USER GUIDE

Texas Water Service Boundary Viewer

Editor Version

Table of Contents: Editor User Guide

1. Overview of Texas Water Service Boundary:

The Texas Water Development Board (TWDB) has developed a statewide public water system service boundary mapping application called the Texas Water Service Boundary Viewer (TWSBV). This application will aid in annual population estimates for water utilities, as well as population projections for the Regional Water Plans and the State Water Plan. While several water system mapping applications exist in the state, they do not necessarily represent the actual retail service area or include all the systems within the state. This application strives to provide the most up-to-date and best data available on the service areas for all active community Public Water Systems (PWS) within Texas.

A primary goal is to partner with the annual TWDB Water User Survey (WUS) to encourage water systems to update or verify there have been no changes annually. The application will also be available to the public to view or download data. Information displayed on the map includes the PWS ID, name, and last update date. Version 1.0 of the Viewer also provides links to supplemental information about the PWS, allowing the user to view PWS specific data from the WUS as well as information on the Texas Commission of Environmental Quality (TCEQ)'s Drinking Water Watch (DWW) data. New reports will be added in the future versions to include useful information about water systems in the state.
The goal of the USER GUIDE is to provide easy to read, step-by-step instructions about how to access and use the tools within the application.

This material is based upon work supported by the USGS Agreement No. G17AC00016. The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions or policies of the USGS. Mention of trade names or commercial products does not constitute their endorsement by the USGS.

If you have any questions, please contact the TWSBV administrator at WSBViewer@twdb.Texas.gov or 512-463-9367

2. Before Starting: Make sure the PWS(s) you represent are listed in the provisional service areas tab.

The systems that the editor is authorized to make updates on will be found on the bottom left side of the page, in the Provisional Service Areas tab. In this example, the editor has 10 boundaries they need to update or verify no change on annually. Watch Signing into the Texas Water Service Boundary Viewer as an Editor and TWSBV Editor Orientation Training Video to get started. If you need help requesting your PWS's surveys to gain access, please watch Registering Account Okta and/or Requesting Access to Surveys. For a full list of FAQs and guidance videos, visit https://www.twdb.texas.gov/waterplanning/waterusesurvey/faq.asp.

2.1 Quick Start Guide: a few tips and tricks to help you get started editing and using TWSBV.

HOW TO…..z	Tool(s)	Steps
Upload Shapefile	Upload	The easiest way to submit your current retail service boundary is to use the **Upload Tool** to upload a shapefile (**file must be zipped, and less than 10MB in size**). 1. Click "Choose File" to browse for shapefile 2. Once uploaded the boundary will appear on the map 3. If you are satisfied save and submit the boundary — Upload Tool — Add a zipped shapefile to the map. — Choose File — No file chosen
Fix a Complicated Boundary	Clip Then Edit Or Add	1. Identify which part needs simplification 2. Use the **CLIP TOOL** to draw a shape around the area you want to remove 3. Use the **EDIT TOOL** or **ADD TOOL** to add a simplified boundary
Correct an Overlap	⚠ Boundary Overlaps Click on an item to zoom TX0000000: MY WATER SYSTEM	Use the **Boundary Overlap** warning to find, identify and correct any overlaps with adjacent boundaries. Click on an overlap, and the map will zoom to the overlap location 1. The overlap will have a red crosshatch fill 2. Use the EDIT TOOL or CLIP TOOL to remove the overlap 3. If the overlap is correct, please make a note in the comments (when you submit your boundary you will have an opportunity to add a comment)
Leave a Comment	Submit	You will have an opportunity to provide a comment and any other relevant information about your retail service boundary when you **SUBMIT** the boundary. *If you are submitting your boundary with overlaps, please explain why.* MY WATER SYSTEM ✕ Explain Overlap: — Confirm
Distinguish Boundary Colors		When you begin to review your boundary, it will appear green — Your Boundary All other boundaries will be blue — All other Boundaries Any new area added to your boundary will appear yellow until reviewed by TWDB staff — Newly Added area to Boundary If there are any overlaps, they will have a red crosshatch — Overlap

2.2 How to Start Editing a Boundary:

1 Locate

Submit PWS when complete

- Choose the PWS you wish to verify from the **Provisional Service Areas** tab in the data grid on the bottom left side of the page.
- The **Edit Toolbox** will open on the top right side of the page once a selection is made.

2 Verify/Add/Edit

PWS not yet Submitted

- Revew and edit as needed using the **Edit Toolbox**.
- Once satisfied, save any edits by clicking the **Save** tool in the **Edit Toolbox**.

3 Submit

PWS Submitted

- If no futher edits are needed, or to verify there have been no changes to the boundary submit the boundary for review by clicking the **Submit** tool in the **Edit Toolbox**.
- Include any relevant information in the comment popup that appears after submitting.

Boundaries the editor can make revisions on

All boundaries for the State

Edit Tool

⬆ Upload

🔲 Edit ⬛ Add ✂ Clip

⊗ Delete ↻ Revert Zoom To

Undo Redo Cancel

Submit Save

Submit PWS when complete

Note: status of the boundary is indicated by the message and color at the bottom of the Edit Tool.
Blue: not started.
Yellow: Edits started but not submitted.
Green: Submitted for review

Provisional Service Areas **13** Download ⤓	Service Areas **4552** Download ⤓	Service Area Selections	

PWS ID	Survey Number	PWS Name	▲ Status	Submit Comments	TWDB Comments
⤷ ... No filter applied					
TX0030102	0028410	ANGELINA COUNTY FWSD 1	Updated	12/21/2023: We now provide service to the area overlapping with	This is test

3.Editing Tools: an overview of the editing tools

Note: buttons will be enabled or disabled as tools are chosen

Add a boundary by drawing

Clip removes a portion of the boundary

Upload a shapefile of boundary

Edit Tool

🔼 Upload

Edit existing boundary

Zoom to the full extent of the boundary

Edit | Add | Clip

Delete | Revert | Zoom To

Delete boundary or boundary part

Revert the boundary to the starting boundary (if one existed)

Undo or redo the previous move (edit)

Undo | Redo | Cancel

Cancel the currently selected tool, and any edits

Submit | Save

Submit PWS when complete

Save any changes

Submit boundaries when complete with edits, or to verify boundary is already correct

Status of boundary

⚠ Boundary Overlaps
Click in List to Show ❶

Boundary overlap warning will appear under edit tools if boundary overlaps with any adjacent boundaries

7

3.1 Upload

If users already have a shapefile of their current retail service boundary, they can use the upload tool to add the boundary to the map.

To use your own shapefile, choose the PWS you which to edit in the data grid:

1. Select the Upload Tool from the Edit Toolbox.
2. The Upload Tool will appear below the Editor Tool.
3. Boundary must be uploaded in a zipped file(.zip) format.
4. Once uploaded the boundary will appear in the map for inspection.
5. If satisfied with the boundary save and submit.

*Watch **Editor Tools: Uploading a PWS Boundary** for more information on how to use the Upload Tool.*

__What is a retail service boundary?__
a boundary that includes all areas where the retail customers are currently served by the PWS, including residential, commercial, institutional and industrial customers with retail connections with your system. Please note that the current service boundary might cover smaller areas than your CCN boundary

All tools that are activated will turn black and the other tools will be disabled until a save or cancel is made.

Edit Tool

⬆ Upload `1`

🔲 Edit   ⬭ Add   ✂ Clip
✲ Delete   ⟳ Revert   Zoom To

Undo   Redo   Cancel

Submit   Save `5`

Submit PWS when complete

Upload Tool will appear under the Edit Toolbox

Upload Tool `2`

Add a zipped shapefile of current retail service boundary.

Choose File 20231...erg.zip `3`

Loaded:
RosenbergServiceArea_20231101

`4`

Notes about Upload Tool

- Must be a .zip file.
- Less than 10MB in size.
- No point, lines, or self-intersecting boundaries
- Must contain a .prj file.

3.2 Edit

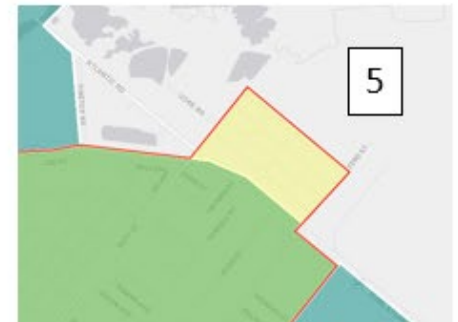Edits can be made on existing boundaries.

Choose the PWS you which to edit in the data grid:

1. Select the Edit Tool from the Edit Toolbox.
2. The boundary will turn green with vertices (grey dots) and mid-points (white dots).
3. Zoom in, click and hold to drag the vertices to the new position and release when done
4. Between each vertices there will be a mid-point. Those can be repositioned as well.
5. If new area is added to the boundary, it will appear yellow
6. If satisfied with the boundary save and submit. A warning will appear if any overlaps exist with adjacent boundaries

*Watch **Editor Tools: Editing an Existing Boundary** for more information on the Edit Tool*

Note: When using the Edit Tool you can undo, and redo moves between saves. Once you save edits, you can
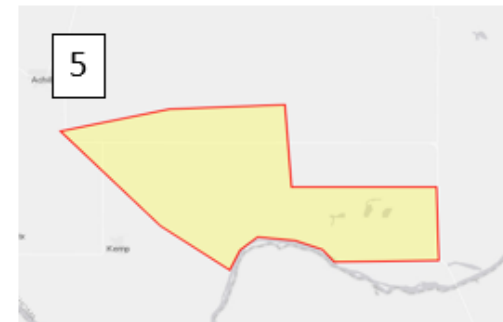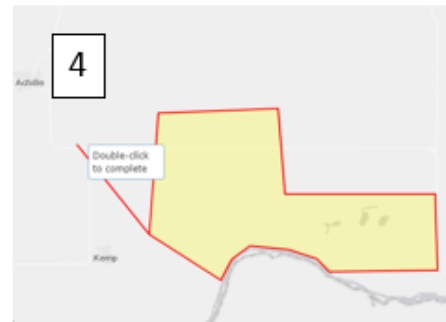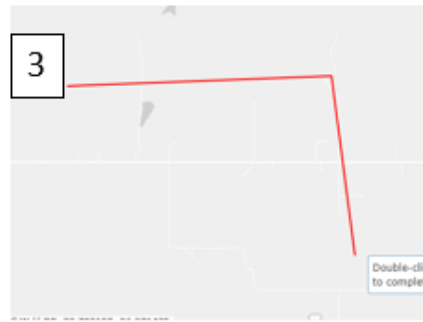
3.3 Add:

The Add Tool can be used to add area to a new or existing boundary. Choose the PWS you which to edit in the data grid:
1. Select the Add Tool from the Edit Toolbox.
2. Zoom to the retail service area.
3. Click to begin drawing and continue clicking to add corners/vertices in the boundary. Hold mouse down to drag screen to pan if necessary.
4. While drawing, the boundary will appear to close once 3 points have been added.
5. Double click to finish the drawing, which will appear yellow.
6. If satisfied with the boundary, save and submit. When complete, a warning will appear if any overlaps exist with adjacent boundaries

*Watch **Editor Tools: Creating a Newly Active PWS or Adding to an Existing Boundary** for more information on the Add Tool.*

Note: if there is not boundary, the map will zoom you to the county the PWS is located in. Zoom in further to the boundary location to add.
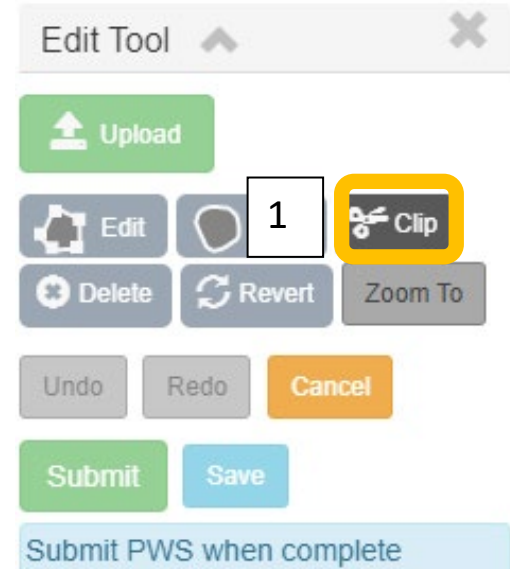
3.4 Clip

If there is an area that needs to be removed from the boundary (such as an overlapped area or an area, the PWS does not provide service to) use the Clip Tool. Choose the PWS you which to edit in the data grid:

1. Select the Clip Tool from the Edit Toolbox.
2. Zoom to the area that will be removed.
3. Click to begin drawing and continue clicking to add corners/vertices in the boundary. Hold mouse down to drag screen to pan if necessary.
4. While drawing, the boundary will appear to close once 3 points have been added.
5. Double click to finish the drawing, and the shape drawn will be removed from the existing boundary.
6. If satisfied with the boundary save and submit. When complete, a warning will appear if any overlaps exist with adjacent boundaries

*Watch **Editor Tools: Removing Part of the PWS with the Clip Tool** for more information on how to use the Clip Tool.*

Edit Tool

Upload

| Edit | | 1 | Clip |
| Delete | Revert | | Zoom To |

Undo   Redo   Cancel

Submit   Save

Submit PWS when complete

If removing an overlap: once the clipped out area is saved, the red cross-hatch overlap will be removed if overlap is corrected

3.5 Delete

Use the Delete Tool to delete the boundary and start over, or if there are multiple parts to the boundary, delete a portion of the boundary. Choose the PWS you which to edit in the data grid:
1. Select the Delete Tool from the Edit Toolbox.
2. Click on the area to be removed.
3. Boundary must be saved for boundary to be removed.
4. Revert (explained on next page) will work after delete.
5. If satisfied with the boundary save and submit.

Note: Delete should rarely be used. A boundary should not be completely removed until the application is closed. Please contact the administrator if you are unsure of what to do with the PWS boundary

The boundary you are editing is in green and the starting boundary is blue. When the boundary is removed, the yellow top layer will disappear

Delete Polygon

Warning: This will remove the PWS polygon.

OK   Cancel
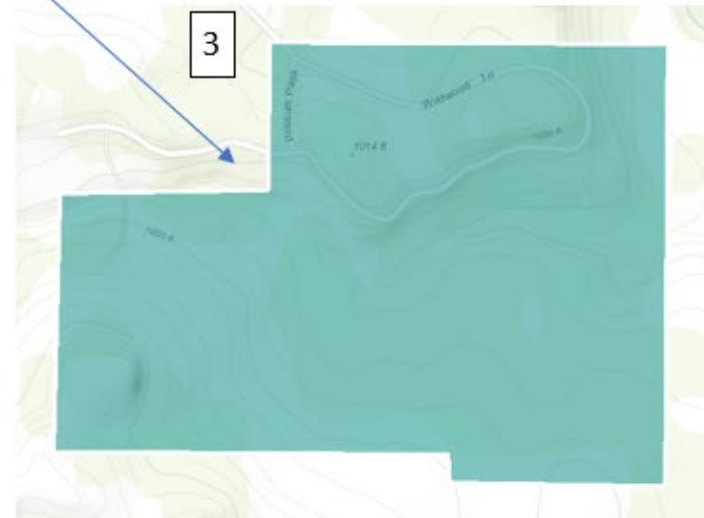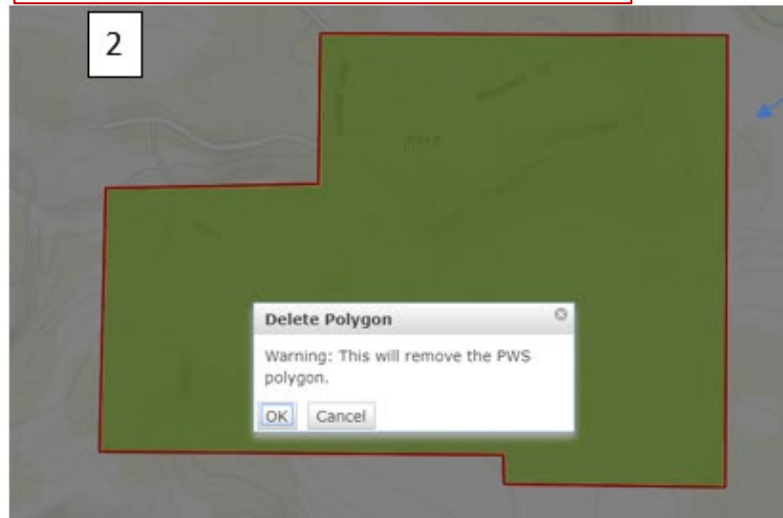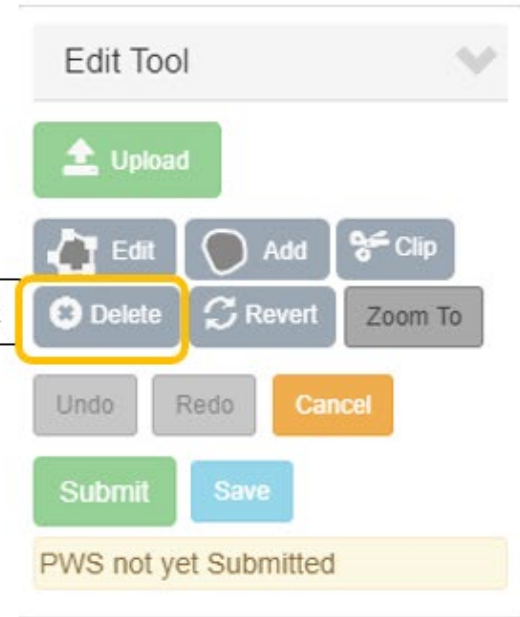
3.6 Revert

Use the Revert Tool to replace the current boundary to the boundary on file in the application (Note, this is the boundary your PWS started with at the beginning of the survey year, if a boundary did not exist current edits are removed). Choose the PWS you which to edit in the data grid:

1. Select the Revert Tool from the Edit Toolbox, a pop-up warning will let you know you are replacing the boundary
2. Boundary must be saved.
3. If satisfied with the boundary submit to verify, or make edits as needed.

*Watch **Editor Tools: Creating a Newly Active PWS or Adding to an Existing Boundary** for more information on the Revert tool.*

Any edits (area in yellow) are removed once revert is chosen.
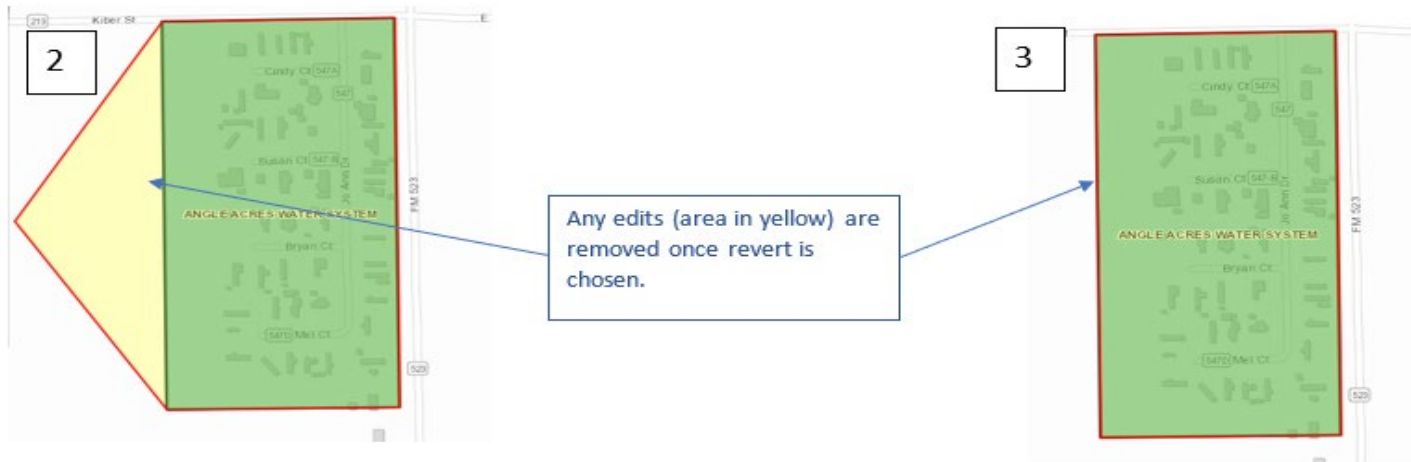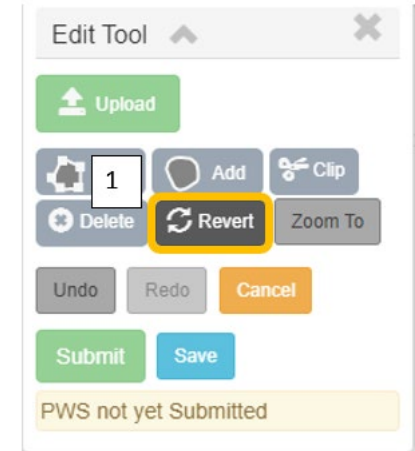
4. Correcting Overlaps

Any tool can be used to edit overlaps; however, it is suggested to use clip for more difficult areas and edit for simple overlaps. Choose the PWS you which to edit in the data grid:

1. Click on a PWS (yellow banner) in the Boundary Overlap warning Tool.
2. The map will zoom to the area of the boundary that is overlapped
3. Use any edit tools (Clip or Edit are suggested) to correct the overlap
4. Once satisfied with the boundary submit. Upon submit you will have the opportunity to provide a comment. Please explain if any overlaps remain.

*Watch **Addressing Overlapping Boundaries** for more information on what to do when your PWS has overlaps in TWSBV.*

Edit Tool

⬆ Upload

3 | Edit | Add | ✂ Clip

⊗ Delete | 🔄 Revert | Zoom To

Undo | Redo | Cancel

Submit | Save

Submit PWS when complete

⚠ Boundary Overlaps
Click in List to Show ⓘ

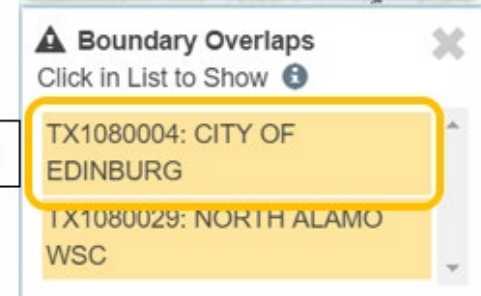1 | TX1080004: CITY OF EDINBURG

TX1080029: NORTH ALAMO WSC

2

What if the overlap is correct?
If the overlap on file is correct, leave a comment for the TWDB explaining the overlap. You will be able to leave a comment when you submit your boundary
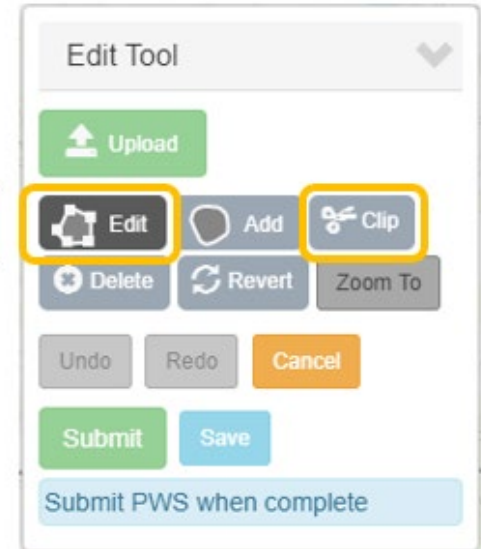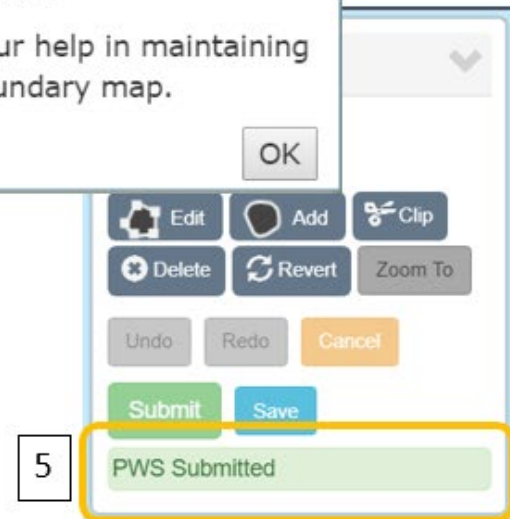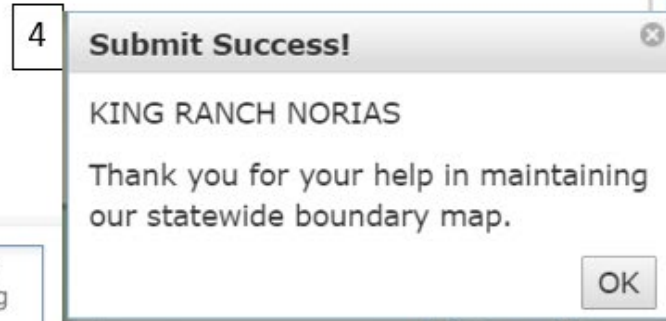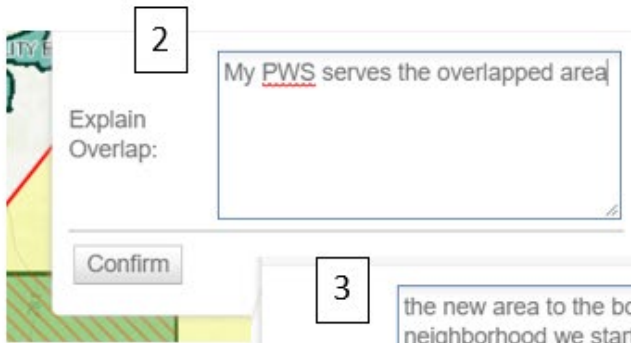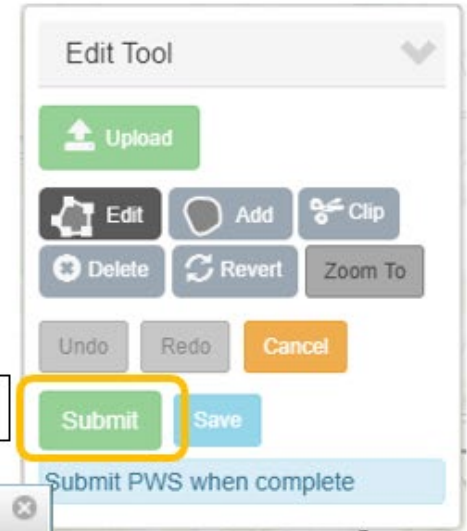
5. Submitting Changes

It is Important for editors to submit their boundaries each year in TWSBV. Choose the PWS you which to edit in the data grid:
1. Select the Submit Tool in the Edit Toolbox when you are ready to submit for review.
2. If an overlap exists, please leave a comment explaining why.
3. If overlaps do not exist, explain any other relevant information.
4. Submit success popup box appears
5. Edit Tool banner changes to PWS submitted

Edit Tool

Upload

Edit | Add | Clip

Delete | Revert | Zoom To

Undo | Redo | Cancel

1 Submit | Save

Submit PWS when complete

2

Explain Overlap: My PWS serves the overlapped area

Confirm

3

Comment: the new area to the boundary is a neighborhood we started providing service to last year

Confirm

Hamlin

4 **Submit Success!**

KING RANCH NORIAS

Thank you for your help in maintaining our statewide boundary map.

OK

Edit | Add | Clip

Delete | Revert | Zoom To

Undo | Redo | Cancel

Submit | Save

5 PWS Submitted

5.1 Submitting with No Change

It is important for editors to submit their boundaries annually for review even when there have been no changes. Choose the PWS you wish to verify in the data grid:

1. Click the Submit Tool in the Edit Toolbox.
2. A comment box will appear. Leave a comment with the date and any relevant information and click confirm.
3. A popup will indicate the submission was successful.
4. The banner in the Edit Toolbox will change, as well as a pop-up notification.
5. The status in the data grid will also update to submitted as well as any comments.

Watch **_Editor Tools Saving and Submitted Boundaries No Changes Required_** _to learn more about verifying a boundary with no changes._
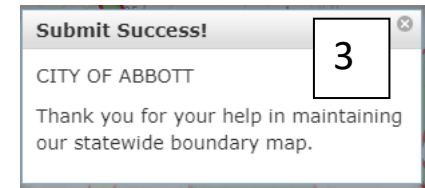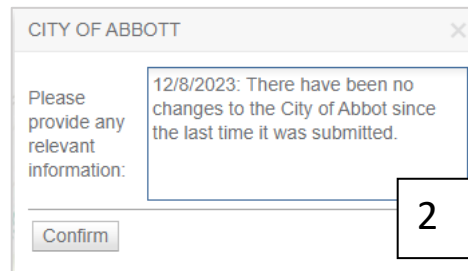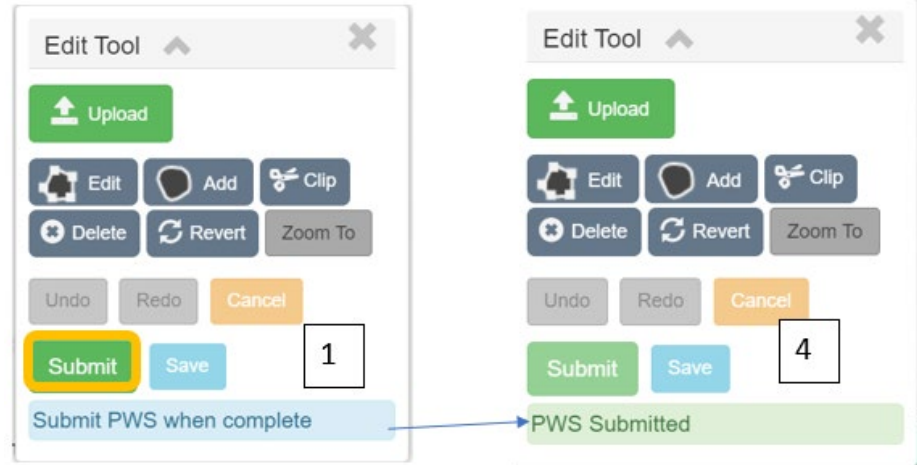
Note: Providing comments to TWSBV aid in administrative staff's review of boundaries. Comments provided are not visible to the public and are only visible to administrative staff and authorized representatives of the PWS

6. Data Grid: The data grid provides information about the boundaries you are authorized to edit

Boundaries the editor can make changes to

All boundaries for the State

PWS ID	Survey Number	PWS Name	Status	Submit Comments	TWDB Comments	Submitted Date	Last Update Date	Last Update Time	Submitted By	Last Update By	Area (sq mi)	Area Change (%)	Overlaps Adjacent PWS	County
		No filter applied												
TX0600001	0183860	CITY OF COOPER	In Progress				11/16/2018	1:01:19 PM		Taylor Christian	1.45	0	No	Delta

Provisional Service Areas **22** Download   Service Areas **4033** Download   Service Area Selections

Field	Description
PWS ID	Public Water System ID from the Texas Commission on Environmental Quality
Survey Number	Survey Number from the Water Use Survey
PWS Name	Public Water System Name from the Texas Commission on Environmental Quality
Status	Submit status of current year
Submit Comments	Comments provided by PWS when boundary is submitted
TWDB Comments	Comments from administrative staff regarding boundaries
Submitted Date	Date PWS was submitted last
Last Update Date	Date of last save
Last Update Time	Time of last save
Submitted By	Water Use Survey registered PWS representative who last submitted PWS boundary
Last Updated By	Person to last save a change
Area (sq. mi)	Total area of boundary in square miles
Area Change (%)	Percent change in area from boundary on file compared to any saved edits area
Overlaps Adjacent PWS	Yes/No if boundary overlaps another PWS boundary
County	Major county of PWS according to Texas Commission on Environmental Quality

Status:	
No Boundary	There is currently not a boundary on file
Not Started	The boundary has not been verified for the current survey year
In Progress	Edits and saves have been made, but boundary has not been submitted
Submitted	Boundary has been submitted for the current year

7. General Information: An overview of the TWSBV application

Additional data layers

Aerial photography, USGS Topographic, Streets and Google Imagery base maps

Overview, Disclaimer and User Guide/Help

Search by address, county or Public Water System name

TWDB homepage

Zoom

Zoom to Texas

Previous extent

Current Location

Print Map

Selection

Selected Service areas

All Service areas tab

Apply a filter to the data

Download data

Minimize or expand data grid

Data grid

7.1 Additional Data Layers

Additional data layers are available under the 'Layers' drop down. When you enter the application only PWS Areas, PWS Labels, and Counties are turned on by default. You can turn the layer and labels on and off, as well as adjust the opacity.
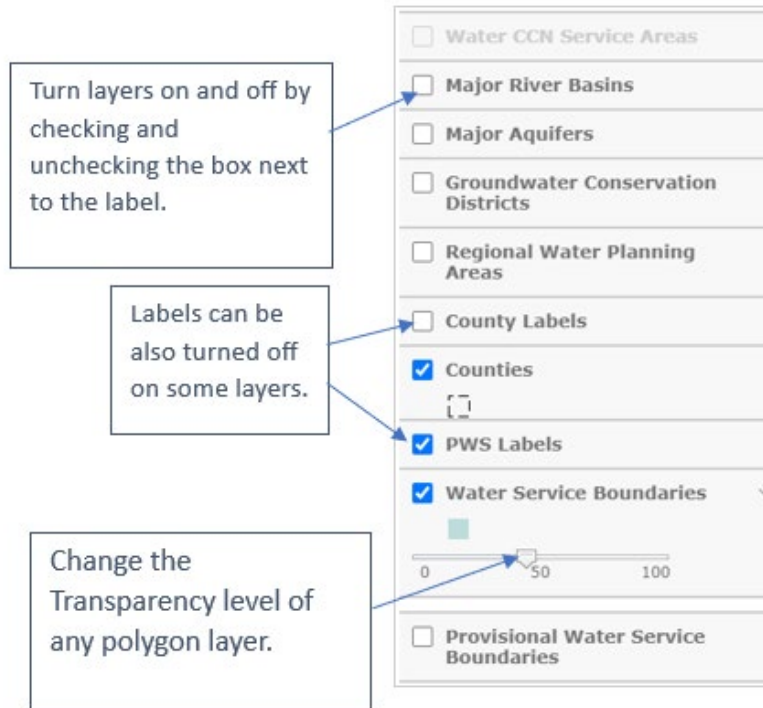

1: For more information on CCN boundaries please visit PUC:
https://www.puc.texas.gov/industry/water/utilities/gis.aspx
2: For more information on TCEQ regulated PWS please visit:
https://www.tceq.texas.gov/drinkingwater

Layer Name	Description
Water CCN Service Areas	Water Certificate of Convenience and Necessity (CCN) is regulated by the Public Utility Commission. CCN boundaries give the exclusive right to provide retail water to the identified geographic area. This layer is maintained by the PUC and provided for reference.[1]
Major River Basins	Map layer of the eight major river basins of Texas: The Neches-Trinity, Trinity-San Jacinto, San Jacinto-Brazos, Brazos-Colorado, Colorado-Lavaca, Lavaca-Guadalupe, San Antonio-Nueces, and Nueces-Rio Grande.
Major Aquifers	Map layer of the nine major aquifers of Texas, Pecos Valley, Seymour, Gulf Coast, Carrizo-Wilcox, Hueco-Mesilla Bolsons, Ogallala, Edwards-Trinity (Plateau), Edwards (Balcones Fault Zone) and Trinity.
Groundwater Conservation Districts	Map layer of the 98 groundwater conservation districts (GCD)s of Texas
Regional Water Planning Areas	Regional Water Planning Areas are the boundaries used for the Regional and State Water Plans maintained by the TWDB.
County Labels	County labels are the names of the counties.
Counties	Counties of Texas is provided as a reference when using a base map that does not include county boundaries.
PWS Labels	The Public Water System labels are the PWS' name as regulated by the Texas Commission on Environmental Quality (TCEQ)[2].
Water Service Boundaries	The Water Service Boundaries represent the retail water service boundaries as provided by the water system representative. The TWDB assumes no legal liability or responsibility or makes any guarantees to the accuracy.
Provisional Water Service Boundaries	Provisional Boundaries have been edited by authorized users but have not been submitted or reviewed by TWDB yet. Once reviewed provisional edits are made part of the Water Service Boundary layer.

7.2 Base Maps

Additional base maps are provided under the 'Base Map' drop down. You can select the map that best meets your needs. Descriptions of maps are provided. When you enter the Viewer, the topographic map is the default view. When you zoom into the limit of the map, the Google Imagery will turn on to allow you to continue to zoom.
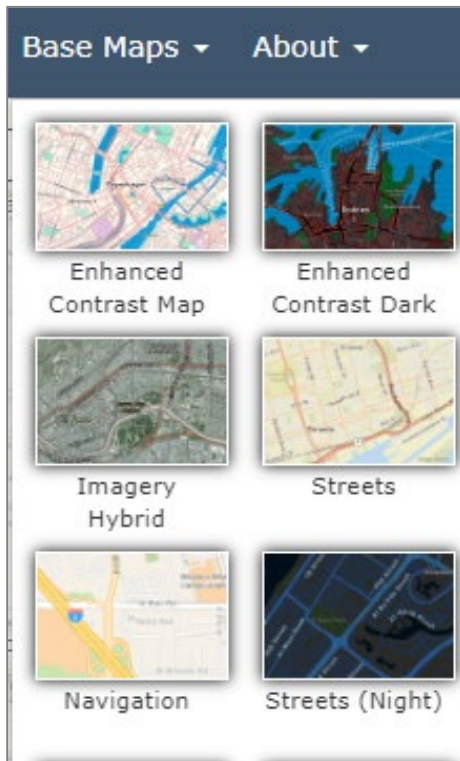
| Base Map	Description
Enhanced Contrast Map	This web map provides a detailed vector basemap for the world with enhanced contrast that aim to meet the standards for WCAG and US Government Section 508 compliance.
Enhanced Contrast Dark	This web map provides a detailed vector basemap for the world with dark colors and enhanced contrast that aim to meet the standards for WCAG and US Government Section 508 compliance.
Imagery	The World Imagery map is a detailed imagery map layer that is designed to be used as a base map for various maps and applications.
Imagery hybrid	The Imagery with Labels is a detailed imagery map layer that include labels of roads and major features, that is designed to be used as a base map for various maps and applications.
Streets	The Streets base map presents a multiscale street map of the world.
Topographic	The Topographic map includes boundaries, cities, water features, physiographic features, parks, landmarks, transportation and buildings.
Navigation	This web map provides a detailed vector basemap for the world symbolized with a custom navigation map style that is designed for use during the day in mobile devices
Streets (Night)	This web map provides a detailed vector basemap for the world symbolized with a custom street map style that is designed for use at night or in other low-light environments.
Terrain with Labels	The Terrain with Labels base map is designed to be used to overlay and emphasize other thematic map layers.
Dark-Gray Canvas	The Dark-Gray Canvas base map is designed to be used as a soothing background map for overlaying and focusing attention on other map layers.
Light-Gray Canvas	The Light-Gray Canvas base map is designed to be used as neutral background map for overlaying and emphasizing other map layers.
Oceans	The Oceans base map is designed to be used as a base map by marine GIS professionals and as a reference map by anyone interested in ocean data.
National Geographic	The National Geographic base map is designed to be used as a general reference map for informational and educational purposes.
Open Street Map	The Open Street Map is a community map layer that is designed to be used as base map for various maps and applications.
Charted Territory Map	This web map provides a customized world basemap uniquely symbolized. It takes its inspiration from a printed atlas plate and pull-down scholastic classroom maps.
Community Map	Through Esri's Community Maps Program, members of the ArcGIS user community can contribute their geographic data to become part of a community map that Esri publishes and hosts online
Navigation Dark	This web map provides a detailed vector basemap for the world symbolized with a custom 'dark mode' navigation map style that is designed for use on mobile devices in low-light or night conditions.
Newspaper Map	This web map provides a customized vector basemap for the world symbolized with a unique "newspaper" styled map. It has a black & white appearance with select features highlighted in red.
Human Geography	This web map provides a detailed vector basemap with a monochromatic style and content adjusted to support Human Geography information.
Human Geography Dark	This web map provides a detailed vector basemap with a dark monochromatic style and content adjusted to support Human Geography information.
Modern Antique Map	This web map provides a customized vector layer for the world symbolized with a unique antique styled map, with a modern flair -- including the benefit of multi-scale mapping.
Mid-Century Map	This web map provides a customized vector layer for the world symbolized with a unique "Mid-Century" styled map. It takes its inspiration from the art and advertising of the 1950's with unique fonts.
Nova Map	This web map provides a detailed vector tile basemap for the world featuring a dark background with glowing blue symbology inspired by the ArcGIS.com splash screen.
Colored Pencil Map	This web map provides a detailed vector basemap for the world symbolized with the appearance of being hand-drawn by colored pencils
Outline Map	This vector web map features outline maps of the World. The maps can be used for coloring and other fun activities by budding cartographers.
Firefly Imagery Hybrid	This map features an alternative view of the World Imagery map designed to be used as a neutral imagery basemap, with de-saturated colors, that is useful for overlaying other brightly styled layers.
NAIP Imagery Hybrid	This map features recent high-resolution National Agriculture Imagery Program (NAIP) imagery for the United States and is optimized for display quality and performance.

7.3 Using Search

Users can use the search bar to find locations or retail service boundaries of interest.
1. Use the dropdown button to choose the type of location you want to search by
2. When you begin to type a value the search box will autocomplete the text and allow you to select from the suggestions

Note: newly activated PWSs that do not have a boundary will have to be searched for using the filter tool.
Watch **Editor Tools: Adding A Newly Active System** to learn more about adding a system that has no boundaries*.*

If you choose to search by "all" the suggested results will be grouped by search types
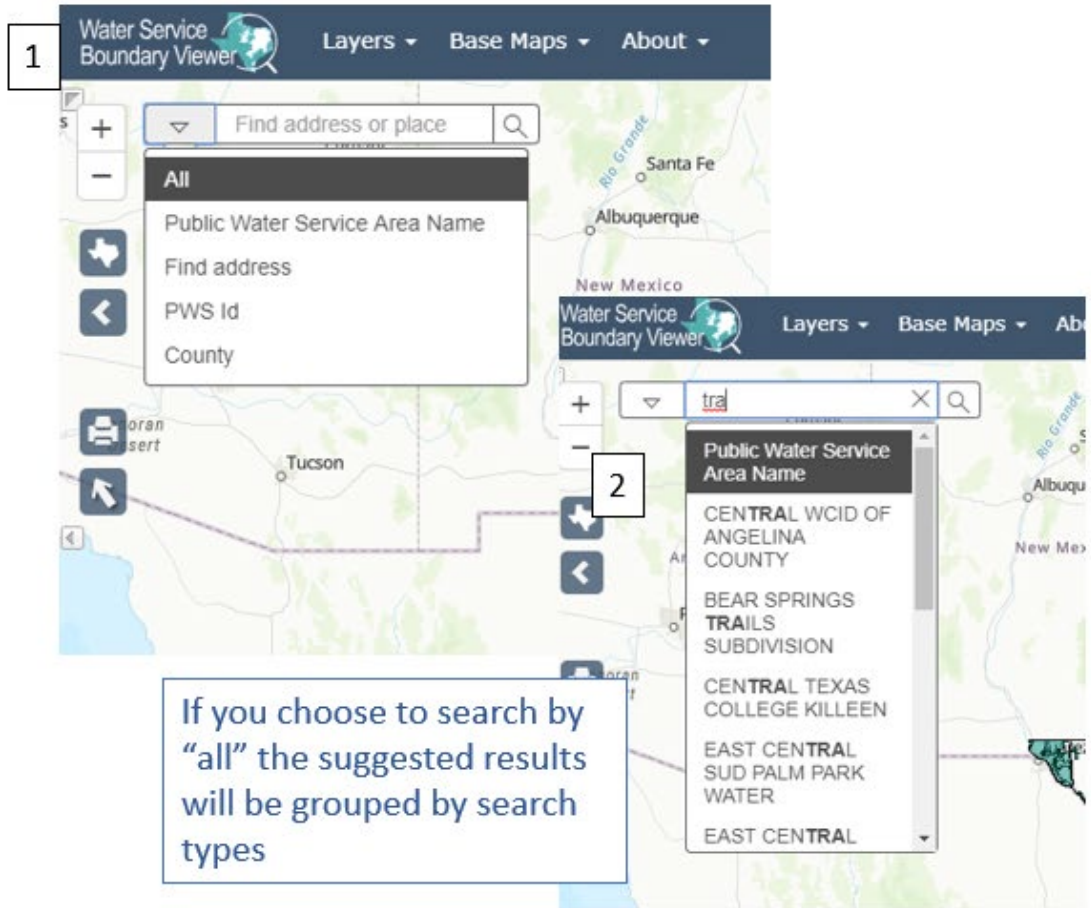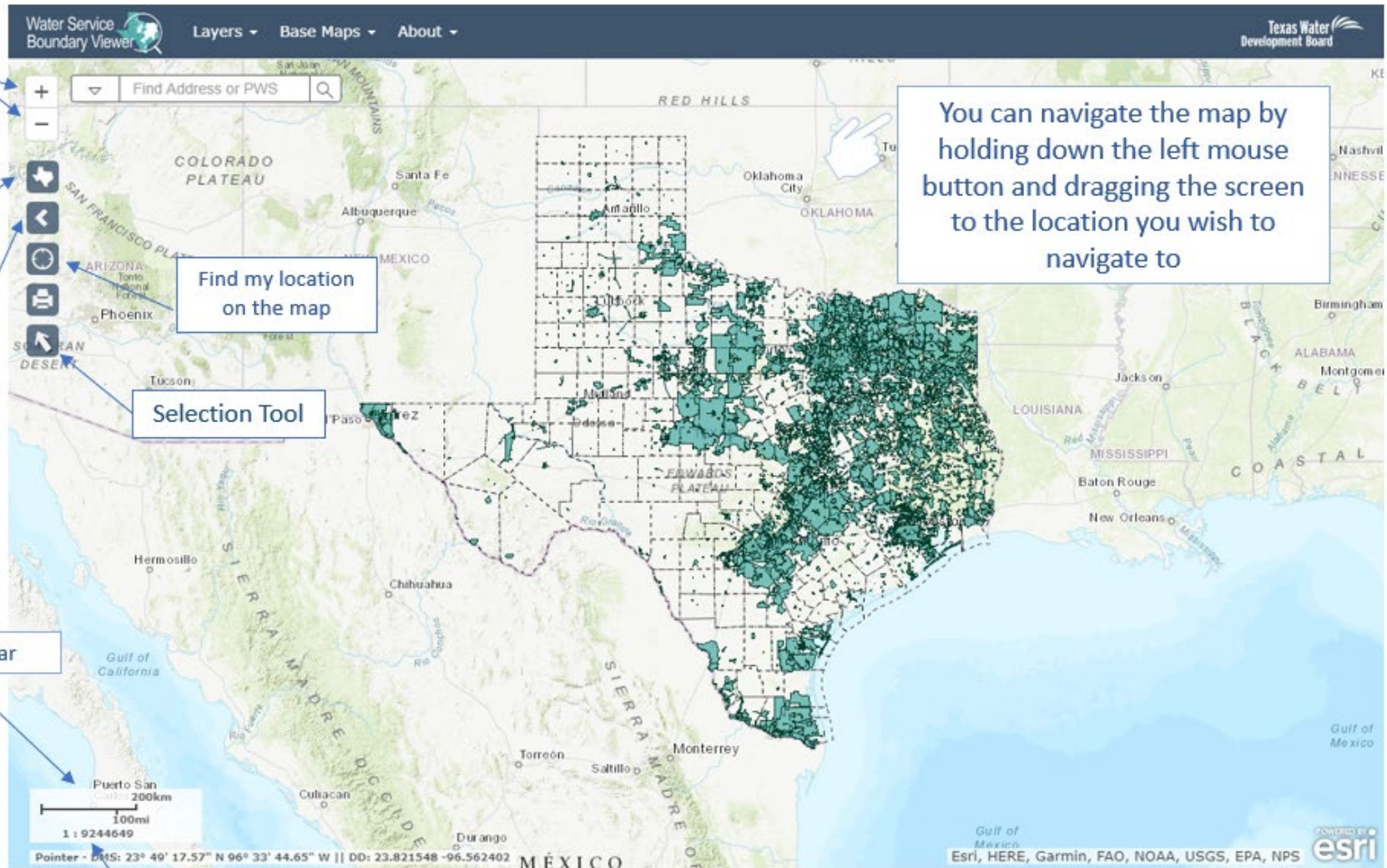
If searching by PWS ID, be sure to include the TX that leads the 7-digit number. This information can be found in the data grid.

PWS ID	PWS Name	
	No filter applied	
TX1700580	1485 LIMITED CRYSTAL SPRINGS WATER	
TX1012276	2920 WEST SUBDIVISION	
TX1500006	3 G WSC	
TX0460152	4 D WATER COMPANY	
TX1160091	4 R RANCH WATER 2	
TX1940006	410 WSC	
TX0140076	439 WSC	
TX0790309	5TH STREET WATER SYSTEM	
TX0790425	723 UTILITY	

7.4 Navigation

The are several ways to navigate through TWSBV. This page highlights the different tools and how they work. You can also navigate the page with the mouse wheel and click and drag the map.

Zoom in and out

Return to Texas' full extent

Return to previous map extent

Find my location on the map

Selection Tool

Map scale bar

Ratio map scale

The longitude and latitude of the cursor location

You can navigate the map by holding down the left mouse button and dragging the screen to the location you wish to navigate to

7.5 Boundary Color Key

Public Layer:
This is the layer that is available to the public.

Edit Layer:
This is how your boundary will appear if both the public and provisional layers are turned on.

Provisional Layer:
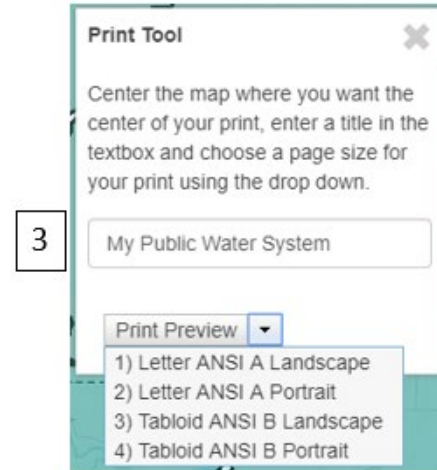This is the layer you edit. As you add new areas they appear in yellow.

Overlapped area:
Areas that overlap with an adjacent PWS will appear with a red cross hatch over the overlapped area
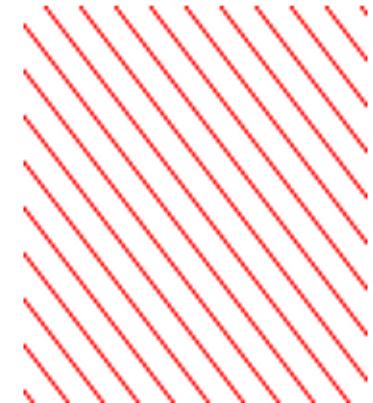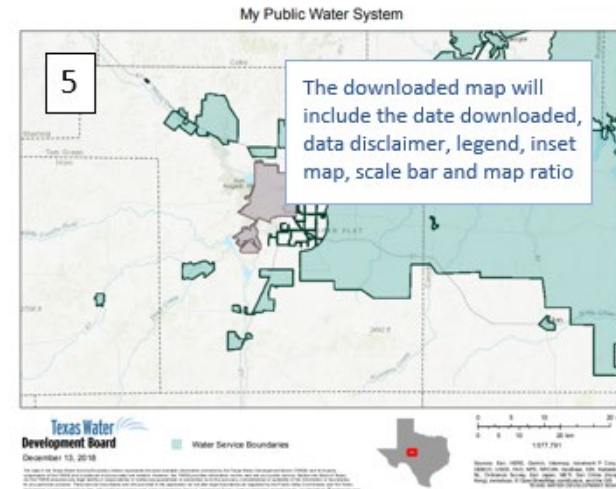
8. Printing and Creating a PDF Map

Users can create a PDF map of an area of interest using the following steps:

1. Select the extent of the area you want to be included in the map (the map will be created from the current view)
2. Click the "Print Map Tool."
3. Enter a map title (optional).
4. Select the size and orientation of map you want to create.
5. Wait for the map to generate and click "Download" once it appears.

Print Tool

Center the map where you want the center of your print, enter a title in the textbox and choose a page size for your print using the drop down.

3 | My Public Water System

Print Preview ▼
1) Letter ANSI A Landscape
2) Letter ANSI A Portrait
3) Tabloid ANSI B Landscape
4) Tabloid ANSI B Portrait

4	Map Size	Size in Inches
	Letter ANSI A Landscape	8.5x11
	Letter ANSI A Portrait	8.5x11
	Tabloid ANSI B Landscape	11x17
	Tabloid ANSI B Portrait	11x17

5

The downloaded map will include the date downloaded, data disclaimer, legend, inset map, scale bar and map ratio

9. Using the Selection Tool

Users can create a subset of boundaries for download or review using the selection tool

1. Begin by clicking the selection tool.
2. The Select Toolbox will open with the available selection methods to choose from. A detailed description of how each tool works is located on the following page.
3. When a selection is made it will appear gray.
4. If at any point you want to start over or clear the selected boundaries, click the "Clear Selection" button.
5. The retail service areas selected will appear in the "Service Area Selections" tab within the data grid
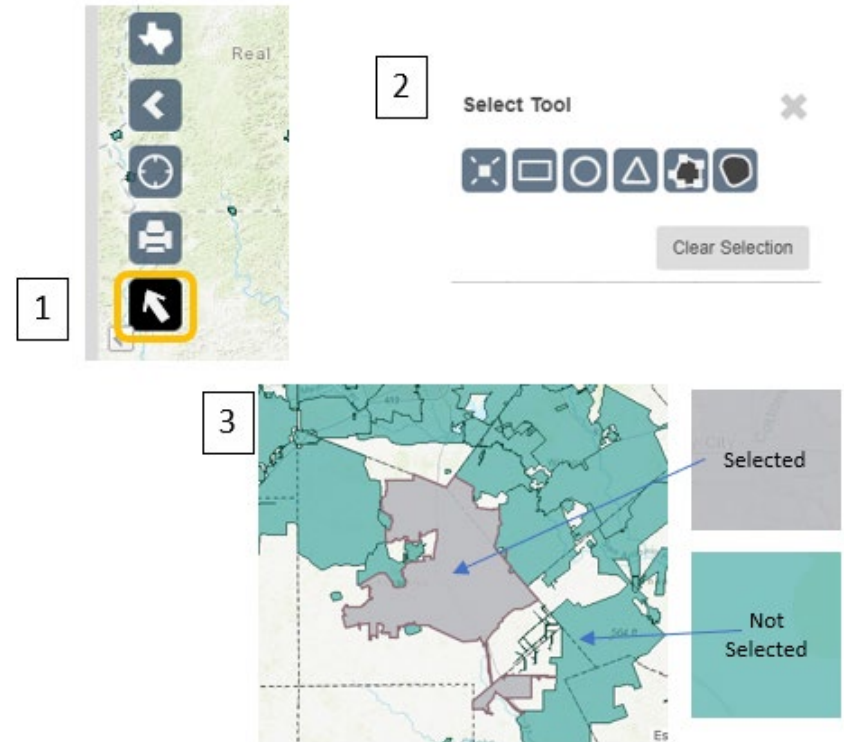
The selection will also appear in the data grid in the "Service Area Selections" tab

The number of selected records

The selection is available to download as a CSV (Excel compatible) or Shapefile (GIS Format)

Service Areas 4081 Download	Service Area Selections 5 Download			
PWS ID	PWS Name	▲ PWS Review Date	Area (sq mi)	County
30 No filter applied				
TX2440007	RRA FARMERS VALLEY WATER SYSTEM		77.8	Wilbarger
TX2440005	RRA HINDS WILDCAT WATER SYSTEM		43.5	Wilbarger

9.1 Which Select Tool to Use

Selection using Point

Using Point Selection allows users to have the most control over the boundaries they are selecting. Pair it with the search bar to find locations that are not close together. Click the Point Selection button before each selection.

Selection using a Rectangle

Using Rectangle Selection allows user to draw a rectangle over the area or boundaries of interest. This selection method is useful for selecting large areas. Once you draw the rectangle, it will disappear from the screen and highlight the selected boundaries that intersected the shape.

Selection using a Circle

Using Circle Selection allows user to draw a circle over the area or boundaries of interest. Where you place the mouse cursor will be the center of the circle. Once you draw the circle, it will disappear from the screen and highlight the selected boundaries that intersected the shape.

Selection using a Triangle

Using Triangle Selection allows user to draw a triangle over the area or boundaries of interest. Where you place the mouse cursor will be the center of the triangle. Once you draw the triangle, it will disappear from the screen and highlight the selected boundaries that intersected the shape.

Selection by drawn Polygon

Using the Polygon Selection method allows you to draw the desired shape. Begin to draw by clicking on the map, and double click to finish once you have a minimum of 3 points drawn. Once complete the polygon will disappear from the screen and highlight the selected boundaries that intersected the shape.

Selection by Freehand Polygon

Using the Freehand Selection method allows you to draw the desired shape. Begin to draw by holding down the mouse and draw the shape, release the mouse to finish the drawing. Once complete the polygon will disappear from the screen and highlight the selected boundaries that intersected the shape.
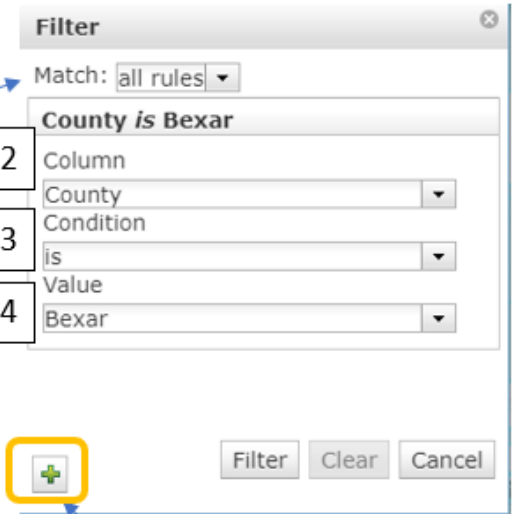
10. Filter Tool

Users can apply filter(s) based on different parameters to the data grid for review or for download
1. Click the Filter Tool located in the top left of the data grid.
2. Choose the column from the data grid you want to filter on.
3. Choose a condition (see table of conditions below).
4. Choose a value to search. As you begin to type, the value box will auto populate results.

Example of searching for all records within Bexar County:

Filter

Match: all rules ▾

County *is* Bexar

If multiple filters are applied you can choose to find results that match all of the rule, or results that match any of the individual rules

2 Column
County

3 Condition
is

4 Value
Bexar

Filter   Clear   Cancel

➕

You can add more than one rule by clicking the + button

Condition	Example
Contains	Result will contain the value entered
Is	Result will be the exact match of the value entered
Starts With	Result will start with value entered
Ends With	Results will end with the value entered
Does not Contain	Results will not contain the value entered
Is Not	Results will return all records that are not the value entered
Does not Start With	Results does not start with value entered
Does not End With	Results does not end with value entered
Is Empty	Results will return empty records based on the column

11. Viewing Reports

To view a report, you must first locate the boundary of interest. This can be accomplished by scrolling to the area, using the search bar, or filtering the data grid.

1. Click on the boundary of interest to pop-up the attribute data.
2. Within the pop-up are links to 2 reports, select one and a page will open in a different tab in your browser
   - TCEQ Drinking Water Watch includes information about system violations, sales and other information TCEQ regulates
   - Water Use Survey data is collected by the TWDB and includes information about categorical water intake and sales

12. Downloading Data

The TWSBV data is available both spatially and tabularly. To download the data:
1. Choose the data you need (statewide or a subset? If subset use the selection tool, or a data filter to find the desired data)
2. Click the download button located in the Service Areas Selection tab
3. Choose CSV (Excel Compatible) or Shapefile (GIS format) from the pop-up window

*Watch **Editor Tools: Downloading Your Provisional Service Area Boundaries** to learn more about how to download your data on TWSBV*

An editor can download from three different data sources:
1. Provisional Service Areas tab- PWS's the editor can update.
2. Service Areas tab- All PWS's with spatial data in TWSBV.
3. Service Areas Selections tab- PWS's the editor has selected.

Download As:

CSV   Shapefile

Provisional Service Areas	13	Download	Service Areas	4552	Download	Service Area Selections	3	Download

1

Survey Number   PWS Name

2   Status   Submit Comments

3   TWDB Comments