

Supporting evidence for issues raised by Environmental Stewardship in comments to TECQ regarding Gapped Bass/The Boring Company, and Corix/McKinney Roughs wastewater TPDES permit applications

SUMMARY

Fish and Macroenthic Communities have been TCEQ listed¹ as "impaired ... in water" as "TCEQ cause[s]" for concern in numerous Assessment Units (AUID) of Segment 1428 since before 2006² when they were carried forward from the previous assessment. Both are "use concerns" (CN³) based on "inadequate data (less than 4)" (ID). The methods of assessment for these parameters for Aquatic Life Use were listed in 2020 as "regional" and "qualitative", respectively.

These two biological parameters of concern that relate to aquatic life use have been carried forward for at least 17 years without having been further evaluated to determine whether to rate them as fully supporting (FS), nonsupport (NS), or no concern (NC).

Fish Community, as an Aquatic Life Use Method, and the lower segment of the Colorado River, were *delisted* from the July 7, 2022,⁴ TCEQ Water Quality Report⁵. Dissolved oxygen concerns in the upper segment of the Colorado river were also *delisted* from the same report.

NOTE: Segment 1428 was included in "*intensive biological and physical data collection activities conducted in 2004-2007*" and reported in 2008⁶. Aquatic habitat and use data were collected at 10 sites from Longhorn Dam to Wharton. Fifty (50) species of fish⁷ were collected in the entire lower basin.

Nutrient screening for Nitrate and Total Phosphate have been TCEQ listed as General Use "in water" "TCEQ cause" of concern based on the concentration levels that these compounds are found in water. (See Documents cited in footnotes 1 and 2). Neither have been carried forward from previous assessments. Both are "screening level concerns" (CS) based on adequate data (AD). The method of assessment for these General Use parameters have been by Nutrient Screening Levels. Orthophosphorus was listed in this group until 2020.

¹ 2020 Texas Integrated Report - Assessment Results for Basin 14 - Colorado River Basin, Segment 1428, page 183 of 242.

² 2006 Texas Water Quality Inventory - Basin Assessment Data By Segment, Segment 1428, Page 1 of 7; 2008 Texas Water Quality Inventory - Basin Assessment Data based on Segment (March 19, 2008) page 1 of 5; 2010 Water Quality Inventory: Assessment Results for Basin 14 - Colorado River (page 280 - 297).

³ From 2006 to 2008 CN was listed as "Concern for Near non-attainment" until changed in 2010 to "Use Concern".

⁴ TCEQ SFR-127, 2022 Guidance for Assessing and Reporting Surface Water Quality in Texas, was adopted July 7, 2022.

⁵ See: Timeline and Exhibits in Support of Evidence for Issues raised by Environmental Stewardship in comments to TCEQ regarding Gapped Bass/The Boring Company, and Corix/McKinney Roughs wastewater TPDES Permit Applications and Draft Permits.

⁶ Colorado and Lavaca Rivers and Matagorda and Lavaca Bays Basin and Bay Expert Science Team (CL-BBEST) Environmental Flow Regimes Recommendations Report, March 1, 2011.

⁷ Surface Water Quality Monitoring Procedures, Volume 2: Appendix B: Greater than or equal to 52 fish species are needed to support the exceptional aquatic-life use standard for fish (Metric for Ecoregion 30 (Table B.6.) and greater than or equal to 42 species for Ecoregion 31 Table B.7.).

Both have been chemical parameters of concern for at least 17 years but continue to be assessed and included because the data indicates an ongoing concern that is short of being characterized as nonsupport (NS) that would trigger a Category 5c response. The Nitrate and Total Phosphate concerns in lower segment of the Colorado River were also *delisted* from the July 7, 2022, TCEQ Water Quality Report.

Category 5c concerns, like bacteria in this Segment, are included on the 303(d) list and require additional data or information to be collected and/or evaluated for one or more parameters before a management strategy, normally TMDLs for chemical parameters, is selected.

CONCLUSIONS

Fish and Macrobenthic Communities have been a TCEQ cause based on impairment in water concerns that have not been investigated for at least 17 years by collecting biological field data to determine whether to rate them as fully supporting (FS), nonsupport (NS), or no concern (NC).

Without a holistic biological assessment of these biological indicators of the status of aquatic life use, there is no ability for TCEQ, or the public, to determine whether management strategies for constituents in discharges to this segment of the river -- such as nitrogen and total phosphate -- are degrading the water quality in this Colorado River segment to an extent that the aquatic life use has also been degraded, or not degraded.

The Executive Director has asserted,

"no significant degradation of water quality is expected in the Colorado River below Lady Bird Lake/Town Lake which has been identified as having exceptional aquatic life use",

That assertion for both the Tier 1 and Tier 2 antidegradation review cannot be reliably concluded given the uncertainty in the data and the agency's levels of evaluations of the conditions in the River below Lady Bird Lake/Town Lake.

Issues Raised: To be included in issue lists in comments on Gapped Bass/The Boring Company, and Corix/McKinney Roughs wastewater TPDES permit applications.

- a) Whether the evaluation of impacts properly considers current conditions and complies with applicable regulations to ensure the draft permit is protective of water quality, including utilizing accurate assumptions and inputs, e.g., proper evaluation of the current state of pollutants in and impairments of the Colorado River downstream of the discharge in a manner that considers the total loading on the river.
- b) Whether the Executive Director's antidegradation review was accurate, e.g., proper evaluation of the current state of pollutants in, and impairments of, the Colorado River downstream of the discharge, proper use of the historic measuring period for evaluation of degradation and proper evaluation of the degradation standard:
 - a. Whether impairments in Segment 1428, AUID: 1428_0 have been timely field studied using biological metrics, monitored, and assessed by TCEQ, based on TCEQ, TPWD, or LCRA data collected since originally assessed in 2006 to determine if the segment should be on the 303(d) list based on impairment of fish and macrobenthic communities, nitrogen, and phosphorus or if the removal of these causes for impairment were justifiably based on best-available science.