



The Future of Blanco County Meeting  
September 15, 2022

# DROUGHT AND GROUNDWATER PUMPING

# LESSENING IMPACTS



WIMBERLEY VALLEY  
WATERSHED  
ASSOCIATION  
LAND · WATER · CONNECTION

Robin Gary

Watershed Association

[robingary@wimberleywatershed.org](mailto:robingary@wimberleywatershed.org)



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



TEXAS  
BREWSHED<sup>®</sup>  
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
- Water Levels and River Flows

## GROUNDWATER USE

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

## CONSERVATION

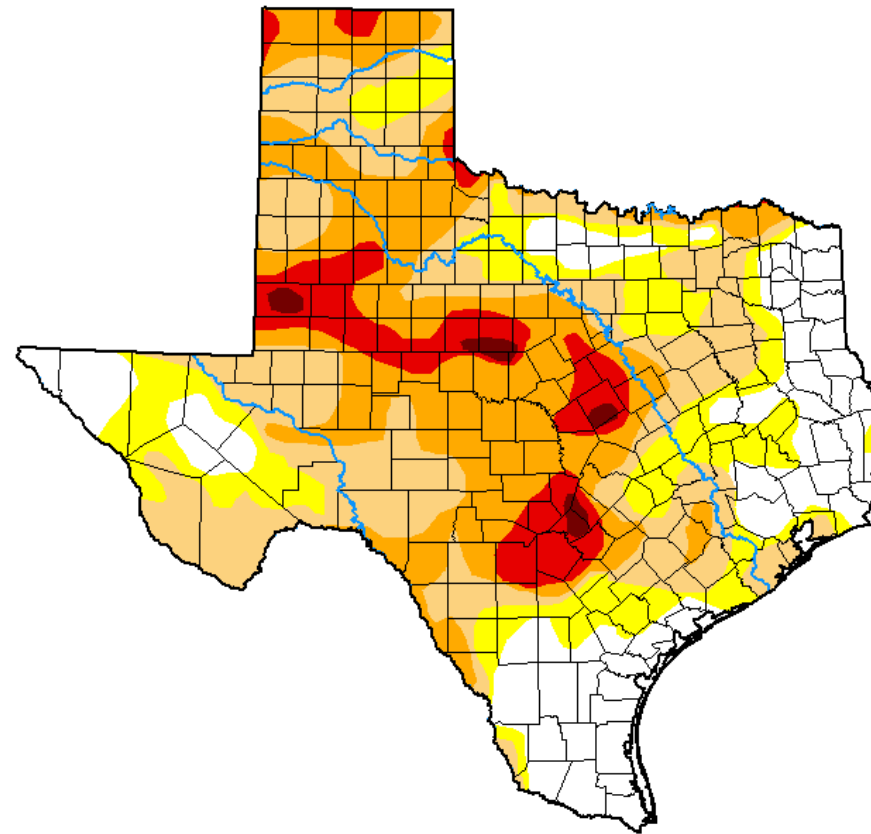
- Importance of Water Conservation Now
- Successes
- Roles of Organizations
- Lessening Future Drought and Pumping Impacts – Policy Discussion

# DROUGHT







- Drought Monitor
- GCD Drought Status Map
- Water Levels and River Flows

## U.S. Drought Monitor Texas

September 6, 2022  
(Released Thursday, Sep. 8, 2022)  
Valid 8 a.m. EDT



### Intensity:

	None
	D0 Abnormally Dry
	D1 Moderate Drought
	D2 Severe Drought
	D3 Extreme Drought
	D4 Exceptional Drought

*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:

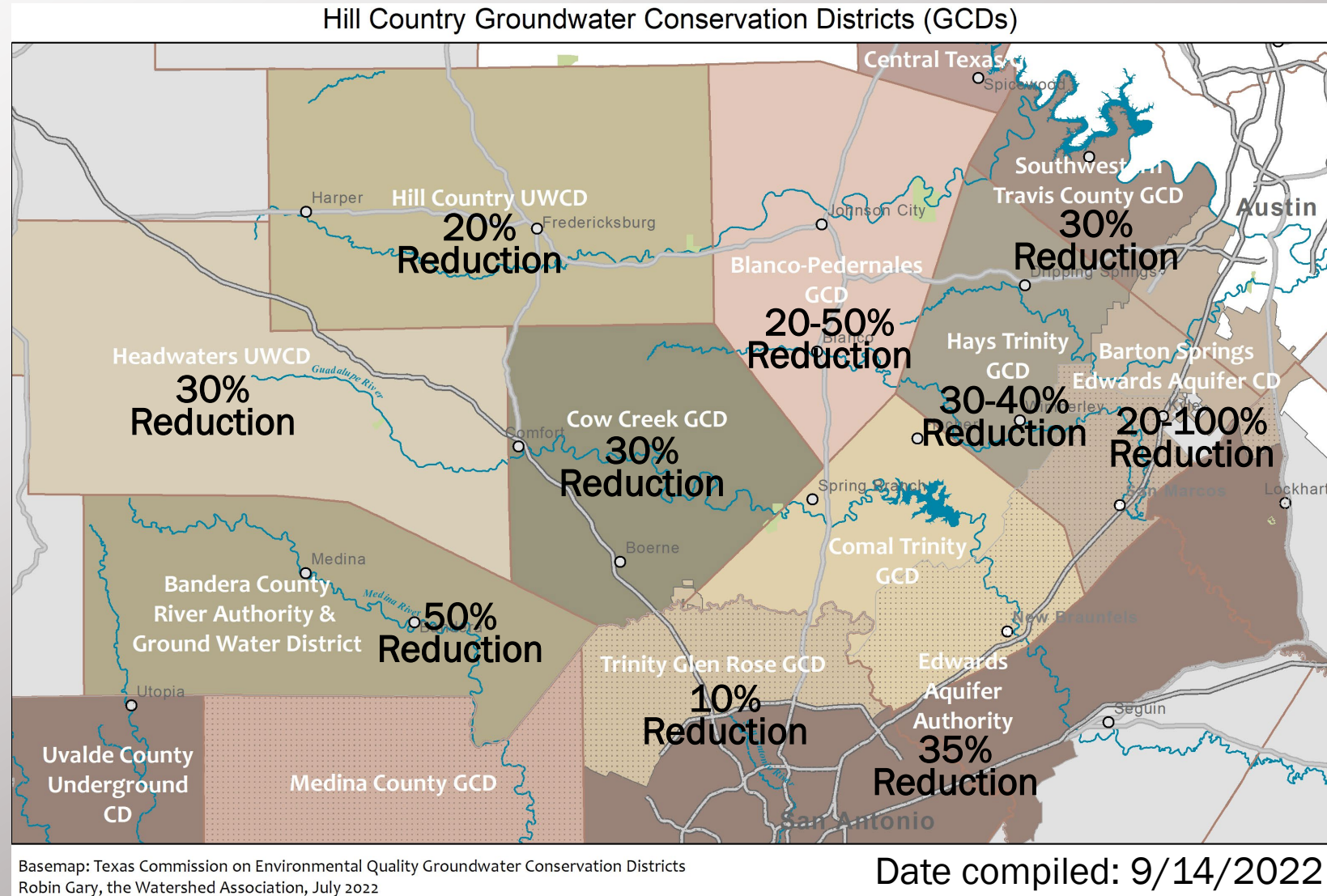
David Simeral  
Western Regional Climate Center



[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

# DROUGHT

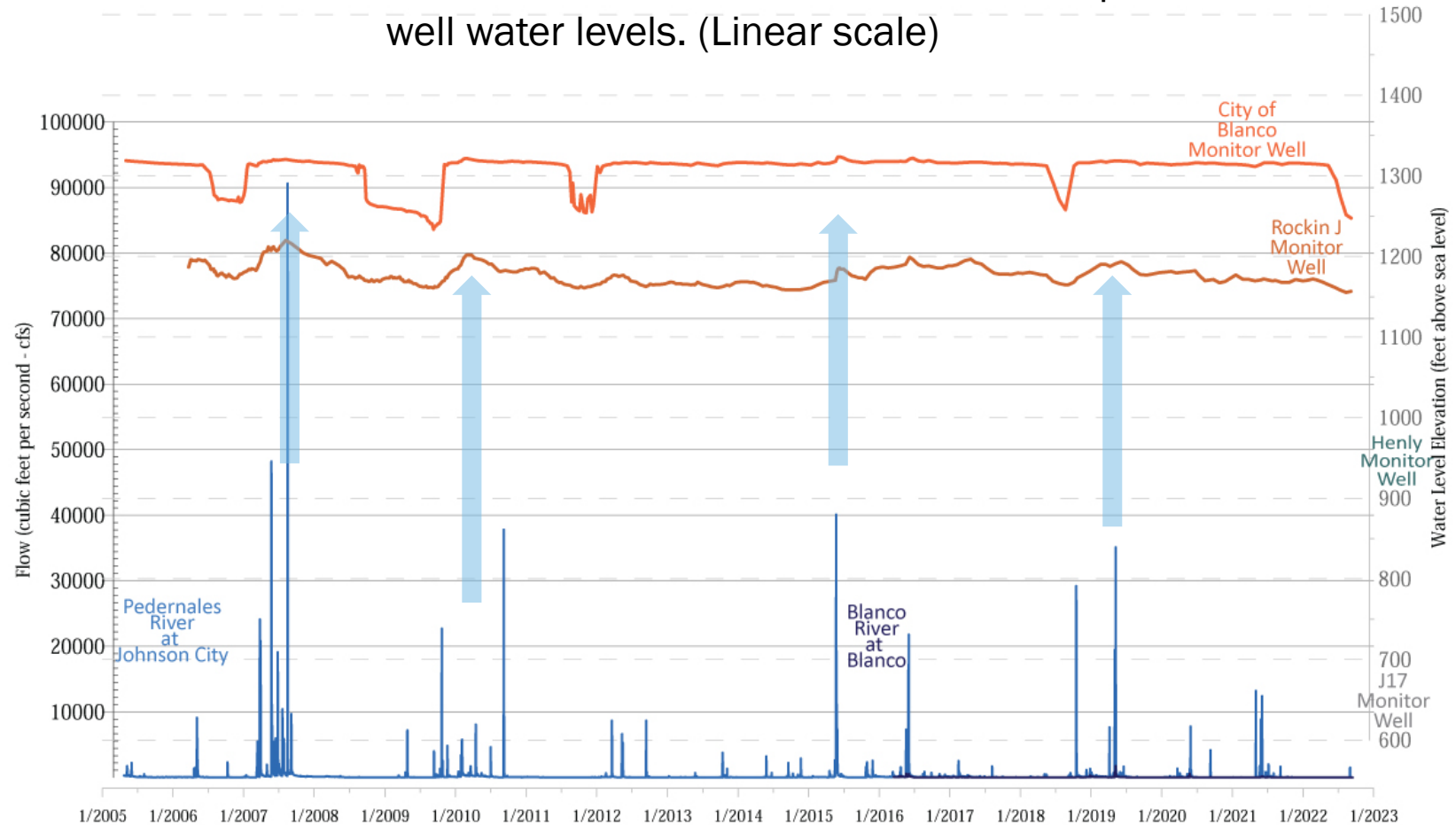
- Drought Monitor
- GCD Drought Status Map
- Water Levels and River Flows



# DROUGHT

- Drought Monitor
- GCD Drought Status Map
- Water Levels and River Flows

Floods shown in the river flow records match with similar peaks in well water levels. (Linear scale)

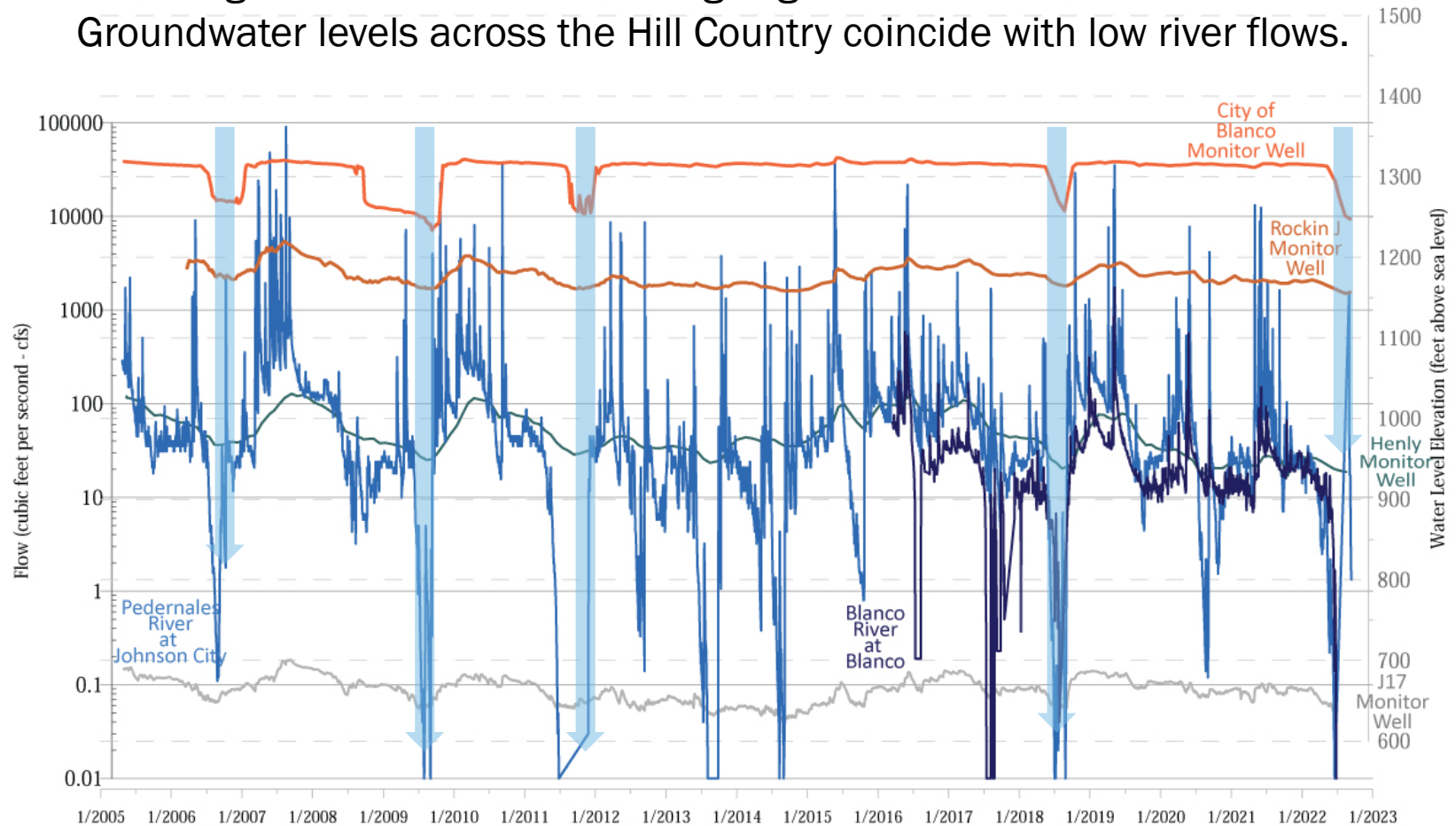


USGS Pedernales River at Johnson City site, LCRA Blanco River at Blanco site, BPGCD City of Blanco and Rockin J Monitor Wells  
Graphic by Robin Gary, Watershed Association, September 2022

# DROUGHT

- Drought Monitor
- GCD Drought Status Map
- Water Levels and River Flows

Droughts are more evident using Logarithmic scale for river flows.  
Groundwater levels across the Hill Country coincide with low river flows.

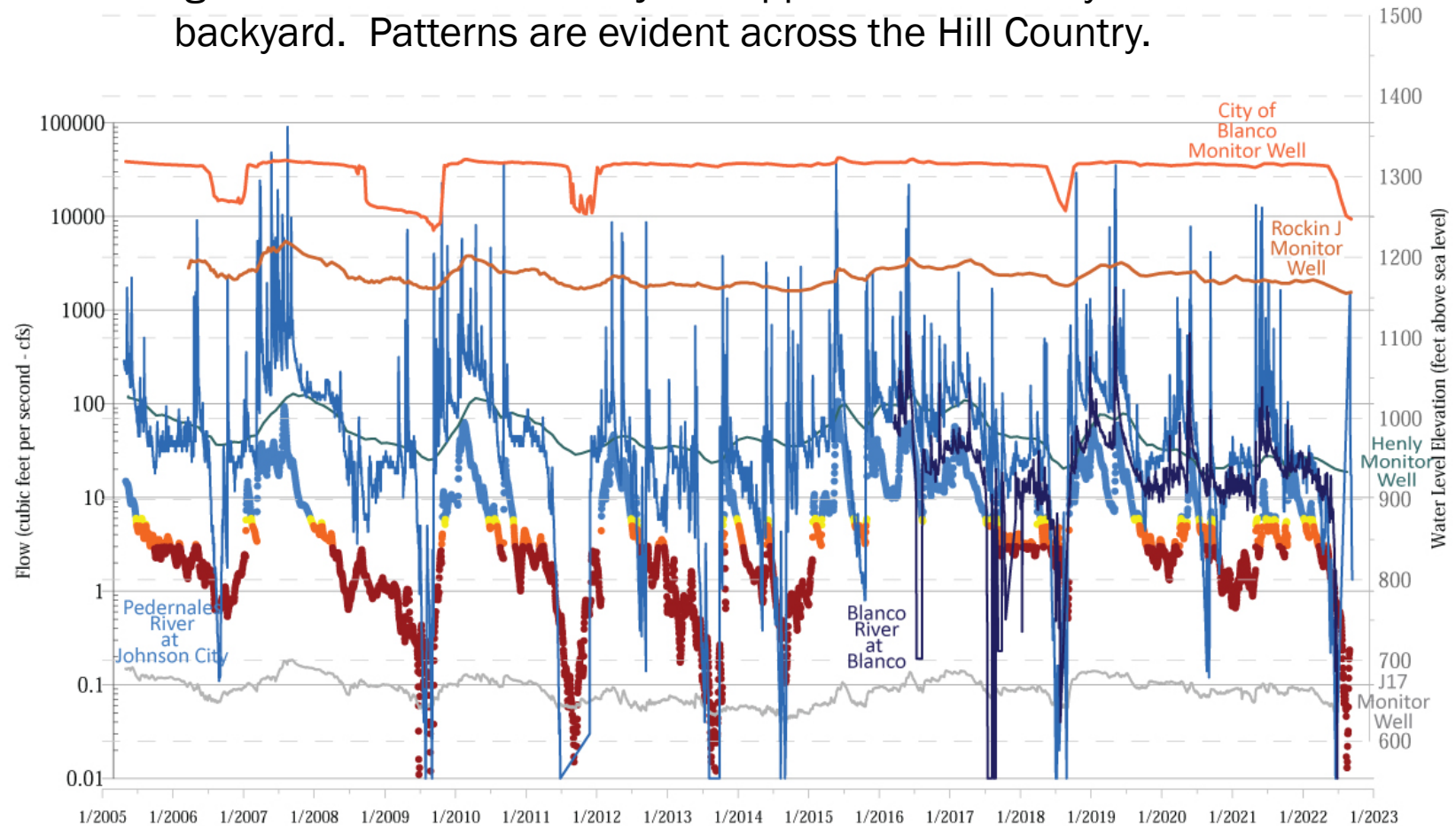


USGS Pedernales River at Johnson City site, LCRA Blanco River at Blanco site, BPGCD City of Blanco and Rockin J Monitor Wells  
Graphic by Robin Gary, Watershed Association, September 2022

# DROUGHT

- Drought Monitor
- GCD Drought Status Map
- Water Levels and River Flows

Drought and wet times do not just happen in one county or one backyard. Patterns are evident across the Hill Country.

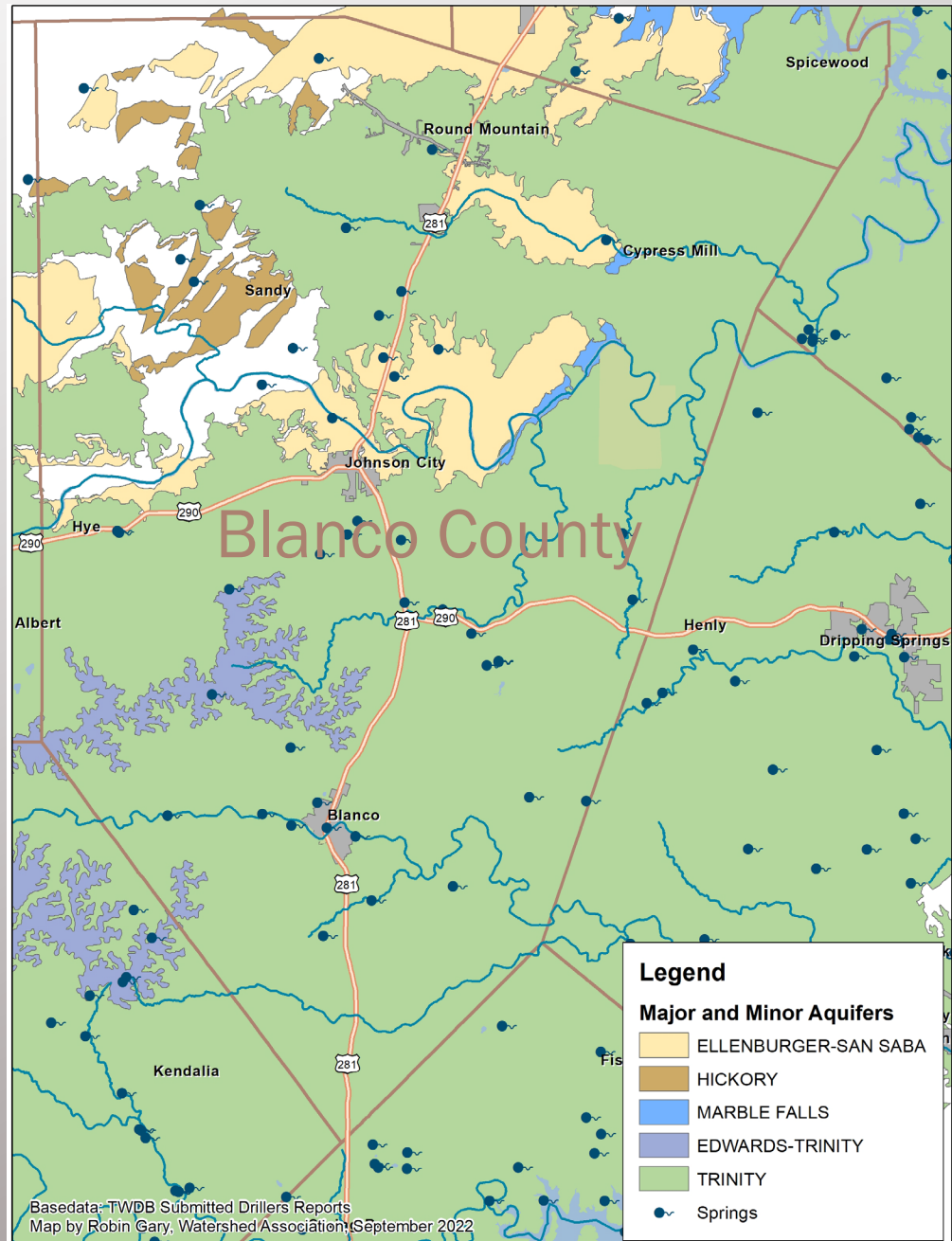


USGS Pedernales River at Johnson City site, LCRA Blanco River at Blanco site, BPGCD City of Blanco and Rockin J Monitor Wells  
Graphic by Robin Gary, Watershed Association, September 2022



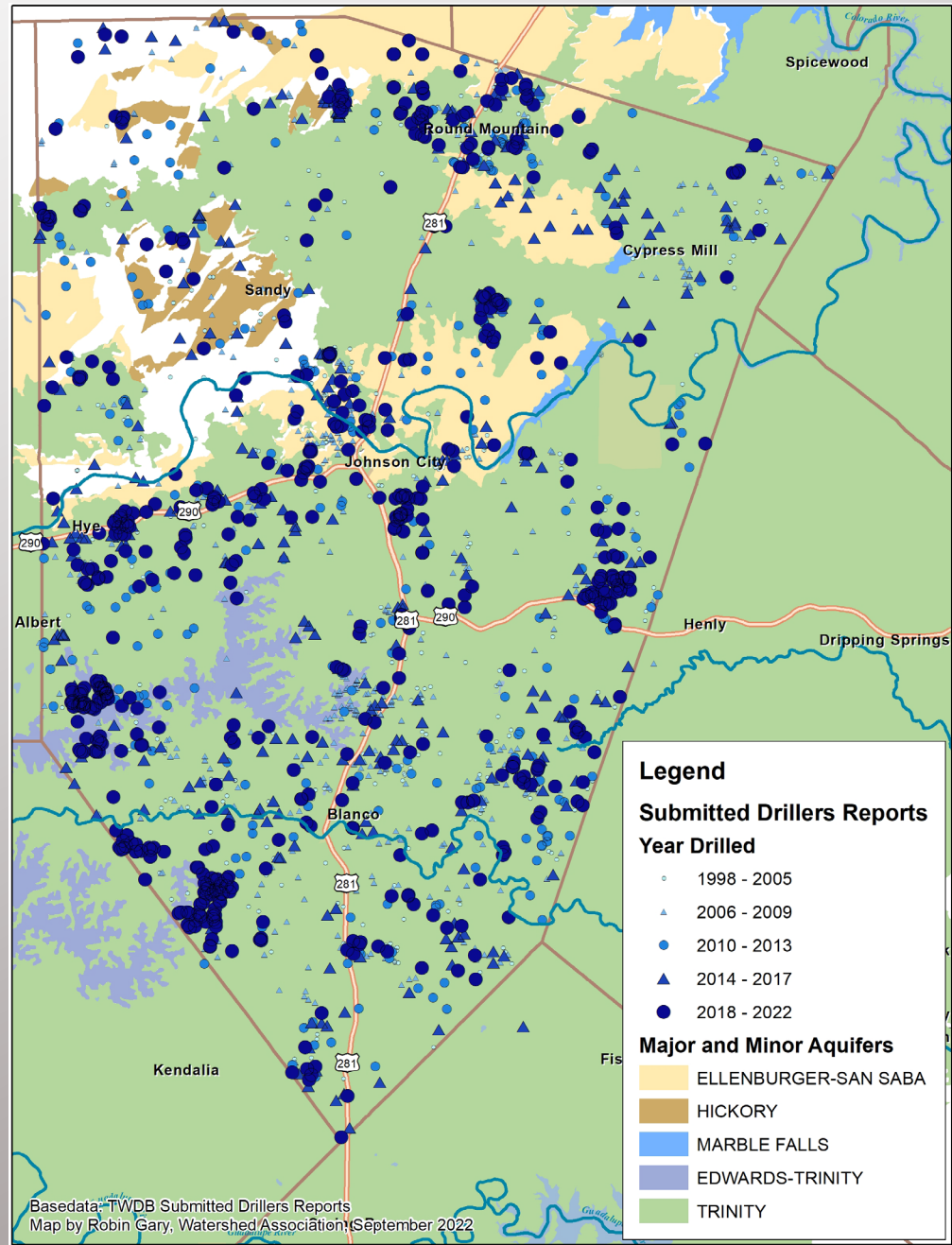
# GROUNDWATER USE

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



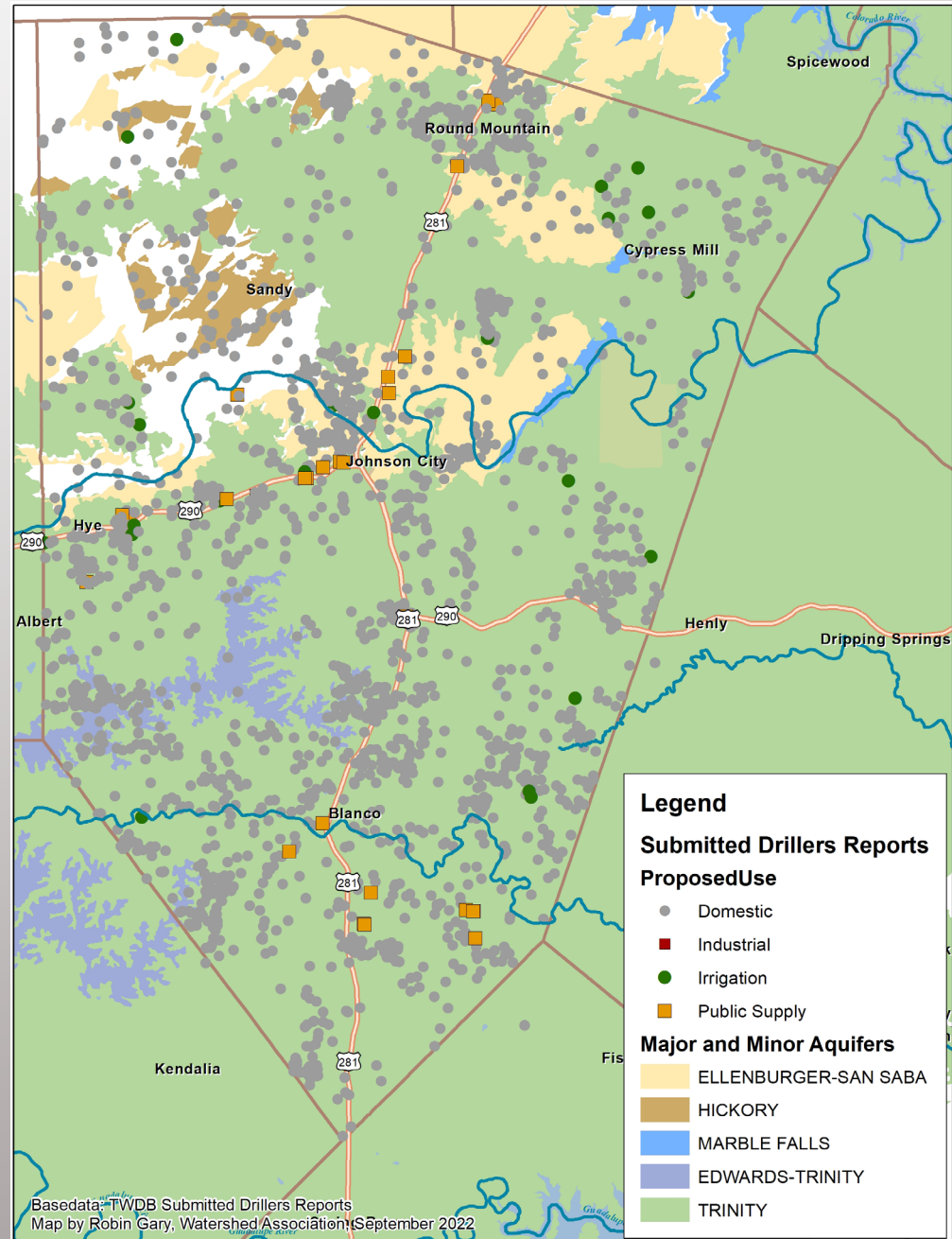
# GROUNDWATER USE

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



# GROUNDWATER USE

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



# CONSERVATION

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

Jacob's Well



Blanco River



Cypress Creek, Wimberley Square



Bulk Water Delivery



# CONSERVATION

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

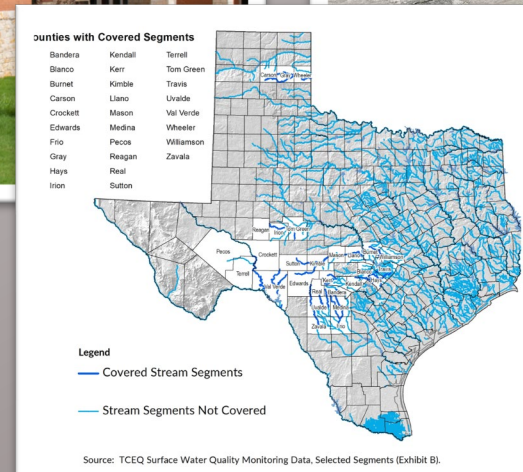
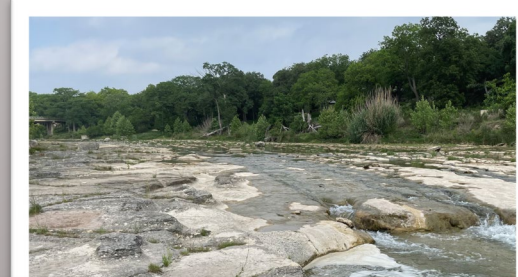


IN COOPERATION WITH THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY AND U.S. ENVIRONMENTAL PROTECTION AGENCY. CWA §319H. CONTRACT NO. 582-11-12915.



# SUCCESSES

- Cypress Creek Watershed Protection Plan
- Creation of Jacob's Well Groundwater Management Zone
- WISD's One Water School
- Green Infrastructure Projects
- Water Quality, Flow, Groundwater Monitoring
- Blanco Water Reclamation Task Force
- *Pristine Streams Protections*



# CONSERVATION

- Importance of Water Conservation Now
- Successes
- 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