

# Collecting Current Texas Public Water System Boundary Data

Texas GIS Forum  
Oct 25, 2023

Genera Navarra

4552 Download Service Area Selections

PWS Name	PWS Review Date	Area (sq mi)	County
114TH STREET MOBILE HOME PARK	6/18/2020	0.015	Lubbock
1485 LIMITED CRYSTAL SPRINGS WATER CO	10/29/2020	0.033	Montgomery
2920 WEST SUBDIVISION	3/30/2020	0.612	Harris

# Acronyms

**PWS**

**Public Water System**

**TCEQ**

**Texas Commission of Environmental Quality**

**TWDB**

**Texas Water Development Board**

**TWSBV**

**Texas Water Service Boundary Viewer**

# Overview

**Why the TWDB Created TWSBV**

**How the TWDB Created TWSBV**

**Data Collection and Review**

**Data User Stories**

**Public Application Demo**

**TWSBV Enhancements**

**Summary**



# Why was the TWSBV created?

**Need for a current PWS boundary layer.**

**Other Texas water utility maps do not meet the need.**



# What would TWSBV need?

Current retail water service areas

Enlist the support of PWS editors

Program administration

Dissemination of water use data



Photo by [Alan Liu](#) on [Unsplash](#)

# How Did We Create TWSBV?

2009 TWDB research grant

2016 USGS research grant

2019 TWSBV first deployed

Photo by [Mark Fletcher-Brown](#) on [Unsplash](#)



# Data Collection and Review

## Editor

- Updates or verifies
- Submits boundary

## Administrator

- Reviews
- Approves or seeks clarification
- Provides customer service

## Public

- View data
- Create PDF map
- Download report or spatial data

Photo by [Scott Graham](#) on [Unsplash](#)

# Editor

The screenshot shows a web-based map editor interface. The main window displays a map of a region with various colored areas representing water service boundaries. Below the map is a table with columns for PWS ID, Survey Number, PWS Name, Status, Submitter Comments, TWDB Comments, Last Submitted Date, and Submitted Date. The table contains several rows of data, including entries for 'CITY OF BOERNE' and 'CITY OF GOLIAD'. An 'Edit Tool' panel is overlaid on the right side of the screen, featuring a dropdown menu labeled 'Edit Tool' and several buttons: 'Upload', 'Edit', 'Add', 'Clip', 'Delete', 'Revert', 'Zoom To', 'Undo', 'Redo', 'Cancel', 'Submit', and 'Save'. A light blue button at the bottom of the panel reads 'Submit PWS when complete'.

PWS ID	Survey Number	PWS Name	Status	Submitter Comments	TWDB Comments	Last Submitted Date	Submitted Date
TX000001	000000	CITY OF BOERNE	Not Started	No major changes in 2023	01/25/2023-approval for major changes in 2023	04/20/23	Crystal B...
TX000002	000000	CITY OF GALENA PARK	Not Started		01/25/2023-approval on changeover PWS status	11/02/2021	David P...
TX000003	000000	CITY OF GOLIAD	Not Started	02/28/2024	Approval by TWDB	04/20/23	...

Photo by [Aram Sabah](#) on [Unsplash](#)



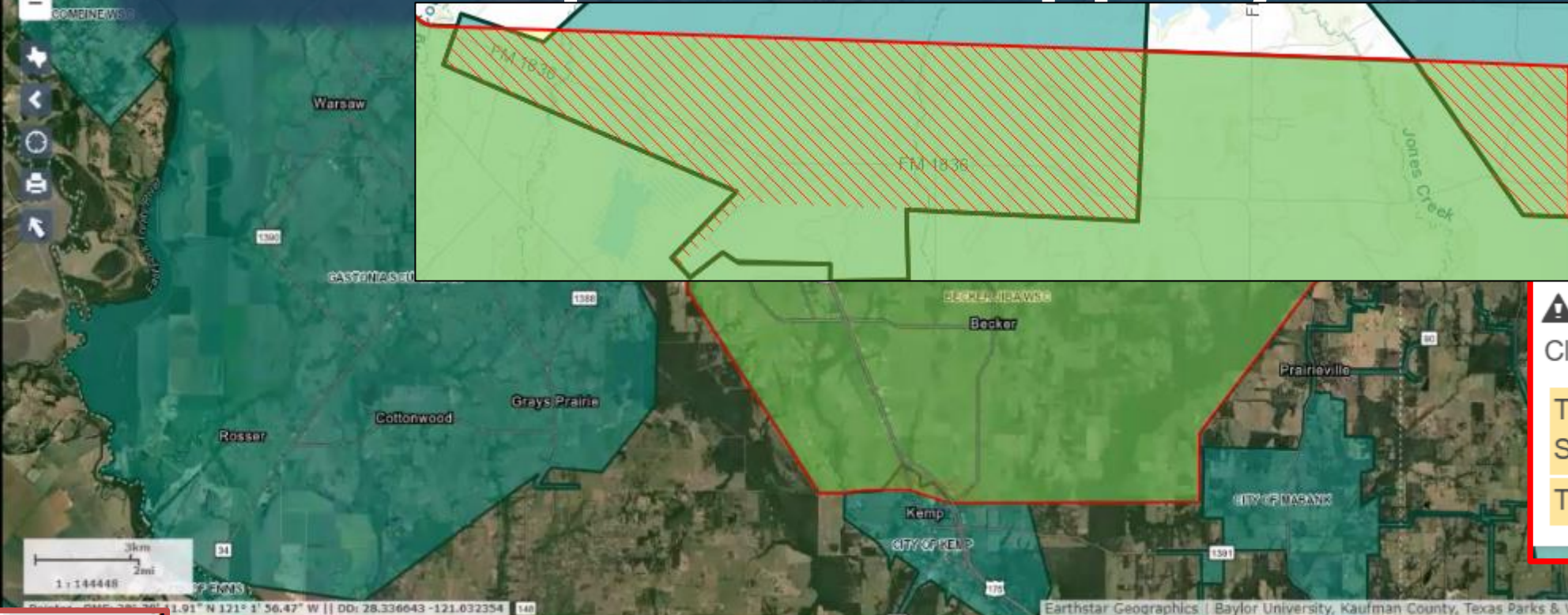
# Administrator

The screenshot shows a web-based GIS application interface. The top navigation bar includes 'File', 'Edit', 'Tools', 'Mark', 'Clip', 'Modify', 'View', 'Window', and 'Help'. The main area displays a map of a region with various colored overlays representing service areas. Below the map is a table with columns for 'FWS ID', 'Survey Number', 'FWS Name', 'Status', 'Submitter Comments', 'TWDB Comments', 'Last Submitted Date', and 'Submitted By'. The table contains several rows of data, including entries for 'CITY OF BOERNE' and 'CITY OF GOLIAD'. An 'Edit Tool' panel is overlaid on the right side of the screen, featuring buttons for 'Upload', 'Comment', 'Edit', 'Add', 'Clip', 'Delete', 'Revert', 'Zoom To', 'Attributes', 'Undo', 'Redo', 'Cancel', 'Approve', 'Reject', 'Email', and 'Save'.

FWS ID	Survey Number	FWS Name	Status	Submitter Comments	TWDB Comments	Last Submitted Date	Submitted By
TX000001	000000	CITY OF BOERNE	Not Started	Revised changes in 2023	OT&T-approval on major changes in 2023	04/20/23	Cristal Torres
TX000002	000000	CITY OF GALENA PARK	Not Started		OT&T-approval on changeover FWS status	11/02/2021	David Fero
TX000003	000000	CITY OF GOLIAD	Not Started	02/28/2024	Approved by TWDB	04/20/23	kat@twdb.org

Photo by [Aram Sabah](#) on [Unsplash](#)

# Example : Overlapping Boundary

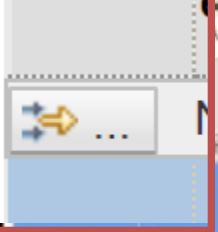


**Boundary Overlaps**  
 Click in List to Show

- TX1290012: COLLEGE MOUND SUD
- TX1290004: CITY OF KEMP

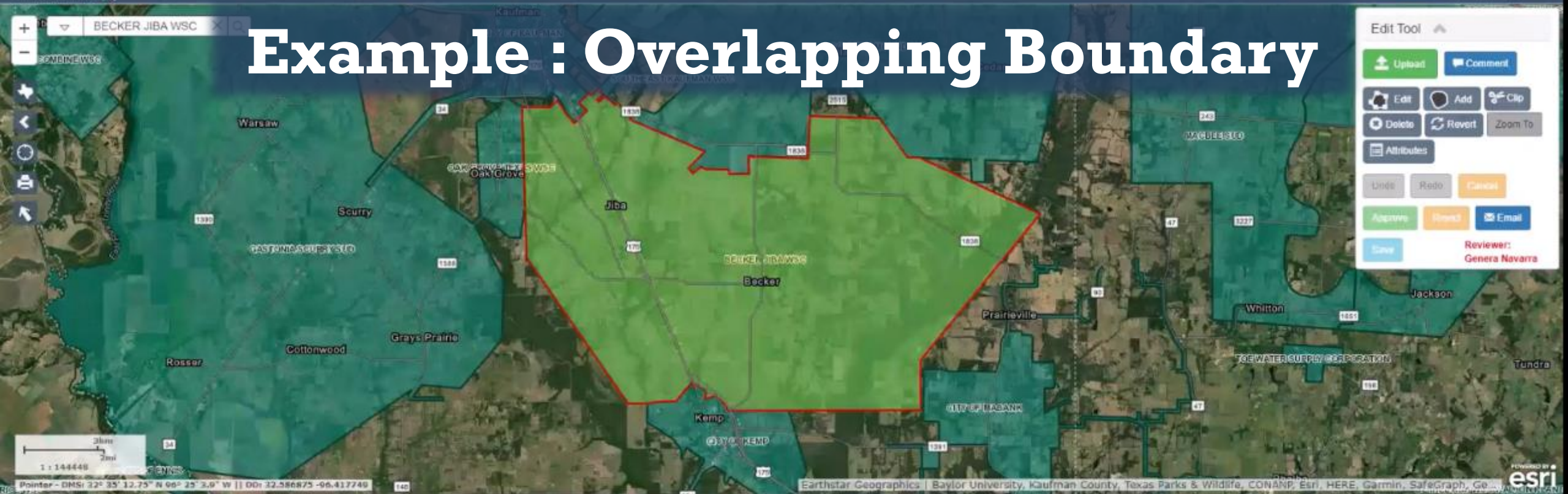
Areas **134** Download Service Area Selections

PWS Name	Status	Source	Submit Comments	TWDB Comments	Comment Type	Action On	Action Age (Days)	Last Submitted Date	Submitted By	Last Update Date	Last Update Time	Last Update By	Area (sq mi)	Area Change (%)	Overlaps Adjacent PWS	Reviewer	County	Region
TX1290011	0060345	BECKER JIBA WSC	Unverified	System	These areas are part areas with College of Becker-Jiba SUD's CCN	Admin General		11/17/2020	Braniff Davis	11/17/2020	8:34:10 AM	Braniff Davis	73.670	0	Yes		Kaufman	





# Example : Overlapping Boundary



**Edit Tool**

Upload Comment

Edit Add Clip

Delete Revert Zoom To

Attributes

Undo Redo Cancel

Approve Reject Email

Save

Reviewer: Genera Navarra

Provisional Service Areas **4567** Download Service Area Selections

PWS ID	Survey Number	PWS Name	Status	Source	Submit Comments	TWDB Comments	Comment Type	Action On	Action Age (Days)	Last Submitted Date	Submitted By	Last Update Date	Last Update Time	Last Update By	Area (sq mi)	Area Change (%)	Overlaps Adjacent PWS	Reviewer	County	Region
30	No filter applied		Approved	System	SUD's CCN	overlapping with College Mound SUD were not being provided retail service from Becker Jiba. TWDB admin removed those parts of the boundary.														

# Data User Stories

**Public**

- **Locate utility**
- **Find utility information**

**City**

- **Find utility information**
- **Lead and Copper Rule implementation**

**Regional**

- **Regional water plan development**



# Data User Stories

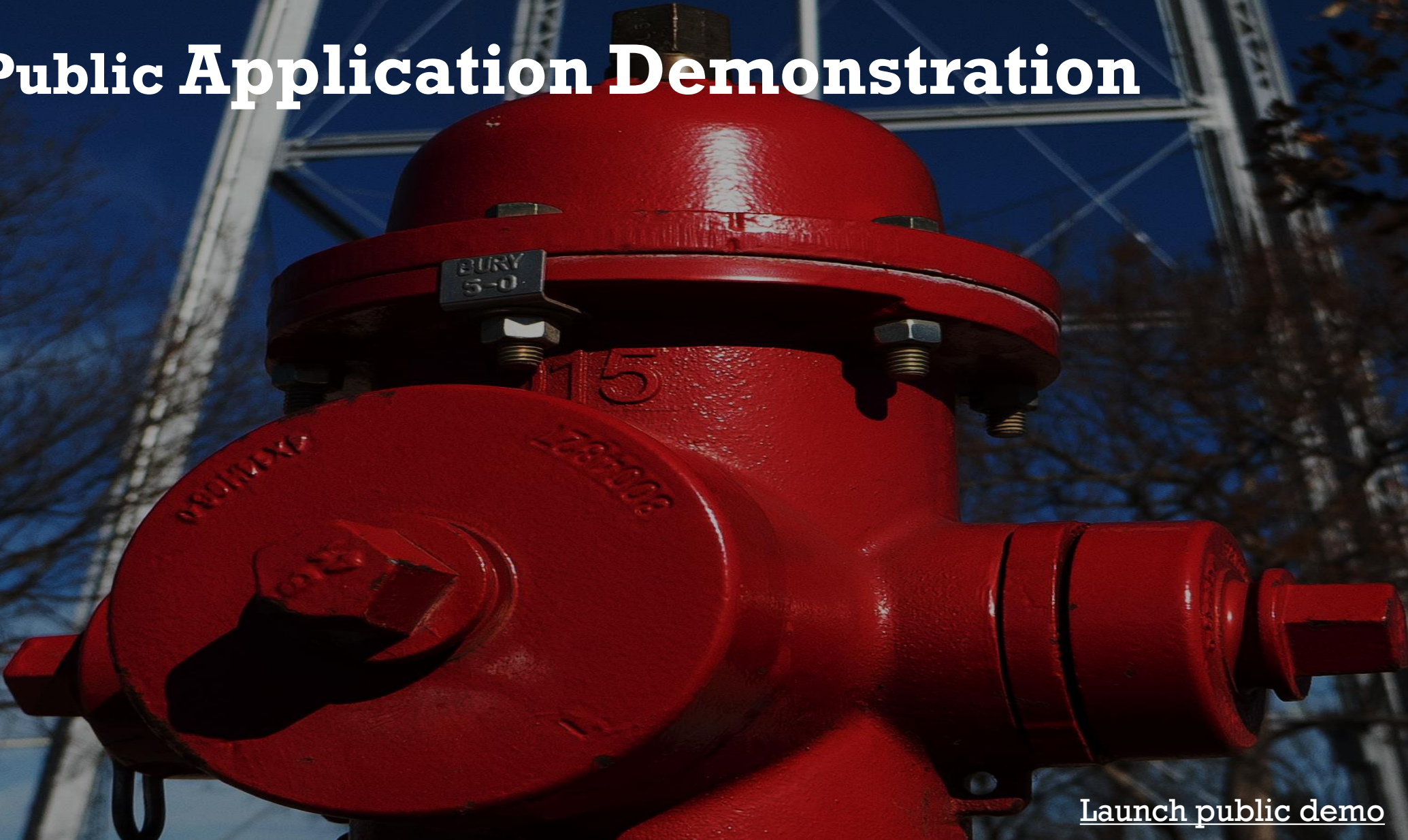
State

- Population and demand projections
- Socio economic analysis
- Project funding allocations
- Water emergency
- Public complaints
- Water related public health research

National

- Climate justice screening tool
- National PWS Map

# Public Application Demonstration



Launch public demo



# What are our plans for TWSBV?

Additional Reports

Analytical Tools

Dashboard

TWSBV 2 is coming to you!

Photo by [Elena Koycheva](#) on [Unsplash](#)

# Takeaways

The need for TWSBV's creation

How the data is maintained

Who uses the data

How to use the data

What is in store for TWSBV



**Tomorrow (10/26/2023) 8:30-9:00 AM**  
**Census-based Public Water System**  
**Population Estimates 2010, 2020**  
Amanda Covington, Emma Jones; TWDB  
**Location: Balcones Room**

Photo by [Karthik Sridasyam](#) on [Unsplash](#)

**T H A N K Y O U**

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**Texas Water Development Board**



Photo by [Alexas Fotos](#) on [Unsplash](#)