Minutes
March 20, 2007 Meeting
Trinity River Bacteria TMDL Project
Second Public Meeting
North Central Council of Governments
Centerpoint III Building
Tejas Room
Arlington, Texas

Attendees:
Kent Becher- United States Geological Survey
Scott Berman- Graham Associates
Sam Brush- North Central Texas Council of Governments
Shawneilla Campbell- EPA Region 6
Mark Ernst- Tarrant Regional Water District
Angela Kilpatrick- Trinity River Authority
Sarah Kitchen- City of Dallas
Jacob Lewis- U.S. Fish and Wildlife Service
Donna Long- Texas State Soil and Water Conservation Board
Bob Ressl - City of Arlington
William Madison- City of Dallas
Cindi Makowsky- Trinity River Authority
Dan McMahon- City of Irving
Cindy Mendez- City of Grand Prairie
Nat Morse- Freese & Nichols
Clarence Reed- City of Fort Worth
Shawna Richardson- Farm Bureau
Sunita Singhvi- EPA Region 6
Vicki Stokes- City of Fort Worth
Richard Talley- City of Fort Worth
Tim Wentrcek - DFW Airport
Adam Whisenant- Texas Parks and Wildlife Department

Support Staff:
Dania Grundmann- Texas Commission on Environmental Quality (TCEQ)
John Mummert- TCEQ
Larry Hauck- Texas Institute for Applied Environmental Research (TIAER)
Jimmy Millican- TIAER

Administrative Issues
The second public meeting of the Trinity River Bacteria TMDL met on Tuesday, March 20, 2007 from 2:00 PM -3:45 PM at the North Central Texas Council of Governments facility in Arlington, Texas. The meeting was conducted to inform the public about the status of the ongoing Trinity bacteria TMDL project. Larry Hauck, Deputy Director at TIAER, opened the meetings, and self-introductions were made by support staff and attendees.

Overview of TMDL Process

Dania Grundmann, TCEQ Project Manager, presented introductory material in order to familiarize attendees with the TMDL process. Ms. Grundmann discussed Section 303(d) of the Clean Water Act and the process of water quality assessment. She also defined TMDLs, explained the function of TMDLs, presented the elements of a TMDL, and discussed the process involved in TMDL development and implementation.

Overview of Contact Recreation Impairments within the Trinity River Basin

Larry Hauck, TIAER, presented background information concerning the non-support of contact recreation use in segments 0806, 0841, and 0805 of the Trinity River. Dr. Hauck defined contact recreation use and discussed basic information concerning fecal coliform and *E. coli* bacteria. Dr. Hauck provided a definition of the specific criteria used to determine if impairment exists within the Trinity River. Dr. Hauck explained the process of bacteria culturing and how bacteria concentrations in water bodies are determined, and assessment methodology to determine support or non-support of contact recreation use. He presented a summary of the assessment data that indicated why portions of all three segments did not support contact recreation and maps showing the non-support reach in each segment.

Bacteria Source Tracking Overview

Larry Hauck presented basic information concerning Bacteria Source Tracking (BST), including potential sources of indicator bacteria, description of a sanitary survey, description of a known source library and ambient water sample collection program, and an overview of ribotyping, which was the particular BST method applied on this project.

Summary of Completed TMDL Project Work

Larry Hauck provided the summary of work completed to date on this TMDL project. For the bacteria source tracking study, he described the sampling procedures used to obtain bacteria from both known and unknown (ambient water) sources along with the dates sample collection occurred. A statistical summary of the results of the bacteria source tracking for segments 0806, 0841, and 0805 was provided. Dr. Hauck also discussed the special condition sampling studies that obtained additional bacteria data. He presented a statistical summary of the bacteria results obtained from wastewater treatment facility effluent.

Status of Ongoing TMDL Project Work

Larry Hauck informed attendees of the inclusion of Segment 0822 in the draft 2006 Texas Water Quality Inventory and 303(d) list due to non-support of the contact recreation use because of exceedance of both the geometric mean and single sample criteria for *E. coli*. Dr. Hauck defined the impaired reach within segment 0822, along with a presentation of the results that led to the draft 303(d) listing. Dr. Hauck discussed the decision to incorporate Segment 0822 into the Trinity River Bacteria TMDL project.

Attendees were also informed of the tentative dates of summer 2007 to complete development of the bacteria allocation tool, winter 2007 for completion of the draft TMDL, and spring 2008 for the public comment period.

Meeting Conclusion

Dania Grundmann asked attendees whether afternoon or evening meeting times would be preferred. The consensus was that afternoon meetings would be sufficient until work began on the Implementation Plan at which time evening meeting times should also be considered.

The meeting was adjourned with the indication that the next meeting would occur most likely in July or August.

Questions during Presentations

Q: William Madison (City of Dallas) commented that it was his understanding that wastewater treatment facilities eliminate bacteria from their discharge.
A: Dr. Hauck answered that the chlorination process used by wastewater treatment facilities typically remove large amounts of bacteria; however, due to a number of factors such as inflow and infiltration from storm runoff or mechanical malfunctions there could be higher concentrations of bacteria discharged as a result of a higher than average influent loading or insufficient chlorination.

Q: What is the life expectancy of *E. coli* within a stream?
A: Dr. Hauck answered by explaining that a number of factors influence the life span of *E. coli* such as die-off from sunlight, settling, and natural die-off, which makes defining the life span of *E. coli* difficult.

Q: Are there genetic differences in *E. coli* between different watersheds?
A: Dr. Hauck answered that BST is a relatively new process and that a few studies have been conducted but at this point the genetic differences of *E. coli* between watersheds has not yet been determined.

Q: Kent Becher (USGS) asked how was TIAER able to comply with the 6-hour holding time required for bacteria samples.
A: Dr. Hauck informed the audience that TIAER used a mobile laboratory positioned in close proximity to the center of the watershed.

Q: Nat Morse (Freese and Nichols) asked if samples were only collected during storm (run-off) events.
A: Dr. Hauck answered that samples were collected during both runoff and non-runoff influenced events.

Q: William Madison (City of Dallas) asked if wastewater treatment facilities were sampled during both runoff and non-runoff influenced events.
A: Dr. Hauck answered that wastewater treatment facilities were sampled during both runoff and non-runoff influenced events.

Q: Are there any plans to study bacteria regrowth from wastewater treatment facility effluent?
A: Dr. Hauck answered that there was a limited study on regrowth conducted in the Houston area, but conclusive information was not available on this subject matter. Angela Kilpatrick of the Trinity River Authority stated that a limited study had been conducted by the Trinity River Authority and that study did not indicate regrowth.

Q: Are there additional water quality data for segment 0822?
A: Dr. Hauck answered that it has been determined that the amount of existing data for segment 0822 should be adequate to develop a TMDL.

Q: How to eliminate the excessive amounts of bacteria in a stream?
A: Dr. Hauck answered that TCEQ will first develop the TMDL, which will allocate the bacteria loading, and then, with assistance from the stakeholders, they will proceed with developing an Implementation Plan that defines the means to reduce bacteria in the stream. The Implementation Plan may include best management practices, educational programs, and continued monitoring to more accurately locate specific sources.