

Response to Public Comment
 Implementation Plan for the TMDL for Dissolved Oxygen in Lake Austin
 July 10, 2001

Tracking Number	Date Recd.	Affiliation of Commentor	Summary of Request or Comment	Summary of TNRCC Action or Explanation
001	03/13/01 Letter	City of Austin	The goal of achieving the target of 5.0 mg/L 90% of the time is an arbitrary frequency.	The 90% level conforms to the 305b/303(d) assessment methodology. Comments on the methodology should be made at the time the methodology is revised. No changes have been made to the Implementation Plan based on this comment.
			The estimate of 1.5 - 2.5 mg/L for raising dissolved oxygen levels ignores the real target of 5.0 mg/L	The Texas Natural Resource Conservation Commission (TNRCC) would like to re-emphasize that 5 mg/L (the water quality standard) is the ultimate goal of the TMDL. The estimate of 1.5 - 2.5 mg/L is the change from current conditions necessary to achieve the water quality standard, and does not set a separate (or substitute) goal. The language in the Implementation Plan will be adjusted to reflect these ideas.
			Requests that information be included on the mean efficiency of the induction system and confidence limits on the mean from bench scale testing.	These data, along with their interpretation, can be made available to the City of Austin or other stakeholders upon special request to the Lower Colorado River Authority (LCRA) and the vendor. No changes have been made to the Implementation Plan based on this comment.
			Requests that data be included on downstream tests results.	The TNRCC has not requested these data since they do not represent ambient dissolved oxygen conditions but rather the volume of air uptake as part of the fine-tuning of the aerator. However, these data will be made available to the TNRCC, the City of Austin or other stakeholders upon request to the LCRA. No changes have been made to the Implementation Plan based on this comment.
			Requests information be included on the manufacturer's mean efficiencies with confidence limits for both the first modification and the possible second modification.	These data, along with their interpretation, can be made available to the City of Austin or other stakeholders upon special request to the LCRA and the vendor. In addition, as a point of clarification, the second modification has already been made. No changes have been made to the Implementation Plan based on this comment.

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			<p>It is not specified in the implementation plan how long LCRA has to bring the dissolved oxygen levels up to the 5.0 mg/L standard</p>	<p>The TNRCC and the LCRA recognize the uncertainty associated with the technology and for this reason have developed a phased approach to implementation, i.e., if planned management measures are not sufficient to attain the water quality target, new measures will be implemented, <i>depending on the lessons learned in the preceding phase</i>. For this reason no exact date has been set for the attainment of the water quality standard, however, both the TNRCC and the LCRA are committed to attaining the standard. LCRA begin this work in 1992 and has already invested considerable resources in this voluntary effort. No changes have been made to the Implementation Plan based on this comment.</p>
			<p>Requests that Table (i.e., implementation schedule) include continuous dissolved oxygen monitoring during the summer of 2001 in the tailrace.</p>	<p>As noted in the text, LCRA has committed to continuous monitoring in the tailrace during periods when the aerator is tested in the summer of 2001; the details of monitoring have not yet been determined. This information will be added to the table as requested.</p> <p>In addition, although the TNRCC has not requested these data since they do not represent ambient dissolved oxygen conditions, these data will be made available to the TNRCC, the City of Austin or other stakeholders upon request to the LCRA</p>
			<p>The Implementation Plan does not address long-term threats to aquatic life and other uses of Lake Austin, such as rapid increases of impervious cover, possible spills from the Longhorn Pipeline, proliferation of Hydrilla. Recommends that once the implementation of the initial TMDL is concluded in the next four years, a longer term evaluation of the lake be conducted perhaps in conjunction with LCRA's current water quality modeling project for the Lower Colorado.</p>	<p>In accordance with § 303(d) of the Clean Water Act, this TMDL and its associated Implementation Plan are focused on correcting the dissolved oxygen impairment first identified on the 1996 303(d) List and not on other, potential problems in the watershed. The TNRCC recognizes that a longer term, more comprehensive evaluation would help protect water quality and encourages the City of Austin and/or other stakeholders to lead the development of such a plan. No changes have been made to the Implementation Plan based on this comment.</p>
002	06/18/01 Letter	Texas Parks and Wildlife	<p>Disappointed that TNRCC did not involve the Texas Parks and Wildlife Department (TPWD) in the development of the Implementation Plan, as agreed based on TPWD's comments on the TMDL</p>	<p>TNRCC regrets the oversight that resulted from a change of project managers between the adoption of the TMDL and the development of the Implementation Plan. No changes have been made to the Implementation Plan based on this comment.</p>

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			Requests TNRCC to consider the limitations and uncertainty involved in the dependence on the aeration technology and to provide reasonable assurance that we are on the right track.	The TNRCC and the LCRA recognize the uncertainty associated with the technology and for this reason have developed a phased approach to implementation, i.e., if planned management measures are not sufficient to attain the water quality target, new measures will be implemented, <i>depending on the lessons learned in the preceding phase</i> . Reasonable assurance is found in LCRA's commitment of almost half a million dollars to this effort. No changes have been made to the Implementation Plan based on this comment.
			Fish kill investigations need to be included in the follow-up monitoring plan.	The TNRCC agrees that fish kill information is important to the ongoing assessment of the aquatic life use of the reservoir. At the two evaluation points identified in the implementation schedule, the TNRCC will request from the TPWD a download from their database of fish kills in Lake Austin and will use this information along with the dissolved oxygen data to reassess the dissolved oxygen impairment. The two sections of the Implementation Plan (Implementation Schedule and Follow-up Monitoring Plan) will be changed to reflect this addition.
			TNRCC is trying to narrow the focus to a single variable (the dissolved oxygen concentration) at a single measured point (station 12300). The TPWD has a mandate to consider the low dissolved oxygen problem in a more holistic manner.	The TNRCC acknowledges the TPWD's broader mandate, but this TMDL and its associated Implementation Plan are focused on correcting the dissolved oxygen impairment in the upper three miles of the reservoir as first identified on the 1996 303(d) List--in accordance with § 303(d) of the Clean Water Act--and not on other problems in the watershed. No changes have been made to the Implementation Plan based on this comment.
			Followup monitoring at a single station is not sufficient to determine standards attainment.	The TNRCC agrees that a more comprehensive monitoring program would give a more complete picture of standards attainment. TNRCC is committed to directing resources to this effort in the next two years (FY02/03). The TNRCC surface water quality monitoring program will add more 24 hour sampling events/site(s) during the critical period. The TNRCC will work with the LCRA to finalize the additional events/site(s); input from the TPWD on the sampling regime is welcome. This additional monitoring will be added to the Implementation Plan.

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			Suggests that the TNRCC explore best management practices to address high sulfide concentrations including the possibility of modifying discharge regime from the dam.	This TMDL and its associated Implementation Plan are focused on correcting the dissolved oxygen impairment first identified on the 1996 303(d) List--in accordance with § 303(d) of the Clean Water Act--and not on other problems in the watershed. Modifying the discharge regime to address sulfide concentrations would be considered in a TMDL implementation plan when a TMDL for sulfide is established, which would occur after this pollutant is identified on the 303(d) list. At the evaluation points specified in the implementation plan and prior to 305b assessment or 303d listing, the TNRCC requests that the TPWD make the data on sulfides available to the TNRCC. No changes have been made to the Implementation Plan based on this comment.
003	6/20/01 Letter	LCRA	Requests clarification/correction that the dam modifications are NOT aeration of the hypolimnion, but rather aeration of the water as it passes through the dam.	This correction will be made to the implementation plan.
			Requests updating the costs of the dam modification to \$445,000.	This correction will be made to the implementation plan.
			Requests updating the text regarding modifications made to the air induction system after the draft Implementation Plan was released for public comment.	The updates suggested will be incorporated into the implementation plan.
			LCRA is committed to working with the TNRCC and stakeholders to find additional ways to address the dissolved oxygen impairment if the dam modifications do not attain the water quality standard.	The TNRCC recognizes the substantial resources the LCRA has directed to this effort and their commitment to attainment of the water quality standard. No changes have been made to the Implementation Plan based on this comment.