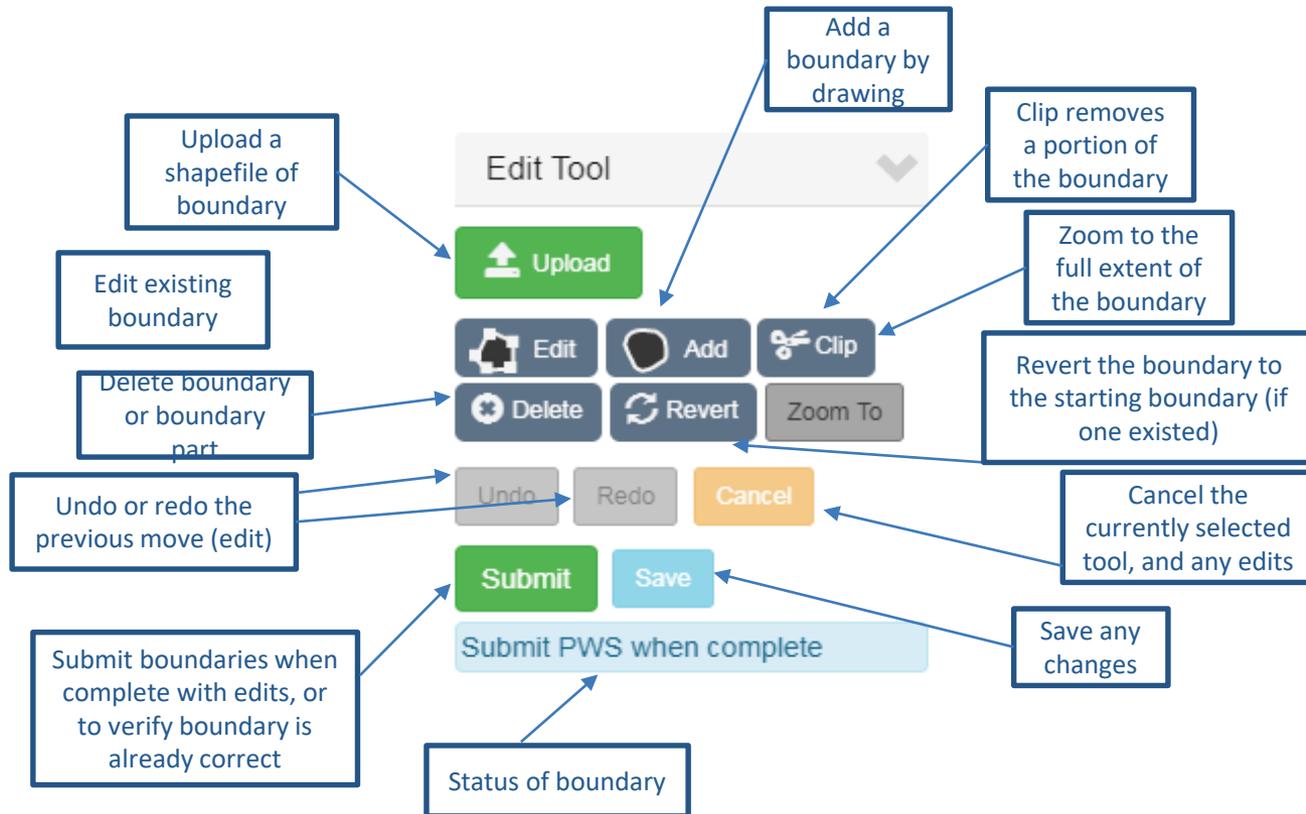


Review your boundary and upload to replace or edit as needed
- ### 3. Submit



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

Editor



Questions?

Melissa Rothrock

Water Use Survey Team

Office: 512-463-9667

Email: Melissa.Rothrock@twdb.texas.gov

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



Total Water Loss Control Program

Water Loss Audit - Phase 1

Municipal Water Conservation
Texas Water Development Board
(TWDB)

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

Water Loss Audit (WLA) Uses

- WLA identifies & quantifies water use
- Assessment addresses the findings of the WLA audit through implementation controls to reduce or eliminate water loss
- Data obtained from the WLA is used by the Regional Water Planning Groups and State Water Plan.

Why Complete a WLA?

- System efficiency
- Extend supply
- Target asset upgrades
- Saves money
- Public Health
- Required
 - Loan/Grant
- Regional Water Planning



Who completes the WLA ?

- All retail public utilities
- 3,300 or > connections?
- Active financial obligation?
- < 3,300 connections and no active loan/grant?
- Recommend annual



Photo: Stock

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, and may also provide such training in person or by video.*

TWDB Website

- www.twdb.texas.gov/conservation/municipal/waterloss/index.asp
- WLA Worksheet and Assessment Scale
- Accessing the Water Loss Audit software
- Registered user instructions
- Email address and contact information
- Checklist and other guidance documents
- Regulatory language

WLUC

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 Balance

Provides accountability, as all of the water placed into a distribution system should, in theory, equal all of the water taken out of the distribution system.



Total System Input Volume	Total Authorized	Billed Authorized	Billed Metered	Revenue Water
			Billed Unmetered	
		Unbilled Authorized	Unbilled Metered	Non-Revenue Water
			Unbilled Unmetered	
	Total Water Losses	Total Apparent	Customer Meter Loss	
			Data Errors	
			Unauthorized	
		Total Real	Reported	
	Unreported			
	<hr style="border-top: 1px dashed black;"/>			

System Input Volume

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

$$\begin{aligned} & \text{Water Produced from Own Sources} \\ + & \quad \text{Water Imported} \\ +/- & \quad \text{Meter Error Adjustment} \\ = & \quad \text{System Input Volume (mg/yr)} \end{aligned}$$

Authorized Consumption

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

$$\begin{aligned} & \text{Billed Metered} \\ + & \text{ Billed Unmetered} \\ + & \text{ Unbilled Metered} \\ + & \text{ Unbilled Unmetered} \\ = & \text{ Authorized Consumption (mg/yr)} \end{aligned}$$

Water Losses

- Water losses in the distribution system that are not due to authorized consumption and are categorized as either apparent or real losses.

System Input Volume

- Authorized Consumption
- = Water Loss

Apparent Loss

Commercial or apparent losses are 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

Improve the Meter

- Improve the accuracy of metering by implementing a meter repair and installation program.
- Consider replacing meters that have exceeded the manufacturer's recommended lifetime.
- Consider metering all connections, with the exception of fire services, and pursue & minimize unauthorized water service connections.
- Improve metering by adopting automatic meter reading (AMR or AMI) technology.

Real Loss

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 leak to customer meter.

- *Non revenue water*

Water Losses

- Apparent Losses

= Real Loss

Financial - Cost of Apparent Losses

- Line 41 on the WLA (automatic calculation)
- Represents potential amount of missed revenue due to apparent losses per gallon that calendar year
- Total Apparent Loss (line 39) × Retail Price of Water (line 40)
- *Example:* 39 = 26,286,016 gallons × 40 = 0.0026 = \$68,343.64
- Lost \$68,344 in revenue that year

Financial - Cost of Real Losses

- Line 44 on the WLA (automatic calculation)
- Represents potential amount of missed revenue due to real losses per gallon that calendar year
- Total Real Loss (line 42) × Variable Price of Water (line 43)
- *Example:* 42 = 488,384,698 gallons × 43 = 0.000466 = \$227,587

Lost \$227,587 in revenue that year

Financial - Total Revenue Impact

- *Cost of Apparent Losses + Cost of Real Losses = Revenue lost for that year*
- **Example: \$68,344 plus \$227,587**
 - Total Water Loss Percentage – 47%

Lost \$295,931 revenue during that year

I. Financial Performance Indicators

Scale

39. Total Apparent Losses Line 27	175,485	gallons	
40. Retail Price of Water	20.00000	\$/gallons	1
41. Cost of Apparent Losses Line 39 x Line 40	\$3,509,709.87		
42. Total Real Losses Line 30	4,126,285	gallons	
43. Variable Production Cost of Water	20.00000	\$/gallons	1
44. Cost of Real Losses Line 42 x Line 43	\$82,525,690.20		
45. Total Cost Impact of Apparent and Real Losses Line 41 + Line 44	\$86,035,400.07		
46. Total Assessment Score	24		

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

47. Total Water Loss - Percentage	6.13	%
48. GPCD Input Line 16 / Line 5a / 365	77	
49. GPCD Loss	5	

Navigation toolbar with icons for back, forward, search, and other presentation controls.

Reviewing Water Loss

- GPCD (gallons per capita per day) becomes important if you are completing a Water Conservation Plan
- Percentages
- Costs of Apparent and Real Losses - \$\$\$\$
- Infrastructure Leakage Index: performance indicator used by large system > 3,000 connections.

Water Loss Resources

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

Contact

Municipal Water Loss Audit

Laurie Gehlsen

512-463-0987

Laurie.Gehlsen@twdb.texas.gov

Total Water Loss Control Program

Water Loss Audit - Phase 2

Municipal Water Conservation
Texas Water Development Board (TWDB)

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

Water Loss Audit (WLA)

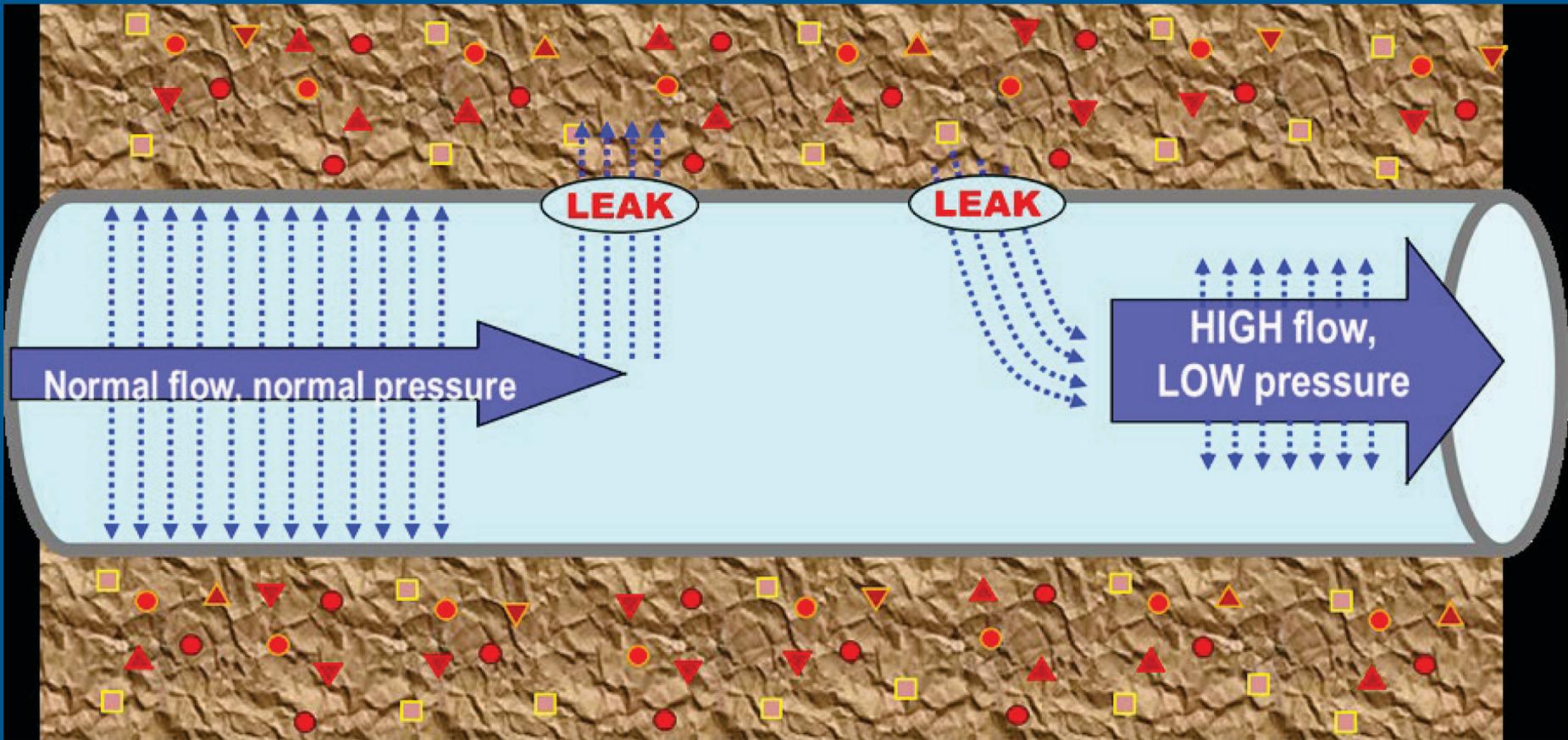
- Self-reported assessments to determine where water losses appear to be occurring
- Consider your options and **take action**
- Move from WLA to Action to Conservation Plans

WLA Recap

- Water Loss Audit provides benefits:
 - \$\$\$\$\$\$\$\$
 - Public Health
 - Resource Loss
 - Allows utility to take actions internally
 - Data to be used by Regional Water Planning Groups and State Water Plan

Public Health

- Microbial and other contaminants enter the finished water
- The longer the leak is allowed to continue, the more chance of contamination
- Texas Commission on Environmental Quality (TCEQ) violation, boil water notice, public notice or the CCR
- Public Service responsibility



Assessments

- Identify and correct errors in data and application of methodology
- Helps you identify \$\$\$\$ savings
- Target asset upgrades
- 3rd Party Validation
- Provides reliable data for the Regional Water Planning Groups and State Water Plan

Now What?

- Gathering further information
- Metering assessment, testing, replacement
- Detecting and locating leaks
- Repairing or replacing pipe
- Operation and maintenance programs
- Administrative processes or policy changes
- No further action is necessary

Take Action

- **If you can't Measure it, you can't Manage it**
- Utilities completing Water Conservation Plans are able to bridge the Water Loss Audit to their Plan.
- Data Integrity
- Consumer Confidence Report

Record Keeping

- Similar to a Monitoring Plan
- Keep all records in one place
- Update as needed
- Part of Operations and Maintenance during public water system inspection

Contact Information and Resources

Municipal Water Loss

Laurie Gehlsen

512-463-0987

Laurie.Gehlsen@twdb.texas.gov

Total Water Loss Control Program

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...

Poll

How many of you have a Water Conservation Plan(s)?

How many of you were involved in the development of said plan?

Do you think your system is good as is?

Statutes and Requirements

Report Name	Who is Required to Report	When is Report Due	Legislative Code
<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, 2019. TWDB shall be provided a copy of Plans submitted to TCEQ.	<u>31 TAC Chapter 363, Subchapter A, Rule 363.15 / TWC 15.106(b)</u>
<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>31 TAC Chapter 363, Subchapter A, Rule 363.15(g)</u>
<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, 2021 for the year 2020.	<u>31 TAC Chapter 358, Subchapter B, Rule 358.6 / TWC 16.0121</u>
<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.	<u>31 TAC Chapter 358, Subchapter B, Rule 358.5 / TWC 16.012(m)</u>

Statutes and Requirements

- 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).

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...

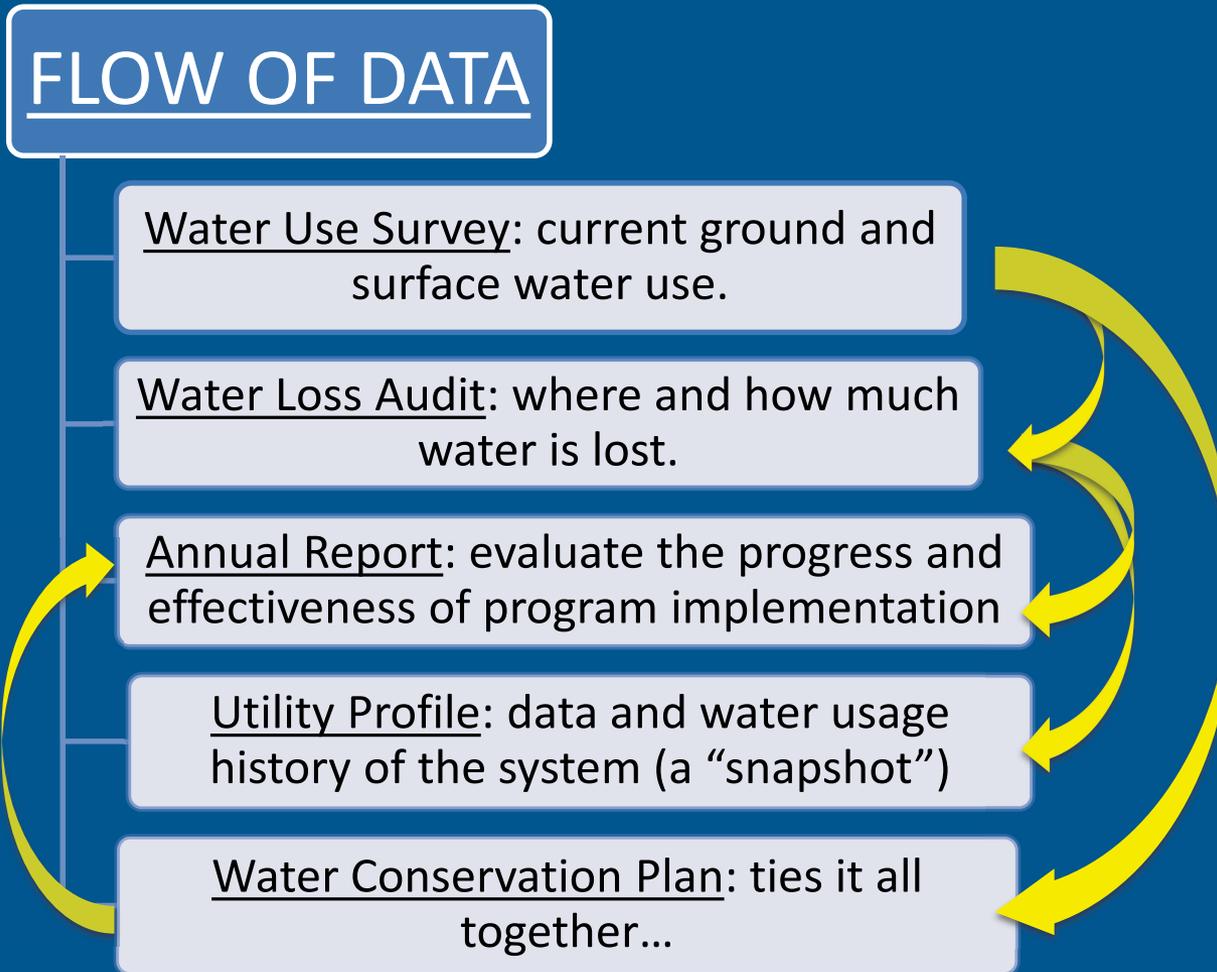
1. reducing the consumption of water,
2. reducing the loss or waste of water,
3. efficiency in the use of water,
4. or increasing recycling and reuse of water.

However...

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

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

Does that make it better though?

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

Welcome to the Water Loss, Use and Conservation Home Page

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](#)

WLUC

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](#)

WLUC

Name: Travis Brice

Currently your profile information is not associated with any water system/facility. To request access to the Water Conservation Annual Report, Utility Profile, or Water Conservation Plan, please click on the Request Access tab.

REQUEST ACCESS TO YOUR SYSTEM!

“Currently... not associated with any water system/facility.”

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

Water Conservation Home Page

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

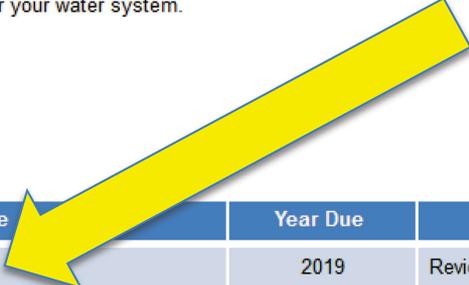
Name: Travis Brice

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

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 Report (Page 3)

	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 16 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	7,084,761,825

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!

*The Municipal Water Conservation Planning Tool
is here!*



- A new 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

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

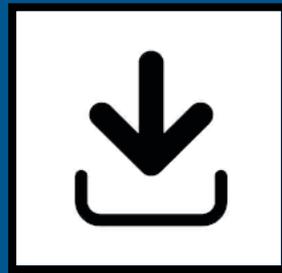
Water Conservation Plans

Water Conservation 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!

Municipal Water Conservation Planning Tool

We will be accessing the tool directly with
further description and directions.

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	
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Annual Report - Retail Conservation Programs and Activities

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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

2270001

PWS Name/Utility Name

Search

Reset

Annual Report

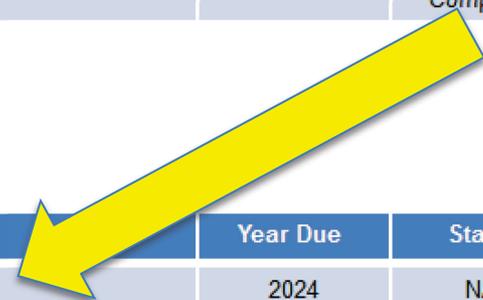
- Annual Report List

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
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Conservation Plan

- Conservation Plan List

PWS Code	Utility Type	System Name	Year Due	Status	Submitted Date
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Utility Profile

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

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
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Utility Profile

- Utility Profile List

PWS Code	Utility Type	System Name	Year Due	Status	Submitted Date
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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.

Year	2014	2015	2016	2017	2018	2019
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?

Water Conservation Plan Checklist

Entity:

Plan Date:

Review Date:

Reviewed By:

- 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

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

Even without a plan, the city or system can incorporate and use conservation measures and strategies to their benefit.

Every measure used is another potential gallon saved.

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
5. Call the TWDB for help

Goals Table Form

Water Conservation Plan Goals Table
 TWDB Form No.1964
 Revised 12/14/2012 1:53 PM

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

Facility Name:

Water Conservation Plan Year:

	Historic 5yr 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

Water Conservation Plan

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. Referencing the *Water Conservation Implementation Task Force Report to the 79th Legislature...*
5. Please proof-read your submissions; check for ordinance numbers, signatures, items that are listed in appendices are actually there, etc.

Water Conservation Plan

Municipal Water Conservation Planning Tool

The tool can not necessarily be used to write your plan, *HOWEVER* it can be used to assess and evaluate the effectiveness of the best management practices incorporated within.



Water Conservation Historical Resources

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

Reports

Utility Name:

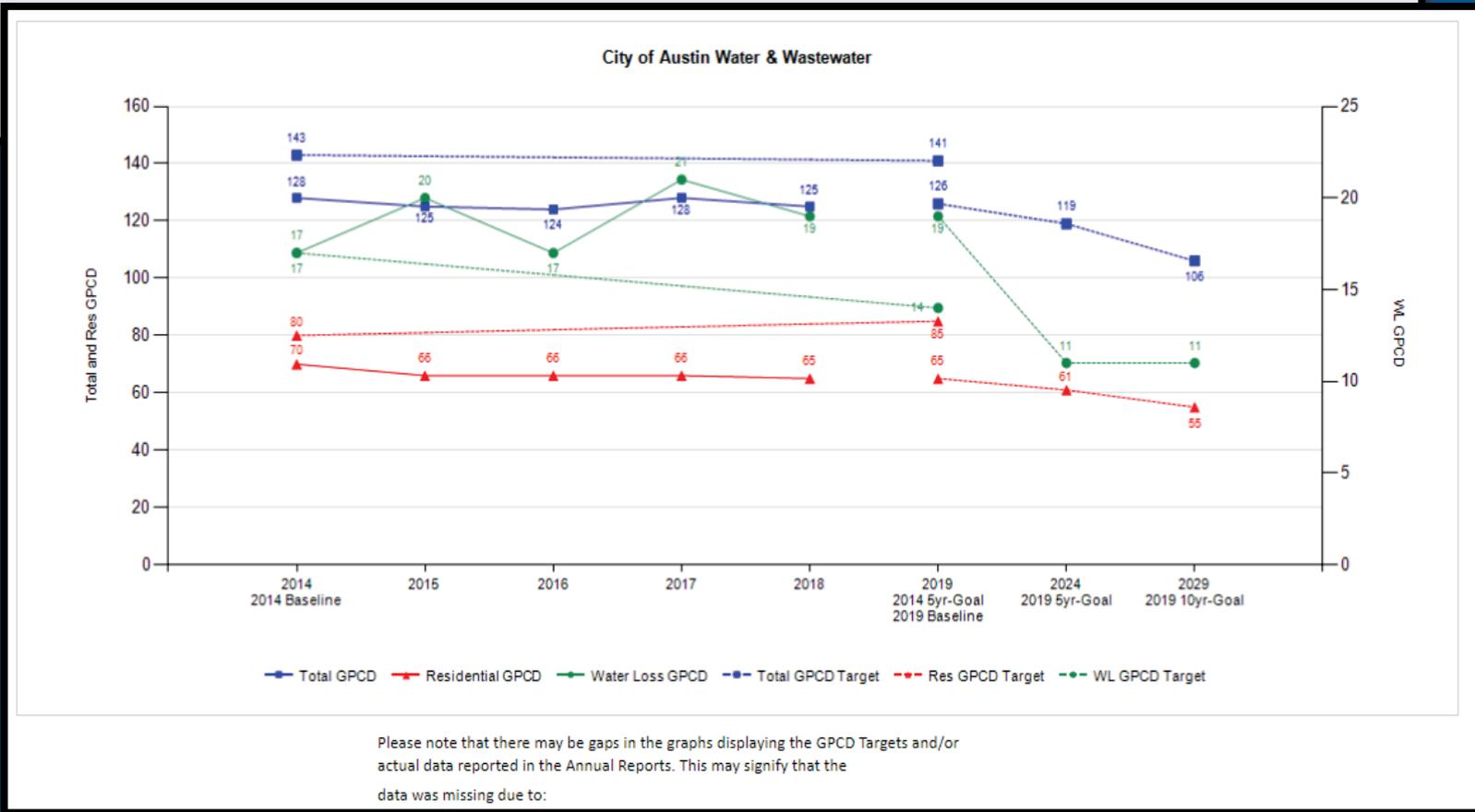
AR GPCD

Connections Data

Water Use Data

Targets & Goals

Get Graph Report



Total Water Loss Control Program

Water Conservation

Thank you for your time!

Questions?

or

Concerns?

Conclusion

Travis S. Brice

Water Conservation Specialist

Texas Water Development Board

- Phone: 512-475-1639
- Travis.brice@twdb.texas.gov