

LDEQ's Approach to Dissolved Oxygen TMDLs for Pontchartrain Basin Waterbodies

The LDEQ is planning to modify its approach to developing dissolved oxygen TMDLs for some waterbodies in the Pontchartrain Basin. A phased approach will be utilized as shown in the Table below. This approach will allow the LDEQ to meet its TMDL commitments, revise the dissolved oxygen criteria, develop nutrient criteria, and develop meaningful and implementable TMDL reports based on appropriate DO criteria. At the same time, it will provide local governments and businesses the opportunity to prepare and adjust to new permit requirements that may be required as a result of the TMDLs.

Stage / Phase	DO Criteria (mg/L)	Implementation Date
Phase I	5.0	Phase I implementation required upon EPA approval of the TMDL and subsequent update of the Louisiana's Water Quality Management Plan
Ecoregion-based Use Attainability Analysis (UAA) developed and DO criteria revised and promulgated, as appropriate		
Phase II	Appropriate DO criteria based on UAA	Phase II implementation required upon EPA approval of Phase II of the TMDL and subsequent update of the Louisiana's Water Quality Management Plan

Phase I will include the development of loading values for the existing DO criteria (typically 5.0 mg/L). However, full implementation of permit limits will occur in a phased manner. The final implementation strategy for each waterbody may vary due to the characteristics and loading conditions of each individual waterbody. Phase I will serve as the first step towards meeting either the existing DO criteria or the potential alternate DO criteria. Potentially, permit limits may become more stringent based on the TMDLs. This approach gives local governments and stakeholders time to make the necessary adjustments to meet these limits.

Phase II will be developed based on the outcome of an ecoregion-based UAA study that is currently in progress. Based on existing data, this UAA is expected to propose new DO criteria for many of the Pontchartrain Basin TMDLs that are currently being developed. The Pontchartrain Basin TMDLs have an interim (state) deadline of March,

2011 and a final (EPA) deadline of March, 2012. This new DO criteria is expected to be developed and promulgated within the next two to three years.

In the event the new criteria are not developed and promulgated within five years from the TMDL approval date for each individual waterbody, the LDEQ intends to proceed in the following manner:

Case 1: UAA study indicates that the current DO criteria are appropriate - the TMDL will be fully based on the existing DO criteria.

Case 2: The UAA is not likely to be completed and/or approved - the TMDL will be fully based on the existing DO criteria.

Case 3: The UAA is in process and is expected to be approved – Phase II of the TMDL will be postponed for a maximum period of 2 years, at which time the UAA status will be reviewed again according to these three scenarios.

Louisiana does not have numeric nutrient criteria at the present time. The original nutrient impairments for the Pontchartrain Basin were not based on quantitative assessments of historical nutrient data. The impairments were based on evaluative assessments that may have included dissolved oxygen. The LDEQ and EPA plan to reevaluate the previous nutrient impairments in the Pontchartrain Basin. As a result, both the EPA and the LDEQ expect the nutrient impairments to change from category 5 (impairment exists; TMDL required) to category 3 (insufficient data). Therefore the LDEQ believes that TMDLs for dissolved oxygen should adequately address any potential nutrient impairments, in the absence of numeric nutrient criteria and quantitative assessments.

LDEQ is developing numeric nutrient criteria for waterbody types based on ecoregions in accordance with LDEQ's plan "Developing Nutrient Criteria for Louisiana 2006" which can be found at:

<http://www.deq.louisiana.gov/portal/Portals/0/planning/LA%20Nutrient%20Strat%20Plan%20Final%20FOR%20WEB.pdf>.

Water body types for nutrient criteria development in Louisiana are 1) inland rivers and streams; 2) freshwater wetlands; 3) freshwater lakes and reservoirs; 4) big rivers and floodplains/boundary rivers and associated water bodies; and 5) estuarine and coastal waters (including up to Louisiana's three mile boundary in the Gulf of Mexico). Proposed approaches for nutrient criteria development are currently under review by LDEQ and EPA. Nutrient criteria can be implemented upon state promulgation and EPA approval as per 40 CFR 131.21.

Upon development of nutrient criteria, a subsequent quantitative assessment of the waterbodies, and the development of full nutrient models, nutrient limits may be established for all facilities discharging to impaired waterbodies in the Pontchartrain Basin. The LDEQ recommends that all facilities discharging to impaired waterbodies

take a proactive approach and prepare for the possibility of nutrient limitations in their wastewater discharge permits in the near future. Such a proactive approach should include nutrient monitoring and documentation through facility Discharge Monitoring Reports (DMRs) in order to assess their nutrient loads and the need to modify their treatment processes for nutrient removal.

All TMDLs will address MS4 permits within their respective watersheds.

The LDEQ recognizes that there are many unpermitted facilities within the Pontchartrain Basin. LDEQ is in the process of locating these facilities in an effort to issue any necessary permits. The LDEQ is also updating its location information on all permitted facilities within the basin. All known and permitted facilities within each individual watershed will be addressed in each corresponding TMDL.

The LDEQ believes that the primary solution to the water quality problems for the impaired Pontchartrain Basin waterbodies is the large-scale regionalization of sewage treatment and the rehabilitation and upgrade of existing problematic (leaks, overflows, improperly sized pipes, etc.) sewage collection systems.