



**FALL MEETING
Agenda**

**Tuesday, October 29, 2019
1:00 pm to 3:00 pm
H-GAC Conference Room B, Second Floor
3555 Timmons Lane**

(Instructions to attend the meeting via conference call can be found at the bottom of the Agenda)

Call to Order/Welcome/Introductions

Welcome by H-GAC

Introductions of BIG members & staff

Review Agenda. Each agenda item shall provide time for discussion by the BIG followed by comments from the audience.

Certification of Quorum

Approval of the Proposed Members & Alternates

BIG members will review the Bacteria Implementation Group Roster and approve as appropriate.

Approval of the June 4, 2019 Meeting Summary

BIG members will review, comment and approve as appropriate.

Public Comment

The public may sign up at the beginning of the meeting to make an informal comment of no more than three minutes.

Item One: 2019 Annual Report

H-GAC staff will provide the draft 2019 Annual Report for the BIG to review and discuss. The report covers implementation activities carried out in the 2019 calendar year.

Item Two: I-Plan Revision Update

H-GAC staff will provide an update on revising the BIG Implementation Plan.

Item Three: TMDL Program Updates

TCEQ TMDL Program will provide updates as needed.

Item Four: Monitoring for Success

BIG will consider monitoring and research needs for meeting I-Plan action goals. H-GAC will review the CRP and current monitoring projects to assist the discussion.

Item Five: Other Business/Roundtable

As time permits, H-GAC, BIG members, and stakeholders are encouraged to discuss implementation activities, related projects, and announcements.

Next Meeting Date

Tuesday, June 2, 2020

Adjourn**BIG Meeting Call-in instructions:**

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In compliance with the Americans with Disabilities Act, H-GAC provides for reasonable accommodation for persons attending H-GAC functions. Requests should be received by H-GAC 24 hours prior to the function.

BIG ROSTER 10/29/2019

Last	First	Representing	Organization	Alternate1	Alternate 2
Bailes IV	Rep. Ernest	Agriculture (County)	San Jacinto County	Dale Everitt	
Bernhardt	Sarah	Conservation	Bayou Preservation Association	James "Ty" Kelly	
Brown	David	Resource Agency / Academia	US Geological Survey	Michael Lee	
Calvino	Ralph	Business / Industry	Terracon	Clint Miller	Jason Maldonado
Caraviotis	Jerry	Urban County	Harris County Public Health & Environmental Services		
Chapin	Richard	Large City	City of Houston	Zafar Ahmed	
Cioce	Danielle	Urban County	Harris County	Camila Biaggi	Nick Russo
Cooper	Christine	Small City	City of Conroe	Greg Hall	
Douglas**	Tom	Conservation	Houston Sierra Club	Jim Williams	
Ehrlich	Denise	Business / Industry	Gulf Coast Authority	Shaun Austin	
Elliott	Catherine	Urban County	Harris County Flood Control District	Robert Snoza	Roberto Vega
Harris	Teague	Utility District	IDS Engineering		
Isbell	Andrew	Rural County	Walker County		
La Breche	Carol	Large City	City of Houston	Lisa Montemayor **	
Lane	Helen	Conservation	Houston Audubon Society		
Lindsey	Mike	Rural County	Cypress Creek Flood Control Coalition	Frank Green	Scott Nichols Reuben Martinez
Martin **	Mac	Agriculture	Texas Forest Service		
McCoy	Cathy	Agriculture	Harris County SWCDistrict #442		
Murphy	Jack	Small City	City of League City	Susie Blake	Jody Hooks
Olive	Becky	Business / Industry	AECOM	Karen Kottke	
Page	Mitchell	Utility District	Schwartz, Page, & Harding, LLP		
Pechacek	Linda	Public	Citizen, Civil Engineer	Rachel Powers	
Powers	Rachel	Conservation	Citizen's Environmental Coalition	Anne Olson	Linda Shead
Rightmyer**	Patrick	Large City	City of Houston	Desta Takie**	
Robertson	Jim	Conservation	Cypress Creek Flood Control Coalition	Richard Smith	
Saenger**	Scott	Business / Industry	Jones and Carter		
Schindewolf	Aaron	Business / Industry	San Jacinto River Authority		
Shead	Linda	Conservation	Texas Coastal Partners	Mary Ellen Whitworth	
Shmaefsky	Brian	Resource Agency / Academia	Lone Star College, Kingwood	Jon Connolly	
Tarrant	Mayor Leah	Rural Small City	City of Patton Village		
Thornhill	Michael	Utility District	SI Environmental	Matt Carpenter	
Tuma	Scott	Business / Industry (Boating)	Boater	Sarah Gossett	
Vacant		Conservation	Galveston Bay Foundation	Scott Jones	

** Following approval of the BIG



**SPRING MEETING
Summary**

**Tuesday, June 4, 2019
1:00 pm to 3:00 pm**

**H-GAC Conference Room B, Second Floor
3555 Timmons Lane**

Members Present

Sarah Bernhardt, Richard Chapin, Ralph Calvino*, Jerry Caraviotis, Danielle Cioce, Denise Ehrlich, Catherine Elliot, Cynthia Cooper, Carol La Breche, Andrew Isbell, Sarah Gossett, Jack Murphy, Linda Pechacek, Rachel Powers*, Jim Robertson, Linda Shead, Monica Singhania (Phone)

Mike Lindsey was represented by Reuben Martinez
Becky Olive was represented by Karen Kottke
Anne Olson was represented by Linda Shead
Rod Pinheiro was represented by Patrick Rightmyer*

*Did not count toward quorum

Members Absent

Ernest Bailes IV, David Brown, Teague Harris, Tom Ivy, Helen Lane, Craig Maske, Cathy McCoy, Mitchell Page, Aaron Schindewolf, Brian Schmaefsky, Leah Tarrant, Michael Thornhill, Scott Tuma

Guests Present

Rosa Acheson, Allen Berthold, Camila Biaggi, Darla Branch, Tom Douglas, Bryan Eastham, Terry Gentry, Brian Koch, Earlene Lambeth, Jimmy Millican, Wonju Rielly, Elain Savage, Kristen Schlemmer, Robert Snoza, Jennifer Thayer

H-GAC Staff

Justin Bower, Kendall Guidroz, Bill Hoffman, Kathy Janhsen, Steven Johnston, Todd Running

Call to Order/Welcome/Introductions

Mr. Steven Johnston, H-GAC welcomed those in attendance. Members of the BIG were asked to introduce themselves. The agenda was reviewed and the BIG was provided with an opportunity to discuss.

Certification of Quorum

A quorum was certified during the meeting.

Approval of the Proposed Members & Alternates

The BIG approved the following changes to the roster:

- Ralph Calvino will replace Michael Bloom to represent Business/Industry
- Rachel Powers will replace Anne Olson to represent Conservation Interests
- Anne Olson will become the alternate for Rachel Powers
- Dr. Clint Miller will become Ralph Calvino's alternate
- Patrick Rightmyer will become the alternate for Rod Pinheiro

Approval of the October 23, 2018 Meeting Summary

BIG members approved the October 23, 2018 meeting summary.

Public Comment

No public comments were made.

Item One: I-Plan Revision Update

Mr. Johnston reviewed progress on the I-Plan Update. Mr. Johnston noted that the update will include revised or adjusted maps and data through out, including data not available at the time the document was drafted, i.e. WWTFs DMR data or the larger project area. In addition, the update will include new photos; consider revised milestones and goals; and take a look at changes to actions (slow or non-moving, or completed).

Mr. Johnston reviewed the steps taken so far, including holding workgroup meetings to discuss the topic: Coordination and Policy (05/06/19), OSSF and Illicit Discharge (05/06/19) and Animals and Agriculture (05/23/19).

BIG members discussed how to address implementation measures where the lead is TCEQ. Mr. Johnston noted that TCEQ was still working on the set of implementation questions submitted to TCEQ. General agreement was to look at each activity and determine if the action should be adjusted, removed or documented while leaving it in the plan.

Mr. Johnston concluded by reviewing the timeline. The goal is to have a good draft by the end of August for the Coordination and Policy to begin to review for meeting in September. Then to present the working draft to the BIG in October. A target completion date for the final document would be the end of 2019.

Item Two: 2019 Annual Report Update

Mr. Johnston provided the 2019 Annual Report update to the BIG. Mr. Johnston reviewed the progress in getting 2018 implementation data through work group meetings. He stated that rather than having the WWTF/SSS workgroup and Stormwater workgroups meet, the groups are part of the Coordination and Policy discussions. The thinking is that the group would assist with identifying speakers for a two issue specific workshops in the fall.

Mr. Johnston reviewed the bacteria trends for the BIG project area. This included trend lines for the BIG, BIG in 2013, East and West Fork of the San Jacinto River, Armand Bayou and Jarbo Bayou. Jarbo Bayou differed from the other waterbodies by including a significant spike between 2014 and 2016. It was observed that only 2 stations are monitored quarterly so the geometric mean is based on few data points. The BIG discussed the Jarbo Bayou geometric trend line. Mr. Johnston noted that the trend and data behind it needs some additional investigation.

The next topic was a review of individual AUs and their water quality trends. Mr. Johnston asked how the group wanted to measure success as two AUs were removed from the impaired list and many more were trending positive. One concern is determining if this improvement is going to be sustained or there is the possibility the AU might reverse course in the next year or so. Consensus was to highlight the improvement and report success while noting that there is still work remaining.

Mr. Johnston reviewed WWTF DMR data and compliance. The BIG discussed small WWTFs vs. larger ones and the challenge each presents. Sanitary sewer overflows were discussed. It was stated that there was a gap in reporting permittee data in 2018. Staff are working with TCEQ to get missing data.

Finally, Mr. Johnston reviewed the success stories that had been identified to this point. He asked the BIG for their input on additional topics. One thought was to highlight Harris County for its efforts to get onsite wastewater research funding back after 7 or 8 years.

Item Three: TMDL Program Updates

Mr. Jimmy Millican, Texas Institute for Applied Environmental Research (TIAER), presented on “Status of Additions to Indicator Bacteria TMDLs in the Lake Houston Watershed.” Mr. Millican reviewed previously completed TMDLs within the Lake Houston watershed. There have been nine impaired segments covering 15 AUs addressed by a previous TMDL that was approved by the EPA in June 2011. Six additional impaired AUs were added to the project area by addendum and approved by the EPA in February 2014.

TIAER is working on two additional impaired AUs, Brushy Creek (1008J) and Spring Branch (1010C_01). Mr. Millican reviewed data from the 2016 draft Integrated Report that demonstrated the elevated fecal bacteria geometric means. He then proceeded to characterize the waterbodies’

permitted WWTFs, stormwater permits, land cover, OSSFs, and the location of monitoring and flow gauge stations.

Mr. Millican concluded his presentation reviewing the next steps for the technical support document, public review and eventual inclusion within the TCEQ's Water Quality Management Plan update.

Item Four: Presentation

Dr. Terry J. Gentry, Texas Water Resources Institute, gave his presentation on "Use of Bacteria Source Tracking to Characterize Texas Watersheds." Dr. Gentry began with a review of fecal bacteria sources and the history of bacteria source tracking (BST). During this part of his presentation, Dr. Gentry covered the different types of indicator bacteria and possible viruses that could be used to track fecal matter back to the host sources.

Dr. Gentry reviewed the development of a BST library. The BST library is important to successfully fingerprinting a source DNA through the comparison of the records held within the library. The type of investigation can have ramification on how accurate and to what level of source identification can be differentiated.

Dr. Gentry review the Plum Creek BST project with the BIG. The effort looking at *E. coli* using a 3-way split (i.e. Human, Livestock and Wildlife) found the watershed to hold fecal wastes at 4%, 32% and 53%, respectively. There was another 11% of samples that were unidentified.

Dr. Gentry stated that there were 23 BST studies using *E. coli* completed to date. Dr. Gentry then reviewed the use of Bacteroidales that can be found in human and animal feces. The bacteria are more host specific, though not 100%. One study was done following hurricane Harvey near Clear Lake near Houston for approximately 2 months.

A review of this data found a spike in fecal marker soon after the event, decreasing within a week. A low concentration of fecal bacteria indicator for human was found in the first sampling, suggesting a strong stormwater related contribution of non-human fecal matter. A delay spike of human fecal bacteria was found after one week. The human fraction increased over time suggesting a prevalence under normal conditions.

Item Five: H-GAC Staff Presentations

- a. Mr. Justin Bower presented on watershed protection planning (WPP) efforts within the BIG Project Area. Mr. Bower specifically reviewed the development of WPP in the Lake Houston watershed. This effort includes working with stakeholders within the West Fork of the San Jacinto River, Spring Creek and Cypress Creek watershed. Mr. Bower noted that the San Jacinto River Authority completed a Lake Conroe WPP a few years ago. The West Fork and Lake Creek WPP was completed and approved in late 2018. H-GAC is currently working on the Cypress Creek WPP with stakeholders. A proposal was submitted to the TCEQ 319 program for the Spring watershed.
- b. Ms. Kathy Janhsen presented on the results of the first annual Water Innovation Strategies of Excellence Awards. The mission of the awards is to recognize innovative strategies and projects that serve as models for improving water quality. There are four categories: Planning and Policy, Education and Awareness, Built

Projects greater than \$500k and Build Projects less than \$500k. The winners of the first annual award were: the Galveston Bay Foundation's Galveston Bay Action Network under Education and Public Awareness; the City of Houston Parks and Recreation Department's Houston Parks Riparian Restoration Plan under Planning and Policy; Harris County Precinct 4's Precinct 4 Service Center under the Built greater than \$500k; and Harris County Flood Control District's Bioswale Demonstration Project under the Built less than \$500k.

Item Six: Other Business/Roundtable

As time permits, H-GAC, BIG members, and stakeholders are encouraged to discuss implementation activities, related projects, and announcements.

Next Meeting Date

October 29, 2019

Adjourn

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