

Response to Public Comment:

Two Total Maximum Daily Loads for Indicator Bacteria in the Caney Creek Watershed

Tracking Number	Date Received	Affiliation of Commenter	Summary of Request or Comment	Summary of TCEQ Action, or Explanation
001	3/15/2021	Louis Peter, Local Resident/ Landowner	<p>(1) The commenter asked about the effect on flow rates of clearing trees and other vegetation along the banks of the water bodies and expressed concern about potential drainage district efforts to increase these flow rates. The commenter expressed the need for accurate stream flow data to determine impacts from such activities.</p>	<p>Bankside vegetation can act as a buffer that reduces runoff and decreases bacteria. The conservation and restoration of riparian buffers will be discussed in the Implementation Plan (I-Plan) for this project, which is currently under development. Stream flows estimated using a drainage area ratio (DAR) and Caney Creek flow data were used in calculating the Total Maximum Daily Load (TMDL) allocations and were discussed at stakeholder meetings. No changes were made to the TMDL document based on this comment.</p>
			<p>(2) The commenter noted that industrial facilities listed in Table 4 do not have bacteria limits in their permits and asked if they are discharging materials that promote bacterial growth, and if that is being verified.</p>	<p>The industrial outfalls listed in Table 4 do not have bacteria effluent limits because they are not authorized to discharge domestic wastewater. Discharging domestic wastewater would be a permit violation, and the permittee would be subject to TCEQ enforcement action if the discharge were reported to TCEQ or detected during one of TCEQ's periodic investigations. Also, as stated in the TMDL, the understanding of regrowth of fecal bacteria within water bodies and its relationship with pathogenic bacteria is not well known. This includes the potential impact of discharged effluent on bacteria regrowth. Bacteria regrowth is considered an instream process and was not used when developing load estimates for the TMDL. No changes were made to the TMDL document based on this comment.</p>

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			<p>(3) The commenter noted that a specific facility, which is located next to Hardeman Slough (1305A) and drains to it, is not included in Table 4.</p>	<p>The facility mentioned in this comment does not have an effluent discharge permit. However, at the time the TMDL was developed, it did hold both construction and multi-sector general permits for stormwater. The area of the facility covered by these permits was used in determining the total area covered by stormwater permits, which was used in calculating the wasteload allocation for stormwater. No changes were made to the TMDL document based on this comment.</p>
			<p>(4) The commenter noted that a wastewater treatment facility (WWTF) discharge that was mentioned in the text was excluded from analysis because it discharges to the Intracoastal Waterway. The commenter recommended including it in the analysis, as tidal action will carry its discharge into Caney Creek.</p>	<p>The facility mentioned in this comment is discussed in the TMDL document. Because it discharges outside the project watershed, its discharge was not included in the TMDL calculations. However, it has the same bacteria limits as municipal discharges within the watershed and would be subject to TCEQ enforcement action in the event it fails to meet its permit limits. A review of the facility's discharge monitoring reports (DMRs) from January 2018 through February 2021 showed no violations of its daily-average or single-grab limits for Enterococci, so its effluent is unlikely to be a significant source of bacterial pollution. No changes were made to the TMDL document based on this comment.</p>
			<p>(5) The commenter mentioned local beach closures due to poor water quality flowing in from Caney Creek and Linnville Bayou and suggested the discharge from the WWTF mentioned in comment (4) should be included in the TMDL.</p>	<p>As discussed in the response to comment (4), this facility has not violated its bacteria limits in the last three years, so its effluent appears unlikely to be a significant source of bacterial pollution related to the beach closures. Because the facility discharges outside the project watershed, it was not included in the TMDL calculations. No changes were made to the TMDL document based on this comment.</p>

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			<p>(6) The commenter asked about the impact of the poultry concentrated animal feeding operation (CAFO) located in the project watershed, including manure that is used as fertilizer and applied to land near the CAFO and sold to other landowners in the watershed.</p>	<p>The permit for the poultry CAFO requires that the CAFO must be properly designed, constructed, operated and maintained. No discharges to surface waters are allowed from the operation, except in accordance with the provisions of the permit. The land application of manure and wastewater to any permitted field must be conducted in accordance with a site-specific nutrient management plan prepared and certified by a nutrient management specialist and approved by the TCEQ. The permit requires buffers be maintained between land application areas and surface water in accordance with Natural Resources Conservation Service (NRCS) Practice Standard Code 393. Measures to reduce runoff will be discussed in the I-Plan, which is currently under development, and will include such actions as water quality management plans and conservation management plans developed by landowners with assistance from the Texas State Soil and Water Conservation Board (TSSWCB) staff and others. No changes were made to the TMDL document based on this comment.</p>
			<p>(7) The commenter questioned the accuracy of the livestock estimates in Table 5, giving the Linnville Bayou subwatershed's estimates relative to the remainder of the project watershed as an example.</p>	<p>Livestock estimates were reviewed and approved by a local agent with the TSSWCB and were discussed at stakeholder meetings. Livestock numbers are not used in calculating loadings but are among the bacteria sources that contribute to the load allocation. Livestock will be addressed more directly in the I-Plan, which is currently under development. Specific local knowledge of livestock numbers and distribution will be vital in targeting actions prescribed in the I-Plan to prevent bacteria from livestock from reaching the water bodies. No changes were made to the TMDL document based on this comment.</p>

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			(8) The commenter stated that the feral hog population estimate presented in the document is too low and is based on outdated information. The commenter suggested working with a local extension agent to get a more accurate feral hog (as well as deer) estimate.	Feral hog (and deer) numbers were based on information available at the time the TMDL was developed and were discussed at stakeholder meetings. Feral hog populations are dynamic and an issue in many rural and suburban TMDL watersheds. Feral hog numbers are not used in calculating loadings but are among the bacteria sources that contribute to the load allocation. Like livestock, feral hogs will be addressed more directly in the I-Plan, which is currently under development. Specific local knowledge of feral hog numbers and distribution will be vital in targeting actions prescribed in the I-Plan to prevent bacteria from feral hogs from reaching the water bodies. No changes were made to the TMDL document based on this comment.
			(9) The commenter asked how effluent from industrial facilities affects bacteria survival and die-off and asked if their effluents have been tested for bacteria even though they do not have bacteria limits in their discharges.	See comment (2) and its response. The DMRs for these facilities do not include bacteria sampling for outfalls that do not have bacteria limits, and TCEQ usually only samples effluent for the pollutants listed in the permit during its periodic investigations. No changes were made to the TMDL document based on this comment.

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			<p>(10) The commenter noted that Caney Creek and Linnville Bayou do not have United States Geological Survey (USGS) gauges, and the use of the Tres Palacios Creek watershed (which differs in various ways from the Caney Creek watershed) in developing flows for the Caney Creek watershed gave incorrect flows for this project, which could in turn lead to excessive financial burdens on landowners and residents while trying to meet the TMDL requirements.</p>	<p>It is common for TMDL watersheds in Texas to have no available USGS gauges, and the standard practice is to estimate flows using a DAR applied to naturalized flows from a nearby similar watershed. TCEQ recognizes that even nearby watersheds are not exactly like the project watershed, but this method gives an acceptable flow estimate for developing load duration curves, which are part of the process to calculate TMDLs. An additional source of flow data was available because a flow gauge was established on Caney Creek for this project, and data were collected from February 2017 through December 2018. The data from this gauge were used to refine the flow estimates derived from the DAR. For landowners, any measures to reduce bacteria in the watershed as a result of the TMDL or the I-Plan currently under development will be voluntary. No changes were made to the TMDL document based on this comment.</p>
			<p>(11) The commenter recommended briefing local county judges and precinct commissioners about the project and including local media to increase public participation.</p>	<p>County judges, precinct commissioners, and other local government leaders were included in outreach efforts and were given the opportunity to take part in the project. Two local county judges, two precinct commissioners, a local mayor, and others attended a leadership forum about this project on March 21, 2019. Additional leadership forums may be held in the future. Many representatives of local media outlets were included in outreach efforts prior to the public meetings for this project. The <i>Bay City Tribune</i> published an article about the project in November 2016, and reporters from the <i>Palacios Beacon</i> and <i>Brazoria County News</i> attended a project meeting on August 1, 2017. No changes were made to the TMDL document based on this comment.</p>

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			<p>(12) The commenter noted that the TMDL document does not list the number of local residents and landowners in the watershed that provided feedback on the project and expressed concern that this has been developed without input from people who actually live in the watershed.</p>	<p>TMDLs typically do not specify the number of residents and landowners that provided feedback. To encourage local participation, public meetings for the project were held at various locations in and near the watershed. For example, multiple public meetings were held in Wharton and Bay City; single meetings were held in Sargent, Van Vleck, and West Columbia, and virtual meetings were held. Attendance at public meetings was variable, but most attendees were people who live or work locally, with particularly strong representation from residents of Sargent. Local participation will continue to be important as the I-Plan is developed. No changes were made to the TMDL document based on this comment.</p>