Nutrient Criteria Progress and Updates

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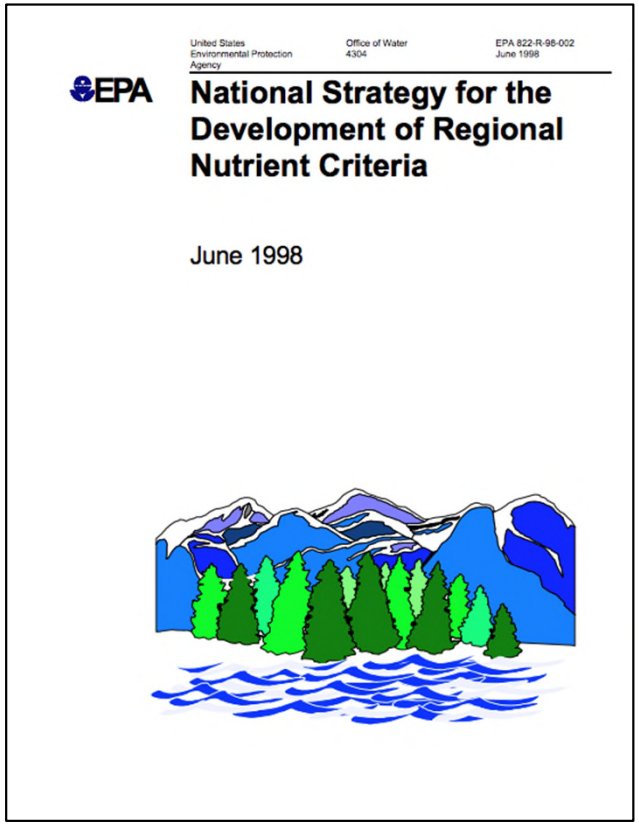
Water Quality Standards and Clean Rivers Program

Nutrient Criteria Development Plan

- TCEQ Nutrient Criteria Development Plan (NCDP) was developed to comply with 1998 EPA National Nutrient Criteria Strategy.

- TCEQ submitted plans to EPA in 2001, 2006, 2014



2014 Nutrient Criteria Development Plan

- Purpose: Provide a framework for the continued development of numeric nutrient criteria for the State of Texas

- 2014 Nutrient Criteria Development Plan

Nutrient Criteria Development Plan (texas.gov)

Strategy of the 2014 NCDP

RESERVOIRS

ESTUARIES

RIVERS & STREAMS

WETLANDS

BOUNDARY WATERS

Strategy of the 2014 NCDP

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Ongoing project: Estuaries

- Multispecies Multi-nutrient Plankton Model (MUMPS) in development
- Multi phase contract which started in 2017
- May be used for the evaluation of complex stressor-response relationships in San Antonio, Copano/Aransas, Baffin and Matagorda Bays

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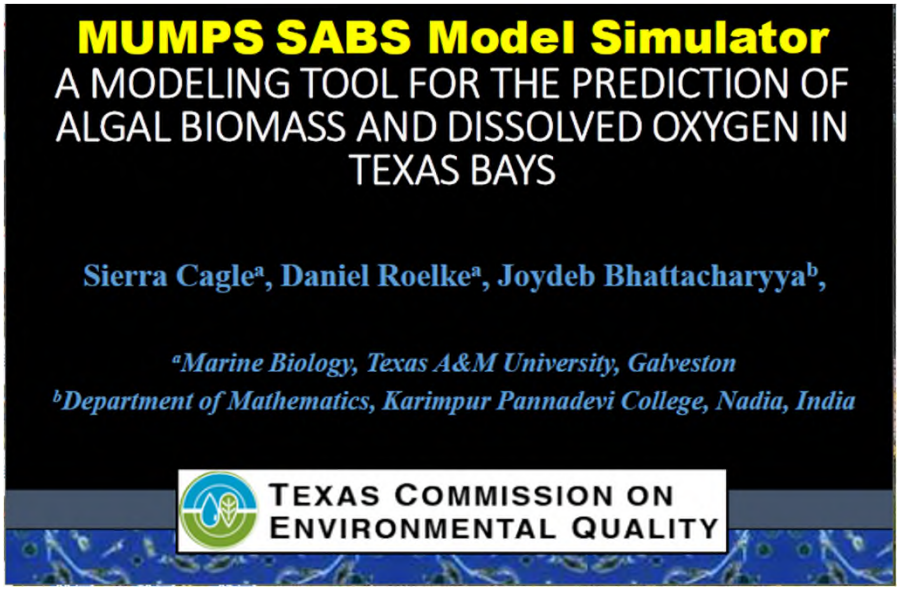
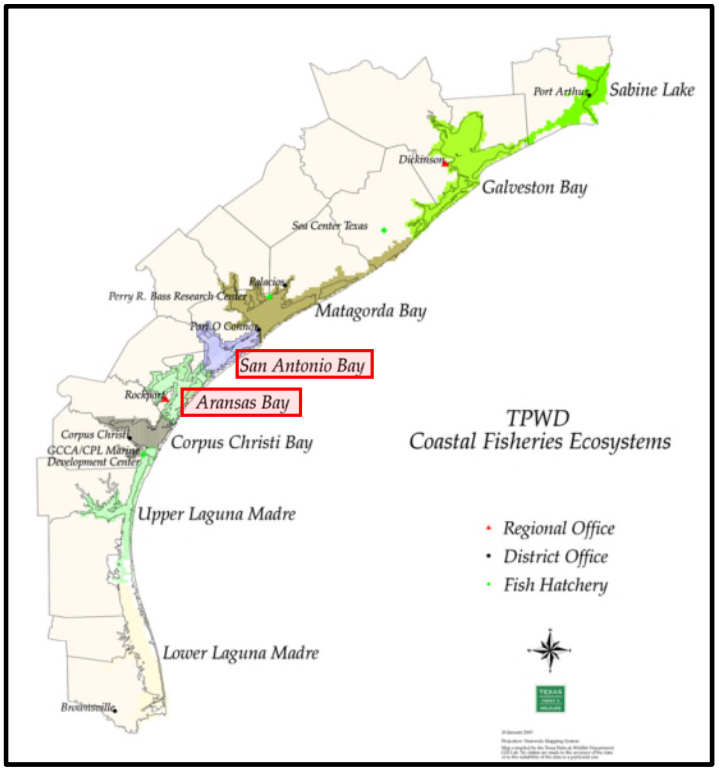


Moving forward: Estuaries

- MUMPS final phase
  - Expand into upper and lower parts of Texas coast



Moving forward: Reservoirs

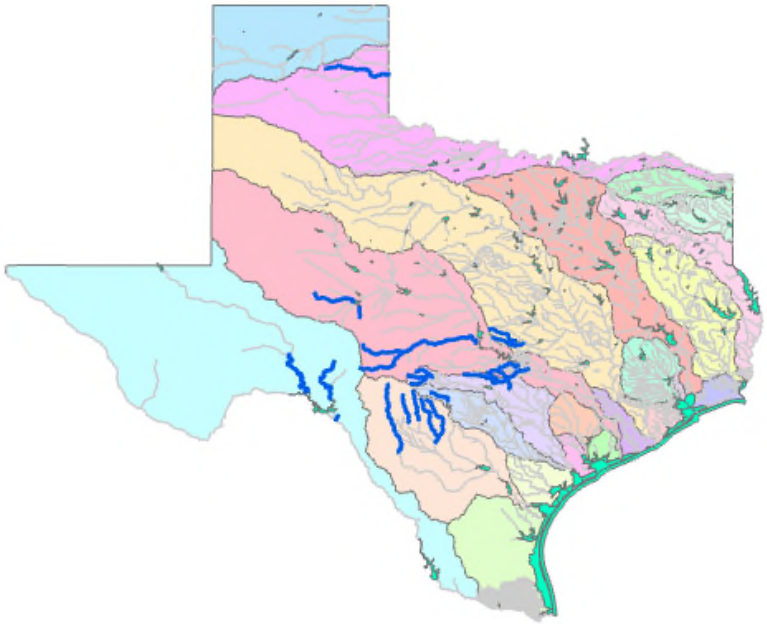
- Coordinating with EPA and Tetra Tech through the N-STEPS program
- Focus on 75 reservoirs proposed in the 2010 TSWQS

- Goal:
  - Develop nutrient criteria for Total Phosphorus (TP), Total Nitrogen (TN), and Chlorophyll *a* (Chl *a*) for the 36 reservoirs with disapproved Chl *a* criteria

  - Develop TN and TP criteria for the 39 reservoirs with approved Chl *a* criteria

Moving forward: Rivers and Streams

- 22 Nutrient sensitive streams
- Background concentration for TP < 0.01 mg/L



Moving forward: Rivers and Streams

- Limitation: TP data mostly reported at LOQ (0.02 mg/L)
- Question: Can we reliably measure down to 0.01 mg/L for TP?
- CRP laboratory study to address limitation

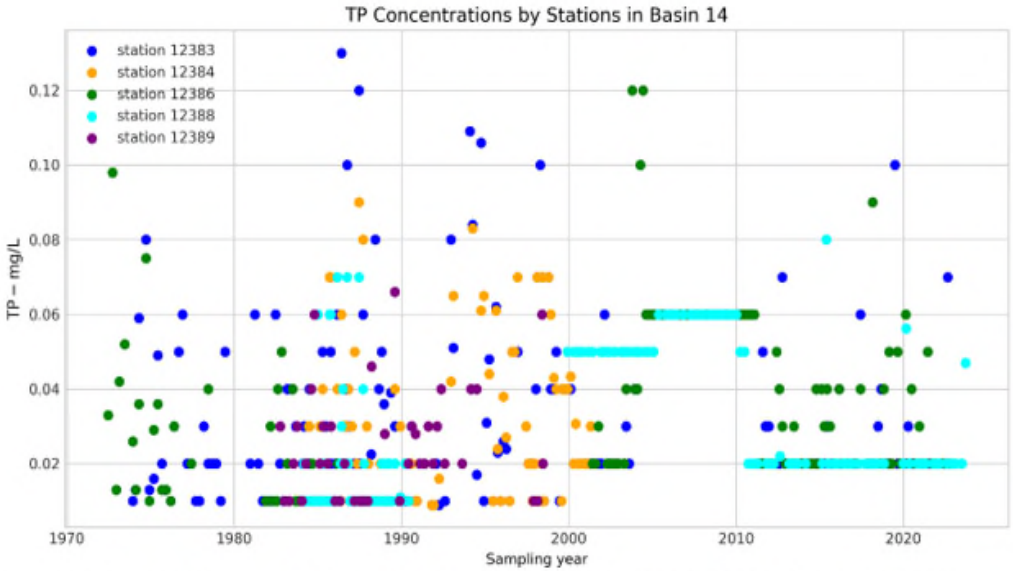


Figure 11: Total phosphorus concentrations for stations 12383, 12384, 12386, 12388 and 12389 located on the Llano River.

Moving forward: Rivers and Streams

- Why does it matter?
  - studies show ecological impacts at TP concentration of 0.01 mg/L for these types of streams
  - first step for the WQS program towards establishment of protective thresholds and development of TP numeric criterion

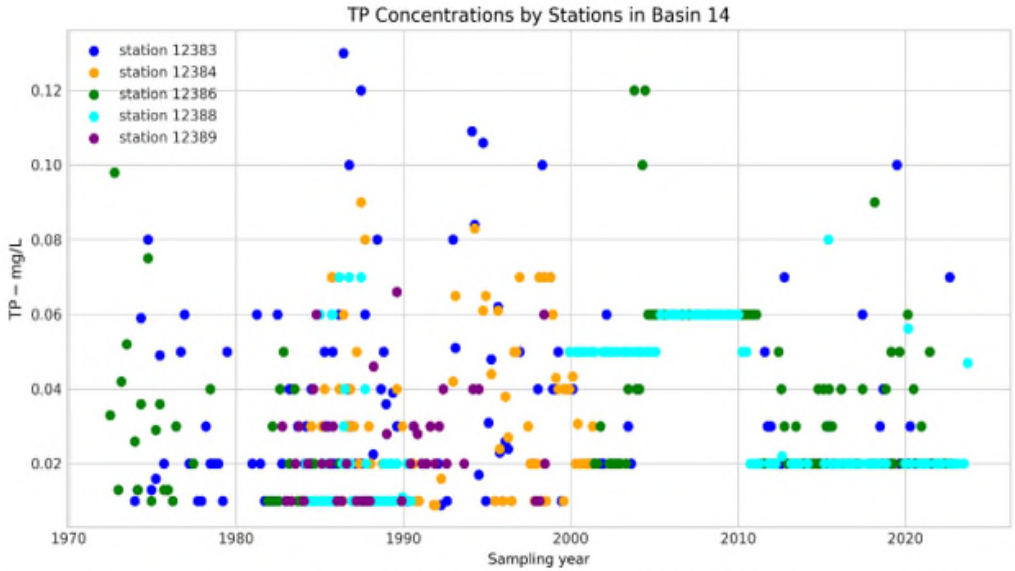


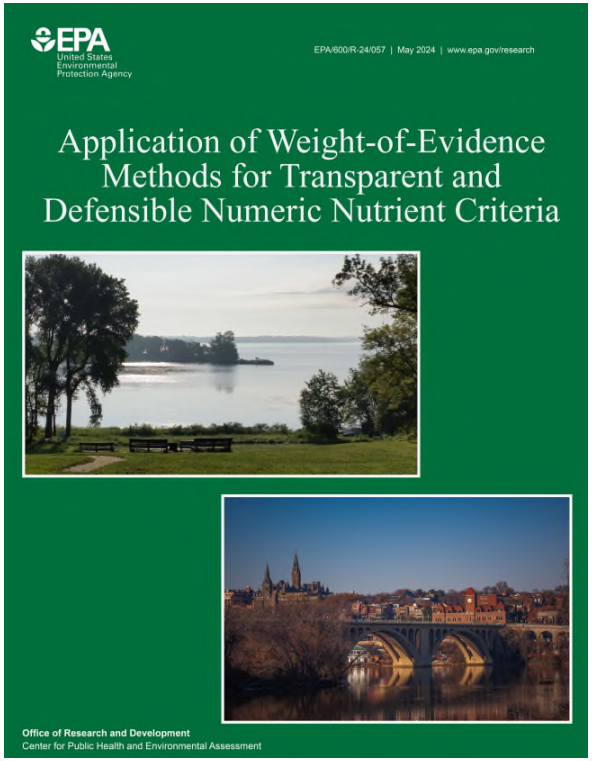
Figure 11: Total phosphorus concentrations for stations 12383, 12384, 12386, 12388 and 12389 located on the Llano River.

Federal Updates: Numeric Nutrient Criteria

- EPA 05/24 Application of Weight-of-Evidence (WoE) Methods for Transparent and Defensible Numeric Nutrient Criteria

Purpose:

- Describe the core principles and essential steps of the basic WoE framework and how the framework aligns with the phases of criteria development.



Nutrients and the Integrated Report

- Water Quality Standards
  - Texas Administrative Code: Title 30, Chapter 307
  - Triennial Reviews and Revisions
  - Numeric vs Narrative Criteria
- Integrated Report (IR)
  - Submitted to EPA in even-numbered years
  - Identifies waterbodies with impairments, concerns, TMDLs, watershed protection plans, etc.
  - Starting preparations for the 2026 IR

How to Participate

Subscribe to receive TCEQ notifications (GovDelivery)

Texas Commission on Environmental Quality

Nutrient Criteria Development Advisory Work Group

Nutrient Criteria Development Advisory Work Group - Texas Commission on Environmental Quality - www.tceq.texas.gov

Surface Water Quality Assessment Advisory Work Group

Surface Water Quality Assessment Advisory Work Group - Texas Commission on Environmental Quality - www.tceq.texas.gov

Questions?

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