

**Illicit Discharges & Dumping Work Group**  
**DRAFT Meeting Notes**  
**Tuesday, January 8, 2013, 2013**  
**8:30 AM to 10:00 AM**  
**H-GAC Conference Room A, Second Floor**

### **Attendees**

Charlene Bohanon (Galveston Bay Foundation), Richard Chapin (City of Houston), Danielle Cioce (Harris County), Anita Hunt (Hunt & Hunt Engineering Corp.), Katie McCann (Galveston Bay Foundation), Denise Hall (Harris County), Rasheedah Mujtabay (City of Houston), Rachel Powers (H-GAC), Mary Purzer (AECOM)

### **Call to Order/Welcome/Introductions**

Rachel called the meeting to order and initiated self-introductions.

### **Review Notes from Last Year**

Rachel provided the notes from last year in case they were needed for reference.

### **Update on I-Plan Approval Process**

The TCEQ unanimously approved the BIG I-Plan on January 30, 2013. The approved version included the changes to the I-Plan that had been discussed at previous BIG meetings. None of the changes were in the references sections.

### **Review Annual Report format**

Rachel explained that the conceptual format for the annual report was developed in collaboration by the BIG and agreed to at the BIG mid-year meeting in October 2012. The report will consist of three main components:

- 1) At-a-Glance: The At-a-Glance section will be one 11x17 paper that includes cover page with a photo; a table of implementation activities, proposed milestones, and an evaluation of progress; and a sheet with background information, a map, and high-level review of progress overall.
- 2) A printed report: In addition to a narrative overview, the printed report will include information about progress and goals for each of the strategies in the plan. Each strategy will be described by a narrative description preceded by a tabular summary sheet, which will include recommendations from the workgroup to the BIG regarding progress, achievements, focus for the coming year, and revisions to the I-Plan.
- 3) Web-based support documents: If additional information, such as lengthy tables, are necessary, these will be provided in an on-line format.

**Review Implementation Progress--** The workgroup reviewed progress for each of the implementation activities, as follows.

Implementation Strategy 6.0: Illicit Discharges and Dumping

- 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.
  - JTF Efforts
  - The annual reports are not in a format that makes it easy to compare apples to apples when it comes to illicit discharges. Rachel shared EPA's Small MS4 Annual Report Form, and suggested that it would be very helpful if folks used it as a 'cover' for the full annual report.
- 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.
- 6.3: Monitor and Control Waste Hauler Activities
  - No activity has been initiated.
  - Rachel indicated that she saw a presentation about the SJRA's restaurant grease trap program, which seemed excellent.

### **Confirm Recommendations to the BIG for Annual Report**

The work group reviewed the draft Implementation Strategy Cover Sheets for the two strategies: Stormwater & Land Development and Construction.

There were 8 attendees including no BIG members and 4 alternates.

For the At-a-glance table, the group recommended that the green squares for 6.1 and 6.2 be changed to read, "Started, On schedule."

For Progress, the group recommended the following wording:

"Activities have begun, although little information has been gathered about activities."

The wording for Achievements was appropriate.

For focus, the group recommended the following wording:

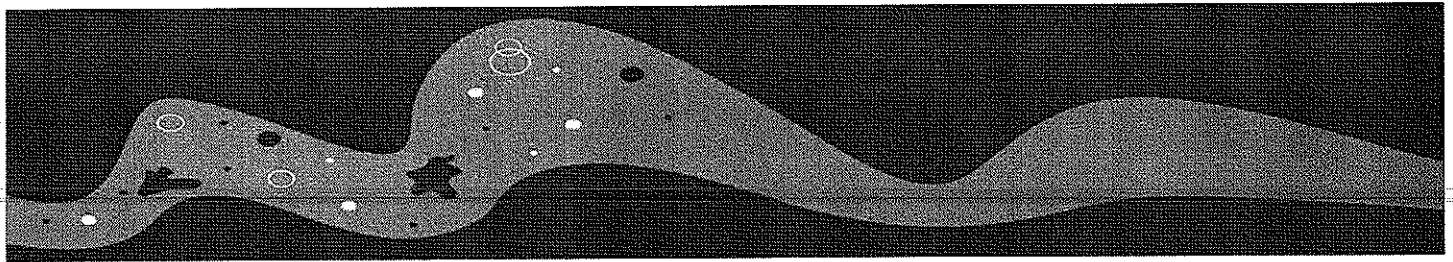
Focus in the coming year will be on gathering information about implementation and on identifying regulatory resources related to liquid waste hauling, liquid waste generators, and trip tickets.

The group did not recommend revisions to the I-Plan.

### **Adjourn**

#### **BIG Annual Meeting: Tuesday, May 14, 2013**

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







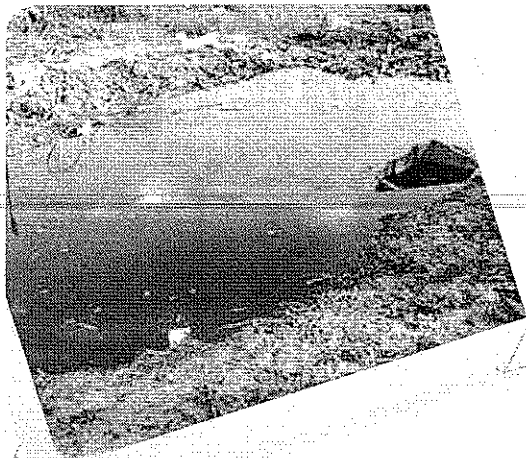
# Implementation Strategy 6.0: Illicit Discharges & Dumping

#	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.*

<p><b>Progress</b></p> 	Although activities have begun, little information has been gathered about activities.
<p><b>Achievements</b></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><b>Focus</b></p> 	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.
<p><b>Revisions</b></p> 	The work group does not recommend changes to the I-Plan.



# ILLICIT DISCHARGES AND DUMPING

## 6

### Main Summary

Illegal connections, discharges, and dumping activities have resulted in increased bacterial loads in the project area's storm sewer and watershed systems, as documented by total daily maximum load (TDML) monitoring. BIG stakeholders have widely cited mobile septic waste haulers as a potential source of contamination as they transport waste from on-site sewage facilities (OSSFs) and grease and grit traps. While regulations dictate proper methods for disposing of waste at treatment facilities and recording information on manifests, anecdotal evidence indicates that violations may occur. Because these discharges can happen in so many locations, there are no flow-adjusted estimates for waste hauler contributions to bacteria levels in area waterways.

In response to these concerns, the BIG recommends that stakeholders focus on three activities: (1) detect and eliminate illicit discharges specific to bacteria; (2) improve local government mechanisms to regulate and enforce illicit discharges; and, (3) monitor and control waste hauler activities through regulations and fleet tracking programs. Changes to the Texas Commission on Environmental Quality's (TCEQ) general permit for municipal separate storm sewer system (MS4) Phase II communities (which took effect in late 2012) will facilitate more robust reporting and tracking of illicit discharges. As such, the activities discussed in this section may also be considered as part of *Implementation Strategy 4.0, Stormwater and Land Development*.

### Work Group Activities

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

#### Progress

Activities have begun, although little information has been gathered about activities.

#### Achievements

■ Many communities in the BIG project area adopted (or will adopt) regulations as a result of new MS4 permitting requirements.

#### Focus

- H-GAC and BIG stakeholders aim to:
- Gather information about implementation.
  - Identify regulatory resources related to liquid waste hauling, liquid waste generators, and trip tickets.
  - Encourage MS4 operators to use the U.S. Environmental Protection Agency's (EPA) Small MS4 Annual Report form.

#### Revisions

The work group does not recommend changes to the I-Plan.

## Implementation Strategies

### 6.1 Detect and Eliminate Illicit Discharges

- Within ten years, MS4 operators will complete initial surveys and maps.
- Each year, MS4 operators will identify the number of illicit discharges found and resolved each year.

Not Started

**Initiated**

In Progress

Completed

Behind Schedule

**On Schedule**

Ahead of Schedule

**MS4 Reporting.** MS4 operators are required to map their storm sewer system, develop techniques for detecting illicit discharges, and establish enforcement procedures for removing sources of illicit discharges. Based on a review of approximately 60 annual reports from 2010, most MS4 operators have regulatory mechanisms in place and procedures for detecting illicit discharges. H-GAC staff identified the following statistics: five MS4s reported no illicit discharges; three reported a combined total of 12 illicit discharges; and one illicit discharge had been resolved or eliminated. However, the report format is not structured to easily compare one report to another.

### 6.2 Improve Regulation and Enforcement of Illicit Discharges

- Within five years, BIG stakeholders will compile and share all existing regulations in the project area.
- Within five years, all communities shall examine their regulations, and one shall adopt new or revised regulations.

Not Started

**Initiated**

In Progress

Completed

Behind Schedule

**On Schedule**

Ahead of Schedule

**MS4 Regulations.** Many MS4 Phase II operators have implemented new regulations as a permit requirement. These regulations require more robust tracking and reporting of illicit discharges. However, H-GAC has not finished compiling existing regulations or tracking whether those regulations have been revised.

### 6.3 Monitor and Control Waste Hauler Activities

- Within five years, one waste hauler fleet tracking pilot program shall be started by local stakeholders.

Not Started

**Initiated**

In Progress

Completed

Behind Schedule

**On Schedule**

Ahead of Schedule

**No Progress Reported.**

## 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  $7.43 \times 10^5$  to  $2.21 \times 10^{11}$  MPN/day.<sup>87</sup> In Whiteoak Bayou, these discharges represented the largest source of indicator bacteria loading.<sup>88</sup> 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.<sup>89</sup>

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

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<sup>87</sup> (TCEQ 2009a)

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<sup>89</sup> (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.<sup>90</sup>

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.

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<sup>90</sup> 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 law<sup>91</sup> 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.<sup>92</sup> 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

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

<sup>92</sup> 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.