

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	Nick Russo
Pat Buzbee	County	Montgomery County Environmental Health	Mike Lindsey	
Marilyn Christian	County	Harris County Public Health & Environmental Svcs.	Snehal Patel	
Robert W. Collins	County	Montgomery County	Mike Lindsey	
Catherine Elliott	County	Harris County Flood Control District	Joe Myers	Carolyn White
Joe Ferro	Municipal	City of Webster	Jesse Espinoza	Pam Guillory
Mike Garver	Buffalo/Whiteoak TMDL	Buffalo Bayou Partnership	Scott Barnes	Jessalyn Ballard
Carol Ellinger Haddock	Municipal	City of Houston	Sarah Metzger	Richard Chapin
Teague Harris	Municipal	Pate Engineers, Inc.		
Jason Iken	Metro TMDL	City of Houston	Walid Samarneh	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	
Cathy McCoy	Ag/Business	Harris County Soil & Water Conservation Dist. #442		
Michael Mooney	Lake Houston TMDL	The Woodlands Joint Powers Agency	Ron Kelling	
Jack Murphy	Municipal	City of League City	Susie Blake	Brian Craig
Becky Olive	Ag/Business	AECOM	Nancy Sullins, Tony Bennet, Mary Purzer	
Mitchell G. Page	Lake Houston TMDL	Schwartz, Page & Harding, LLP	Michael Page	
Raymond Pavlovich	Wildcard	Nottingham County 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	Joe Clark	
Robert Stokes	Clear Creek TMDL	Galveston Bay Foundation	Lisa Miller-Marshall	Scott Jones
Michael Turco	Resource Agency	US Geological Society	Michael Lee	Jeannette Oden

*not yet approved



Meeting Summary
Tuesday, February 16, 2010

Members Present:

Michael Bloom

John Blount

Pat Buzbee

Marilyn Christian

Robert Collins (phone)

Catherine Elliott

Carol Haddock

Teague Harris

Jason Iken

Tom Ivy

Ron Kelling (phone)

Craig Maske

Michael Mooney

Becky Olive

Raymond Pavlovich

Linda Pechacek (phone)

Ceil Price

Kathy Richolson

Jim Robertson (phone)

Linda Shead

Brian Shmaefsky

Melvin Solomon

Michael Turco

Joe Ferro was represented by Jesse Espinoza.

James Tynan Kelly was represented by Bruce Heiberg.

Jack Murphy was represented by Susie Blake.

Robert Stokes was represented by Lisa Miller-Marshall.

Members Absent:

Mike Garver

Helen Lane

Cathy McCoy

Mitchell Page

Guests Present

Adam Aschmann (GHBA), Chris Attar (City of Houston—Council Member Costello), Mike Bagstad (CH2M Hill), Steve Barry (Jones & Carter), Tom Beck (TxDOT), Tony Bennett (AECOM), Ralph Calvino on phone (AECOM), Bill Carter (TCEQ), Anju Chalise (TCEQ), Richard Chapin (City of Houston), Catarina Cron (Harris County), Anu Desai (University of Houston), Bryan Eastham (TCEQ), Chris Forest (R.G. Miller), Jedediah Greenfield (City of Houston), Monica Harris (TCEQ), Nicole Hausler (PHA), Millie Holifield on phone (City of Missouri City), Jonathan Holley (HCFCD), Steve Hupp (Harris County), Clem Kinney (City of Katy), Brian Koch (TSSWCB), Carol LaBreche on phone (City of Houston), Kim Laird (TCEQ), Mike Lindsay (Montgomery County), Frank Manigold (City of Friendswood), Alisa Max (Harris County), Sam Metzger (City of Pasadena), John Morris (City of Friendswood), David Munn (AECOM), Snehal Patel on phone (Harris County), Mary Purzer on phone (AECOM), Nick Russo (Harris County), Carol Serna (AEI Engineering), Craig

Smith (TCEQ), Camille Sowell (CDM), Nancy Sullins (AECOM), Laurie Thanheiser on phone (Environmental Infrastructure Planning), Mel Vargas on phone (Parsons), Guyneth Williams (City of Houston), Jim Wolfe (Severn Trent Services)

H-GAC Staff Present

Rachel Powers, Erin Livingston, Todd Running, Jeff Taebel, Carl Masterson, Kristi Course, Bill Hoffman, Justin Bower, Cheryl Mergo, Aubin Phillips

1. Welcome & Introductions

Rachel Powers welcomed and thanked everyone for coming. She initiated self-introductions of BIG members, those on the phone, and H-GAC staff. Rachel then reviewed the agenda.

2. Certification of Quorum

Twenty members and alternates were present, achieving a quorum.

3. Approval of Proposed Alternates & Members

No new alternates or members were proposed.

4. Approval of January 19, 2010, Meeting Summary

Meeting notes were approved without any changes.

5. Workgroup Report

Stormwater and Land Development

Carol Haddock reported. The workgroup meeting was well attended, although the majority of attendees were from the central portion of the BIG area. Rural and agricultural stakeholders were not represented, but need to be participating in the discussion. There was generally agreement on the implementation activities (IAs). H-GAC staff will draft up the IAs based on comments. IAs that will come from the workgroup include:

- Continue existing programs
- Disseminate information about local examples of best practices through a web library and a series of meetings
- Promote land development voluntary recognition programs similar to LEED-ND,
- Encourage voluntary expansion of stormwater quality programs and, if necessary in the future, consider the expansion of MS4 programs, and
- Support and petition TCEQ to reinterpret the reimbursement rules regarding infrastructure and bacteria reduction.

Q: Could you explain what “expand stormwater and land development programs” refers to?

A: This is two-fold. Both elements would begin with a voluntary program. First, MS4 permit holders would be asked to voluntarily focus their programs on bacteria. Second, the permit coverage could be expanded geographically to include larger areas. If voluntary programs do not result in change within five years, the situation would be evaluated and stakeholders might consider petitioning TCEQ to expand permits. This is not an expansion of the rules.

6. Staff Presentations

I-Plan draft progress

Staff has sent out drafts of the following sections of the I-plan: Wastewater Treatment Facilities, Construction, and Geographic Priorities. Next up will be Onsite Sanitary Sewage Facilities and Illicit Discharges and Dumping. The goal is to have all sections out by the next March meeting.

Clarification – drafts are going to workgroups for comments and to the BIG for informational purposes. It is preferred that workgroups submit comments/changes before it officially goes to the BIG for comments. However, if a BIG member sends comments now they will not be discarded. Contradicting comments will go back to the workgroups and any continuing disagreements will be handled by the BIG.

Improving and deteriorating assessment units

Todd Running provided an overview of H-GAC’s Clean Rivers Program. Staff reviewed the 2010 303(d) list. New assessment unit listings include:

- 62 for bacteria
- 18 for dissolved oxygen
- 54 for PCBs
- 44 for dioxin

Five assessment units have been delisted for dissolved solids in Clear Creek Above Tidal due to the capping of abandoned wells.

Q: Are all monitoring partners using the same methods?

A: Yes.

Q: Are the new bacteria listings due to new waterways being monitored?

A: Fourteen are newly monitored waterways. The rest had been assessed previously, but are just now considered impaired.

TCEQ looks at the last 7 years of data to make assessments and waterways are listed as impaired when the geomean exceeds the standard or when at least 25% of the samples exceed the single grab standard. H-GAC has reviewed monitoring data and found that 16 sites have seen statistically significant improvement including sites along the Houston Ship Channel, Buffalo Bayou, and Greens Bayou. The term statistically significant means there is a 95% possibility that the trend is real and not due to scatter

or chance. The geomean for White Oak Bayou, for example, has gone from over 4000 to less than 1000 MPN/100ml. The sites are still impaired, but have made significant strides in improvement.

There are 11 areas of increasing bacteria geomeans such as Lake Conroe, Clear Creek above tidal, Dickinson Bayou, and Chocolate Bayou.

Todd asked for stakeholders to look at the list of improving waterways and let H-GAC staff know if they have completed significant projects in the areas in question, or if they know of other reasons that may account for the improvements. Data will be posted on the H-GAC website for review.

Q: Is sampling conducted relative to stormwater flows?

A: This monitoring is ambient monitoring and is done on a pre-set schedule.

Q: What happens if there are multiple sites for assessment units?

A: They are averaged within the assessment unit.

Q: What was the timeframe of the data assessed?

A: Data reviewed was from 2002/2003, to August 2009. The date range was based on the fact that TCEQ switched the bacteria indicator from Fecal Coliform to *E.coli* or Enterococcus in 2001.

Maps

H-GAC staff presented draft GIS maps depicting various combinations of information regarding impaired watersheds in the region. The maps presented are described below, along with the discussion that ensued.

Geomeans in relation to impervious cover

Color-coded watershed imperviousness was presented with color coded stream segments based on the geometric mean values of water column bacteria concentrations.

WWTF flows in relation to stream segment length

Estimated and actual wastewater treatment plant discharge flows per stream segment mile were presented in a scaled manner. Estimated flows were assumed to equal 60% of the permitted flow for the calculations. The EPA has a new database that should have all of the reported flow data. H-GAC will work to get the flows.

Discussion

Q: Is staff looking at the fact that waterways showing improvement are in developed areas and those that are increasing in degradation are in more rural areas?

A: That is why we are asking communities what is being done to improve water quality in the highly developed areas.

WWTF flows per linear mile in relation to geomean

Quintiles of WWTF flows and quintiles of impairment levels were represented on the map.

BIG members questioned the usefulness of the presented maps in determining the content of the I-Plan. It was suggested that the data displayed might indicate or hint at causation and correlations that may not actually exist and that may not help refine the content of the I-Plan. It was suggested that implementing localities could use existing data to conduct more refined and focused analysis during implementation rather than conducting these types of analyses now. The question was posed to the group of what data needs to be collected in the future to determine the effectiveness of the implementation activities (IAs) that will be put into practice. Clean Rivers data cannot be used for determining effectiveness from specific IAs, particularly in the short term. A database will need to be developed to house effectiveness data collected in the region. Flow data would also be valuable to collect.

7. Other Business/Roundtable

Monica Harris, Section Chief of Planning and Implementation in TCEQ's Office of Water, provided an update on the Houston Metro and Lake Houston TMDLs progress. Only one comment was received during the public comment period for the Greens Bayou TMDL. TCEQ hopes to adopt the TMDL in March or April. The four remaining Houston Metro TMDLs will be on the TCEQ commissioner's agenda in April or May for proposal for public comment. The Lake Houston TMDL will follow in May or June.

On February 24, 2010, a meeting will be held in Seabrook regarding the Implementation Planning process for the Upper Coast Oyster Waters TMDL. Questions can be addressed to Lisa Miller-Marshall.

8. Next Meeting Date

The next regularly scheduled meeting will be on March 16, 2010.

Rachel reported that Meredith Blount of the River Systems Institute has asked present information about funding for grants at the March meeting. The next grant cycle begins in June. The group agreed to have the presentation at 1:00 pm, before the BIG meeting.

9. Adjourn

The meeting was adjourned at approximately 2:40 PM.

Implementation Strategy	Control Action	Description	Coordinating agency					Permit Holders *	Stakeholders
			TCEQ or TSSWCD	Cities	Counties	Cities	Counties		
1.0: Wastewater Treatment Facilities (WWTF)	1.1.0	Impose more rigorous bacteria monitoring requirements on all WWTFs	I				S		
1.0: Wastewater Treatment Facilities (WWTF)	1.2.0	Impose stricter bacteria limits for effluent than those being applied universally by TCEQ	I				S		
1.0: Wastewater Treatment Facilities (WWTF)	1.3.0	Improve Design and Operation Criteria for New Plants	A	I			S	A	
1.0: Wastewater Treatment Facilities (WWTF)	1.4.0	Update plants not meeting current performance standards					I	A	
1.0: Wastewater Treatment Facilities (WWTF)	1.5.0	Encourage WWTF regionalization	A				I	A	
1.0: Wastewater Treatment Facilities (WWTF)	1.6.0	Improve compliance and enforcement	I						
1.0: Wastewater Treatment Facilities (WWTF)	1.6.1	Consider the increase of TCEQ staff numbers or contract with local programs to take on more duties.	I						
1.0: Wastewater Treatment Facilities (WWTF)	1.6.2	Allow unannounced inspections and focused investigations.	I				S		
1.0: Wastewater Treatment Facilities (WWTF)	1.7.0	Encourage as appropriate the use of effluent for irrigation at WWTFs					I		
2.0: Sanitary Sewer Systems (SSS)	2.1.0	Implement a Capacity, Management, Operations, and Maintenance (CMOM) program for Sanitary Sewer Systems	A	A			I	A	
2.0: Sanitary Sewer Systems (SSS)	2.1.1	Develop a series of webcasts and meetings to provide introductory information about CMOM programs.	I	A			A	A	
2.0: Sanitary Sewer Systems (SSS)	2.1.2	Encourage SSS operators to voluntarily develop a CMOM program.	A	A			I	A	
2.0: Sanitary Sewer Systems (SSS)	2.1.3	If necessary, implement CMOM program for existing SSS through WWTF permits.	A	I			S	A	
2.0: Sanitary Sewer Systems (SSS)	2.1.4	Require CMOM plan as part of all new WWTF permits.		I			S		

I=Implementer, S=Subject to, A=Provide Assistance

* Permit holders may hold wastewater treatment facility permits (e.g., cities, utility districts, private entities), MS4 permits (e.g., cities, counties, TxDOT), Authorized Agents, etc.

Implementation Strategy	Control Action	Description	Coordinating agency					Permit Holders *	Stakeholders
			TCEQ or TSSWCD	Cities	Counties	Permit Holders *	Stakeholders		
2.0: Sanitary Sewer Systems (SSS)	2.1.5	Allow penalty reductions or waivers for SSS with voluntary CMOM programs.	A	I				S	A
2.0: Sanitary Sewer Systems (SSS)	2.1.6	Create a committee to consider and recommend Best Management Practices for FOG programs.	I	A				A	A
2.0: Sanitary Sewer Systems (SSS)	2.2.0	Require appropriate mechanisms to maintain function at lift stations during power outages		I				S	A
2.0: Sanitary Sewer Systems (SSS)	2.2.1	Develop cooperative purchasing opportunities for generator use, following the model of H-GAC's program for post-storm debris removal.	A						A
2.0: Sanitary Sewer Systems (SSS)	2.2.2	Require quick-connects at lift stations.		I				S	A
2.0: Sanitary Sewer Systems (SSS)	2.2.3	Provide incentives to encourage greater capacity in waste storage.	A	I				S	
2.0: Sanitary Sewer Systems (SSS)	2.3.0	Improve reporting requirements for SSOs		I				S	A
2.0: Sanitary Sewer Systems (SSS)	2.3.1	Implement statewide database to record reported SSOs.		I					A
2.0: Sanitary Sewer Systems (SSS)	2.3.2	Develop capacity for communities to use statewide database to record reported SSOs.	A	A				A	I
2.0: Sanitary Sewer Systems (SSS)	2.3.3	Require reporting of SSOs to local programs.		I				S	
2.0: Sanitary Sewer Systems (SSS)	2.4.0	Strengthen controls on subscriber systems	A	A				I	A
2.0: Sanitary Sewer Systems (SSS)	2.4.1	Identify subscriber systems.	A	I				S	A
2.0: Sanitary Sewer Systems (SSS)	2.4.2	Develop model contracts.	I	A				A	A

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			TCEQ or TSSWCD	Cities	Counties			
2.0: Sanitary Sewer Systems (SSS)	2.4.3	Provide circuit-rider program to work with POTW permittees and subscriber systems to strengthen subscription contracts.	I	A			A	A
2.0: Sanitary Sewer Systems (SSS)	2.5.0	Maintain GIS of SSS coverage	A	I			A	A
2.0: Sanitary Sewer Systems (SSS)	2.6.0	Evaluate penalty structure for SSS violations	A	I			S	A
3.0: Onsite Sewage Facility	3.1.0	Create a Regional Plan to Identify and Address Failing Systems	I	A			S	A
3.0: Onsite Sewage Facility	3.1.1	Map permitted and unpermitted OSSFs in the H-GAC and BIG Regions.	I	A			A	A
3.0: Onsite Sewage Facility	3.1.2	Identify target areas, timelines, and costs.	I	A			A	A
3.0: Onsite Sewage Facility	3.1.3	Address target areas	A	A			I	A
3.0: Onsite Sewage Facility	3.1.4	Pursue funding.	A	A			I	A
3.0: Onsite Sewage Facility	3.1.5	Reevaluate plan	I	A			A	A
3.0: Onsite Sewage Facility	3.2.0	Create a Regional Plan to Address Inadequate Maintenance of OSSFs	I	A			A	A
3.0: Onsite Sewage Facility	3.2.1	Homeowner education.	I	A			A	A
3.0: Onsite Sewage Facility	3.2.2	Require repair and pumpout logs be kept by homeowners	A	A			I	S
3.0: Onsite Sewage Facility	3.2.3	Coordinate with real estate industry	I	A			A	A
3.0: Onsite Sewage Facility	3.2.4	Additional actions	A	A			I	A
3.0: Onsite Sewage Facility	3.3.0	Legislative Actions	A	I			A	A
3.0: Onsite Sewage Facility	3.3.1	Texas On-Site Wastewater Treatment Research Council (TOWTRC) Fee.	A	I			A	A
3.0: Onsite Sewage Facility	3.3.2	Provide Model Order, Ordinance, or Resolution.	A	I			A	A
3.0: Onsite Sewage Facility	3.3.3	Biennial Review.	A	I			A	A
4.0: Storm Water and Land Development	4.1.0	Continue Existing Programs	I	I			I	A
4.0: Storm Water and Land Development	4.2.0	Model Best Practices	I	A			A	A
4.0: Storm Water and Land Development	4.2.1	Coordinate networking meetings.	I	A			A	A

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			TCEQ or TSSWCD	Cities	Counties	Cities	Counties		
4.0: Storm Water and Land Development	4.2.2	Create and maintain web library of best practices.	I	A			A	A	
4.0: Storm Water and Land Development	4.2.3	Reevaluate plan.	A	A			I	A	
4.0: Storm Water and Land Development	4.3.0	Adopt Recognition Program for Developments that Voluntarily Incorporate Bacteria Reduction Measures	A	A	I	I	A	I	
4.0: Storm Water and Land Development	4.3.1	Encourage voluntary participation in existing recognition programs.	A	A	I	I	A	A	
4.0: Storm Water and Land Development	4.3.2	Develop a recognition program specific to storm water and land development in the BIG area.	I	A	A	A	A	A	
4.0: Storm Water and Land Development	4.4.0	Encourage Voluntary Expansion of Storm Water Quality Programs	A	A	A	A	I	A	
4.0: Storm Water and Land Development	4.4.1	Encourage permitted MS4 communities to expand and refine those elements of their storm water programs that address bacteria.	A	A	A	A	I	A	
4.0: Storm Water and Land Development	4.4.2	Encourage local governments without MS4 permits to voluntarily develop and implement a storm water quality program to address bacteria loading.	A	A	I	I	A	A	
4.0: Storm Water and Land Development	4.4.3	If voluntary measures are not undertaken, consider petitioning TCEQ to mandate storm water program development.	A	I	S	S	A	A	
4.0: Storm Water and Land Development	4.5.0	Provide a Circuit Rider Program to provide technical assistance and program support of other proposed implementation activities directed towards storm water and land development.	I	A	S	S	S	A	

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4.0: Storm Water and Land Development	4.6.0	Petition TCEQ to Facilitate Reimbursement of Bacteria Reduction Measures	A	I	A	A	A	A	A
5.0: Construction	5.1.0	Greater compliance with and enforcement of existing storm water quality permits	A	I	I	I	I	A	
5.0: Construction	5.1.1	Increase the number of TCEQ staff or contract with local water pollution control programs to take on additional duties.		I			S	S	
5.0: Construction	5.1.2	Develop and distribute educational material to inform citizens of proper construction site practices.	I	A			A	A	
5.0: Construction	5.1.3	Encourage operators to require training of their construction workers regarding storm water quality best management practices.					I	S	
6.0: Illicit Discharges and Dumping	6.1.0	Conduct Field Surveys of Water Body Channels and Map Direct and Dry-weather Discharges		A	I	I	A	A	
6.0: Illicit Discharges and Dumping	6.2.0	Monitor and Control Waste Hauler Activities	I	A	A	A	A	S	
6.0: Illicit Discharges and Dumping	6.2.1	Improve local regulation programs.	A	A	I	I	S	S	
6.0: Illicit Discharges and Dumping	6.2.2	Develop Waste Hauler Fleet Tracking Pilot program.	I	A	A	A	S	A	
7.0: Agriculture and Animal	7.1.0	Increase participation in existing erosion control, nutrient reduction, and livestock management programs	A	I			S		
7.0: Agriculture and Animal	7.2.0	Promote the management of feral hog populations	A	I			A	A	
8.0: Residential	8.1.0	Expand homeowner education efforts throughout the BIG project area	A	A	A	A	A	A	A

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8.0: Residential	8.1.1	Continue or begin a homeowner education program based on existing models.	A	I	I	I	A	A	
8.0: Residential	8.1.2	Conduct pilot studies to quantify load reductions from education efforts.	A	I	I	I	A	A	
9.0: Monitoring & Plan Revision	9.1.0	Continue the Regional Clean Rivers Program	I	A	A	A	A	A	
9.0: Monitoring & Plan Revision	9.2.0	Implement Targeted Monitoring	A	I	I	I	A	A	
9.0: Monitoring & Plan Revision	9.3.0	Execute Monitoring Plans Specific to Implementation Activities	A	A	A	A	A	A	
9.0: Monitoring & Plan Revision	9.4.0	Create and Maintain a Regional Non-Ambient Monitoring Database	I	A	A	A	A	A	
9.0: Monitoring & Plan Revision	9.5.0	Create and Maintain a Regional Implementation Activity Database	I	S	S	S	S	S	
9.0: Monitoring & Plan Revision	9.6.0	Test for Additional Indicators or Pathogens	I	I	I	I	I	A	
10.0: Research	10.1.0	Monitor the Impact of Stormwater Implementation Activities	A	A	A	A	A	I	
10.0: Research	10.2.1	Further Evaluate Bacteria Persistence and Regrowth	A	A	A	A	A	I	
10.0: Research	10.3.1	Determine Appropriate Indicators	A	A	A	A	A	I	
11.0: Watershed Prioritization Framework	11.1.0	Use watershed prioritization framework to make geographic decisions	I	I	I	I	I	I	

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**Segments That Will Come Off the 303(d) List
When the E. Coli Criteria is Changed to 206 MPN**

Basin	YEAR	SEGMENT ID	SEGMENT NAME	AU_ID	AU LOCATION DESCRIPTION	MEAN OF SAMPLES ASSESSED
10	2010	1002	Lake Houston	1002_06	From the confluence with Spring Creek to West Lake Houston Pkwy	148
10	2010	1003	East Fork San Jacinto River	1003_01	From the Caney Creek confluence upstream to US 59	199
10	2010	1003	East Fork San Jacinto River	1003_02	From US Hwy 59 to a point 40 km (25 mi) upstream (just upstream of Clear Creek confluence)	194
10	2010	1004	West Fork San Jacinto River	1004_02	From the Stewart Creek confluence upstream to the Lake Conroe Dam	137
10	2010	1011	Peach Creek	1011_01	Upper segment boundary to US Hwy 59	158
11	2010	1102	Clear Creek Above Tidal	1102_02	SH 288 to Hickory Slough confluence	176
11	2010	1102	Clear Creek Above Tidal	1102_03	Hickory Slough confluence to Turkey Creek confluence	141
11	2010	1104	Dickinson Bayou Above Tidal	1104_02	From FM 517 upstream to FM 528	173
11	2010	1102C	Hickory Slough (unclassified water body)	1102C_01	From the Clear Creek Above Tidal confluence to a point 0.69 km (0.43 mi) upstream of Mykawa Road	197