

The meeting will begin shortly



Please mute your microphone until called for questions.



Please disable your video unless you are speaking.



Please enter your name and title in the chat.



Please insert questions in chat or raise hand to speak.



This meeting is being recorded.



Houston-Galveston
Area Council

NATURAL RESOURCES ADVISORY COMMITTEE

AGENDA

Thursday, August 1, 2024, 1:30 PM

Hybrid In-Person/Zoom Meeting



NRAC Agenda

1. Call to Order/Welcome/Introductions

2. Certify Quorum

A quorum of 12 is required to conduct committee business.

NRAC Agenda (continued)

3. Approve Meeting Report

Request approval of May 2, 2024 meeting report. Copies shared via email and available on the NRAC Extranet website.

NRAC Agenda (continued)

4. Membership

H-GAC staff will provide a brief status update on membership.

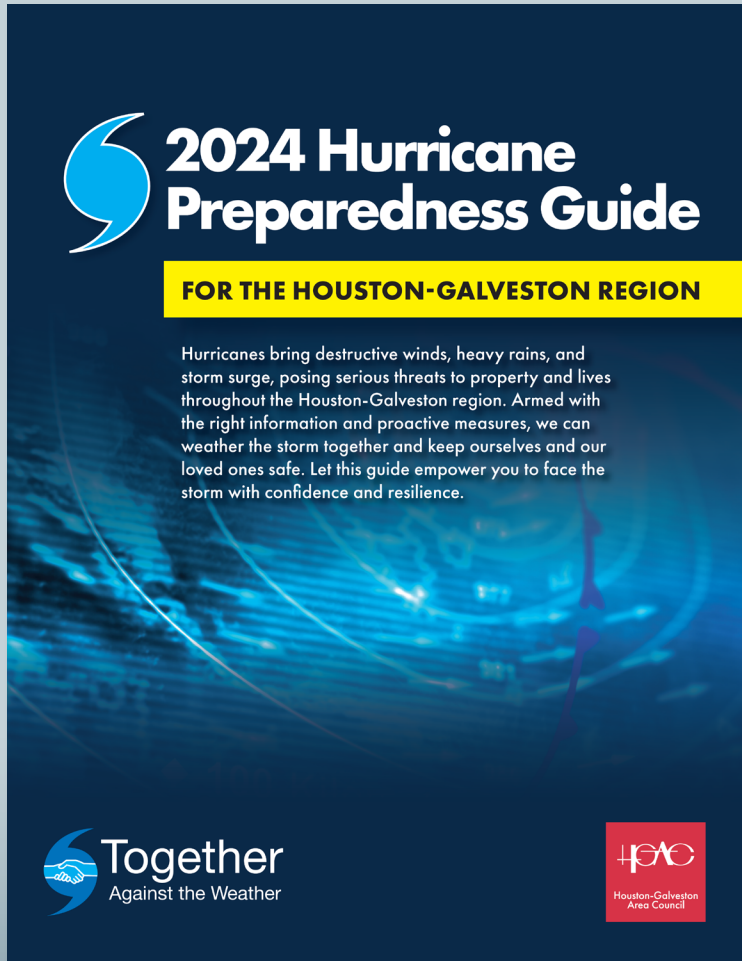
NRAC Agenda (continued)

5. Environmental Committee Highlights

Coordinators for H-GAC environmental committees will provide information on activities and updates from the past quarter.

- Regional Flood Management Committee (Rachel Windham for Amanda Ashcroft)
- Solid Waste Management Committee (Erin Livingston)

Regional Flood Management Council



- Met on July 31, 2024
- A representative from FEMA discussed National Flood Insurance Program resources and Substantial Damage Plans
- H-GAC staff demonstrated the 2024 Hurricane Preparedness Guide and directed the committee to other related resources
- Presentations and announcements from this meeting will be available on the H-GAC website next week
- The next meeting will be held virtually via Zoom on:

October 23rd

1:30 p.m. - 3:30 p.m.

<https://www.h-gac.com/hurricane>

NRAC Agenda (continued)

5. Environmental Committee Highlights

Coordinators for H-GAC environmental committees will provide information on activities and updates from the past quarter.

- Regional Flood Management Committee (Rachel Windham for Amanda Ashcroft)
- Solid Waste Management Committee (Erin Livingston)

NRAC Agenda (continued)

6. Environmental Program Highlights

H-GAC Staff will highlight Community & Environmental Planning projects to seek comment and feedback from Committee members.

- Watershed Protection Plan Projects Update (Rachel Windham)
- Parks and Natural Areas Roundtable Update (Andrea Tantillo)

Parks and Natural Areas Roundtable Recap

- Spring Park Tour to Bridgeland
- July roundtable cancelled. Next roundtable will be September 9 at H-GAC
- Fall park tour sometime in November or December
- Annual Awards open September 1

Annual Awards Timeline

Activity	Timeline
Review Application and Select Judges	July and August
Advertise Awards/Solicit Applications	August
Accept Applications	September 1-30
Judging	Early October
PNA Roundtable Previews Award Recommendations Via Email	Mid October
National Resources Advisory Committee Reviews Award Recommendations	Early November
Notify Winners	Mid December/January
H-GAC Board recognizes winners	January
Advertise Recognition Event	January/early February
Host recognition event	Friday in mid-February



Contact Information

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Find more at: h-gac.com/parks-and-natural-areas/awards



NRAC Agenda (continued)

7. Subcommittees

Water Innovation Strategies of Excellence Subcommittee

Staff coordinator, Rachel Windham, will provide an update on the status of the Water Innovation Strategies of Excellence Awards and future action.

2024 AWARDS CEREMONY

For more information, visit:
<https://www.h-gac.com/wise-awards>



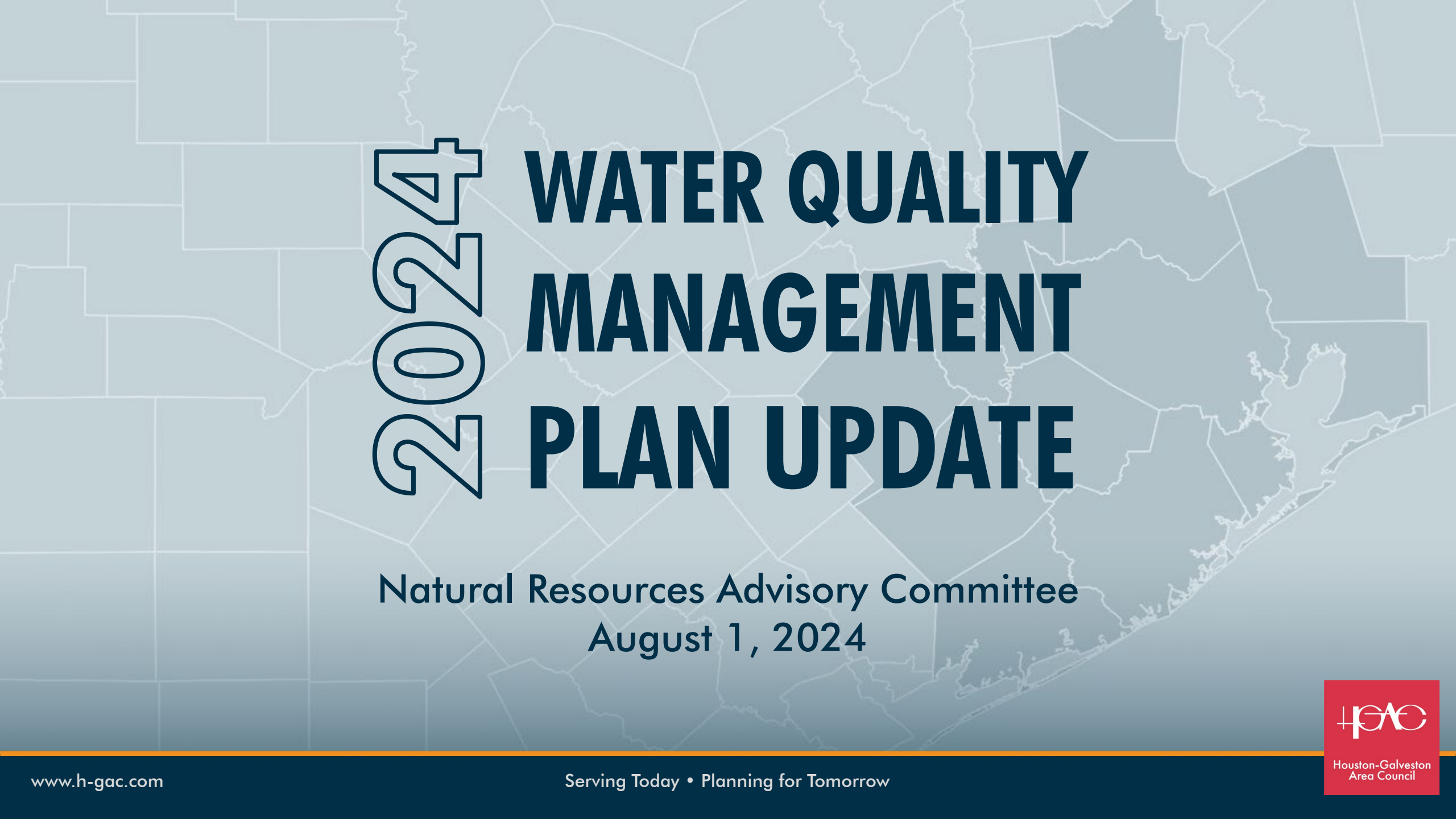
Houston-Galveston
Area Council

NRAC Agenda (continued)

8. Topic of the Day

Rachel Windham, Senior Planner at H-GAC, will provide an overview of the Draft 2024 Water Quality Management Plan Update which involves the collection and analysis of water quality and locational data related to wastewater sources. A copy of the document was provided digitally to members prior to the meeting.

Representatives will consider and take action on a recommendation to the H-GAC Board of Directors to accept the Water Quality Management Plan Update.



2024 **WATER QUALITY MANAGEMENT PLAN UPDATE**

Natural Resources Advisory Committee
August 1, 2024

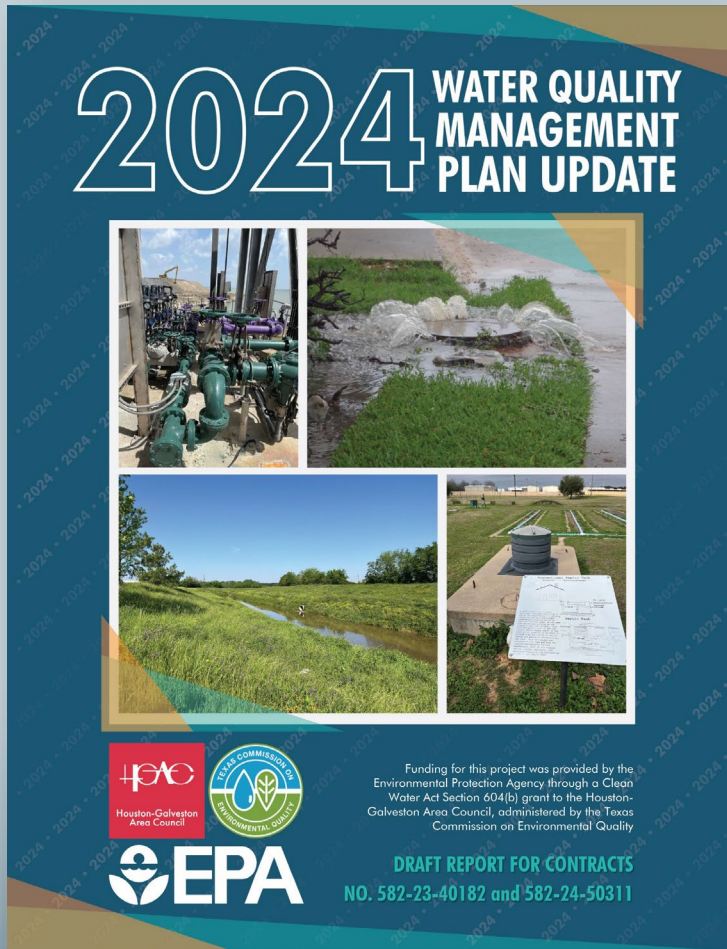
Acknowledgements

Funding for this project was provided by the United States Environmental Protection Agency (EPA) through a Clean Water Act Section 604(b) grant to the Houston-Galveston Area Council (H-GAC), administered by the Texas Commission on Environmental Quality (TCEQ).

TCEQ Contract Numbers 582-23-40182 and 582-24-50311



FY 2024 Water Quality Management Plan Update



- Project involves acquiring, compiling, and evaluating regional wastewater infrastructure and effluent monitoring data
- Data compiled and combined with data from EPA and TCEQ to form an integrated data set
- Data used by various programs and projects to support current and future planning decisions
- Update becomes part of the State's Water Quality Management Plan (WQMP)

Primary Project Objectives

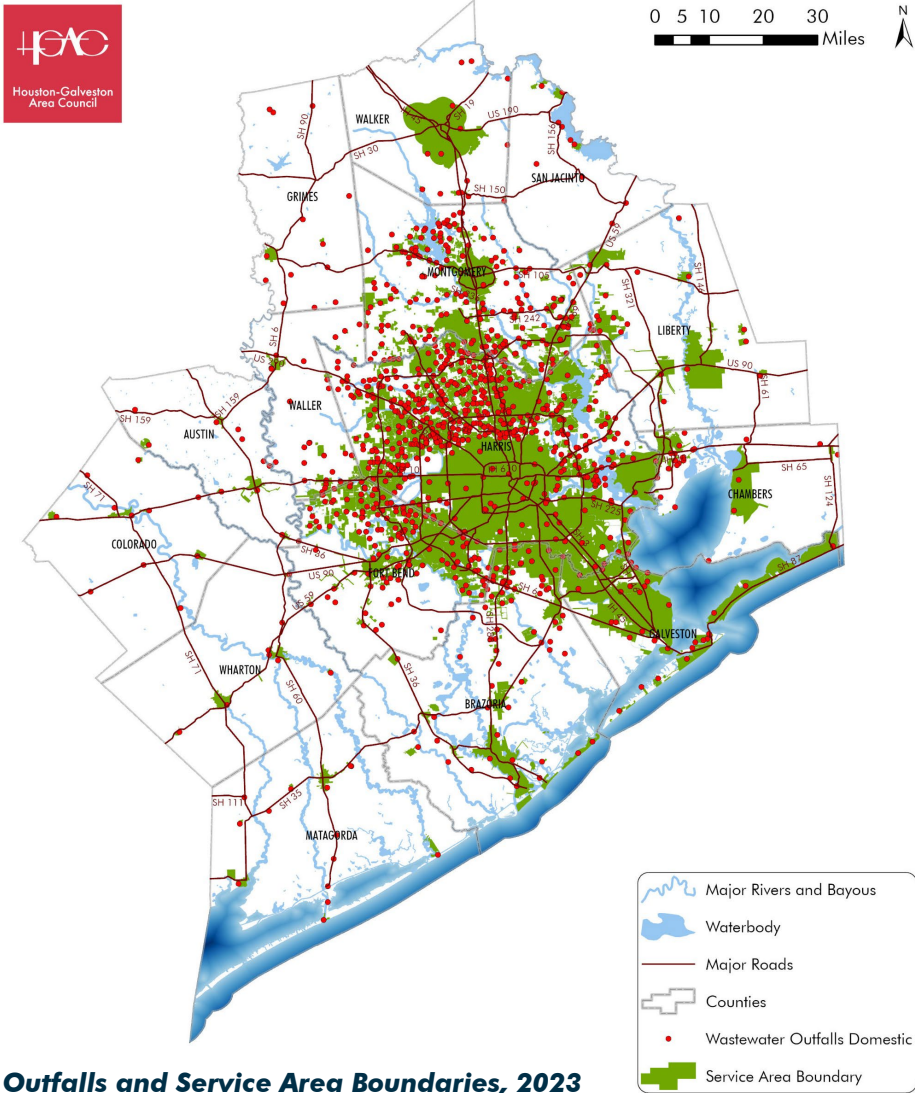
- Wastewater Data Update and Coordination
- Conformance Review for Clean Water State Revolving Fund (CWSRF) Projects
- Support Watershed Planning
- On-Site Sewage Facility (OSSF) Planning, Support, and Outreach
- OSSF Mapping Tool Expansion
- Water Quality Management Plan Update Report

Wastewater Data Update and Coordination



- Mapped wastewater treatment facility (WWTF) outfalls and service area boundaries
- Analyzed of wastewater effluent discharge monitoring report (DMR) and sanitary sewer overflow (SSO) data
- Conducted outreach related to employment in the wastewater industry

Wastewater Data Update and Coordination (cont.)



Wastewater Infrastructure Spatial Data

- Acquired and reviewed the domestic wastewater outfall location data for the 15-County region from TCEQ
 - 13-County H-GAC Region + San Jacinto and Grimes Counties
- Updated the Service Area Boundaries GIS layer for domestic outfalls with any new permittees
 - While revising the data for 2024, wastewater mainline data from the City of Houston Geolink HUB was used to refine SAB delineation

Outfalls and Service Area Boundaries, 2023

Wastewater Data Update and Coordination (cont.)



Wastewater Effluent Monitoring Data Analysis

- Acquired and analyzed data collected between 1/1/2019 and 12/31/2023 for:
 - DMR data from EPA and TCEQ with a focus on bacteria
 - Self-reported SSO data acquired from TCEQ
- These data are used by other programs and projects
 - Bacteria Implementation Group (BIG)
 - Total Maximum Daily Load (TMDL) development
 - Watershed Protection Plan (WPP) development
 - Clean Rivers Program (CRP)

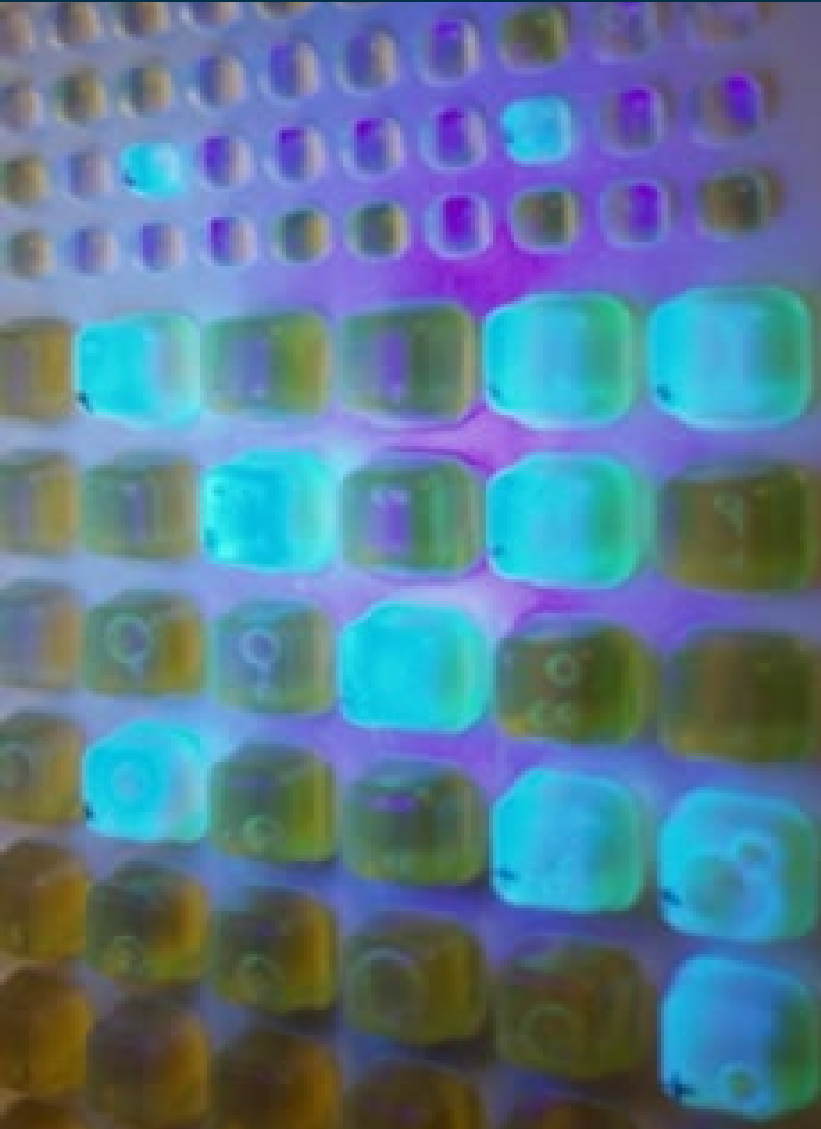
Wastewater Data Update and Coordination (cont.)



Key Findings

- 1,398 permitted wastewater outfalls in the region
- DMR data of any kind reported for 1,054 outfalls
- 924 facilities reported bacteria data in 2023
- The largest size category of WWTFs reporting bacteria data is <0.1 MGD (n=270, or 29% of total)
- 78% of WWTFs reporting bacteria data in the region (n=729) are less than 1 MGD

Wastewater Data Update and Coordination (cont.)



Key Findings (cont.)

- Bacteria permit compliance is high
 - 95% of Single Grab Sample results
 - 99% of Geometric Mean results
- The largest estimated bacteria load comes from facilities in the 1 to 5 MGD size category (n=149)
- The second largest estimated bacteria load comes from facilities in the greater than 10 MGD category (n=21)
- The lowest estimated bacteria load comes from facilities in the less than 0.1 MGD category (n=270)

Wastewater Data Update and Coordination (cont.)



Key Findings (cont.)

- 239 permitted dischargers (28%) reported SSOs in 2023
- 1,447 SSOs reported
- Reported combined SSO discharge volume of 17,381,100 gallons
- Rain/inflow/infiltration was the leading cause of SSO events in 2023 (40% of all SSOs) followed by line blockages from fats, oils, and grease (32%)
- Lift station failures contributed to the largest total volume of discharge in 2023 (10,266,760 gallons)
 - One line break event reported 9,556,400 gallons of discharge released over the course of nine days between the initial failure, discovery, and repair
 - This represents over half of the annual total volume of discharge from all causes and was the highest reported discharge of any category in 2023

Wastewater Data Update and Coordination (cont.)



Industry Outreach

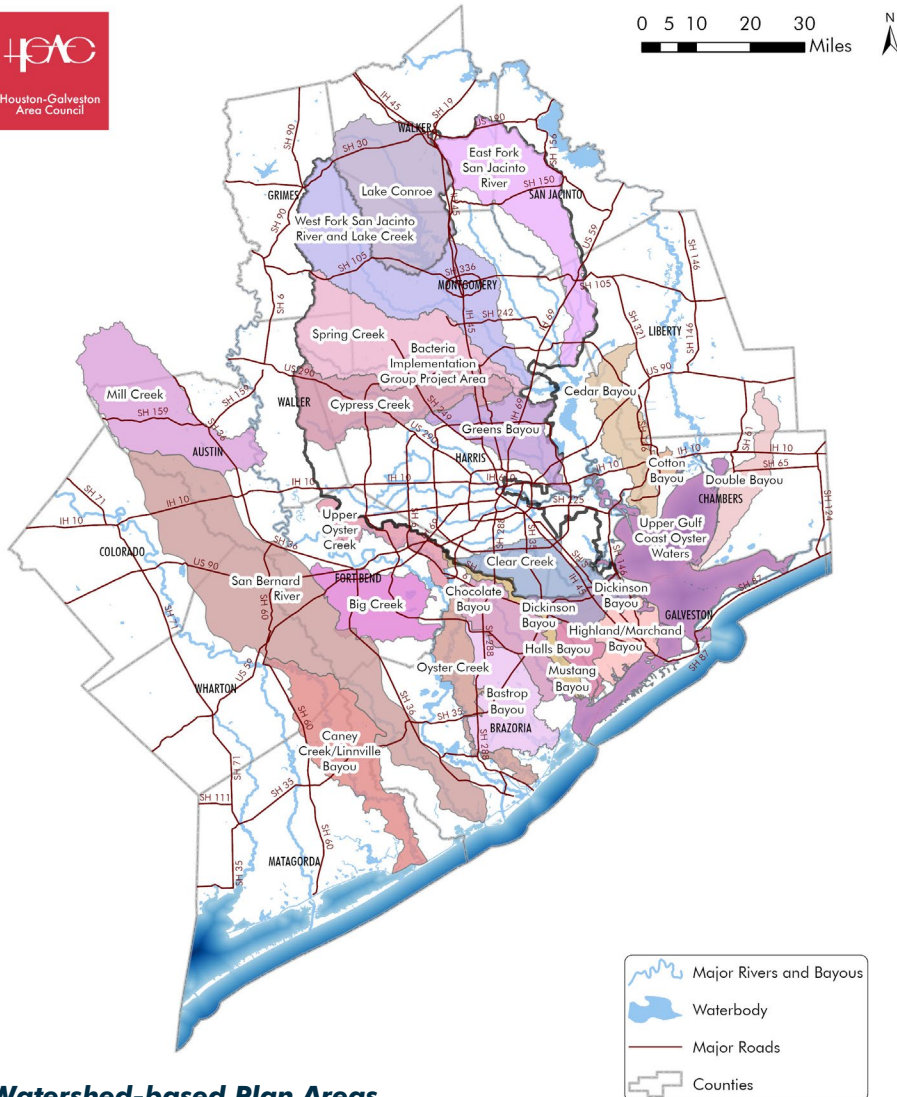
- On March 16, 2023, H-GAC hosted the first *Ensuring the Future of Texas' Water Workforce Roundtable* to discuss barriers to and opportunities for attracting talent to the industry
- Organizations represented at the meeting included:
 - City of Houston
 - City of Lake Jackson
 - Gulf Coast Authority
 - H-GAC
 - Houston Community College
 - Inframark
 - San Jacinto College District
 - San Jacinto River Authority
 - Tarrant Regional Water District
 - TCEQ
 - Texas Rural Water Association
 - Trinity River Authority
 - U.S. Department of Labor
 - Water Environment Association of Texas
 - Workforce Solutions
- Additional meeting discussions included creation of a centralized website for training programs, funding to provide training, job postings, pay and benefit information
- Also discussed branding and marketing to advertise through social media, streaming services, and possibly television.
- Identifying sources of funding is also a priority topic for this group.

Conformance Review for CWSRF Projects

- Upon TCEQ request, H-GAC reviewed two Clean Water State Revolving Fund (CWSRF) applications for compliance with regional goals and objectives

Requesting Entity	Project Summary	Findings
City of Hitchcock	The project would rehabilitate the sanitary sewer collection system through trenchless technology using Pipe Busting, Sliplining, Cured-in-Place Pipe (CIPP) construction methods, service line replacement and reconnection, and manhole rehabilitation or replacement.	Based upon our review, H-GAC staff finds this project is consistent with regional goals as defined in the FY 2023 Houston-Galveston Area Regional Water Quality Management Plan.
City of New Ulm Water Supply Corporation	Build a new in-ground wastewater treatment plant to replace the existing package plant in the present location. The new plan would consist of a concrete aeration basis, concrete clarifier, concrete chlorination basis and concrete digester. The size of the plant would remain the same.	Based upon our review, H-GAC staff finds this project is consistent with regional goals as defined in the FY 2023 Houston-Galveston Area Regional Water Quality Management Plan.

Support Watershed Planning



Plan Facilitation and Coordination

- Served on Galveston Bay Estuary Program subcommittee memberships
- Coordinated with the Clean Rivers Program on the development of the Basin Highlights Report
- Promoted OSSF projects, including the Supplemental Environmental Project for the Homeowner Wastewater Assistance Program
- Prepared OSSF education and outreach programs and materials for the Coastal Communities project
- Participated in the Watershed Coordinator's Roundtable
- Coordinated with TMDLs, WPPs and other efforts

Watershed-based Plan Areas

Support Watershed Planning (cont.)



Urban Forestry

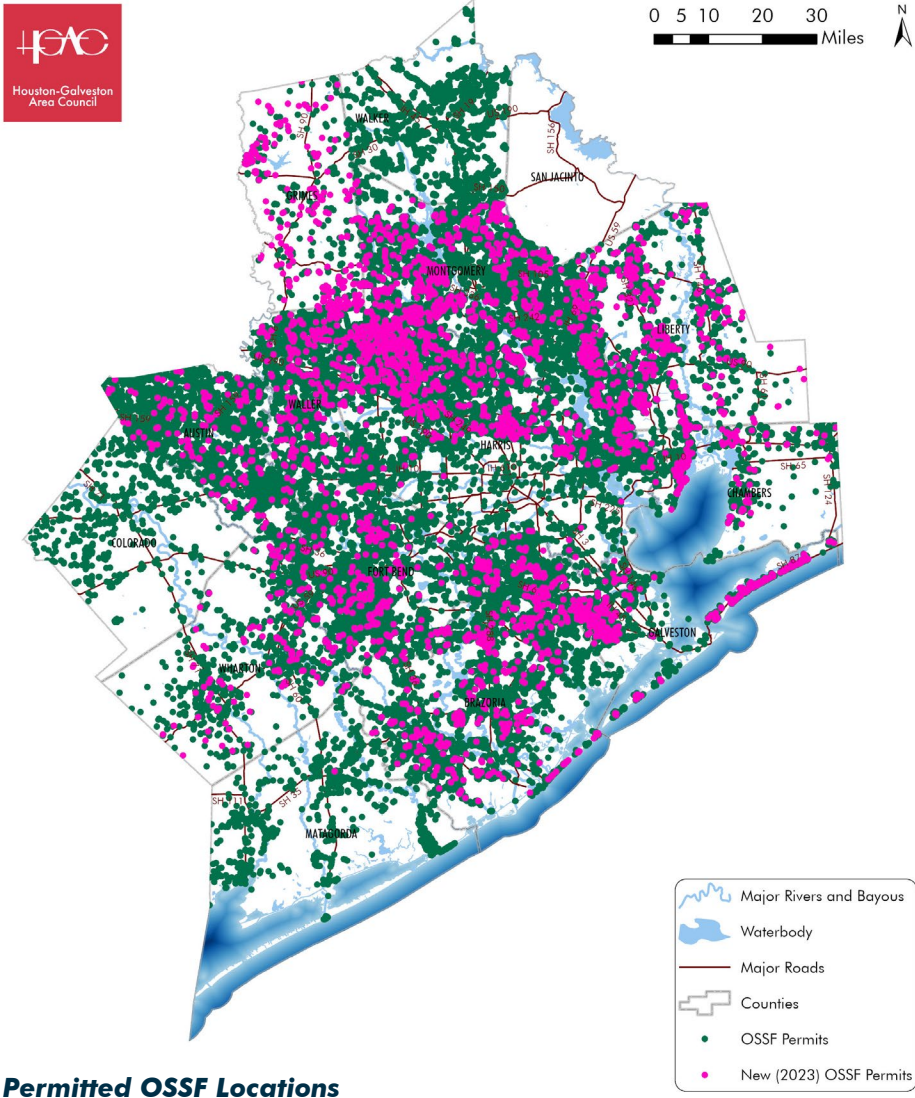
- Served on and/or coordinated with regional and national forestry projects
- Helped lead the continued development and implementation of the Green Futures corporate sustainability program with Texas A&M Forest Service
- Assisted the City of Bellaire with a comprehensive canopy assessment of all city parks and public facilities
- Assisted the Houston Area Urban Forestry Council in the planning for its annual tree planting competition planting event and urban forestry education events
- Assisted various entities with letters of support, funding research, program coordination, or other minor data projects to support forestry efforts

OSSF Planning, Coordination, and Outreach



- Permitted OSSF Database Update
- Unpermitted OSSF Analysis
- Updates to Harris County OSSF Historical Permit Data
- Coordination with Authorized Agents
- Supplemental Environmental Program (SEP) Coordination and Outreach Activities
- OSSF Outreach and Education

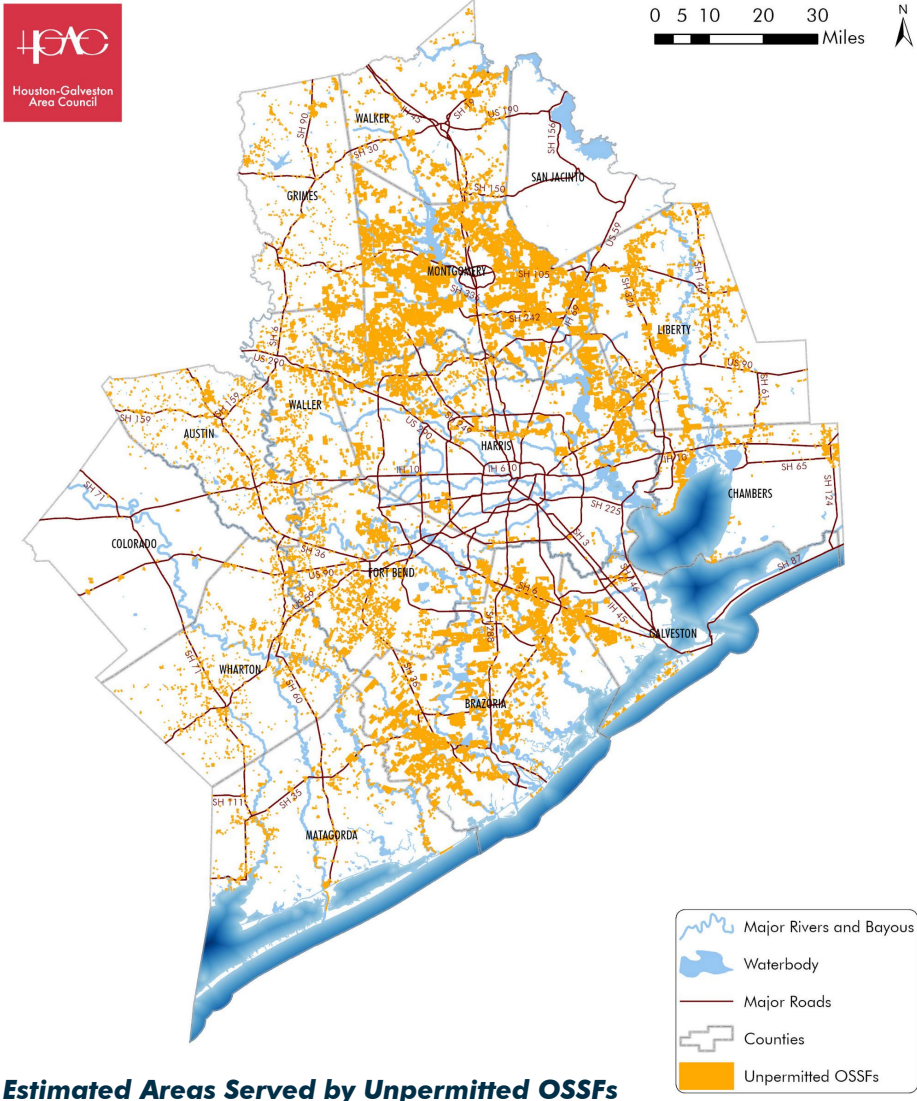
OSSF Planning, Coordination, and Outreach (cont.)



Permitted OSSF Database Update

- Added new permitted systems through 12/31/2023
- 18,684 new permitted OSSFs added in 2023
 - Greater than usual due to addition of 9,665 scanned historical records from Harris County
 - H-GAC was not able to acquire OSSF permit data from San Jacinto County
 - Colorado, Matagorda, and Walker counties did not report new data in 2023
- 144,106 permitted systems in the database

OSSF Planning, Coordination, and Outreach (cont.)



Unpermitted OSSF Analysis

- H-GAC used methodology developed in 2022 for estimating the number of potential unpermitted systems in the region
 - Rather than using parcels and census block data, new method uses 9-1-1 addresses to estimate the locations
- Updates to the SAB using City of Houston wastewater mainline data resulted in approximately 20,000 parcels being removed from the unpermitted area estimate
- 189,135 unpermitted systems (estimated)
- 333,241 total OSSFs (permitted and unpermitted; estimated) in region

OSSF Planning, Coordination, and Outreach (cont.)

STRUCTURE	DATE	PERMIT
SEPTIC ONLY	901024	254255
SEPTIC ONLY	901024	254270
SEPTIC ONLY	901029	254396
RESIDENTIAL	821022	167910
RESIDENTIAL	830909	191647
RESIDENTIAL	820108	145350
REBUILT HOUSE	890424	240363
RESIDENTIAL	850528	214344
RESIDENTIAL	791011	105241
RESIDENTIAL	800603	114013
RESIDENTIAL	791219	107642
RESIDENTIAL	790501	096465
RESIDENTIAL	790501	096464
RESIDENTIAL	790723	101065
RESIDENTIAL	790323	094394
RESIDENTIAL	800710	115336
RESIDENTIAL	840316	201687
RESIDENTIAL	810406	129929
RESIDENTIAL	790524	097996
RESIDENTIAL	810218	126161
RESIDENTIAL	810226	127281
RESIDENTIAL	830415	181073
RESIDENTIAL	800701	115309
RESIDENTIAL	810602	134052
RESIDENTIAL	801114	122660
RESIDENTIAL	820823	163459
RESIDENTIAL	810420	130685
RESIDENTIAL	830318	178577

Updates to Harris County OSSF Historical Permit Data

- H-GAC acquired a scanned copy of Harris County's Early Permitting System (EPS) database
 - Contained roughly 14,816 records
 - 69% of the scans were legible enough to match to H-GAC's STAR*Map data
 - 9,665 records of the EPS database were added to the 2024 permitted database
 - H-GAC plans to identify as many remaining records as possible in the 2025 update
 - Records with addresses/parcels that no longer exist will not be added to the database

OSSF Planning, Coordination, and Outreach (cont.)



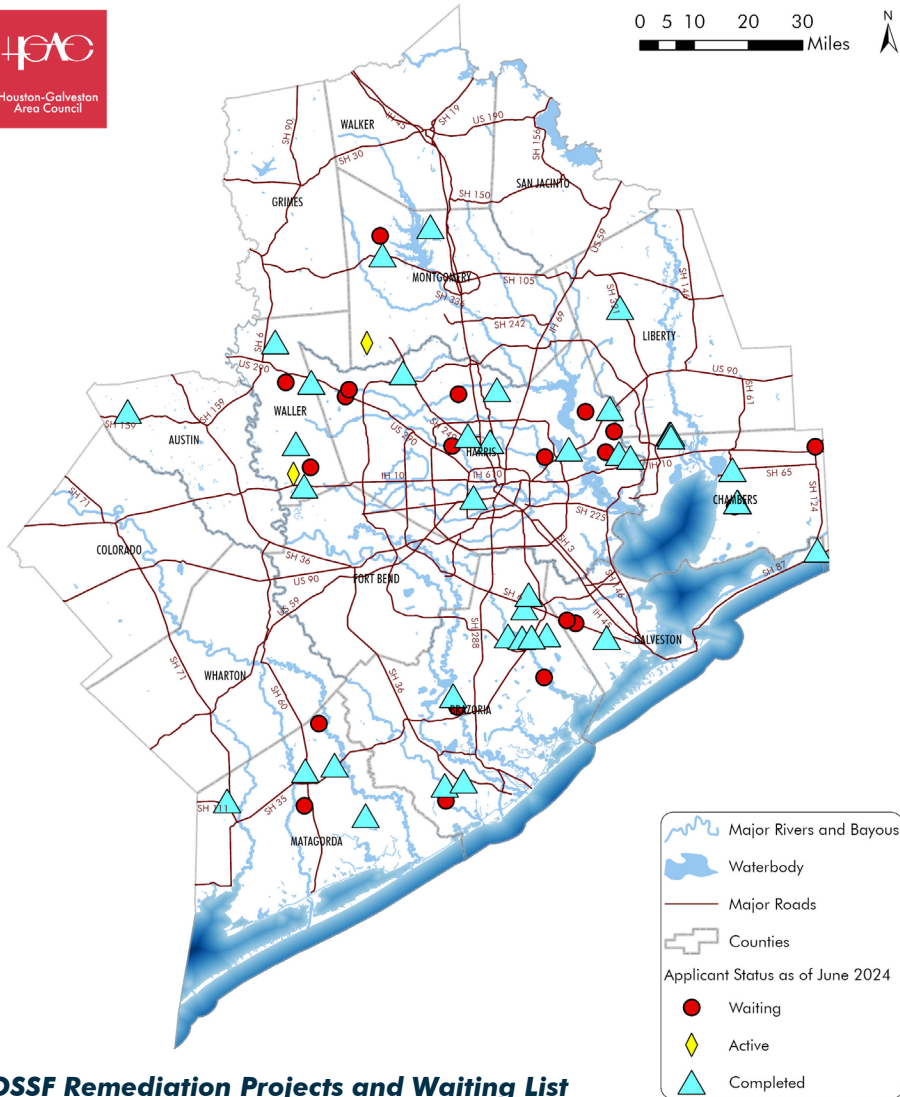
Coordination with Authorized Agents

- Coordinated with multiple entities to update the OSSF database
- New H-GAC staff made introductions/established connections with Authorized Agents and Designated Representatives
- On 8/22/24, H-GAC will host a Clean Waters Initiative Workshop centered on OSSF information for Authorized Agents and Designated Representatives

SEP Coordination and Outreach

- Program assists homeowners with OSSF repair or replacement
- The WQMP contract supports planning, coordination, and outreach, but does NOT fund repairs or replacements
- Funding provided through the TCEQ SEP Program, the Harris County District Attorney's Office, and industry partners

OSSF Planning, Coordination, and Outreach (cont.)



SEP Coordination and Outreach (cont.)

County	Replacement	Repair	Waiting
Austin	1	-	-
Brazoria	6	3	3
Chambers	6	-	3
Colorado	-	-	-
Fort Bend	-	-	-
Galveston	2	-	2
Grimes	-	-	-
Harris	5	3	7
Liberty	-	4	-
Matagorda	3	1	2
Montgomery	2	2	3
San Jacinto	-	-	-
Walker	-	1	-
Waller	5	-	3
Wharton	-	-	-
TOTAL	30	14	23

OSSF Planning, Coordination, and Outreach (cont.)

OSSF Outreach and Education

4 signs of a failing septic system

- Strong odor from septic tank or drainfield
- Pooling water or muddy soil in drainfield
- Bright green spongy grass even in dry weather
- Sewage backups or slow draining sinks and tubs

Proper maintenance can help prevent septic system failures
Learn more at www.epa.gov/septic/septicsmart-homeowners or a Homeowner Education Workshop

Join H-GAC at a free On-Site Sewage Facility (Septic System) Homeowner Education Workshop in your community!

Friday, March 8, 2024
1:00pm to 3:00pm or 5:00pm to 7:00pm

Liverpool City Hall
8901 CR 171
Liverpool, TX 77577

Contact: ossf@h-gac.com

This project is funded in part by the TCEQ through a grant from the United States Environmental Protection Agency

Houston-Galveston Area Council
Homeowner Wastewater Education Workshop

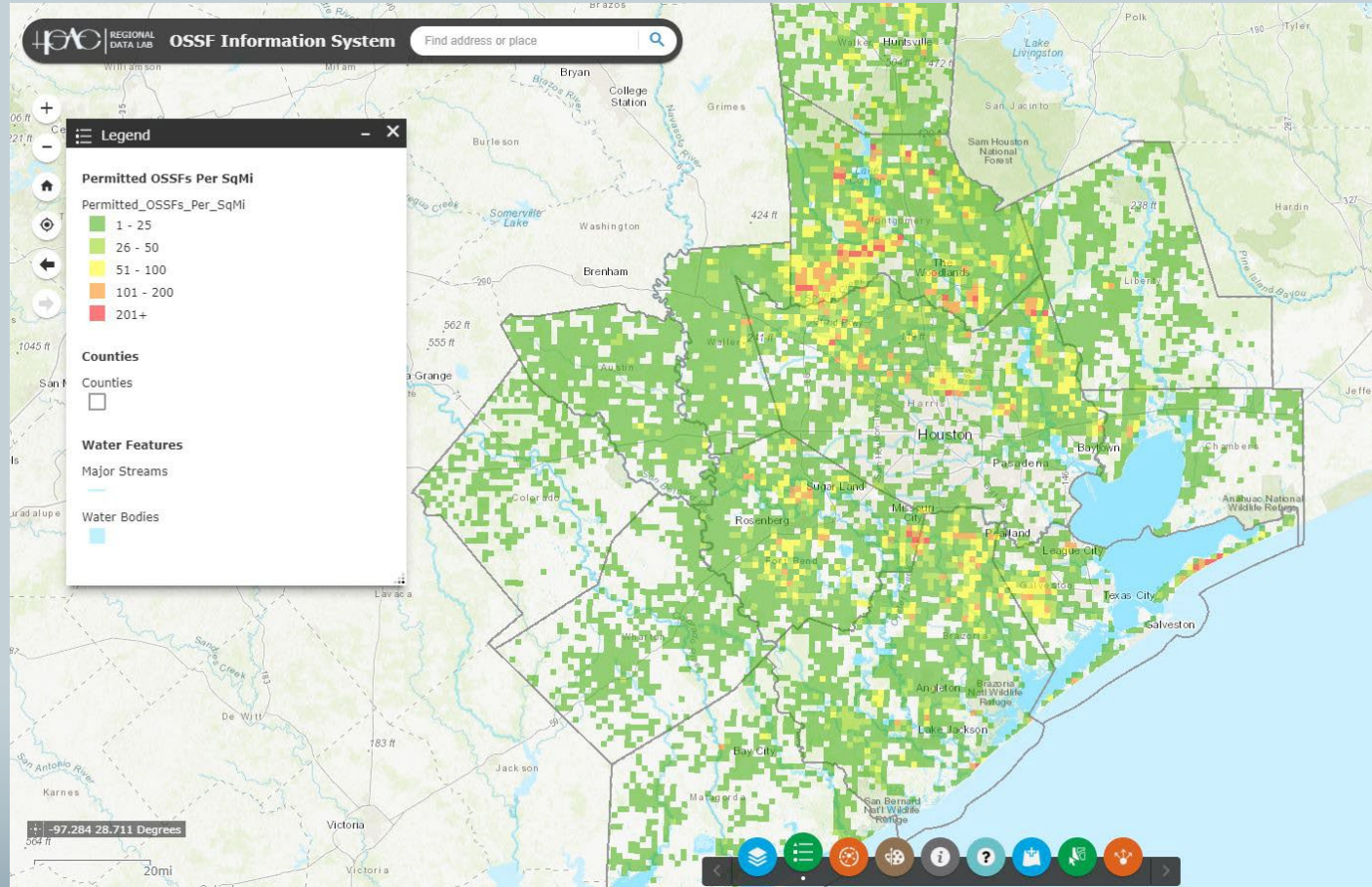
HOMEOWNER CHECKLIST

- ☒ Attend the Homeowner Education Workshop hosted in your community.
- ☐ Conserve water and fix household leaks. Too much water can strain the system.
- ☐ Do not pour fats, oils, and grease down the drain as they can cause clogs in your pipes and system.
- ☐ Do not flush any non-degradable items even if they say "flushable" - only put toilet paper in the toilet.
- ☐ Do not drive on your drainfield as it can damage your system.
- ☐ Have your aerobic system inspected by a licensed contractor as often as required by your county, and pump out as needed.

This project is funded in part by the TCEQ through a grant from the United States Environmental Protection Agency

- Through cooperation with the Coastal Communities Program, H-GAC identified vulnerable communities overlapped with large numbers of OSSFs for targeted outreach and promotion of OSSF workshops
 - In the past year, four updated OSSF Homeowner Education Courses have been hosted for a total of 25 homeowners
- With the support of a generous grant from Wells Fargo H-GAC is working to provide OSSF pumpouts to vulnerable communities at no cost to the homeowner
- H-GAC is also working to host the OSSF Homeowner Education Course online, either through interactive presentations via Teams or Zoom, or posted on YouTube
- Several outreach tools have been created including flyers, bill inserts, and web banners that can be utilized by communities through the Coastal Communities Tool Kit

OSSF Mapping Tool Expansion

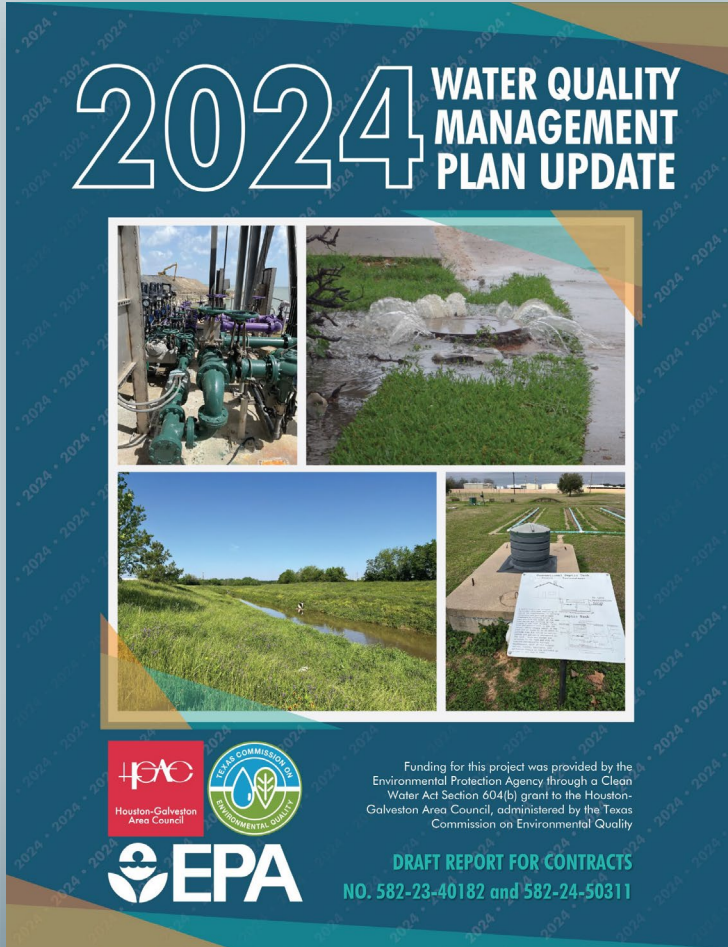


Feasibility Study

- Project staff are coordinating with the North Central Texas Council of Governments to determine the feasibility of integrating their OSSF data into the H-GAC OSSF database
- Success with this project could lead to more partnerships over time

<https://datalab.h-gac.com/OSSF/>

WQMP Update/Final Report



The goal of this task is to provide TCEQ with a comprehensive report on water quality management activities in the Region and includes the following deliverables:

- Draft WQMP Update
 - 30-day comment period (Texas Water Code § 26.037)
 - Comments from NRAC members will be accepted through today
 - Response to Comments
 - Included in the Appendices of the final report
- Final WQMP Update

WQMP Update/Final Report (cont.)

Water Quality Management Plan Update Report Timeline

Task	Date
Draft WQMP Update Report distributed to NRAC and posted to H-GAC website	7/1/2024
30-Day Public Comment Period opens	7/1/2024
Public Comment Period closes	8/1/2024
→ Present Draft WQMP Update Report to NRAC for recommendation to Board of Directors	8/1/2024
Revise Draft WQMP Update Report to address public and NRAC comments	8/1/2024 – 8/20/2024
H-GAC Board of Directors meeting	8/20/2024
Submit Final WQMP Update Report and documentation of public comment period to TCEQ	8/31/2024
Upload Final WQMP Update Report to H-GAC website	8/31/2024

- The Final WQMP Update Report will be submitted to TCEQ for approval and incorporation into the state's Water Quality Management Plan

Final Comments



Action Requested

H-GAC staff requests that the NRAC recommend to the H-GAC Board of Directors that the Board accept the Final Report for the FY 2024 *Water Quality Management Plan Update* as amended based upon comments received from NRAC and the public during the public comment period.

Comments or Questions?



Funding for this project was provided by the United States Environmental Protection Agency through a Clean Water Act Section 604(b) grant to the Houston-Galveston Area Council, administered by the Texas Commission on Environmental Quality.

TCEQ Contract Numbers 582-23-40182 and 582-24-50311

Rachel Windham

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NRAC Agenda (continued)

9. Roundtable Discussion

NRAC members can bring up issues of import and/or interest for edification and/or discussion at this time. Please take advantage of this agenda item.

Announcement



Join us for our hybrid workshop on on-site sewage facilities
Thursday, August 22
from 9:00 a.m. to 12:00 p.m.
in person at H-GAC and virtually on Zoom!



<https://www.h-gac.com/clean-water-initiative-workshops>

NRAC Agenda (continued)

10. Public Comment

Members of the public can sign up to public comment. Three minutes allotted for each public comment.

NRAC Agenda (continued)

11. Next Meeting Date

Unless otherwise notified, the next scheduled meeting is:

Thursday, November 7, 2024 from 1:30 to 3:30 p.m.

This meeting will be held as a hybrid in-person/online event.

12. Adjourn