



Onsite Sewage Facilities (OSSF) Workgroup
DRAFT Meeting Notes
November 14, 2012
1:00 to 4:00 PM
H-GAC Conference Room C, Second Floor

Attendees

Alfonso Acosta (Austin County), Raymond Beckford (Harris County), John Blount (Harris County), Roy Elizondo (Montgomery County), Ryan Gerlich (Texas AgriLife Extension), Frank Green (Montgomery County), Wesley Adam Grier (Harris County), Andrew Isbell (Walker County), Larry Johnson (Harris County), Jeremiah Kilgore (Harris County), Robert Knight (Walker County), Alisa Max (Harris County), Rayfield May Sr. (Harris County), Will Merrell (H-GAC), Jack Northey (TCEQ), Nwachukwu Sam Okonkwo (TCEQ), Rachel Powers (H-GAC), Winford Roberts (Waller County), James Walls (Harris County), Tyrone West (Harris County)

Call to Order/Welcome/Introductions

Rachel Powers called the meeting to order, initiated self-introductions, and reviewed the agenda.

Presentation: Walker County Authorized Agent Program for OSSF – Andrew Isbell

The focus of Mr. Isbell's presentation was OSSF maintenance, compliance, and the development of a mechanism to support the program's administration. Onsite systems with secondary treatment (aerobic) require a maintenance contract with a maintenance provider. Although the term "maintenance" is used, the primary function of the contract is for the provider to inspect the system every four months and identify problems.

The relationship between Walker County, the service provider, and the customer is set up similarly to the state vehicle inspection system. The state and county require that systems be inspected. However, instead of the state or county directly inspecting each system, the law allows for third party vendors to conduct inspections. Customers pay the third party vendors directly and the maintenance provider submits reports to the customer (homeowner) and the county. The county ensures that the maintenance providers are not submitting falsified reports by auditing and re-inspecting a certain number of systems each year.

Walker County felt that there was an undue monetary burden in administrative resources by reviewing each submitted maintenance report. In order to pay for the administrative costs, Walker County developed an administrative fee mechanism. A

maintenance provider is charged a \$5 filing fee with each report. If a report is late, a \$2 fine is charged for each business day with a cap at \$100.

Since the plan has been implemented, the County has sufficient funds to administer the program and identify problems, residents can have more confidence that they are paying for actual service, and the maintenance providers who cannot or will not comply with requirements must come into compliance. As a result, there is much greater compliance with regulations.

Presentation: Harris County Authorized Agent Program for OSSF – John Blount, P.E.

The focus of Mr. Blount's presentation was to illustrate the more stringent rules that have been included in Harris County's OSSF Order specifically to protect water quality. Harris County first started permitting OSSF in 1973 for facilities within floodplains. Its first OSSF rules are from 1978. In the 1990s, the County started requiring secondary treatment. The Harris County Order has sixty-one amendments, seventeen of which are related to water quality. He stated that in Harris County:

- The OSSF must pass inspection before electrical service will be authorized at a new building.
- Gray water, other than gray water from a washing machine, must be disinfected to the same standard as secondary effluent.
- Systems installed within 1000 ft of Lake Houston must also have secondary treatment and also must incorporate nutrient reduction BMPs (best management practices).
- Harris County requires that calculations for hydraulic loading rate, wastewater strength, and dosing calculations must be included with the submission of planning materials.
- All aerobic plants for residences must be designed with the assumption that the organic load is one hundred and fifty GDP (gallons per day) per bedroom.
- Homeowners who want to maintain their aerobic treatment unit must have a Class D Wastewater License and must submit the same reports as maintenance providers
- OSSFs within watersheds where one or more stream segments are listed as impaired for bacteria on the EPA 303(d) List will have electronic monitoring, secondary treatment meeting NSF 40 standards, and pump tanks must be installed with scouring equipment.
- Compliance history can be used to deny a permit.

Mapping Project and FlexMap Application Introduction and Demonstration

Because of the provision of data to H-GAC by authorized agents is critical to the mapping project, Rachel and Will began the mapping project by giving out certificates of appreciation with gold stars to the AAs who have been providing data.

The following AAs were recognized with a gold star for recently providing OSSF data:

- Galveston County
- Liberty County
- Wharton County

Furthermore, the following AAs were recognized with two gold stars for having provided a complete set of OSSF permit records:

- Austin County
- Brazoria County
- City of Manvel
- Chambers County
- Fort Bend County
- Harris County
- Matagorda County
- Montgomery County
- Waller County

H-GAC staff member William Bass introduced and demonstrated the updated OSSF Permit Application. This application is a web based map that allows designated representatives and the public to view OSSF permit data and to conduct basic analyses.

The OSSF mapping application is available at www.h-gac.com/go/spetic. Highlights of the application include the following:

- OSSF layers that show permitted OSSFs by age, by Authorized Agent, and number of OSSF per square mile.
- A layer showing the results of an analysis to determine residential properties with a higher chance of having an old or otherwise unpermitted system.

Future efforts will focus on collecting and mapping complaint data and setting priorities for education, repair, and replacement.

Local Water Quality Projects

Rachel and Will briefly described how OSSF mapping data were being used for other water quality projects in the region, including Armand Bayou, Oyster Creek, Cedar Bayou, etc.

BIG I-Plan Discussion

Rachel led a discussion of the status of BIG implementation relating to OSSF.

TCEQ anticipates considering the I-Plan for approval in January.

Rachel provided a sample annual report overview as well as a rough draft of the OSSF summary page to include in the annual report.

Work group participants agreed with H-GAC's proposed assessment of progress as "In progress, on schedule" for all three recommendations in the plan.

The workgroup voiced no objections to the proposed recommendations included in the OSSF summary page.

In general the workgroup indicated satisfaction with progress, especially with mapping. The focus in the coming year will be on updating maps, establishing target areas, and securing and distributing funds.

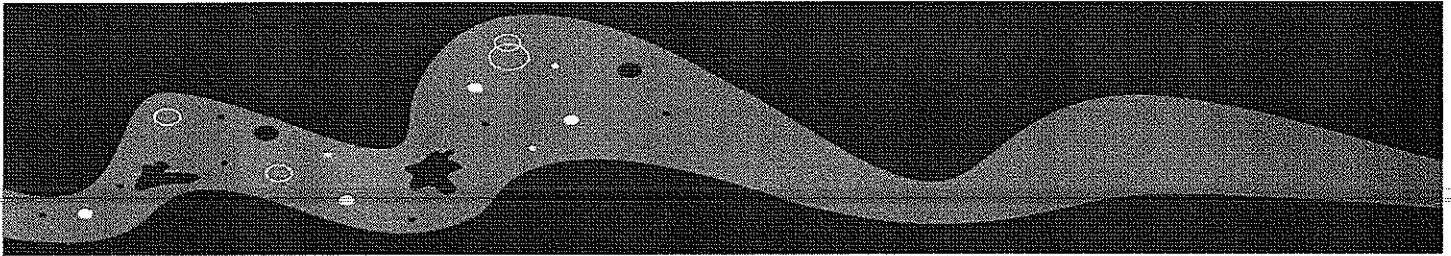
Rachel will update the OSSF summary page based on the discussions in the meeting. She will also draft a narrative to supplement the summary page. Both documents will be provided to the OSSF workgroup via e-mail for comment and consideration. The approved documents will be reviewed by the Coordination and Policy Work Group prior to consideration by the BIG at its annual meeting in May.

Legislative Update

The group briefly discussed legislative activities, including the approval of rules relating to safety covers and the proposed rules (subsequently considered by the TCEQ on December 5, 2012). More information is available on the TCEW website ([http://www.tceq.texas.gov/assets/public/legal/rules/rule lib/adoptions/12023285_aex.pdf](http://www.tceq.texas.gov/assets/public/legal/rules/rule_lib/adoptions/12023285_aex.pdf)).

Wrap-up

The BIG annual meeting is tentatively scheduled for May 22, 2013.







Implementation Strategy 3.0: On-Site Sewage Facilities

#	Activity	Target/ Objective/ Milestone	Status
3.1	Identify and Address Failing Systems	-Year 1: Initial map created -Year 2: Target areas identified -Ongoing: Data collected from Authorized Agents -500 OSSFs repaired/replaced every five years	In progress, On schedule
3.2	Address Inadequate Maintenance of OSSF	Within five years: -Each community examine their regulations and policies -Existing regulations compiled and shared -Flyers or collateral material distributed	In progress, On schedule
3.3	Legislation and Other Regulatory Actions	-Annual local meeting of Authorized Agents -TCEQ to host biennial meetings to review OSSF regulations -Within five years: ---One community shall revise or adopt new regulations every five years	In progress, On schedule

Work Group Recommendations

Meeting November 13, 2012. 18 attendees, including 1 BIG member and 3 alternates.

<p>Progress</p> 	Progress has been good. Activity has begun and is ongoing for each of the three implementation activities.
<p>Achievements</p> 	Data collection is ongoing. Initial maps have been created ahead of schedule, setting the stage for analysis and identification of target areas. Grant funding is being pursued. Regulations and policies, all of which are relatively up-to-date, are available on www.h-gac.com/go/septic . Annual local meeting established with CEU credit from TCEQ for designated representatives.
<p>Focus</p> 	Focus in the coming year will be on updating maps, collecting complaint data, establishing target areas, securing and distributing funds.
<p>Revisions</p> 	The work group does not recommend changes to the I-Plan.



ON-SITE SEWAGE FACILITIES

3

Main Summary

Nearly 20 percent of east Texas' on-site sewage facilities (OSSFs), commonly referred to as septic systems, are failing according to the Texas On-Site Wastewater Treatment Research Council.¹ Properly functioning and maintained OSSFs contribute negligible amounts of bacteria to waterways. Therefore, BIG stakeholders have primarily focused on unpermitted, failing, or poorly maintained OSSFs.

One of the biggest challenges to improving the OSSF situation has been a lack of inventory and monitoring practices. Starting in 2009, H-GAC staff partnered with local governments to create a comprehensive geographic information system (GIS) of OSSFs. The mapping and database records also helped to identify probable locations of older, unpermitted systems at risk of failing. BIG stakeholders continued to focus on education and regulatory action to prevent and remediate failing systems. Efforts are already underway to provide education programs to a variety of audiences. Examples of regulatory measures are also being collected and shared for potential enactment in the future.

¹ Reed, Stowe, and Yanke, LLC. *Study to Determine the Magnitude of, and Reasons for, Chronically Malfunctioning On-Site Sewage Facility Systems in Texas*. Austin, Texas: Texas On-Site Wastewater Treatment Research Council, 2001.

Work Group Activities

Meeting November 14, 2012. 18 attendees, including one BIG member and three alternates.

Progress

Progress has been good. Activity has begun and is ongoing for each of the three implementation activities.

Achievements

- H-GAC and BIG stakeholders:
 - Continued ongoing data collection.
 - Created initial maps ahead of schedule. These maps help to set the stage for analysis and identification of target areas.
 - Pursued grant funding opportunities.
 - Compiled regulations and policies online at: www.h-gac.com/go/septic.
 - Hosted an annual local meeting established with continuing education unit (CEU) credits from the TCEQ.

Focus

- H-GAC and BIG stakeholders aim to:
 - Update maps, collect complaint data, and establish target areas.
 - Secure and distribute grant funds.

Revisions

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

Implementation Strategies

3.1 Identify and Address Failing Systems

- H-GAC will work with the TCEQ, authorized agents, and other interested parties to create an inventory of OSSFs with a focus on identifying known or suspected failing systems.
- Within one year, H-GAC and local authorized agents will create an initial map.
- Within two years, H-GAC and local authorized agents will identify target areas.
- Every five years, owners will repair or replace 500 failing OSSFs.
- Authorized agents will continue to collect and share OSSF data on an ongoing basis.

- Not Started
- Initiated
- In Progress
- Completed
- Behind Schedule
- On Schedule
- Ahead of Schedule

Annual Progress and Applicable Programming:

Mapping. H-GAC staff, with the input of BIG stakeholders, continued to develop an OSSF permit database that was first initiated in 2009. The mapping system allows the public to view OSSF permit data and access basic analyses. Highlights of the system include:

- Layers that show permitted OSSFs by age, authorized agent, and number of OSSFs per square mile; and
- A layer showing residential properties with a high chance of having an old or otherwise unpermitted system.

Future efforts will focus on collecting and mapping complaint data. This GIS system will also serve as a tool for prioritizing system repair and replacement. For example, the data is already being used to inform water quality projects at Armand Bayou, Oyster Creek, and Cedar Bayou.

3.2 Address Inadequate Maintenance of OSSFs

- Within five years:
 - Each community will examine its regulations and policies;
 - Existing regulations will be compiled and shared among BIG stakeholders; and
 - Flyers or collateral material will be distributed among BIG stakeholders.

- Not Started
- Initiated
- In Progress
- Completed
- Behind Schedule
- On Schedule
- Ahead of Schedule

Annual Progress and Applicable Programming:

Online Regulations and Policies. H-GAC continued to compile OSSF regulations and policies online at: www.h-gac.com/go/septic. These serve as model regulations and policies.

Homeowner Education. H-GAC created a website (www.h-gac.com/go/septic), to share educational material. In addition to providing general information, the site offers content specific to homeowners/homebuyers, local governments, and real estate professionals. The first phase of website development focused on gathering and sharing existing information (e.g., fact sheets, code language, alternatives analyses).

Repair and Pumpout Logs. H-GAC continued to identify education campaigns encouraging homeowners and maintenance providers to keep repair and pumpout logs. These records track OSSF problems and solutions, which help to increase accountability and identify best management practices.

- **Real Estate Industry Coordination.** H-GAC developed a curriculum for real estate inspection professionals to learn how to properly inspect a septic facility during a point-of-sale home inspection. In 2011, H-GAC conducted a pilot workshop based on the curriculum. It was well received and resulted in new improvements to the curriculum.

3.3 Legislation and Other Regulatory Actions

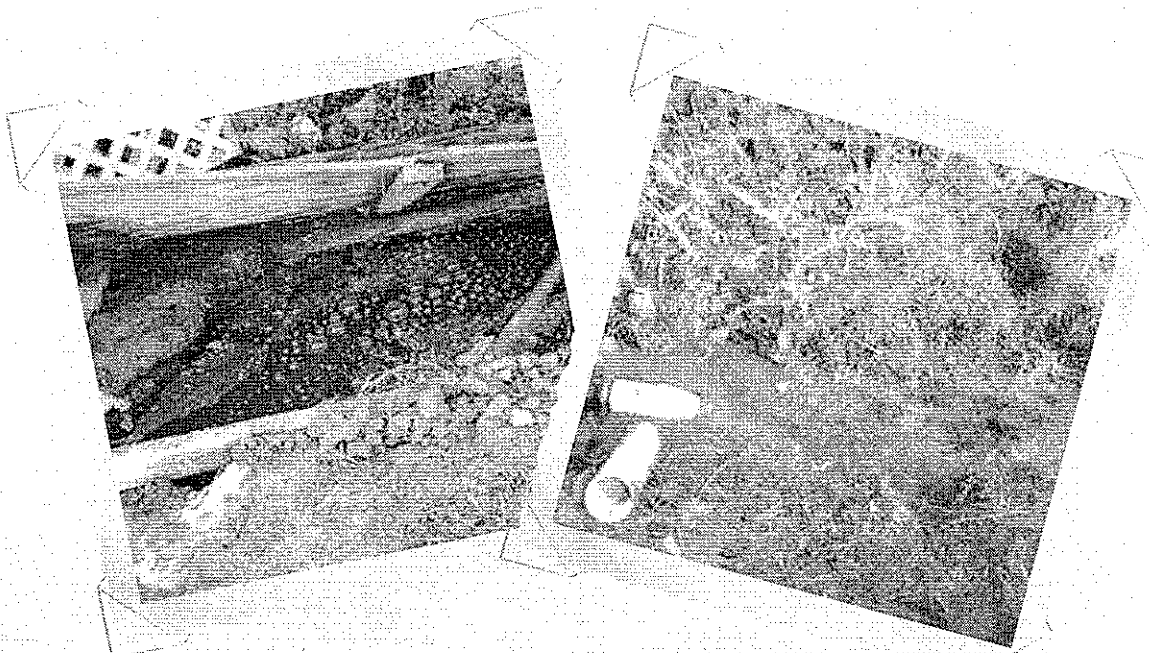
- The TCEQ should host biennial meetings to review OSSF regulations.
- Local authorized agents will meet annually.
- Every five years, one community shall revise or adopt new regulations.
- Every five years, the Texas On-Site Wastewater Treatment Research Council (TOWTRC) should consider updates to its rules.

- Not Started
- Initiated
- In Progress
- Completed
- Behind Schedule
- On Schedule
- Ahead of Schedule

Annual Progress and Applicable Programming:

- **Annual Seminar.** Harris County hosted its Second Annual Wastewater Seminar in April 2012. The day-long event was designed to present new innovations, best practices, and rules and enforcement updates.
- **OSSF Overflow Regulations.** H-GAC and BIG stakeholders primarily tracked Texas House Bill (HB) 1932 of the 83rd legislative session.* If passed, HB 1932 would impose a criminal penalty for violations and revise the current definition of a public nuisance to include surface discharges from OSSFs. These amendments would increase counties' authority to bring faulty OSSFs into compliance if owners are unwilling or unable to do so themselves.

*Note: HB 1932 can be accessed online at: www.legis.state.tx.us/BillLookup/History.aspx?LegSess=83R&Bill=HB1932.



Implementation Strategy 3.0: On-site Sewage Facilities

An on-site sewage facility (OSSF, commonly referred to as a septic system) does not send waste through a system of pipes to be treated elsewhere. Instead, it uses a combination of physical and chemical methods to treat the waste at the owner's location.

A study sponsored by the Texas On-Site Wastewater Treatment Research Council indicates that as many as 19 percent are failing in eastern Texas.⁶² Estimates based on census data and OSSF permit records suggest the project area has at least 70,000 systems. However, the actual number and distribution of OSSFs in the region is unknown, and inventories of OSSFs are piecemeal.⁶³ Enforcement is not uniform throughout the region. Furthermore, enforcement efforts often cease if owners of failing OSSFs do not have the resources to repair or replace their systems or to pay fines associated with violations.

Because properly functioning and maintained OSSFs contribute little to no bacteria to waterways, this I-Plan primarily focuses on OSSFs that are unpermitted, failing, or poorly maintained. The following implementation activities are intended to address these systems.

Based on estimates presented in the TMDL reports, OSSFs contribute bacteria loading in the TMDL Project areas as follows:

- Clear Creek project area: Estimate of 91 failing OSSFs⁶⁴
- Buffalo Bayou and Whiteoak Bayou project area: Estimate of 23 failing OSSFs⁶⁵
- Houston Metro project area: Estimate of 1093 failing OSSFs⁶⁶
- Lake Houston project area: Estimate of 860 failing OSSFs⁶⁷

⁶² (Reed, Stowe, and Yanke, LLC 2001)

⁶³ (Reed, Stowe, and Yanke, LLC 2001)

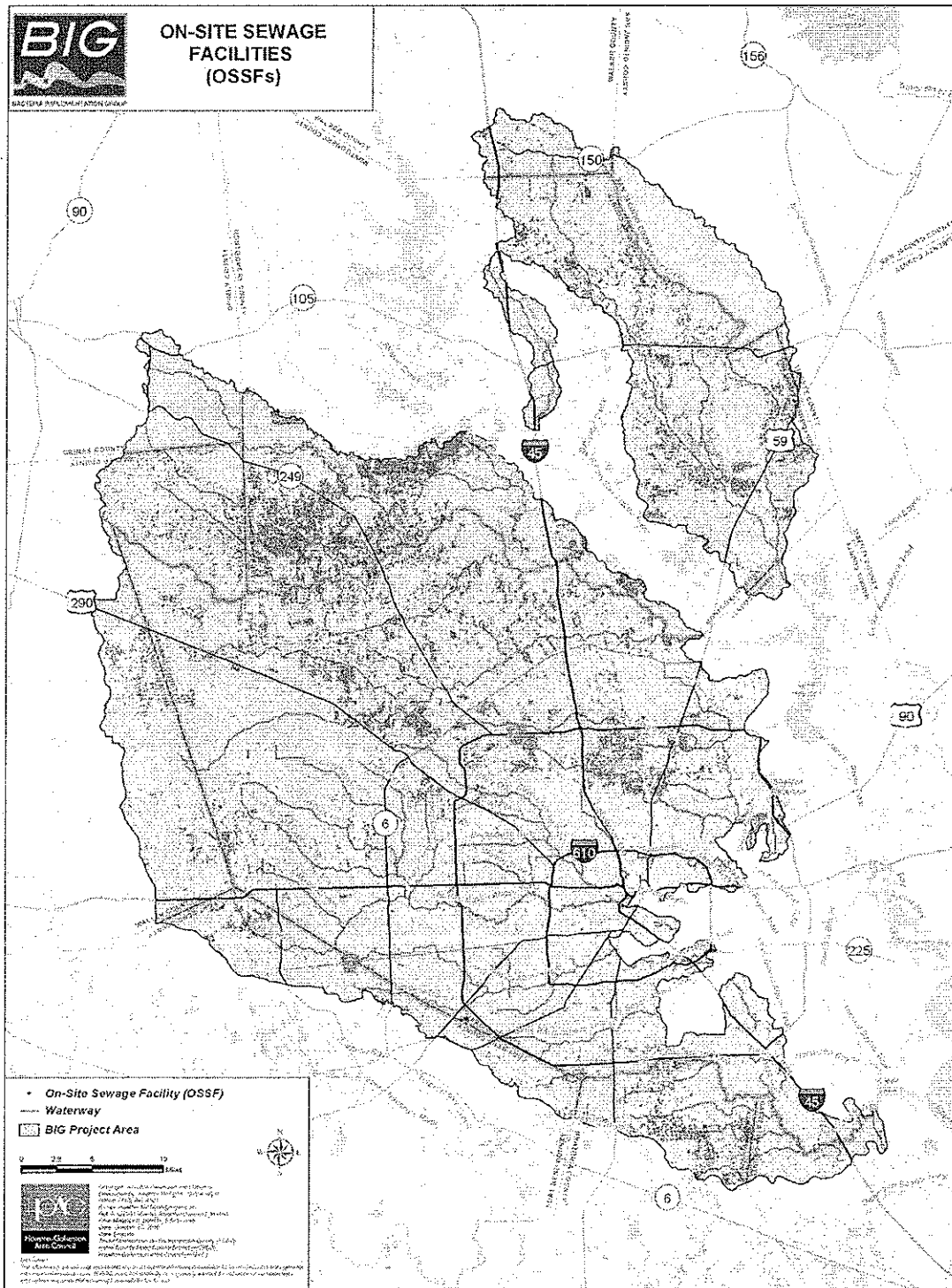
⁶⁴ (TCEQ 2008b)

⁶⁵ (TCEQ 2009a)

⁶⁶ Derived from the five technical documents for the Houston Metro TMDL Projects. (University of Houston & Parsons 2009)

⁶⁷ (James Miertschin & Associates, Inc. 2009)

Figure 4: Map of Permitted OSSFs



Implementation Activity 3.1: Identify and Address Failing Systems

H-GAC will work with the TCEQ, authorized agents,⁶⁸ and other interested parties to create an inventory and map of OSSFs with particular focus on areas with known or suspected failing systems. The inventory is a crucial component in the development of priorities, budgets, and timelines for repairing or replacing failing OSSFs.

3.1.1: Map permitted and unpermitted OSSFs in the H-GAC and BIG Regions

H-GAC began mapping OSSFs in the region in 2009 and continues to work with the TCEQ and the region's authorized agents to inventory and map permitted OSSFs and reported OSSF violations. As part of the study, H-GAC will identify unpermitted OSSFs by analyzing data from appraisal districts, wastewater treatment plant service areas, census data, and other sources of information. Initial efforts, including data collection and standardization and mapping, were completed in November of 2010.

Ongoing data collection should be continued by H-GAC as resources are available. Authorized agents or the TCEQ shall submit information about OSSF locations as frequently as reporting requirements are specified in 30 Tex. Admin. Code § 285.11(e)(2). Currently, reporting requirements are monthly.

3.1.2: Identify target areas, timelines, and costs

H-GAC, working with stakeholders, will analyze the initial mapping data and prepare a report of recommended target areas, timelines, and budgets. H-GAC will solicit input from authorized agents and other interested parties. When possible, target areas will be identified using the geographical prioritization framework described in Implementation Strategy 11.0. Additional criteria to select target areas will include proximity to an impaired waterway and density of failing systems. The report will be used to facilitate grant applications and identify appropriate resources.

3.1.3: Address target areas and pursue funding

Local governments or other agencies will seek to address failing systems in target areas with appropriate actions which may include enforcement, owner education, repair, replacement, connection to municipal treatment works, and public education. Local governments and H-GAC shall seek to secure funding to address failing OSSFs, particularly in target areas. In addition to local funding, a variety of funding sources may be available.

⁶⁸ An authorized agent is defined in the Tex. Health & Safety Code Ann. § 366.002(1) (Definitions) as "a local governmental entity authorized by the commission to implement and enforce rules [related to OSSF regulations in Chapter 366 of the Health and Safety Code]" (TCEQ 2009b)

3.1.4: Reevaluate plan

Annually, as resources allow, H-GAC or other appropriate entity shall convene representatives of the TCEQ, authorized agents, and other stakeholders to review progress, priority areas, funding opportunities, and other elements of the regional plan.

Implementation Activity 3.2: Address Inadequate Maintenance of OSSFs

Authorized agents and other stakeholders are concerned that homeowners do not know enough about maintaining an OSSF to identify problems and solutions in order to prevent failures.

3.2.1: Homeowner education

As resources are available, H-GAC will create or adapt a website to provide homeowner education. An interactive function of this website will encourage OSSF owners to sign up for automatic reminders of required maintenance activities. This interaction not only benefits the homeowner, but it also serves as an information gathering tool for H-GAC regarding ownership, permitting and maintenance of OSSFs. Other possible elements of the website could include an online pumpout and maintenance log for homeowners and a list of licensed maintenance providers. Municipalities, counties, communities, homeowner associations and other interested parties can post a link to the website from their websites, creating a familiar portal for residents.

H-GAC will create or adapt collateral material, such as flyers, advertisements, mailers, and other marketing pieces for distribution at schools, in newspapers and publications, and to real estate agents and property inspectors.

3.2.2: Encourage repair and pumpout logs be kept by homeowners and/or maintenance providers

Authorized agents are encouraged to persuade homeowners and/or maintenance providers to maintain repair and pumpout logs, which may consist of proof of a valid maintenance contract, for their facilities. The logs should describe repair and pumpout data for the previous five years. Authorized agents may choose to require such logs by way of updates to their permit regulations. Homeowners and/or maintenance providers are encouraged to allow potential homebuyers to review the logs upon request. Homeowners and/or maintenance providers are encouraged to provide the logs or a copy of the logs to new homeowners upon transfer of property. Homebuyers will be given flyers or information sheets, possibly by real estate agents or property inspectors, that provide information about what a homebuyer or new owner should look for in the logs.

3.2.3: Coordinate with real estate industry

H-GAC, authorized agents, and other entities shall, as resources are available, provide education opportunities to real estate agents, property inspectors, and consumers about identification and consequences of inadequate maintenance and the failure of OSSFs. The Texas Real Estate Commission requires property inspections at the time of sale, specifies education and certification requirements for licensed real estate salespersons and inspectors, and develops forms for use during sales and inspections. Each of these items can be modified to provide additional resources for homeowners related to their septic systems.

3.2.4: Additional actions

The TCEQ, authorized agents, and other parties are encouraged to develop actions to increase maintenance of OSSFs, including more inspections, incentives for proper maintenance, and requirements that systems must be maintained by a maintenance company or a trained homeowner. The TCEQ is encouraged to suspend or revoke licenses and registrations of poorly performing installers and maintenance providers.⁶⁹ As resources are available, H-GAC and other stakeholders shall work to develop continuing education opportunities regarding OSSF regulations and enforcement for district attorneys and justices of the peace to increase prosecution of OSSF violations.

Implementation Activity 3.3: Legislation and Other Regulatory Actions

The BIG recommends consideration of the following changes to Texas legislation, rules, and agency policy.

3.3.1: Model Order, Ordinance, or Resolution

The TCEQ is required to provide a model order, ordinance, and resolution that can be used by authorized agents to meet the minimum requirements of OSSF laws and rules.⁷⁰ The TCEQ should maintain a list of more stringent local rules that have been adopted. Authorized agents are encouraged to adopt more stringent local rules as appropriate.

3.3.2: Biennial Review

The TCEQ shall consider providing a biennial forum to consider changes to legislation, rules, policies, and guidance relating to management of OSSFs. As part of this forum, the TCEQ shall discuss and consider appropriate mechanisms for funding OSSF programs.

⁶⁹ See 30 Tex. Admin. Code § 285.65 (2011) (Suspension or Revocation of License or Registration)

⁷⁰ See 30 Tex. Admin. Code § 285.10

Note: Appendix E provides information about more stringent regulations enacted by authorized agents in the Houston-Galveston region.