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Proposed Changes to Texas Surface Water Quality Standards

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Standards

- Standards last amended in 2000
- EPA approved the majority of the state's revised standards by 2007
- Beneficial use or uses of a water body and the water quality criteria that are necessary to protect the uses
- Basis for:
  - establishing discharge limits in wastewater and storm water discharge permits,
  - setting instream water quality goals for total maximum daily loads (TMDLs), and
  - providing water quality targets to assess water quality monitoring data.

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Draft Standards and Implementation Plan Internet Address

http://www.tceq.state.tx.us/permitting/water_quality/stakeholders/2010standards.html

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Proposed General Criteria Changes

- Sheen is proposed for inclusion with the general criteria for oil, grease, and related residue
- Nutrients from permitted discharges must not cause excessive growth of aquatic vegetation that impairs an existing, attainable, or designated use.
- Surface water must be essentially free of floating debris and suspended solids.
- Waste discharges must not cause substantial and persistent changes from ambient conditions of turbidity or color.
- Dissolved oxygen concentrations must be sufficient to support existing, designated, presumed, and attainable aquatic life uses

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Proposed Recreational Criteria Changes

- **Fours categories of recreational use:**
  - **Primary Contact Recreation**
    - ***E. coli* - 206 MPN/100mL**
  - **Secondary Contact Recreation 1**
    - ***E. coli* – 630 MPN/100mL**
  - **Secondary Contact Recreation 2**
    - ***E. coli* – 1,030 MPN/100mL**
  - **Non-contact Recreation Waters**
    - ***E. coli* – 2,060 MPN/100mL**
- **Classified segments are designated for primary contact recreation, unless site-specific information, such as a UAA, demonstrates that different recreational uses and/or criteria may be justified**

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Proposed Toxic Criteria Changes

- Chronic aquatic life criteria apply to all water bodies with a designated aquatic life use of limited, intermediate, high, or exceptional
- Toxicity reduction evaluations may be required if toxicity biomonitoring results indicate that a discharge is not sufficiently controlled to preclude toxicity

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Proposed Changes to Site-specific Uses and Criteria

- Change in indicators for certain high saline inland classified segments and their unclassified tributaries from *E. coli* to Enterococci for instream bacteria sampling
  - Segments 1208, 1238, and 1241
- Aquatic Life Subcategories table would be revised to include a "minimal" aquatic life use subcategory with corresponding dissolved oxygen criteria. The minimal aquatic life use subcategory would apply to intermittent streams without perennial pools.

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Proposed Changes to Site-specific Uses and Criteria

- Dissolved Oxygen Standards Changes
  - Upper Oyster Creek -
- Critical Low Flow Changes
  - Salado Creek
- Dissolved Minerals, Chloride and Sulfate
  - Brazos River Below Possum Kingdom
  - Nolan River
  - Salt Fork of the Brazos River
  - Double Mountain Fork of the Brazos River
  - White River
  - White River Lake
  - Brazos River Below Whitney Lake

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Site-specific Nutrient Criteria and Screening Levels for Selected Reservoirs

- Median of chlorophyll *a* measurements collected over at least two years, and medians are compared to the chlorophyll *a* criteria
- Screening levels for total phosphorus and for transparency (depth of Secchi disk visibility)
- Expect Lake Aquilla and Lake Proctor to be impaired when standards become effective

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Standards Attainment

- A high-flow exemption for bacteria would be added to this section so that samples taken during extreme hydrologic conditions immediately after heavy rains would not be used for assessment
- Aquatic life criteria attainment would be revised so the attainment is based on the extent of criteria exceedance over a period of at least two years
- Water bodies with a presumed high aquatic life use are not automatically considered to be listed as impaired

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Procedures to Implement the Texas Surface Water Quality Standards (RG-194)

- Explains procedures the TCEQ uses when applying the water quality standards to permits issued under the TPDES program.

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Sections

- Determining Water Quality Uses and Criteria
- Evaluating Impacts on Water Quality
- Antidegradation
- Mixing Zones and Critical Criteria
- Modeling Dissolved Oxygen
- Whole Effluent Toxicity Testing (Biomonitoring)
- Toxic Pollutants
- Screening Procedures and Permit Limits for Total Dissolved Solids
- TPDES Stormwater Permits
- Site-specific Criteria and Variances

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Sub-lethal WET Limits

- EPA mandate
- Adopt a Reasonable Potential determination for Whole Effluent Toxicity (WET)
- Sub-lethal effects being used to determine compliance with limits are reproduction and development.
- It does not appear that EPA has a technical basis to support their positions that sub-lethal permit limits are needed to protect the environment

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Minimum Analytical Levels (MALs) and Suggested Methods for Permit Application Screening

- If the EPA amends 40 CFR Part 136 with more sensitive analytical methods or replaces any method in this table, then the permittee is required to use the more sensitive methods published in 40 CFR Part 136.
- Problem – labs cannot change methodology immediately and takes at least 6 months to ammend NELAC accreditation

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