Steve A. Thompson Executive Director



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OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

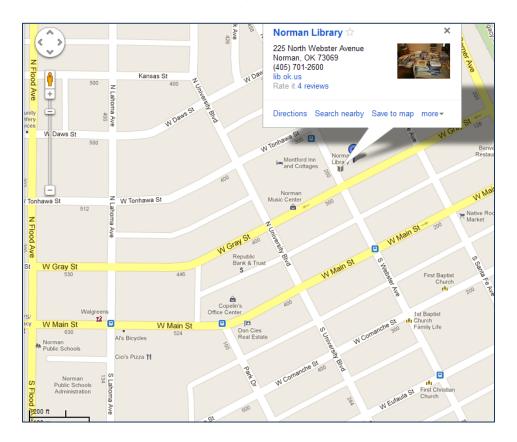
## NOTICE OF A PUBLIC MEETING REGARDING THE LAKE THUNDERBIRD TMDL PROJECT

May 4, 2012

The <u>Oklahoma Department of Environmental Quality (DEQ)</u> will be holding an informational meeting regarding the Lake Thunderbird TMDL project. As part of the effort to improve the water quality in Lake Thunderbird, DEQ is developing <u>Total Maximum Daily Loads</u> (TMDLs) for the Lake. An important step in establishing TMDLs is the development of water quality models. These models provide scientific tools to understand the magnitude of pollutant loadings to Lake Thunderbird and estimate the reduction needed to achieve water quality goals for the Lake.

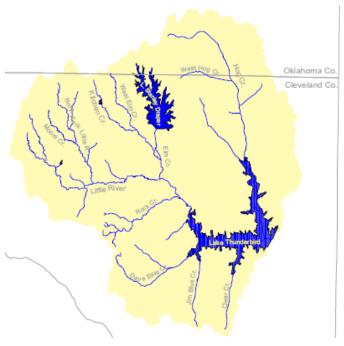
The meeting will discuss the preliminary results of the water quality models, provide an update on the progress of the TMDL effort, and discuss the next steps. Time will be allowed for attendees to ask questions. Details of the meeting are as follows:

## Thursday, May 24<sup>th</sup> 6:30 p.m. – 8:30 p.m. Norman Public Library – Lowry Room 225 N. Webster Norman, Oklahoma



## Background Information About the Lake Thunderbird TMDL Project:

The Federal Clean Water Act requires states to develop Water Quality Standards (WQS). Based on Oklahoma WQS, DEQ develops plans with goals and pollution control targets for improving water quality minimum standards are not met. where The waterbodies where these minimum standards are not met are considered to be "impaired." Impaired waterbodies are listed on what is known as the 303(d) list which refers to section 303(d) of the Clean Water Act. The plan to improve water quality for impaired waterbodies is accomplished by establishing a "pollution budget" known as a TMDL for each pollutant exceeding the standards. TMDLs set limits for pollutants that allow waterbodies to achieve their designated beneficial uses. These uses include water for drinking, recreation (such as swimming), aesthetics, irrigation, and for the support of fish and other aquatic life. All waterbodies and their designated uses can be found in Oklahoma's 2010 Integrated Report. Impaired



waterbodies can be found on the 303(d) list which is in Appendix C of Oklahoma's Integrated Report.

Lake Thunderbird has been impaired for its designated uses of drinking water supply and supporting aquatic life. The impairments are due to high turbidity, high levels of <u>chlorophyll-a</u>, and low levels of dissolved oxygen. High levels of <u>chlorophyll-a</u> mean that too much algae is growing in the Lake. Too much algae means that there are too many <u>nutrients</u> (such as <u>nitrogen and phosphorus</u>) in the Lake. As algae die, decomposition of the organisms use up the oxygen in the water. Low levels of oxygen in the water can cause the death of fish and other aquatic organisms. Excess algae can also affect the taste of drinking water as well as increase the costs of treating the water. Turbidity is a measure of the cloudiness of water. It is mostly caused by suspended particles such as sediment, clay, silt, plankton, or microscopic organisms. High levels of turbidity can affect the growth and reproduction of aquatic life. Turbidity may also add to the mechanical wear of water supply pumps and distribution systems, thus increasing water treatment costs. In addition, turbidity can provide a mechanism for the transport of pesticides or other chemicals into the Lake.

DEQ and its partners have started the process of developing TMDLs for Lake Thunderbird as part of the effort to improve the water quality in Lake Thunderbird so it can meet its designated uses.

You are receiving this notice because you are either on DEQ's list to receive all public notices about changes in this watershed or you are located downstream from the watershed where changes have been recommended.



O K L A H O M A DEPARTMENT OF ENVIRONMENTAL QUALITY

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