EAST FORK SAN JACINTO RIVER
WATERSHED PARTNERSHIP

Virtual Public Meeting Minutes

Thursday, October 19th, 2023
2:00 pm – 4:00 pm

In Attendance:

Organizers:

Houston-Galveston Area Council (H-GAC):
- Andrea Tantillo, Meeting Coordinator
- Kendall Guidroz, Meeting Coordinator
- Rachel Windham, H-GAC Project Manager

Texas Commission on Environmental Quality (TCEQ):
- Heather Robinson, TCEQ Project Manager

Attendees:

Alexander Neal, Texas Water Resources Institute
Arti Patel, Harris County Pollution Control Services
Ashley Morgan-Olvera, Texas Research Institute of Environmental Studies
Bill Ervin, H-GAC
Danielle Cioce, Harris County Engineering
Jeff Lu, Harris County Engineer Department
Julia Schmidt, Texas A&M Forest Service
Kevin Muraira, Bayou Land Conservancy
Nate Levigne, Resident
Rachel LaSota, Harris County Pollution Control Services
Ron Diderich, Texas Master Naturalists
Tom Douglas, Bayou Preservation Association

Meeting Notes:

Welcome and Introductions

- Rachel Windham (H-GAC) commenced the hybrid meeting at 2:00 pm by welcoming the attendees. Ms. Windham introduced herself and called roll for virtual attendees and provided a brief project introduction.

Project Background

- Ms. Windham provided an overview of the East Fork San Jacinto River watershed.
    - The East Fork of the San Jacinto River watershed includes parts of Walker, San Jacinto, Liberty, Harris, and Montgomery County. Much of the watershed area overlaps with the Sam Houston National Forest. More natural land cover is observed north of the San Jacinto-Liberty County line, and more developed areas are located south of that line.
    - Assessments of surface water in the East Fork of the San Jacinto River watershed indicate impairments for contact recreation use due to bacteria levels in exceedance of the state water quality standard.
    - Sources of fecal indicator bacteria include point sources such as improperly treated wastewater discharge, and nonpoint sources including overflow from on-site sewage facilities (OSSFs) and illicit sewage, waste from pets and livestock, and waste from wildlife and invasive species. These sources vary according to location and will require specialized implementation strategies. The three main watershed attainment areas and their respective major source contributions are:
        - Lower East Fork San Jacinto River – human development related pressures such as OSSFs and pet waste
        - Upper East Fork San Jacinto River – cattle and feral hogs
        - East Fork San Jacinto River Tributaries – cattle and feral hogs; cattle is by far more of a pressure in this subwatershed compared to the Upper East Fork San Jacinto River due to the prevalence of agricultural land

WPP Document Overview

- Ms. Windham reviewed the layout of the watershed protection plan document. Previous Partnership meetings have been spent discussing subjects that will contribute to:
    - Section 1 – Project Background

This section will provide a description of the water quality issues faced in the project area and describe the process of WPP development.

- Section 2 – Watershed Characterization

This section will describe the watershed in terms of geography, political jurisdictions, topography, ecological zones and other parameters to provide an understanding of the potential sources of pollution.

- Section 3 – Identifying Pollutant Sources

Using analyses of ambient monitoring data, discharge monitoring and sanitary sewer overflow reports, and Spatially Explicit Load Enrichment Calculation Tool (SELECT) modeling, this section will describe what potential sources of pollution are at work in the watershed and where in the watershed specific sources are of the greatest concern.

- Section 4 – Improving Water Quality

Building on information in Section 3, this section will use load duration curve analyses to determine reductions needed to meet state water quality standards and link those reduction values to individual sources in practical units.

- At this meeting, the discussion of implementation strategies will complete the remaining sections:
  - Section 5 – Recommended Solutions

This section will detail the implementation strategies suggested and selected by the Partnership to address bacteria impairments. Estimated costs, focus areas, responsible parties, and estimated bacteria reductions will be listed here.

  - Section 6 – Education and Outreach

This section will provide details for education and outreach specific strategies suggested and selected by the Partnership to address bacteria impairments.

  - Section 7 - Implementation

This section features tables organizing the strategies listed in Sections 5 and 6 in accordance with milestone goals listed in 5 year increments.

  - Section 8 – Evaluating Success

This section will discuss how success will be measured and stress the importance of adaptive management—the process by which the WPP will continue to be reviewed and adjusted to best serve the watershed.

Implementation Strategies

- Ms. Windham explained that the presentation would be interactive so that stakeholder suggestions for implementation strategies could be captured in real time. As a starting point, H-GAC provided a list of strategies that have been used in nearby watershed projects. Stakeholders were asked to edit the strategies as they saw fit, remove strategies that wouldn't work for the East Fork San Jacinto River watershed or add in new strategies as appropriate. The following tables are the product of these discussions (red text indicates an edit made during the meeting):

Wastewater and Sanitary Sewer Overflow

Solutions	Responsible Parties and Contacts	Overall Implementation Goal	Timeline	2030 Milestone	2035 Milestone	2040 Milestone
Address Problem Plants and Consider Regionalization	Utilities, Cities, Municipal Utility District Operators	Improve treatment of sewage	Ongoing	At least 1 WWTF[1] makes operational/ structural changes resulting in effluent improvement	At least 1 additional WWTF[1] makes operational/ structural changes resulting in effluent improvement	At least 1 additional WWTF[1] makes operational/ structural changes resulting in effluent improvement
Recommend Increased Testing	Utilities, Partnership	Enhance monitoring to better characterize effluent	Ongoing	Partnership worked with at least 1 plant to identify capacity for increased testing	Partnership worked with at least 1 additional plant to identify capacity for increased testing	Partnership worked with at least 1 additional plant to identify capacity for increased testing
Remediate Infrastructure	Utilities	Reduce contamination from human fecal waste by reducing overflows from WWTF collection systems	Ongoing	1 fewer SSO[2] occurred than average since 2025	1 fewer SSO[2] occurred than average since 2030	1 fewer SSO[2] occurred than average since 2035
Promote FOG[3] Awareness	*H-GAC, Partnership*	*Reduce SSOs[2] by affecting utility customer behavior regarding FOG[3]*	*Early, Ongoing*	*2024 – Model materials identified and added to website*	*Consistent promotion with partners throughout implementation period*	
Work with Partners to Increase Public SSO[2] Reporting	*H-GAC, Partnership*	*Enhance reporting by increasing public visibility and community knowledge*	*Ongoing*	*Partnership has worked with local utilities to develop and disseminate materials to customers/ community members*		

OSSFs

Solutions	Responsible Parties and Contacts	Overall Implementation Goal	Timeline	2030 Milestone	2035 Milestone	2040 Milestone
Remediate Failing OSSFs or Convert to Sanitary Sewer	H-GAC, Utilities, Residents	Address failing OSSFs[1], raise awareness by posting signage at remediation sites, connect residents and AAs with Homeowner Wastewater Assistance program	Ongoing	First third of OSSFs[1] addressed, or failures prevented	Second third of OSSFs[1] addressed, or failures prevented	Final third of OSSFs[1] addressed, or failures prevented
Improve Spatial Data – include San Jacinto County	H-GAC	Improve OSSF[1] location spatial data to guide remediation efforts	Ongoing	Authorized Agents continue to provide new data regularly		
Hold Residential OSSF Workshop – investigate pump-out incentives for attendees	*H-GAC, Extension*	*Empower homeowners and real estate inspectors to identify the signs of failing/failed OSSFs[1] and promote proper OSSF[1] management to avoid failures*	*Ongoing*	*5 workshops held*	*5 additional workshops held*	*5 additional workshops held*
Participate in County-wide OSSF[1] Workshop for Practitioners	*Partnership*	*Harris and Montgomery County's annual OSSF[1] workshop provides a point of coordination with practitioners*	*Ongoing*	*Partnership participates in annual meetings*		
Provide Model Educational Materials Online and distribute materials with QR codes in bill inserts & when permits are received	*H-GAC, Extension, Utilities*	*Provide model educational materials online to facilitate education by other organizations*	*Early, Ongoing*	*Create any materials not already covered and host materials online*		
Texas Well Owner Network Events	*Partnership, TWON[2], Groundwater Conservation Districts*	*Educate well owners about potential risks from OSSFs[1] and potential contamination of drinking water wells*	*Ongoing*	*First TWON[2] event held*	*Second TWON[2] event held*	*Third TWON[2] event held*

Stormwater

Solutions	Responsible Parties and Contacts	Overall Implementation Goal	Timeline	2030 Milestone	2035 Milestone	2040 Milestone
Install Stormwater Inlet Markers	Local Governments, Municipal Utility Districts, HOAs[1]	Raise awareness and shift behavior of residents served by stormwater systems to reduce pollutants entering drains/waterways	Ongoing	At least 1 neighborhood has markers added	At least 1 additional neighborhood has markers added	At least 1 additional neighborhood has markers added
Investigate Drainage Channels	H-GAC, Non Profits, Local Governments	Locate potential sources of pollutants in drainage channels	Early, Ongoing	Priority areas identified; at least 1 field reconnaissance project completed	At least 1 additional field reconnaissance project completed	At least 1 additional field reconnaissance project completed
Low Impact Development	Local Governments, Developers	To reduce pollutants in stormwater flows through promoting and implementing infrastructure that mimics or improves on natural hydrology	Ongoing	2024 – LID[2] materials developed and hosted on website	At least 1 LID[2] demonstration project installed	
Expand Texas Stream Team Participation	*Partnership, Meadows Center*	*Supplement existing monitoring data with volunteer sites and empower volunteers to acts as water quality ambassadors*	*Ongoing*	*1 volunteer added*	*2 additional volunteers added*	*2 additional volunteers added*

Pet Waste

Solutions	Responsible Parties and Contacts	Overall Implementation Goal	Timeline	2030 Milestone	2035 Milestone	2040 Milestone
Install Stormwater Inlet Markers	Local Governments, Municipal Utility Districts, HOAs[1]	Raise awareness and shift behavior of residents served by stormwater systems to reduce pollutants entering drains/waterways	Ongoing	At least 1 neighborhood has markers added	At least 1 additional neighborhood has markers added	At least 1 additional neighborhood has markers added
Investigate Drainage Channels	H-GAC, Non Profits, Local Governments	Locate potential sources of pollutants in drainage channels	Early, Ongoing	Priority areas identified; at least 1 field reconnaissance project completed	At least 1 additional field reconnaissance project completed	At least 1 additional field reconnaissance project completed
Low Impact Development	Local Governments, Developers	To reduce pollutants in stormwater flows through promoting and implementing infrastructure that mimics or improves on natural hydrology	Ongoing	2024 – LID[2] materials developed and hosted on website	At least 1 LID[2] demonstration project installed	
Expand Texas Stream Team Participation	*Partnership, Meadows Center*	*Supplement existing monitoring data with volunteer sites and empower volunteers to acts as water quality ambassadors*	*Ongoing*	*1 volunteer added*	*2 additional volunteers added*	*2 additional volunteers added*

Agriculture and Livestock

Solutions	Responsible Parties and Contacts	Overall Implementation Goal	Timeline	2030 Milestone	2035 Milestone	2040 Milestone
WQMPs[1] and Conservation Plans	Landowners, Agencies	Address waste livestock units through WQMPs[1]/Conservation Plans	Ongoing	First third of plans (or plans representing one third of the reduction load) addressed by the solution	Second third of plans (or plans representing one third of the reduction load) addressed by the solution	Last third of plans (or plans representing one third of the reduction load) addressed by the solution
Maintain or Restore Riparian Buffers (include littoral zone)	Landowners, NGOs[2]	Install or maintain riparian buffers in agricultural areas to reduce transmission of pollutants; piggyback outreach with Stream Team (Meadows Center riparian assessment)	Ongoing	At least 1 rural property has a riparian project	At least 1 additional rural property has a riparian project	At least 1 additional rural property has a riparian project
Develop and Implement Education Measures and Materials for Livestock Operations	*Agencies, SWCDs, Extension Agents, Partnership*	*Develop specific recommendations for stabling and other livestock operations to reduce contributions from these sources*	*Early, Ongoing*	*Identify needs and potential local partners*	*Materials developed and reviewed locally; hosted and disseminated*	
Hold Agricultural Resources Workshops	*Agencies, SWCDs, Extension Agents, Partnership*	*Promote agricultural programs by facilitating one on one meetings with landowners*	*Ongoing*	*First workshop held*	*Second workshop held*	*Third workshop held*
Support Local Agricultural Conservation	*Landowners, Partnership*	*Increase conservation efforts by lending support and coordination to local partners pursuing opportunities*	*Ongoing*	*Collaborate with at least 1 local partner on a project proposal*	*Collaborate with at least 1 additional partner on a project proposal*	*Collaborate with at least 1 additional partner on a project proposal*

Deer and Other Wildlife

Solutions	Responsible Parties and Contacts	Overall Implementation Goal	Timeline	2030 Milestone	2035 Milestone	2040 Milestone
Restore Upland Habitat	Landowners, NGOs[1], Local Government	Restore upland habitat to provide wildlife alternative areas and reduce concentration in riparian zones	Middle		Develop at least 1 acre or greater restoration project	
Homeowner Education Materials and Mailing	*Extension Agents, HOAs[2], Partnership*	*Work with AgriLife Extension, HOAs[2] and Local Partners to distribute of exclusionary device materials for homeowners*	*Ongoing*	*Distribute materials locally and host materials online*		

Feral Hogs

Solutions	Responsible Parties and Contacts	Overall Implementation Goal	Timeline	2030 Milestone	2035 Milestone	2040 Milestone
Remove Feral Hogs	Landowners, Local Government, NGOs[1], Development, Forest Service	Implement trapping or other removal programs to remove feral hogs from the watershed to reduce pollutants and ancillary damages	Early, Ongoing	Develop or augment trapping program with local partners	Expand program to additional properties	
Lone Star Healthy Streams – Workshops and Feral Hog Resource Manual – Investigate smart trap demos	*Extension Agents*	*Educate local stakeholders to promote feral hog reduction*	*Ongoing*	*First workshop has been held*	*Second workshop has been held*	*Third workshop has been held*
Host resources on project website	*Partnership*	*Educate local stakeholders to promote feral hog reduction*	*Ongoing*	*Distribute materials locally and host materials online*		

Conservation and Restoration

Solutions	Responsible Parties and Contacts	Overall Implementation Goal	Timeline	2030 Milestone	2035 Milestone	2040 Milestone
Riparian Buffers	Landowners, NGOs[1]	Promote riparian buffers in all land uses to reduce transmission of pollutants (in conjunction with Land Management – Voluntary Conservation)	Ongoing	At least 1 property has a riparian project	At least 1 additional property has a riparian project	At least 1 additional property has a riparian project
Voluntary Conservation	Landowners, NGOs[1]	Promote voluntary conservation to reduce pollutants from developed areas	Ongoing	At least one 1+ acre property has a conservation project	At least 1 additional property has a conservation project	At least 1 additional property has a conservation project
Promote Riparian Buffers (Tools and Workshops)	*Agencies, Landowners, NGOs[1]*	*Reduce pollutant loads by promoting riparian buffer areas – crossover with LID education*	Ongoing	*First workshop has been held*	*Second workshop has been held*	*Third workshop has been held*
Host resources on project website	*Partnership*	*Educate local stakeholders to promote feral hog reduction*	*Ongoing*	*Distribute materials locally and host materials online*		
Texas Watershed Stewards	*Extension Agents*	*Educate stakeholders on water quality/watershed issues*	Ongoing	*First workshop has been held*	*Second workshop has been held*	*Third workshop has been held*
Conservation Coordination	*Agencies, Landowners, NGOs[1]*	*Promote and help coordinate conservation efforts in the watershed*	Ongoing	*Partnership has been active in all appropriate conservation initiatives in the watershed*		

Other Concerns

Solutions	Responsible Parties and Contacts	Overall Implementation Goal	Timeline	2030 Milestone	2035 Milestone	2040 Milestone
Report Chronic Dump Sites and Consider Increased Efficiency	Residents, Landowners, Local Governments	Promote enforcement efforts to reduce chronic dumping sites	Early, Ongoing	Identify dumping sites and enforcement priorities with local partners	Address at least 1 chronic site	Address at least 1 additional chronic site
Trash Bash Site or Trash Free Texas Volunteer Program	*H-GAC, Trash Free Texas*	*Reduce trash and educate participants on water quality issues*	Ongoing	*Establish at least 1 Trash Bash site*	*Host annual events*	
Coordinate with Ongoing Flood Mitigation Efforts	Partnership	Promote water quality features as supplementary elements in flood mitigation studies and projects	Ongoing	Identify flood mitigation priority projects for water quality enhancements; Partnership maintains a standing presence in flood mitigation projects through public processes, comments, etc.		

Education and Outreach Partners

Topic	Partners/Programs/Events	Topic	Partners/Programs/Events
Pet Waste	H-GAC Pitch the Poop; Scouts/Youth Programs	Lawn Maintenance/ Yards	Healthy Lawns, Healthy Watersheds; Native Plant Society; Extension; Master Gardeners, Texas Water Resources Institute
On-site Sewage Facilities	H-GAC Homeowner Education Workshops; AgriLife Research OSSF Group; Promote SEP[1]	Agriculture	SWCD[2] Leadership Development Workshops; County Extension/Extension Programs, TSSWCB[3], NRCS[4]
Sanitary Sewer Overflows	Distribute materials promoting floodwater contact awareness and public reporting through Community Organizations/Utilities	Stormwater	Drain Markers; TCEQ Water Quality/Stormwater Seminars; Groundwater Conservation Districts
Conservation & Restoration	Bayou Land Conservancy Ambassador Program; Native Plant Society; Texas Master Naturalists; Texas Water Resources Institute (Urban Riparian), AgriLife-Texas Watershed Stewards	Fats, Oils and Grease	City of Houston Protect Our Pipes; H-GAC
Trash Reduction	Trash Bash; Trash Free Texas Adopt-A-Spot		

Supportive Research

- Ms. Windham reviewed other elements to consider including in the WPP that would not necessarily reduce bacteria loads but could provide useful context for conditions impacting water quality. Among these are the targeted use of DNA-based source tracking (instream genetic identification of species-specific *E. coli* strains or host DNA specifically) which can both be used to detect illicit discharge or characterize localized spikes in fecal indicator bacteria concentration. Another important task includes coordination with flood management efforts and projects modeling environmental effects and costs of management decisions.

Continue Partnership

- Lastly, Ms. Windham points out that the next step to consider after the WPP is completed and approved will be to seek a watershed coordinator to guide plan implementation and continue to coordinate with local governments, organizations and stakeholders.

Next Steps

- Following this meeting, Ms. Windham will begin drafting the watershed protection plan based on the timeline, reduction targets and implementation strategies discussed with the Partnership as well as follow-up conversations with stakeholders during the drafting process. This draft will be completed by mid-November.
- After the draft is posted to the project website, stakeholders will have 30 days to respond with public comments.
- The next public meeting is tentatively planned for December to review the comments and make edits to the WPP before submitting to TCEQ.
- As always, the Partnership will seek opportunities to collaborate with partners on environmental and water quality efforts in the watershed.

Meeting Adjourned at 4:05 pm.

For more information, visit www.eastforkpartnership.com,
or contact Rachel Windham at:
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