UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1201 ELM STREET, SUITE 500
DALLAS, TEXAS 75270

April 26, 2023

Transmitted Via E-mail

Cari-Michel La Caille, Director
Office of Water (MC-158)
Texas Commission on Environmental Quality
Post Office Box 13087
Austin, Texas 78711-3087

Dear Ms. La Caille:

The U.S. Environmental Protection Agency (EPA) has completed its review of several new and revised provisions in the *Texas Surface Water Quality Standards* (TSWQS). These standards were adopted by the Texas Commission on Environmental Quality (TCEQ) on September 7, 2022, and received by the EPA for review on November 7, 2022.

This is the first action for the EPA's review of the 2022 TSWQS and includes new or revised provisions in §307.2, §307.3, §307.4, §307.6, §307.7, Appendix A, Appendix B, Appendix C, Appendix E, and Appendix G, as specified in the enclosure. I am pleased to inform you that the EPA is approving the provisions as documented in Part I of the enclosure to this letter, pursuant to section 303(c) of the Clean Water Act (CWA) and the implementing regulation at 40 CFR part 131. Part II of the enclosure summarizes revisions in the 2022 TSWQS which do not require action by the EPA under CWA section 303(c).

Section 7(a)(2) of the Endangered Species Act requires that all federal agencies engage in consultation to ensure their actions are not likely to jeopardize the continued existence of any threatened or endangered species or result in adverse modification of designated critical habitat. The EPA has determined that approval of the provisions identified in Part I of the enclosure, will have no effect on federally listed threatened and endangered species or on critical habitat, or are otherwise not subject to consultation under the Endangered Species Act (e.g., provisions to protect human health).

The EPA has previously stated that it is taking no action on the definition of "Surface water in the state" in §307.3(a)(71), regarding the reference to §26.001 of the Texas Water Code for the area 10.36 miles offshore into the Gulf of Mexico. Under the CWA, the state of Texas does not have jurisdiction to establish water quality standards more than three nautical miles from the coast. Therefore, the EPA's approval action on the items in the enclosure recognizes the state's authority under the CWA to include waters extending offshore three nautical miles in the Gulf of Mexico but does not extend past that point.

In addition, the EPA's approval action also does not include the application of the TSWQS to the portions of the Red River and Lake Texoma that are located within the state of Oklahoma. The EPA is also taking no action on the TSWQS for those waters or portions of waters located in Indian Country.

I would like to commend the TCEQ for its commitment in completing the task of reviewing and revising the State's water quality standards. The EPA will take subsequent action on the remaining new and revised provisions in §307.6, §307.7, Appendix D and Appendix E of the 2022 TSWQS. If you have any questions or concerns, please contact me at (214) 665-7101, or have your staff contact Diane Evans at (214) 665-6677.

Sincerely,

Charles W. Maguire
Director
Water Division

Enclosure

cc: Sarah Whitley
Team Leader, TCEQ - Water Quality Standards and Clean Rivers Program

THE EPA'S REVIEW OF THE 2022 *TEXAS SURFACE WATER QUALITY STANDARDS*
(April 2023)

The Environmental Protection Agency's (EPA) action addresses the revisions to *Texas Surface Water Quality Standards* (TSWQS) adopted by the Texas Commission on Environmental Quality (TCEQ) in September 2022 and submitted to the EPA for review in November 2022. This enclosure provides a summary of the revisions and the action taken by the EPA. The discussion below includes Part I - revisions that are approved for purposes of Clean Water Act (CWA) section 303(c), as found on pages 1-5 of this enclosure, and Part II - revisions that do not require action by the EPA under CWA section 303(c), as found on pages 5-6.

I. REVISIONS THAT THE EPA IS APPROVING

The EPA determined that several revisions are non-substantive in nature and thus do not substantively modify TSWQS. The TCEQ corrected the reference to the federal regulation at 40 CFR 131.10(g) in the third sentence of §307.4(j)(3)(C) of the 2022 TSWQS. Under §307.6(d), the TCEQ clarified the application of human health criteria for cresols in Table 2. In §307.7(b)(3)(A)(ii), the TCEQ corrected a reference to identify footnote 1 in Appendix D (applicable to two water bodies in the Cypress Creek Basin). In Appendix D - Site-specific Uses and Criteria for Unclassified Water Bodies, the TCEQ updated the segment number for County Relief Ditch (Orange County) to reflect the revised segment boundary between the tidal and nontidal reaches of the Sabine River which was revised in the 2018 TSWQS. In Appendix E - Site-specific Toxics Criteria, the TCEQ updated the names of regulated facilities and clarified site descriptions for eight existing entries. The TCEQ also corrected the description for Dixon Creek in Appendix G - Site-specific Recreational Uses and Criteria for Unclassified Water Bodies for consistency with the description for Dixon Creek in Appendix D. Additional non-substantive or editorial changes were made in §307.3, §307.6, §307.7, Appendix A, Appendix B, Appendix C, Appendix D, and Appendix E.

The EPA considers such non-substantive edits to existing water quality standard (WQS) to constitute new or revised WQS that the EPA has the authority and duty to approve or disapprove under CWA section 303(c)(3). While such revisions do not substantively change the meaning or intent of the existing WQS, the EPA believes that it is reasonable to treat such non-substantive changes in this manner to ensure public transparency on what provisions are effective for purposes of the CWA. The EPA notes that the scope of its action in reviewing and approving or disapproving such non-substantive changes would extend only as far as the actual non-substantive changes themselves. In other words, the EPA's action on non-substantive changes to previously approved WQS would not constitute an action on the underlying previously approved WQS. Any challenge to EPA's prior approval of the underlying WQS would be subject to any applicable statute of limitations and prior judicial decisions. The EPA approves the non-substantive changes in the 2022 TSWQS, identified in the above paragraph, pursuant to section 303(c) of the CWA.

The EPA concluded that approval of certain revisions identified in Part I of this enclosure is not subject to consultation under the Endangered Species Act. The EPA made a finding of "no-effect" on federally listed species or critical habitat under the Endangered Species Act for the site-specific copper criteria in Appendix E.

§307.2. Description of Standards

§307.2(g) Temporary standards. The TCEQ modified the temporary standards provision to provide flexibility and clarity for implementation. Under paragraph (1), three options for establishing the temporary standard were added to the 2022 TSWQS. These options include the interim effluent condition that reflects the greatest pollutant reduction achievable, the interim effluent condition that reflects the greatest pollutant reduction achievable with current technologies and implementation of a remediation plan, or the highest attainable interim criterion. Under paragraph (2), language was added to specify that a temporary standard must be adopted by the TCEQ and approved by the EPA. Under paragraph (4), language to state that if the reevaluation of a temporary standard is not submitted to the EPA within 30 days of completion, the underlying WQS will be implemented in CWA actions. Under paragraph (6), language was revised to state that lowering of the existing ambient water quality is not allowable, unless a temporary standard is necessary for restoration or reconfiguration activities in a water body. The TCEQ also clarified that a temporary standard must prevent degradation of existing water quality.

Based on email from Sarah Whitley, Team Leader - Water Quality Standards and Clean Rivers Program on April 18, 2023, the TCEQ agrees and understands that all future temporary standards must adhere to the federal regulations in 40 CFR 131.14. The new and revised provisions describe above are consistent with the federal regulation at 40 CFR 131.14 and are approved by the EPA under section 303(c) of the CWA.

§307.3. Definitions and Abbreviations

§307.3(a) Definitions. The TCEQ added a definition for "bioaccumulation factor" to the 2022 TSWQS and revised the definition of "method detection limit" to be consistent with the definition in the federal regulation at 40 CFR 136.2(f).

§307.3(b) Abbreviations. The TCEQ added abbreviations for "bioaccumulation factor" and "municipal utility district" in the 2022 TSWQS.

The new and revised definitions are consistent with the intent of the CWA and the implementing regulations. These definitions and abbreviations support implementation of the standards and are approved by the EPA under CWA section 303(c).

§307.6. Toxic Materials

§307.6(c) Specific numerical aquatic life criteria and §307.6(d) Specific numerical human health criteria. The TCEQ added language in footnote 2 of Table 1 (aquatic life) and footnote 3 of Table 2 (human health) to allow use of the analytical method for free cyanide for evaluating compliance with water quality criteria. In footnote 1 of Table 1, the TCEQ clarified that a water effect ratio may be applicable to the copper aquatic life criterion in designated oyster waters. These revisions support implementation of the standards and are approved by the EPA under CWA section 303(c).

Appendix A - Site-specific Uses and Criteria for Classified Segments

The TCEQ removed the public water supply use from the portion of segment 1244 - Brushy Creek that is outside (i.e., downstream) of the contributing, recharge, and transition zones of the Edwards Aquifer.[1] There are no diversions or intakes for public water supplies in this reach of segment 1244, as verified by the TCEQ Water Rights Program. The EPA also reviewed TCEQ's *Drinking Water Watch* database to confirm that there are no public water supplies this reach of segment 1244.[2]

The TCEQ added a footnote to segment 1255 - Upper North Bosque River that identifies the reach above the confluence with Dry Creek to the upper end of the segment (confluence with the North and South Forks North Bosque River), as intermittent with perennial pools. The revised description for this upper reach is based on a use attainability analysis conducted for a previous revision of the TSWQS and is supported by more recent flow data from the TCEQ's ambient monitoring program. The designated uses and water quality criteria for segment 1255 were not revised in the 2022 TSWQS.

The TCEQ conducted a recreational UAA for segment 2108 - San Miguel Creek, following its protocol titled *Recreational Use-Attainability Analyses (RUAAs): Procedures for a Comprehensive RUAA and a Basic RUAA Survey*. The RUAA documented that the primary contact recreation use is not attainable in San Miguel Creek, due to the factor specified at 40 CFR 131.10(g)(2) of the federal regulation ("Natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met."). The TCEQ revised the designated use of primary contact recreation for San Miguel Creek to a secondary contact recreation 1 use with an *E. coli* criterion of 630 colonies/100 ml (geometric mean).

The EPA approves the removal of the public water supply use for a portion of segment 1244 - Brushy Creek, the updated description for the upstream reach of segment 1255 - Upper North Bosque River, and the revised recreation use for segment 2108 - San Miguel Creek under CWA section 303(c)(2).

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[1] TCEQ. *Edwards Aquifer Map Viewer* (Version 5.0). Accessed December 20, 2022. Available at: https://www.tceq.texas.gov/gis/edwards-viewer.html.
[2] TCEQ. *Texas Drinking Water Watch* (Release 3.7). Accessed December 20, 2022. Available at: https://dww2.tceq.texas.gov/DWW/.

Appendix B – Sole-source Surface Drinking Water Supplies

Under Appendix B, the TCEQ added segment 1808 - San Marcos River and segment 2118 - Choke Canyon Reservoir as sole-source drinking water supplies, based on information provided by the TCEQ Drinking Water Protection Team. Also, the TCEQ removed the designations of sole-source drinking water supply for segment 0223 - Greenbelt Lake and segment 1418 - Lake Brownwood in the 2022 TSWQS, as these water bodies no longer serve as a sole source for any drinking water systems. The EPA also reviewed the TCEQ's *Drinking Water Watch* database to confirm that there are no public water systems that are rely only on either of these two water bodies.[2] The EPA approves the additions and deletions to Appendix B under section 303(c)(2) of the CWA.

Appendix E - Site-specific Toxic Criteria

The TCEQ added the site-specific criteria listed in the table below to Appendix E of the 2022 TSWQS. These criteria were developed with a water effect ratio study based on the EPA's guidance documents. Prior to approval of the freshwater copper criteria for a portion of Hurricane Creek, the EPA compared the proposed criteria values with results from the biotic ligand model.

Segment	Site description	Facility	Parameter	Site-specific Adjustment Factor
0604	Hurricane Creek from the edge of the mixing zone with Cedar Creek upstream to outfall 001 in Angelina County	City of Lufkin	Copper	4.43

In addition, the TCEQ added language in the introductory paragraph of Appendix E in the 2022 TSWQS to reflect that site-specific criteria may be based on something other than a multiplier (i.e., water effect ratio). The TCEQ added footnote 5 to identify site-specific criteria that are based on a biotic ligand model. The TCEQ corrected footnotes for three previously approved criteria to reflect application only to the permitted facility that conducted the studies (Enterprise Products in segment 0901 and Faulkey Gully MUD in segment 1009), rather than to the entire water body.

The EPA has determined that the site-specific copper criteria are protective of the aquatic life use in Hurricane Creek. These criteria and the other revisions described in the above paragraph are approved by the EPA under CWA section 303(c).

Appendix G - Site-specific Recreational Uses and Criteria for Unclassified Water Bodies

The TCEQ conducted a recreational UAA for South Lilly Creek (within the watershed of segment 0409), following its protocol titled *Recreational Use-Attainability Analyses (RUAAs): Procedures for a Comprehensive RUAA and a Basic RUAA Survey*. The RUAA documented that the presumed

primary contact recreation use is not attainable in South Lilly Creek, due to the factor specified at 40 CFR 131.10(g)(2) of the federal standards regulation ("Natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met."). The TCEQ revised the presumed use of primary contact recreation for South Lilly Creek to a secondary contact recreation 1 use with an *E. coli* criterion of 630 colonies/100 ml (geometric mean) in the 2022 TSWQS.

The TCEQ also modified the descriptions for Bullhead Bayou and an unnamed tributary of Bullhead Bayou in the 2022 TSWQS to reflect previous re-routing of these water bodies from the watershed of segment 1245 - Upper Oyster Creek, to segment 1202 - Brazos River below Navasota River. These modifications also created east and west reaches of Bullhead Bayou, as identified in Appendix G of the 2022 TSWQS. The secondary contact recreation 1 uses and the *E. coli* criteria of 630 colonies/100 ml (geometric mean) for Bullhead Bayou and the unnamed tributary were adopted in the 2014 TSWQS and previously approved by the EPA. The TCEQ did not revise the secondary contact recreation 1 use or the *E. coli* criteria for either reach of Bullhead Bayou or the unnamed tributary in the 2022 TSWQS.

The EPA approves the revised use and *E.coli* criterion for South Lilly Creek and the revised descriptions for both reaches of Bullhead Bayou and the unnamed tributary under section 303(c)(2) of the CWA.

II. REVISIONS THAT DO NOT REQUIRE ACTION BY THE EPA UNDER CWA SECTION 303(c)

Appendix A - Site-specific Uses and Criteria for Classified Segments

The TCEQ removed a footnote describing segment 1913 - Mid Cibolo Creek as an intermittent water body with perennial pool in the 2022 TSWQS revision. The TCEQ adopted this footnote in the 2018 TSWQS revision, along with revised segment descriptions for three reaches of Cibolo Creek in Appendix C. However, the TCEQ subsequently determined that additional evaluation of the aquatic life uses in each reach of Cibolo Creek was needed and requested that the EPA not act on these revisions in the 2018 TSWQS.

Appendix C – Segment Boundary Descriptions

The TCEQ revised the descriptions for segment 1902 - Lower Cibolo Creek, segment 1908 - Upper Cibolo Creek, and segment 1913 - Mid-Cibolo Creek to the language in the current CWA-approved standards (2014 TSWQS). As noted above, the TCEQ adopted revisions in the 2018 TSWQS for these three segment descriptions, but later determined that additional evaluation of the aquatic life uses in each reach of Cibolo Creek was needed. At the request of the TCEQ, the EPA did not act on these revisions in Appendix C of the 2018 TSWQS.

Appendix E - Site-specific Toxic Criteria

The TCEQ added the site-specific criteria listed below to Appendix E of the 2022 TSWQS. The EPA previously approved these criteria under CWA section 303(c) following the processes in §307.6(c)(9) - (10) of the TSWQS and is identifying the criteria in this enclosure for convenience. These site-specific criteria were developed with a water effect ratio study based on guidance documents published by the EPA, or with the EPA's freshwater copper biotic ligand model (Smith Creek in segment 0202). Prior to approval of freshwater copper criteria based on a water effect ratio, the EPA compared the criteria values with results from the biotic ligand model. Following each approval under CWA section 303(c), the EPA listed the site-specific criteria on the agency's Water Quality Standards Repository website.[3]

Segment	Site description	Facility	Parameter	Site-specific Adjustment Factor	EPA approval
0202	Unnamed tributary from the edge of the mixing zone with Smith Creek upstream to outfall 001 in Lamar County	Paris Generation, LP	Copper	37.28 µg/L (acute criterion)	03/25/2020
0601	From the edge of the mixing zone in the tidal marshes and Entergy Canal tidal upstream to outfall 001 in Orange County	Entergy Texas, Inc.	Copper	2.3 (total)	12/02/2019
0702	Taylor Bayou Tidal within the zone of initial dilution and the mixing zone of outfall 001 in segment 0702 in Jefferson County	The Premcor Refining Group, Inc.	Copper	2.95	02/03/2020
1009	Seals Gully from the confluence with HCFCD K142-02-00 upstream to outfall 001 in Harris County	Bridgestone MUD	Copper	3.19	08/10/2021
2429	Scott Bay in Harris County	[applicable to water body]	Copper	1.8	07/21/2020
2432	From the edge of the mixing zone in Mustang Bayou upstream to outfall 001 in Fort Bend County	Nalco Production LLC	Copper	3.11	03/10/2021
2432	From the edge of the mixing zone in Mustang Bayou upstream to outfall 002 in Fort Bend County	Nalco Production LLC	Copper	4.0	03/10/2021
2441	From the edge of the mixing zone of the tidal portion of Little Boggy Creek upstream to outfall 002 in Matagorda County	Equistar Chemicals, LP	Copper	2.43 (total)	07/12/2019

[3] USEPA. 2023. *Water Quality Standards Regulations: Texas.* Accessed April 24, 2023. Available at: https://www.epa.gov/wqs-tech/water-quality-standards-regulations-texas.