



**Illicit Discharges and Dumping Workgroup
Meeting Agenda
Tuesday, January 8, 2013
8:30 am to 10:00 am
H-GAC Conference Room B, Second Floor**

Call to Order/Welcome/Introductions

Welcome & Introductions

Review Agenda

Discussion

- **Update on I-Plan Process**
- **Review Progress** (35 minutes) Items identified in the discussion will be included in the annual plan.
 - IA 6.1: Detect and Eliminate Illicit Discharges
 - H-GAC examined about sixty 2010 Phase II MS4 Operator annual reports for information relating to illicit discharges.
 - Five reported identifying no illicit discharges
 - Three reported a combined total of 12 illicit discharges
 - One indicated that one illicit discharge had been resolved or eliminated
 - Most MS4s have been inspecting and/or mapping their system over the term of their permit.
 - City of Houston efforts
 - IA 6.2: Improve Regulation and Enforcement of Illicit Discharges
 - Most MS4s have reported having regulations pertaining to illicit discharges.
 - H-GAC has not compiled regulations.
 - IA 6.3: Monitor and Control Waste Hauler Activities
 - 6.3.1: Develop regulations pertaining to waste hauler activities
 - 6.3.2: Waste Hauler Fleet Tracking Pilot Program
 - No activity has been initiated.
- **Identify Priorities**
 - What are the priorities towards which we should be focusing our efforts?



- **Determine Recommendations to the BIG for Annual Report**
 - The workgroup must make recommendations to the BIG regarding activities related to the work group. Using a sample form conceptually approved by the BIG, meeting participants will consider the following:
 - Status of activities (not started/in progress/complete, ahead/on/behind schedule)
 - Progress
 - Achievements
 - Focus
- **Discuss potential additions to the annual report and modifications to the I-Plan**
 - What changes does the work group wish to recommend to the BIG?
 - Review of 2012 recommendations

Wrap-up

Review tasks

BIG Annual Meeting: May 22

Adjourn

Note: Attendees are invited to attend a meeting of H-GAC's Local Environmental Enforcement Roundtable in conference room C immediately following the work group meeting.

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

Implementation Strategy 6.0: Illicit Discharges and Dumping

Illicit discharges and dumping illegally introduce contaminants into waterways. Sources include illicit discharges and connections to storm sewers, as well as direct discharges and dumping to the water body itself. While a wide variety of sources may introduce contaminants to a water body, the following implementation activities specifically address bacterial contamination, both mobile and stationary.

Many of the TMDLs in the BIG region indicate that illicit discharges and dumping account for significant dry-weather bacteria loadings. Outfalls in Buffalo and Whiteoak Bayous TMDL have bacterial *E. coli* loads ranging from 7.43×10^5 to 2.21×10^{11} MPN/day.⁸⁷ In Whiteoak Bayou, these discharges represented the largest source of indicator bacteria loading.⁸⁸ Similarly, in Clear Creek, estimates indicate that between a quarter and a third of all outfalls have illicit dry-weather discharges, and that more than 20 percent of these had *E. coli* concentrations of over 1000 cfu/mL, more than eight times the in-stream standard.⁸⁹

Stakeholders have expressed concern that mobile waste haulers may contribute bacteria directly to area bayous. Waste from septic systems, grease traps, and grit traps is hauled from its originating point. While regulations dictate this waste be properly transported and recorded on a manifest, anecdotal evidence raises suspicion that this waste may not always be properly disposed in a treatment facility.

Given the transitory nature of these discharges, there are no flow-adjusted estimates for their contributions. They have been a widely cited potential source among the project stakeholders. Sampling data, such as unexplained spikes in bacteria levels with no corresponding permitted outfalls or sources nearby, may help identify illicit discharge sources.

Programs to detect and eliminate these illegal discharges are an integral part of TPDES Phase I and II stormwater permits. As such, the activities discussed in this section may also be considered as part of Implementation Strategy 4.0. While all communities and jurisdictions will participate in implementation efforts, the extent to which these activities are applied may vary by individual need and ability.

Implementation Activity 6.1: Detect and Eliminate Illicit Discharges

Jurisdictions shall devise and implement a program, as they deem practicable, to detect and eliminate illicit discharges that assist them in identifying sources for further enforcement action. This implementation activity is similar to the programs required under stormwater permits, but with a

⁸⁷ (TCEQ 2009a)

⁸⁸ (TCEQ 2009a)

⁸⁹ (TCEQ 2008b)

specific focus on direct, bacteria-laden discharges. Existing illicit discharge programs can be modified to focus on bacteria.

Elements of the detection portion of the program may consist of:

- Conducting field surveys of waterways and associated drainage channels,
- Reviewing existing spatial data (geographic information system, engineering drawings, etc.) with on-site visual inspections of water body channels,
- Producing or revising a storm sewer map of all outfalls and the names and locations of all waters of the state that receive discharges from the outfalls,
- Producing or revising, to the level of detail that meets the specific need of the government entity, an initial record of located discharges for comparison against permitted discharges (stormwater outfalls, permitted industrial outfalls, etc.), and
- Reviewing, verifying, and updating the program and data on a regular basis.

Sampling data, where available, may help predict where unidentified illicit point sources may be located (such as unexplained spikes in bacteria levels with no corresponding permitted outfalls or sources nearby). Publicity and outreach efforts regarding these actions, indicating enforcement is imminent, will help promote self-enforcement by current or potential point source dischargers.

Next, the program will seek to eliminate illicit discharges to the extent allowable under state and local law and as resources allow. Entities will pursue elimination through their established methods. If the existing abilities to eliminate these discharges are deemed insufficient, the local entity shall expand their program as detailed in Implementation Activity 6.2, as appropriate. Several illicit discharge detection programs already exist and may be used as guides by stakeholders for developing or altering their approach.⁹⁰

At least annually, local governments shall provide reports of how many illicit discharges have been found and how many have been eliminated. Provision of this information in a copy of an existing report is sufficient.

Implementation Activity 6.2: Improve Regulation and Enforcement of Illicit Discharges

To the extent allowable under state and local laws, an ordinance or other regulatory mechanism must be utilized to prohibit and eliminate illicit discharges. Each jurisdiction must also establish guidelines for enforcement for removing the source of an illicit discharge.

⁹⁰ An example, *A Guidance Manual for Identifying and Eliminating Illicit Connections Municipal Separate Storm Sewer Systems (MS4)*, is available online. (Galveston County Health District 2002)

Stakeholders are concerned current regulations and penalties often fail to act as deterrents, especially given a perceived low level of standardization and enforcement. Jurisdictions shall review and enforce existing regulations, or, as appropriate, develop or improve regulations relating to illicit discharges.

As resources are available, H-GAC shall compile local regulations and make the information available for other communities to emulate as appropriate. H-GAC will also facilitate coordination of standardization, as resources are available, possibly as part of the circuit rider program described in Implementation Strategy 4.0.

Implementation Activity 6.3: Monitor and Control Waste Hauler Activities

Waste haulers routinely transport bacteria-laden materials, including septic, grease trap, and grit trap wastes. When this highly concentrated, untreated waste is discharged into waterways instead of being properly disposed of or treated, it may represent a significant local increase in bacterial loading. Under this implementation activity, bacteria control will occur through the development of monitoring and control programs by individual communities and by a pilot program to monitor waste hauler fleets.

6.3.1: Develop regulations pertaining to waste hauler activities

While many jurisdictions have some degree of regulation regarding waste hauler activities, some programs have had greater success than others. Jurisdictions will, according to their needs and as practicable, create or update a program designed to monitor and control waste hauler activities. This program should integrate inspection and enforcement capacities in order to ensure the ability to provide a strong disincentive for non-compliance. State law⁹¹ allows counties and municipalities to permit and regulate the activities of septic, grease trap, and grit trap waste haulers, up to and including criminal penalties for non-compliance. As resources are available, H-GAC shall compile and make available information about the most effective waste hauler programs.

The City of Pasadena's program, for example, requires all waste haulers have a license or permit, know the nature of their cargo, and maintain a manifest. The program sets forth penalties for violations of these and other requirements, including revocation of permits and monetary fines for each day of non-compliance.⁹² Stakeholders may choose to pursue a regional approach to better track haulers who may operate in numerous jurisdictions. A previous regional project, the Environmental Enforcement Database Application (maintained from 2003-2008 as a pilot project by the H-GAC) shared secure

⁹¹ See Tex. Health & Safety Code Ann. § 368 (2011) (Subchapter A - Transporters of Grease Trap, Sand Trap, and Septic Waste)

⁹² See City of Pasadena, Tex., Code of Ordinances, ch. 37 (Water, Sewers and Sewage Disposal, Article VIII - Liquid Waste Generators and Transporters)

information for local enforcement agencies regarding waste hauler violations. A similar project may help individual entities identify and curtail violators.

6.3.2: Waste Hauler Fleet Tracking Pilot Program

To promote accountability and compliance among waste haulers, the BIG will consider pursuing a grant to develop a pilot program to install global positioning transponders and/or other apparatus or technology on the vehicles of waste haulers who have violated regulations relating to waste transport and disposal. H-GAC, the TCEQ, local jurisdictions, and waste companies would have access to the transponder feed to determine whether individual haulers are making unscheduled stops that may correlate to illicit discharges. Potential funding sources include EPA Section 319(h) nonpoint source program funding (via the TCEQ or the Texas State Soil and Water Conservation Board), State Revolving Fund monies through the Texas Water Development Board, and private foundations.

*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)

Table 26: Implementation Strategy 6.0: Illicit Discharges and Dumping

(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
Illicit Discharges and Dumping	Implementation Activity 6.1 (IA 6.1): Detect and eliminate illicit discharges	In conjunction with IAs 6.2 and 6.3, a 5% reduction in indicator bacteria loading from illicit discharges and dumping is expected over 25 years.	Technical- several illicit discharge detection programs already exist and may be used as guides, including publications by EPA and TCEQ and H-GAC's publication "NPS Guide to Identifying Illicit Connections." Engineering or other specialized technical help may be necessary in some communities Financial- existing local funding and grant funding when available	Collaborative workshops, offered as an implementation activity for stormwater, will address detection and elimination of illicit discharges.	As resources are available, implementation of this activity will begin immediately and will continue for the entire implementation process. Initial surveys/maps shall be completed within ten years.	Initial surveys shall be completed within ten years.	Information included in annual reports to the BIG Number of illicit discharges resolved each year Number of surveys completed Number of illicit discharges identified each year	H-GAC will collect reports, which may be in the form of existing reports, from jurisdictions such as counties and cities.	MS4 Permit holders and the state: identify and eliminate illicit discharges, map system, report progress Individual violators: eliminate illicit discharges H-GAC: collect and share information on the progress made each year BIG: Evaluate progress
Illicit Discharges and Dumping	Implementation Activity 6.2 (IA 6.2): Improve regulation and enforcement of illicit discharges	In conjunction with IAs 6.1 and 6.3, a 5% reduction in bacteria loading from illicit discharges and dumping is expected over 25 years.	Technical- regulations, ordinances, and orders of other communities, as collected and shared by HGAC, may serve as models. Legal assistance may be necessary. Financial- existing local funding and grant funding as available	Collaborative workshops, offered as an implementation activity for stormwater, will address detection and elimination of illicit discharges. Provision of example regulations provided on website As resources are available, a circuit rider will provide information and assistance Jurisdictions who choose to change or add regulations will need to offer public comment and participation as appropriate.	As resources are available, implementation of this activity will begin immediately and will continue for the entire implementation process.	Compile and share all existing regulations in project area within five years Each community shall examine their regulations and policies within five years One community shall adopt new or revised regulations every five years	Information included in annual reports to the BIG Number of new or revised regulations	H-GAC will collect reports, which may be in the form of existing reports, from jurisdictions such as counties and cities.	MS4 Permit holders and the state: Examine relevant regulations and make changes as appropriate; report progress H-GAC: collect and share information about communities' regulations; collect and share information on the progress made each year BIG: Evaluate progress

Implementation Plan for TMDLs for Bacteria in the Houston-Galveston Region

(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, Measurable Milestones for Each Activity	(h) Indicators to Measure Progress	(i) Monitoring Component	(j) Responsible Entity
Dumping by waste haulers	Implementation 6.3 (IA 6.3): Monitor and control waste hauler activities.	In conjunction with IAs 6.1 and 6.2, a 5% reduction in bacteria loading from illicit discharges and dumping is expected over 25 years.	<p>Technical- regulations, ordinances, and orders of other communities, as collected and shared by H-GAC, may serve as models. Legal assistance may be necessary. H-GAC's solid waste program may be able to provide assistance.</p> <p>Financial- existing local funding and grant funding as available</p>	<p>Collaborative workshops, offered as an implementation activity for stormwater, will address detection and elimination of illicit discharges.</p> <p>Provision of example waste hauler programs provided on website</p> <p>Jurisdictions who choose to change or add regulations will need to offer public comment and participation as appropriate.</p>	As resources are available, implementation of this activity will begin immediately and will continue for the entire implementation process.	<p>Compile and share all existing regulations in project area within five years</p> <p>Each community shall examine their regulations and policies within five years</p> <p>One community shall adopt new or revised regulations every five years</p> <p>One waste hauler fleet tracking pilot program shall be started within five years</p>	<p>Information included in annual reports to the BIG</p> <p>Number of new and revised regulations</p> <p>Number of new programs</p>	<p>H-GAC will collect reports, which may be in the form of existing reports, from jurisdictions such as counties and cities.</p>	<p>MS4 Permit holders and the state: Examine relevant regulations, make changes as appropriate; report progress</p> <p>H-GAC: collect and share information about communities' regulations; collect & share information about progress annually</p> <p>Funding recipient for waste hauler fleet tracking pilot program: manage program, provide reports</p> <p>BIG: Evaluate progress</p>



**Illicit Discharges and Dumping Workgroup
Meeting Notes
Thursday, February 15, 2012
10:00 am to noon
H-GAC Conference Room B, Second Floor**

Attendees

Pat Buzbee (Montgomery County, on phone), Richard Chapin (City of Houston, on phone), Roy Elizondo (Montgomery County), Tom Gall (White Oak Bayou Association), Frank Green (Montgomery County), Denise Hall (Harris County), Anita Hunt (Hunt & Hunt Engineering Corp.), Diane Jones (Harris County), Carole Lamont (Harris County), Rachel Powers (H-GAC), Mary Purzer (AECOM, on phone)

Discussion

Overview

The Implementation Plan is still undergoing internal review at TCEQ. TCEQ has not formally requested any changes to the document. Informally, TCEQ requested modification to the inside cover pages, which were made without changes to content.

The annual report will contain information about progress on activities identified in the Implementation Plan. The workgroup will be an important means for collecting information about implementation.

Review Progress. Items identified in the discussion will be included in the annual plan.

IA 6.1: Detect and Eliminate Illicit Discharges

- Measureable Milestone: Initial surveys shall be completed within ten years.

On May 17, 2012, H-GAC hosted a Clean Waters Initiative on the topic of illicit discharges.

MS4 Operators are required to map their storm sewer system, develop techniques for detecting illicit discharges, and establish enforcement procedures for removing the source of illicit discharges. Based on a review of annual reports, most MS4 operators have regulatory mechanisms in place at this time and procedures for detecting illicit discharges. However, almost none of the year three annual reports indicate the number of illicit discharges detected.

IA 6.2: Improve Regulation and Enforcement of Illicit Discharges

- Measureable Milestones:
 - Compile and share all existing regulations in project area within five years
 - Each community shall examine their regulations and policies within five years
 - One community shall adopt new or revised regulations every five years

Many of the Phase II operators have implemented new regulations as a requirement of the permit. However, H-GAC has not begun compiling existing regulations or tracking whether those regulations have been revised.

IA 6.3: Monitor and Control Waste Hauler Activities

6.3.1—Develop regulations pertaining to waste hauler activities

6.3.2—Waste Hauler Fleet Tracking Pilot Program

- Measureable Milestones:
 - Compile and share all existing regulations in project area within five years
 - Each community shall examine their regulations and policies within five years
 - One community shall adopt new or revised regulations every five years
 - One waste hauler fleet tracking pilot program shall be started within five years

H-GAC has not begun compiling existing regulations or tracking whether those regulations have been revised. H-GAC has not identified an appropriate funding source for the pilot program, although it continues to look.

Identify Priorities

The workgroup indicated that they would like to see a focus on waste haulers. When officers conduct inspections at restaurants, the manager/owner almost never has any record of having the grease traps cleaned. This led to a discussion of accountability relating to liquid waste haulers, and requirements for manifests and trip tickets.

Activities on which to focus:

- Compile regulations pertaining to liquid waste haulers.
- Identify registered haulers in the region.
- Identify entities with environmental enforcement officers/units.
- Possible training for prosecutors, attorneys, judges, and law enforcement, with a focus on obtaining CLEs for prosecutors and attorneys and possibly TCLOSE credit for law enforcement. H-GAC's environmental enforcement circuit rider program was very successful and offered several workshops. [<http://www.h-gac.com/community/waste/enforcement/ecrp/default.aspx>.] Rachel will follow up with Roger Haseman at Harris County.
- Identify ways to make waste hauling more accountable. The group discussed manifest/trip ticket requirements for grease haulers and for OSSF waste haulers, and Rachel said she would look into the requirements.

The group also determined that, at the annual meeting, it would like to ask the BIG to petition TCEQ to require OSSF owners to keep manifest receipts/trip tickets for three years. (Three years was chosen because it mirrors documentation requirements for other programs.) This should be brought up at the OSSF workgroup meeting for concurrence. Harris County attorney's office recently asked staff for recommendations regarding potential legislative action for the next Texas Legislature; HC staff will suggest this action to them internally.

Discuss potential additions to the annual report and modifications to the I-Plan

The group did not recommend any changes to the BIG.

Rachel will include a discussion of trip tickets at the OSSF workgroup meeting in March.

The group did indicate that it would like to ask the BIG to petition TCEQ to require OSSF owners to keep manifest receipts/trip tickets for three years.

Wrap-up

Rachel will provide notes for the meeting, including links to documents referenced in the discussion. She will draft the report on construction for the annual report and provide it to the workgroup for consideration before the report is provided to the BIG.

BIG Annual Meeting: May 22

Adjourn



National Pollutant Discharge Elimination System Stormwater Program

Small MS4 Report Form



The purpose of this report is to contribute information to an evaluation of the NPDES small municipal separate storm sewer system (MS4) permit program. Consistent with 40 CFR §122.37 the U.S. Environmental Protection Agency is assessing the status of the program nation-wide. A “no” answer to a question does not necessarily mean noncompliance with your permit or with the federal regulations. In order to establish the range of variability in the program it is necessary to ask questions along a fairly broad performance continuum. Your permitting authority may use some of this information as one component of a compliance evaluation.

1. MS4 Information

Name of MS4

Name of Contact Person (First) (Last) (Title)

Telephone (including area code) Email

Mailing Address

City State ZIP code

What size population does your MS4 serve? _____ NPDES number _____

What is the reporting period for this report? (mm/dd/yyyy) From _____ to _____

2. Water Quality Priorities

- A. Does your MS4 discharge to waters listed as impaired on a state 303(d) list? Yes No
- B. If yes, identify each impaired water, the impairment, whether a TMDL has been approved by EPA for each, and whether the TMDL assigns a wasteload allocation to your MS4. Use a new line for each impairment, and attach additional pages as necessary.

Impaired Water	Impairment	Approved TMDL		TMDL assigns WLA to MS4	
_____	_____	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
_____	_____	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
_____	_____	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
_____	_____	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
_____	_____	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
_____	_____	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
_____	_____	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
_____	_____	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No

- C. What specific sources contributing to the impairment(s) are you targeting in your stormwater program?

- D. Do you discharge to any high-quality waters (e.g., Tier 2, Tier 3, outstanding natural resource waters, or other state or federal designation)? Yes No
- E. Are you implementing additional specific provisions to ensure their continued integrity? Yes No

3. Public Education and Public Participation

- A. Is your public education program targeting specific pollutants and sources of those pollutants? Yes No
- B. If yes, what are the specific sources and/or pollutants addressed by your public education program?

- C. Note specific successful outcome(s) (e.g., quantified reduction in fertilizer use; NOT tasks, events, publications) fully or partially attributable to your public education program during this reporting period.

- D. Do you have an advisory committee or other body comprised of the public and other stakeholders that provides regular input on your stormwater program? Yes No

4. Construction

- A. Do you have an ordinance or other regulatory mechanism stipulating:
 - Erosion and sediment control requirements? Yes No
 - Other construction waste control requirements? Yes No
 - Requirement to submit construction plans for review? Yes No
 - MS4 enforcement authority? Yes No
- B. Do you have written procedures for:
 - Reviewing construction plans? Yes No
 - Performing inspections? Yes No
 - Responding to violations? Yes No
- C. Identify the number of active construction sites ≥ 1 acre in operation in your jurisdiction at any time during the reporting period. _____
- D. How many of the sites identified in 4.C did you inspect during this reporting period? _____
- E. Describe, on average, the frequency with which your program conducts construction site inspections.

- F. Do you prioritize certain construction sites for more frequent inspections? Yes No
If Yes, based on what criteria? _____
- G. Identify which of the following types of enforcement actions you used during the reporting period for construction activities, indicate the number of actions, or note those for which you do not have authority:

<input type="checkbox"/> Yes	Notice of violation	# _____	No Authority <input type="checkbox"/>
<input type="checkbox"/> Yes	Administrative fines	# _____	No Authority <input type="checkbox"/>
<input type="checkbox"/> Yes	Stop Work Orders	# _____	No Authority <input type="checkbox"/>
<input type="checkbox"/> Yes	Civil penalties	# _____	No Authority <input type="checkbox"/>
<input type="checkbox"/> Yes	Criminal actions	# _____	No Authority <input type="checkbox"/>
<input type="checkbox"/> Yes	Administrative orders	# _____	No Authority <input type="checkbox"/>
<input type="checkbox"/> Yes	Other _____	# _____	
- H. Do you use an electronic tool (e.g., GIS, data base, spreadsheet) to track the locations, inspection results, and enforcement actions of active construction sites in your jurisdiction? Yes No
- I. What are the 3 most common types of violations documented during this reporting period?

- J. How often do municipal employees receive training on the construction program? _____

5. Illicit Discharge Elimination

- A. Have you completed a map of all outfalls and receiving waters of your storm sewer system? Yes No
- B. Have you completed a map of all storm drain pipes and other conveyances in the storm sewer system? Yes No
- C. Identify the number of outfalls in your storm sewer system. _____
- D. Do you have documented procedures, including frequency, for screening outfalls? Yes No
- E. Of the outfalls identified in 5.C, how many were screened for dry weather discharges during this reporting period?

- F. Of the outfalls identified in 5.C, how many have been screened for dry weather discharges at any time since you obtained MS4 permit coverage? _____
- G. What is your frequency for screening outfalls for illicit discharges? Describe any variation based on size/type.

- H. Do you have an ordinance or other regulatory mechanism that effectively prohibits illicit discharges? Yes No
- I. Do you have an ordinance or other regulatory mechanism that provides authority for you to take enforcement action and/or recover costs for addressing illicit discharges? Yes No
- J. During this reporting period, how many illicit discharges/illegal connections have you discovered? _____
- K. Of those illicit discharges/illegal connections that have been discovered or reported, how many have been eliminated?

- L. How often do municipal employees receive training on the illicit discharge program? _____

6. Stormwater Management for Municipal Operations

- A. Have stormwater pollution prevention plans (or an equivalent plan) been developed for:
- | | | |
|--|------------------------------|-----------------------------|
| All public parks, ball fields, other recreational facilities and other open spaces | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| All municipal construction activities, including those disturbing less than 1 acre | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| All municipal turf grass/landscape management activities | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| All municipal vehicle fueling, operation and maintenance activities | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| All municipal maintenance yards | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| All municipal waste handling and disposal areas | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
- Other _____
- B. Are stormwater inspections conducted at these facilities? Yes No
- C. If Yes, at what frequency are inspections conducted? _____
- D. List activities for which operating procedures or management practices specific to stormwater management have been developed (e.g., road repairs, catch basin cleaning).

- E. Do you prioritize certain municipal activities and/or facilities for more frequent inspection? Yes No
- F. If Yes, which activities and/or facilities receive most frequent inspections? _____
- G. Do all municipal employees and contractors overseeing planning and implementation of stormwater-related activities receive comprehensive training on stormwater management? Yes No
- H. If yes, do you also provide regular updates and refreshers? Yes No
- I. If so, how frequently and/or under what circumstances? _____

7. Long-term (Post-Construction) Stormwater Measures

- A. Do you have an ordinance or other regulatory mechanism to require:
- Site plan reviews for stormwater/water quality of all new and re-development projects? Yes No
- Long-term operation and maintenance of stormwater management controls? Yes No
- Retrofitting to incorporate long-term stormwater management controls? Yes No
- B. If you have retrofit requirements, what are the circumstances/criteria?

- C. What are your criteria for determining which new/re-development stormwater plans you will review (e.g., all projects, projects disturbing greater than one acre, etc.) _____
- D. Do you require water quality or quantity design standards or performance standards, either directly or by reference to a state or other standard, be met for new development and re-development? Yes No
- E. Do these performance or design standards require that pre-development hydrology be met for:
- | | | |
|----------------------|------------------------------|-----------------------------|
| Flow volumes | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Peak discharge rates | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Discharge frequency | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Flow duration | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
- F. Please provide the URL/reference where all post-construction stormwater management standards can be found.

- G. How many development and redevelopment project plans were reviewed during the reporting period to assess impacts to water quality and receiving stream protection? _____
- H. How many of the plans identified in 7.G were approved? _____
- I. How many privately owned permanent stormwater management practices/facilities were inspected during the reporting period? _____
- J. How many of the practices/facilities identified in I were found to have inadequate maintenance? _____
- K. How long do you give operators to remedy any operation and maintenance deficiencies identified during inspections?

- L. Do you have authority to take enforcement action for failure to properly operate and maintain stormwater practices/facilities? Yes No
- M. How many formal enforcement actions (i.e., more than a verbal or written warning) were taken for failure to adequately operate and/or maintain stormwater management practices? _____
- N. Do you use an electronic tool (e.g., GIS, database, spreadsheet) to track post-construction BMPs, inspections and maintenance? Yes No
- O. Do all municipal departments and/or staff (as relevant) have access to this tracking system? Yes No
- P. How often do municipal employees receive training on the post-construction program? _____

8. Program Resources

- A. What was the annual expenditure to implement MS4 permit requirements this reporting period? _____
- B. What is next year's budget for implementing the requirements of your MS4 NPDES permit? _____

C. This year what is/are your source(s) of funding for the stormwater program, and annual revenue (amount or percentage) derived from each?

Source: _____ Amount \$ _____ OR % _____

Source: _____ Amount \$ _____ OR % _____

Source: _____ Amount \$ _____ OR % _____

D. How many FTEs does your municipality devote to the stormwater program (specifically for implementing the stormwater program; not municipal employees with other primary responsibilities)? _____

E. Do you share program implementation responsibilities with any other entities? Yes No

Entity	Activity/Task/Responsibility	Your Oversight/Accountability Mechanism
_____	_____	_____
_____	_____	_____
_____	_____	_____

9. Evaluating/Measuring Progress

A. What indicators do you use to evaluate the overall effectiveness of your stormwater management program, how long have you been tracking them, and at what frequency? These are not measurable goals for individual management practices or tasks, but large-scale or long-term metrics for the overall program, such as macroinvertebrate community indices, measures of effective impervious cover in the watershed, indicators of in-stream hydrologic stability, etc.

Indicator	Began Tracking (year)	Frequency	Number of Locations
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

B. What environmental quality trends have you documented over the duration of your stormwater program? Reports or summaries can be attached electronically, or provide the URL to where they may be found on the Web.

10. Additional Information

In the space below, please include any additional information on the performance of your MS4 program. If providing clarification to any of the questions on this form, please provide the question number (e.g., 2C) in your response.

Certification Statement and Signature

I certify that all information provided in this report is, to the best of my knowledge and belief, true, accurate and complete. Yes

Federal regulations require this application to be signed as follows: **For a municipal, State, Federal, or other public facility:** by either a principal executive or ranking elected official.

Name of Certifying Official, Title

Date (mm/dd/yyyy)





Submit

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.	Not 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.	Not started, On schedule
6.3	Monitor & Control Waste Hauler Activities	-Within five years, one waste hauler fleet tracking pilot program shall be started	Not started, On schedule

Work Group Recommendations

Meeting January 8, 2013. XX attendees, including X BIG members and X alternates.

<p>Progress</p> 	Progress has been slow. Little information has been gathered about activities.
<p>Achievements</p> 	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.
<p>Focus</p> 	Focus in the coming year will be on gathering information about implementation and on identifying resources related to liquid waste hauling.
<p>Revisions</p> 	The work group does not recommend changes to the I-Plan.

IA 6.0: Illicit Discharges and Dumping Elimination (IDDE)

Main Summary

The BIG is concerned about illicit discharges and dumping as sources of non-point source loading of bacteria into waterways in the project area. The TMDL reports support this concern, documenting multiple and illicit dry-weather discharges with elevated levels of bacteria. Anecdotal evidence suggests that unscrupulous mobile waste haulers also contribute bacteria to the waterways.

In response to the concerns about illicit discharges and dumping, the BIG has recommended that stakeholders focus on three activities. First, local governments should detect and eliminate illicit discharges specific to bacteria. Second, local governments should consider improving regulatory mechanisms relating to the regulation and enforcement of illicit discharges. Finally, the I-Plan recommends monitoring and controlling waste hauler activities through regulatory mechanisms and by exploring fleet tracking programs. Changes to the TCEQ's general permit for MS4 Phase II communities, which go into effect in late 2012, will lead to more robust reporting and tracking of illicit discharges.

The IDDE work group expressed continued concern about environmentally questionable practices by some waste haulers. The workgroup recommends that the BIG consider petitioning TCEQ to require generators or grease trap waste and grit trap waste and owners of on-site sewage facilities (OSSF, commonly known as septic systems) to keep all manifest records, or "trip tickets" for a period of three years from the date of pick up by the waste hauler and to make them available to regulatory authorities upon request. This recommendation could be incorporated into "Implementation Activity 3.2.2: Encourage repair and pump out logs be kept by homeowners and/or maintenance providers." Local governments that have been authorized by TCEQ to oversee OSSF permitting and enforcement may also consider such a requirement. Alternatively, informing OSSF owners and potential owners of the importance of verifying and retaining pump out trip tickets may serve to address concerns about tracking dishonest practices.

Detect and Eliminate, Regulate and Enforce

MS4 operators are required to map their storm sewer system, develop techniques for detecting illicit discharges, and establish enforcement procedures for removing the source of illicit discharges. Based on a review of annual reports from many of the approximately 120 MS4 operators in the region, most operators have regulatory mechanisms in place at this time and procedures for detecting illicit discharges. However, almost none of the MS4 Phase II year-three annual reports indicate the number of illicit discharges detected.

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Many of the Phase II operators have implemented new regulations as a requirement of their permit. However, H-GAC has not finished compiling existing regulations or tracking whether those regulations have been revised.

Waste Haulers

The hauling of liquid waste from OSSF, grease traps, and grit traps continues to be a significant concern to the Illicit Discharges and Dumping Workgroup, in urban, suburban, and rural environments. The workgroup identified the following activities in particular on which to focus efforts:

- Compile regulations pertaining to liquid waste haulers.
- Identify registered haulers in the region.
- Identify entities with environmental enforcement units (civil and criminal).
- Provide training for prosecutors, attorneys, judges, law enforcement and local environmental investigators, with a focus on obtaining CLEs for prosecutors and attorneys and possibly TCLOSE credit for law enforcement. H-GAC's environmental enforcement roundtable and environmental enforcement circuit rider programs may serve as a forum and model, respectively, for such training.
- Identify ways to make waste hauling more accountable, possibly through the manifest/trip ticket mechanism.

[*Callout Box: Renewal of the TCEQ's MS4 Phase II General Permit: The current TCEQ MS4 Phase II General Permit requires that operators have techniques and procedures in place for detecting and eliminating illicit discharges, and that they map their storm sewer system. The draft general permit renewal, proposed to become effective on August 13, 2012, contains more extensive requirements for IDDE. Specifications detail program development, MS4 mapping, identification of priority (high risk) areas, source investigation and elimination, public reporting, education and training, and dry weather field screening. These additional specifications should result in more robust IDDE programs and more information that can be tracked and measured as part of the BIG's annual evaluation of progress.]*

[*Callout Box: City of Webster adopts New Illicit Discharges Regulations. On November 16, 2012, The City of Webster adopted a new article in Chapter 86 of its code of ordinances. The new article prohibits any discharge into the MS4 that is not composed entirely of stormwater, with a limited number of exceptions such as air conditioning condensation. The article describes enforcement requirements, such as compliance and penalty information. In general, such changes to regulatory mechanisms are required by MS4 permits, to the extent allowable by law. The City of Webster's ordinance is fairly representative. The ordinance is available at http://library.municode.com/HTML/12477/level3/PTIICOOR_CH86UT_ARTIVRECOsierCOILDISTFAMAIN.html#TOPTITLE.]*

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[Callout Box: City of Pasadena's Dry-Weather Screening Program. Each year, the City of Pasadena screens approximately half of the major storm water outfalls for discharges during dry weather. The screening includes a visual check for flow in the storm sewer for characteristics such as: color, biota, odor, surface scum, turbidity, and oil sheen. When necessary, the City performs lab tests, such as analyses for copper, phenols, and detergents. If the results of the laboratory analyses confirm an illicit discharge, corrective action will be pursued through standard procedures, which can include legal action. For sites that require a follow-up investigation, the City will visit those sites within four to 24 hours. Sites with no discharge and no indication of a recent discharge will be visited only once. Sites with significant standing water in the conveyances will be labeled as "No flow" and will have a follow-up visit within four to 24 hours from the initial visit.

During this Reporting Period, Pasadena's storm water team screened 77 outfalls in three bayous. Of the outfalls screened, twelve were wet; all of them were due to potable water or ground water. The Water Distribution Department was notified and the leaks were repaired.]

[Callout Box: Harris County's Dry Weather Screening Program consists of screening 220 sites each year, comprised of a combination of major outfalls and commercial inspections. Active discharges at major outfalls during dry weather are investigated and enforcement action is taken when warranted. Commercial inspections consist of inspections at commercial facilities such as plant nurseries, restaurants, fueling stations, automotive and boat care; and vehicle and equipment washing. The approach for the commercial inspections is aimed at public outreach as well as enforcement. The data from the screened outfalls and the commercial inspections is maintained in a database at Harris County Pollution Control Services Department.