



Implementation Strategy 1.0: Wastewater Treatment Facilities

#	Activity	Target/ Objective/ Milestone	Status
1.1	Impose More Rigorous Bacteria Monitoring Requirements	Within five years, all permits should have had renewals initiated to include more rigorous monitoring requirements	In progress, On schedule
1.2	Impose Stricter Bacteria Limits for WWTF Effluent	Within five years, all of the permits should have had renewals initiated to include more stringent limits for bacteria in effluent	In progress, On schedule
1.3	Increase Compliance and Enforcement by the TCEQ	<ul style="list-style-type: none"> -The ability to conduct focused sampling investigations -The number of unannounced inspections -The number of focused sampling investigations -The percent of plans and specifications reviewed -The percent of DMRs reviewed -The number of other investigations conducted 	Partially started; On schedule
1.4	Improved Design and Operation Criteria for New Plants	Every five years, 20% of local governments will have considered whether to adopt stricter requirements	No Information
1.5	Upgrade Facilities	The number of non-compliant WWTFs that have been upgraded	No information
1.6	Consider Regionalization of WWTFs	<ul style="list-style-type: none"> -Criteria developed for identifying chronically non-compliant WWTFs -The number of non-compliant WWTFs identified using criteria -The number of chronically non-compliant WWTFs that have considered regionalization 	Started, On schedule
1.7	Use Treated Effluent for Facility Irrigation	Every five years, one WWTF shall install and use a new irrigation system, utilizing treated effluent	No information

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Implementation Strategy 1.0: Wastewater Treatment Facilities

Continued

Work Group Recommendations

Meeting February 28, 2013. 10 attendees, including 4 BIG members and 6 alternates.

Progress 	Progress has been adequate. Activity has begun and is ongoing for several implementation activities.
Achievements 	H-GAC has a system in place for checking new permits for conformity with BIG recommendations. H-GAC has identified data sources for tracking compliance and enforcement activities and has begun analysis of self-reported bacteria DMR data. The TCEQ has opened Chapter 217 (design criteria for WWTF) for comment. Harris County has strategy to conduct supplemental checks of WWTF plan sets. ?? facilities, representing ??% of facilities in the BIG, now have limits for bacteria in their permits.
Focus 	Focus in the coming year will be on working with TCEQ on facilitating compliance and enforcement, and on continued checks of permits and analysis of DMR data. Stakeholders will also focus on providing more training for operators. Harris County will develop its new program to review design plans for new and modified WWTF.
Revisions 	The work group does not recommend changes to the I-Plan.



Implementation Strategy 2.0: Sanitary Sewer Systems

#	Activity	Target/ Objective/ Milestone	Status
2.1	Develop Utility Asset Management Programs (UAMPs) for Sanitary Sewer Systems	-After five years, eight workshops held -After ten years, all WWTF have UAMP plans	In progress, On schedule
2.2	Address Fats, Oils, and Grease	Within five years: -Compile and share all existing regulations within project area -Each community shall examine their regulations and policies -One community shall adopt new regulation -Flyers or other collateral material distributed -Website created and distributed	In progress, On schedule
2.3	Encourage Appropriate Mechanisms to Maintain Function at Lift Stations	Every five years, 10% of SSS shall be compliant with recommendations	No information
2.4	Improve Reporting Requirements for SSOs	Within five years, EPA/TCEQ will have developed appropriate database and technology for collecting and sharing information regarding SSOs	In progress, On schedule
2.5	Strengthen Controls on Subscriber Systems	-By year three, develop model contract language -Within five years, develop list of subscriber systems -As funds are available, initiate circuit rider program	Not started, On schedule
2.6	Penalties for Violations	-Within five years, have appropriate penalty policy in place	Completed, Ahead of schedule





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Implementation Strategy 2.0: Sanitary Sewer Systems

Continued

Work Group Recommendations

Meeting March 8, 2013. 13 attendees, including 2 BIG members and 2 alternates.





Progress 	Progress has been adequate. Activity has begun and is ongoing for several implementation activities.
Achievements 	H-GAC hosted the first annual Asset Management for Sanitary Sewer Systems, and planning has begun for the 2014 conference. Galveston Bay Foundation has been in talks with the City of Dallas's to share its award-winning Cease the Grease program. TCEQ has begun conducting focused investigations to identify SSOs.
Focus 	Chapter 217 is "open" and the TCEQ is considering making changes to the Design Criteria for Domestic Wastewater Treatment Systems; stakeholders are encouraged to participate in the comment process. Stakeholders shall work with the TCEQ to develop the SSO reporting system. H-GAC shall work to identify appropriate contact information for tracking UAMP and identifying subscriber systems. Stakeholders will work to develop a coordinated FOG education program for the project area and region.
Revisions 	The work group does not recommend changes to the I-Plan.

Implementation Strategy 3.0: On-Site Sewage Facilities

#	Activity	Target/ Objective/ Milestone	Status
3.1	Identify and Address Failing Systems	-Year 1: Initial map created -Year 2: Target areas identified -Ongoing: Data collected from Authorized Agents -500 OSSFs repaired/replaced every five years	In progress, On schedule
3.2	Address Inadequate Maintenance of OSSF	Within five years: -Each community examine their regulations and policies -Existing regulations compiled and shared -Flyers or collateral material distributed	In progress, On schedule
3.3	Legislation and Other Regulatory Actions	-Annual local meeting of Authorized Agents -TCEQ to host biennial meetings to review OSSF regulations -Within five years: ---One community shall revise or adopt new regulations every five years	In progress, On schedule

Work Group Recommendations

Meeting November 13, 2012. 18 attendees, including 1 BIG member and 3 alternates.





Progress 	Progress has been good. Activity has begun and is ongoing for each of the three implementation activities.
Achievements 	Data collection is ongoing. Initial maps have been created ahead of schedule, setting the stage for analysis and identification of target areas. Grant funding is being pursued. Regulations and policies, all of which are relatively up-to-date, are available on www.h-gac.com/go/septic . Annual local meeting established with CEU credit from TCEQ for designated representatives.
Focus 	Focus in the coming year will be on updating maps, collecting complaint data, establishing target areas, securing and distributing funds.
Revisions 	The work group does not recommend changes to the I-Plan.

Implementation Strategy 4.0: Storm Water & Land Development

#	Activity	Target/ Objective/ Milestone	Status
4.1	Continue Existing Programs	80 programs will continue	In progress, On schedule
4.2	Model Best Practices	Each year: -Four to six networking meetings -Five local programs highlighted	In progress, On schedule
4.3	Encourage Expansion of Stormwater Management Programs	Within five years: -All permit holders shall expand or focus their existing programs -30 previously unpermitted entities shall develop new programs	Started, On schedule
4.4	Promote Recognition Programs for Developments that Voluntarily Incorporate Bacteria Reduction Measures	-Within five years, develop a recognition program and subsequently recognize communities and participants -Each year, two communities analyze regulations and programs to accommodate participation in existing programs	Started, On schedule
4.5	Provide a Circuit Rider Program	-Each year, contact 50 stakeholders and provide five in-depth community consultations	Started, On schedule
4.6	Petition TCEQ to Facilitate Reimbursement of Bacteria Reduction Measures	-Within three years, letter of commitment or similar from TCEQ	Started, On schedule

Work Group Recommendations

Meeting February 21, 2013. 16 attendees, including 3 BIG members and 4 alternates.

	Progress <p>Progress has been adequate. MS4 Phase II permit renewal is in progress. Annual reports are on H-GAC website. Additional MS4 operators are expected based on 2010 Census data. Educational and networking meeting series has been established.</p>
	Achievements <p>H-GAC has begun collecting and analyzing MS4 annual reports, which are available on the H-GAC website. MS4 annual reports are being used to identify speakers for the Clean Waters Initiative storm water workshop series. "Learning more with each workshop," wrote one participant. Stakeholders have made progress working with TCEQ to develop guidelines for facilitating reimbursement of water quality features. The first LID roadway projects were constructed this year.</p>
	Focus <p>Focus in the coming year will be on tracking implementation by stakeholders and on involving new MS4 permittees, especially with the goal of expanding stormwater management programs. Working with stakeholders to develop a more uniform MS4 annual report format will facilitate this task. Focus will also include an examination of local regulations and how they might inhibit LID development, and the initial development of a recognition/awards program.</p>
	Revisions <p>The work group does not recommend changes to the I-Plan.</p>





Implementation Strategy 5.0:

Construction

#	Activity	Target/ Objective/ Milestone	Status
5.1	Increase Compliance With and Enforcement of Stormwater Management Permits	-Year 1: MS4s evaluate need or requirement for staffing an appropriate construction inspection program -Year 2: Develop and begin offering educational materials and training	In progress, On schedule

Work Group Recommendations

Meeting February 21, 2013. 16 attendees, including 3 BIG members and 4 alternates.





Progress 	<p>Progress has been adequate. Educational and networking meeting series has been established. The Construction General Permit for Stormwater was renewed in February 2013.</p>
Achievements 	<p>H-GAC has begun collecting and sharing MS4 annual report, and is reviewing the reports to track the number of qualifying construction sites and reported construction inspections, and to identify existing education material and best practices relating to bacteria. H-GAC has established a workshop series focusing on MS4 Phase II permit minimum control measures; this series includes construction.</p>
Focus 	<p>Focus in the coming year will be on tracking implementation by stakeholders and on involving new MS4 permittees, and quantifying inspections and enforcements documented in annual reports. Stakeholders will also focus on providing education materials and opportunities for contractors, working with professional organizations.</p>
Revisions 	<p>The work group does not recommend changes to the I-Plan.</p>

Implementation Strategy 6.0: Illicit Discharges & Dumping

#	Activity	Target/ Objective/ Milestone	Status
6.1	Detect and Eliminate Illicit Discharges	-Within ten years, initial surveys and maps completed. -Number of illicit discharges identified and resolved each year.	Started, On schedule
6.2	Improve Regulation and Enforcement of Illicit Discharges	-Within five years, compile and share all existing regulations in project area - All communities shall examine their regulations, and one shall adopt new or revised regulations.	Started, On schedule
6.3	Monitor & Control Waste Hauler Activities	-Within five years, compile and share all existing regulations in project area -Within five years, one waste hauler fleet tracking pilot program shall be started	Started, On schedule

Work Group Recommendations

Meeting January 8, 2013. 8 attendees, including no BIG members and 4 alternates.

Progress 	Although activities have begun, little information has been gathered about activities.
Achievements 	While MS4 operators already implement many measures, reporting is problematic. As a result of MS4 requirements, many communities in the BIG area have new regulations. H-GAC has not had the resources to begin compiling regulations or to begin a waste hauler fleet tracking pilot program.
Focus 	Focus in the coming year will be on gathering information about implementation and on identifying regulatory resources related to liquid waste hauling, liquid waste generators, and trip tickets.
Revisions 	The work group does not recommend changes to the I-Plan.





Implementation Strategy 7.0:

Animals & Agriculture

#	Activity	Target/ Objective/ Milestone	Status
7.1	Promote Increased Participation in Existing Programs for Erosion Control Nutrient Reduction, and Livestock Management	Each year, 5% increase in participation	Baseline identified; On schedule
7.2	Promote the Management of Feral Hog Populations	Two workshops each year for five years	Not started, On schedule

Work Group Recommendations

Meeting December 18, 2012. 3 attendees, including no BIG members and 1 alternate.

Progress 	Progress has been adequate. Activity has begun and is ongoing for each of the implementation activities.
Achievements 	Baseline data has been collected from NRCS about EQIP funding related to BIG strategies. BIG concerns have been presented at NRCS Local Work Group meetings. TSSWCB has funded Texas AgriLife Extension to provide statewide technical assistance for feral hogs, including priority watersheds in the region.
Focus 	Focus in the coming year will be on encouraging stakeholder involvement in existing programs.
Revisions 	The work group does not recommend changes to the I-Plan.





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 two 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.

Implementation Strategy 9.0: Monitoring & I-Plan Revision

Work Group Recommendations

Meeting March 7, 2013. 9 attendees, including 2 BIG members and 2 alternates.





Progress 	Progress has been adequate. Activity has begun and is ongoing for each of the implementation activities.
Achievements 	Ambient water quality monitoring has continued, and analysis capabilities have grown. A non-ambient QAPP has been drafted. HCFCD continues to develop their non-ambient BMP database. H-GAC has developed and tested a regional implementation database. [Overall, bacteria levels have continued to decline.]
Focus 	Focus in the coming year will be on continuing ambient water quality monitoring and analysis and strengthening implementation tracking and coordinating non-ambient efforts.
Revisions 	The work group does not recommend changes to the I-Plan.

Implementation Strategy 10.0:

Research

Work Group Recommendations





Meeting March 7, 2013. 9 attendees, including 2 BIG members and 2 alternates.

Progress 	Progress has been adequate. Activity has begun or is ongoing for each of the research priorities.
Achievements 	H-GAC is applying for grant funding to look at bacteria persistence and regrowth in local streams. The HCFCD's BMP database shows promise for looking at stormwater BMP effectiveness. H-GAC has been able to begin to analyze local water quality data to determine the relationship between <i>E. coli</i> and Enterococcus as a means to look at appropriate indicators.
Focus 	Focus in the coming year will be on continuing existing programs and projects and on securing funding for additional projects. The relationship between bacteria and the supernatant and colloidal sediment that pass through a .45 micron filter should be a research focus in the coming year.
Revisions 	The work group does not recommend changes to the I-Plan.

Implementation Strategy 11.0: Geographic Priorities

Work Group Recommendations

Meeting March 7, 2013. 9 attendees, including 2 BIG members and 2 alternates.

Progress 	Progress has been adequate. Activity has begun and is ongoing.
Achievements 	Seven-year geometric means for each of the assessment units identified in the 2012 “Most Wanted List” (of stations with the highest bacteria levels) have gone down, some significantly. Stakeholder response has been positive and action-oriented.
Focus 	Focus in the coming year will be on continuing to address the “Most Wanted List,” building on the momentum of stakeholders to address specific problem areas, and on beginning to address the “Most Likely to Succeed List” (MLSL, stations with bacteria levels closest to meeting the standards). Most of the MLSL stations saw increase bacteria levels. Harris County will continue developing analytical capabilities to geographically prioritize waterways based in part of BIG recommendations for geographic priorities.
Revisions 	The work group does not recommend changes to the I-Plan.