

Cotton Bayou Watershed Public Meeting

Tuesday, May 31st, 2022
4:30 p.m. – 6:30 p.m.

In Attendance:

Organizers:

Houston-Galveston Area Council (H-GAC)

Rachel Windham, Presenter, H-GAC Project Manager

Texas Commission on Environmental Quality (TCEQ)

Jason Leifester, TCEQ Project Manager

Attendees:

Commissioner Tommy Hammond, Chambers County PCT 3

Bill Thompson, City of Mont Belvieu

Francisco Carrillo, City of Mont Belvieu

Gary Rabalais, Quiddity Engineering

Michael Mueller, City of Mont Belvieu

Scott Swigert, City of Mont Belvieu

Ricardo Villagrand, City of Mont Belvieu

Meeting Notes:

Welcome and Introductions

- Rachel Windham (H-GAC) commenced the meeting at 4:30 p.m. by welcoming the attendees. She then introduced the meeting organizers and invited attendees to introduce themselves.

Project Overview and Updates

- Ms. Windham provided an overview of the Cotton Bayou funded by TCEQ and facilitated by H-GAC:
 - Levels of the fecal indicator bacteria *Enterococcus* in exceedance of the state water quality standard observed in Cotton Bayou currently do not support recreation use as described in the 2020 Integrated Report of Surface Water Quality produced by TCEQ. This impairment led to the formation of this project which aims to identify sources of bacteria pollution in the watershed and improve water quality by implementing bacteria source reduction strategies.
 - Potential sources of bacteria contamination include wastewater discharge, failing onsite sewage facilities, domestic and wildlife animal waste, and waste from invasive species such as feral hogs.
- Ms. Windham also reviewed major updates since the last project meeting:
 - Ms. Windham shared preliminary data from the newly established water quality monitoring station (22232) within the city limits of Mont Belvieu. Data from this new site will improve our understanding of water quality impacts from Mont Belvieu and how they compare to water quality observed downstream. Preliminary data collected from 22232 between September 2020 and January 2022 show:
 - Bacteria (*E. coli*):
 - Bacteria levels appear to increase with increased flows and decrease during low flow events; this could indicate non-point sources are a strong contributor to pollution at this site
 - Most bacteria samples collected throughout the study period exceed the state water quality standard
 - Dissolved Oxygen (DO):
 - DO does not appear to follow a clear pattern in relation to streamflow
 - DO measurements have been well above the criterion (in compliance) for all samples collected within the study period;

this may indicate that the DO impairment and concern listed in the most recent integrated report may not affect the entire water body

- Nutrients (Total Phosphorous (TP) and Nitrate):
 - Both TP and Nitrate exceeded their respective screening levels in the majority of samples collected throughout the study period

Technical Support Document

- Ms. Windham explained that the Technical Support Document has been developed to provide an in-depth analysis of bacteria pollution and ultimately calculate a Total Maximum Daily Load (TMDL) or “budget” for bacteria pollution Segment 0801C of Cotton Bayou. This document is currently being reviewed by the TCEQ.
- Ms. Windham explained the concept behind TMDL calculations. For Cotton Bayou, the TMDL will be calculated as the load at the criterion level at the 95th percentile of flows. Components of the TMDL include:
 - Margin of Safety (MOS): 5% of the criterion load at the 95th percentile of flows to account for variance
 - Wasteload Allocation for Wastewater Treatment Facilities (WLA_{wwtf}): an allocation for the permitted load expected from wastewater; this component includes an allocation for future growth anticipated between the present day and 2045
 - Wasteload Allocation for Stormwater (WLA_{sw}): an allocation for the permitted load expected from stormwater
 - Load Allocation (LA): an allocation for all other unregulated sources of bacteria pollution

Next Steps

- Thinking of the project in the long-term, Ms. Windham points out that completing the Technical Support Document/TMDL development phase progresses the group closer to the ultimate goal of improving water quality through implementation.
- Short term goals for the project include:
 - Approval of the Technical Support Document and TMDL calculations
 - Setting up meetings with stakeholders to begin discussing bacteria sources, water quality improvement strategies, and implementation plan development

- Ms. Windham also encouraged attendees to reach out with any feedback about the project, as well as any information about environmental quality efforts already underway in the watershed interested in collaborating with the Cotton Bayou effort.

Discussion

- Attendees discussed preliminary data from monitoring station 22232 and implications for the listing status of the upstream segment (0801E) in future drafts of the Integrated Report of Surface Water Quality. Ms. Windham provided her contact information as well as the project website URL (<https://h-gac.com/watershed-based-plans/cotton-bayou-tmdl>) for any attendees interested in following up individually.

Meeting Adjourned at 6:00 p.m.

For more information about the meeting or the project, please contact Rachel Windham with the information below:

Phone: 713-993-2497

Email: rachel.windham@h-gac.com



This project is funded by the Texas Commission on Environmental Quality and is facilitated locally by the Houston-Galveston Area Council