



Wimberley City Council Presentation
August 18, 2022

DROUGHT AND GROUNDWATER PUMPING

LESSENING IMPACTS



WIMBERLEY VALLEY
WATERSHED
ASSOCIATION
LAND · WATER · CONNECTION

Robin Gary

Watershed Association

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THE
**WATERSHED
ASSOCIATION**
LAND · WATER · CONNECTION



TEXAS
BREWSHED[®]
ALLIANCE



CYPRESS
CREEK

Let's keep it clean, clear & flowing

texas hill country
conservation network
member

The Wimberley Valley Watershed Association is a non-profit organization located in the heart of the Texas Hill Country and born out of a love for water.

Founded in 1996, the Watershed Association has been working to protect Texas water through land conservation, watershed protection, science, environmental planning, and education across the Hill Country.

Current Status and Planning Discussion

DROUGHT

- Drought Monitor
- GCD Drought Status Map
- Spring and River Flows
- Monitor Wells

GROUNDWATER USE

- Groundwater Supplies
- Wells Through Time
- Wells by Use Type

CONSERVATION

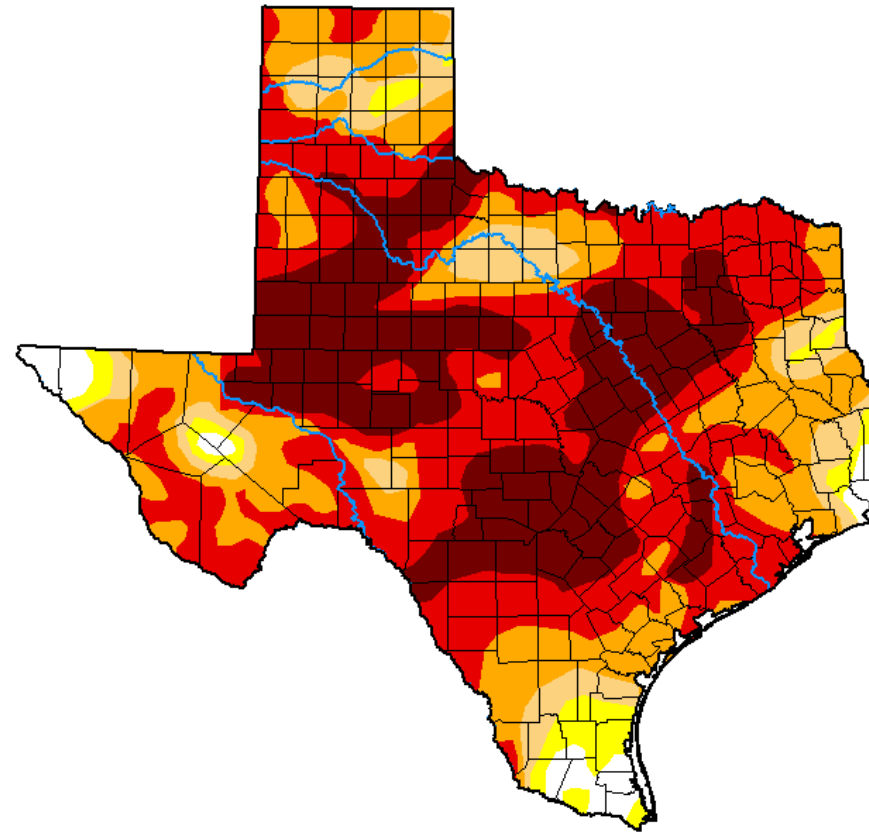
- Importance of Water Conservation Now
- Watershed Protection Plan
- Roles of Organizations
- Lessening Future Drought and Pumping Impacts – Policy Discussion

DROUGHT

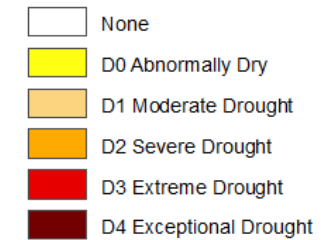
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U.S. Drought Monitor Texas

August 16, 2022
(Released Thursday, Aug. 18, 2022)
Valid 8 a.m. EDT



Intensity:



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:

Richard Tinker
CPC/NOAA/NWS/NCEP

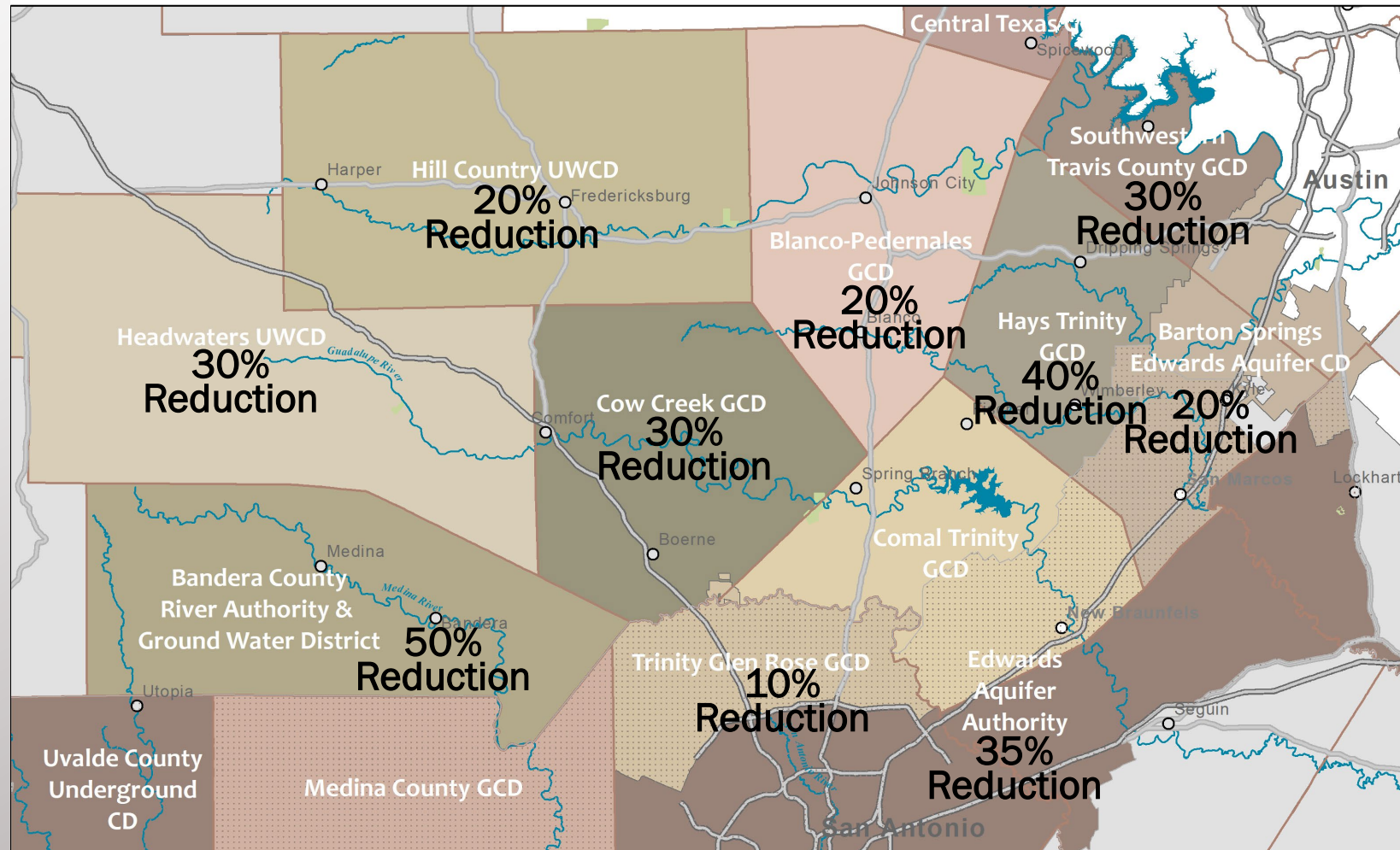


droughtmonitor.unl.edu

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Hill Country Groundwater Conservation Districts (GCDs)



Basemap: Texas Commission on Environmental Quality Groundwater Conservation Districts
Robin Gary, the Watershed Association, July 2022

Date compiled: 8/9/2022

DROUGHT

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Blanco River: USGS 08170950 Blanco Rv at Fischer Store Rd nr Fischer, TX
Cypress Creek: USGS 08170990 Jacobs Well Spg nr Wimberley, TX



Compiled by the Watershed Association with data from USGS, Hays Trinity GCD, and Edwards Aquifer Authority.

Note: Pleasant Valley and Park Springs provide the Blanco River baseflow measured at the USGS Blanco River site shown above.

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Jacob's Well reached zero flow for the first time in 2000

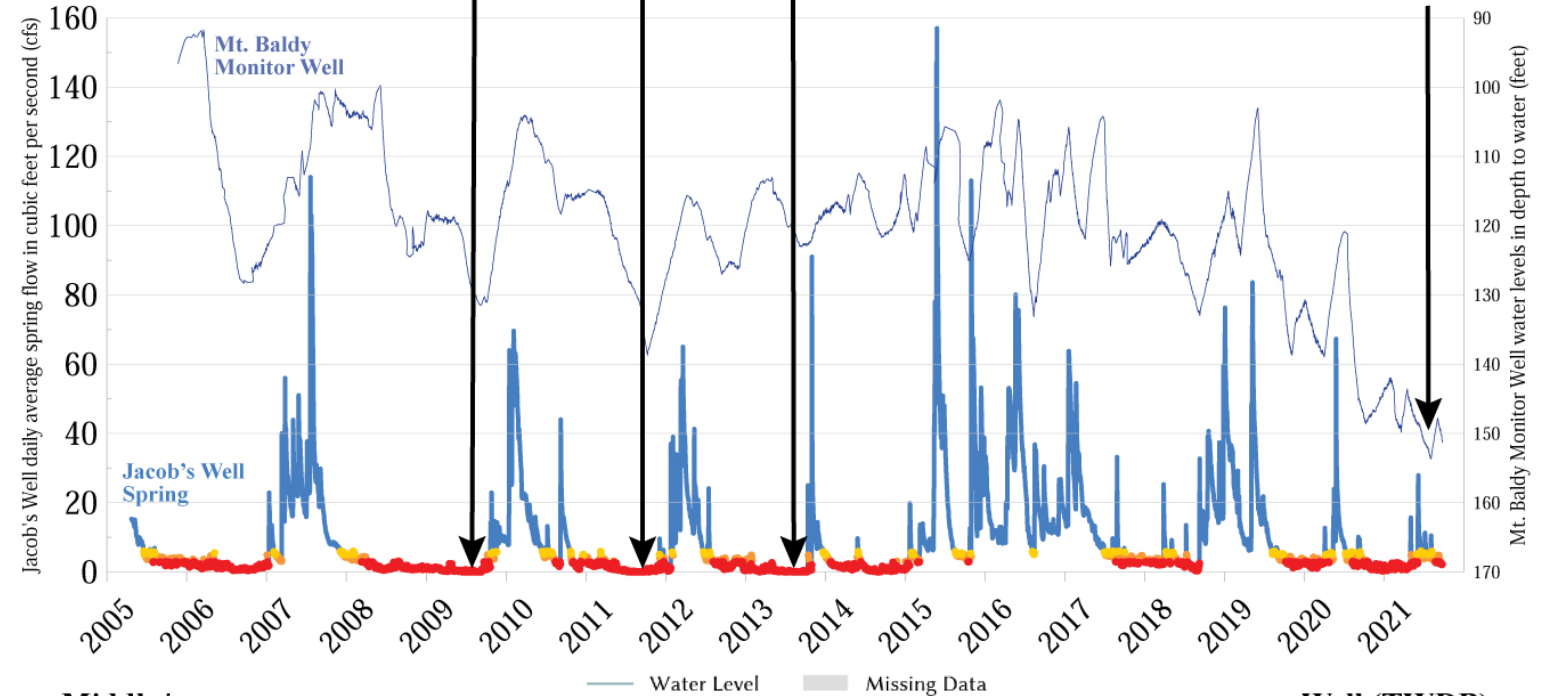
2009
Jacob's Well Stops Flowing (33 days)

2011
Jacob's Well Stops Flowing (18 days)

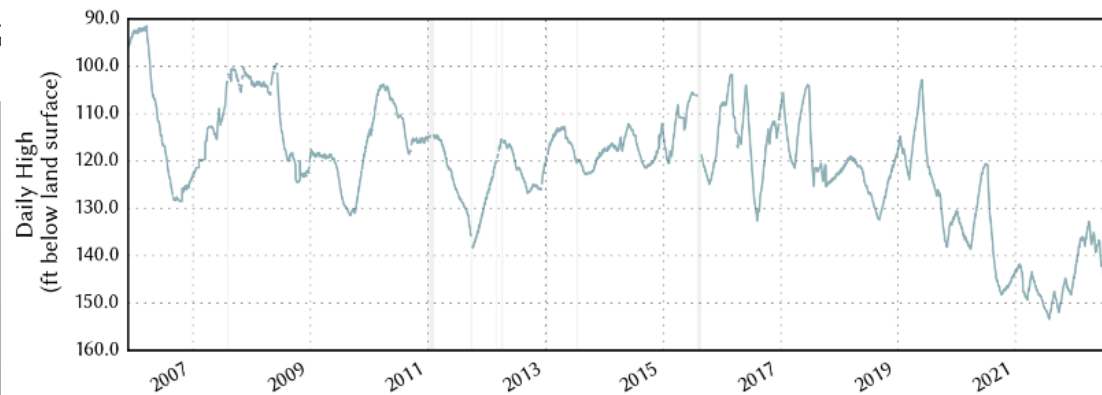
2013
Jacob's Well Stops Flowing (14 days)

Jacob's Well reached a daily average of zero on Aug. 6, 2022

2021
Mt. Baldy Well Lowest Water Level on Record



Middle Robin C

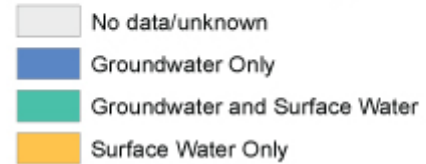


Well (TWDB)

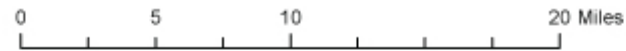
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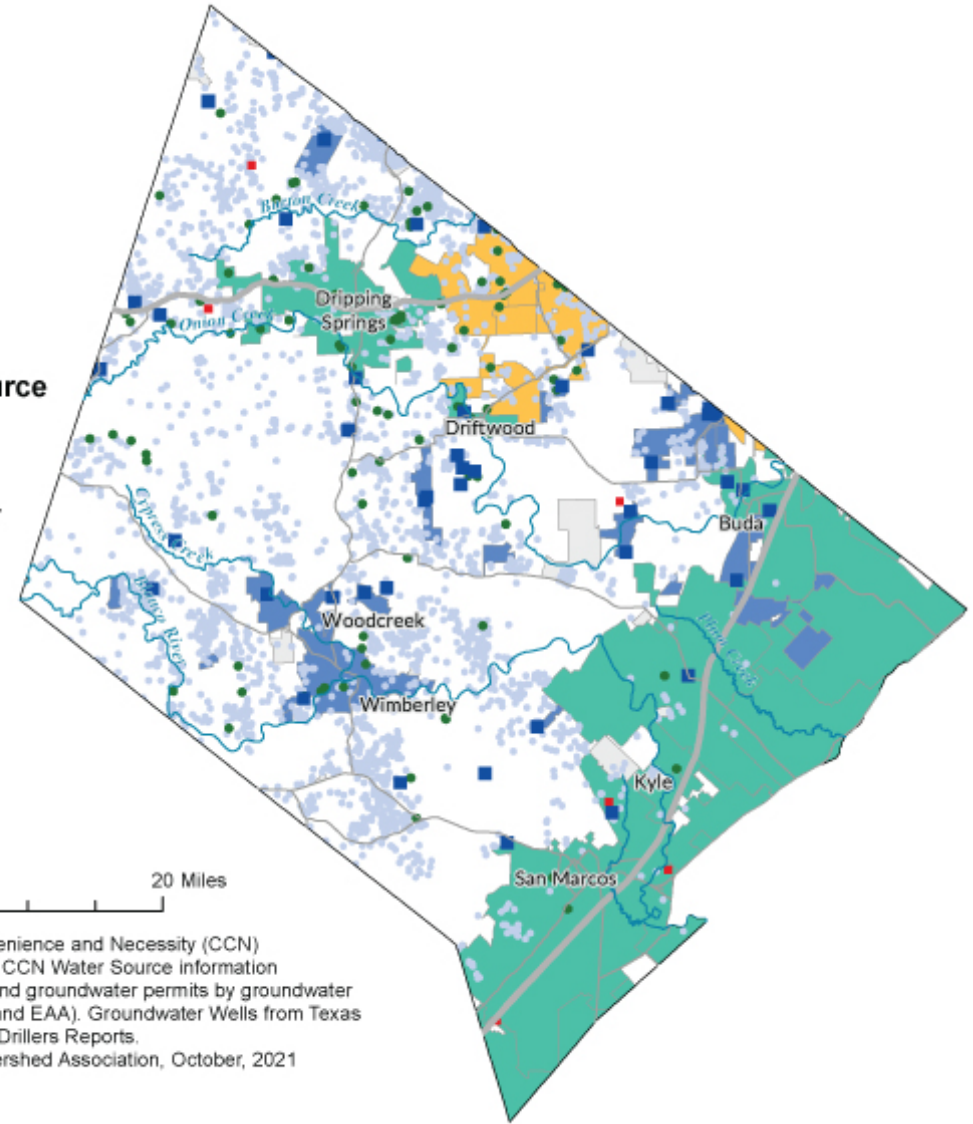
Water Utilities (CCNs) by Source



Groundwater Wells by Use

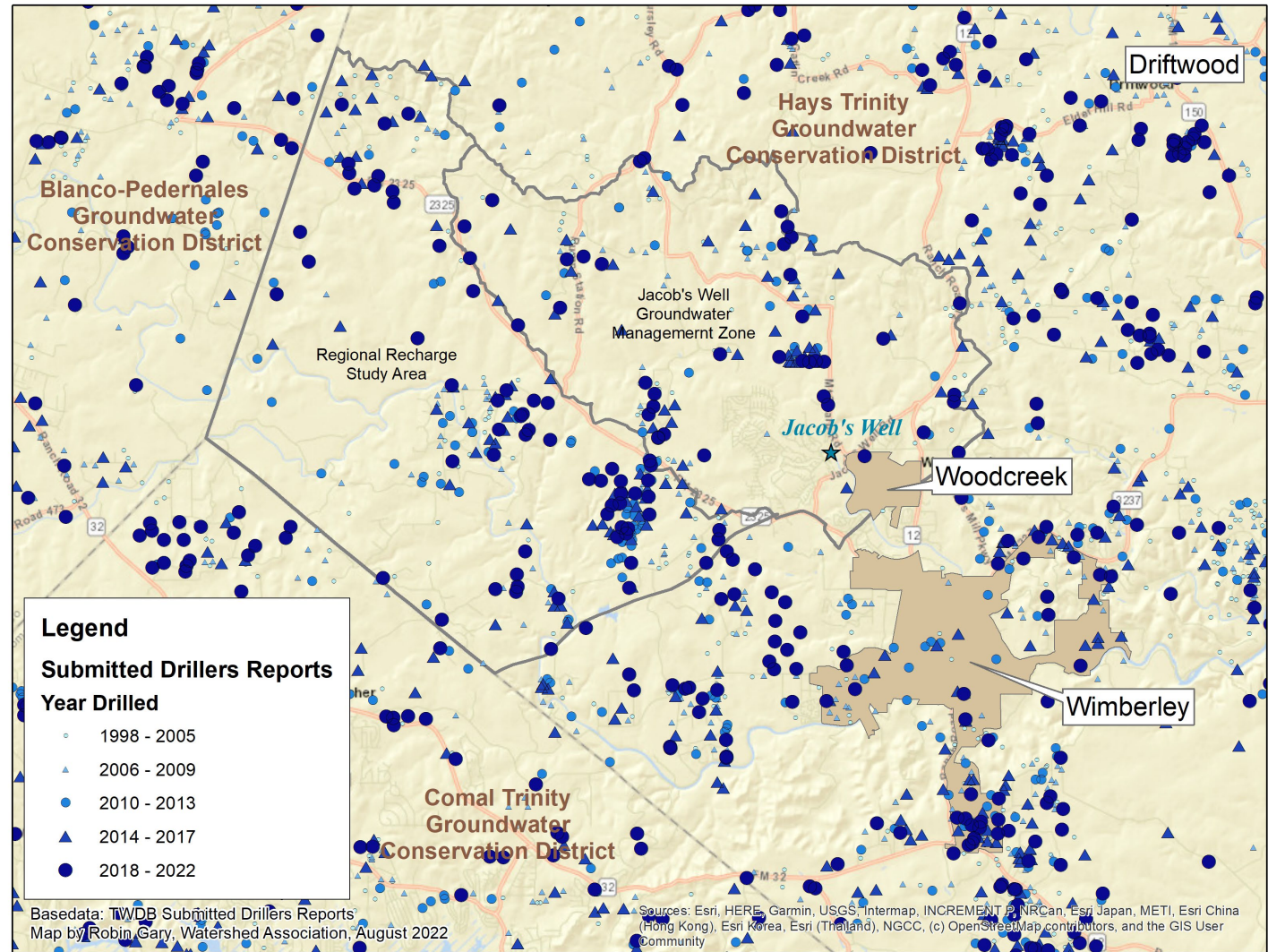


Basemap: Water Utility Certificate of Convenience and Necessity (CCN) boundaries from Public Utility Commission, CCN Water Source information compiled from the 2022 State Water Plan and groundwater permits by groundwater conservation districts (BSEACD, HTGCD, and EAA). Groundwater Wells from Texas Water Development Board Submitted Well Drillers Reports.
Map by Robin Gary, Wimberley Valley Watershed Association, October, 2021



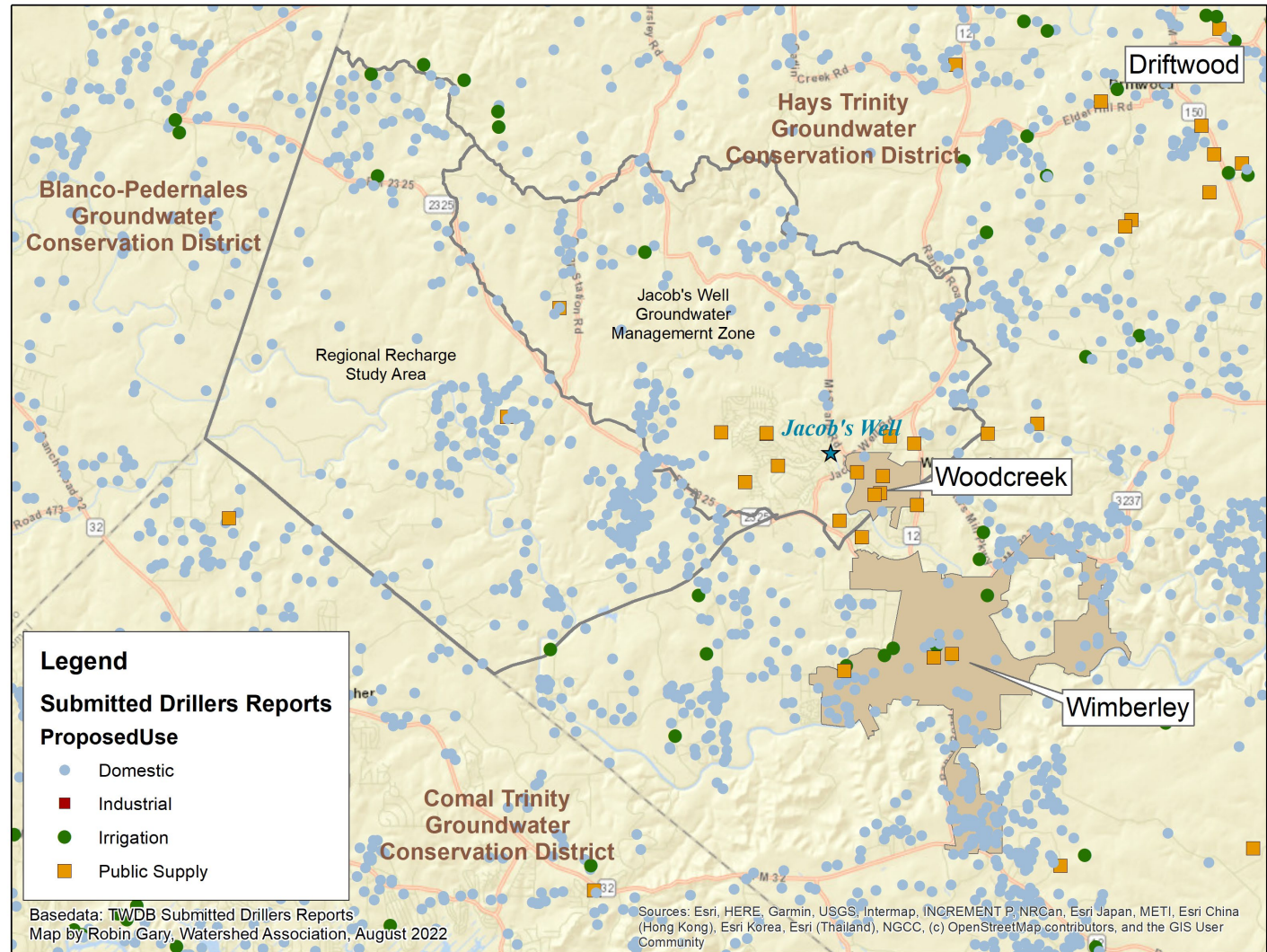
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CONSERVATION

- Importance of Water Conservation Now
- Watershed Protection Plan
- Roles of Organizations
- Lessening Future Drought and Pumping Impacts – Policy Discussion

Jacob's Well



Cypress Falls



Cypress Creek near Downtown

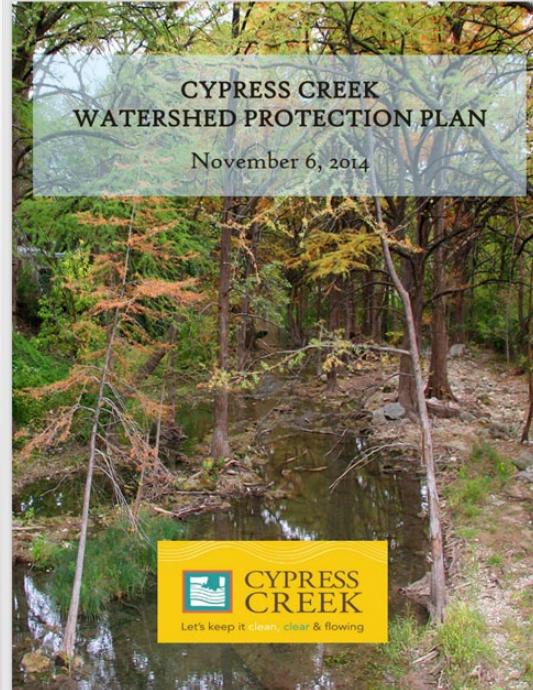


Bulk Water Delivery



CONSERVATION

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IN COOPERATION WITH THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY AND U.S. ENVIRONMENTAL PROTECTION AGENCY. CWA §319H. CONTRACT NO. 582-11-12915.



OVERVIEW

- EPA approved plan to protect water quality in the Cypress Creek Watershed
- Collaboration between many partners
- 7 years of implementation funded through 3 through 3 multi-year EPA/TCEQ grants

GOALS

- To implement activities to reduce and prevent nonpoint source pollution (NPS) and protect flow

RECENT SUCCESSES

- Creation of Jacob's Well Groundwater Management Zone
- WISD's One Water School
- Green Infrastructure Projects
- Water Quality and Flow Monitoring

Funding needed to continue implementation of the Watershed Protection Plan.

CONSERVATION

- Importance of Water Conservation Now
- Watershed Protection Plan
- **Roles of Organizations**
- Lessening Future Drought and Pumping Impacts – Policy Discussion

- Groundwater permitting
- Water level monitoring
- Drought management
- Enforcement of pumping reductions

- Subdivisions, stormwater treatment, land use
- Wastewater permitting and compliance
- Parks and natural areas, land conservation

Residents and Businesses

Groundwater Conservation Districts

Counties

Water Utilities

Cities

NGOs and non-profits

- Local land use, stormwater, impervious cover ordinances
- Water and wastewater supply commitments
- Parks and natural areas

- User Drought Contingency Plans
- Conservation easements
- Science, research
- Communication, education

LESSENING FUTURE DROUGHT AND PUMPING IMPACTS – POLICY DISCUSSION

Groundwater Management

- Enhance GCD drought management tools
- Refine drought triggers for more conservative pumping reductions
- Increase lot size requirements for exempt wells
- Increase well spacing requirements
- Appropriately fund GCDs

Land Use

- Decrease allowable impervious cover limits
- Increase acreage requirements for OSSF
- Establish Conservation Development guidelines to incentivize responsible growth
- Invest in parks and open space
- Review neighborhood CCRs to encourage water wise landscapes

Conservation and Alternate Supply

- Support water utility system upgrades for leak detection, alternate supplies, and end user water use
- Support Type 1 wastewater reuse enhancements
- Adjust building code requirements to reduce landscape irrigation and new pool construction
- Incorporate One Water design
- Encourage rainwater harvesting and AC condensate collection for outdoor use

Communication

- Support the Cypress Creek Watershed Protection Plan Collaboration
- Enhance multi-agency information sharing for development projects
- Increase public awareness of water issues and conservation priorities