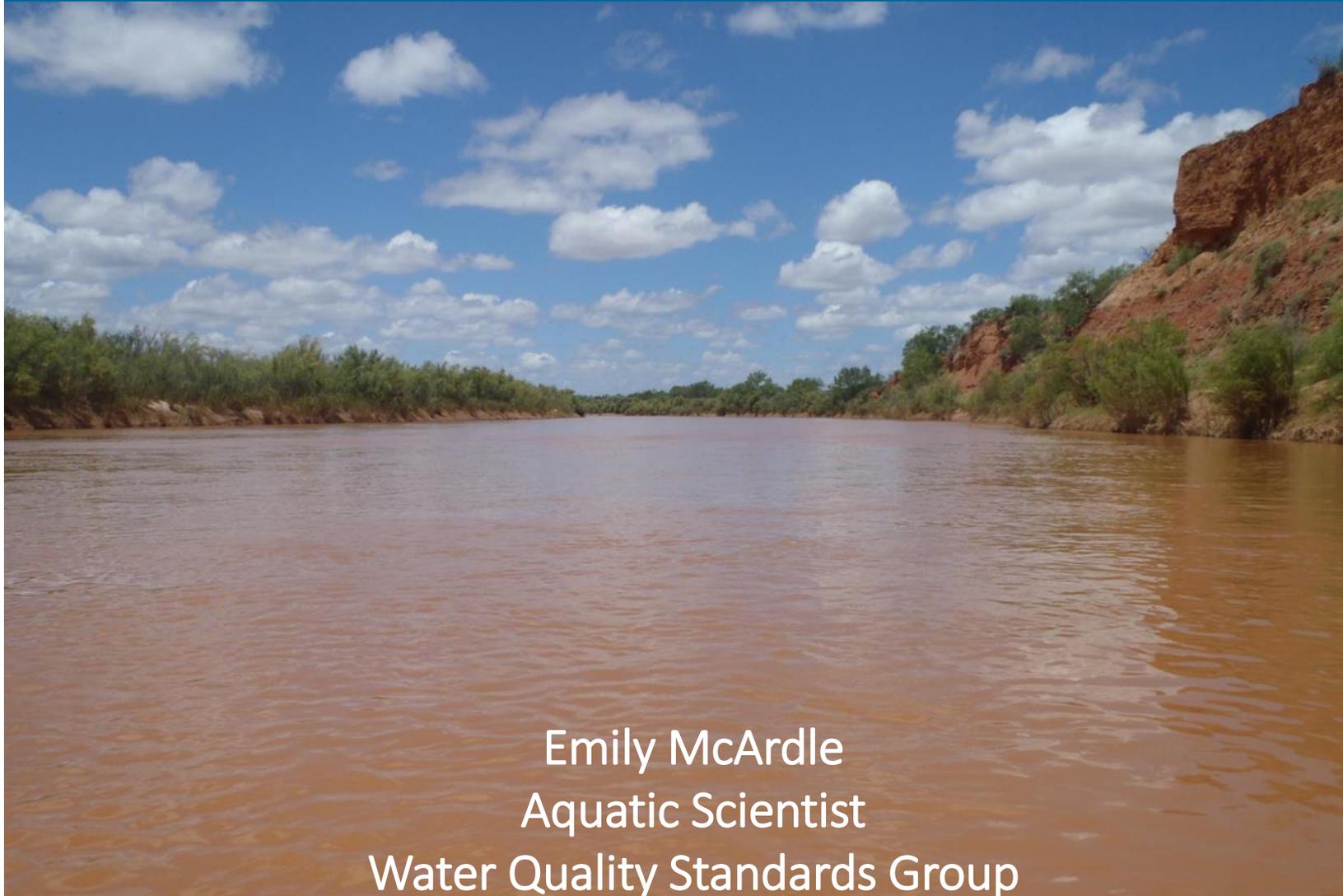




# Texas Surface Water Quality Standards Update



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# Getting Up to Speed

- Not yet approved: 2010 dissolved mineral site specific changes
- No new action letters from 2014
  - Last received September 23, 2014



# 2017 Revision

- Stakeholder meetings tentatively set for January and March, 2016
- Proposal: Late spring 2017
- Adoption: Fall 2017



# Nutrients: What's Next?

- 2014: Nutrient Criteria Development Plan
- 2015: Address reservoir criteria disapproved by EPA
  - July 27, 2015: presented Nutrient Assessment for reservoirs to SWQM GAWG and NCDAWG
- FY16-17 contracts
  - Texas A&M to model nutrients in two bay systems
  - Tarleton State University to collect periphyton data in streams



# Assessing Reservoirs for Nutrients

- Reservoirs with approved AND disapproved Chlorophyll *a* criteria
  - Stakeholders requested a consistent framework for evaluating all reservoirs
- Improvement on screening levels
  - Screening levels do not associate nutrient concentrations with designated uses
  - Potential inconsistencies: Screening levels vs. Numeric criteria
- Utilizes weight of evidence framework
  - Method suggested by EPA, other states are using



# Weight of Evidence

- Ties data evaluation to designated uses included in the TSWQS
- Allows translation of narrative nutrient criteria using numeric targets
- Incorporates numeric criteria
- Provides a more comprehensive assessment than single variable criteria (or screening levels)
- Decreases uncertainty due to confounding factors that are inherent to water quality data
- Can incorporate site-specific targets and ecological thresholds in the evaluation



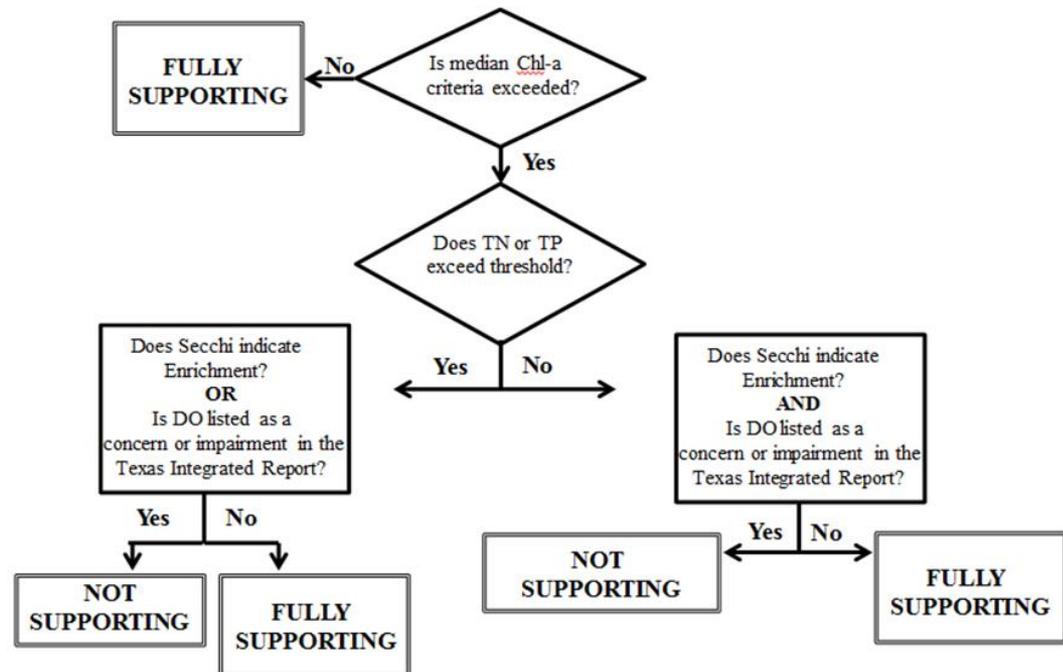
# Assessing Reservoirs for Nutrients

- Minimum sample size
  - 10 samples for each parameter
- Sample locations per Appendix F in 2010 TSWQS
- Medians of Chlorophyll  $a$ , TP, TN and Secchi
- DO impairments or concerns from any portion of reservoir incorporated
- Outcomes
  - Reported for entire reservoir, not AU based.
  - Numeric criteria: FS, NS, or Not assessed.
  - Narrative criteria: CS, NC, or Not assessed.
- Presenting version proposed in July at stakeholder meeting
  - Comments have since been taken into account and we are meeting with EPA later this month to address



# Assessment for Reservoirs with Numeric Criteria

Reservoirs with Chlorophyll *a*  
Criteria approved by EPA



Not Assessed: < 10 samples for any variable

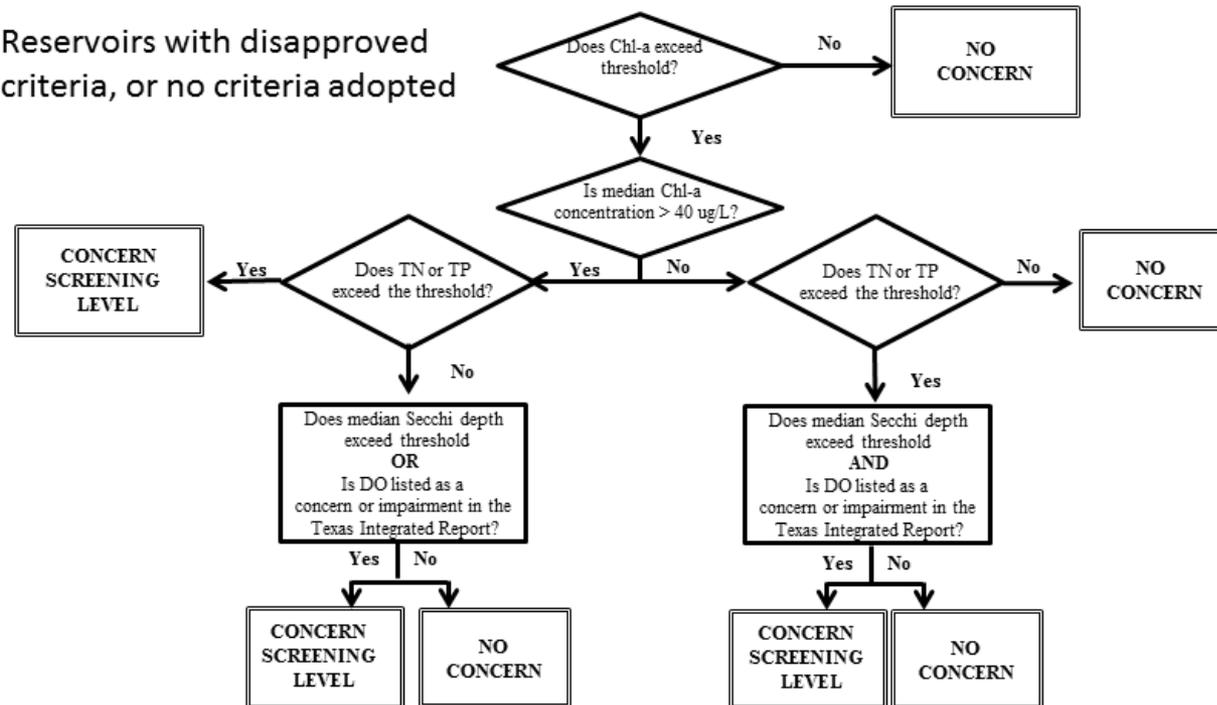
Support: adequate data (>= 10 samples for all variables)

The process for reservoirs with EPA approved chlorophyll *a* criteria begins with evaluation of chlorophyll *a*, then uses a weight of evidence approach to evaluate association with elevated nutrients (TN and TP) and observed ecosystem response (DO and Secchi).



# Assessment for Reservoirs with Narrative Criteria

Reservoirs with disapproved criteria, or no criteria adopted



Not Assessed: < 10 samples for any variable  
 Adequate Data: >= 10 samples for all variables

The process for reservoirs without EPA approved chlorophyll *a* criteria begins with evaluations for TN and TP, since it is a translation of TCEQ's narrative criteria for nutrients. Narrative criteria §307.4(f): Nutrients from permitted discharges or other controllable sources must not cause excessive growth of aquatic vegetation that impairs an existing, designated, presumed, or attainable use.



- For more information on draft nutrient assessment procedures visit the Surface Water Quality Monitoring Guidance Advisory Work Group webpage:

<https://www.tceq.texas.gov/waterquality/assessment/swqmgawg.html>



# Getting Involved

- Surface Water Quality Standards Advisory Workgroup
  - Email [standards@tceq.texas.gov](mailto:standards@tceq.texas.gov)
- Nutrient Criteria Development Advisory Workgroup
  - Email [standards@tceq.texas.gov](mailto:standards@tceq.texas.gov)



# Questions?

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