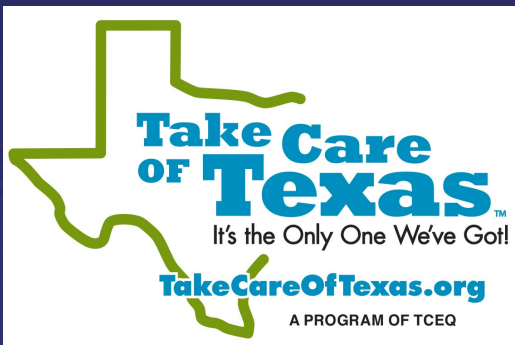




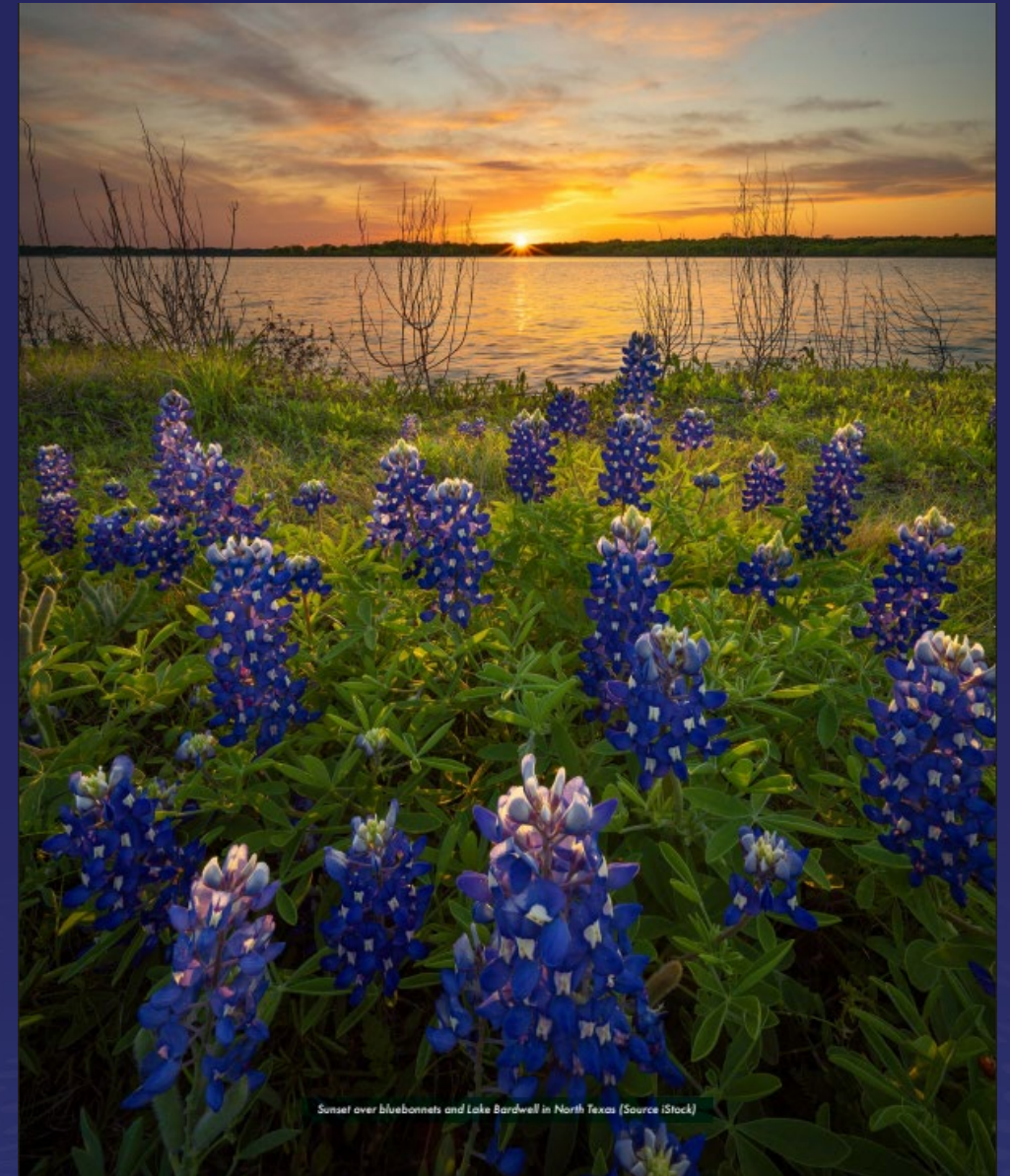
Simultaneous TMDLs and 9-Element Plans in Texas (feat. challenges)

Nicole Hall
Water Quality Planning Division
Office of Water



Agenda

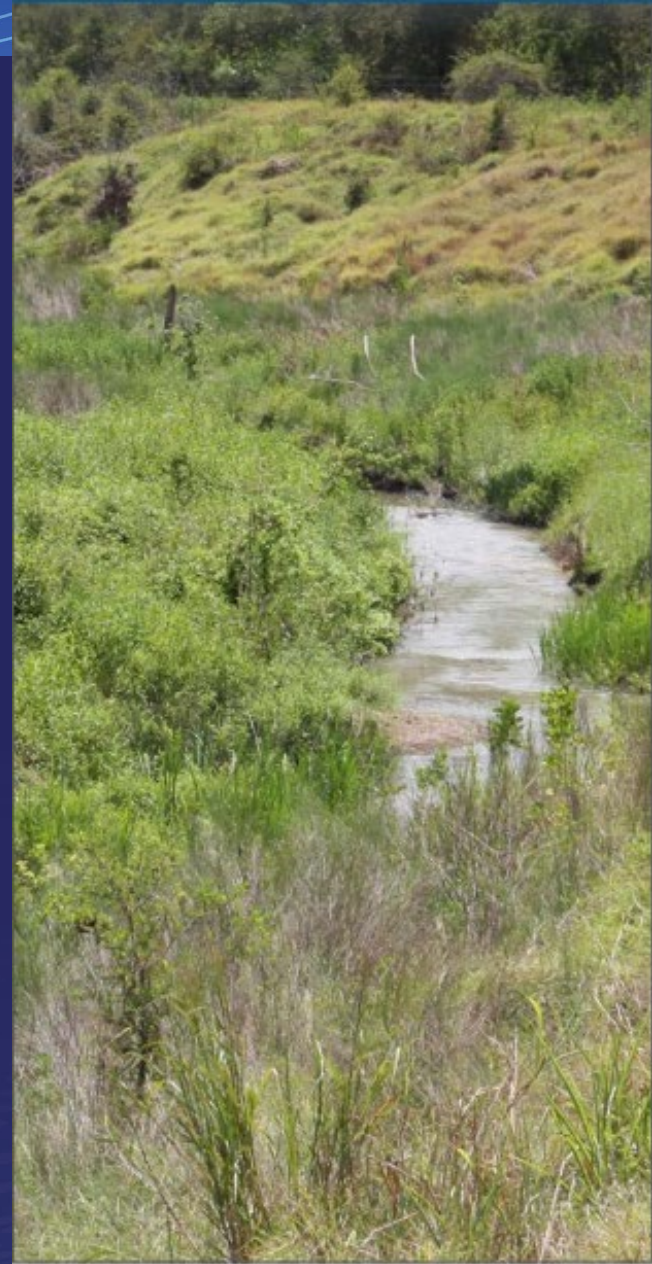
- ❖ TCEQ Organization
- ❖ Examples
 - . Tres Palacios Tidal
 - . Arenosa and Garcitas Creeks
- ❖ Future Opportunities



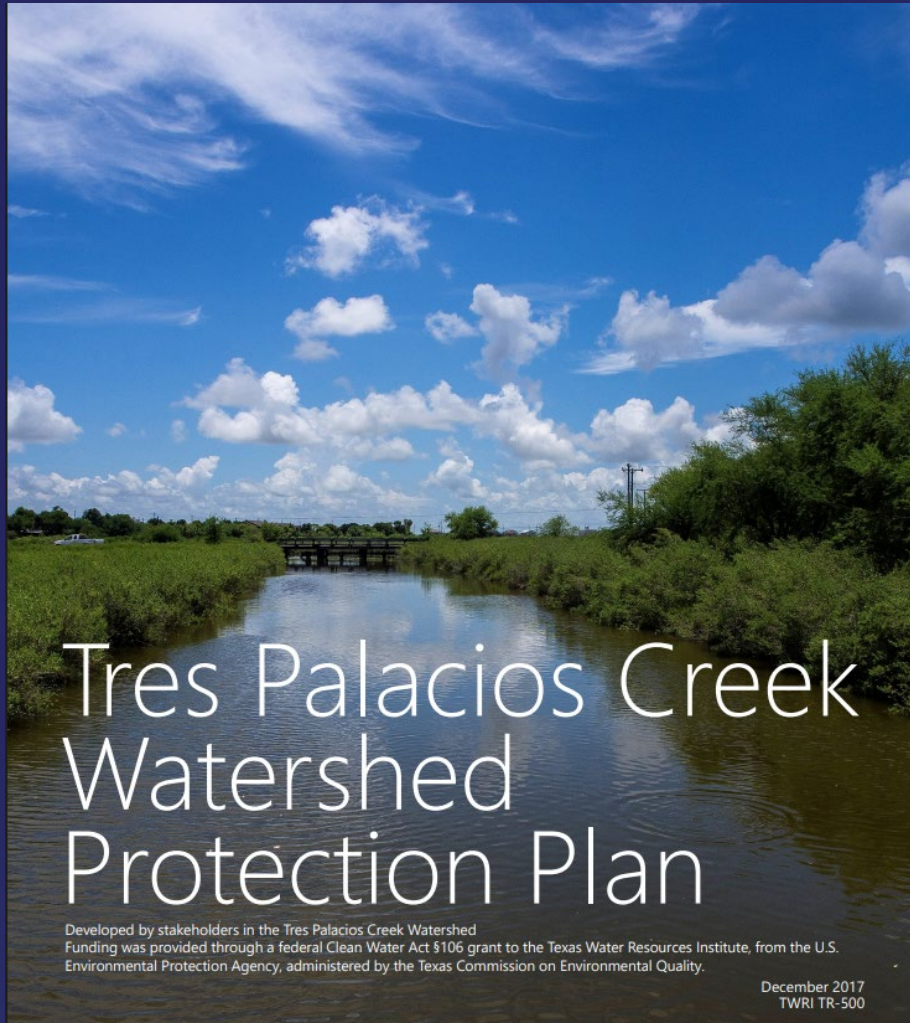


Tres Palacios Creek Tidal TMDL and 9-Element Plan

- **Spring 2017** - a bacteria TMDL, TMDL implementation plan, and 9-element plan were developed simultaneously by the TMDL Program.
 - TMDL and TMDL implementation plan were approved
- **Spring 2017** - the 9-element plan was reviewed internally by both the TMDL Program and the NPS Program prior to EPA submittal.
 - However, it was not accepted by EPA because the creek was also impaired for low dissolved oxygen
- **Spring 2018** - After an additional year of work and revision, the 9-element plan was accepted by EPA



Tres Palacios Creek at FM 2431.



Tres Palacios Creek Tidal TMDL and 9-Element Plan

Root Cause:

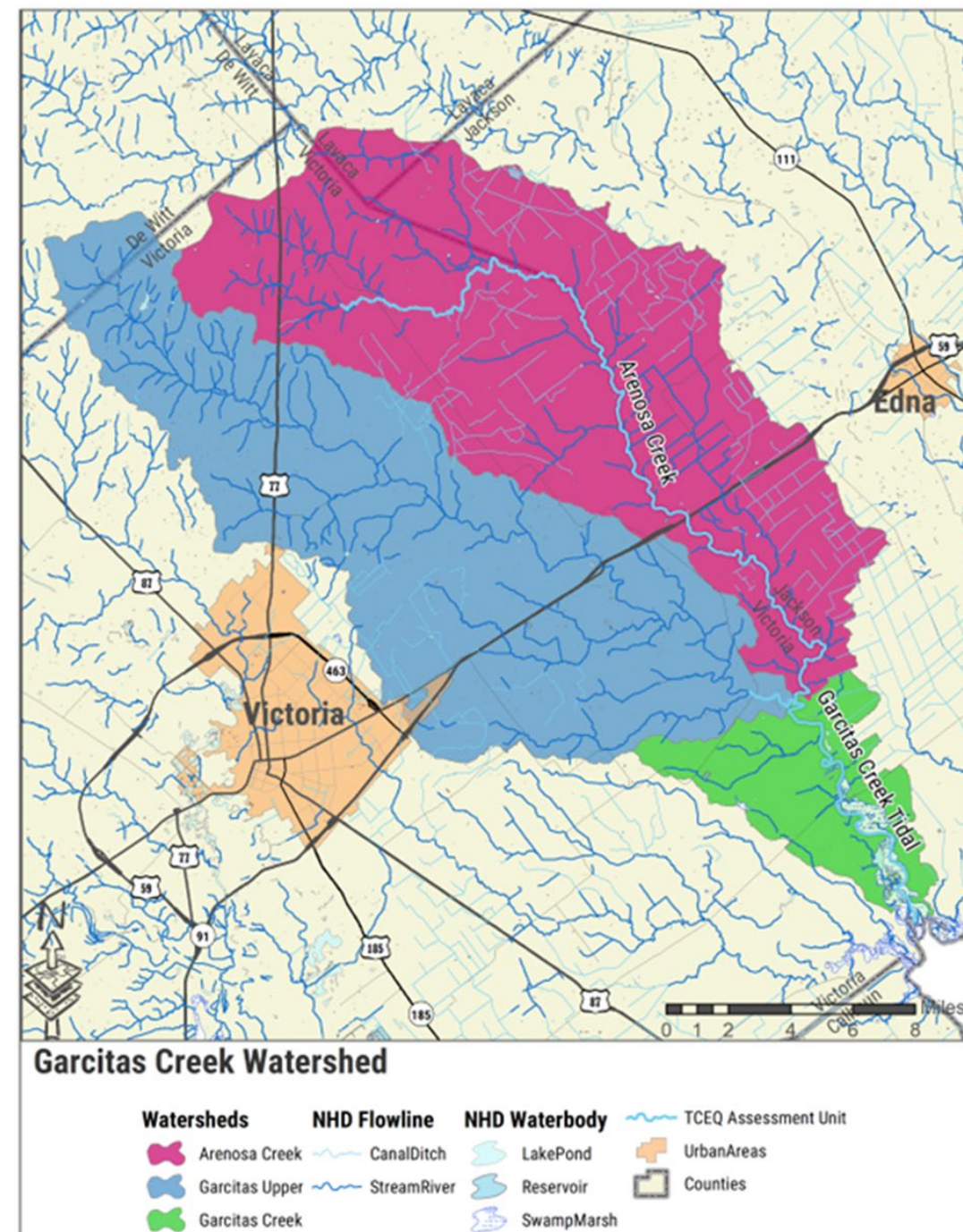
TMDL staff, NPS staff, and management were not fully aware that the 9-element plan had to cover all impairments

Action taken:

An internal 9-element review checklist was developed with the question “are all impairments addressed?” included.

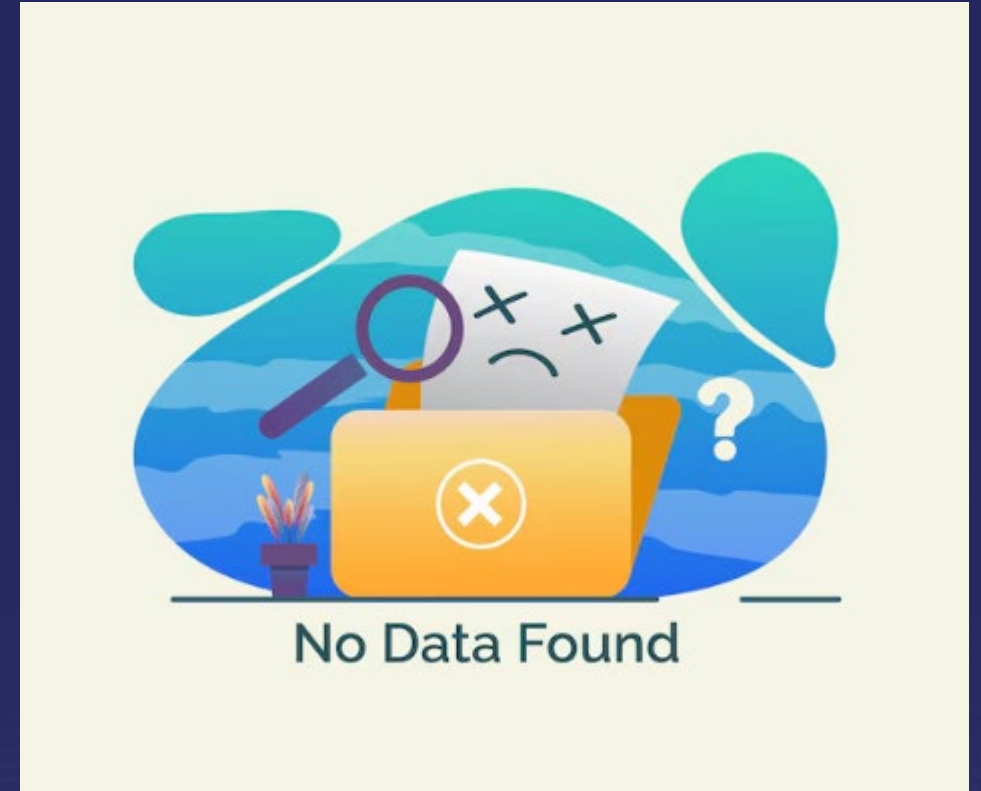
Arenosa Creek TMDL and Arenosa and Garcitas Creeks 9-Element Plan

- **Summer 2021-** a bacteria TMDL and TMDL implementation plan for Arenosa Creek were developed simultaneously by the TMDL Program.
 - TMDL and TMDL implementation plan were approved
- **Summer 2021-** the 9-element plan was also developed by the TMDL Program, however, Garcitas Creek and Garcitas Creek Tidal were added



We had no Garcitas data!

- TMDL Program sent the 9-element plan to the NPS Program for review where large data gaps were identified by NPS staff
- We did not have the data to complete the 9-elements in the Garcitas Creek and Garcitas Creek Tidal subwatersheds
 - no watershed characterization or pollutant load analysis was done
- The 9-element plan was not sent to EPA for review due the data gaps and additional work still needed



Arenosa and Garcitas Creeks 9-Element Plan



Root Cause:

TMDL staff were not aware that recent data had to be available in the Garcitas and Garcitas Tidal subwatersheds.

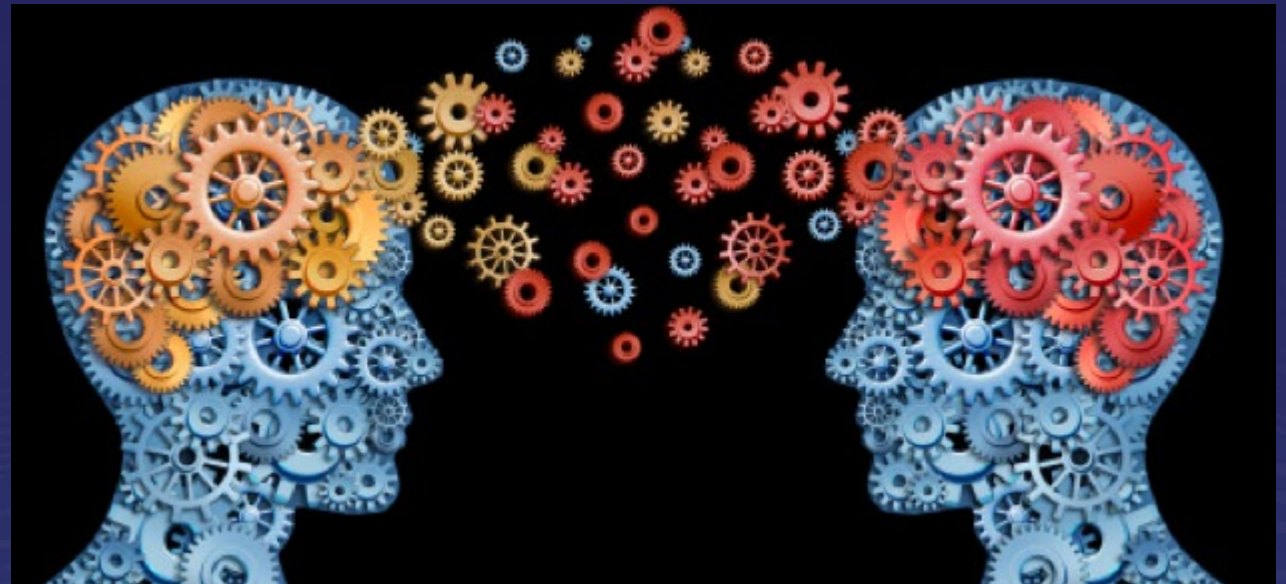
TCEQ believed that additional data/data gaps could be addressed during the implementation phase.

Action taken:

Additional monitoring in Garcitas and Garcitas Tidal is finishing this year and the 9-element plan for the entire Arenosa and Garcitas Creek watershed is planned to be completed in fiscal year 2026

Opportunities to Explore

- Additional cross-training between the TMDL and NPS Programs
 - Identifying specific staff to coordinate between the teams if we start going forward with simultaneous development again
 - Have NPS and TMDL staff work on an in-house pilot project where both are developed simultaneously
- Identifying key characteristics of watersheds that would make a good candidate for simultaneous 9-element plan and TMDL development
- Explore opportunities to turn completed 9-element plans into TMDLs/I-Plans and vice versa





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Thank You