

# Water Quality Updates from the Texas Commission on Environmental Quality

Allison Woodall

Texas Clean Rivers Program



# **Program Updates**

---

**Texas Surface Water Quality Standards**

**Water Quality Assessment**

**Watershed Action Planning**



# Texas Surface Water Quality Standards

The TCEQ approved proposed revisions to the Surface Water Quality Standards (TSWQS) in June 2010.

The TCEQ has submitted the proposed TSWQS to the U.S. EPA.

Major proposed revisions include:

- Updating toxic criteria to protect human health
- Adding numerical criteria for chlorophyll *a* for 75 reservoirs
- Adding more levels of use for contact recreation
- Adding and revising site-specific standards for individual water bodies



# Proposed Changes in the Brazos Basin

- Chlorophyll *a* numeric criteria set at dam locations
  - Calculated using the long-term median
- Several rivers' dissolved solids changed (used more data)
  - Calculated using the long-term average
- Bacteria evaluated using enterococcus at 33 cfu/100mL long-term geometric mean
  - Brazos River above Possum Kingdom (Segment 1208)
  - Salt Fork Brazos River (1238)
  - Double Mountain Fork Brazos River (1241)
- Several unclassified tributaries assigned site-specific criteria
- All streams retain the primary contact recreation criteria
  - Calculated using the long term geometric mean (< 126 cfu/100mL for *E. coli*)
  - Enterococcus is evaluated using <35 cfu/100mL in tidal water bodies



# Chlorophyll *a* Criteria in Reservoirs

Reservoir	Criteria (ug/L)		Reservoir	Criteria (ug/L)
Whitney	18.34		Graham	6.07
Granbury	22.16		Hubbard Creek	5.61
Possum Kingdom	10.74		Cisco	5.0 (4.64)
Millers Creek	15.65		Stamford	16.85
Somerville	53.05		Sweetwater	13.28
Stillhouse Hollow	5.0 (2.07)		White River	13.85
Belton	6.38		Granger	11.72
Proctor	28.15		Georgetown	5.0 (3.87)
Waco	23.16		Limestone	19.26
Pat Cleburne	19.04		Aquilla	14.10

# Dissolved Solids and Bacteria Changes

River (segment)	TDS before/after	Chloride before/after	Sulfate before/after
Brazos below PK (1206)	2300 -> 2325	1020 -> 1036	500 -> 595
Nolan (1227)	500 -> 1383	75 -> 372	75 -> 320
Salt Fork Brazos (1238)	40000 -> 54350	23000 -> 28060	4000 -> 3470
White River Lake (1240)	650 -> 780	150 -> 190	100 -> 90
Double Mountain Fork Brazos (1241)	No change	2500 -> 2630	No change

# Site Specific Criteria Changes

High Aquatic Life Use (5 mg/L DO 24hr avg.; 3 mg/L DO min.)	Intermediate Aquatic Life Use (4 mg/L DO 24hr avg.; 3 mg/L DO min.)
Clear Creek (Waller)	Big Creek (Fort Bend)
Gonzales Creek (Stephens)	Bessies Creek (Waller)
Thompsons Creek (Brazos) (portion below Still Creek)	North Fork Rocky Creek (Burnet) 2 avg. / 1 min. when flow < 1.5cfs
Deer Creek (Falls)	
Cluck Creek (Williamson)	
Tonk Creek	



# Recreation Use Attainability Analyses

- **Contact Recreation Use**
  - Four proposed subcategories: primary contact, secondary contact 1 and 2, and noncontact
  - 50 Surveys scheduled in the Brazos Basin for 2009-2010



# Implementation Procedures - Wastewater Permitting

- Proposed revisions include updates to:
  - minimum analytical levels for pollutant analysis of wastewater effluent
  - Whole effluent toxicity testing procedures
  - Critical low-flows in streams to determine standards applicability
  - New procedures to evaluate the need for nutrient effluent limits for wastewater discharges
  - Dechlorination requirements for new and amended permits with discharges >500,000 gpd.



# Nutrient Criteria Development

- **Option 1:** Base criteria on historical levels (TP, TN) in reference streams and rivers
- **Option 2:** Stressor/response analyses, relating TN, TP to biological indices, D.O., Chl a (in rivers), attached algae (smaller streams)
- **Option 3:** Incorporate models of loading and nutrient responses (Florida DEP)
- **Challenge:** Many effluent-dominated streams



# Water Quality Assessment

- A statewide water quality assessment is conducted every two years by TCEQ and is called the:
  - Texas Integrated Report for Clean Water Act Sections 305(b) and 303(d)
- Data for the assessment is collected by:
  - Clean Rivers Program partners
  - TCEQ Region Office Staff
  - Other data providers that meet TCEQ quality assurance protocols
- Period of record for the next assessment is:
  - December 1, 2003 through November 30, 2010



# 2010 Water Quality Assessment

- **Topics for the Assessment Guidance Advisory Workgroup may include:**
  - Incorporating the new water quality standards, if approved
  - Options for assessing bacteria concentrations
  - Handling data that is below detection limits
  - Reservoirs with chlorophyll *a* criteria

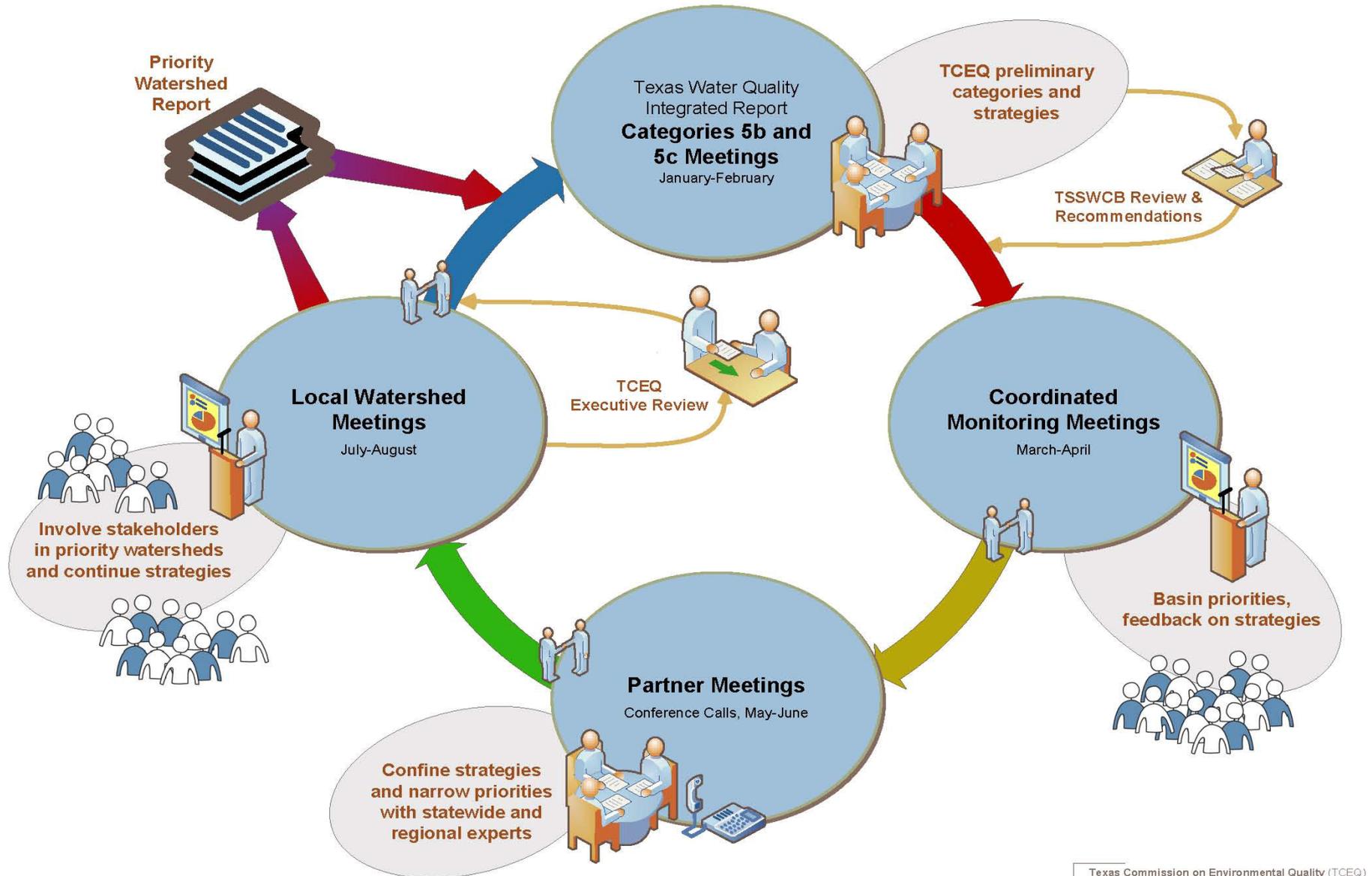


# Watershed Action Planning

- A coordinated approach to select strategies to address water quality impairments
- Consolidate information from all involved to track input and actions taken
- Meet with local stakeholders to get input on strategies for priority water bodies



# Annual Watershed Action Planning Process



# Strategies for Taking Action

- Watershed Evaluation/Monitoring
- TMDL
- Watershed Protection Plan
- Standards Revision
- Other



# Questions/Comments?

Allison Woodall

(512) 239-4628

[Allison.Woodall@tceq.texas.gov](mailto:Allison.Woodall@tceq.texas.gov)

For more information on the Assessment and/or Standards go to [www.texascleanrivers.org](http://www.texascleanrivers.org) and click on the links to the Water Quality Standards and the Surface Water Quality Monitoring Program near bottom of page.

