

Implementation Strategy 4.0: Storm Water and Land Development

The BIG project area has experienced rapid population growth resulting in increased land development, which in turn has led to challenges in maintaining waterways as areas for recreation. These changes may also impact bacteria levels in the waterways.

Bacteria sources, such as wastes from pets, wildlife, and even humans, can be washed into storm drains and then discharged into local waterways. Because storm water systems are designed to quickly and efficiently remove storm water from developments, storm water often bypasses the natural vegetative barriers that filter sheet flow over the land. Thus, bacteria loading may be more concentrated. Infrastructure, such as pipes, inlets, culverts, interceptors, basins, reservoirs, outfalls, and channelized waterways, can also increase direct bacterial loading. The TMDLs for Buffalo and Whiteoak bayous indicate that storm water from permitted municipal separate storm sewer systems (MS4s) is a significant source of bacteria loading.⁷¹

Existing requirements of MS4 permits address some important elements of bacteria loading in storm water, offering an adaptive rather than prescriptive approach to bacteria reduction. Furthermore, many smaller cities and some unincorporated county areas do not currently have storm water permits, but may become designated as an MS4-permitted community in the future, possibly because of new census data. Some smaller cities and unincorporated areas should be encouraged to voluntarily adopt the six elements of MS4 Phase II permits.⁷²

Structural BMPs, such as modifications to storm water outfalls that may reduce bacteria through aeration, treatment by sunlight, or physical removal of contaminants, have the potential to reduce bacteria loading into waterways. Because there is limited data regarding how well such BMPs might reduce bacteria loading, the BIG has identified the evaluation of the effectiveness of storm water implementation activities as one of the top research priorities. (See Research Priority 10.1.) Any research, particularly research relevant to the BIG area, should be reported and shared with BIG stakeholders, through Implementation Activities 4.2, 9.2, and 9.4.2, so that stakeholders can devise appropriate strategies for integrating structural storm water BMPs into their activities.

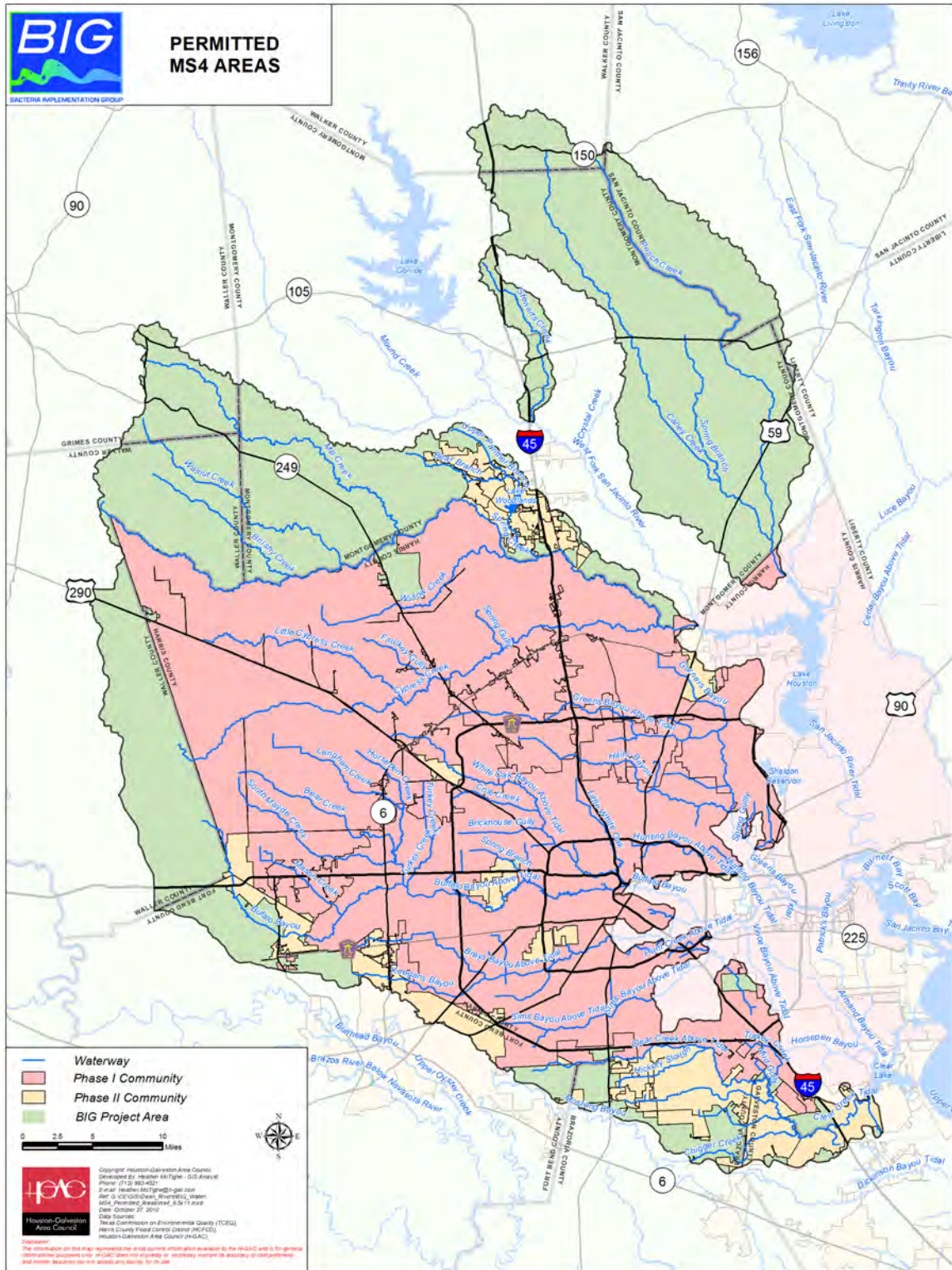
A map of MS4 areas in the region is shown in Figure 5. Examples of current programs are provided in Appendix F, along with a list of storm water permits in the region provided in Appendix G.

⁷¹ (TCEQ 2009a, p. 44)

⁷² (U.S. Environmental Protection Agency 2000)

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Figure 5: Map of Permitted MS4 Areas



Implementation Activity 4.1: Continue Existing Programs

Local governments, especially those with MS4 permits, already employ extensive and innovative storm water and land development programs, some of which address other bacteria sources identified in this I-Plan. These programs shall be continued as deemed appropriate by the entities that manage them.

For both the library of best practices and the networking meetings, particular attention should be paid to identifying best practices that involve the following:

- How to implement structural BMPs and storm water controls that address bacteria reduction,
- Opportunities for watershed-based policies and activities,
- Codes, design criteria, and other specifications that address storm water bacteria loading,
- How to encourage the use of green infrastructure in street design, sidewalk design, and storm water management programs,
- How to incorporate bacteria reduction elements into flood control features where practicable, and
- How impervious cover affects water quality and bacteria loading, and best practices to address potential negative influences of impervious cover.

Implementation Activity 4.2: Model Best Practices

Existing programs can serve as models for other local governments and land developers in the project area. As resources allow, H-GAC shall provide forums for sharing information about existing programs and for coordinating collaboration.

4.2.1: Create and maintain an online library of best practices

H-GAC or another appropriate entity will create and maintain an online library of storm water and land development best management practices (BMPs) and storm water controls specific to bacteria load reduction that have been implemented regionally. Local governments will provide information about their BMPs and storm water controls, which may include ordinances, policies, and structural BMPs and storm water controls.

4.2.2: Coordinate networking meetings

As resources allow, H-GAC or another appropriate entity will facilitate a series of meetings relating to storm water and land development BMPs and storm water controls. Each meeting will highlight BMPs and storm water controls implemented by MS4 permittees and focus on either a required element of an MS4 permit or BMPs and storm water controls that fall outside the scope of the permit. These meetings should lead to discussion of model BMPs, storm water controls, and other practices, including the identification of practical opportunities for collaboration at a watershed level. These meetings shall also

serve as a forum for collaborative development and maintenance of regionally accepted codes, design criteria, structural BMP information, effectiveness monitoring and information, and guidelines.

Implementation Activity 4.3: Encourage Expansion of Storm Water Management Programs

Existing storm water management programs shall be improved voluntarily, and the geographic application of storm water programs shall be expanded voluntarily, unless EPA chooses to expand the definition of the area encompassed by an MS4. If, after five years, voluntary actions are not implemented, stakeholders shall consider mandatory expansion.

4.3.1: Encourage permitted MS4 communities to voluntarily expand and refine elements of their storm water programs that address bacteria

Local governments are encouraged to focus their existing programs on activities that are specific to bacteria reduction. The BIG encourages the TCEQ to consider bacteria when evaluating and approving MS4 permit renewals within the BIG project area.

4.3.2: Encourage local governments without MS4 permits to voluntarily develop and implement a storm water management program to address bacteria loading

Storm water programs similar in structure and content to, or in conjunction with, MS4-permitted programs should be considered. A local government which does not require a storm water permit should prepare, adopt, implement, and enforce as appropriate a storm water management plan that meets the general requirements of the TCEQ's small MS4 general permit (TXR040000),⁷³ as suitable for their community. Elements of such a plan might include activities related to the six minimum control measures identified in a small MS4 general permit.⁷⁴

4.3.3: If voluntary measures are not implemented or bacteria reduction is not being achieved, petition the TCEQ to mandate storm water program development

The BIG can petition the TCEQ to require activities that are bacteria-specific in MS4 permits or to designate communities that do not already have an MS4 permit. Starting in year four after the adoption of this I-Plan, H-GAC shall, provided sufficient resources are available, evaluate communities to determine whether they have developed or improved a storm water program to reduce bacteria loading in waterways. Criteria that will be evaluated are formal adoption of the storm water plan by elected

⁷³ General Permit TXR040000 for Phase II (Small) MS4s (TCEQ 2007)

⁷⁴ For more information, see the EPA's Fact Sheet 2.0: Small MS4 Stormwater Program Overview (U.S. Environmental Protection Agency 2005)

officials of the local government, funding levels for the program, self-reports of storm water activities, and bacteria levels in local water bodies.

The H-GAC will provide a report to the BIG for evaluation. If local governments have not modified or created a storm water program by the end of year five after the adoption of the I-Plan, the BIG shall recommend that the TCEQ consider additional permit requirements for those communities.

Implementation Activity 4.4: Promote Recognition Programs for Developments that Voluntarily Incorporate Bacteria Reduction Measures

Several recognition programs already exist or are being developed that address land development and infrastructure. Many of these programs are high-profile, comprehensive programs that could have a positive effect on bacteria loading from these sources. However, the programs are not specific to either bacteria or the BIG region. For this reason, the BIG proposes two complementary elements of action, participating in existing recognition programs and develop a recognition program specific to storm water for the region.

4.4.1: Encourage voluntary participation in existing recognition programs

Several voluntary programs that address land development and storm water have been developed or are being developed, including:

- *Leadership for Energy & Environmental Design 2009 for Neighborhood Development Rating System*⁷⁵
- *International Green Construction Code*⁷⁶
- *National Green Building Standard*⁷⁷

Although these programs focus specifically on neither bacteria reduction nor this region, they do contain elements that may help reduce bacteria loading. The BIG encourages local governments, land developers, and stakeholders to promote these programs and similar programs as appropriate. Local governments shall analyze their local regulations and programs in an effort to eliminate hurdles to the attainment of the requirements in these programs.

⁷⁵ (Congress for the New Urbanism, Natural Resources Defense Council, and the U.S. Green Building Council 2009)

⁷⁶ (International Code Council 2010)

⁷⁷ (National Association of Home Builders and the International Code Council n.d.)

4.4.2: Develop a recognition program specific to storm water and land development in the BIG area

As resources are available, H-GAC shall convene a committee and work with existing local groups to develop a voluntary certification or recognition program that will promote storm water and land development practices that are intended to reduce bacteria loading from storm water and land development. The program may apply to developments, builders, developers, local governments, drainage districts, and others. The committee will consider, among other things:

- Criteria for development and redevelopment,
- Criteria for storm water infrastructure,
- Integration with existing programs,
- Funding, and
- Scope of the program.

Implementation Activity 4.5: Provide a Circuit Rider Program

As resources are available, H-GAC shall manage a circuit-rider program to provide evaluation and technical assistance to communities implementing storm water programs. In particular, the circuit rider can provide assistance in identifying and adapting model program elements for specific communities, identifying partnership opportunities, identifying funding mechanisms, and evaluating local regulations that might present obstacles to pursuing recognition programs outlined in this section. The circuit rider program shall also work toward the collaborative development and maintenance of regionally-accepted codes, design criteria, structural BMP information, effectiveness monitoring and information, and guidelines, which may improve consistency in land development and redevelopment practices.

Implementation Activity 4.6: Petition the TCEQ to Facilitate Reimbursement of Bacteria Reduction Measures

The BIG will work with TCEQ staff to interpret existing policies to facilitate MUD reimbursement to developers for storm water quality features (which may otherwise be considered part of a developer's amenity package and not subject to MUD reimbursement) in their plans for development. As part of this discussion, the parties, including the engineering and development communities, will work to develop criteria which can be used to determine the eligibility of a water-quality feature for reimbursement. If necessary, the BIG shall write a letter to the TCEQ encouraging the adoption of policies.

Appendix J: Load Reduction Value Information

Due to the large number of TMDLs covered by this I-Plan and the imprecise bacteria loading values from various sources, estimated load reductions more specific than those given in the following sections could not be determined. Load reductions for each source will vary from segment to segment based on a variety of factors including, but not limited to, the existing land uses in the watersheds and the current loadings from each source.

These load reduction percentages are not based on results of any direct, peer-reviewed, or technically supported studies performed on pathogens or fecal indicators in waterways in the greater Houston area. Many of the estimated reductions are presumptions based on the broad application of the referenced pollutant studies and behavior predictions, some of which are not specifically water related. Also, as this is only a presumed reduction in fecal load; it is still undetermined how this estimated reduction in fecal load would translate to reduction in fecal indicators or the level of pathogens in the water body. Given the untested nature of this information in our area, these estimated potential load reduction percentages should be considered as broad approximations based on limited information and subject to a large margin of error. More due diligence and validation should be required prior to obligating resources based on them.

Although the load reductions presented in the following sections may be less than the load reductions required by the TMDLs, the BIG intends that greater load reductions may be achieved through the iterative process of implementation. The ultimate goal of this I-Plan is continued progress toward greatly reduced bacteria levels.

Implementation Strategy 1.0: Wastewater Treatment Facilities (IS1)

10 percent-20 percent reduction in load assigned to WWTFs

The estimated load reductions for the seven main activities within IS1 range from zero to 45 percent of the load assigned to WWTF. Based on studies of compliance and enforcement in other fields, the hypothesis is that the strategy with the greatest potential for reducing loads would be improved compliance and enforcement, although concerns exist that resources available are insufficient to attain the full reduction estimate. Over 25 years these seven activities could result in a reduction of up to 20 percent in the load assigned to WWTF.

Implementation Activity 1.1: Impose More Rigorous Bacteria Monitoring Requirements is expected to reduce the waste load allocation assigned to WWTFs by 2-4 percent. The hypothesis is that this action will function in a manner similar to mass communication to change public behavior, which is typically

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about 2 percent for public health campaigns.¹⁴⁵ In this instance, the behavior changes are mandated by permits, and so participation is expected to be greater than for campaigns directed at the general public.

Implementation Activity 1.3: Increase Compliance and Enforcement by the TCEQ is expected to reduce the waste load allocation assigned to WWTFs by up to 45 percent. In a study of random unannounced inspections of tobacco retailers over seven years regarding underage sales, compliance increased to approximately 90 percent when compliance began at 33 percent.¹⁴⁶ Targeted inspections at WWTFs may not show such a marked increase in compliance because they go after the repeat offenders and will start to leave out those consistently in compliance. Additionally, WWTF inspections look at numerous regulations as opposed to the one considered in the tobacco studies, which results in a greater opportunity for noncompliance. If only compliance with bacteria limits were considered for when measuring compliance trends would likely behave closer to the tobacco study results than otherwise.

Implementation Activity 1.5: Upgrade Facilities is expected to reduce the waste load allocation assigned to WWTFs by 12 percent. TCEQ data indicates that, at any one time, samples from 5-10 percent of select WWTFs in the BIG area do not meet the single grab sample limit of 197 *E. coli*/100 mL. This estimate of a 12 percent reduction, as a result of the implementation of 1.5, was based on a 6 percent non-compliance rate for WWTFs and the average concentration of *E. coli* samples during sampling of WWTFs between 2001 and 2006 in the Buffalo and Whiteoak Bayou watersheds.¹⁴⁷ In actuality, the loading from many plants would not be reduced at all by updates, while for some WWTFs, the load reduction from making updates would be far more substantial than 12 percent. Load reductions will probably not be 12 percent for any individual plant.

Implementation Activity 1.6: Consider Regionalization of WWTFs is estimated to produce no reduction in the waste load allocation assigned to WWTFs except in segments where chronically non-compliant WWTFs are identified and subsequently made compliant or regionalized. In these particular segments the reduction will be estimated after identification of the chronically non-compliant facilities is complete.

Implementation Strategy 2.0: Sanitary Sewer Systems (IS2)

75 percent reduction of calculated load from reported SSOs

The estimated load reduction for the six main activities within IS2 range from zero to 75 percent of the load from reported SSOs. Based on staff estimates, UAMP may substantially reduce the number of SSOs

¹⁴⁵ (Abroms and Maibach 2008)

¹⁴⁶ (Lally 2000)

¹⁴⁷ (TCEQ 2009a)

and the causes of those violations. Reported SSOs represent only a portion of the loading from sanitary sewer systems, however it should be possible to address most SSOs.

Implementation Strategy 3.0: On-Site Sewage Facilities (IS3)

75 percent reduction of current load from OSSF

The estimated load reduction from the three main activities within IS3 is a 75 percent reduction of the current load from OSSFs over 25 years. The TMDL projects identify approximately 2,100 failing OSSFs in the BIG region. Replacing or repairing 100 failing systems each year over 25 years is possible. Other measures should compensate for the expected increase in the number of systems that fail within the next 25 years. Of particular note is a Galveston County study that indicated that 20-46 percent of surveyed participants changed their behavior based on educational material.¹⁴⁸

Implementation Strategy 4.0: Storm Water and Land Development (IS4)

20 percent reduction in loading from storm water each year, compounded

The estimated annual load reduction from the six main activities within IS4 is 20 percent. Studies indicate that individual activities can range from increasing bacterial loads to a 99 percent reduction. In the absence of better data, analogous studies pertaining to other constituents in large scale development, as documented in *The Practice of Low Impact Development* sponsored by the U.S. Department of Housing and Urban Development, suggest a range of values in various situations, but can be conservatively be averaged to be about 20 percent.¹⁴⁹ Implementation activities related to storm water are expected to reduce bacteria loading from storm water and land development by up to 20 percent over the entire implementation process.

Implementation Strategy 5.0: Construction (IS5)

Up to 85 percent reduction in loading from construction sites

Up to an 85 percent annual load reduction is estimated from the main activity within IS5. Effectiveness studies for construction site best management practices have largely focused on removal of sediment from runoff. Subsequently, information regarding the effectiveness of erosion and sediment control measures at removing bacteria from runoff is lacking and sediment removal efficiencies are often used as a surrogate for bacteria removal efficiencies. A Virginia Implementation Plan, *A Total Maximum Daily*

¹⁴⁸ (Galveston County Health District 1998)

¹⁴⁹ (NAHB Research Center, Inc. 2003)

Load Implementation Plan for Knox Creek and Pawpaw Creek,¹⁵⁰ indicates bacteria and sediment removal rates of up to 85 percent for erosion and sediment controls. If the rules, guidelines, and best management practices for our region are implemented, best professional judgment suggests that bacteria loads from construction sites will be substantially reduced.

Implementation Strategy 6.0: Illicit Discharges and Dumping (IS6)

5 percent reduction in loading from illicit discharges and dumping each year

The estimated load reduction from the three main activities within IS6 is 5 percent. Best professional judgment suggests that a slight to moderate decrease in loading may be accomplished.

Implementation Strategy 7.0: Agriculture and Animals (IS7)

10 percent reduction in loading from agriculture and animals each year

The estimated load reduction from the two main activities within IS7 is ten percent each year. Studies of animal-population-based estimates show up to a 65 percent reduction in loading per population addressed¹⁵¹ This, combined with the assumption that a limited number of populations will be addressed each year, suggests only mild load reductions as a result of these activities.

Implementation Strategy 8.0: Residential (IS8)

2 percent reduction of load from residential sources each year

The estimated load reduction from the main activity within IS8 is 2 percent each year. Studies of public health campaigns suggest that advertising and marketing has a limited influence on behavior modification, although sustained efforts over multiple years can lead to improved results.¹⁵² Best professional judgment suggests a slight decrease in loading may be accomplished.

¹⁵⁰ (Map Tech, Inc. and New River-Highlands RC & D 2008)

¹⁵¹ (Wagner, et al. 2008)

¹⁵² (Abroms and Maibach 2008)

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Table 24: Implementation Strategy 4.0: Storm Water and Land Development

(a) Causes/ Sources	(b) Implementation Activities and Targeted Critical Areas	(c) Estimated Potential Load Reduction	(d) Technical and Financial Assistance Needed for Each Activity	(e) Education Component for Each Activity	(f) Schedule of Implementation for Each Activity	(g) Interim, Measureable Milestones for Each Activity	(h) Indicators to Measure Progress	(i) Monitoring Component	(j) Responsible Entity
Storm water runoff	Implementation Activity 4.1: Continue Existing Programs	In conjunction, IAs 4.1 through 4.6 are expected to reduce bacteria loading from storm water and land development by up to 20% over the entire implementation process	<u>Technical</u> - No additional technical assistance is needed to undertake this activity <u>Financial</u> - existing local funding and grant funding as available	Education will be provided as specified in existing programs.	As resources are available, implementation of this activity will begin immediately and will continue for the entire implementation process.	80 programs will continue.	Reports, which may be in the form of existing reports, provided by stakeholders to the BIG regarding continuation of the programs The number of programs continued	H-GAC will collect reports, which may be in the form of existing reports, from appropriate entities	Cities, counties, TCEQ, and permitted MS4 communities, and other stakeholders: Continue existing programs, report progress to the BIG H-GAC: collect progress reports, which may be in the form of existing reports, provide annual report to BIG BIG: Evaluate progress
Storm water runoff	Implementation Activity 4.2: Model Best Practices	In conjunction, IAs 4.1 through 4.6 are expected to reduce bacteria loading from storm water and land development by up to 20% over the entire implementation process	<u>Technical</u> - technical assistance will be provided by stakeholders through the participation process <u>Financial</u> - existing local funding and grant funding as available	As resources allow, collaborative networking meetings will be offered on an ongoing basis to address the topics of minimum control measures required in MS4 permits and/or related BMPs Website highlighting best practices	As resources are available, implementation of this activity will begin immediately and will continue for the entire implementation process.	Four to six networking meetings each year Five local programs highlighted on H-GAC or other appropriate website each year	Number of meetings each year Number of attendees at networking meetings Number of programs highlighted on website Number of visitors to the web library Number of programs modified as a result of meetings or evaluation of model programs	H-GAC will collect reports, which may be in the form of existing reports, from appropriate entities	Cities, counties, TCEQ, and permitted MS4 communities, and other stakeholders: Provide information to the BIG regarding model programs, attend meetings, view website H-GAC: coordinate meetings, develop website, collect progress reports, which may be in the form of existing reports, provide annual report to BIG BIG: Evaluate progress

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(a) Causes/ Sources	(b) Implementation Activities and Targeted Critical Areas	(c) Estimated Potential Load Reduction	(d) Technical and Financial Assistance Needed for Each Activity	(e) Education Component for Each Activity	(f) Schedule of Implementation for Each Activity	(g) Interim, Measureable Milestones for Each Activity	(h) Indicators to Measure Progress	(i) Monitoring Component	(j) Responsible Entity
Storm water runoff	Implementation Activity 4.3: Encourage Expansion of Storm water management Programs	In conjunction, IAs 4.1 through 4.6 are expected to reduce bacteria loading from storm water and land development by up to 20% over the entire implementation process	<p>Technical- Several storm-water programs already exist and may be used as guides, including EPA and TCEQ programs and programs of MS4 permit holders. Engineering, legal, or other specialized technical help may be necessary in some communities</p> <p>Financial- existing local funding and grant funding as available. New local funding may be necessary</p>	<p>H-GAC, BIG, and other stakeholders shall contact local governments as resources are available</p> <p>Website and networking meetings, as specified in IA 4.2</p>	<p>As resources are available, implementation of this activity will begin immediately and will continue for the entire implementation process.</p> <p>By year five, all permit holders shall expand or focus their existing storm water programs as appropriate</p> <p>By year five, 30 previously unpermitted entities shall develop new programs</p>	<p>Number of reported program expansions/modifications Number of reported new programs</p>	<p>Reports of modified and new programs</p>	<p>H-GAC will collect reports, which may be in the form of existing reports, from appropriate entities</p>	<p>Cities, counties, TCEQ, and permitted MS4 communities, and other stakeholders: Expand and focus existing programs, develop new programs, report progress to the BIG</p> <p>H-GAC: collect progress reports, which may be in the form of existing reports, provide annual report to BIG</p> <p>BIG: Evaluate progress; as appropriate, recommend expansion of MS4 program to TCEQ</p>
Storm water runoff	Implementation Activity 4.4: Promote Recognition Programs for Developments that Voluntarily Incorporate Bacteria Reduction Measures	In conjunction, IAs 4.1 through 4.6 are expected to reduce bacteria loading from storm water and land development by up to 20% over the entire implementation process	<p>Technical- Technical assistance will be needed from stakeholders and experts from existing recognition programs</p> <p>Financial- existing local funding and grant funding as available</p>	<p>-Website</p> <p>-Stakeholder participation process</p> <p>-Education as identified in the development of the recognition program</p>	<p>As resources are available, implementation of this activity will begin immediately and will continue for the entire implementation process.</p>	<p>Within five years, develop a recognition program</p> <p>Upon completion of the program development, recognize at least one community/ project each year for five years and an increasing number of communities/ projects thereafter, or as specified as part of the program development process</p> <p>Two communities each year analyze regulations and programs to accommodate participation in existing programs</p>	<p>A new recognition program</p> <p>Number of communities/projects participating in existing programs</p> <p>Number of communities/projects participating in new recognition program</p> <p>The number of local regulations modified to accommodate participation in existing recognition programs</p>	<p>H-GAC will collect reports, which may be in the form of existing reports, from appropriate entities</p>	<p>H-GAC and other stakeholders: Develop and promote new recognition program; accommodate existing programs; provide annual reports</p> <p>Developers and other stakeholders: Participate in recognition programs and development thereof</p> <p>H-GAC: collect progress reports, which may be in the form of existing reports, provide annual report to BIG, facilitate development of recognition program</p> <p>BIG: Evaluate progress</p>

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(a) Causes/ Sources	(b) Implementation Activities and Targeted Critical Areas	(c) Estimated Potential Load Reduction	(d) Technical and Financial Assistance Needed for Each Activity	(e) Education Component for Each Activity	(f) Schedule of Implementation for Each Activity	(g) Interim, Measureable Milestones for Each Activity	(h) Indicators to Measure Progress	(i) Monitoring Component	(j) Responsible Entity
Storm water runoff	Implementation Activity 4.5: Provide a Circuit Rider Program	In conjunction, IAs 4.1 through 4.6 are expected to reduce bacteria loading from storm water and land development by up to 20% over the entire implementation process	<u>Technical-</u> technical assistance will be provided by stakeholders through the participation process <u>Financial-</u> existing local funding and grant funding as available	The circuit-rider program will focus on education	As resources are available, implementation of this activity will begin immediately and will continue for the entire implementation process.	Employment of circuit rider Each year, contact 50 stakeholders and provide five in- depth community consultations	As specified by the circuit rider, number of stakeholders contacted and number of in-depth community consultations	H-GAC will collect reports, which may be in the form of existing reports, from appropriate entities	Cities, counties, TCEQ, and permitted MS4 communities, and other stakeholders: Work with circuit rider to improve programs H-GAC: collect progress reports, which may be in the form of existing reports, provide annual report to BIG, oversee circuit-rider program BIG: Evaluate progress
Storm water runoff	Implementation Activity 4.6: Petition TCEQ to Facilitate Reimbursement of Bacteria Reduction Measures	In conjunction, IAs 4.1 through 4.6 are expected to reduce bacteria loading from storm water and land development by up to 20% over the entire implementation process	<u>Technical-</u> Engineering, legal, or other specialized technical help may be necessary <u>Financial-</u> existing local funding and grant funding as available	Occasional stakeholder communications	As resources are available, implementation of this activity will begin immediately and will continue for the entire implementation process.	Letter of commitment (or similar) from TCEQ within three years	Letter of commitment (or similar) from TCEQ	H-GAC will collect reports, which may be in the form of existing reports, from appropriate entities	Stakeholders: Work with TCEQ to provide guidance TCEQ: interpret existing policies, promulgate guidance H-GAC: collect progress reports, which may be in the form of existing reports, provide annual report to BIG BIG: Evaluate progress