



Monitoring and Plan Revision

Main Summary

The BIG recommended that the BIG review progress on an annual basis and determine whether changes need to be made to the I-Plan or its implementation. The review is to be based on answers to the following questions:

- 1) Do ambient water quality monitoring data indicate that bacteria levels are changing? If so, are the bacteria levels improving or degrading?
- 2) Do non-ambient water quality monitoring data indicate that implementation activities are reducing the load of bacteria?
- 3) Are implementation activities and controls being undertaken as described in this I-Plan? Which activities have been implemented, and which have not?

The Clean Rivers Program continues to provide ambient water quality data that can be reviewed. H-GAC and BIG stakeholders have begun developing the capacity to collect non-ambient water quality data. H-GAC has also been working with stakeholders to gather information from stakeholders that can be used as a baseline for future comparisons.

[Brief statement about conversation at annual meeting.]

Review Progress

Continue to Utilize Ambient Water Quality Monitoring and Data Analysis

The BIG recommended that stakeholders continue the Clean Rivers Program in the BIG project area, which is being done. In the BIG project area, H-GAC manages the Clean Rivers Program, a statewide program for monitoring surface water quality. H-GAC coordinates 8 program partners who conduct sampling and lab analysis under a regional quality assurance project plan (QAPP) for ambient water quality monitoring. Professional monitors from those eight organizations sample ambient water quality at over 370 sites. While overall funding has remained relatively stable, H-GAC made adjustments to program elements, eliminating non-essential lab parameters and adding more parameters, such as nutrients. The Clean Rivers Partners have added quarterly sampling for *Enterococcus* bacteria at all freshwater sites, to supplement *E.coli* sampling. H-GAC will share any information about conclusions or patterns as it becomes available. H-GAC's Clean Rivers Program has also acted on the recommendation to include codes in the sampling information for recording contact recreation and evidence thereof. The recommendations for tracking contact recreation is being considered by the state.

As part of its responsibilities for administering the local program of the statewide Texas Stream Team volunteer monitoring program, H-GAC oversees 45 active volunteers at 42 sites in ten watersheds. Five of the volunteers sample for bacteria. Galveston Bay Foundation and Bayou Preservation Association help recruit and manage volunteers. All of the volunteer monitoring is conducted under a quality assurance project plan (QAPP). The data is used to augment



professional monitoring data, but is not regulatory in nature. Data is also used to screen sites to see if professional monitoring is required.

The Basin Highlights Report, an annual report on the Clean Rivers Program, provides additional information about the ambient water quality monitoring program. Additional data are available in the Water Resources Information Map, the on-line map and database with water quality monitoring data (<http://arcgis02.h-gac.com/wrim/>) and a free I-Phone application (“How’s the Water?”).

Conduct and Coordinate Non-Ambient Water Quality Monitoring

H-GAC applied for and received funding to develop a regional non-ambient water-quality monitoring database. After working with BIG stakeholders and Clean Rivers Program partners, H-GAC drafted a template for a QAPP. H-GAC has submitted the draft to TCEQ for review and is awaiting comments. The QAPP will be able to accommodate non-ambient monitoring, monitoring during stormwater events and measuring the effectiveness of implementation activities or policies such as low impact development. Once a QAPP has been approved, H-GAC will seek funding and partners to conduct non-ambient water quality monitoring under the QAPP.

Create and maintain a regional implementation activity database

H-GAC began collecting information about which implementation activities have been undertaken. For example, H-GAC requested and received NOIs and Annual Reports for each of the MS4 operators in the BIG project area. The information contained in the reports will be compiled, along with information about other activities, in order to inform the development of the annual report and to help guide the BIG as it deliberates possible changes to the I-Plan. A database is being developed to organize and share the information, and link activities to any available non-ambient water quality monitoring data.

Assess Monitoring Results and Modify I-Plan

The BIG recommends that it assess progress towards meeting the goals of the I-Plan. H-GAC has compiled information in this annual report, with input from the workgroups, that is intended to facilitate the BIG’s assessment of progress.

[More information here about results of discussions at the annual meeting regarding changes to the I-Plan and progress.]

Expand the geographic scope of the I-Plan as appropriate

H-GAC’s contract with TCEQ includes stakeholder involvement for the development of TMDLs for waterways that were added to the list of impaired waterways. Most of the newly listed waterways are tributaries within existing watersheds and the I-Plan already applies to them.

- Clear Creek watershed: Assessment Units 1101A_01, 1101C_01, 1101E_01, and 1102G_01



- Houston Metro and Buffalo/Whiteoak watersheds: Assessment Units 1007T_01, 1007U_01, 1007S_01, 1007V_01, 1017C_01 and 1007A_01
- Lake Houston watershed: Assessment Units 1008B_01, 1008B_02, 1008C_01, 1008C_02, 1008E_01, and 1011_01

TCEQ will be developing additional TMDLs for assessment units within the Lake Houston watershed but outside of the current BIG project area:

- Lake Houston watershed (outside current BIG project area): Assessment Units 1002_06, 1003_01, 1003_02, 1003_03, 1004_01, 1004_02, and 1004D_01

Once TMDLs for the assessment units have been adopted by the TCEQ, stakeholders from these watersheds may petition the BIG to incorporate the watersheds into the I-Plan. The BIG shall consider such requests at its annual meeting. In the next year, stakeholders within the watersheds will be approached to determine whether they intend to participate in the BIG I-Plan.

Neither the Cedar Bayou Watershed Protection Plan stakeholder group nor the Upper Oyster Creek TMDL I-Plan stakeholder group have chosen to ‘sign on’ to the I-Plan, largely because they address more than bacteria impairments. The Oyster Creek Plan, which is further along than Cedar Bayou, has chosen to include many of the activities in the plan and to indicate support and collaboration rather than formally adopting the BIG I-Plan.