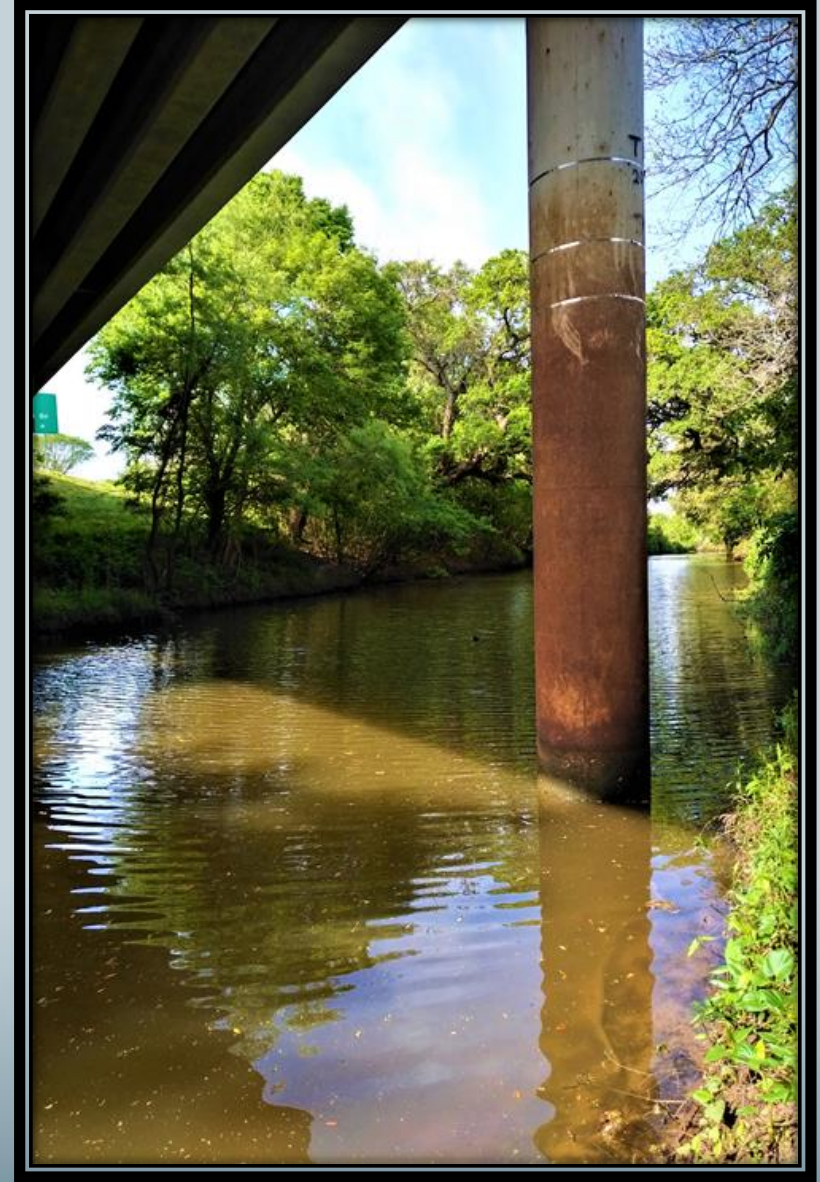


# OYSTER CREEK TMDL PROJECT

**Steven Johnston, H-GAC**

**May 11, 2022**



# Acknowledgements



- TCEQ Total Maximum Daily Load (TMDL) Program – Austin



# What is H-GAC?

# Meeting Agenda

- 1:00 – 1:05 Welcome – Open Meeting
- 1:05 – 1:15 Project Update – Timeline
- 1:15 – 1:35 Project Review
- 1:35 – 2:15 Review Draft Management Measures
- 2:15 – 2:25 Implementation
- 2:25 – 2:30 Meeting Wrap Up/Next Steps
- Adjourn

# Water Quality Management

- Monitoring
- Assessment
- Address Impairments



# Oyster Creek TMDL Update

- Technical Support Document Revised
  - Revising Flow Data
  - Updated Maps
  - Deliver May 31, 2022
- TMDL Document Revised
  - Revising Flow Data
  - Deliver August 2022
- Draft I-Plan
  - Addressing/Updating 2022

Technical Support Document for Two Total Maximum Daily Loads for Indicator Bacteria in the Oyster Creek Watershed

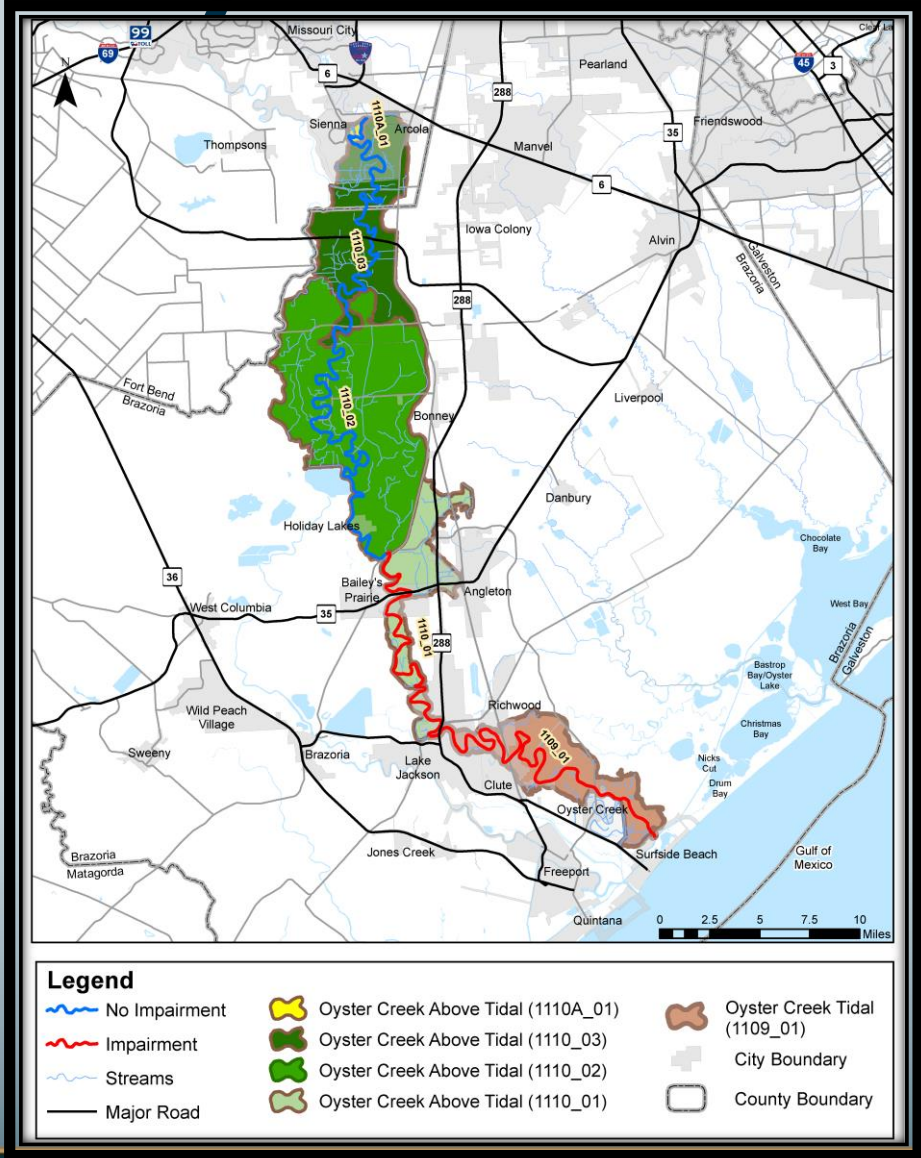
Segments: 1107 and 1108

Assessment Units 1109\_01 and 1110\_01

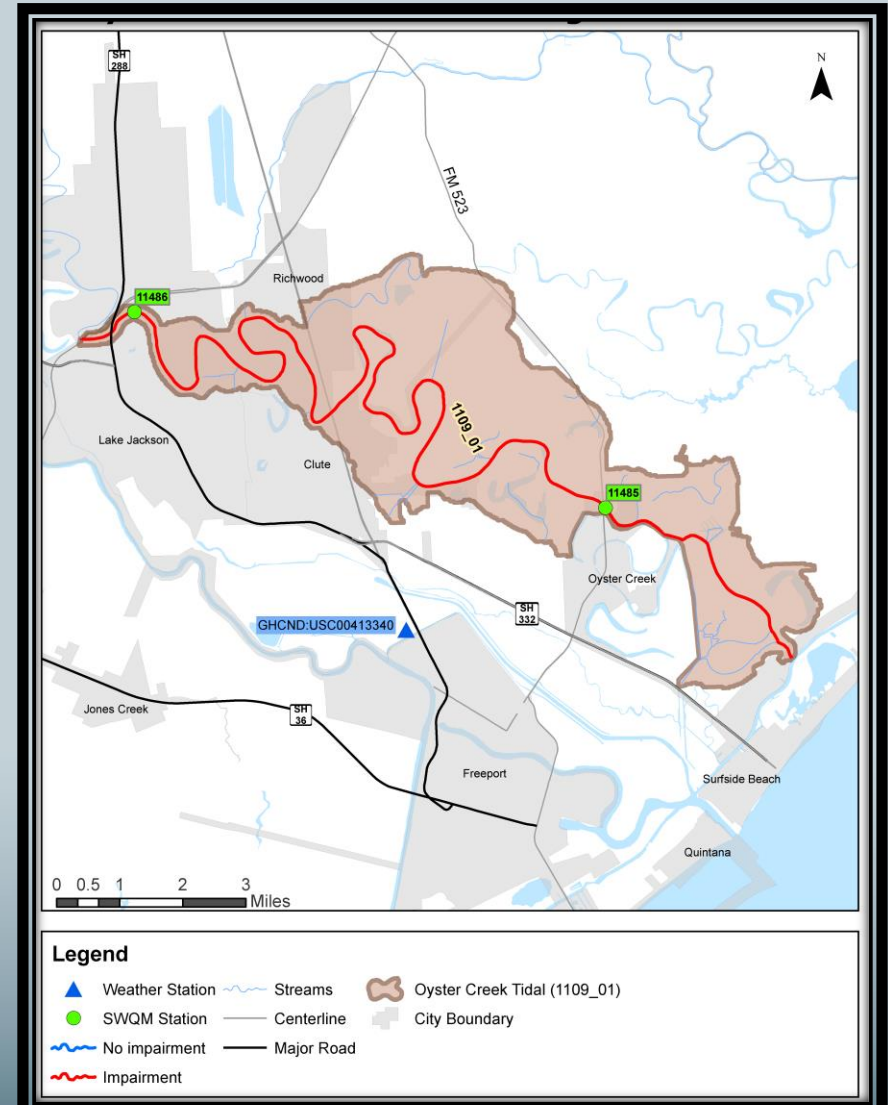
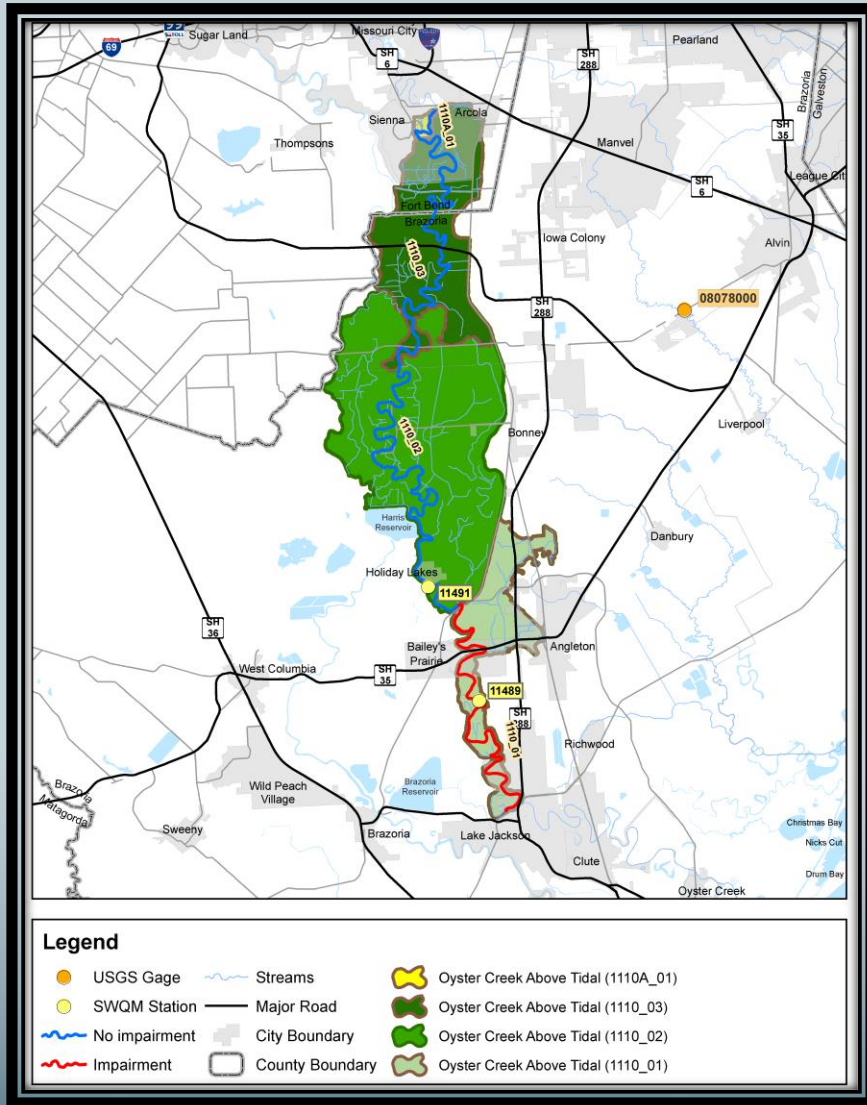


December 2019

# Oyster Creek

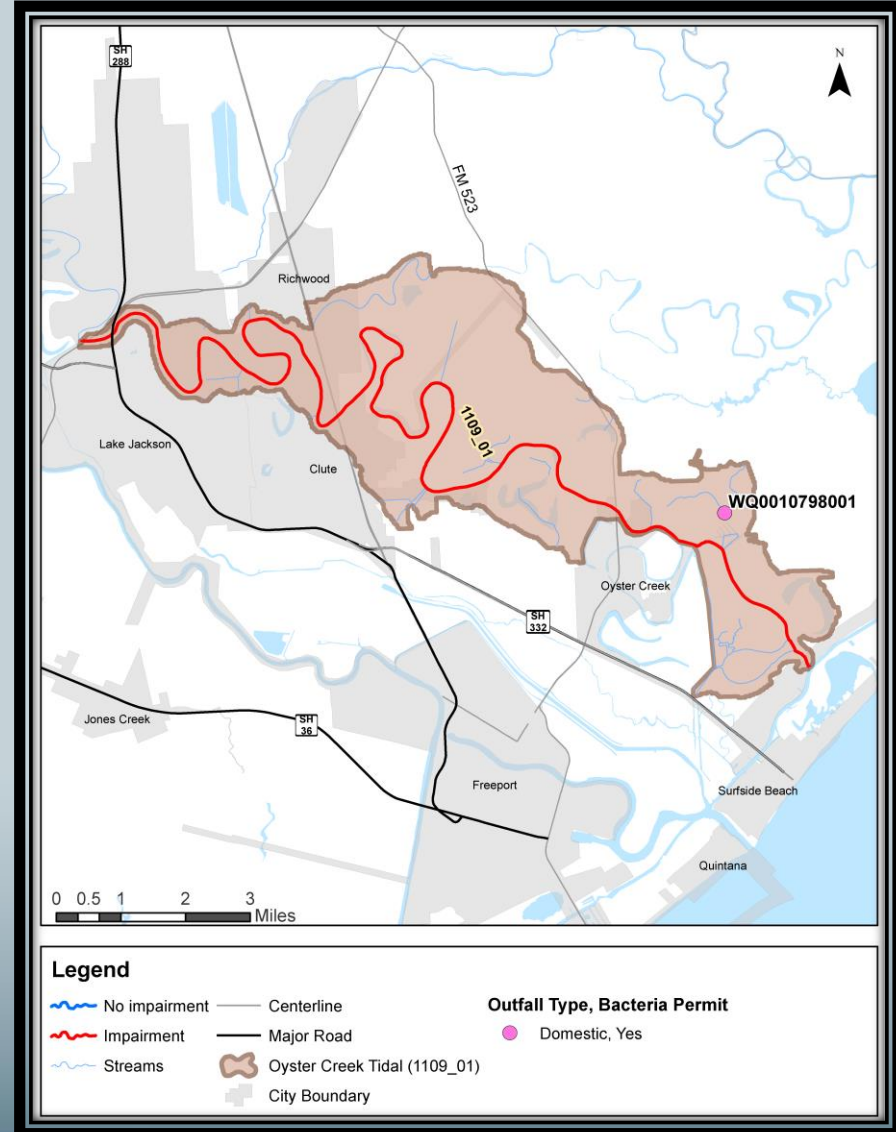
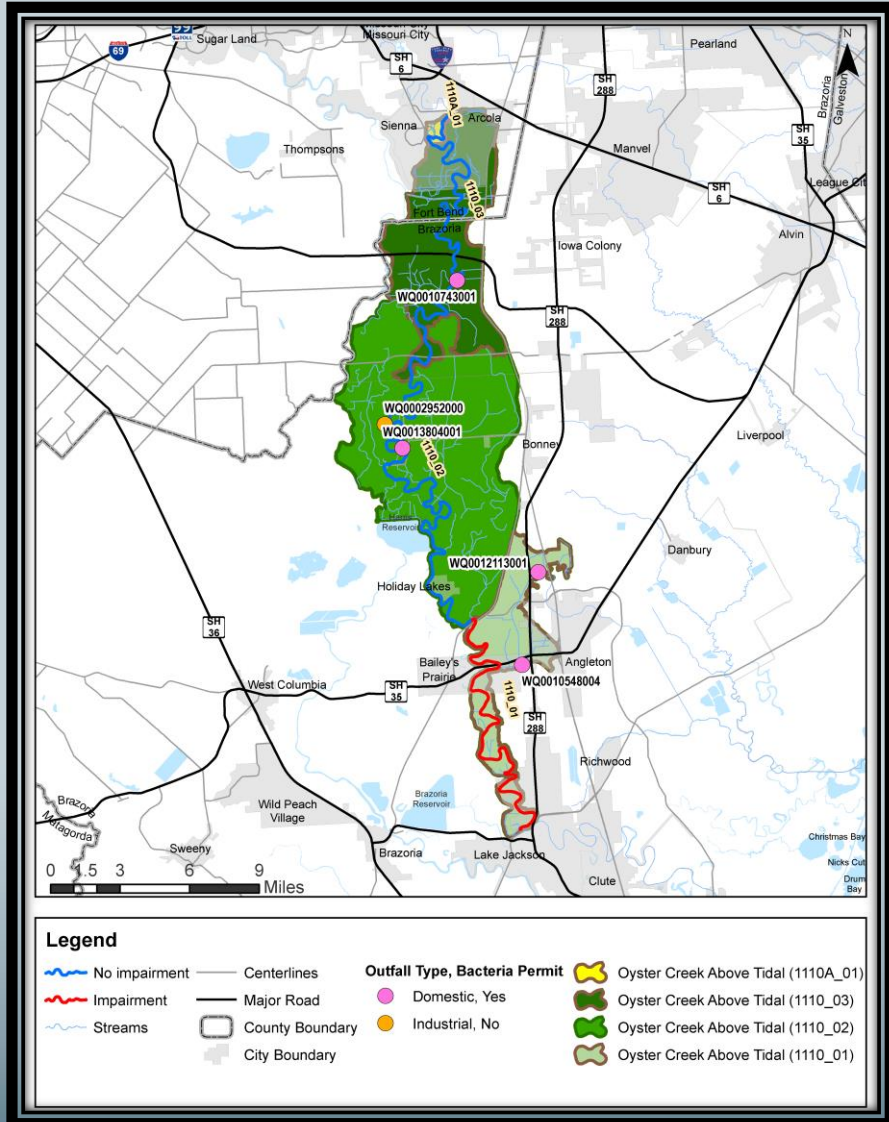


# Monitoring Site Locations





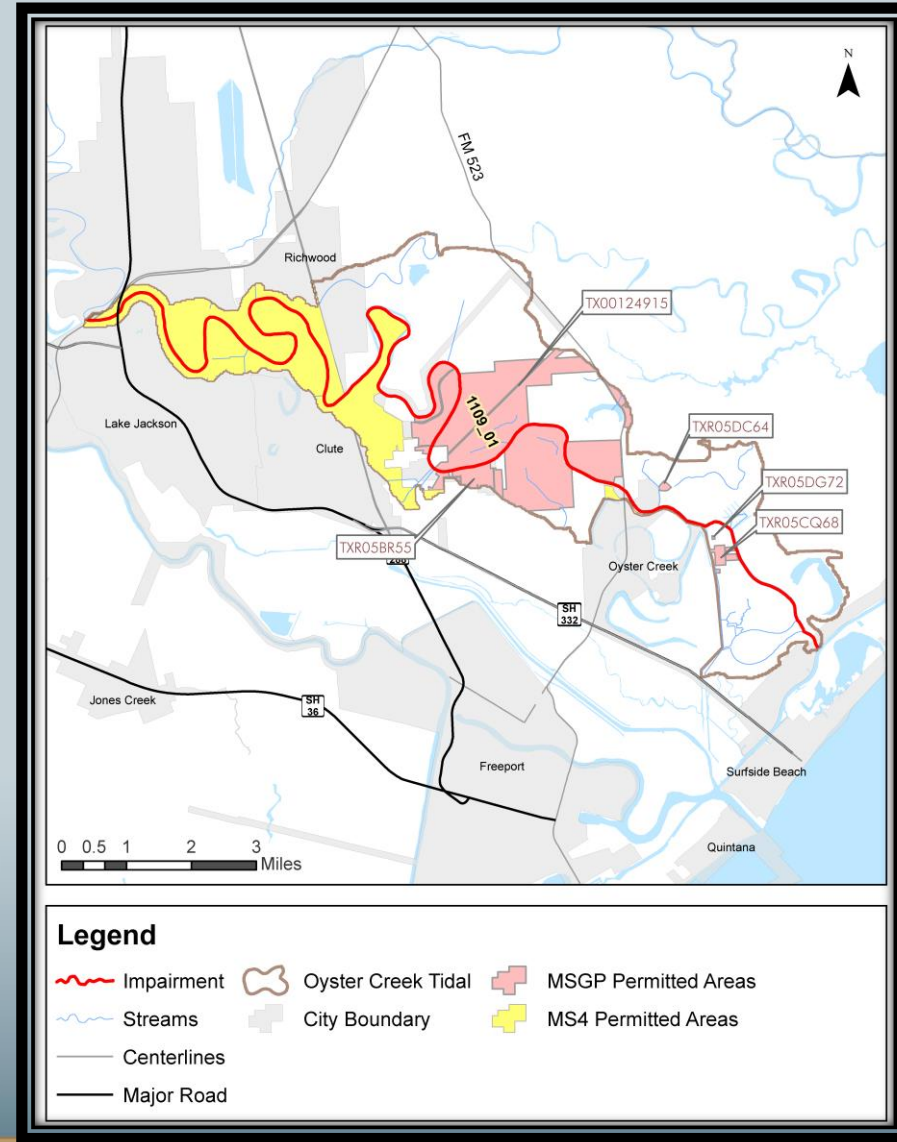
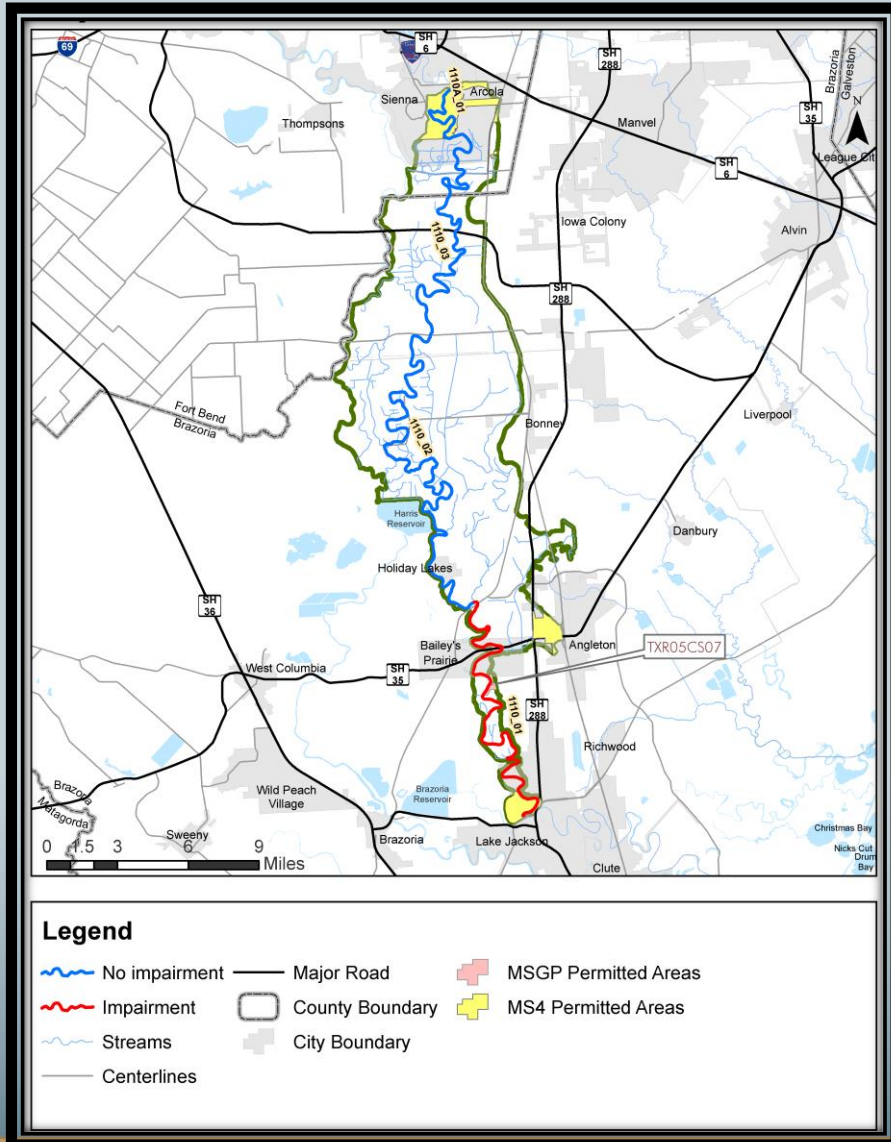
# WWTF Locations



# Sanitary Sewer Overflows

AU	Permit	Permittee	Year	Number of Reported SSOs	Estimated Volume (Thousand Gallons)
1109_01	WQ0010047001	City of Lake Jackson	2011	4	41.00
1109_01	WQ0010047001	City of Lake Jackson	2012	6	31.50
1109_01	WQ0010047001	City of Lake Jackson	2013	3	0.48
1109_01	WQ0010047001	City of Lake Jackson	2014	5	10.70
1109_01	WQ0010047001	City of Lake Jackson	2015	5	48.70
1109_01	WQ0010047001	City of Lake Jackson	2016	14	56.40
1109_01	WQ0010047001	City of Lake Jackson	2017	12	3.92
1109_01	WQ0010047001	City of Lake Jackson	2018	12	3.96
1110_01	WQ0010548004	City of Angleton	2011	1	19.00
1110_01	WQ0010829001	TDCJ Scott Unit	2012	2	83.37
1110_01	WQ0010548004	City of Angleton	2014	1	10.00
1110_02	WQ0013804001	TDCJ Terrell Unit	2011	1	60.00
1110_02	WQ0013804001	TDCJ Terrell Unit	2013	3	50.40
1110_02	WQ0013804001	TDCJ Terrell Unit	2016	1	0.00
1110_03	WQ0010743001	TDCJ Darrington Unit	2011	1	0.25
			Total	71	419.68

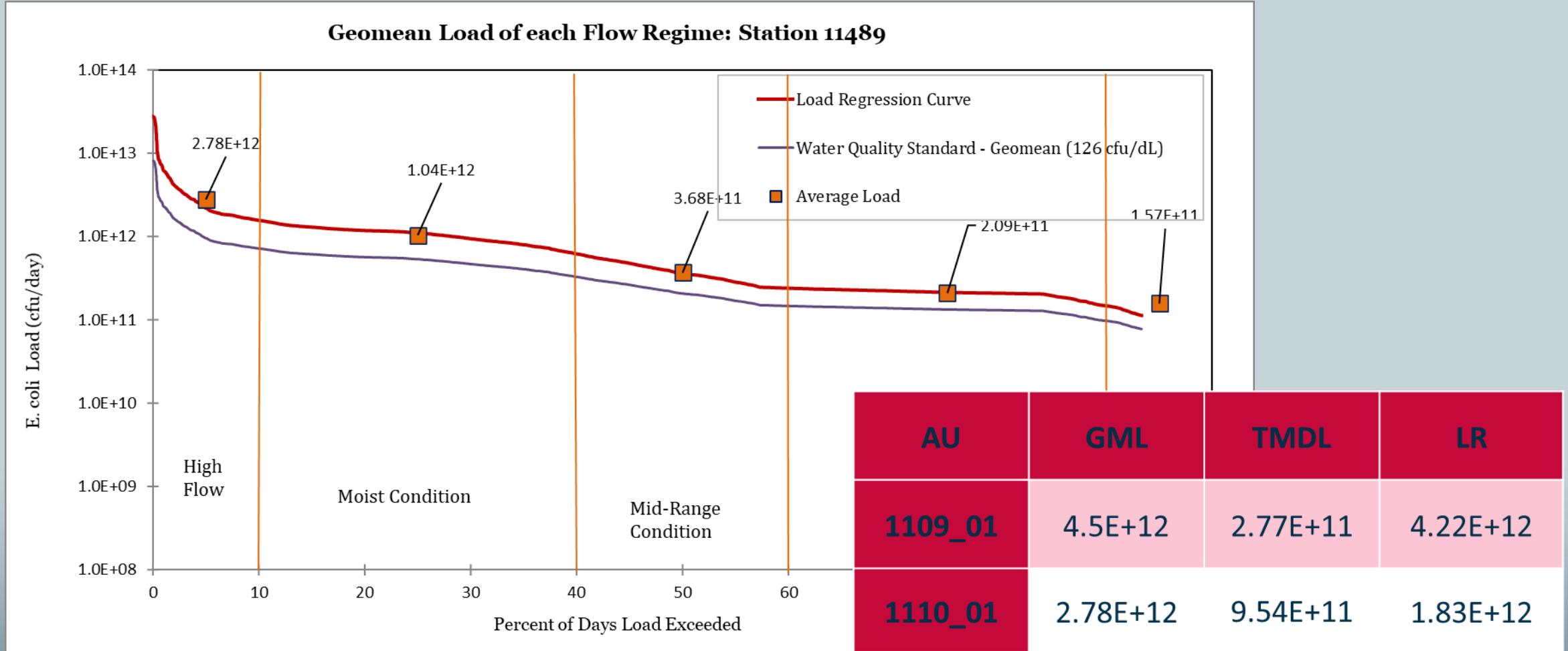
# Stormwater Permits



# Feral Hog Population Estimates

Segment	Suitable Area (Acres)	Suitable Area (Sq. Mile)	Feral Hog Population
1109	11,097.86	17.3404	300
1110	67,089.31	104.827	1,831
Total	78,187.16	122.1674	2,131

# Revising Load Reductions



# Revising TMDL

$$\text{TMDL} = \text{WLA}_{\text{wwtf}} + \text{WLA}_{\text{sw}} + \text{LA} + \text{MOS}$$

AU	Indicator Bacteria	TMDL (Billion cfu/day)	MOS (Billion cfu/day)	WLA <sub>wwtf</sub> (Billion cfu/day)	WLA <sub>sw</sub> (Billion cfu/day)	LA (Billion cfu/day)
1109_01	Enterococci	276.68	2.78	22.63	3.67	247.60
1110_01	<i>E. coli</i>	954.12	47.71	81.06	29.60	795.75

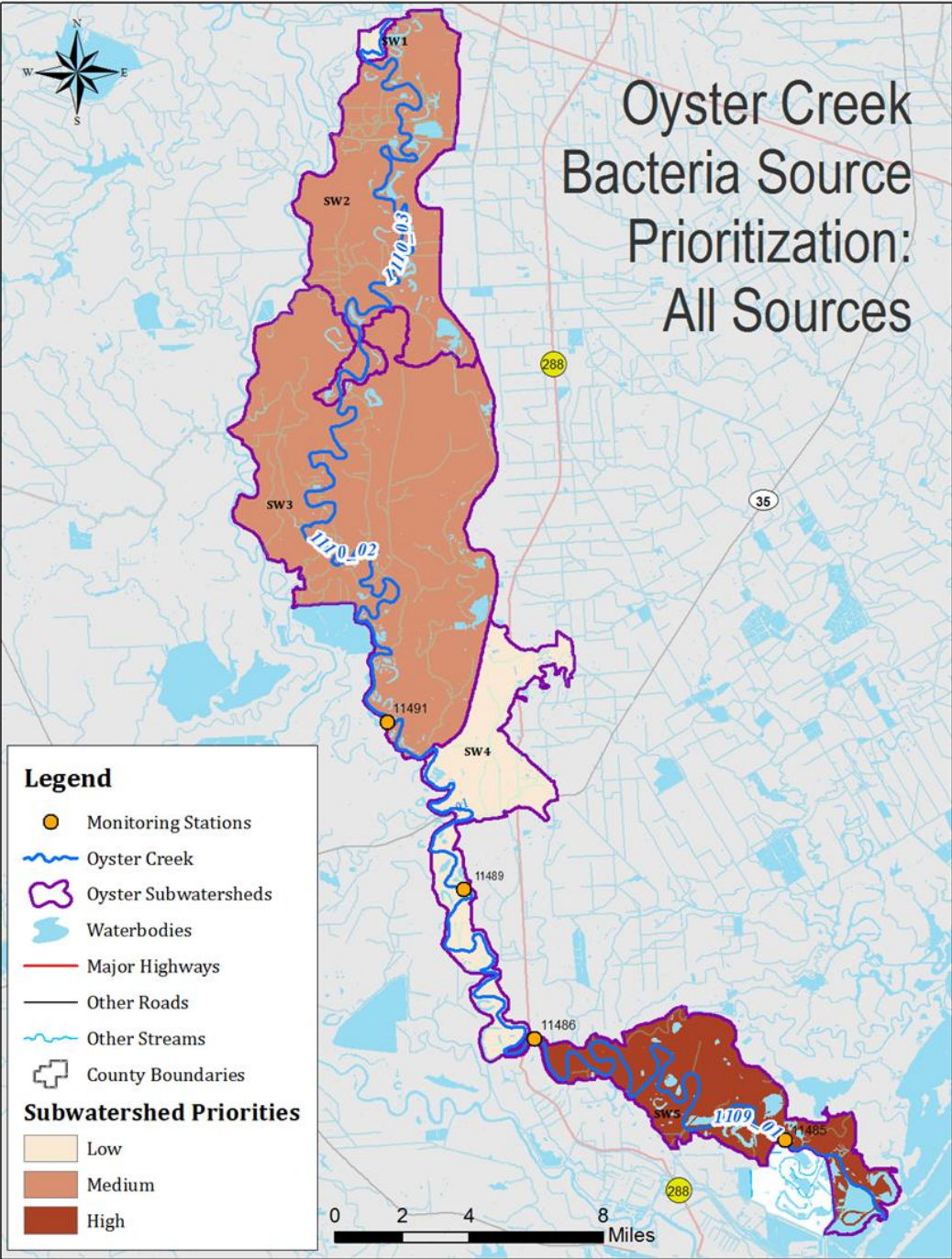


# Draft Oyster Creek I-Plan

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- References the TMDL document/TSD
- Prioritizes Sources
- Identifies Management Measures
- Identifies Implementing Partners
- Identifies Potential Funding Sources

# Oyster Creek Bacteria Source Prioritization: All Sources





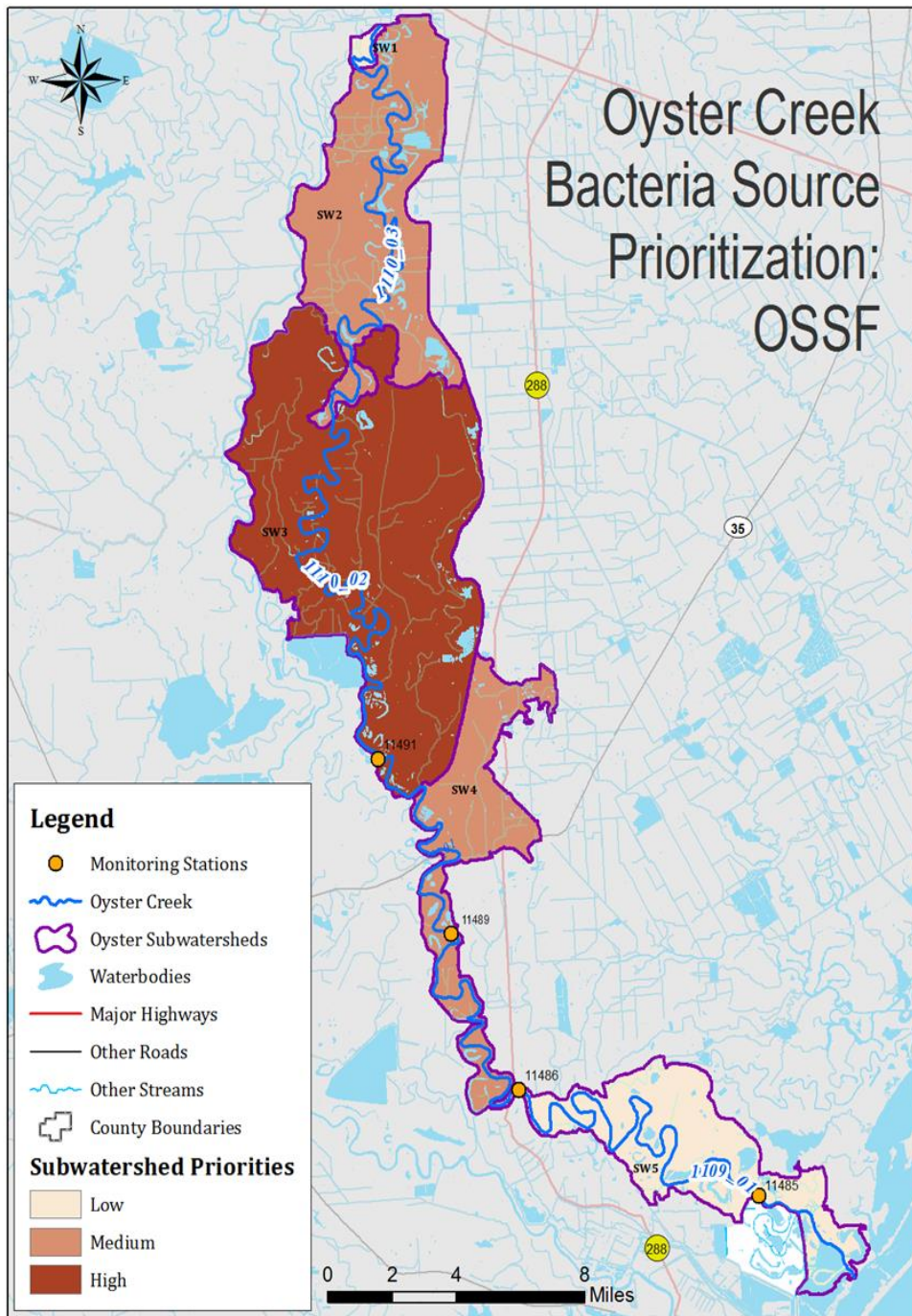
# Management Measures

1. *Promote Safe OSSF Use and Maintenance*
2. *Support Land Management Initiatives*
3. *Maintain and Improve Wastewater Treatment Facility and Collection System Function*
4. *Reduce Stormwater Sources*
5. *Address Fecal Deposition of Dog Waste*
6. *Address Fecal Deposition of Feral Populations*

# Management Measure 1: Promote Safe OSSF Use and Maintenance

## Activities

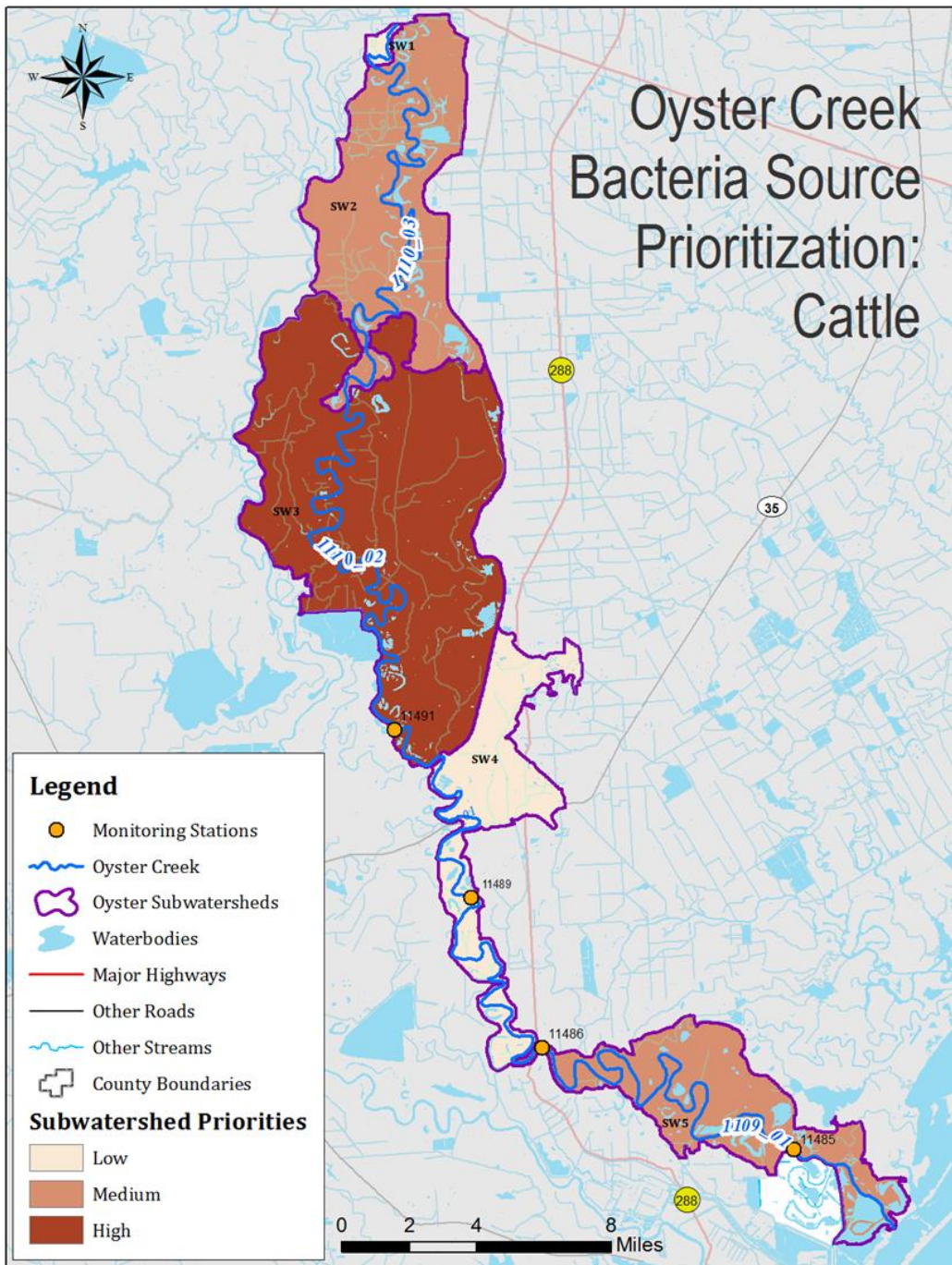
- Workshops and Residential Training
- Inspection, Repairs and Replace

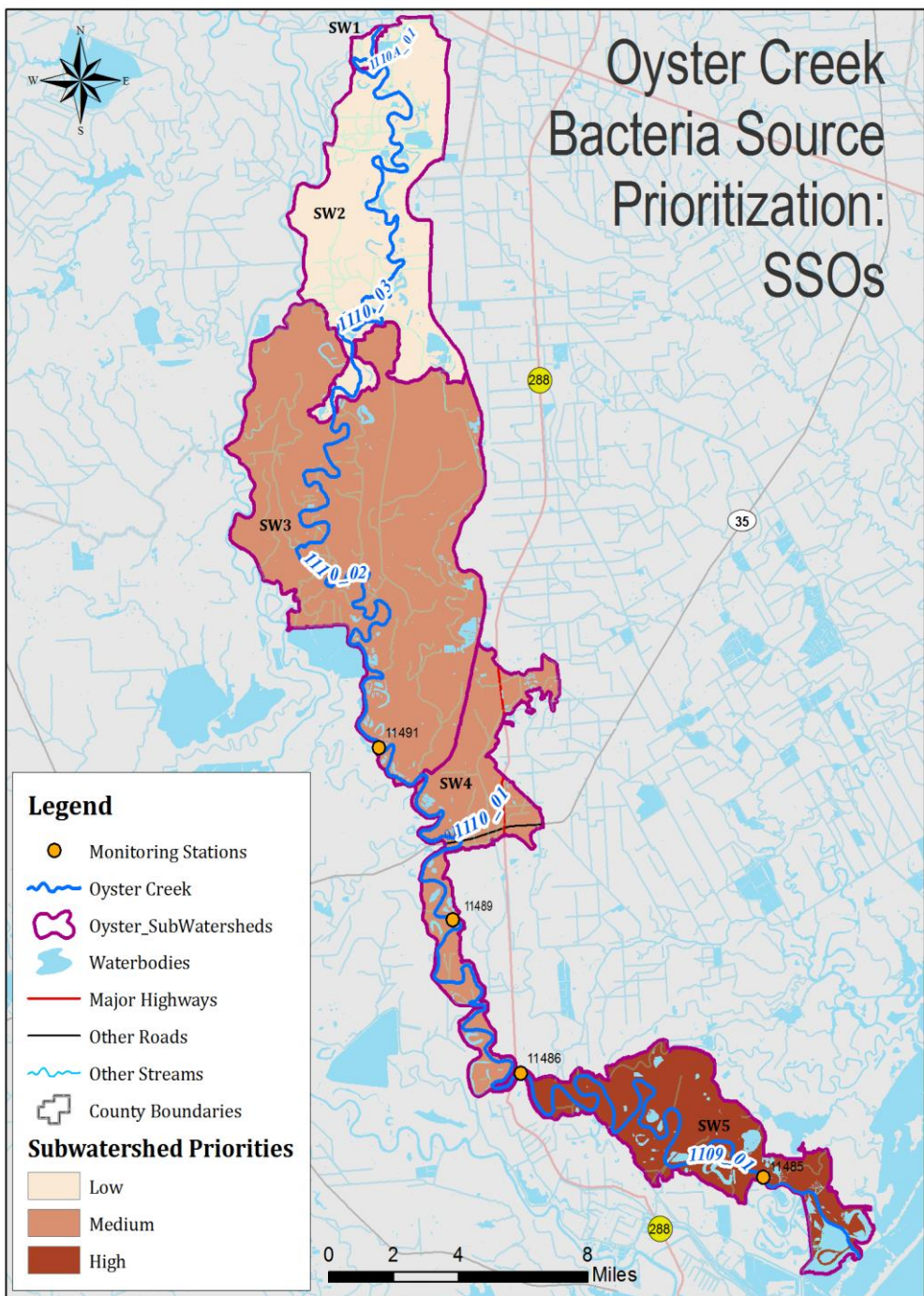


# Management Measure 2: Support Land Management Initiatives

## Activities

- Water Quality Management Plans
- Conservation Management Plans
- Riparian Buffer Improvement
- Outreach

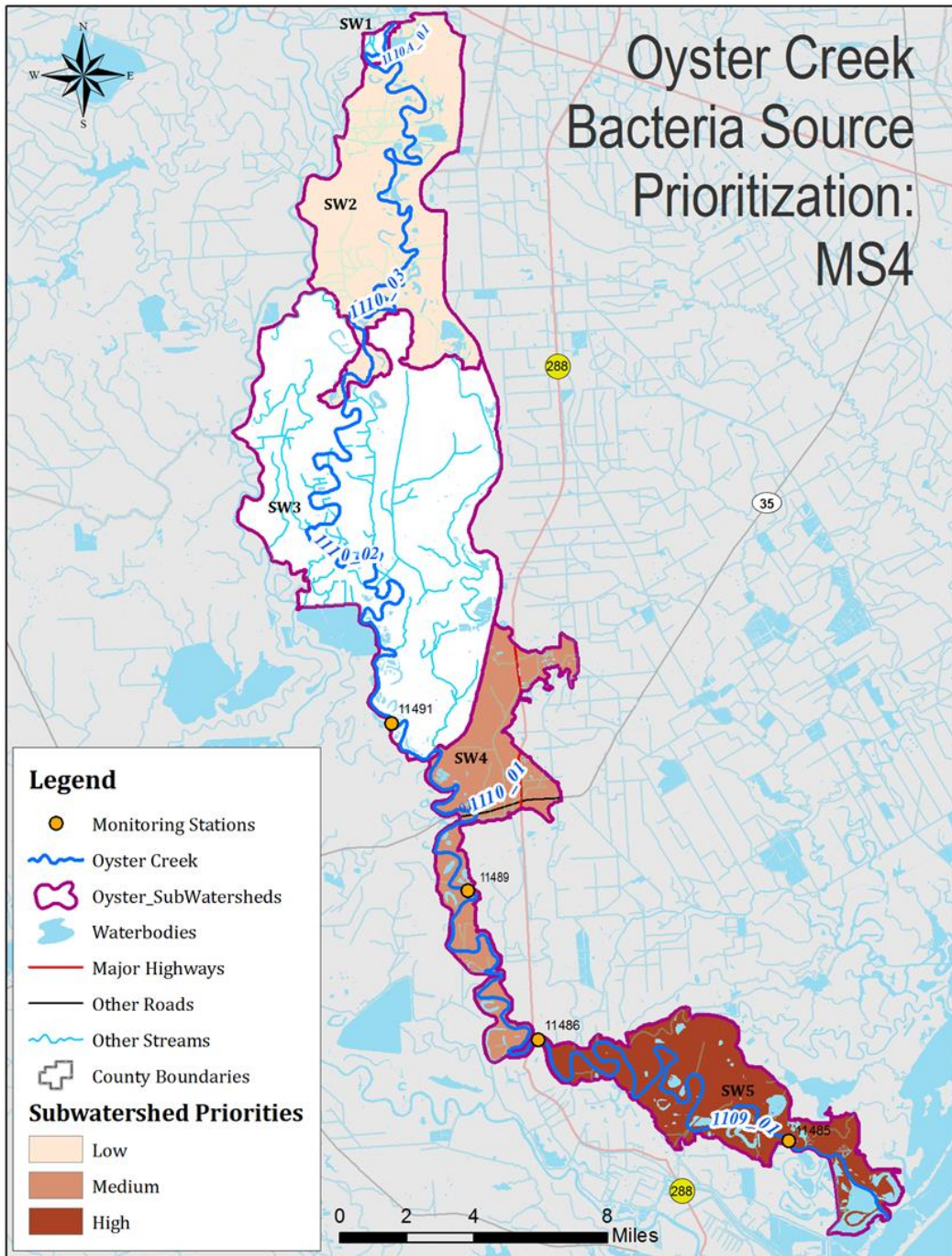




# Management Measure 3: Maintain and Improve Wastewater Treatment Facility and Collection System Function

## Activities

- Technical Assistance to WWTF Operators and Collection System Owners
- Fats, Oils, Grease, and Wipes Outreach, Education and Campaign



# Management Measure 4: Reduce Stormwater Sources

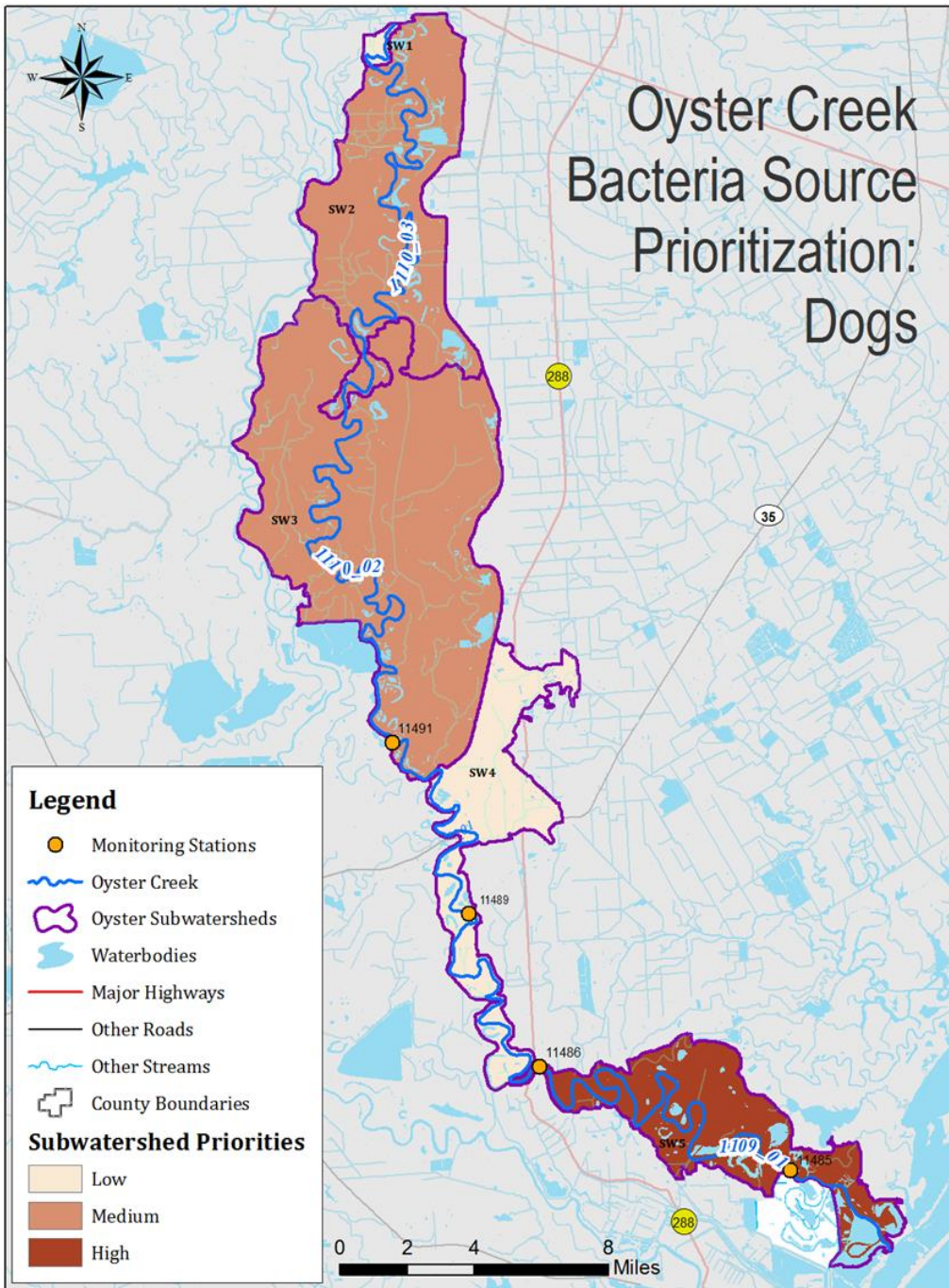
## Activities

- Stormwater Outreach
- Illicit Discharges and Illegal Dumping Investigations
- Stormwater Demonstrations, including Green Infrastructure

# Management Measure 5: Address Fecal Deposition of Dog Waste

## Activities

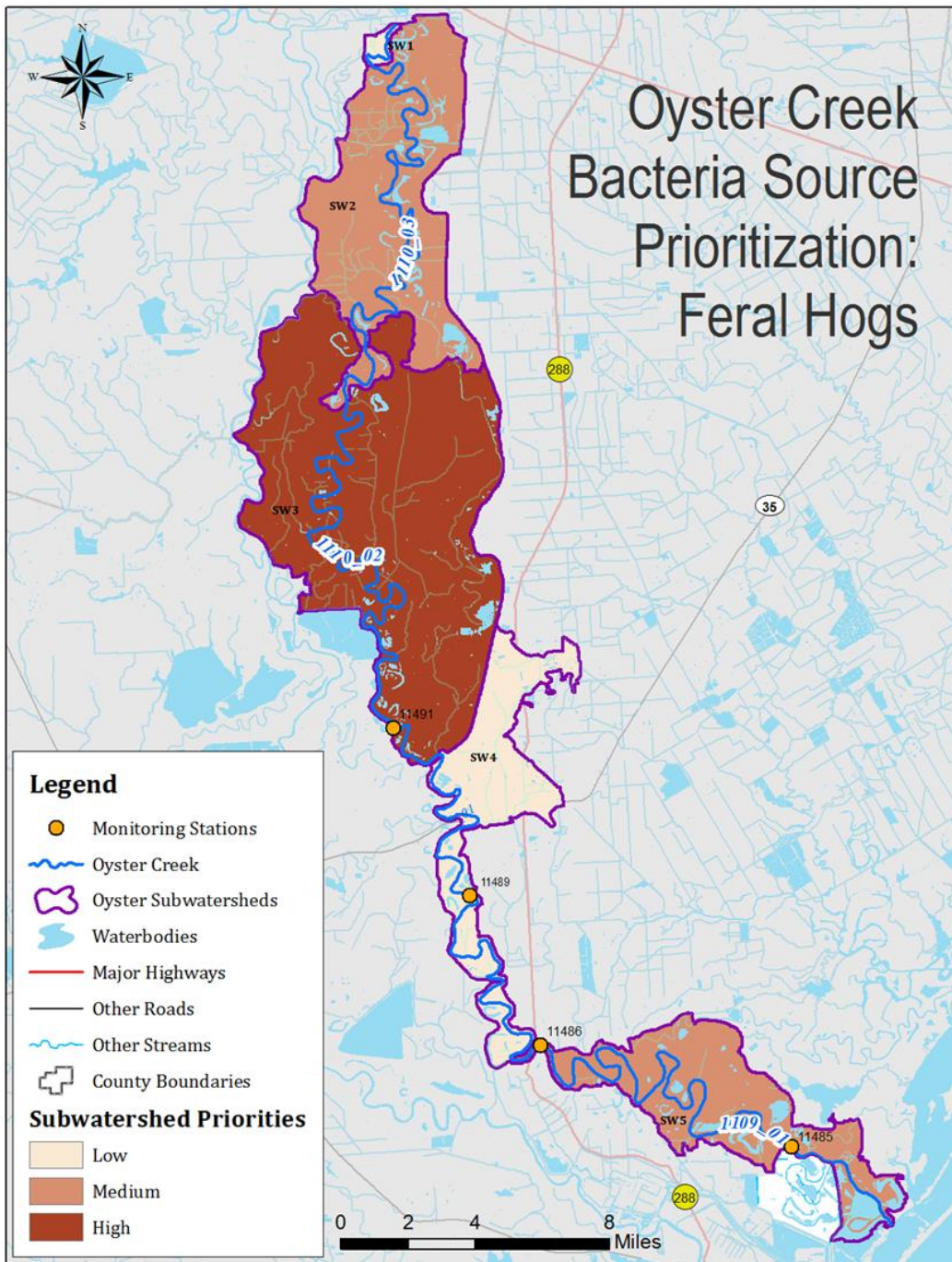
- Pet Waste Station Installation
- Outreach



# Management Measure 6: Address Fecal Deposition of Feral Populations

## Activities

- Voluntary Feral Hog Reduction Measures
- Feral Hog Outreach



# What are your thoughts?

- **Five Management Measures:**
  - *MM 1: Promote Safe OSSF Use and Maintenance*
  - *MM 2: Support Land Management Initiatives*
  - *MM 3: Maintain and Improve Wastewater Treatment Facility and Collection System Function*
  - *MM 4: Reduce Stormwater Sources*
  - *MM 5: Address Fecal Deposition of Dog Waste*
  - *MM6: Address Fecal Deposition by Feral Populations*
- *Individual Tasks/Activities for Each Measure*
- *Responsible Organizations*
- *Cost*



# Implementation

- Homeowner Wastewater Assistance Program
- Coastal Communities Project
- Trash Free Texas
- Texas Stream Team



# Bailey's Prairie



# Implementation

- Kendall Guidroz – H-GAC, Coastal Communities and Texas Stream Team





# Coastal Communities

Water Quality Outreach & Education Project



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

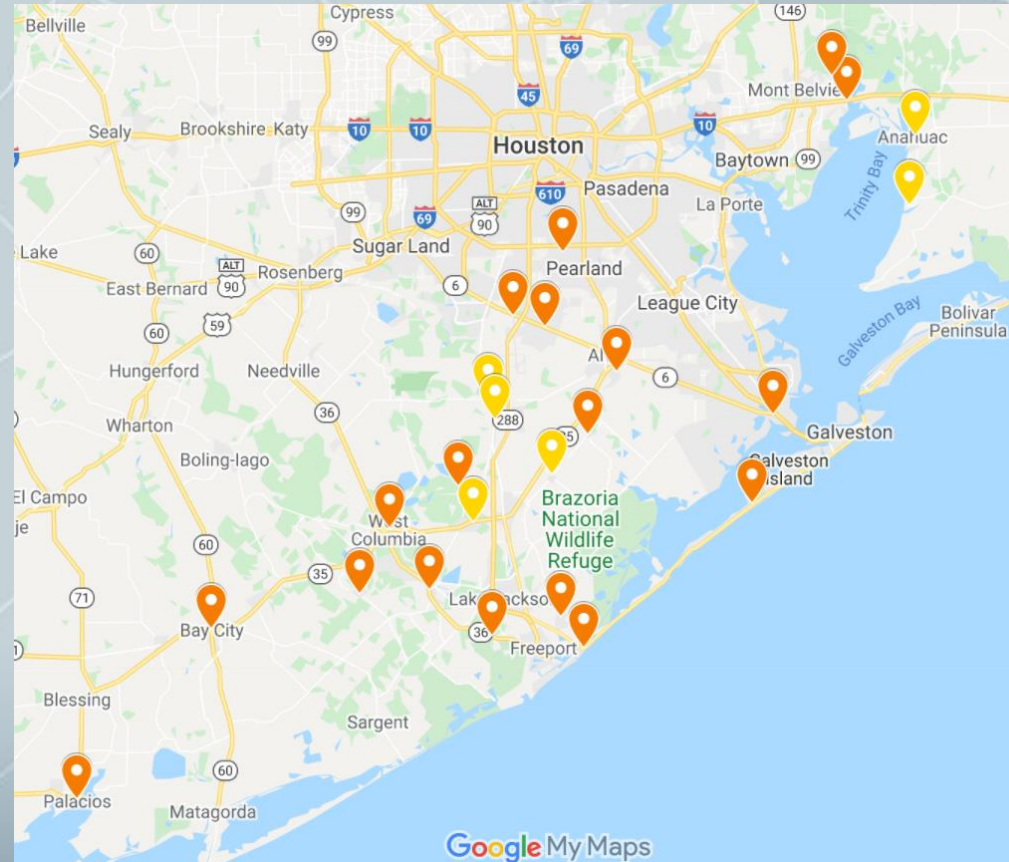
# Coastal Communities Project



- **What?**
  - Water Quality Outreach & Education resources
- **Who?**
  - Our smaller coastal communities
- **Why?**
  - To remove barriers for city staff
- **How?**
  - A One-Stop-Shop for resources

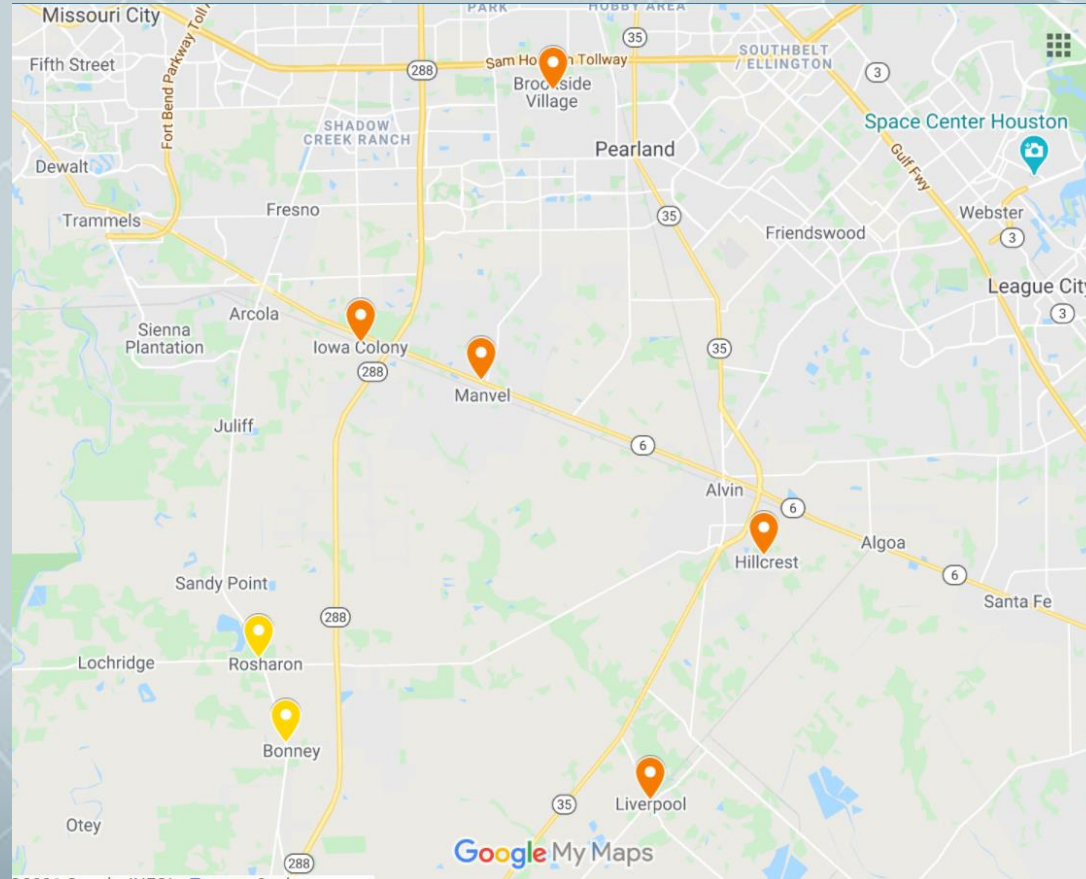
# Project Communities

- 24 non-MS4 communities in Brazoria, Galveston, Chambers, & Matagorda Counties
- Resources available for all interested communities



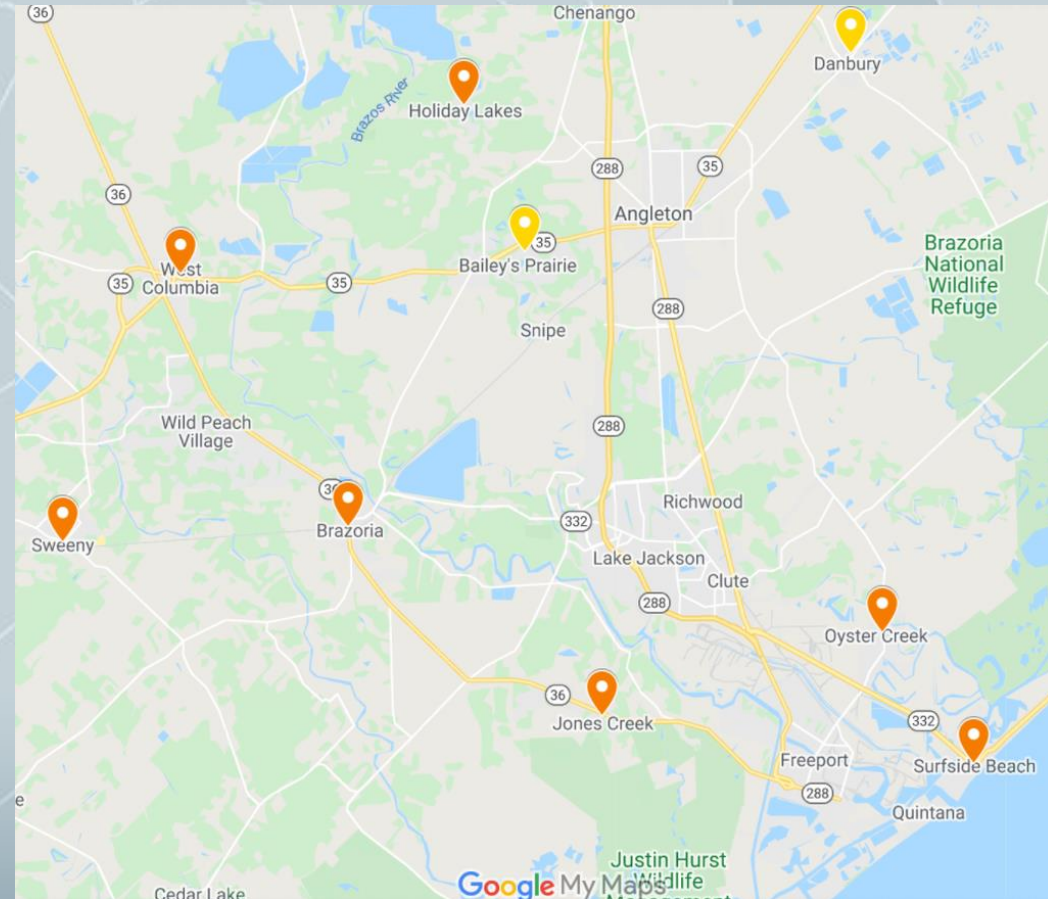
# Project Communities

- Several project communities are in the Chocolate Bay watershed



# Project Communities

- Several project communities are in the Oyster Creek watershed





# Outreach Toolbox & Roadmap

- Project website
- Roadmap messaging
- H-GAC & partner resources
- Model ordinances
- Links to funding, training, and meeting opportunities



[www.coastalcommunitiestx.com](http://www.coastalcommunitiestx.com)

# FOG in Rental Properties

- Community-Based Social Marketing Pilot Project
- Workgroup developing Outreach Plan and Resources
- Piloting Resources over the summer

**NEVER** put Fats, Oils, & Grease down the drain! **ONLY WATER** goes down the drain

Dear Residents,

Fats, Oils, and Grease (FOG) damages and clogs pipes, which can cause sewer backups in your apartment - or your neighbor's. It can also cause overflows in our community that brings harmful bacteria into contact with people and waterways.

**What can go down the drain?**

- ✗ Grease or fat from meat
- ✗ Cooking oils, lard, shortening
- ✗ Butter & margarine
- ✗ Dairy products
- ✗ Mayo, salad dressings, sour cream
- ✓ Water



**What can YOU do?**

- Dispose of Fats, Oil & Grease in the trash not down the drain.
- Scrape food scraps into the trash not down the drain or garbage disposal.
- Wipe grease and oil off dishes before rinsing or placing in the dishwasher.

Thank you for helping keep our community clean!

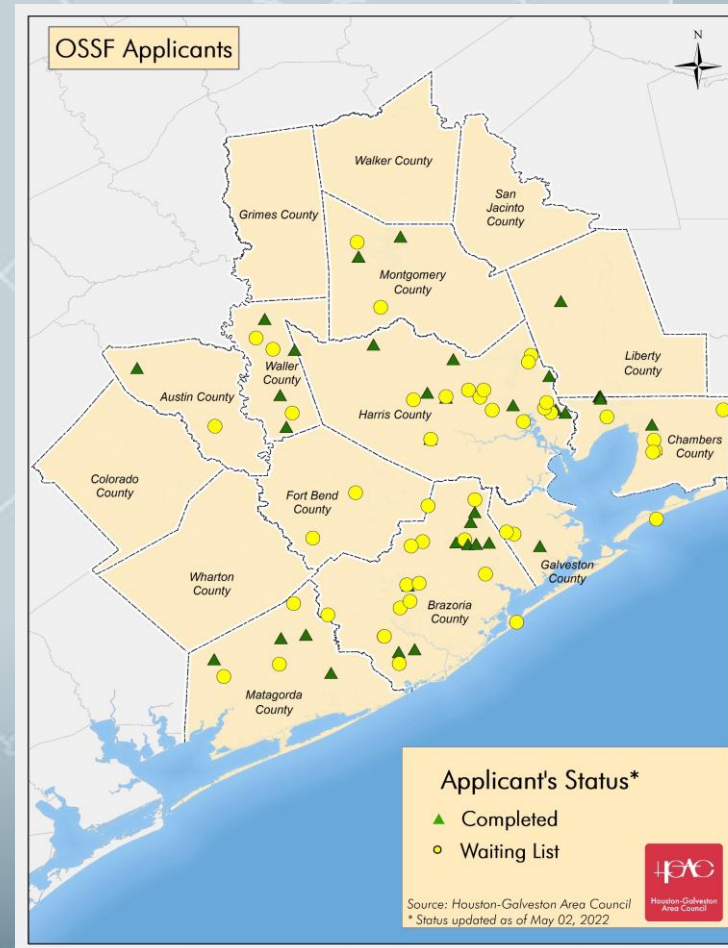
Apartment  
logo

Learn more about Fats, Oils, and Grease (FOG) and proper disposal methods at [ceasethegrease.net](http://ceasethegrease.net)

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

# On-Site Sewage Facility (OSSF) Resources

- Homeowner Education Workshops
- Homeowner Wastewater Assistance Program
- More information:
  - [ossf@h-gac.com](mailto:ossf@h-gac.com)
  - [H-gac.com/on-site-sewage-facilities](http://H-gac.com/on-site-sewage-facilities)



# Trash Free Texas

- A Trash Free Waters project
- Key Resources:
  - Adopt-A-Spot Map
  - Community Cleanup Challenge Toolkit
  - Local Government Outreach and Education Toolkit
  - Recreational Cleanup Toolkit

TRASH  
FREE  
TEXAS

[www.trashfreetexas.org](http://www.trashfreetexas.org)

[www.h-gac.com/trash-free-texas](http://www.h-gac.com/trash-free-texas)

# Texas Stream Team

- Citizen Science volunteer water quality monitoring
- 3 Phases of Training
- Part of a state-wide program
- Trainings resume this summer
  - Contact:  
[stream.team@h-gac.com](mailto:stream.team@h-gac.com)



THE MEADOWS CENTER  
FOR WATER AND THE ENVIRONMENT

TEXAS STATE UNIVERSITY

TEXAS STREAM TEAM

[h-gac.com/Texas-stream-team](http://h-gac.com/Texas-stream-team)

# Next Steps

Committee comments to Draft Implementation Plan – September 2022

Committee to meet again in January 2023 to review any significant changes

Public Meeting in February 2023 to present Implementation Plan, seeking additional input.

# THANK YOU!

- **Steven Johnston**
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- 281-681-2579

