

WATER QUALITY STANDARDS REVISIONS
TCEQ Staff Draft July10, 2007

STATUS:

For previous standards revisions in 2000, EPA has approved the revisions except for:

- Toxic criteria to protect aquatic life in freshwater
- Site-specific selenium criteria for 4 water bodies
- Including classified segments in the modifications of D.O. criteria for East Texas streams
- Various narrative provisions and criteria

Status of upcoming revisions:

- Preliminary informal comment recommending changes to existing rule, January-March 2006
- Initiation of rulemaking approved in November 2006
- Water Quality Standards Advisory Workgroup meetings:
 - March 7, 2007: nutrient criteria, toxic criteria
 - May 16, 2007: recreation (bacteria) criteria, standards applicability & assessment
 - June 26, 2007: whole effluent testing, site-specific standards
 - Sept 6, 2007? : nutrients - criteria & implementation, more standards applicability, ...

MAJOR REVISIONS UNDER CONSIDERATION:

Consider numerical nutrient criteria for large water supply reservoirs.

- Nutrient criteria, for chlorophyll *a*, are drafted for up to 100 reservoirs.
- Phosphorus and nitrogen are also evaluated – to relate to chlorophyll *a*.
- TCEQ convened a nutrient advisory workgroup that has held 6 meetings.
- TCEQ sent EPA a nutrient development plan in Dec. 2004; and a revised plan in Nov. 2006.

Recalculate human-health toxic criteria to incorporate updated procedures to address child exposure, estimated amounts of fish consumed, and bioaccumulation rates – in coordination with toxicologists in the TCEQ Chief Engineer’s Office.

- EPA has published new guidance on calculating toxic criteria to protect human health.
- Children’s small body size is protected for exposure to non-carcinogens (more stringent).
- Amount of fish consumed is considered 17.5 g/day rather than 10 or 15 g/day (more stringent).

Consider updating selected toxic criteria for both human-health and aquatic-life protection - including consideration of EPA 2001 guidelines for mercury to protect human consumption of fish.

- Mercury
 - Criterion would be as a fish tissue concentration, rather than a water concentration.
 - This approach would facilitate the use of site-specific bioaccumulation factors.
 - EPA guidance criterion is 0.3 ppm; target used for the TCEQ standards was 1.0 ppm; TDSHS alert level for fishing advisories is 0.7 ppm.
- For human-health criteria, evaluate adding 22 additional toxic substances.
- For aquatic-life criteria, evaluate adding diazinon, nonylphenol; revising tributyltin, cadmium.
- Allow freshwater aquatic-life criteria for copper to be modified using the biotic ligand model.
- Revise or delete the provisions for addressing whole-effluent toxicity (WET) due to diazinon, since EPA has phased out diazinon for lawn and garden use.

Review recent site-specific studies to consider (1) revised uses and/or criteria for about 40 larger water bodies, (2) aquatic-life uses for about 43 new small streams in Appendix D, and (3) toxic criteria for about 16 water bodies.

- Aquatic-life uses and dissolved oxygen criteria are based on receiving water assessments that are mainly conducted at discharge sites.
- Site-specific toxic criteria are based on water-effects ratio studies conducted by permittees.
- Revised uses and criteria to consider include:
 - Evaluating criteria for salts in Nolan River, Lake Tawakoni, Lake Lavon
 - Evaluating D.O. criteria for Lavaca River, W. Fork Trinity River, Little Wichita River

Review recreational criteria in order to consider (1) a broader range of recreational uses and associated bacteria criteria, (2) a methodology to study and assign recreational uses and criteria, and (3) updated procedures to assess whether recreational uses are being attained.

- Revised recreational use categories could include primary and secondary contact recreation.
- Methodology for use-attainability would facilitate site-specific recreational criteria.
- Considerations for assessing attainment:
 - Assessing impairments with the average criterion, rather than the using both the average and single-sample max
 - More clearly defining “non-representative” sampling situations that might be excluded
 - Reviewing possibility of limited exemptions of data at very high streamflows
- In coordination with HGAC and others, TCEQ has initiated a federal grant to (1) evaluate options for recreational water quality standards and (2) to develop a framework and examples of recreational use-attainability analysis.

A large number of additional revisions will also be considered in order to incorporate new data and information, improve clarity of various provisions.

STANDARDS IMPLEMENTATION PROCEDURES:

TCEQ is concurrently evaluating, updating, and revising the Procedures to Implement the Texas Surface Water Quality Standards, RG-194.

Review EPA’s new policy for WET testing [for the Standards Implementation Procedures].

- Requiring permittees to preclude sublethal toxicity in addition to lethal toxicity
- Requiring more WET limits based upon an estimate of “reasonable potential” for toxicity

Evaluate EPA’s recommendation to require chlorine removal for some additional domestic discharges, rather than only those that are permitted to discharge at least one million gallons a day.

FOR MORE INFORMATION:

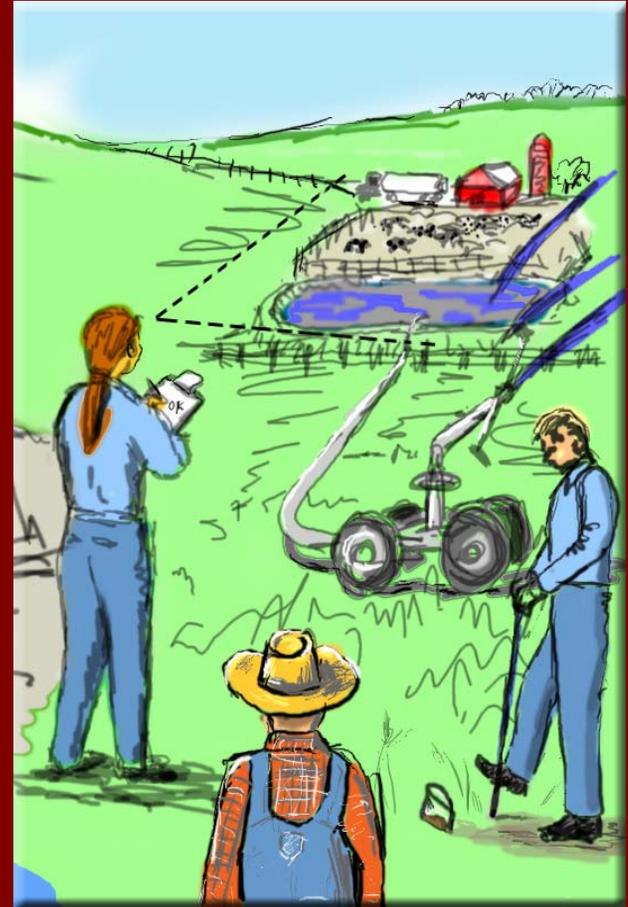
Search TCEQ’s website for “water quality standards,” and browse handouts for the water quality standards advisory workgroup [http://www.tceq.state.tx.us/permitting/water_quality/wq_assessment/standards/WQ_standards_revisions_future.html].

UPDATE

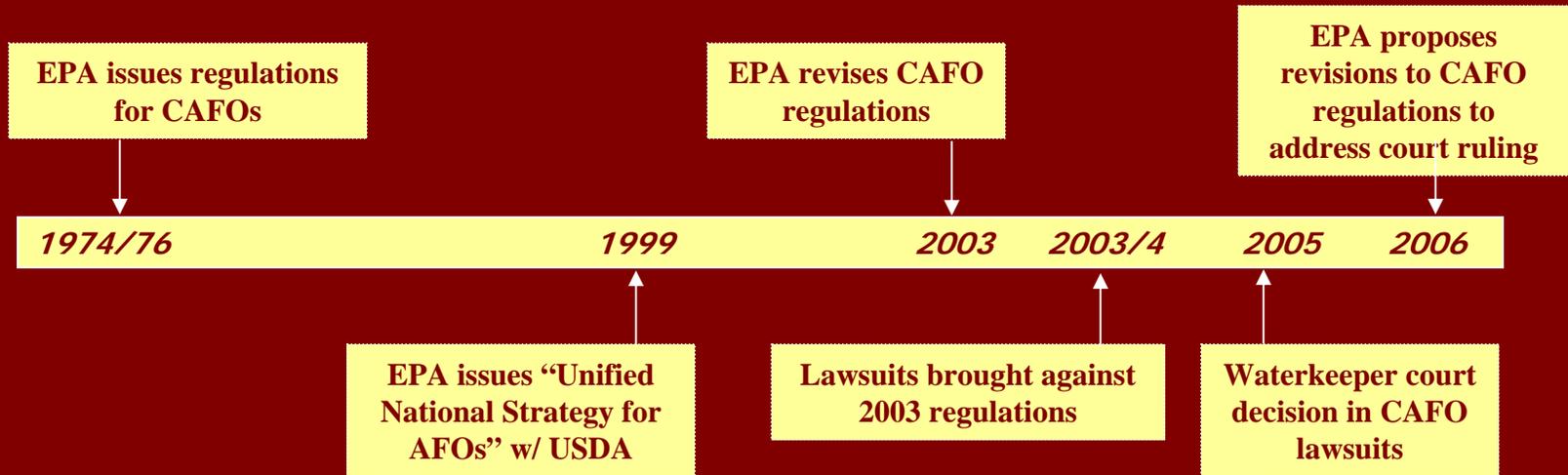
- **Regulatory History**

- **EPA Proposed Revisions and 2nd Circuit Court Decision**

- **Permitting Progress**
 - **General Permits**
 - **Individual Permits**



Regulatory History for CAFOs



Court Decision in *Waterkeeper* Case

- February 28, 2005 -- 2nd Circuit Court of Appeals (New York)
- Unaffected by the Court:
 - Production area “No Discharge” requirement
 - NMP requirements
 - Agricultural storm water: Regulation of runoff from land application areas

Aspects of *Waterkeeper* decision requiring EPA action

- The Court vacated:
 - The 2003 rule requirement that all CAFOs need permits or to demonstrate no potential to discharge
 - Issuance of NPDES permits without permitting authority and public review of NMPs, and incorporation of NMP terms into the permit
- The Court remanded for further explanation:
 - Applicability of Water Quality Standards
 - New Source (NSPS) 100-year storm standard for veal, pork & poultry (and whole farm alternative standard for NSPS)
 - Technology (BCT) for pathogens



NRCS-CNMP and EPA-NPDES (NMP) Comparison

NRCS-CNMP Elements	NPDES-NMP Minimum Practices
Manure and Wastewater Handling & Storage STORAGE FACILITIES, COMPOSTERS, DIGESTERS, ANIMAL MORTALITY FACILITY, WASTE UTILIZATION, MANURE TRANSFER, DIVERSION OF CLEAN WATER	1.Adequate Storage Capacity 2.Animal Mortality
Land Treatment Practices EROSION CONTROL – DIVERSION OF CLEAN WATER, BUFFERS TO IMPROVE WATER AND AIR QUALITY, LIVESTOCK EXCLUSION – IN & OUT CONFINEMENT AREA	3.Conservation Practices to Control Nutrient Loss 4.Diversion of Clean Water
Nutrient Management SOIL TESTING, NUTRIENT ANALYSIS OF MANURE, APPLICATION METHODS, AIR QUALITY, PATHOGENS	5.Protocols for Manure and Soil Testing 6.Protocols for Land Application of Manure & Wastewater
Record Keeping EMERGENCY RESPONSE PLAN, CROP BUDGET – WITH NUTRIENT NEEDS, FERTILIZER & MANURE APPLICATION, EQUIPMENT CALIBRATION, MANURE TRANSFER – OFF SITE	7.Record Keeping MAINTENANCE INSPECTION, MANURE TRANSFER – OFF SITE
Feed Management (OPTIONAL) MINIMIZE NUTRIENT CONTENT OF MANURE, OPTIMIZE ECONOMIC RETURN	OPTIONAL
Other Utilization Option (OPTIONAL) ENERGY PRODUCTION, VALUE-ADDED PRODUCTS	OPTIONAL
Pest Management	8.Chemical Handling PESTICIDES, FERTILIZERS, PETROLEUM PRODUCTS, SOLVENTS, ETC.
Livestock Exclusion Heavy Use Area Protection	9.Prevention of Livestock Contact with Waters of the U.S.

General Permits

TPDES 656

State Only 61

Individual Permits

TPDES 1

State Only 0

General Permits

Pending

TPDES 32

State Only 1

Individual Permits

Pending

Renewals

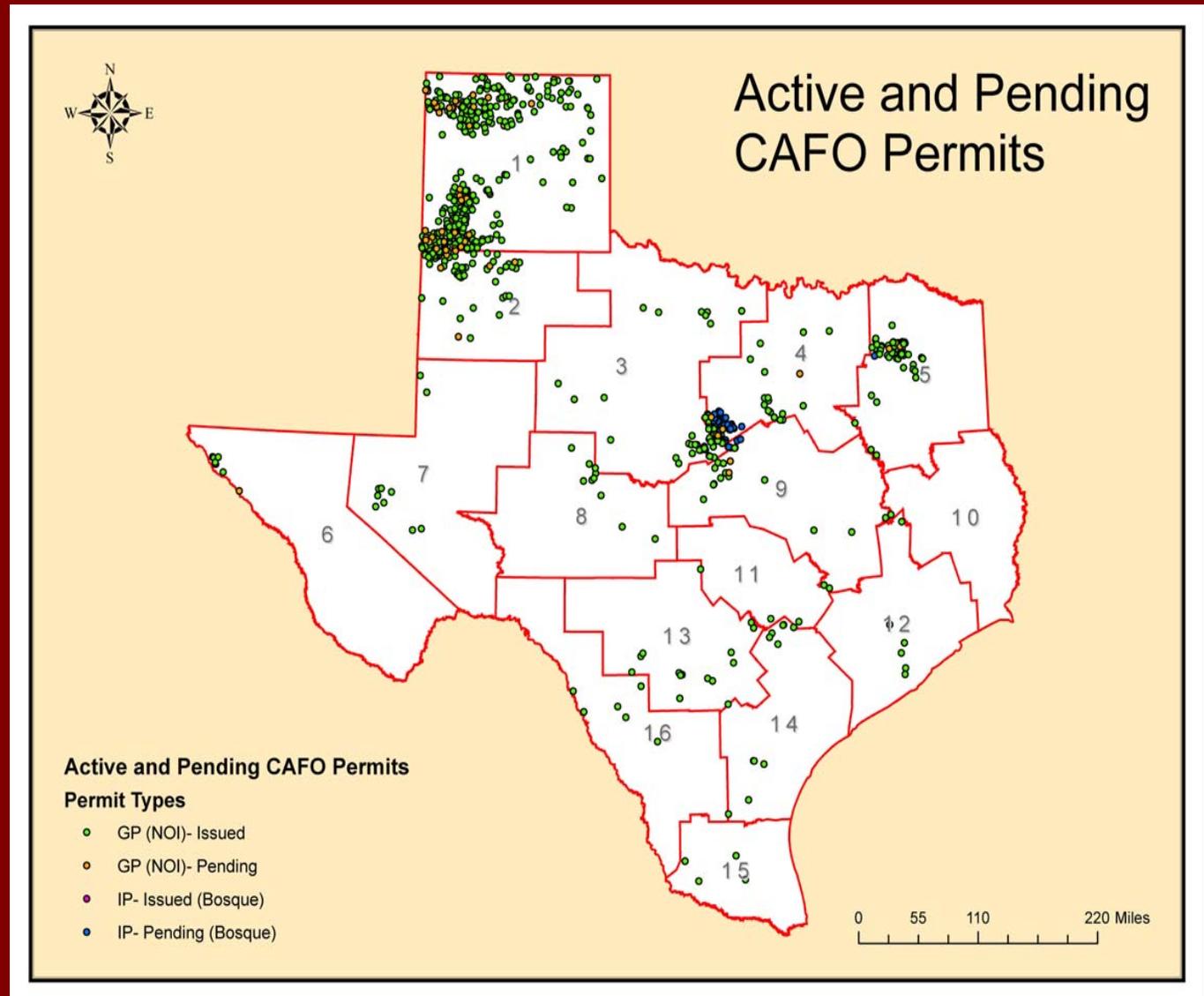
TPDES 46

State Only 8

New

TPDES 3

State Only 0



Questions?



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STATUS OF WATER QUALITY GENERAL PERMITS
July 10, 2007

TITLE	DESCRIPTION	STATUS/ISSUES
<u>TXR040000</u> Phase II MS4s (Municipal Separate Storm Sewer Systems)	Authorizes the discharge of storm water from small MS4s located in an urbanized area. Contact: CHooper (210-403-4080)	Set on August 8, 2007 Commissioner's agenda for adoption.
<u>TXR050000</u> MSGP	Authorizes the discharge of storm water associated with industrial activities. Contact: KWilson (4644)	Expires August 14, 2011
<u>TXR150000</u> Storm Water Construction	Authorizes the discharge of storm water from construction sites. Contact: KWilson (4644)	Draft renewal has been prepared and reviewed by executive management.
<u>TXG110000</u> Discharges from Concrete Production	Authorizes the discharge from concrete production facilities Contact: YPierce (6922)	Expires November 7, 2011
<u>TXG130000</u> Aquaculture	Authorizes the discharge from aquaculture facilities. Contact: YPierce (6922)	Expires April 18, 2011
<u>TXG340000</u> Petroleum Bulk Storage and Terminals	Authorizes the discharge from PBSTs Contact: YPierce (6922)	Adopted April 23, 2007.
<u>TXG500000</u> Discharges from quarries in the John Graves Scenic Waterways	Authorizes discharges from quarries in the John Graves Scenic Waterways Contact: KWilson (4644)	Working on draft.
<u>TXG530000</u> Harris County On-site	Authorizes discharge from on-site treatment systems from single family residences located within the San Jacinto River Basin Contact: YPierce (6922)	Permit expires on April 31, 2008. Have begun drafting the renewal.
<u>TXG670000</u> Hydrostatic Testing	Authorizes the discharges resulting from the hydrostatic testing of vessels. Contact: YPierce (6922)	Expires April 5, 2010.
<u>TXG830000</u> Water Contaminated by Petroleum Product	Authorizes the discharge of water contained by petroleum fuel or petroleum substances. Contact YPierce (6922)	Approved by EPA. Notice was published in Texas Register on May 18 th . Working on RTC.
<u>TXG920000</u> Concentrated Animal Feeding Operations	Authorizes the discharge from CAFOs. Contact: CMaguire (5308)	Expires July 20, 2009.
<u>WQG200000</u> Manure Compost	Authorizes the land application of wastewater from manure compost. Contact: YPierce	Offered briefings to the Commissioners for renewal.