

Response to Public Comment  
TMDLs for Legacy Pollutants in Fort Worth Streams and Reservoirs

November 22, 2000

Tracking Number	Date Recd.	Affiliation of Commentor	Summary of Request or Comment	Summary of TNRCC Action or Explanation
001	10/09/00 (verbal) 10/12/00 (letter)	Department of Environmental Management, City of Fort Worth, TX	<p>Requested that the phrases “prohibit the taking of fish” and “fishing bans” be altered to reflect the intent of sportfishing regulations, which prohibit only possession and subsequent consumption of fish.</p> <p>Verbal and written comments expressed concern that basing allowable contaminant load on fish tissue concentrations implies that it is permissible to discharge legacy pollutants and establish a low-level TMDL. The letter states that “there is no permissible load for these contaminants,” but clarifies this comment by asking that “... the allowable amount of fish tissue contaminant concentration be defined so that we can know whether we are in violation of this TNRCC proposed standard.” The letter asks if TNRCC is proposing to use FDA action limits, EPA primary endpoints, or TDH primary endpoints.</p>	<p>The “prohibit” wording was taken from the TDH Aquatic Life Orders for these water bodies. The TMDL has been revised to reference the TDH terminology in context. The phrase “fishing ban” has been changed to “fish consumption ban.”</p> <p>There is effectively a “permissible load” of contaminant in fish tissue that is based on the level of contaminant that can be consumed at an acceptable risk level set by the Texas Department of Health (TDH). This does not mean that TNRCC will issue a permit that allows the discharge of legacy pollutants to a water body. While some residual loading to these water bodies may continue to occur from nonpoint sources, we cannot adequately quantify such input at this time. This residual loading will decline to negligible levels through natural attenuation.</p> <p>The endpoint target concentrations for fish tissue are not proposed as standards. The target concentrations are those that should allow removal of the fish consumption ban, based on an acceptable risk level established by TDH. In the case of single contaminants, a tissue concentration target has been set. Where multiple contaminants with additive risk are present, the target is the overall acceptable risk level set by TDH, which can be achieved through a variety of reductions in the concentrations of the various contaminants.</p> <p>The target concentrations were developed using EPA guidance documents, but including the assumptions used by TDH for calculating risk. Information has been added to the document to outline the various assumptions and risk values used to calculate targets.</p>

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001 (Cont)			<p>There is no mention of contaminant levels in the fish or the risk level from fish consumption in each water body. The extent of the problem causing the §303(d) listing (actual contaminant levels in fish) is not defined. Without reference to actual contaminant levels or actual risk levels, it will not be possible to determine when and if fish are safe to consume. TDH does not sample on a routine basis to monitor long-term trends, so monitoring falls to local municipalities, which need actual contaminant levels to compare against in order to demonstrate improvement.</p>	<p>Risk levels posed by consumption of fish from these water bodies were calculated by TDH. The calculated risks exceeded the level determined by TDH to be acceptable, which resulted in issuance of the fish consumption bans. The acceptable contaminant concentrations and risk levels are the endpoint targets of the TMDL. TDH can consider removal of the consumption bans when concentrations and risk have declined to these target levels. These targets are included in the TMDL document.</p> <p>The extent of a problem involving fish consumption advisories and bans is defined by TDH as part of the risk assessment process. The Aquatic Life Orders for these water bodies specify the extent of the consumption bans. The extent set by TDH has been clarified in the document.</p> <p>Summary data illustrating trends in tissue contaminant levels have been added to the document, as requested. TDH assessments are based on contaminant concentrations in the sample being evaluated at a given time, not on long-term trends. Trend information is useful to help characterize any recent decline in contaminant levels as a result of natural attenuation.</p> <p>The TMDL development process involves the preparation of two documents (1) a TMDL which determines the maximum allowable loading and allocates the load to pollutant sources, and (2) an implementation plan which is a detailed description and schedule of regulatory and voluntary management measures necessary to achieve the pollutant reductions identified in the TMDL. This comment deals with aspects of implementation and will be addressed in the implementation plan for the impacted streams and reservoirs in Ft. Worth. Preparation of implementation plans is critical to ensure water quality standards are restored and maintained. Preparation of the implementation plan for the impacted streams and</p>

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001 (Cont)			<p>Requested that “species-specific physiological <i>effects</i>” be changed to “species-specific physiological <i>factors</i>” in a sentence describing characteristics of fish that affect accumulation of legacy pollutants in fish tissue.</p> <p>The final sentence under Margin of Safety states “These steps will provide an adequate margin of safety for the protection of human health and restoration of the fish consumption use in these waterbodies.” The comment asks what steps are being referred to, and how the margin of safety restores the consumptive use.</p>	<p>This change has been made as requested.</p> <p>These “steps” refer to the combined use of the margin of safety inherent in EPA guidance and conservative use of endpoint targets. The use of conservative assumptions results in the calculation of conservative (lower) target values, which are more protective of human health. Tissue concentrations at or below the target values result in an acceptable risk, allowing TDH to remove the fish consumption ban. Removal of a consumption ban effectively restores the fish consumption use of a water body. Description of the Margin of Safety has been expanded to better explain this matter.</p>

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001 (Cont)			<p>Comments disagree that dredging these particular water bodies will cause habitat destruction because habitat is already impaired by silt accumulation. The letter states that resuspension of sediment-associated contaminants is the only negative impact of dredging these water bodies. The commentor does not disagree with the statement on dredging as a general statement.</p> <p>The commentor also referred to a \$475,000 EPA grant awarded to the City of Fort Worth to study legacy pollutants in the three urban lakes, and to TNRCC and USGS funding to study the problem in Tarrant County. Dredging is one of the potential restoration methods to be evaluated. The letter requests that the last two sentences under Load Allocation be removed, or modified to reflect the studies currently underway.</p>	<p>The concern over habitat destruction was intended as only one of several potential negatives associated with dredging in general, and is not intended to imply that this or any other potential problem will occur in all cases. The intent of the statement is to support the use of natural attenuation where feasible. This discussion has been altered to place this statement in better context, clarifying that it is intended as a general statement.</p> <p>TDH assessments are based on contaminant concentrations in the sample being evaluated at a given time, not on long-term trends. Trend information is useful to help characterize any recent decline in contaminant levels as a result of natural attenuation. Summary data illustrating trends in tissue levels have been added to the document.</p> <p>The TMDL development process involves the preparation of two documents (1) a TMDL which determines the maximum allowable loading and allocates the load to pollutant sources, and (2) an implementation plan which is a detailed description and schedule of regulatory and voluntary management measures necessary to achieve the pollutant reductions identified in the TMDL. The comment regarding the EPA grant study deals with aspects of implementation and will be addressed in the implementation plan for the impacted streams and reservoirs in Ft. Worth. Preparation of implementation plans is critical to ensure water quality standards are restored and maintained. Preparation of the implementation plan for the impacted streams and reservoirs in Ft. Worth will be initiated immediately upon Commission approval of the TMDL.</p>

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001 (Cont)			<p>Comments state that the TMDL is full of vague, uncited references, and has several instances of unsupported conclusions. Good science requires that statements referring to “studies”, “reported”, “research has found”, etc. be footnoted to appropriate references so others can verify or challenge what is being presented as fact. Specific statements cited in the comments are those referring to relationships between land use and legacy pollutant sources, and a statement on the decline of environmental residues of legacy pollutants following restrictions on their use. The City requests that studies be cited for these types of statements and conclusions.</p>	<p>Literature citations and/or other information have been added to support the various statements.</p>

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002	10/10/00 (letter)	Tarrant Regional Water District, Fort Worth, TX	<p>Comment letter states that “... the document lacks sufficient detail regarding any sampling effort to quantify the concentration, spatial extent and rate of attenuation of the legacy pollutants” and that “... the TMDL document conveys no effort to understand or correct the problem.” Letter also suggests that some information concerning plans for additional sampling be added to the TMDL document.</p>	<p>Additional detail and explanation, including literature citations, have been added to the document, as described in the above responses, to better explain the approach of the TMDL.</p> <p>TDH assessments are based on contaminant concentrations in the sample being evaluated at a given time, not on long-term trends. Trend information is useful to help characterize any recent decline in contaminant levels as a result of natural attenuation. Summary data illustrating trends in tissue levels have been added to the document.</p> <p>The TMDL development process involves the preparation of two documents (1) a TMDL which determines the maximum allowable loading and allocates the load to pollutant sources, and (2) an implementation plan which is a detailed description and schedule of regulatory and voluntary management measures necessary to achieve the pollutant reductions identified in the TMDL. This comment deals with aspects of implementation and will be addressed in the implementation plan for the impacted streams and reservoirs in Ft. Worth. Preparation of implementation plans is critical to ensure water quality standards are restored and maintained. Preparation of the implementation plan for the impacted streams and reservoirs in Ft. Worth will be initiated immediately upon Commission approval of the TMDL.</p>