Meeting Summary
Trinity River Bacteria TMDL Project
July 18, 2007
Third Public Meeting
North Central Council of Governments
Centerpoint III Building
Tejas Room
Arlington, Texas

Attendees:
Michael Brooks – USDA / NRCS Arlington
Glenn Lubke – USDA / NRCS Forney
Karen Siddall – City of Irving
Virgil Helm – Dalworth Soil and Water Conservation District
David Brown – United States Geological Survey
Grady Coomes – Dallas Water Utilities
Webster Mangham – Trinity River Authority
Julia Jentsch – Chiang, Patel & Yerby, Inc.
Randel West – Chiang, Patel & Yerby, Inc.
Jennifer Bronson – Texas Parks and Wildlife
Bob Taeger – PBS&J, Inc.
Pamela Casebolt – Texas State Soil and Water Conservation Board
T. Sury – City of Grand Prairie
Chris Tolar – Texas Department of Transportation
Edward Simon – DFW Airport
Asciatu Whiteside – DFW Airport
Darrel Andrews – Trinity Regional Water District
Joseph Fennell – Howard, Needles, Tammen & Bergendoff Gregg Moss – City of Dallas
Josh Hathaway – City of Dallas
Elizabeth Turner – City of Dallas
Ned Meister – Texas Farm Bureau
Errick Thompson – City of Dallas
Kent Becher- United States Geological Survey
Sam Brush- North Central Texas Council of Governments
Shawneille Campbell- EPA Region 6
Mark Ernst- Tarrant Regional Water District
Angela Kilpatrick- Trinity River Authority
Donna Long- Texas State Soil and Water Conservation Board
Bob Ressl - City of Arlington
Vicki Stokes- City of Fort Worth
Richard Talley- City of Fort Worth

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 third public meeting of the Trinity River Bacteria TMDL met on Wednesday, July 18, 2007 from 2:00 PM – 3:30 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 River bacteria TMDL project. Larry Hauck, Deputy Director at TIAER, opened the meeting, and self-introductions were made by support staff and attendees.

Overview of TMDL Process

Larry Hauck presented introductory material in order to familiarize attendees with the TMDL process. Dr. Hauck discussed Section 303(d) of the Clean Water Act and the process of water quality assessment. He 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 presented background information concerning the non-support of contact recreation use in segments 0806, 0841, 0822 and 0805 of the Trinity River. Dr. Hauck defined contact recreation use and discussed basic information concerning fecal coliform and *E. coli* bacteria and provided a definition of the specific criteria used to determine if impairment exists within the Trinity River. He 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. Dr. Hauck presented a summary of the assessment data that indicated why portions of all four segments did not support contact recreation and maps showing the non-support reach or reaches in each segment.

Bacteria Source Tracking Overview

Dr. Hauck presented basic information concerning Bacteria Source Tracking (BST), including potential sources of indicator bacteria, 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. He presented a general overview of the results of the BST sampling effort by source host for each of the three segments (0806, 0841, and 0805) including a statistical summary for all segments. Dr. Hauck explained that a BST study was not performed on segment 0822, since the draft 2006 303d listing of segment 0822 occurred after the BST study was performed.

TMDL Allocation Process

Dr. Hauck presented an introduction to the load duration curve method, which was the tool selected for this project in determining load allocations. The steps involved in developing flow and load duration curves were explained, and examples from each of the four segments were presented. He explained the reasoning behind the partitioning of the load duration curves into three separate flow regimes (high, mid-range and low). Dr. Hauck explained how load duration curves were used in determining percent reductions required to meet contact recreation use criteria based on the 75th percentile and geometric mean of historical *E. coli* data. The modified version of the allocation process equation used for this project was presented, which includes a component that takes into account loadings allocated to upstream segments entering into impaired segments. Each component of the allocation process equation was defined and the method of determining the loading applied to each component was explained.

Status of Ongoing TMDL Project Work

Dr. Hauck provided a brief overview of the entire TMDL process including the current status of where in the process this project was located. A tentative timeline of two to three months was given for the completion of the TMDL technical support document at which time the document would be made available for public review. Ms. Dania Grundmann of TCEQ informed attendees of upcoming TMDL work to be performed on the bacteria impairment of Grapevine Creek (Segment 0822A) and Cottonwood Branch (Segment 0822B) in the Irving and DFW Airport area. Ms. Grundmann explained that this new TMDL project will require some of the same project tasks as were performed for the previous study, including development and approval of a sampling plan and QAPP, and performing bacteria monitoring.

Meeting Conclusion

Dania Grundmann indicated that the next meeting would be held after the TDML technical support document was completed and made available for public review.

Questions during Presentations

Q: Were feral hogs depicted as livestock or wildlife during the BST study?
A: Dr. Hauck answered that feral hogs were included under the livestock category, and that the swine component of the livestock category composed a relatively small percentage of the total category. [Review of the BST study results following the meeting has indicated that while swine were sampled in the library, known source sampling, swine was not identified in any of the water samples. Therefore Dr. Hauck's response should be corrected to state that while swine was considered a component of the livestock category, swine was not identified at any station during the BST study.]

Q: Was actual or manipulated flow used in the flow duration curve for station 10938?
A: After confirming with USGS staff present, Dr. Hauck answered that since a USGS gauge was located at station 10938 that actual flow values were used.

Q: Does the portion of the flow duration curve representing low flows indicates flows mostly arising from point sources, and the portion representing high flows indicate flows arising from nonpoint sources?
A: Dr. Hauck answered that was a correct interpretation and further elaborated that the high flow portion was mostly influenced by storm runoff.

Q: Are there any completed TMDLs for bacteria elsewhere in the United States?
A: Dr. Hauck answered that numerous TMDLs have been approved in other states.

Q: What can be done about sources arising from wildlife?
A: Dr. Hauck answered that bacteria originating from wildlife sources would be difficult to reduce.

Q: Based on BST results, it appears that human and other controllable sources do not constitute a majority of bacteria being experienced in the Trinity River segments. How can the necessary percent reductions be achieved to restore the contact recreation use?
A. Dr. Hauck responded that the focus of TMDL implementation will be on the readily controllable sources, in particular those of human origin, though it is recognized that achieving the necessary reductions in bacteria levels by reducing controllable sources may not be possible based on the information from the BST studies.

Q: Could the current standards change before this TMDL is approved?
A: Dr. Hauck and Dania Grundmann answered that changes in standards would be unlikely to occur before this TMDL was approved.

Q: A bacteria regrowth study performed by the Trinity River Authority was mentioned during the last meeting. What were the results of that study?
A: Angela Kilpatrick of the Trinity River Authority answered that the study did not indicate regrowth of bacteria.

Q: Will agreements and existing programs between cities and TCEQ involving things such as the sanitary sewer overflow initiative be considered in the implementation plan?
A: Dania Grundmann answered that TCEQ tries to incorporate existing programs and plans into implementation plans.

Q: Are the allocations separated into specific loadings for each outfall associated with Municipal Separate Storm Sewer System (MS4s), wastewater treatment facilities (WWTFs), etc.?
A: Dr. Hauck answered that allocations are separated into individual component loadings represented as MS4, WWTF, or nonpoint source categories on a river segment basis, but not as individual outfall loadings. Dr. Hauck indicated that allocations may be further separated into more source specific allocations; however, if this occurred it would be during implementation plan development.