Welcome to the 2023 Steering Committee Meeting!

- Please sign in!
- Agendas are available near the sign in sheet
- Please silence your cell phone
- Drinks available in the kitchen

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Guadalupe River Basin 2023 Clean Rivers Program Steering Committee Meeting

Elizabeth Edgerton, Elizabeth Malloy, and Kristyn Armitage

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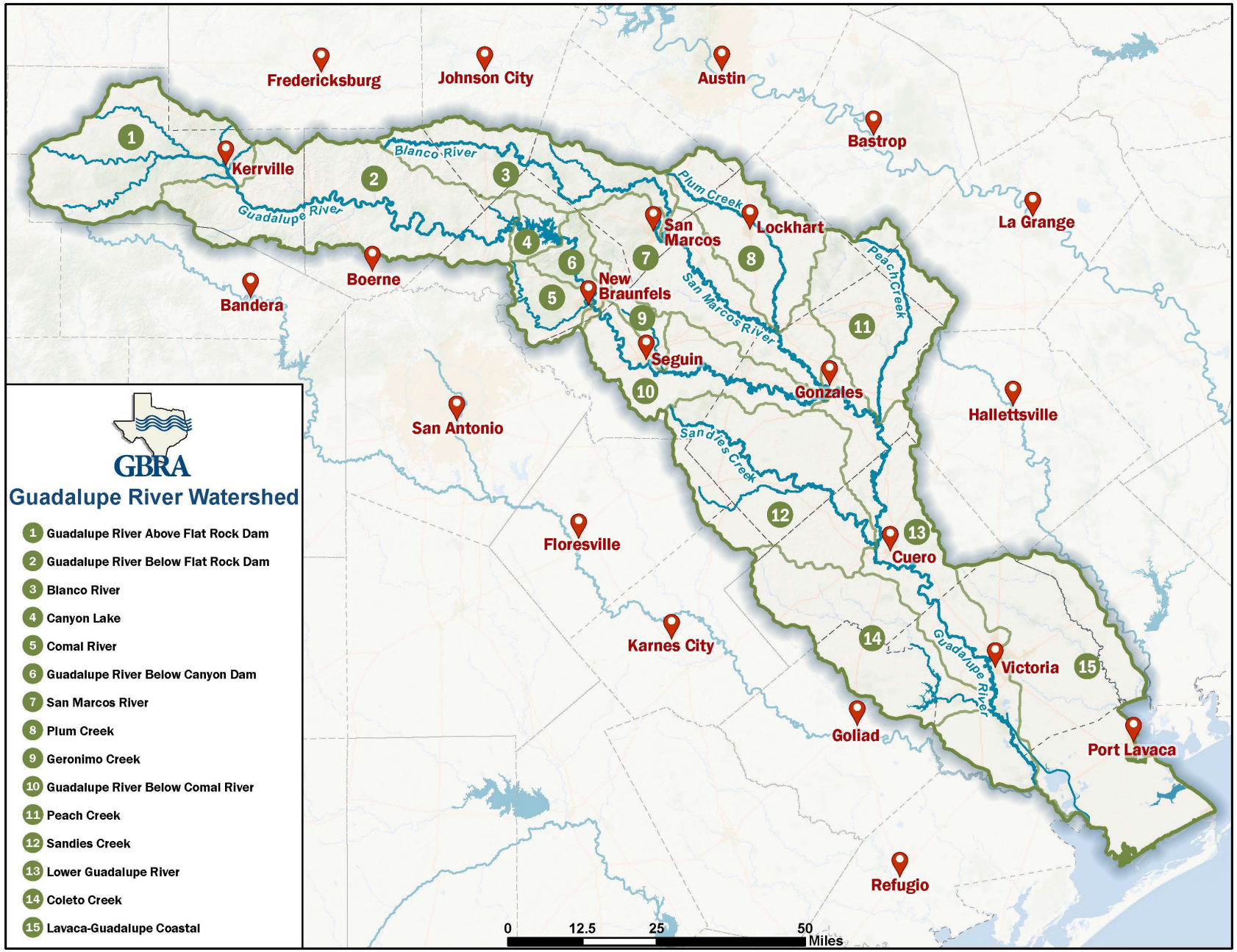

- 19 Routine Stations
- 14 Quarterly Stations
- 3 ALMs in FY22
- 2* ALMs planned for FY23
- FY22: Watershed Characterization
- FY23: Basin Summary

FY22-23 RECAP

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FY22-23 GBRA Clean Rivers Program Budget

	FY 2022 9/1/21 – 8/31/22	FY 2023 9/1/22 – 8/31/23	FY22 – FY23 Total
Total CRP Budget	$239,176	$231,918	$471,094
Personnel	$57,938	$58,779	$116,717
Supplies	$10,517	$10,517	$21,035
Equipment	$13,500	-	$13,500
Contractual	$16,817	$16,817	$33,635
Other	$110,048	$115,112	$225,160

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Basin Summary Report

- Comprehensive review of water quality for the entire basin, including:
  - Descriptions of water quality issues and conditions
  - Water quality trend analyses
  - Discussion of watershed characteristics and their potential influence
  - Recommendations for water quality management strategies
- Completed every 5 years
- Goals:
  - Develop greater understanding of basin water quality conditions
  - Identify trends and changes
  - Aid in decision making regarding water quality in each river and coastal basin

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Next Steps for the BSR

- March 15, 2023: Draft due to TCEQ – Done!
  - TCEQ has 30 days for review
- Stakeholder Input
- May 31, 2023: Final version due to TCEQ
- June 30, 2023: Deadline to post to GBRA webpage

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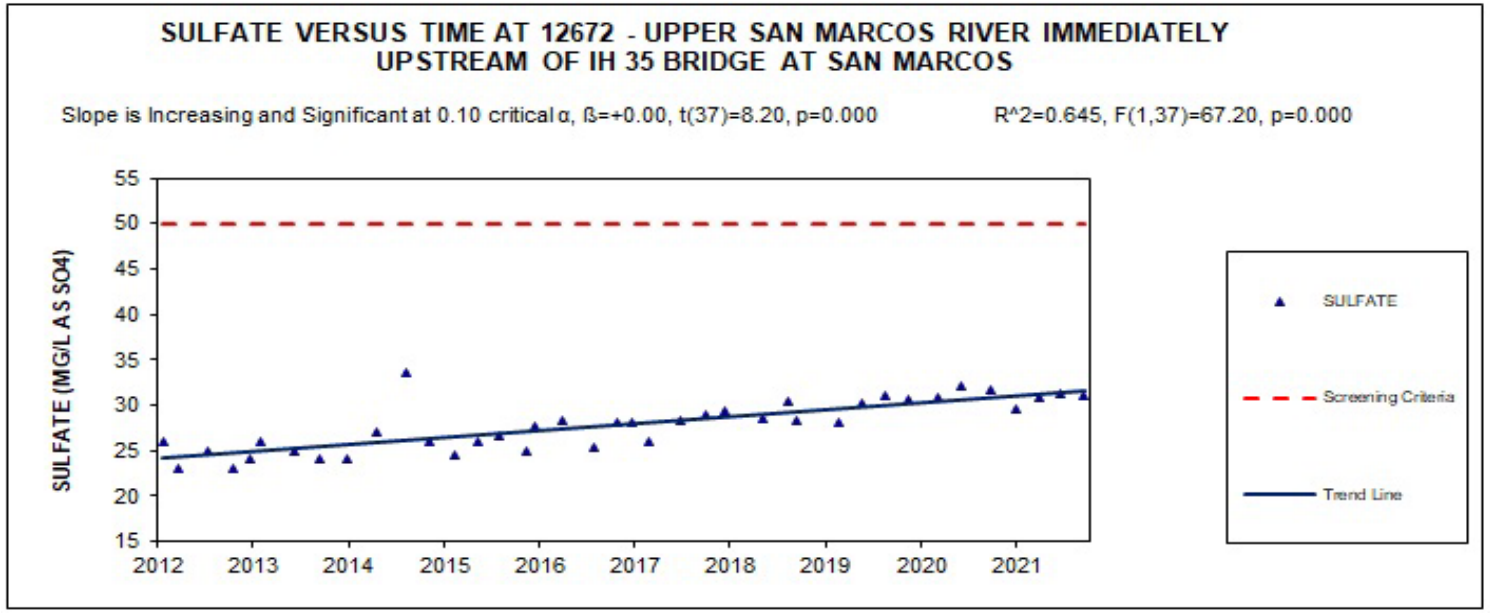
2023 Basin Summary Report (BSR) Highlights

- Most significant trends had low r^2 values (<0.33)
- The most common significant trends were chloride and sulfate
- Sulfate
  - Increasing at 24% stations
  - Decreasing at 24% stations
- Chloride:
  - Increasing at 27% stations
  - Decreasing at 36% stations



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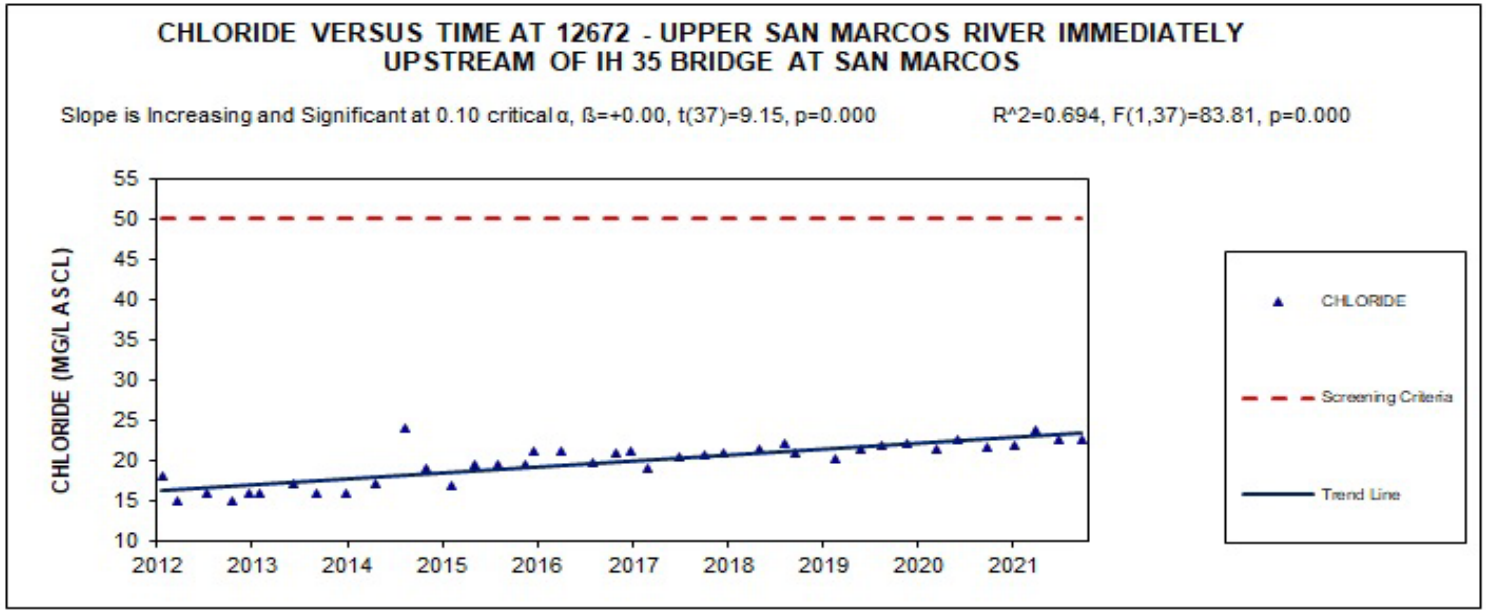
2023 (BSR) Highlights



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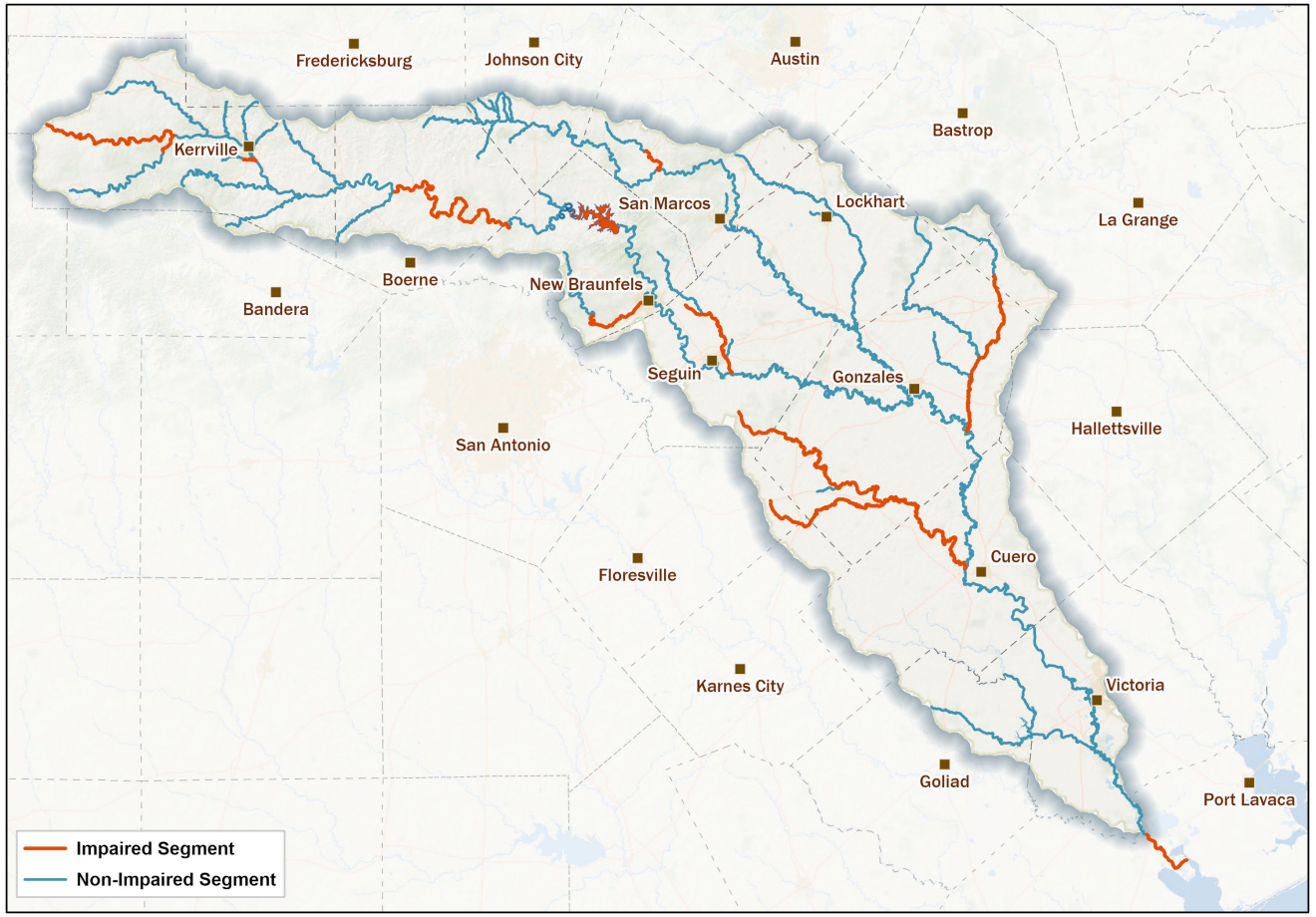
2023 BSR- Highlights

- Reasons for Chloride and Sulfate trends are unknown.
- Some potential causes:
  - 10-year flow period was below average.
  - Nonpoint pollution sources (runoff)
  - Upstream dischargers/effluent
  - Contributions from upstream
  - Saltwater Intrusion (for waters near coast)

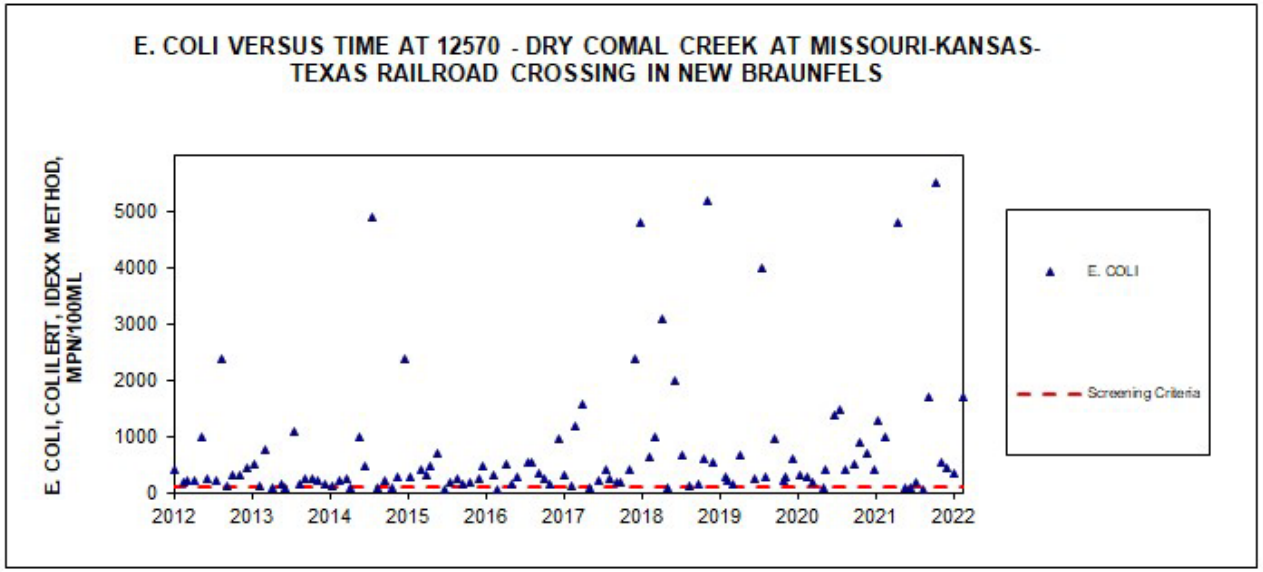
2023 BSR- Impaired Waterbodies

Is water quality getting better or worse over time in impaired waterbodies?



2023 BSR- Bacteria Impairments

Waterbody	Impaired Aquatic Units (Bacteria)	Bacteria Trend
Guadalupe Tidal	1801_01	None
Sandies Creek	1803B_01, 1803B_02	Decreasing
Peach Creek	1803C_01, 1803_03	None
Geronimo Creek	1804A_01	None
Guadalupe Above Canyon Lake	1806_08	None
Camp Meeting Creek	1806A_01	Decreasing
Comal River	1811_01	None
Dry Comal	1811A_01	Increasing



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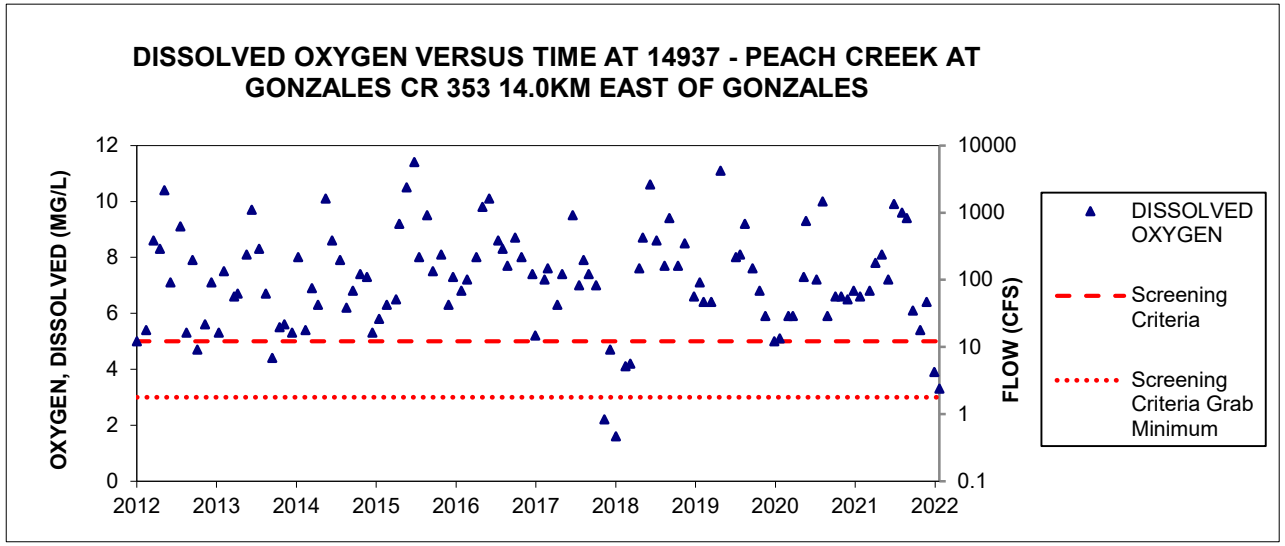
2023 BSR- Dissolved Oxygen (DO) Impairments

Waterbody	Impaired Aquatic Units (dissolved oxygen)	Dissolved Oxygen Trend
Elm Creek	1803A_01	Not assessed in BSR due to lack of data
Sandies Creek	1803B_01, 1803B_02	none
Peach Creek	1803C_01, 1803C_03	none



2023 BSR Conclusions

- Data from Clean Rivers Program monitoring is beneficial for identifying and addressing water quality issues
  - Watershed Protection Plans in 5 watersheds
  - Total Daily Maximum Load studies in 4 waterbodies
  - Several success stories, such as the Guadalupe River in Kerr and Kendall counties
- Major threats to water quality include:
  - Population increase
  - Land-use changes
  - Demands on water availability
  - Invasive Species

2023 BSR Recommendations

- Expanded Water quality data collection efforts needed to guide future decision-making and inform management efforts
- Proactive planning for future infrastructure needs
- Continued education outreach efforts
- Invasive species prevention and management activities
- Increased research into existing conditions of waters in this basin

GBRA Aquatic Life Monitoring Events

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GBRA 2022 Aquatic Life Monitoring Events

- **TCEQ Station 12684:**
  - South Fork Guadalupe River at Hunt Lion's Park
- **TCEQ Station 18595:**
  - Perdido Creek at FM622 Near Fannin, TX
- **TCEQ Station 22082:**
  - Guadalupe River at FM1376 2.5 KM South of Sisterdale, TX

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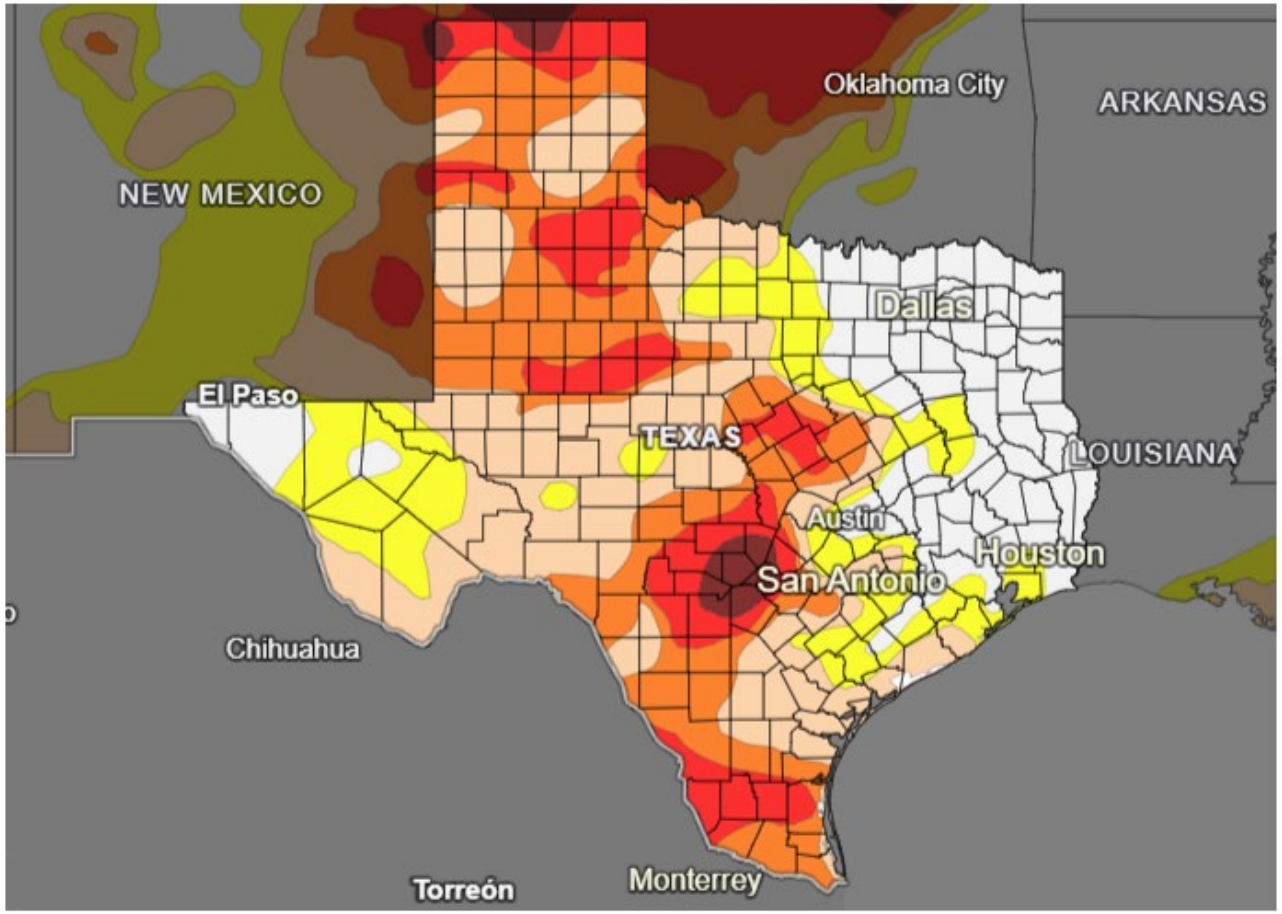
Current U.S. Drought Monitor Conditions for Texas: Current



U.S. Drought Monitor for TX

Abnormally Dry or Worse (D0-D4): 79.5%	Moderate Drought or Worse (D1-D4): 64.0%	Severe Drought or Worse (D2-D4): 35.5%	Extreme Drought or Worse (D3-D4): 13.4%	Exceptional Drought (D4): 1.8%

TCEQ Station 12684 - South Fork Guadalupe at Hunt Lion's Park

- **Fish Community**
  - Exceptional ALU Score
  - 52 Species
- **Macroinvertebrate Species**
  - High ALU Score
  - 35 Species
- **Habitat**
  - High HQI Score

- Stream Assessment Data exceeds the 2022 WQ standard for fish and meets for macrobenthics.
- No freshwater mussel species found during 5 person hour time search.

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TCEQ Station 12684 – South Fork Guadalupe at Hunt Lion's Park

Aquatic Life Monitoring Events	Fish Community	Macroinvertebrate Community	Habitat
Aquatic Life Use Designation	Exceptional (>51)	Exceptional (>36)	Exceptional (26-31)
Currently Assessed Status*	High(50)*	High (36)*	High (25)*
FY22 Index Period Score	Exceptional (52)	High (35)	High (24)
FY22 Critical Period Score	N/A	N/A	N/A
FY22 Average	N/A	N/A	N/A

*Current Assessment Status Published in 2022 TCEQ Texas Integrated Report (12/01/2013 – 11/30/2020)

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TCEQ Station 18595 - Perdido Creek at FM622 Near Fannin, TX

- Fish Community
  - Limited ALU Score
  - 26 Species
- Macroinvertebrate Species
  - Intermediate ALU Score
  - 24 Species
- Habitat
  - Intermediate HQI Score

- No evidence of freshwater mussels.
- Stream Assessment Data meets the 2022 WQ standards.

TCEQ Station 18595 - Perdido Creek at FM622 Near Fannin, TX

Aquatic Life Monitoring Events	Fish Community	Macroinvertebrate Community	Habitat
Aquatic Life Use Designation	Limited (<31)	Limited (<22)	Limited (<13)
Currently Assessed Status*	Not Assessed*	Not Assessed*	Not Assessed*
FY22 Index Period Score	Limited (26)	Intermediate (24)	Intermediate (18)
FY22 Critical Period Score	N/A	N/A	N/A
FY22 Average	N/A	N/A	N/A

*Current Assessment Status Published in 2022 TCEQ Texas Integrated Report (12/01/2013 – 11/30/2020)

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TCEQ Station 22082 - Guadalupe River at FM1376 2.5 KM South of Sisterdale, TX

- Fish Community
  - Exceptional ALU Score
  - 52 Species
- Macroinvertebrate Species
  - Exceptional ALU Score
  - 38 Species
- Habitat
  - High HQI Score
  - No freshwater mussel species found during 5 person hour time search.

TCEQ Station 22082 - Guadalupe River at FM1376 2.5 KM South of Sisterdale, TX

Aquatic Life Monitoring Events	Fish Community	Macroinvertebrate Community	Habitat
Aquatic Life Use Designation	Exceptional (>51)	Exceptional (>36)	Exceptional (26-31)
Currently Assessed Status*	Not Assessed	Not Assessed	Not Assessed
FY22 Index Period Score	High (51)	Exceptional (40)	High (24)
FY22 Critical Period Score	Exceptional (52)	High (35)	High (24)
FY22 Average	Exceptional(52)	Exceptional (38)	High (24)

*Current Assessment Status Published in 2022 TCEQ Texas Integrated Report (12/01/2013 – 11/30/2020)

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GBRA FY23 Aquatic Life Monitoring Events

- **TCEQ Station 15399:**
  - Honey Creek in Guadalupe River State Park
- **TCEQ Station 12685:**
  - South Fork Guadalupe adjacent to Camp Arrowhead

FY22 Index Period ALMs

- **TCEQ Station 12684:**
  - South Fork Guadalupe adjacent to Hunt Lions Park
- **TCEQ Station 18595:**
  - Perdido Creek at FM622 near Fannin, TX

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