

**Overview of Proposed Standards Revisions
Water Quality Standards Workgroup – January 6, 2009
TCEQ Staff DRAFT**

STATUS OF REVISIONS:

- Water Quality Standards Advisory Workgroup – Four daylong sessions in 2007
- Last workgroup meeting: May 5, 2008:
 - Presented markup of main sections of WQ Standards & whole-effluent testing procedures
 - Focus: recreational criteria, whole-effluent toxicity testing

NEXT STEPS:

- Workgroup convenes to review draft markups of WQ Standards and Implementation Procedures
- TCEQ staff update draft revisions based on workgroup input
- TCEQ reviews and presents proposed revisions at TCEQ Agenda

MAJOR PROPOSED REVISIONS OF WATER QUALITY STANDARDS:

Recreation Standards and Bacteria Criteria:

- Notes:
 - There are now only two recreational categories – contact and noncontact
 - Almost all water bodies are assigned contact recreation in the current standards
- TCEQ proposals:
 - Expand recreational use categories:

Uses	Geometric Mean Criteria (colonies/100 ml)			
	<i>E. coli</i> (FW)	Enterococci (Salty inland FW)	Enterococci (SW)	Fecal coliform (FW& SW)
Existing Standards:				
Contact recreation	126	--	35	200
Noncontact recreation	605	--	168	2000
Proposed Standards:				
Primary contact (PCR)	206	54	35	200**
Secondary contact 1 (SCR1)	630	165	--	1000
Secondary contact 2 (SCR2)	1030	270	--	1000
Noncontact recreation (NCR)	2060	540	350	2000

* Salty (high saline) inland FW = High saline inland water bodies (conductivity ≥ 9000 $\mu\text{mhos/cm}$)
 ** Fecal coliform will be gradually phased out as criteria for salty inland waters
 However, fecal coliform would continue to be used for oyster waters criterion (14/100ml median)

- Revise standards applicability to classified segments:
 - PCR – apply to all classified fresh waters and tidal waters
 - SCR1, SCR2, NCR – apply only as a site-specific standards revision, after a UAA (the 10 existing NCR segments will remain as they are)
- Revise standards applicability to unclassified water bodies:
 - PCR – apply to unclassified fresh waters and tidal waters, except:
 - SCR1 – apply to streams where (1) PCR is unlikely to occur, (2) thalweg (channel) is < 0.5 meters deep, and (3) substantial pools > 1 meter deep do not occur
 - SCR2, NCR – apply as a site-specific standards revision, after a UAA
- Assess attainment with only geometric mean criteria; not single-sample criterion
- To assess attainment, exclude “unrepresentative” samples (with respect to flow, location)
- Establish a methodology for recreation use-attainability analyses (UAAs):
 - Simple surveys to assess unclassified stream types
 - Comprehensive UAAs for classified segments
 - Comprehensive UAAs for unclassified streams where presumed standards are inappropriate
- Additional recreation options for workgroup consideration (not currently proposed by TCEQ):
 - A quantified high flow exemption: Exclude bacteria sampling data taken at very high stream flows -- based on USGS high flow categories and/or SWQM flow severity index
 - Expand recreational subcategories for tidal rivers, to include:
 - Primary contact = 35 enterococci/100 ml; Secondary contact = 175 enterococci/100 ml

Toxic Criteria:

- Notes:
 - EPA has substantially updated guidance for human-health toxic criteria
 - EPA has new guidance criteria for mercury, to apply directly to fish tissue
 - New toxicity data is available for a variety of aquatic-life and human-health toxic criteria
- TCEQ proposals:
 - Include child exposure rates (EPA); assume people eat more fish (17.5 grams per day)
 - Set mercury criterion as 0.7 ppm in fish tissue; (EPA criterion is 0.3 ppm)
 - Add fish-tissue criteria for other highly bioaccumulative toxicants (such as PCBs, dioxin)
 - Add new human-health criteria for 23 toxicants; new aquatic-life criteria for 2 toxicants
 - Revise numerous human-health and aquatic-life criteria
 - Apply human-health criteria for “incidental fishery” to all waters (including intermittent)

Nutrient Criteria:

- Notes:
 - EPA is requiring numerical criteria for nutrients for major water bodies
 - TCEQ submitted an updated nutrient development plan in Nov 2006 that EPA agreed to
 - The plan calls for criteria for reservoirs first; then rivers, then estuaries
- TCEQ proposals:
 - Establish criteria for chlorophyll *a* for about 100 major reservoirs based on historical data
 - Apply criteria as a median long-term average for the main body of each reservoir
 - Establish secondary screening criteria for total phosphorus

Other Changes of Note:

- Defer listing an unclassified water body as impaired based on “presumed” aquatic-life use
- Expand description of “representative” samples to be used to assess impairment

Site-specific Standards:

- Notes:
 - Numerous standards, such as at permit sites and for impaired waters, may need adjusting
 - TCEQ and others have conducted numerous supporting studies (UAAs)
- TCEQ proposals:
 - Revise uses and/or criteria for numerous larger water bodies (classified segments):
 - Designate PCR for all classified freshwater segments
 - Change TDS, chloride, or sulfate criteria changes for 21 classified segments
 - Change pH criteria changes for 7 classified segments
 - Designate a seagrass use for 22 segments
 - Lower aquatic life use and dissolved oxygen criteria for 2 classified segments
 - Raise aquatic life use and dissolved oxygen criteria for 3 classified segments
 - Lower dissolved oxygen criteria for 7 classified segments
 - Add Black Cypress Bayou (Creek) as a new segment
 - Remove public water supply use for 2 segments, and for part of 1 segment
 - Add aquatic-life uses for 59 new small streams based on receiving water assessments
 - Add site-specific toxic criteria for 16 water bodies, based on permittee’s studies
 - Add new appendix to list sole-source drinking water supplies (legislative requirement)