



Comments from the Sierra Club Lone Star Chapter and Partner Organizations on TCEQ Rule Project No. 2020-014-307-OW — Rulemaking Regarding the Triennial Revision of Texas Surface Water Quality Standards

The Sierra Club Lone Star Chapter along with six organizations¹ working across the State of Texas (collectively, Joint Commenters) submit the following comments to the Texas Commission on Environmental Quality (TCEQ) regarding the TCEQ’s Triennial Review and Revision of Texas surface water quality standards (SWQS). The Sierra Club is the nation’s oldest and largest conservation organization; the Lone Star Chapter is the Texas chapter of the Sierra Club and was incorporated in 1965, with over 27,000 members across the state. The Sierra Club Lone Star Chapter has been actively engaged in Texas water quality issues since its inception, and appreciates the opportunity to comment on this triennial review of Texas Surface Water Quality Standards.

In response to this triennial review and revision, Joint Commenters raise several concerns, some of which have been raised by Sierra Club in prior revisions. These concerns include past rollbacks on recreational use categories that are detrimental to overall water quality as well as public health, site specific use concerns, and the failure to incorporate numeric nutrient criteria in this revision of the SWQS. Additionally, the Joint Commenters applaud the inclusion of a prohibition on the discharge of pre-production plastic pollution in this revision, though the sufficiency of this rule is also of concern.

(1) The Public Comment Period is Insufficient Due to Errors Contained in the Original Publication in the Texas Register

The first publication of these proposed standards revisions in the Texas Register was on March 25, 2022. However, on April 15, 2022 the Texas Register published a Correction of Error detailing that the earlier published version of the text proposed by TCEQ contained errors in that it lacked underlining to delineate new additions to the text.² Specifically, “Section 307.4(b)(8) did not contain underlining indicating new language. The error is as submitted by the commission.”³

¹ The Sierra Club Lone Star Chapter is joined by the following organizations in these comments: Bayou City Waterkeeper, Texas Campaign for the Environment, Environment Texas, Indivisible TX Lege, Greater Edwards Aquifer Alliance, Turtle Island Restoration Network, Environmental Stewardship, Coastal Alliance to Protect our Environment, National Wildlife Federation, Carrizo/Comecrudo Tribe of Texas, Ingleside on the Bay Coastal Watch Association, Environmental Integrity Project, and Friends of the Brazos River

² 47 TexReg 2044

³ Id.

That section of proposed additions to the surface water quality standards is one of the most important new sections to be included, as it describes a novel prohibition on pre-production plastic pollution.

Due to this error, stakeholders that rely on the Texas Register for official publication of the surface water quality standards would not have been able to fully discern the full effect of the proposed new standards.

Because the Correction of Error was not published until April 15, 2022, TCEQ must extend the deadline for Public Comment until at least May 15, 2022.⁴

(2) Current Bacterial Standards Insufficiently Protect Human Health

According to the 2020 Texas Integrated Report, over 100 Texas water bodies are impaired due to depressed dissolved oxygen levels, while close to 300 are impaired from bacteria. These ongoing impairments from bacteria are cause for belief that either the current standards are not stringent enough to prevent such impairment or that the Total Maximum Daily Load (TMDL) program dependent on these standards is inadequate as a result of the standards having long been inadequate.

Additionally, given insufficient protections for current bacterial standards among other pollutants, it is unlikely that the impaired waters list is complete and accurate. The reality is that more waters in Texas have slowly become more polluted. By adding recreational use categories to allow additional bacterial contamination, TCEQ prevents those segments from being listed impaired and the subsequent required TMDL action.

(a) Past Recreational Use Category Changes are Not Supported by the Science nor the Clean Water Act

In the 2000 revision of the SWQS, the predecessor agency to TCEQ split recreational uses between “noncontact recreation,” such as boating, and “contact recreation,” such as swimming. Higher levels of bacteria were allowed in “noncontact” streams than allowed in “contact” streams. In the 2010 standards, TCEQ split contact recreation waters into “primary contact recreation,” “secondary contact recreation 1,” and “secondary contact recreation 2,” with higher levels of bacteria allowed in “secondary” than in “primary” recreation streams. Then with the 2014 standards, TCEQ again split “primary contact recreation” into “primary contact recreation 1” and “primary contact recreation 2,” and allowed higher levels of bacteria in “recreation 2” than in “recreation 1” streams. In other words, by this parsing of “recreation” categories TCEQ effectively weakened protection of numerous streams designated for recreation that were not categorized as “primary contact recreation 1.”

⁴ See Tex. Gov’t. Code § 2001.023 “A state agency shall give at least 30 days’ notice of its intention to adopt a rule before it adopts the rule.”

Furthermore, the E. coli limits established in the Texas Water Quality Standards are not sufficient to protect human health and the environment. These limitations, set forth in § 307.7 of the standards, allow for quantities of bacteria to be present in water that fail to protect uses such as recreational uses and public water supply.

TCEQ should revise previous rollbacks of recreational use categories by consolidating contact categories using more stringent bacterial criteria. While we acknowledge that this will cause additional streams and reservoir segments to be added to the list of impaired waterbodies, we believe that these areas have been misclassified and should be subject to higher water quality standards.

(b) It is Unclear that Marine Bacterial Standards are Sufficiently Protecting Human Health AND Texas Coastlines are Regularly More Polluted than Permissible by Current Standards

Recent stories questioning the efficacy of bacterial standards have appeared in the media.⁵ Specifically, there are scientific studies from state institutions that question whether the state's reliance on enterococci sufficiently tests for fecal pollution as it poses a public health hazard.⁶ In addition to enterococci having no human-specific strains — there is an unclear relationship between enterococci presence and actual human health risk — making it an inferior standard for testing fecal pollution in coastal waters.

Additionally, fecal pollution measured from other indicators in the coastal bay systems suggests that the waters — even when clearly tested as meeting potential enterococci standards — may not be safe for recreational uses. At other times, according to enterococci standards the waters would be unsuitable for recreation when there might be no additional fecal contamination risk.

TCEQ must evaluate the utility and sufficiency of using enterococci as an indicator to measure fecal contamination in saline environments. Because there is substantial scientific ambiguity in its usefulness, TCEQ must swiftly move to adopt standards that are clearly related to protecting human health and the environment.

(3) Joint Commenters Oppose Downgrading of Specific Segments

While there are relatively few changes to specific waterbodies in the proposal, joint commenters express opposition to four proposed downgrades.

⁵ Joe Pappalardo, Texas Beaches May Be Filthier Than We Realize, Texas Monthly, (<https://www.texasmonthly.com/news-politics/texas-beaches-filthy-feces-testing/>) (Apr. 22, 2022).

⁶ Nicole C. Powers, Lee J. Pinnell, Hailey R. Wallgren, Sandra Marbach, and Jeffrey W. Turner, Water Quality Dynamics in Response to Rainfall along an Estuarine Ecocline, (DOI: 10.1021/acsestwater.1c0005) (May 26, 2021).

First, the removal of the “public water supply” use designation for a large portion of Brushy Creek (Segment 1244) is inappropriate. This downgrade would impact the segment starting upstream at the confluence of Brushy Creek with the San Gabriel River flowing to the most downstream edge of the Edwards Aquifer transition zone. Such a change by TCEQ would make it easier for current or future proposed wastewater discharge permits to degrade water quality. Second, TCEQ is seeking to downgrade the aquatic life use designation for “intermittent” parts of Buckner Creek in Fayette and Bastrop counties (Segment 1402C) from “high” aquatic life use to “intermediate.” This particular use change is based on an analysis showing the creek is not flowing much of the year. Intermittent parts of a creek do not perform a less important role in aquatic life development. Rather, intermittent stream flow is likely to be a necessary habitat for an abundance of species during that specific timeframe. Intermittence should not dictate the level of aquatic life use.

Finally, TCEQ is recommending downgrading two additional streams from the primary contact recreation standard to the secondary contact recreation standard. The streams – South Lilly Creek (Segment 0409B) in the Cypress Creek area and San Miguel Creek south of San Antonio (Segment 2108) — could have as much as 630 colonies of fecal bacteria per 100 milliliters of water instead of the much safer standard of 126 colonies per 100 milliliters. These downgrades are based on very limited surveys of the use of these two streams and represent a degrading of water quality in creeks in areas where Texans frequently fish and recreate.

(4) TCEQ Should Provide Sufficient Justification for any Weakening of Standards on Carcinogens — Especially if TCEQ can Already Protect Human Health with Current Standards

TCEQ, in the background and summary of proposed rules, explains that proposed changes to the human health criteria for carcinogens in Table 2, § 307.6(d)(1) are based on a revision of oral slope factors (for benzo(a)anthracene, benzo(a)pyrene, chrysene, 1,2-dichloropropane, and 1,3-dichloropropene). Despite these explanations, the concentrations are truly alarming without adequate justification.

It remains unclear from both the background and the proposed standards how these changes in method were ascertained — including whether they came from EPA, TCEQ, or elsewhere. Nevertheless, it is alarming that in the case of Benzo(a)anthracene and Benzo(a)pyrene, for example, we see about 4 times the presently allowable amount of either carcinogen as being an acceptable risk to human health. For chrysene, the amounts change by nearly a factor of 8. The changes in 1,2-dichloropropane and 1,3-dichloropropene are less drastic, but still notable.

Any change to the oral slope factor in measuring the amount of permissible carcinogenic pollution is intended to be used as a *minimum* basis. If TCEQ is capable of regulating such carcinogens at a lower and safer amount (such as at present), the justification to permit more carcinogenic pollution that risks human health should be better-reasoned than simply because it is allowable.

(5) Numerical Salinity Gradient Criteria Must be Adopted Promptly due to Climate Change Impacts

TCEQ must rapidly adopt numerical salinity gradient criteria. Climate change-induced sea level rise and coastal erosion are likely to increase the salinity content in the Gulf Coast, disrupting salinity balance in the long term. Because of this, it is imperative that TCEQ have a quality baseline for salinity gradients along the Texas coast.

This revision of the SWQS makes no change nor any addition to salinity criteria. Tex. Water Code § 26.023 reads in relevant part “The commission shall develop standards based on all *quality assured data* obtained by the commission...” (emphasis added). Tex. Water code § 26.0135 further defines quality assured data as “data that complies with commission rules for the water quality monitoring program”.

The current standards address salinity criteria in § 307.4(g): “Numerical salinity criteria for Texas estuaries have not been established because of the high natural variability of salinity in estuarine systems, and because long-term studies by state agencies to assess estuarine salinities are still ongoing.” This provision of the standards has been in effect since *at least* 1997, more than two decades without any progress on numerical salinity criteria to protect Texas’s bays and estuaries.

Texas’s bay systems boast incredible biodiversity in addition to vulnerability to salinity changes. There are species that have likely *already suffered the impacts* of TCEQ’s procrastination on the establishment of numerical salinity gradients in Texas waters. The endangered Smalltooth Sawfish (*Pristis pectinata*), for example, has been largely extirpated from the Texas coast as a result of rapidly changing salinity. The Smalltooth Sawfish requires a delicate balance of temperature and brackish salinity, and in times of higher-than-average salinity, the juveniles have been known to move upstream into what would otherwise be considered freshwater. The Smalltooth Sawfish is just one example of a Texas species that has been harmed by volatile salinity gradients, at least in part to a lack of suitable salinity regulation along the Gulf Coast.

TCEQ must take action on establishing numerical salinity criteria promptly, preventing the extirpation or extinction of any more native wildlife.

(6) The Discharge of Any Pre-Production Plastic Pollution Poses Risks to Public Health and the Environment

Joint Commenters commend TCEQ for proposing the prohibition on the discharge of visible pre-production plastic as outlined in new section § 307.4(b)(8). There are clear risks to pre-production plastic pollution, but there are concerns that the new section does not go far enough.

(a) Pre-Production Plastic Pollution Risks Widespread Harm

Pre-production plastics, including “nurdles” or pellets act as vessels for toxic pollutants, transporting them in higher concentrations than might exist in ambient water. This wreaks havoc on wildlife and human health. In the Gulf of Mexico, research suggests that microplastics are becoming more abundant than certain abundant species of similarly-sized plankton, which is likely to result in confusion for species that prey on such plankton.⁷ This can cause issues up and down the food chain through bioaccumulation, including all the way up to human consumption.

Oysters, for example, may suffer fertility harm due to microplastic pollution.⁸ Additionally, oysters in the Gulf of Mexico have been documented to have concentrations of microplastics as a result of both microplastic pollution and degradation of plastics over time.⁹ The concentrations of microplastics in both ambient water and oysters themselves correlated at least somewhat with changes in the salinity gradient as well — indicating the role that freshwater inflows may play in microplastic transportation and absorption by oysters in the Gulf. Texas oysters perform vital ecological functions, and the state’s oyster populations are increasingly threatened by factors including climate change impacts, water quantity variability, water quality degradation, and unsustainable harvest. Climate change-induced sea level rise and coastal erosion will increase the salinity content in the bays disrupting salinity balance that is crucial for oysters. Additional harm to the Texas oyster populations risks not only coastal welfare, but also human health through consumption and bioaccumulation.

(b) TCEQ’s Proposed Rule Insufficiently Protects the Public Interest from Pre-production Plastic Pollution

The term “visible” should be deleted, along with the sentence in which it is defined. Discharge of any pre-production plastics should be construed to be in violation of this regulation, notwithstanding visibility.

Additionally, the phrase “where determined feasible” should be deleted as well for two reasons. First, such a determination presupposes that infeasibility is the baseline, and that a feasibility determination must be made. This would be contrary to the public interest, as this burden to show that any such compliance is not feasible should be on the regulated entity and not the public by way of the regulator.

Second, while “economic practicability and achievability in light of best industry practices” is mentioned in the Background and Summary of the Factual Basis for the Proposed Rules, it

⁷Rosana Di Mauro, et al., Abundant plankton-sized microplastic particles in shelf waters of the northern Gulf of Mexico, Environmental Pollution, (Aug. 10, 2017).

⁸ Daniel Cressey, Microplastics damage oyster fertility, Nature, (Feb. 02, 2016). <https://doi.org/10.1038/nature.2016.19286>

⁹ Austin Scircle, James V. Cizdziel, Louis Tisinger, Tarun Anumol, and Darren Robey, Occurrence of Microplastic Pollution at Oyster Reefs and Other Coastal Sites in the Mississippi Sound, USA: Impacts of Freshwater Inflows from Flooding, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7355549/> (May 15, 2020).

would be contrary to public policy for this to be a part of an infeasibility determination.¹⁰ The economic practicability of such controls is so greatly outweighed by the public interest in keeping surface waters and wildlife microplastic-free, that it would be unjust to allow a polluter to ask for such an infeasibility determination on that basis. A subjective standard of “achievable in light of best industry practices” is also inappropriate, as the regulatory environment and development of such best industry practices is so new; being able to align with another potential polluter’s practices that may be damaging to public health and the environment is not reason enough to conclude that further controls are “infeasible.” As the old adage goes: two wrongs don’t make a right.

Of the two listed reasons for infeasibility: (1) technological impossibility and (2) economic practicability and achievability in light of best industry practices, only the former is appropriate for a determination of infeasibility.

(7) TCEQ Should Address Both Pristine Streams Protection and Nutrient Criteria in this Revision

Tex. Water Code § 26.023 reads in relevant part “[t]he commission shall consider the existence and effects of...nutrient loading in developing water quality standards...” Additionally, EPA expects states to consider the ambient water quality criteria recommendations for lakes and reservoirs, including those that were updated in August 2021 for drinking water and aquatic life use.¹¹

Moreover, TCEQ recently denied a rulemaking petition filed by Friends of Hondo Canyon and others aimed at preventing nutrient pollution of the state’s most vulnerable waters. In its denial of the petition for rulemaking, TCEQ commissioners pointed to ongoing work on monitoring nutrient pollution in the state. While monitoring nutrient pollution is undoubtedly important to understanding Texas’s waterways, monitoring nutrient pollution without implementing any specific surface water quality standard for either phosphorus or nitrogen poses risks to public health and the environment. Additionally, even if TCEQ were to adopt numeric nutrient criteria for nitrogen and phosphorus, this would be insufficient to protect Texas’s last remaining 22 pristine streams.

Finally, the EPA Office of Water expects states to consider and apply the newly published stressor-response based numeric criteria to protect drinking water, recreational and aquatic life uses during their next triennial water quality standards review. As Texas is still in the process of adopting these water quality standards, now is the time to develop numeric criteria.

¹⁰ See 47 TexReg 1589

¹¹ Radhika Fox, U.S. Environmental Protection Agency, Memorandum: Accelerating Nutrient Pollution Reductions in the Nation’s Water, (<https://www.epa.gov/nutrient-policy-data/2022-epa-nutrient-reduction-memorandum>) (April 5, 2022); U.S. Environmental Protection Agency, Ambient Water Quality Criteria to Address Nutrient Pollution in Lakes and Reservoirs, (<https://www.epa.gov/system/files/documents/2021-08/nutrient-lakes-reservoirs-report-final.pdf>) (August 2021).

(a) TCEQ Should Address Nutrient Pollution by Adopting Numeric Nutrient Criteria

Texas's surface water quality standards do not adequately protect the state's waters from nutrient pollution. The state should address this shortfall by adopting numeric criteria for nutrient pollution.

Sources of nitrogen and phosphorus that pollute Texas's waterways are varied and diverse. One major contributor is agricultural fertilizers and manure end up in streams due to runoff conditions. Other contributors are stormwater runoff, wastewater discharges, and household products like yard fertilizer, pet waste, and detergents.

The state's existing approach to regulate most nutrient pollution — using narrative criteria, antidegradation requirements placed on permit applications, and watershed regulations — has fallen short. Despite funding studies since 2001 that would help Texas set specific phosphorus and nitrogen water quality standards, TCEQ has largely failed to adopt numeric nutrient water quality standards. This has led to continued degradation of natural ecosystems and threats to human health, as evidenced by examples of pollution throughout the state: including recurring blooms of toxic blue-green algae in the Texas Hill Country, and the continuous reappearance of the Gulf dead zone off the Texas coast.¹²

Texas could look to Florida, which recently implemented numeric criteria for nutrient pollution. Florida, like Texas, had historically used narrative rather than numeric nutrient surface water quality standards. However, in 2009, the Florida Department of Environmental Protection ("FDEP") adopted standards that created numeric criteria, and by 2015, almost all Florida waters had numeric nutrient standards, including streams, lakes, and wetlands located in the Everglades Protection Area.¹³ The state has employed a hierarchical approach to setting these standards, by performing site-specific evaluations to determine healthy nutrient levels in each regulated water body.¹⁴

Similarly to Texas's Nutrient Criteria Development Advisory Work Group, Florida employed a Nutrient Criteria Technical Advisory Committee to consider solutions to nutrient pollution before implementing its eventual strategies.¹⁵ It also reviewed the EPA's *Nutrient Criteria Technical Guidance Manual: Rivers and Streams* to decide on best approaches to numeric criteria development and implementation. The CWA recommends three approaches toward developing

¹² Dan Charles, [The Gulf of Mexico's Dead Zone is the Biggest Ever Seen](https://www.houstonpublicmedia.org/articles/news/2017/08/03/228603/the-gulf-of-mexicos-dead-zone-is-the-biggest-ever-seen/), Houston Public Media , (<https://www.houstonpublicmedia.org/articles/news/2017/08/03/228603/the-gulf-of-mexicos-dead-zone-is-the-biggest-ever-seen/>) (Aug. 3, 2017).

¹³ [Numeric Nutrient Criteria Development](https://floridadep.gov/dear/water-quality-standards/content/numeric-nutrient-criteria-development), Fla. Dept. of Env'tl. Prot. (Sept. 8, 2021), <https://floridadep.gov/dear/water-quality-standards/content/numeric-nutrient-criteria-development>.

¹⁴ Implementation of Florida's Numeric Nutrient Standards: Document Submitted to EPA in Support of the Department of Environmental Protection's Adopted Nutrient Standards for Streams, Spring Vents, Lakes, and Selected Estuaries, Fla. Dept. of Env'tl. Prot. (Apr. 2013), https://floridadep.gov/sites/default/files/NNC_Implementation.pdf at 1.

¹⁵ State of Florida Numeric Nutrient Criteria Development Plan, Fla. Dept. of Env'tl. Prot. (Mar. 2009), <https://www.acwa-us.org/wp-content/uploads/2017/04/fl-nutrient-plan-v030309.pdf> at 9.

numeric nutrient criteria: those based on (1) published Section 304(a) guidance; (2) 304(a) guidance tailored towards site-specific conditions; or (3) other scientifically defensible methods. FDEP decided to use the third option.¹⁶ More specifically, Florida chose to guard against “dependably measured adverse biological responses,” a method that “establishes a cause/effect relationship between nutrients and valued ecological attributes, and is linked to maintaining designated uses.” In the development of its regional numeric criteria, Florida has prioritized lakes and streams first, followed by estuaries, and finally, wetlands.¹⁷

Unfortunately, Texas’s Nutrient Criteria Development Advisory Work Group has not been as successful in implementing numeric criteria for nutrient pollution. The Work Group has not met since August 2020, and prior to that had not met since July 2015. Before finalizing the latest SWQS, the State of Texas must revise the SWQS to include numeric criteria for phosphorus and nitrogen pollution.

(b) TCEQ Should Address Pristine Streams Protection in this SWQS Revision

The discharge of treated wastewater poses a unique threat to streams in the Hill Country as evidenced by recent algae growths clogging rivers and infecting lakes.¹⁸ There are 22 remaining pristine waters in Texas. These waters are called “pristine” because of their low phosphorus content (below .06 milligrams per liter). This naturally low phosphorus content makes these waters hypersensitive to changes from nutrient pollution. Additionally, current methods of domestic wastewater treatment cannot eliminate all phosphorus from being present in wastewater discharge.¹⁹ The algal blooms that result from phosphorus pollution of these pristine streams would undoubtedly include the loss of aquatic life.²⁰

Because TCEQ’s reasoning was, in part, that there is room to address nutrient pollution to pristine streams through the SWQS, TCEQ should consider what tools it may have in this particular realm, including the adoption of a new designated use (such as a pristine waters use) based on the numeric nutrient criteria of .06 milligrams per liter that would prohibit wastewater discharge into waters with that use.

(8) TCEQ Must Adopt a Proper Antidegradation Policy

33 USC § 1313(d)(4)(B) codifies the antidegradation policy of the Clean Water Act, which is implemented through the regulations at 40 CFR § 131.12. These antidegradation regulations must be part of Surface Water Quality Standards, and they must be effective and enforced to maintain compliance with the Clean Water Act.

TCEQ codifies Tier 2 antidegradation as effectively the same as Tier 1 antidegradation, despite the fact that Tier 2 antidegradation prohibits all activities unless “lowering of water quality is

¹⁶ *Id.* at 12.

¹⁷ *Id.* at 47-48.

¹⁸ Pristine to Polluted: Sewage Problems & Solutions in the Texas Hill Country, Save Barton Creek Association, (Oct. 2020).

¹⁹ Petition for Rulemaking, FRIENDS OF HONDO CANYON (https://www.tceq.texas.gov/downloads/rules/current/22014pet_petition.pdf) (Jan. 31, 2022).

²⁰ *Id.*

necessary for important economic or social development.”²¹ TCEQ further defines “degradation” as “a lowering of water quality by more than a de minimis extent,” despite this being inconsistent with federal regulations.²²

The Texas antidegradation policy consists of a three-tiered review set forth in 30 TAC § 307.5.²³ Tier I applies to *all* waters in the state, and requires the protection of existing and attainable uses in all waters of the state.²⁴ Tier II only applies to high quality waters. The TCEQ Rules apply the Tier II review to all “fishable/swimmable” waters.²⁵ Tier III review requires the water quality of outstanding natural resource waters be maintained and protected;²⁶ Texas has no waters that have been formally designated as outstanding natural resource waters. All perennial streams, rivers, lakes and bays are presumed to be fishable/swimmable.²⁷ The Tier II review seeks to maintain the water quality historically existing in that water, unless the lowering of water quality can be affirmatively demonstrated as necessary for important economic or social development.²⁸

The requirement that a lowering of water quality be justified as necessary for important economic or social development is set forth in EPA’s minimum standards at 40 CFR § 131.12(a)(2):

Where the quality of the waters exceeds levels necessary to support the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the State finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the State’s continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In allowing such degradation or lower water quality, the State shall assure water quality adequate to protect existing uses fully.

This published EPA guidance further notes that the showing of social and economic necessity under this regulation is intended to impose a significant burden on the applicant:

[40 CFR § 131.12(a)(2)] is intended to provide relief only in a few extraordinary circumstances where the economic and social need for the activity clearly outweighs the benefit of maintaining water quality above that required for “fishable/swimmable” water, and both cannot be achieved. The burden of demonstration on the individual proposing such activity will be very high.²⁹

(a) TCEQ’s Current “de minimis” Exemption is Not in Compliance with the Clean Water Act

²¹ 30 Tex. Admin. Code § 307.5(b)(2)

²² CFR § 131.12(a)(2)

²³ Texas’s antidegradation policy roughly parallels that of EPA. See 40 C.F.R. § 131.12(a)

²⁴ 30 Tex. Admin. Code § 307.5(b)(1).

²⁵ 30 Tex. Admin. Code § 307.5(b)(2).

²⁶ 30 Tex. Admin. Code § 307.5(b)(3).

²⁷ 30 Tex. Admin. Code § 307.4(h)(3), (j)(2)(A).

²⁸ 40 CFR § 131.12(a)(2); 30 Tex. Admin. Code § 307.5(b)(2).

²⁹ Id. at Section 4.5 (p. 9 of Chapter 4).

The TCEQ's current "de minimis" exemption undermines the purposes of a Tier II review. The proper scope of a *de minimis* exemption to a Tier II water quality standard was directly addressed by the federal Sixth Circuit Court of Appeals in *Kentucky Waterways Alliance v. Johnson*.³⁰ Though the Sixth Circuit acknowledged that agencies may create unwritten exceptions to a statute or rule for *de minimis* matters,³¹ the court cautioned "[t]his authority is not an ability to depart from the statute, but rather a tool to be used in implementing the legislative design."³² The EPA itself has also addressed the proper scope of a *de minimis* Tier II exception in its own policy statements and guidance.³³

The requirement for a demonstration that the lowering of water quality is necessary for important economic or social development has been ostensibly incorporated into the "Tier II" Review contained in the TCEQ Water Quality Standards at 30 Tex. Admin. Code § 307.5(b)(2), which provides that:

No activities subject to regulatory action that would cause degradation of waters that exceed fishable/swimmable quality are allowed unless it can be shown to the commission's satisfaction that the lowering of water quality is necessary for important economic or social development. Degradation is defined as a lowering of water quality by more than a *de minimis* extent, but not to the extent that an existing use is impaired. Water quality sufficient to protect existing uses must be maintained. Fishable/swimmable waters are defined as waters that have quality sufficient to support propagation of indigenous fish, shellfish, terrestrial life, and recreation in and on the water.

The sole substantive distinction between 30 TAC § 307.5(b)(2), and 40 CFR § 131.12(a)(2), is TCEQ's addition of a *de minimis* exemption.

(b) The TCEQ should remove or objectively define the "de minimis" exemption and require meaningful alternatives analysis

The current wording of the TCEQ water quality standards, as interpreted by TCEQ and generally upheld by Texas courts, is inadequate to ensure a proper Tier 2 anti-degradation review. To correct this deficiency, either the "de minimis" exception contained in 30 TAC § 307.5(b)(2) must be entirely removed, or the term "de minimis" must be explicitly defined by rule

³⁰ *Kentucky Waterways Alliance v. Johnson*, 540 F.3d 466 (6th Cir. 2008).

³¹ *Id.* at 491.

³² *Id.*

³³ Memorandum from Ephriam S. King, Director of the EPA Office of Science and Technology, to Regional Water Management Division Directors on Significance Thresholds, Regions 1–10 (Aug. 10, 2005) available at <https://www.epa.gov/nutrient-policy-data/tier-2-antidegradation-reviews-and-significance-thresholds-memo>, at p. 1-2 ("[A]ntidegradation is an integral part of a state's water quality standards, as it provides important protections that are critical to the fulfillment of the Clean Water Act objective to restore and *maintain* the chemical, physical, and biological integrity of the Nation's waters." When states establish significance thresholds for the performance of a Tier II review, "it is important that states and tribes set their significance thresholds at a level that can be demonstrated to be consistent with the purpose of Tier II requirements."); Water Quality Standards Regulatory Revisions, 80 Fed. Reg. 51020, 51034 – 51035 (Aug. 21, 2015) (quoting *Kentucky Waterways* at 483, and *Alabama Power v. Costle*, 636 F.2d. 323, 361 (D.C. Cir. 1979)) (confirming that, "the implied *de minimis* provision authority is narrow in reach and tightly bounded by the need to show that the situation is genuinely *de minimis* or one of administrative necessity," and "a determination of when matters are truly *de minimis* naturally will turn on the assessment of particular circumstances, and the agency will bear the burden of making the required showing.").

in an objective manner that enables meaningful evaluation and comment by the public. An approach defining “de minimis” consistent with the standard set forth in the King Memo³⁴ would be a step toward resolving this issue.

Measures are also needed to ensure that performance of an alternatives analysis is embodied in TCEQ’s normal processing of TPDES applications.³⁵ To this end, TCEQ water quality standards should be revised to incorporate requirements analogous to those set forth in the Pennsylvania Code, which were developed in response to EPA’s insistence that Pennsylvania develop a sufficient Tier 2 anti-degradation program. At 25 Pennsylvania Code (Pa. Code) § 93.4c, the Pennsylvania Code sets forth procedures for implementation of antidegradation requirements. For High Quality or Exceptional Waters, these procedures include a requirement that an applicant, “shall evaluate nondischarge alternatives to the proposed discharge and use an alternative that is environmentally sound and cost-effective when compared with the cost of the proposed discharge.”³⁶ Under the Pennsylvania Regulations, if a nondischarge alternative is not environmentally sound and cost-effective, a new, additional or increased discharge shall use the best available combination of cost-effective treatment, land disposal, pollution prevention and wastewater reuse technologies.³⁷ Such a requirement would go far toward resolving the water quality issues being experienced in clear Hill Country streams, where re-use and land application of domestic wastewater are feasible alternatives to direct discharges. The Pennsylvania Regulations establish a process which goes far toward ensuring a social and economic alternatives review is performed for new discharges into high quality waters, where the current TCEQ water quality standards provide no such assurance.

³⁴ Memorandum from Ephriam S. King, Director of the EPA Office of Science and Technology, to Regional Water Management Division Directors on Significance Thresholds, Regions 1–10 (Aug. 10, 2005) available at <https://www.epa.gov/nutrient-policy-data/tier-2-antidegradation-reviews-and-significance-thresholds-memo>, at p. 1-2.

³⁵ Contrary to the evaluation of alternatives required for a Tier II anti-degradation analysis, The TCEQ has repeatedly stated that it cannot consider or require no discharge alternatives nor alternate disposal methods or locations for proposed wastewater discharges. See, e.g., Response to Comments re: City of Buda and Guadalupe-Blanco River Authority Application for TPDES Permit No. WQ0011060001, at 30 (Nov. 2, 2017); Response to Comments re: City of Granbury for TPDES Permit No. WQ0015821001 at 31 (May 26, 2021).

³⁶ 25 Pa. Code § 93.4c(b)(1)(i)(A).

³⁷ Id.

(9) Conclusion

Joint Commenters reiterate that the points raised in the preceding sections raise serious concerns regarding human health, climate resilience, and wildlife populations. Most if not all of the concerns in the preceding sections could be resolved directly through this review and adoption of more stringent, protective standards.

Joint Commenters thank TCEQ for the opportunity to submit comments, and urge TCEQ to consider more stringent measures to protect the health, safety, and welfare of Texans, our water, and wildlife.

Respectfully,

Alex R. Ortiz

Water Resources Specialist
Sierra Club Lone Star Chapter

Robin Schneider

Executive Director
Texas Campaign for the Environment

Luke Metzger

Executive Director
Environment Texas

Heiko Stang

Environment Huddle Leader
Indivisible TX Lege

Joanie Steinhaus

Gulf Program Director
Turtle Island Restoration Network

Steve Box

Executive Director / President
Environmental Stewardship

Errol A. Summerlin

Co-Founder
Coastal Alliance to Protect our Environment

Kristen Schlemmer

Legal Director
Bayou City Waterkeeper

Amanda Fuller

Texas Coast and Water Program Director
National Wildlife Federation

Juan Mancias

Tribal Chair
Carrizo/Comecrudo Tribe of Texas

Annalisa Peace

Executive Director
Greater Edwards Aquifer Alliance

Patrick Nye

President
Ingleside on the Bay Coastal Watch
Association

Ilan Levin

Associate Director
Environmental Integrity Project

Carrie Lowe Dornak

Board Member
Friends of the Brazos River