



## Improving Water Quality in the Lake Worth A TMDL Project for Polychlorinated Biphenyls (PCBs) in Fish Tissue

### Water Quality Lake Worth

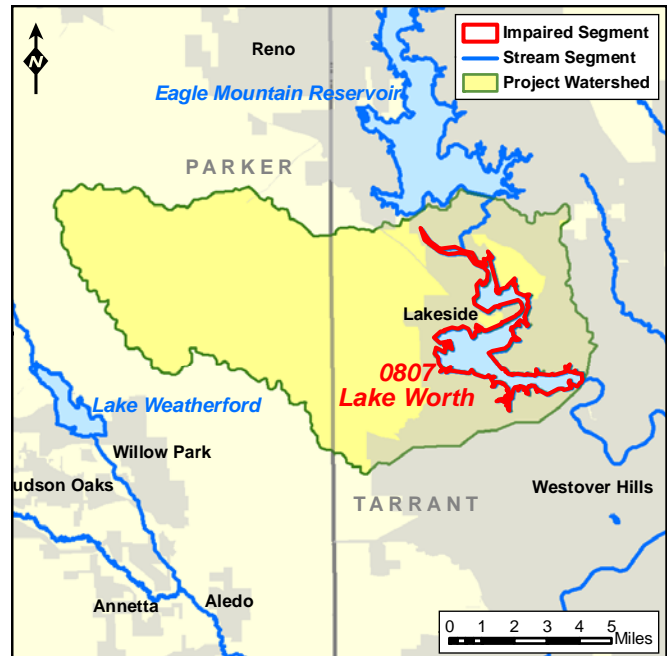
The state of Texas requires that water quality in Lake Worth (Segment 0807) be suitable for contact recreation, aquatic life, public water supply, and fish consumption use, as designated in the Texas Surface Water Quality Standards (TSWQS). The Texas Commission on Environmental Quality (TCEQ) establishes the standards to maintain the quality of the water in the state consistent with public health and enjoyment, protection of wildlife, operation of industries, and economic development of the state. The criterion for fish consumption for Lake Worth is not supported due to high levels of polychlorinated biphenyls in fish tissue.

In response to this situation, a total maximum daily load (TMDL) project was completed to determine the pollution controls necessary to restore and maintain fish consumption from Lake Worth. The goal of a TMDL is to determine the amount (or load) of a pollutant that a body of water can receive and still support its designated uses. The allowable load is allocated among all the potential sources of pollution within the watershed. Measures to reduce pollutant loads are then developed.

Learn more about water quality standards and monitoring by reading *Clean Water for Texas: Working Together for Water Quality*, available on the Web at [www.tceq.org/goto/tmdl/](http://www.tceq.org/goto/tmdl/).

### Description of the Lake Worth Watershed

Built in 1914, Lake Worth is a 3,558 acre impoundment of the West Fork Trinity River located directly south of Eagle Mountain Reservoir. Although the lake itself is almost entirely within the Fort Worth city limits, the contributing watershed extends 2064 square miles across Tarrant and Parker counties and includes several other smaller municipalities. Land use in the watershed is approximately 35 percent urban and 60 percent rural. Two large military/industrial facilities are located adjacent to the south side of the lake, the U.S. Naval Air Station Joint Reserve Base – Fort Worth (NASFW) and Air Force Plant No. 4 (AFP4). Both facilities are currently classified as Resource Conservation and Recovery Act (RCRA) cleanup sites.



Lake Worth is used extensively for recreation and is also source of drinking water for the City of Fort Worth.

### Project Development

In 2002, Lake Worth was identified as not supporting the fish consumption use following the issuance a fish consumption advisory by the Texas Department of State Health Services (TDSHS, formerly the Texas Department of Health) in April 2000. The advisory was issued due to elevated concentrations of polychlorinated biphenyls (PCBs) in fish tissue (Fish and Shellfish Consumption Advisory No. ADV-18).

The TMDL process was initiated by the TCEQ in March 2003. A review of all existing data was performed, as well as setting up communication with the TCEQ Region 4 field office in Fort Worth. The review of existing data and additional data collected in cooperation with the United States Geological Survey pointed to the AFP4 facility as the probable source of the PCBs in fish tissue in the lake. The TCEQ developed and adopted a TMDL for PCBs in Lake Worth in August of 2005. The TMDL was approved by the USEPA in October, 2005. A TMDL implementation plan that relies heavily on the cleanup efforts associated with the AFP4 RCRA site was approved by

the TCEQ in August of 2006.

As part of the TMDL Implementation Plan, fish tissue in Lake Worth is sampled every five years to monitor the effectiveness of cleanup efforts. If concentrations of PCBs in fish tissue fail to decline after two subsequent monitoring events, the TCEQ will revise the TMDL Implementation plan to include alternative measures to mitigate these pollutants.

### Public Participation

A public meeting to receive public comments on the TMDL for PCBs in Lake Worth was held at the Fort Worth City Hall on May 12, 2005. A similar public meeting was held at the same location on July 6, 2006 to receive public comments on the TMDL Implementation Plan.

### TMDL Development Status

**Start Date:** March 2003

**TCEQ Adoption:** August 10, 2005

**EPA Region 6 Approval:** October 13, 2005

### IP Development Status

**Start Date:** January 2006

**TCEQ Adoption:** August 23, 2006

### For More Information

For more information on upcoming meetings and documents available for review, contact the TCEQ staff listed on this page. Or visit the TCEQ Web site at <[www.tceq.org/goto/tmdl/](http://www.tceq.org/goto/tmdl/)>.

#### TCEQ Project Manager

Eric Reese, Project Manager

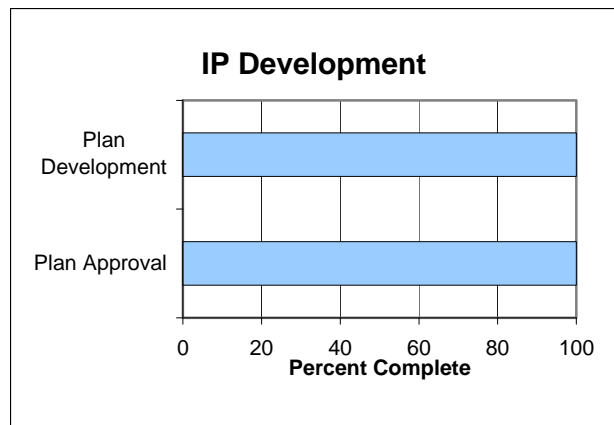
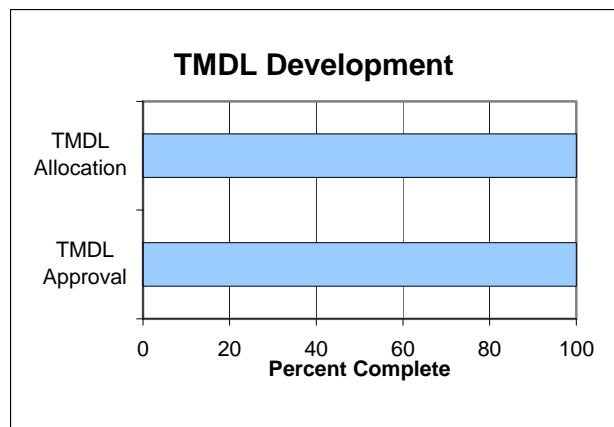
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#### TCEQ Regional Office

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### TMDL Project Highlights

- A TMDL for PCBs in fish tissue was completed and adopted in August of 2005

### IP Highlights

- RCRA Cleanup efforts at AFP4 are proceeding. PCB concentrations in fish tissue have stabilized and show a slow decline from levels in 2000
- Monitoring of and assessment of PCBs in fish tissue in Lake Worth are continuing