



**Residential & Outreach Work Group
Meeting Agenda
Wednesday, February 13, 2013
3:45 pm to 4:30 pm
H-GAC Conference Room A, Second Floor**

*Held in conjunction with a joint meeting of HGAC's Environmental Awareness Roundtable and Clean Water Initiative seminar on stormwater education.
(www.h-gac.com/cwi)*

Attendees

Richard Chapin (City of Houston), Marilyn Christian (Harris County), Ronald Drachenberg (Fort Bend County), Steve Hupp (Bayou Preservation Association), Tom Ivy (Texas Stream Team), Rachel Powers (H-GAC), Adam Wright (Fort Bend County), Jasmin Zambrano (City of Houston)

Call to Order/Welcome/Introductions

Rachel called the meeting to order and initiated self-introductions.

Review Notes from Last Year

Rachel provided the notes from last year in case they were needed for reference.

Update on I-Plan Approval Process

The TCEQ unanimously approved the BIG I-Plan on January 30, 2013. The approved version included the changes to the I-Plan that had been discussed at previous BIG meetings. None of the changes were in the references sections.

Review Annual Report format

Rachel explained that the conceptual format for the annual report was developed in collaboration by the BIG and agreed to at the BIG mid-year meeting in October 2012. The report will consist of three main components:

- 1) At-a-Glance: The At-a-Glance section will be one 11x17 paper that includes cover page with a photo; a table of implementation activities, proposed milestones, and an evaluation of progress; and a sheet with background information, a map, and high-level review of progress overall.
- 2) A printed report: In addition to a narrative overview, the printed report will include information about progress and goals for each of the strategies in the plan. Each strategy will be described by a narrative description preceded by a tabular summary sheet, which will include recommendations from the workgroup to the BIG regarding progress, achievements, focus for the coming year, and revisions to the I-Plan.
- 3) Web-based support documents: If additional information, such as lengthy tables, are necessary, these will be provided in an on-line format.

Review Implementation Progress-- The workgroup reviewed progress for each of the implementation activities, as follows.

- 8.1.1: Continue or begin a homeowner education program based on existing models
 - Back the Bay: This initiative of the Galveston Bay Foundation is now underway (www.backthebay.org).
 - Clean Waters Initiative MS4 Series: At least one workshop each year focuses on public engagement, education, participations, and awareness. This year, it preceded the work group meeting. (<http://www.h-gac.com/community/water/cwi/default.aspx>)
 - Environmental Awareness Roundtable: Held quarterly, this roundtable provides tools for public awareness. This year, it preceded the work group meeting, in combination with the CWI. (<http://www.h-gac.com/community/publicawareness/ear.aspx>)
 - Watershed Signs: H-GAC did not place new signs this year, but continues to answer calls made from older signs.
 - Don't Mess with Texas Water: TCEQ has entered into its first agreement with a local government for participation. In this program, approved signs can be placed on state highways at waterway crossings. The signs are rather non-descript. The signs have a phone number that is answered by the TCEQ's SBLGA program. (<http://www.tceq.texas.gov/p2/dont-mess-with-texas-water-a-way-to-report-illegal-dumping>.) On the website is a list of "Other Illegal Dumping Reporting Programs." It includes various cities, counties, and COGs from around the state, but the only programs from our region included in the list are Fort Bend and Walker Counties, despite a large number of other illegal dumping reporting programs in the region. In the past, TxDOT has not been amenable to placing watershed signs in its right-of-way.
 - Kiosks: H-GAC kiosks have been programmed and are almost ready for deployment.
 - Pet Waste:
 - The final bag dispensers from the order of 10,000 dispensers will be distributed at Trash Bash this year. H-GAC hopes to order more, as they were a big hit.
 - Rachel also shared information she obtained from the City of Houston regarding the number of citations and convictions in the City over the past five years. In general, these numbers are increasing. Of the 211 citations issued from 2007 through November 2012, 109 were issued in 2012. Of the 36 convictions during the same period, 12 were in 2012. Richard was very interested in the report.
 - Rachel indicated that she had been adding information to the H-GAC's website www.petwastepollutes.org, including information about ordinances.
 - MS4 Efforts: Rachel has been reviewing annual reports to try to identify common material (such as brochures, posters, or door hangers) or themes (FOG, pet waste, etc.). She hopes to post shared outreach material online.
 - Trash Bash: Last year, 3699 people helped bash trash in the BIG project area (out of a total of 6274 participants). A 319 Grant Application has been preliminarily approved for supporting water quality education at Trash Bash events. Each year for three years, a water-quality education display/activity will be developed and provided to each site for use during the event. These displays/activities will be available for other

events outside of Trash Bash. Possible themes include pet waste, FOG, and reporting.

- Harris County Regional Watershed Program—Rachel did not have information about this.
- Stream Team—H-GAC and program partners trained 84 new volunteer citizen monitors in the BIG project area in 2012.
- Informal Education Providers
 - Spring Creek Nature Center: Terry MacArthur does a great job working with local MS4 programs to provide water-quality-based educational opportunities to youth.
 - Waterworks Education Center & Water Week: The City of Houston reports attendance at these facilities in their MS4 Annual Report.
- The Bayou Preservation Association has been giving many presentations.
- 8.1.2: Conduct pilot studies to evaluate results of education efforts
 - Westfield Estates: As part of the Westfield Estates Watershed Protection Plan, H-GAC conducted a series of community outreach impact assessments to measure pre- and post-implementation. Questions related to attitudes and knowledge regarding bacteria, with particular focus on OSSF management and pet waste. The results of the assessment indicated that outreach efforts were fairly effective, the implementation activities were well received and that attitudes regarding contributing behaviors were positive. Justin Bower with H-GAC can provide more information.
 - Back the Bay: In 2011, the Galveston Bay Estuary program conducted pilot studies to help refine the Back the Bay campaign, which was subsequently launched.

Identify Activities on Which to Focus Efforts

The group decisively agreed that the focus for the coming year should be on reporting: helping people know to whom to report water quality problems (phone number, email, etc.), and what things should be reported.

Participants in the EAR/CWI were asked to prioritize awareness activities, and came up with the following:

- Education related to Sanitary Sewer Systems:
 - ***Don't put Fats, Oils, and Grease (FOG) down the drain***
 - Lateral line maintenance & education (these are privately owned connections to municipal sewer lines)
 - Infiltration and overflows
- Yard care
 - Keeping clippings and other yard waste out of the storm drain
 - Use watersmart landscaping & irrigation, including rainwater harvesting and water reuse
 - Overuse of herbicide and fertilizer
- Reporting—who to call and for what
- Back the Bay—tie into campaign

- Pet waste
- Construction site runoff
- Liquid waste haulers – shady operations; knowing about “trip tickets” for OSSF owners and grease generators

Confirm Recommendations to the BIG for Annual Report

The work group reviewed the draft Implementation Strategy Cover Sheets for the residential strategy.

There were 7 attendees including 2 BIG members and 2 alternates.

For the At-a-glance table, the group did not recommend changes.

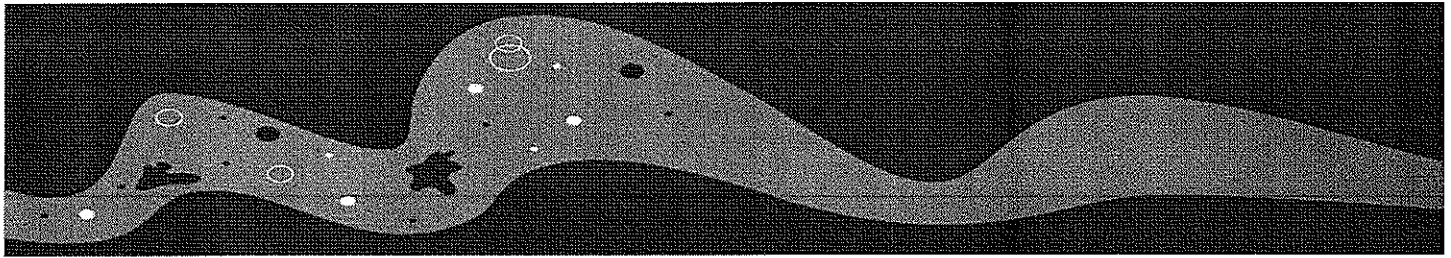
The wording for Progress was appropriate.

For achievements, the group recommended that education about what to report and to whom should be the primary focus. Additional focus should be on identifying regional opportunities for pet waste, FOG, and working with MS4s.

The workgroup did not recommend revisions to the plan.

Adjourn

BIG Annual Meeting: Tuesday, May 14, 2013







Implementation Strategy 8.0:

Residential

#	Activity	Target/ Objective/ Milestone	Status
8.1	Expand Homeowner Education Efforts Throughout the BIG Project Area	-2% increase in number of communities participating - Every five years, one pilot study in BIG project area	In progress, on schedule

Work Group Recommendations

Meeting February 13, 2013. 7 attendees, including 2 BIG members and 2 alternates.

Progress 	Progress has been adequate. Activity has begun and is ongoing for the implementation activity.
Achievements 	In the past year, focus has been on identifying regional opportunities to address pet waste and FOG (Fats, Oils, and Grease) education. Focus has also included evaluation of MS4 Phase II annual reports for bacteria-specific outreach efforts.
Focus 	A new focus for this year will be to develop education related to what to report and to whom. Focus in the coming year will continue to be on identifying regional opportunities for pet waste and FOG, and engaging MS4 operators in focusing on bacteria.
Revisions 	The work group does not recommend changes to the I-Plan.



RESIDENTIAL

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Main Summary

Communities can improve water quality by changing overall citizen attitudes and individual behavior – one homeowner at a time. Enforcement, or the threat of enforcement, may be effective against large stakeholders regulated by permits. Yet it has less impact on individuals. For this strategy, the focus is on how to empower residents and neighborhoods through volunteer activities and educational outreach.

BIG stakeholders recommend expanding homeowner education efforts in the project area. With guidance, residents can improve water quality through simple changes in their daily routines, such as using appropriate lawn care practices, not putting cooking grease down sink drains, and picking up and properly disposing of pet waste. The identification of existing educational resources, particularly those related to bacteria, remained a focus this year. In particular, stakeholders identified pet waste education and FOG (fats, oils, and grease) programs as prime opportunities for development and coordination.

Work Group Activities

Meeting February 13, 2013. Seven attendees, including two BIG members and two alternates.

Progress

Progress has been adequate. Activity has begun and is ongoing for the implementation activity.

Achievements

- H-GAC and BIG stakeholders:
 - Identified regional educational and regulatory opportunities to address pet waste and FOG.
 - Evaluated municipal separate storm sewer system (MS4) Phase II annual reports for bacteria-specific outreach efforts.

Focus

- H-GAC and BIG stakeholders aim to:
 - Develop education objectives that address what to report and to whom.
 - Continue identifying regional opportunities for education on and/or focused regulation of pet waste and FOG.
 - Encourage MS4 operators to focus on bacteria.

Revisions

The work group does not recommend changes to the I-Plan.

Implementation Strategies

8.1 Expand Homeowner Education Efforts throughout the BIG Project Area

8.1.1 Continue or Begin a Homeowner Education Program Based on Existing Models

- Local governments and appropriate agencies should begin or continue homeowner education programs.
- Each year, participation should increase by two percent.

☐ Not Started

☐ Initiated

☒ In Progress

☐ Completed

☐ Behind Schedule

☒ On Schedule

☐ Ahead of Schedule

Annual Progress and Applicable Programming:

- **"Don't Mess with Texas Water" Sign Program.** In 2012, the Texas Commission on Environmental Quality (TCEQ) enlisted Harlingen as the first local government to implement its new program, "Don't Mess with Texas Water." The program helps to safeguard lakes, rivers, ponds, and streams by placing watershed signs along state highway rights-of-way. Interested municipalities should contact the TCEQ for program details.
- **Educational Kiosks.** H-GAC has developed content for educational kiosks that address how to improve water quality. The kiosks will be available for loan to city and county permit offices, schools, nature centers, libraries, and other public places throughout the project area.
- **Annual "Trash Bash" Event.** Last year, 2,557 people helped collect 41,185 pounds of garbage in the BIG project area. A Clean Water Act Section 319 Grant application has been preliminarily approved to support water quality education at Trash Bash events for the next three years. These proposed displays and/or activities will be available at other times throughout the year. Possible themes include pet waste, FOG programs, and data reporting.
- **"Pet Waste Disposal."** H-GAC's ongoing "Pet Waste Pollutes" campaign aims to reduce pet waste that ultimately drains into waterways and causes bacterial pollution. Similar to last year's Trash Bash event, pet waste dispensers will be distributed at the 2013 gathering. This type of programming is supplemented by educational outreach efforts such as new online resources pertaining to other programs and model ordinances (www.petwastepollutes.org). The campaign is also useful for reporting data. For instance, the City of Houston demonstrated a progressive increase in the number of pet waste-related citations and convictions over the past six years.
- **Stream Team Monitoring.** Established in 1991, the Texas Stream Team continued to collect water quality data on lakes, rivers, and streams. In 2012, 84 new volunteers were trained through H-GAC and the Texas Stream Team's cooperative partnership between Texas State University, the TCEQ, and the U.S. Environmental Protection Agency.

■ **Formal and Informal Education Providers.** Local organizations and communities continued to offer many ongoing homeowner education programs that help reduce bacteria loading in the BIG project area. In addition to the listed programs, events, and website repositories, a number of other formal and informal resources are available to increase awareness and understanding. These examples include, but are not limited to:

- **Clean Waters Initiative MS4 Series.** H-GAC's Clean Waters Initiative hosts at least one workshop each year focused on public engagement, education, participation, and awareness.
- **Environmental Awareness Roundtable.** H-GAC hosts quarterly Environmental Awareness Roundtable discussions which are designed to facilitate idea-sharing on how to create effective environmental awareness campaigns.

8.1.2 Conduct Pilot Studies to Evaluate Results of Education Efforts

- Every five years, H-GAC and BIG stakeholders will conduct at least one pilot study to evaluate the results of education efforts.

- ☐ Not Started
- ☐ Initiated
- ☒ In Progress
- ☐ Completed

- ☐ Behind Schedule
- ☒ On Schedule
- ☐ Ahead of Schedule

Annual Progress and Applicable Programming:

■ **Pilot Program.** In 2012, H-GAC conducted a series of community outreach impact assessments to measure pre- and post-implementation metrics. This effort was part of the Westfield Estates Watershed Protection Plan. The results of the assessment indicated that outreach efforts were fairly effective, and that implementation activities were positively received. In the previous year, the Galveston Bay Estuary Program conducted a pilot study to assess the effectiveness of the "Back the Bay" campaign. This program continues to educate residents on how to protect Galveston Bay.



Implementation Strategy 8.0: Residential

Individual residents in the BIG area make only small contributions to waterway pollution. However, the cumulative effect can be significantly detrimental. Similarly, the combined effort of millions of residents participating in activities that reduce bacteria pollution can have a significant positive effect. As the population in the region grows (see Figure 7), the collective actions of individuals will have a greater impact.

Residential contributions to bacteria loading in waterways include bacteria discharging from a residential site either during runoff events or directly, and fats, oils, and grease clogging sanitary sewer lines and resulting in overflows. Decorative ponds, OSSFs, and pet waste can contribute bacteria during runoff events or through direct discharge. Fertilizers, grass clippings, runoff from overwatering, and general lawn care practices may enhance the ability of bacteria to grow and regrow in the environment. Pouring fats, oils, and grease down sink drains can clog sanitary sewer lines, potentially leading to SSOs and direct discharges of bacteria to the bayous.

This implementation strategy is aimed at changing public behaviors through education efforts that empower residents to participate in actions that improve water quality. While enforcement, or the threat of enforcement, may be effective against stakeholders regulated by permits, this strategy instead focuses on positive activities that promote public education.

Public education efforts should inform the public about:

- Why waterways are important to the region,
- Why bacteria is an issue, and
- What they can do to reduce bacteria in area waterways.

Many of the activities are easy and inexpensive. Residents can properly dispose of cooking grease, use appropriate lawn care practices, and pick up and properly dispose of pet waste. The simple task of picking up after pets can improve water quality. If individuals can change their behavior, they can help improve water quality.

Houston is currently developing a stormwater education program where a state-approved, Houston-specific, stormwater education curriculum is being created. Other regional, local governments may access, use, and promote the curriculum and other educational material at no charge.

The Harris County Regional Watershed Education Program¹⁰¹ allows MS4-permitted communities to buy into their education program at a current rate of 53 cents per resident. Materials available through this program include brochures, presentations, advertisements, and direct mail pieces.

Another resource for communities developing education programs is the Public Participation and Education Subcommittee¹⁰² of the Galveston Bay Estuary Program. This group provides opportunities for idea sharing, learning about resources, and coordinating education and outreach efforts throughout the region.

In addition to local programs, resources are available from outside the region. The EPA's Nonpoint Source Outreach Toolbox¹⁰³ is an excellent resource that provides public education materials, for radio, television, or print, as well as case studies on a wide range of topics, including OSSFs, pet waste, gardens and lawns, as well as general stormwater and storm drain awareness. Some materials may require small changes for application in local communities, but many will not.

A community may create its own education program and materials if it prefers. Funding may be available for these projects from the Galveston Bay Estuary Program and Texas' Nonpoint Source Grant Program, among other sources.

8.1.1: Continue or begin a homeowner education program based on existing models

For areas currently under an MS4 permit, public education efforts shall continue to place a high priority on bacteria reduction activities. Communities that don't currently engage in homeowner education efforts will be strongly encouraged to implement a program with guidance from existing programs and materials. A consistent message throughout the area covered by this I-Plan is desirable and might be more effective. H-GAC or another appropriate agency shall convene an annual meeting to identify common messages appropriate for the region and specific to bacteria. This forum will also provide an opportunity to identify funding sources and highlight existing programs. When appropriate, this forum will be held in conjunction with a widely-attended, water-quality event. Messages may include bacteria reduction activities (such as a pet waste campaign), activities that promote responsibility and concern for the cleanliness of our waterways (such as water clean-up events like River, Lakes, Bays 'N Bayous

¹⁰¹ (Harris County n.d.)

¹⁰² (Galveston Bay Estuary Program n.d.)

¹⁰³ (U.S. Environmental Protection Agency n.d.)