



**Stormwater, Land Development and Construction Workgroups  
Meeting Agenda  
Tuesday, November 18, 2014  
1:00 PM to 3:00 PM  
H-GAC Conference Room A, Second Floor**

**Call to Order/Welcome/Introductions**

**Review Summaries from 2/20/2014 Meetings**

**Discussion: Preparing BIG 2015 Annual Report – I-Plan Strategies 4.0 Stormwater and Land Development and 6.0 Construction Sources**

Workgroup will review the draft 2014 Annual Report, review the timeline for preparing the 2015 report, report on implementation activities accomplished in the 2014 calendar year, discuss expectations for the 2015 Annual Report and discuss focus and priorities for 2015 calendar year.

**Discussion: Review I-Plan Language for Strategies 4.0 Stormwater and Land Development and 6.0 Construction**

Workgroup will review approved I-Plan wording. Workgroup will discuss potential editorial changes. Workgroup will agree on any updates and develop recommendations that will be presented at the annual BIG meeting for approval.

**Adjourn**

**Upcoming Meeting Schedule**

**May 12, 2015:** BIG Annual Meeting

**December 8, 2014:** Animals and Agriculture – 10:00 AM

**December 15, 2014:** Waste Water Treatment Facilities and Sanitary Sewer Systems – 1:00 PM at H-GAC



**Construction Workgroup  
Meeting Summary  
Thursday, February 20, 2014  
1:00 PM to 3:00 PM  
H-GAC Conference Room B, Second Floor**

**Call to Order/Welcome/Introductions**

**Linda Broach (TCEQ), Richard Chapin (COH), Lawrence Childress (COH), Danielle Cioce (Harris County), Craig Maske (APAI), Alisa Max (Harris County), Robert Snoza (HCFCD)**

**Review Notes from Last Year's Meeting**

Attendees reviewed the notes from last year to assist with the meeting's discussion.

**Discussion: Preparing BIG 2014 Annual Report – I-Plan Strategy 5.0 Construction**

Workgroup will review data source availability and past year BIG implementation activities related to I-Plan Strategy 5.0:

- Implementation Activity 5.1: Increase Compliance with and Enforcement of Storm Water Management Permits
  - Sub-activity 5.1.1: Increase enforcement at construction sites by increasing percentage of sites inspected
  - Sub-activity 5.1.2: Develop and distribute educational material to inform contractors, construction site owners, developers, MS4 operators, and citizens of proper construction site practices
  - Sub-activity 5.1.3: Conduct training workshops for contractors, construction site owners, developers, and MS4 operators regarding storm water management best management practices and encourage them to in turn require training of their crews

Harris County reported that increasing enforcement will not likely happen. Generally, Harris County is inspecting 33% of Notice of Intents. The City of Houston echoed that sentiment by stating that inspecting 100% is not possible. It was suggested that for this measure to email Phase II entities and track how many have begun inspections. It was noted that there is not much formal education provided by Harris County but that the county has found providing on-site education during inspections increases compliance. Based on this, the Harris County has move toward fewer but longer duration inspections to provide more compliance knowledge support. H-GAC through its Clean Waters Initiative provided Construction Site Run-off workshop, April 11, 2013.

**Discussion: Review I-Plan Strategy 5.0 Construction Language**

Workgroup reviewed the approved I-Plan wording. Workgroup discussed potential editorial changes. Workgroup agreed that no changes were needed at this time.

**Adjourn**

- Sub-activity 4.3.1: Encourage permitted MS4 communities to voluntarily expand and refine elements of their storm water programs that address bacteria
- Sub-activity 4.3.2: Encourage local governments without MS4 permits to voluntarily develop and implement a storm water management program to address bacteria loading
- Sub-activity 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

H-GAC through the MS4 analysis project, surveyed MS4 operators on their programs and asked how H-GAC could assist them in developing their programs. Most were interested in assistance through topical workshops.

- Implementation Activity 4.4: Promote Recognition Programs for Developments that Voluntarily Incorporate Bacteria Reduction Measures
  - Sub-activity 4.4.1: Encourage voluntary participation in existing recognition programs
  - Sub-activity 4.4.2: Develop a recognition program specific to storm water and land development in the BIG area

H-GAC developed a draft recognition program that was submitted to TCEQ. H-GAC staff provided the draft copy to attendees. Attendees recommended that the program be shared with trade organizations to seek their comments and build buy-in for the program.

- Implementation Activity 4.5: Provide a Circuit Rider Program
- Implementation Activity 4.6: Petition the TCEQ to Facilitate Reimbursement of Bacteria Reduction Measures

Harris County noted that the TCEQ continues to work on the issue. TCEQ is in the early stages of developing stormwater design criteria that would need to be met for reimbursement. TCEQ has temporarily accepted Harris County's design criteria and permit acceptance process for reviewing and approving LID structures. Currently there is one test development, Springwoods, in Harris County that is seeking reimbursement for LID structures. Another development in Fort Bend has received approval to seek reimbursement by TCEQ, as the project will follow the Harris County's design criteria.

**Discussion: Review I-Plan Strategy 4.0 Stormwater and Land Development Language**  
 Workgroup will review approved I-Plan wording. Workgroup will discuss potential editorial changes. Workgroup will agree on any updates and develop recommendations that will be presented at the annual BIG meeting for approval.

## **Adjourn**

### **Upcoming Meeting Schedule**

**May 27, 2014:** BIG Annual Meeting

**February 20, 2014:** Stormwater Land Development | Construction

**March 11, 2014:** Watershed Outreach

**March 20, 2014:** Monitoring and Plan Revision | Research

**March 25, 2014:** Coordination and Policy



**Stormwater and Land Development Workgroup  
Meeting Summary  
Thursday, February 20, 2014  
10:00 AM to 12:00 PM  
H-GAC Conference Room B, Second Floor**

**Call to Order/Welcome/Introductions**

Linda Broach (TCEQ), Richard Chapin (COH), Danielle Cioce (HCPID), Jonathan Holley (HCFCD), Steve Hupp (BPA), Tom Ivy (Citizen), Craig Maske (APAI), Alisa Max (HCPID), Johan Petterson (Dannenbaum), Brittany Towers (Terracon)

**Review Notes from Last Year's Meeting**

Attendees reviewed the notes from last year to assist with the meeting's discussion.

**Discussion: Preparing BIG 2014 Annual Report – I-Plan Strategy 4.0 Stormwater and Land Development Sources**

Workgroup will review data source availability and past year BIG implementation activities related to I-Plan Strategy 4.0:

o Implementation Activity 4.1: Continue Existing Programs

H-GAC has updated the MS4 database with the most recent MS4 reports. Under a different contract, H-GAC conducted surveys of MS4 operators, reviewed annual reports, and provided general recommendations to the TCEQ for potential improvements to the program.

o Implementation Activity 4.2: Model Best Practices

- Sub-activity 4.2.1: Create and maintain an online library of best practices
- Sub-activity 4.2.2: Coordinate networking meetings

The Harris County Flood control District has created an online database for BMPs to store their projects and water quality data collected to evaluate performance. The database is set to national BMP standards. HCFCD encourages other entities to submit projects through a protected user interface and is looking for projects that followed strict quality assurance standards. In case where the project did not collect performance data, HCFCD would still be interested in collect geographic and informational data.

Harris County discussed Burnum Wood project is nearing completion and the project includes a monitoring component. Harris County also mentioned that Spring Woods project is underway and that monitoring would begin in March. Environmental Institute of Houston created a stormwater wetland to treat run-off that was completed during the year. BPA noted that preconstruction sampling will begin at two sites of a future LID project.

H-GAC through its Clean Waters Initiative, conducted 5 workshops supporting BMPs during the year: Minimum Control Measures (February), Asset Management (March), Construction Permits (April), Industrial Permits (July). Electricity Use and Production Through Waste Water (September), Water Quality Applications (October), Feral Hogs and Water Quality (November).

o Implementation Activity 4.3: Encourage Expansion of Storm Water Management Programs

## Appendix B MS4 Stormwater Permit Annual Report Interviews

*The purposes of these interviews are to obtain current reports for the stormwater utilities in our area and ask them a series of general questions about their program and its implementation activities. The Following is a list of questions and examples to spur conversation. If we do not already have contact information for the MS4 entity, or that the information is out of date, it is recommended that you ask for the staff member responsible for the entity's Stormwater Management Plan or Phase II MS4 permit.*

### Interview questions

- 1) Is your 2012 Stormwater Annual Report Available online?
  - a. If so, where can we find it?
  - b. If not, can you forward us a digital copy of it?
    - i. If not, can you forward us a physical copy of it?
  - c. Would you be willing to submit your annual report to H-GAC each year?
    - i. If not, would making the report entries into a standardized electronic internet form with save and print features sway you to consider it.
  
- 2) Were there any large changes in what you did from the last year?
  - a. For example, did you
    - i. Try new strategies
    - ii. Have significant successes
    - iii. Have significant problems
    - iv. Add new elements
    - v. Remove elements that weren't working for you
  
- 3) What have your major challenges been to implementing elements of your permit?
  - a. For example:
    - i. Lack of funding
    - ii. Barriers in your design codes or other ordinances
    - iii. Lack of staff or staff expertise
  
- 4) Have you run into any barriers with your ordinances, design codes, or other laws or statutes?
  - a. For example:
    - i. Not being able to install low impact development practices or green infrastructure;
    - ii. Not being able to install drain markers ;
    - iii. Not being able to use rain barrels because of standing water;
    - iv. Design codes not allowing vegetated swales, etc
  
- 5) Have you installed any structural best management practices in the last two years?
  - a. For example:

- i. Vegetated swales;
  - ii. Low impact design or LEED buildings;
  - iii. Native plants/Xeriscaping;
  - iv. Green roofs;
  - v. Trash reducing devices at outfalls;
  - vi. Drain markers;
  - vii. Rain gardens;
  - viii. Permeable pavement;
  - ix. Constructed wetlands or other wet bottom detention used to filter stormwater;
  - x. Vegetated buffers along waterways; or other.
- b. If so, were any of these designed specifically or in part to reduce bacteria?
- 6) If you have installed any BMPs, do you have information about where they were installed?
- a. If so, what format is it in (GIS, etc)
    - i. Can we get a copy of it?
  - b. If not, are you interested in (free) support services to put it into spatial form/maps?
- 7) Have you changed any codes or ordinances in the last two years in order to implement your stormwater program?
- 8) Do you expect any big changes to your stormwater program in the coming year?
- 9) Would you be interested in future stormwater training and education opportunities, including Continuing Education Credits?
- a. If so, are you aware of H-GAC's Clean Waters Initiative
  - b. Are there any specific topics of interest?