

**TCEQ Response to Verbal Comments on the
Draft Guidance for Assessing and Reporting Surface Water Quality in Texas
for the 2024 Texas Integrated Report (IR) from Members of the TCEQ
Surface Water Quality Assessment Advisory Workgroup (SWQAAWG)
October 26, 2022**

Topic Number	Topic	Comment	Response
001	Integrated Report Updates	No comments were provided.	Not applicable
002	Summary of Changes to Spatial Information	Are you using a rotating basin approach for the Integrated Report (IR)?	TCEQ assesses every basin across the entire State for each IR every 2 years.
		Once a TMDL is adopted, changes cannot be made to the segment/AU boundaries or attributes. Why not? Is this a directive from the EPA or the State of Texas?	TCEQ SWQM cannot make substantive changes to water bodies with an approved TMDL. TCEQ adopts and certifies TMDLs as an update to the State of Texas Water Quality Management Plan (WQMP). The adopted TMDLs are then forwarded to EPA for final action. Changes to information about segment/AU boundaries or attributes would need to be included as a formal update to the WQMP before being considered for the IR. There is a formal process for making updates to the WQMP. Whenever a TMDL is up for revision SWQM may be able to make minor revisions.
		The EPA representative commented that the EPA recognizes that this (changes to approved TMDL waterbodies in GIS) is an issue and is working to modify the “Actions” module in ATTAINS to better track changes made to TMDL waterbodies.	Comment noted

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003	Assessment Methods for 24-hour pH	Lake Sommerville was identified as impaired for which pH criteria?	Lake Sommerville exceeded the pH maximum criteria of 9. It is impaired for "High pH".
		Which assessment methods are we considering for 24-HR pH? Can you please elaborate on the four methods provided in the presentation?	TCEQ provided data spreadsheets and included examples of how each of the four methods under consideration could be applied to 24-HR pH data. The four methods discussed are Daily Min/Max-Binomial 10%, Binomial 10%-10% Rule, Rapid Change, and Chronic Toxicity. The Rapid Change and Chronic Toxicity methods could be used as site specific methods while the Daily Min/Max- Binomial 10% and Binomial 10%-10% Rule methods could be applied statewide.
		TCEQ noted the Binomial 10%-10% Rule considers the entire 24-HR period of an event and averages the data. This reduces the penalty for when exceedances are close to the criteria. For example, a pH of 9.2 when the criteria is 9.0.	Not applicable

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		<p>Does TCEQ have water quality standards for pH maximum and minimum? Does something like a pH of 9.2 really have a negative impact on biological integrity? Has TCEQ considered studying the effects of pH on biology? For example, if Somerville Lake experiences high pH late in the day, that may result in an impairment, but does this influence biology?</p>	<p>TCEQ includes narrative criteria for pH in Section 307.4 of the Texas Surface Water Quality Standards (TSWQS). Additionally, site specific criteria are expressed as pH ranges in Section 307.10, Appendix A of the TSWQS. TCEQ has not studied the impacts of extreme levels of pH on biological communities. In the few water bodies for which the pH Standards have been adjusted based on site-specific information, these water bodies were all previously impaired for instantaneous pH. Most of the high pH impairments were driven by excessive algal growth. The current data collection project on Lake Somerville will include data to examine temporal trends in pH.</p>
		<p>Is Somerville Lake currently impaired for excessive algae?</p>	<p>Somerville Lake is not impaired for excessive algae in the 2022 Texas Integrated Report.</p>
		<p>Discussion question posed by TCEQ: Should we only apply this 24-HR pH method to specific sites (such as Somerville Lake), or should we implement this methodology statewide?</p>	<p>Not applicable</p>
		<p>TCEQ mentioned additional research is needed on how long a water body could remain above pH 9 or below pH 6 before it starts to affect biology. It doesn't seem like we can move forward with the "Chronic Toxicity" method without more information.</p>	<p>Not applicable</p>
		<p>TCEQ should consider how 24-HR pH criteria or pH criteria for ALU would affect permits and permittees.</p>	<p>Comment noted</p>

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		Is it known which 24-HR pH assessment method is most protective of aquatic life, particularly benthic organisms that can't move away from the impairment?	The problem is that the current pH criteria was not designed to assess the aquatic life use. Also, there are no established benthic index criteria for reservoirs.
		Discussion Question Posed by TCEQ: Do people feel like this is a good time or not a good time to identify new methods for 24-HR pH?	It is probably appropriate to do assessments of 24HR pH. But I'm not sure if it is helpful in the context of determining real impairments when a waterbody could end up impaired with a 9.2 pH. TCEQ may consider developing a ranking system.
004	General discussion	How are TMDL projects prioritized? Which category 5 waterbodies get prioritized and assigned TMDLs first and how is this determined?	The TCEQ TMDL Team has their own process which they use to prioritize and select candidate water bodies for a TMDL plan. They can be reached at their proxy box: tmdl@tceq.texas.gov .

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		<p>The Texas Surface Water Quality Standards and the IR assessment approach are not written in a way that can account for the issues we are currently seeing with coastal bottom-water hypoxia.</p> <ul style="list-style-type: none"> o Near-shore gulf hypoxia is occurring along the upper Texas coast. Studies attribute this issue to local sources and also influence from Louisiana. O In the gulf around Freeport, Texas, there is a localized hypoxia issue. Studies show this can be attributed to nutrient loading from the Brazos River. O In Offats Bayou, dredging has caused hypoxia and anoxia. There are high sulfide concentrations. This has been documented in peer-reviewed literature. O Baffin Bay is experiencing system wide issues. Series of interrelated issues driven by nutrient loading. 	<p>Comment noted</p>