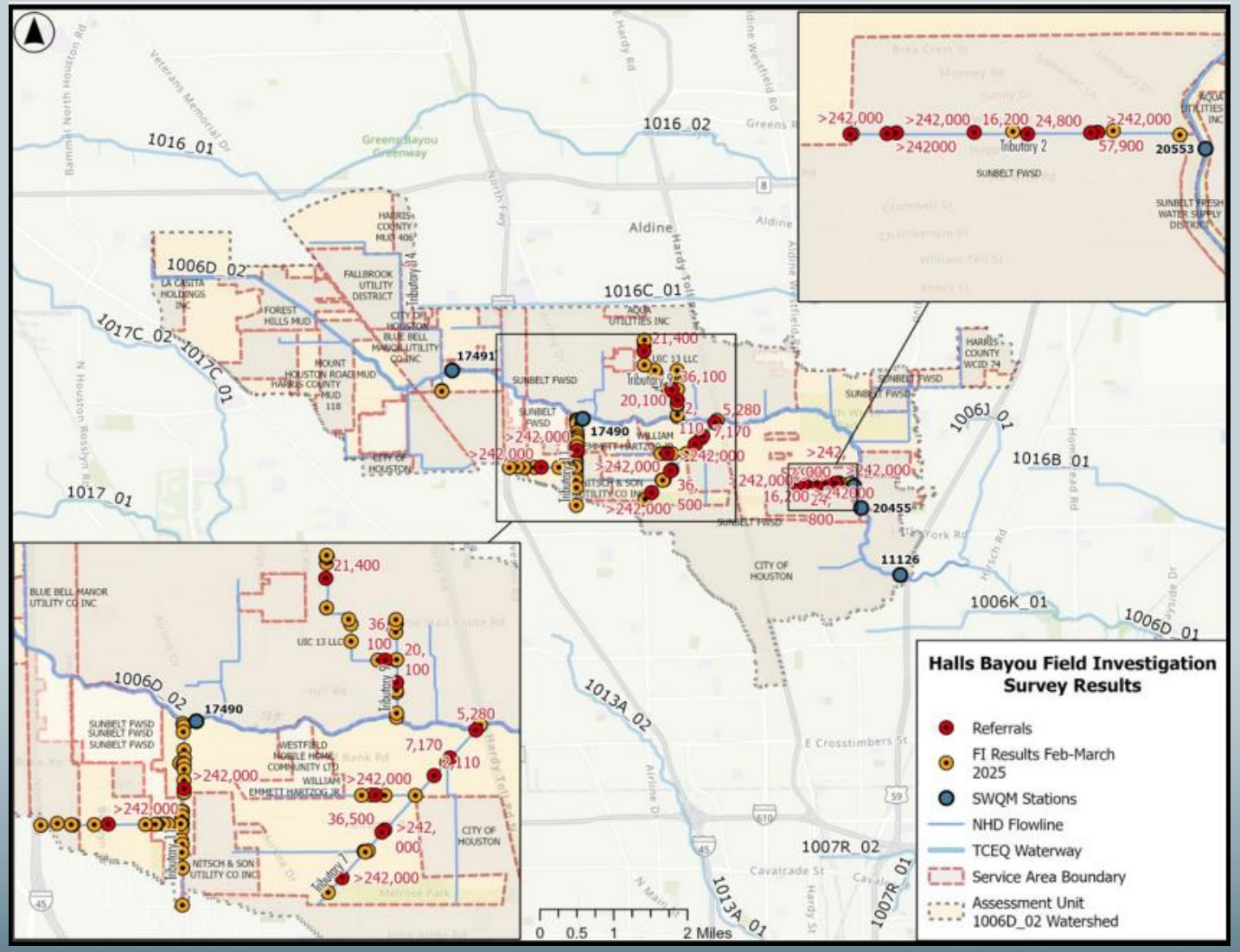
H-GAC Implementation Efforts in the East Aldine District

Houston-Galveston Area Council
Kendall Guidroz

Targeted Monitoring Efforts (FY23 & FY25)

- FY23 – Unnamed Tributary to Greens Bayou (1016D_01)
  - Key source thought to be an apartment complex that repeatedly has issue
- FY25 - Halls Bayou (1006D_02)
  - 6 miles on 5 tributaries with the highest *E. coli* values
  - Key observations:
    - Many instances of discharge or pipes from residential properties
    - Wildlife in properties adjacent to waterways (horses, chickens, goats, etc.)
    - Possible homeless encampments
    - Possible source from a flea market
    - 19 out of 94 samples were reported as "referrals"
    - 9 out of 19 referral samples had *E. coli* >242,000 MPN

Targeted Monitoring Efforts (FY23 & FY25)

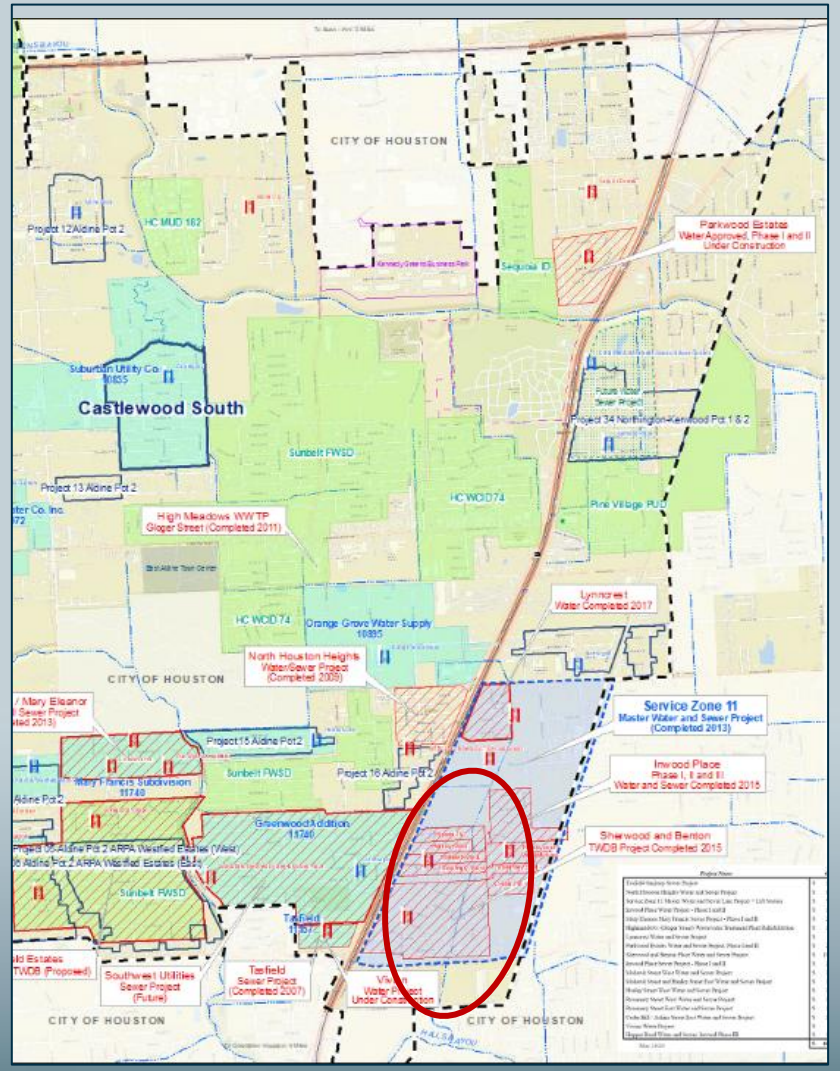


BMP Case Study on OSSF Conversions FY26

Fecal Bacteria monitoring in communities converted from OSSFs to sanitary sewer:

- Demi John Island (Bastrop Bayou in Brazoria County
- Unnamed Tributary to Halls Bayou in the East Aldine Management District
- 3 monitoring events with 8-9 sampling sites in each community
- Compared to historical data

BMP Case Study on OSSF Conversions FY26



East Aldine Location – unnamed tributary to Halls Bayou (1016J_01)

- Not the same study area as a past targeted monitoring study but has a Clean Rivers station at downstream point
- Converted area is a large neighborhood on both sides of the tributary that previously had >30% failure rate of evaluated systems
- Improved *E. coli* numbers seen in historic data after conversion, but levels might be rising again
- Sampling results elevated, but other possible sources observed
  - Highest results at most downstream location (CRP site) and homeless encampment observed immediately upstream
  - A lot of stray or roaming dogs in the neighborhood
  - Several properties have chickens or horses
  - The areas upstream of the neighborhood had not been converted.

BMP Case Study on OSSF Conversions FY26

Downstream

Upstream

Site ID	Sample Date		
	Dec. 8, 2025	Feb. 3, 2026	Apr. 14, 2026
	Bacteria Sample Results (colonies/100mL)		
EAD09	1,330	>24,200	368
EAD10	480	63	199
EAD11	631	173	383
EAD12	860	86	379
EAD13	1,270	132	404
EAD14	2,280	189	536
EAD15	441	323	1,530
EAD16	52	213	1,140
EAD17	420	364	364
	4 days since last significant rainfall (0.68")	10 days since last significant rainfall	2 days since last significant rainfall (0.56")

Addressing OSSFs in Disadvantaged Communities with Vulnerable Populations

An IIJA Project through the Galveston Bay Estuary Prgoram has allowed H-GAC to:

- Identify Priority Watersheds and Coordinate with Stakeholders
  - Utilize the Regional Equity Tool to identify communities with economic barriers and other potential vulnerabilities.
  - Partner with local officials or organizations trusted by residents
- Host Homeowner OSSF Education Workshop(s) in prioritized watersheds
  - Workshop attendance required to qualify for OSSF repair or replacement
- Address failing or malfunctioning OSSFs in the priority watersheds
  - System repairs and replacements for qualifying residents, up to 25 systems.

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

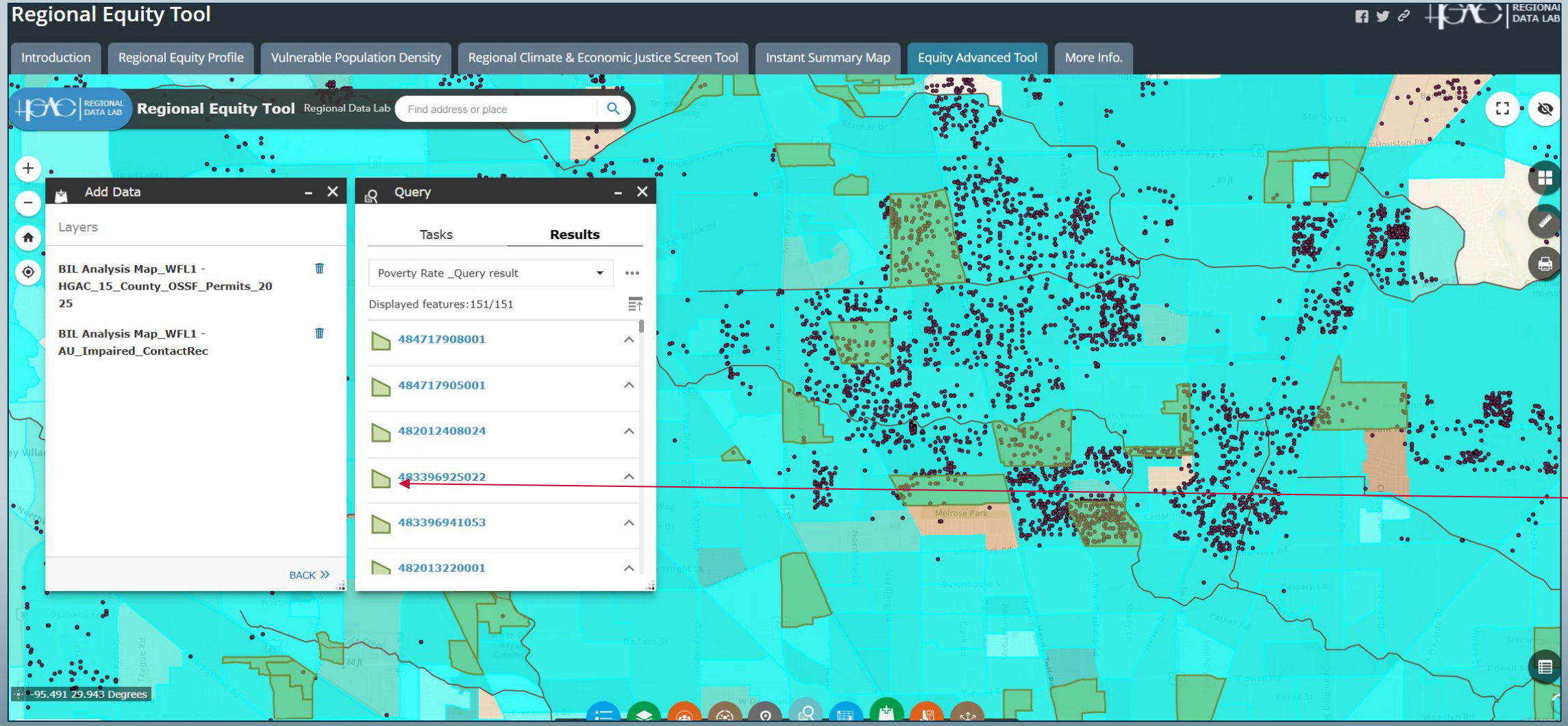
Homeowner Wastewater Assistance Program

- Covers the cost of repair or replacement of failing OSSFs (includes two years of maintenance)
  - No cost sharing by homeowner
  - Must own and reside in home
  - Make at or below 80% of median household income for the county
  - Eligible even if under enforcement action
- Primary Funding source is a TCEQ Supplemental Environmental Project
  - Funding limited and inconsistent
  - 1-5 OSSFs addressed per year on average depending on funding
  - Need is growing (aging systems & new developments)

Homeowner Education Workshops

- Free workshop providing homeowners information on:
  - The basics of conventional and aerobic OSSFs
  - Signs of system malfunctions or failures
  - The importance of routine maintenance
  - Important Do's and Don'ts for maintaining an OSSF
- Any community can request a workshop just for education, but workshops are also required for residents who receive assistance from some of our projects
- Does not certify attendees to maintain their own system

East Aldine District Regional Equity Tool Query



Query Results for census blocks with 50% or greater poverty rate level.

Current Status

- Key partnership with East Aldine District
- 2 additional homeowners applied, but one backed out and one is pending a qualification and budget check
- Several others on a waitlist

Workshop Location	Workshop Date	Attendees	Possible Applicants*	Pending Repairs/Replacements**
East Aldine	10/21/25	7	4	0
East Aldine	12/6/25	16	11	6
East Aldine	01/10/2026	27	19	9
Total		50	34	15

*This is the number of attendees who took applications and indicated they would be applying.
**At the time of this presentation no repairs/replacements have been completed, but this is the number of attendees who have been approved and submitted to a vendor.

Key Takeaways & Lessons Learned

- The East Aldine area has presented unique challenges for OSSF replacements
  - Lot sizes – subdivided and small
  - Water wells on properties
  - Permit requirements
  - Increased Costs
- Assistance with failing OSSFs remains a need for this community
- *E. coli* sources likely stem from more than just OSSFs and wastewater infrastructure