

BACTERIA IMPLEMENTATION GROUP

Roster

Name	Representing	Affiliation	Alternate 1	Alternate 2
Michael Bloom	Ag/Business	PBS&J, Greater Houston Partnership	Jason Maldonado	
John Blount	County	Harris County Planning & Operations Division	Alisa Max	
Pat Buzbee	County	Montgomery County Environmental Health	Phil Moore	
Marilyn Christian	County	Harris County Public Health & Environmental Svcs.	Snehal Patel	
Robert W. Collins	County	Montgomery County		
Carol Ellinger	Municipal	City of Houston	Sarah Metzger	Richard Chapin
Catherine Elliott	County	Harris County Flood Control District	Joe Myers	Carolyn White
Joe Ferro	Municipal	City of Webster	Johnny Arrendondo	Pam Guillory*
Mike Garver	Buffalo/Whiteoak TMDL	Buffalo Bayou Partnership	Scott Barnes	
Teague Harris	Municipal	Pate Engineers, Inc.		
Jason Iken	Metro TMDL	City of Houston	Alex Van Keuren	Richard Chapin
Tom Ivy	Public	Texas Stream Team	Jim Williams	
Ron Kelling	Ag/Business	San Jacinto River Authority	Michael Mooney	
James Tynan Kelly	Conservation	Bayou Preservation Association	Bruce Heiberg	
Helen Lane	Conservation	Houston Audubon	Gina Donovan	
Craig Maske	Metro TMDL	Dodson & Associates, Inc./HCEC	Scott Saenger	
Jim Meley	Ag/Business	Harris County Soil & Water Conservation Dist. #442	Cathy McCoy	
Michael Mooney	Lake Houston TMDL	The Woodlands Joint Powers Agency	Ron Kelling	
Jack Murphy	Municipal	City of League City	Susie Cavazos	Brian Craig
Becky Olive	Ag/Business	AECOM	Nancy Sullins	Tony Bennett
Mitchell G. Page	Lake Houston TMDL	Schwartz, Page & Harding, LLP	Michael Page	
Raymond Pavlovich	Wildcard	Nottingham Country Municipal Utility District	Michael Thornhill	Mark Stendahl
Linda Pechacek	Public	Citizen, Civil Engineer	Fred Lazare	Steve Archer
Ceil Price	Buffalo/Whiteoak TMDL	City of Houston	Michael Schaffer	Guyneth Williams
Kathy Richolson	Clear Creek TMDL	Gulf Coast Waste Disposal Authority	Phyllis Frank	
Jim Robertson	Conservation	Cypress Creek Flood Control Coalition	Richard "Dick" Smith	
Linda Shead	Conservation	The Trust for Public Land	Mary Ellen Whitworth	Carolyn White
Brian Shmaefsky	Public	Lone Star College, Kingwood	Dr. John Connolly	
Melvin Solomon	Municipal	City of Conroe	Ron Green	
Robert Stokes	Clear Creek TMDL	Galveston Bay Foundation	Vanessa Mintzer	Scott Jones

*not yet approved

**Bacteria Implementation Group
Meeting Summary**

Tuesday, February 17, 2009

Members Present:

Michael Bloom	Teague Harris	Linda Pechacek
John Blount	Jason Iken	Ceil Price
Pat Buzbee	Tom Ivy	Kathy Richolson
Robert W. Collins	Ron Kelling	Jim Robertson
Carol Ellinger	Helen Lane	Brian Shmaefsky
Catherine Elliott	Jack Murphy	Robert Stokes
Joe Ferro	Raymond Pavlovich	

Marilyn Christian was represented by Snehal Patel
James Tynan Kelly was represented by Bruce Heiberg
Craig Maske was represented by Scott Saenger
Michael Mooney was represented by Ron Kelling
Becky Olive was represented by Nancy Sullins
Linda Shead was represented by Carolyn White

Members Absent:

Mike Garver	Mitchell Page
Jim Meley	Melvin Solomon

Guests Present:

Stephen Archer (Archer Environmental), Thomas Barnett (TCEQ), Tony Bennett (AECOM), Linda Broach (TCEQ), Richard Chapin (City of Houston), Cindy Contreras on phone (TPWD), Ingrid Fairchild (HCFCD), Nicole Hausler (PHA), Mike Heimer on phone (Texas Cooperative Extension), Terry Hershey on phone (Public), Brian Koch (TSSWCB), Kim Laird (TCEQ), Ward Ling (TCEQ), Mark Lowry (AECOM), Charles Maguire (TCEQ), Alisa Max (Harris County), Sarah Metzger (City of Pasadena), Maria Modelska (University of Houston), Philip Moore (Montgomery County), Chip Morris (TCEQ), Tina Petersen (CDM, Inc.), Mary Purzer (AECOM), Nic Ramirez (AEI Engineering), Joseph Reza (TCEQ), Nick Russo (Harris County), Richard D. Smith (CCFCC), Robert E. Snoza (HCFCD), Brenda Templeton (City of Houston), Mike Thornhill (SWWC)

H-GAC Staff Present:

Jeff Taebel, Carl Masterson, Rachel Powers, Erin Anderson

1. Welcome & Introductions

Rachel Powers welcomed and thanked everyone for coming. She initiated self-introductions of BIG members, H-GAC staff, and TCEQ staff.

Rachel then reviewed the agenda.

2. Certification of Quorum

Twenty-six members were present, forming a quorum.

3. Approval of January 20, 2009, Meeting Summary

Meeting notes were approved with one change, Ron Kelling was present at the January meeting.

4. Approval of Proposed Alternates

The following nominations were approved as alternates:

- Steve Archer for Linda Pechacek.
- Ron Kelling for Michael Mooney.

5. Requirements of an Implementation Plan

Rachel began by stating that TCEQ does not provide a list of requirements for an Implementation Plan (I-Plan), but simply states that the nine elements of a Watershed Protection Plan are critical parts. The EPA also recommends including the nine elements of a WPP, but does not require that they be included. However, the EPA does list five minimum elements of an approvable I-Plan:

- Description of IAs
- Timeline
- List of legal and regulatory controls
- Time required to obtain water quality standards
- Monitoring plan and milestones

TCEQ also supplied H-GAC staff with an I-Plan template, which was in turn provided to all present.

Q: Can you give some examples of what the legal and regulatory controls would be?

A: Legal or regulatory controls could include such things as ordinances, permits, or court orders. (Rachel Powers)

Q: It was mentioned that TCEQ had a list of minimum requirements of an I-Plan. We still have not received that list.

A: What is important as a TMDL I-Plan develops is that we be able to provide reasonable assurances that the plan will happen. There are two ways this is done: for voluntary measures there should be a demonstration that there is cost share or grant funding available that would incentivize implementation, while for regulatory measures the regulatory authority or the ability to enforce must be identified. As the BIG struggles

with developing a plan, TCEQ would like to be in the feedback loop. They could provide feedback where reasonable assurance has not been fully shown. (Charles Maguire)

Much confusion resulted during the meeting regarding the I-Plan. The following day Chip Morris of TCEQ sent the following summary of Ron Stein's comments regarding the topic.

What we want to get across to the members of the BIG is that this is your project. It is not TCEQ's project. We are not telling you what to do. We want to advise, to help where we can.

As to the permits, which pertain to some individual member agencies, you have the freedom and responsibility to let us know if they are just right, too rigid, or too lax -- and we will work with you on that issue however we are able. The BIG has the responsibility of looking at the permit requirements that are currently in place, the nature and magnitude of the problem, and determining if additional permit requirements should be considered. TCEQ will work to implement those changes.

As to other components of the Plan you are working on, it is a vehicle for you to say what you want, what you need, and what you will do to address the bacteria impairment in Houston waters.

The I-Plan:

- will be one regional plan
- will identify who is going to do what, where, and how
- will have reasonable assurances
- will be able to tell each entity what they are expected to do as a result of this plan
- will not include implementation activities for a particular entity that they are not willing to do
- is not restricted to have all implementation activities applied universally
- should be designed as an adaptive strategy so that when new information is found in the future the plan can make use of those findings

The fundamental assumption that the terms of the I-Plan are adopted into the State Water Quality Management Plan, which is a baseline for how we need to function as a group because it will affect permit limits. (Carol Ellinger)

BIG members and guests voiced several concerns during the meeting:

- the list of bacteria sources and implementation activities needs to be shortened
- it is too soon to conduct outreach, information shouldn't be taken out to the public until the process is more developed

- The initial phase of outreach is to let additional stakeholders know about the work of the BIG, the sources that have been identified, implementation activities that are being discussed. This phase is also meant to generate feedback. The particular focus will be on entities that will have to undertake implementation activities. The document will need to be worded in a way that clearly indicates it is just a draft and that we want opinions and feedback. (Carl Masterson and Helen Lane)
- even sophisticated guesses for estimated load reductions should not be publicized, because once information is out in the public it can never be fully retracted
- maybe the plan should not focus on 319 funding for the I-Plan
- sources should be ranked by factual data and not perceived characteristics
 - The Coordination & Policy workgroup is working on prioritization criteria, some criteria will be fact based, and some will be based on best professional judgment. (Rachel Powers)

Q: Who is going to do the calculations for the load reductions?

A: Some are published values while others are not. Staff will identify initial values that can be used to do calculations. We are talking with TCEQ right now, about how modeling might fit into next year's budget. There are several different models out there for determining estimated load reductions and we will be looking into which might be the best for this project. H-GAC is currently using one in the development of the Bastrop Bayou Watershed Protection Plan. (Rachel Powers and Carl Masterson)

A suggestion was made by Linda Pechacek to use a model that has continuous simulation so that we can see the inter-event period in between the rain events because of the role of antecedent dry conditions on the water quality. One model suggested was the SUSTAIN model that the EPA is developing and will be made public. One benefit of this model is that it directly connects to ArcGIS.

Q: How are we going to ensure that everyone agrees with the assumptions used in the model? This was a problem many had with the TMDL.

A: That is one reason we have the BIG. (Carl Masterson)

Q: One of our focus points of discussions of the BIG and workgroups includes recognition that there are research issues that are still out there and that this will be an adaptive management process. Can we add a separate section in the document that would discuss parallel research activities and research needs?

A: We can do that. It will be incorporated somewhere. (Rachel Powers)

Q: What is the game plan for the next six months for the BIG?

A: The plan for the March BIG meeting is to have a preliminary document to the group to review and approve. We want to go out to the community with the document and let people know what is happening. What we bring out this spring will not include all nine

elements. We do not want to hold back on going to the public, as we see those meetings as giving people a heads up on the menu of things we will be looking at. We will gather information, get initial opinions and input on the I-Plan, and we will continue working on the document. (Rachel Powers and Jeff Taebel)

Q: How do you envision getting from the big list of implementation activities to the draft document?

A: Workgroups have begun working on this task. They have been discussing implementation activities and which ones in general they think are the most important or will be the most important and we will be focusing our attention on those initially. (Rachel Powers)

Q: Is it possible to take our one adopted watershed and start forming it into a document so the group can see what the document will look like.

A: Yes. (Rachel Powers)

Topics brought up that will be discussed at the March meeting include:

- the most important sources to deal with as decided by the BIG
- determining whether or not consensus exists for taking a document out to the public this spring

6. Workgroups

Four workgroups met since the January BIG meeting. The BIG liaison for each of these workgroups gave a verbal summary to the BIG. Workgroup discussions have focused as follows:

- Monitoring – Discussion topics included:
 - “Is *E.coli* the only parameter?” – when we have another parameter in the future we need to be prepared to start with it, but right now *E.coli* is the parameter we have to meet.
 - Sampling types/sites: what constitutes adequate sampling? – This is one of the most densely monitored regions in the state; we will be able to tell when water quality improves.
 - The I-Plan needs to include a database to track everything. Unless continuous monitoring of the database is occurring, we won’t know which activities are working and which aren’t.
 - Discussion on the possible correlation between nutrients and *E.coli*.

The next meeting will determine what kind of applications will need to be monitored.

- Research – Research topics discussed at the January workgroup meeting included: prior land use impacts on *E.coli* loading in soil, the ability of inspections to deter facilities from causing future violations, the possible correlation between turbidity and bacteria, possible methods of treating water in the stormwater system, and what is different about the 2% of waterways that have been sampled in the region and not found to be impaired. Other topics of

discussion included research already conducted and in process and research to look for.

- Watershed Outreach – The workgroup began discussing the outreach plan, such as what groups/individuals should be informed of the I-Plan. Methods of geographic prioritization and the criteria that will be used were also discussed. One method brought to the group at a previous meeting was revisited. The proposed prioritization method involved criteria grouped into three categories. The next meeting will focus on fine-tuning this prioritization method with the inclusion of two additional categories. The five categories to be considered include: Activity, Accessibility, Bacteria Level, Implementation Opportunities, and Land Use Changes. The workgroup also discussed the possible development of a one page information sheet on the BIG and the work being done that could be handed out at meetings and other events.
- Coordination & Policy –
 - The workgroup is moving forward with refining the evaluation worksheet tool. They have eliminated the weighted ranking and each appropriate implementation action will now be scored directly.
 - Descriptions are being created for each of the implementation activities developed by the workgroups.
 - The group is exploring the opportunity to use an online survey tool to help in the ranking of implementation activities.
 - The workgroup had a brief discussion about the need for a flexible framework relating appropriate implementation activities to the various jurisdictions. More discussion will follow regarding attributes of the flexible framework given site-specific conditions. If the plan used a flexible framework, it would mean that the I-Plan would not mandate implementation activities that would need to be used by everyone. Communities could select the implementation activities that would work best in their community.

7. Other Business/Roundtable

- The H-GAC website now has a shared page containing information or links to relevant sites submitted by BIG members or other involved individuals.
- H-GAC is working on a workgroup webpage to post meeting notes and other information.

8. Next Meeting Date

The next regularly scheduled meeting will be on March 17, 2009.

9. Adjourn

The meeting was adjourned at 3:22 PM.

BIG Public Engagement Plan: Phase I

Objectives:

1. Identify and contact stakeholders who will need to be included in the conversation and who will be asked to pass resolutions in support of the plan so that they won't be surprised when we ask for a resolution.
2. Inform stakeholders, who will be responsible for implementation activities, of the BIG, its process, and its progress and seek their input.
3. Engage residents of TMDL watersheds to bring awareness of water quality issues, inform them of BIG activities and seek their input.

Actions:

1. Send letters and e-mails. Make follow-up phone calls.
2. Send press releases and make follow-up phone calls.
3. Present information to various organizations and stakeholder groups.
- 4.

Timeline:

1. February 2009: Identify stakeholders and speaking opportunities.
2. March 17, 2009: Public engagement plan approved at March BIG meeting. Any necessary changes made by end of March.
3. April 1, 2009 to April 30, 2009: Send out letters in stages, begin follow-up calls.
4. May 1, 2009 to June 30, 2009: Continue follow-up calls, meetings, and presentations.
5. July 1, 2009: Continue gathering and configuring information for I-Plan

Communication Content:

1. Cover letter describing process, significance to stakeholder
2. Bacteria Brochure
3. Information sheet
4. Map(s) depicting area of interest
- 5.

Stakeholder Targets:

1. Meet with each county in the project areas: Brazoria, Fort Bend, Galveston, Harris, Liberty, Montgomery, Walker, and Waller
2. Meet with each city with a population >25,000 in target areas (Mayor, manager, engineer, secretary, elected officials): Conroe, Friendswood, Houston, Huntsville, League City, Missouri City, Pasadena, Pearland, and Sugar Land
3. Cities with populations <25,000 in target areas (two to four meetings region wide)
4. Special Districts: access groups through the Texas Municipal League, Association of Water Board Directors, Texas Municipal Utilities Association (TMUA) Region 8, TMUA Region 6, Harris County Flood Control District, Fort Bend Subsidence District, and Harris-Galveston Subsidence District
 - a. Directors
 - b. Engineers
 - c. Attorneys
5. Local offices of State Legislators
6. Other agencies
 - a. TxDOT
 - b. River Authorities: San Jacinto River Authority, and Trinity River Authority
 - c. Adjacent COGs – a quick phone call to let them know what we are doing – not much of ‘other COG’ areas
 - d. EPA
 - e. TSSWCB
 - f. Sam Houston Resource Conservation and Development Area
 - g. Southeast Texas Resource Conservation and Development Area
 - h. North Harris Regional Water Authority
 - i. West Harris Regional Water Authority
7. Professional Organizations
 - a. Houston Council of Engineering Companies (HCEC)
 - b. Water Environment Association of Texas (WEAT)
 - c. Greater Houston Builders Association (GHBA)
 - d. American Society of Landscape Architects (ASLA), Houston Chapter
 - e. Associated General Contractors of America, Inc. (AGC), Houston Chapter
 - f. Association of Water Board Directors (AWBD)
8. WWTF operators
9. Media
10. Chambers of Commerce
11. Other Organizations
 - a. Citizens Environmental Coalition
 - b. Galveston Bay Foundation
 - c. Bayou Preservation Association
 - d. Brays Bayou Association

- e. Buffalo Bayou Partnership
 - f. Cypress Creek Flood Control Coalition
 - g. White Oak Bayou Association
 - h. Energy Corridor Management District
 - i. Environmental Defense Fund
 - j. Legacy Land Trust
 - k. Sierra Club – Houston Regional Group
 - l. Greens Bayou Corridor Coalition
 - m. Trust for Public Land
 - n.
12. Speaking opportunities
- a. Harris County MS4 meeting (early May—Herman Sanders)
 - b. EPA MS4 Conference (June)
 - c. AWBD Conference
 - d.
13. General Public

DRAFT

BIG Public Engagement Message: Phase I

The Problem:

There are high levels of bacteria in our waterways. In fact, most of the waterways in the Greater Houston region exceed state bacteria limits for swimming or wading. The federal Clean Water Act requires that a plan be developed to reduce bacteria levels in the region's waterways. Doing so will also help insure our supply of clean drinking water and allow residents and visitors to safely enjoy our many rivers, lakes, bays, and bayous.

Background:

The Houston-Galveston Area Council has formed a regional committee, called the Bacteria Implementation Group (BIG), to develop a plan to reduce bacteria in our waterways. The BIG, which includes government, business and community leaders, has identified and categorized many potential sources of bacteria and possible strategies to reduce them. Over the next several months, the BIG will be evaluating which activities will be the most cost-effective and who will implement them. This is where YOUR input is needed!

Local governments, businesses, and even community organizations will all have a part to play in implementing this plan. We want you and others in your organization to review our preliminary list of major strategies and tell us what you support, what you do not, and anything we may have missed. We cannot afford for this to be a plan that sits on the shelf!

Next Steps:

Please review the material provided, and share it with others. We want to receive your input, answer any questions, and set up a meeting if appropriate. You will also begin receiving—by e-mail—meeting notices and other updates on the process, so you can stay involved and informed about our planning process.

More Information:

More information regarding the process can be found on the project website: www.h-gac.com/BIG.

Major Sources of Bacteria and Potential Prevention Measures

Combined, the workgroups have identified about 150 potential activities. The examples provided here may have the most widespread application.

Agricultural Sources

- Improve drainage management; erosion prevention
- Manage nutrients
- Preserve riparian areas

Animal Sources

- Improve livestock management
- Reduce feral hog population

Construction Sources

- Step up enforcement of existing erosion control requirements
- Provide incentives to use vegetative buffers and detention during construction
- Consider implementing more stringent effluent limits for stormwater from a construction site

Illicit Discharges & Dumping Sources

- Detect and enforce against illicit discharges by visually inspecting channels
- Improve legal system to punish violators (education of judges, higher penalties, etc.)
- Better monitor waste haulers (grease traps and OSSFs) and their trip tickets
- Provide toilet facilities in strategic locations

Land Development Sources

- -

Onsite Sewage Facility Sources (Septic Tanks)

- Identify and address failing systems, especially old systems

- Pursue both enforcement and programs to assist homeowners with repair and replacement.
- Require, through permits, that septic tanks be maintained by a registered maintenance company or a trained homeowner
- Educate homeowners on proper maintenance

Residential Sources

- Educate the public on appropriate disposal of Fats, Oils and Grease, pet waste, landscaping practices, septic tanks, proper use of compost, etc.

Sanitary Sewer System Sources

- Mandate programs that are currently voluntary (CMOM, the SSO Initiative)
- Establish a program to ensure appropriate sizing, design, inspections, and maintenance of grease traps.
- Increase inspection of transport logs for grease disposal.
- Require quicker reporting and larger penalties for system failures

Stormwater Sources

- Employ structural controls such as inlet separators, pipe-based treatment systems, constructed wetlands, and detention basins.

Wastewater Treatment Facilities

- Impose monitoring requirements and bacteria limits on effluent
- Allow unannounced inspections
- Retrofit old facilities
- Develop better design guidelines for new facilities.

Bacteria Implementation Plan Timeline

November 18, 2008

