Cotton Bayou Watershed
Public Meeting (GoToWebinar)

Tuesday, August 20th, 2020
2:00 pm – 4:00 pm

In Attendance:

Organizers:

Andrea Tantillo, Houston-Galveston Area Council (H-GAC) – Meeting Facilitator

Steven Johnston, H-GAC – Meeting Moderator

Rachel Windham, H-GAC – Presenter, H-GAC Project Manager

Gerrad Hofmans, Texas Commission on Environmental Quality (TCEQ) – TCEQ Project Manager

Attendees:

Rodney Adams, TCEQ

Francisco Carrillo, City of Mont Belvieu

Paulina Fernandez, Citizen

Steve Floyd, City of Mont Belvieu

Cullen Francis, City of Mont Belvieu

Angela Keith, City of Mont Belvieu

Elizabeth Kompanik, TCEQ

Mac Martin, Texas A&M University - Texas Forest Service

Scott Swigert, City of Mont Belvieu

Ricardo Villagrand, City of Mont Belvieu

Jean Wright, H-GAC

Meeting Notes:

Welcome and Introductions

- Andrea Tantillo (H-GAC) commenced the meeting at 2:00 pm by welcoming the attendees and reviewing GoToWebinar functions for asking questions and making comments throughout the presentation. She then introduced the speaker, Rachel Windham (H-GAC).

Project Overview and Preliminary Findings

- Rachel Windham provided an overview of the Cotton Bayou Watershed Characterization Project funded by TCEQ and facilitated by H-GAC:
    - Bacteria levels 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.
    - The Watershed Characterization Report objectives are to characterize bacteria concentrations in Cotton Bayou and to identify potential sources leading to high bacteria levels throughout the watershed. These preliminary steps will lead to the development of a Total Maximum Daily Load (TMDL) assessment.
    - Preliminary results indicate bacteria levels exceed state water quality standards at both monitoring stations (18696 and 18697) on Cotton Bayou. Load duration curve analyses indicate that:
        - A combination of point and non-point source pressures are leading to high levels of bacteria in the waterway, and
        - Reductions are needed to comply with state water quality standards at high flows, moist, mid-range and dry conditions for station 18697 and all levels of flow for station 18696.
    - Potential sources of bacteria contamination were reviewed as well as calculations for estimating sources relative to the land area of the Cotton Bayou Watershed. These sources include wastewater discharge, failing onsite sewage facilities, domestic and wildlife animal waste, and waste from invasive species such as feral hogs.

Progress and Next Steps

- Since the last project meeting, two important developments have occurred:
    - The City of Mont Belvieu has agreed to partner with the Clean Rivers Program to establish a water quality monitoring station 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.
    - Additionally, discussions with Mont Belvieu and a more thorough review of ambient water quality data have led to the reclassification of the upstream portion of Cotton Bayou as an above-tidal (freshwater) segment. The lower portion of the bayou will remain classified as a tidal (saltwater influenced) segment. These changes will be made official upon approval of the 2022 draft of the Integrated Report of Surface Water Quality. Meanwhile, bacteria sampling taking place on the upstream portion of Cotton Bayou will now target *Escherichia coli* (*E. coli*), the freshwater fecal indicator bacteria, rather than Enterococcus.
- In the time between this meeting and the next, H-GAC will:
    - Finalize and make public the Watershed Characterization Report
    - Begin work on a Technical Support Document to inform TMDL calculations
    - Meet one-on-one with stakeholders

Discussion and Public Comment

- Jean Wright (H-GAC) asked for clarification on the estimates for livestock in the watershed which in some cases are very low.
    - To estimate these numbers, a ratio of watershed land area to county land area is applied to county agricultural census numbers. Due to the small size of the watershed, these estimates can result in greatly reduced numbers (example: only 2 domestic pigs/hogs estimated for the watershed area). Project staff encourage feedback from stakeholders on these assumptions to improve their accuracy.
- Mac Martin (Texas A&M University – Texas Forest Service) asked for explanation on how wildlife estimates will be made for species with no literature value suggestions for population density such as racoons, rodents, etc.
    - Stakeholder feedback will be important for determining how to account for this estimation. One method could be to assume a base percentage of the total bacteria load for the watershed. To do this, all other load estimates (wastewater, domestic animals, livestock, etc.) would be grouped to account for an assumed percentage of the total load (example: 90%) and the remaining percentage would be attributed for "other wildlife." The value of the assumed percentages would be up to stakeholder discretion.
    - Steven Johnston (H-GAC) points out that current estimations of deer based on literature values help to form an understanding of wildlife impacts by proxy. Because future management strategies will work to preserve native

wildlife and not remove them, load reductions may be increased for other sources to offset wildlife loads.

- Francisco Carrillo (Mont Belvieu) suggested revising feral hog estimates, current estimate of 31 hogs in the 16 square mile watershed area are likely too low. Population numbers may be closer to at least 100 hogs.
    - Mr. Johnston also reminds the group that throughout the development of the TMDL, more focused discussions will be held to assess loading estimates and can change further as needed.

Meeting Adjourned at 3:10 pm.

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

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