



SPRING CREEK WATERSHED PARTNERSHIP

Human Sources and Pet Waste Workgroup Meeting Minutes

Monday, February 8th, 2020
5:30 – 7:30 p.m.

In Attendance:

Organizers:

Houston-Galveston Area Council (H-GAC):
Andrea Tantillo
Rachel Windham

Attendees:

Camila Biaggi (Harris County Engineering)
Jennifer Seale (Texas Master Naturalists (TMN) - Heartwood)
Kendra Park (TMN – Heartwood)
Neil Gaynor (Montgomery County MUD 6)
Paul Nelson (Resident)
Teri MacArthur (The Woodlands Township)
Tom Douglas (Bayou Preservation Association (BPA))

Meeting Notes:

Outline and Statement of Purpose

- Rachel Windham (H-GAC) commenced the meeting at 5:30 p.m. by welcoming the attendees. Andrea Tantillo (H-GAC) reviewed Zoom Meeting platform functions for asking questions and making comments throughout the presentation. Attendance was recorded by the Zoom platform.
- Before starting the meeting, the agenda was discussed as well as a statement of purpose to focus the discussion around strategies for reducing fecal indicator bacteria (*E. coli*) impairments in the Spring Creek Watershed.

Model Results Review

- Ms. Windham refreshed the workgroup on the results of:

- Load duration curve analyses used to estimate the amount of bacteria reduction needed to comply with state water quality standards.
- Spatially explicit load estimation calculation tool (SELECT) analyses used to estimate the spatial distribution of sources leading to bacteria impairments and their contribution to the total estimated load.

Timeline and Reduction Targets

- Ms. Windham reviewed the concept of a milestone year or benchmark for determining the effectiveness of the watershed protection plan. The determination of the milestone year is at the discretion of the partnership and will determine the numerical targets for bacteria reduction. The partnership should select a milestone year based on a balance between model accuracy (which is less reliable with increased time) and time for implementation time (an allowance for improvement strategies to be carried out and gaged for efficacy).
 - Teri MacArthur (The Woodlands Township) suggests using the year 2030 as the milestone year (10 years from project start) to maintain enthusiasm levels and incentivize action. She also points out that moving quickly on the project will hopefully yield measurable improvement that could inspire further participation from the greater public.
 - Kendra Park (TMN – Heartwood) seconds Ms. MacArthur’s suggestion citing the same motivations.
 - Neil Gaynor (Montgomery County MUD 6) asks to discuss a tiered approach especially in relation to issues like pet waste, but further supports the milestone year being set in 2030.
 - Ms. MacArthur also supports the ability of the plan to be flexible and adaptable in response to changing pressures in the watershed.
 - Jennifer Seale (TMN – Heartwood) expressed concern about achieving improvements within a 10 year timeframe due to experience on other watershed projects which take multiple years to clear the development and approval phase. Ms. Windham presented the projected timeline of this watershed protection plan which is expected to reach submission stage by summer of 2021 with approval tentatively expected late in the same year.
- Ms. Windham also explained how reduction targets will be calculated for each source depending on the milestone year selection. Additionally, she explained the concept of representative units (i.e. the representative unit for pet waste = the waste of one dog which is estimated to be 2.5×10^9 cfu/day). Using representative units, it is easier to compare loads between individual sources. If the calculated reduction target for a particular source seems unattainable by the milestone year, there is also the option to make larger reductions to other, more easily controlled

sources to compensate enough to reach the overall reduction target by the milestone year.

Water Quality Improvement Strategies

- Ms. Windham explained the goals of watershed improvement strategy selection are primarily to comply with state water quality standards, but also to collaborate with existing efforts where possible, to find options with multiple benefits, to maintain cost effectiveness, and to work in a phased approach.
- Due to the focused nature of the workgroup, the following bacteria sources were discussed:
 - Wastewater Treatment Facilities (WWTFs)

Strategies	Comments
<ul style="list-style-type: none"> ○ Assist in identifying resources to improve operations ○ Consider regionalization ○ Recommend increased testing 	<ul style="list-style-type: none"> ○ Focus on downstream attainment area ○ Dr. Gaynor asks about analyses of specific pollutants in wastewater ○ Paul Nelson (Resident) confirms that analyses for specific nutrients, toxic substances and algal blooms are carried out in addition to bacteria testing at the statewide monitoring sites that can indicate the need for investigation upstream from the water body ○ Mr. Nelson also points out that regionalization of plants will largely be carried out at the city level but is supportive of working to bring smaller units to group together

- Sanitary Sewer Overflows (SSOs)

Strategies	Comments
<ul style="list-style-type: none"> ○ Join SSO Initiative ○ Evaluate lift station backup capacity ○ Identify areas affected by floods 	<ul style="list-style-type: none"> ○ Watershed wide effort, see notes below ○ Tom Douglas (BPA) points out that though larger volume SSO events are observed in the

	<p>downstream area, rain events in upstream areas quickly overwhelm smaller channels and raise water elevation more significantly</p> <ul style="list-style-type: none"> ○ Mr. Nelson points out that storm events can disrupt power to lift stations and that even manhole covers built above ground level can be inundated and lead to overflow into the stream. Generator backup is helpful for preventing these events. ○ Dr. Gaynor brings up that Atlas 14 rainfall data shows that current floodplains are underestimated and that more areas could be at risk of flood dangers
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- Onsite Sewage Facilities (OSSFs)

Strategies	Comments
<ul style="list-style-type: none"> ○ Provide financial support for remediating low income OSSFs ○ Improve spatial data, help identify priority areas ○ Convert to sanitary service where appropriate ○ Hold residential OSSF workshops 	<ul style="list-style-type: none"> ○ Watershed wide effort ○ Mr. Nelson suggests working with cities and other communities to encourage use of treatment plants and sanitary sewer over OSSF development due to long-term maintenance issues ○ Mr. Douglas suggests the partnership support H-GAC distribution of Supplemental Environmental Project funds in the watershed ○ Mr. Douglas also points out that Tomball is of particular interest due to lack of centralized service for all neighborhoods and the observation of bacteria impacts downstream of the area relative to measurements upstream

- Pet Waste

Strategies	Comments
<ul style="list-style-type: none"> ○ Install pet waste stations in high traffic public areas ○ Increase dog parks/capacity ○ Sponsor spay/neuter events ○ Consider increased enforcement 	<ul style="list-style-type: none"> ○ Focus on downstream attainment area ○ Pet waste load reduction target can be offset by overcompensating reductions from other sources (e.g. OSSFs) ○ Ms. Park stresses the need for outreach and education specific to pet waste management ○ Ms. MacArthur points out that if more pet waste stations are installed, it will require resources for the physical structures but also for staff to regularly service the new sites—this would not likely be suitable for volunteers as cities would want to be sure the sites are regularly cleaned ○ Ms. MacArthur did suggest that at outreach efforts, leash clips for holding waste bags could be distributed—this would help bridge the gap between dog owners who are managing their pet’s waste but may not be near a disposal site ○ Ms. MacArthur also suggested coordinating with Canine Good Citizen Programs which certify dogs with social training basics to distribute waste management information and tools (leash clips, bags) ○ Ms. Park recommends collaboration with scouts groups to share information about pet waste management as well as potentially working with advanced scouts on projects contributing to bacteria reduction

- Stormwater

Strategies	Comments
<ul style="list-style-type: none"> ○ Install drain markers ○ Increase tree canopy ○ Maintain and restore riparian buffers ○ Identify illicit connections in waterways and channels ○ Promote low impact development ○ Coordinate with flood management/planning efforts ○ Promote water quality features in detention 	<ul style="list-style-type: none"> ○ Focus on downstream attainment areas and new developments ○ Ms. MacArthur and Dr. Gaynor share updates on progress with drain marker installation in Grogan's Mill and their collaboration with scouts groups ○ Dr. Gaynor also emphasizes the importance of education and outreach for this source ○ Mr. Douglas presents the idea for a potential scout project mapping how waste travels in the watershed—Ms. MacArthur shares that she knows of a student interested in making environmental education videos specifically about the importance of storm drains. Her work will be featured on the Township's YouTube channel

○ Conservation and Restoration

Strategies	Comments
<ul style="list-style-type: none"> ○ Promote and engage in existing conservation programs ○ Restore and maintain riparian buffers ○ Increase tree canopy 	<ul style="list-style-type: none"> ○ Focus on headwaters attainment area and along riparian buffers

○ Education and Outreach

Strategies	Comments
<ul style="list-style-type: none"> ○ Coordinate with efforts focused on: <ul style="list-style-type: none"> ▪ Pet waste ▪ OSSFs (homeowner education) ▪ Fats, oils, and grease ▪ Conservation/urban forestry ▪ Trash reduction ▪ Lawn maintenance 	<ul style="list-style-type: none"> ○ Watershed wide effort

<ul style="list-style-type: none"> ▪ Agricultural best management practices ▪ Stormwater pollution prevention 	
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○ Other Concerns

Strategies	Comments
Trash <ul style="list-style-type: none"> ○ Facilitate clean-up events Sedimentation <ul style="list-style-type: none"> ○ Restore and maintain riparian buffer Targeted Monitoring <ul style="list-style-type: none"> ○ Bacterial analysis ○ Site and condition specific monitoring Continue Partnership <ul style="list-style-type: none"> ○ Keep partnership active throughout implementation of WPP 	<ul style="list-style-type: none"> ○ Mr. Douglas points out that testing for human DNA has many benefits in terms of identifying risk to human health as an alternative to full bacterial source tracking

Discussion, News and Questions

- Ms. Windham closes the meeting by asking workgroup members to consider who in the watershed might be best to contact regarding implementation efforts as well as other logistical considerations to be discussed in more depth at the follow up meeting on March 1st.
- Mr. Douglas promoted the Urban Riparian Symposium to be hosted virtually on February 10, 11 and 12

Meeting Adjourned at 7:30 p.m.

For more information, visit <http://springcreekpartnership.com>,
or contact Rachel Windham at:
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Email: rachel.windham@h-gac.com



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