



BACTERIA IMPLEMENTATION  
GROUP

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**SPRING MEETING**

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MAY 23, 2017

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# MEETING AGENDA

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- **Call to Order/Welcome and Introductions**
- **Certification of Quorum**
- **Approval of the Proposed Members and Alternates**
- Approval of the October 25, 2016 Meeting Summary
- Public Comment
- Review Progress on 2017 Annual Report
- TCEQ TMDL Program Update
- Draft Letter to the TCEQ
- Presentations
- Other Business
- Adjourn



**ROSTER  
DISCUSSION**

***BIG Membership:***

***City of League City - Jack Murphy***

***BIG Alternates:***

***HCPCD - Roberto Vega***



## **ROSTER DISCUSSION**

### ***Vacancies:***

***Rural County - Andrew Isbell, Walker County***

***Agriculture Interest - Hannah Cruce, Texas***

***Forest Service, Alt. Hughes Simpson***

***Agriculture (County) - Rep. Ernest Bailes IV,***

***Alt. - Dale Everitt***

***Small City - Following up***

***Boater Interest - On hold.***

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# 2017 ANNUAL REPORT

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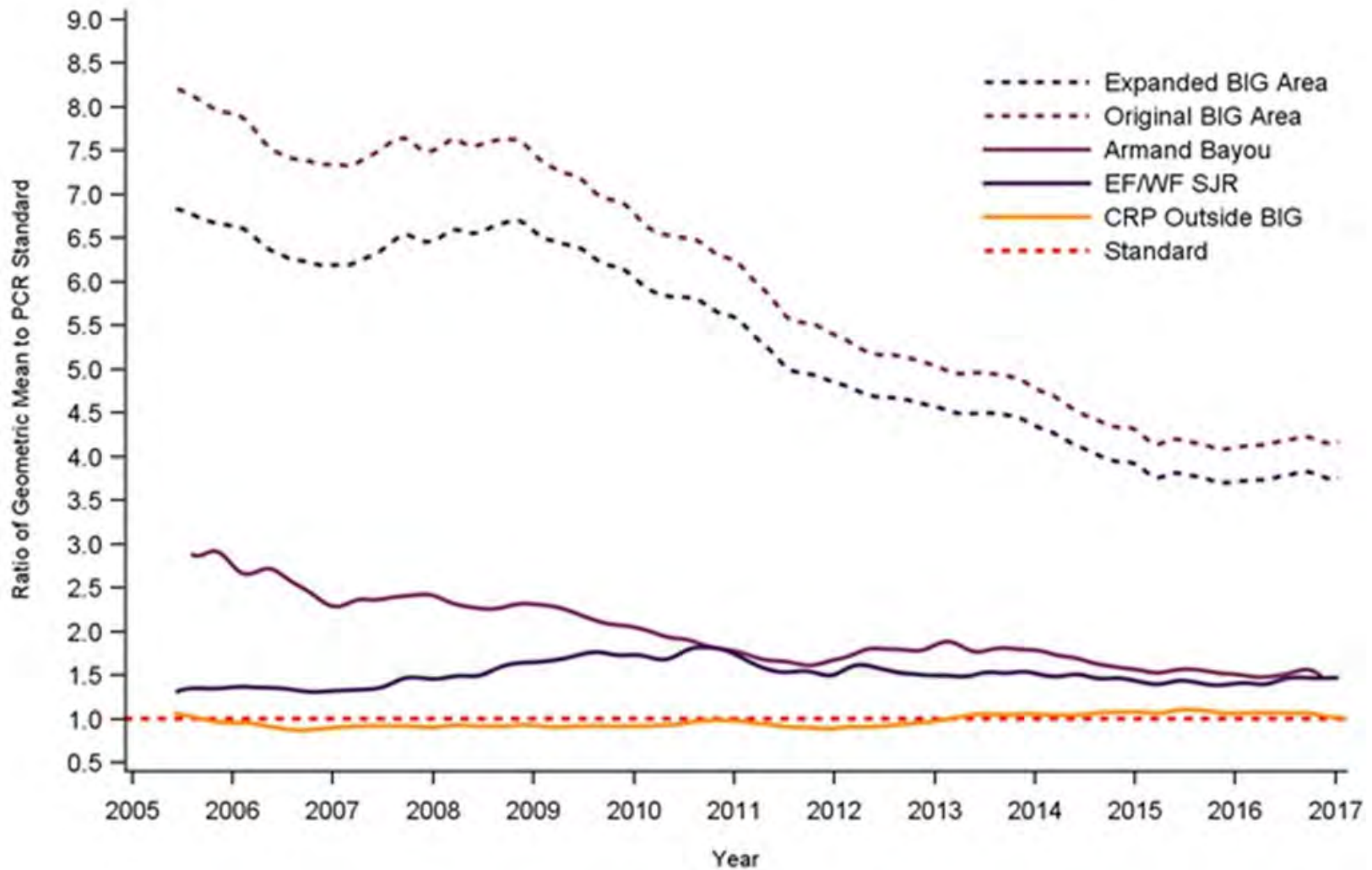


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# PROJECT AREA

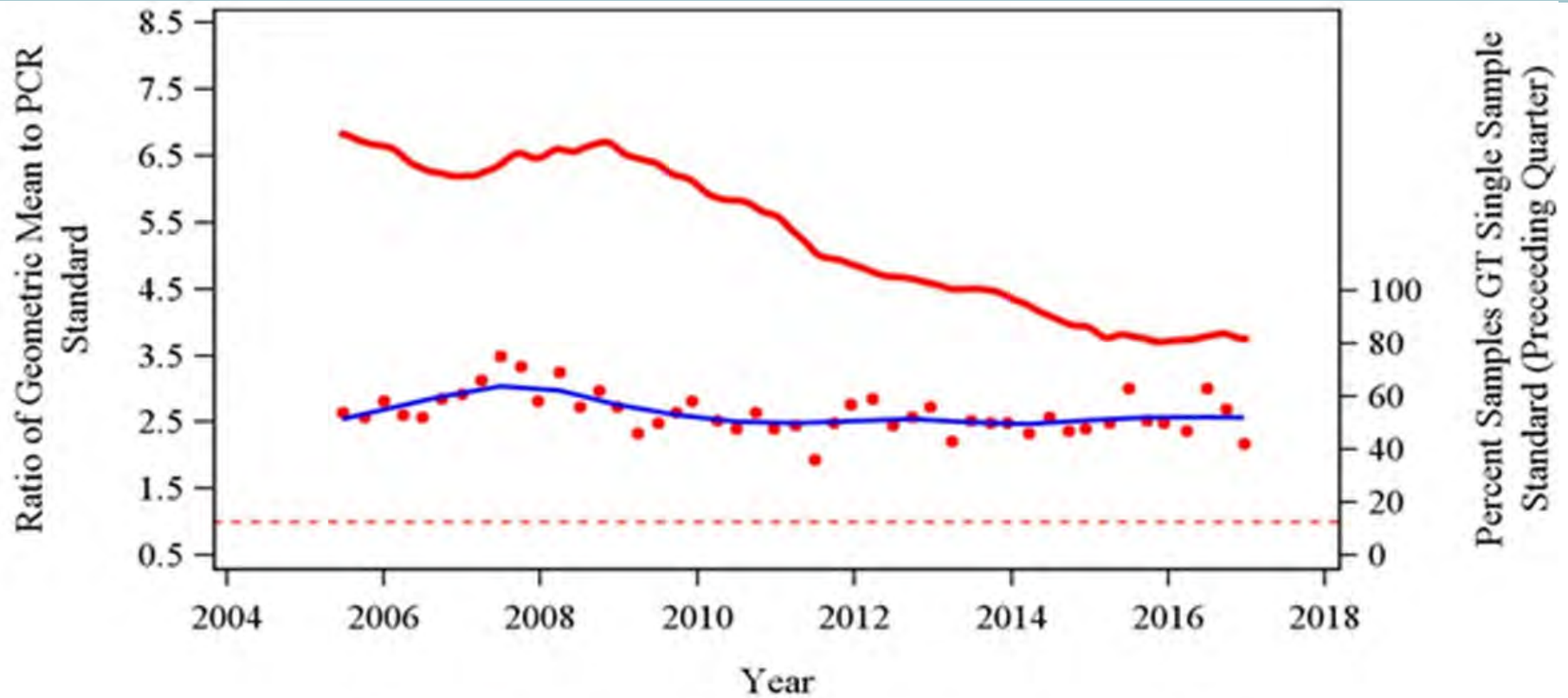
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# BACTERIA TRENDS





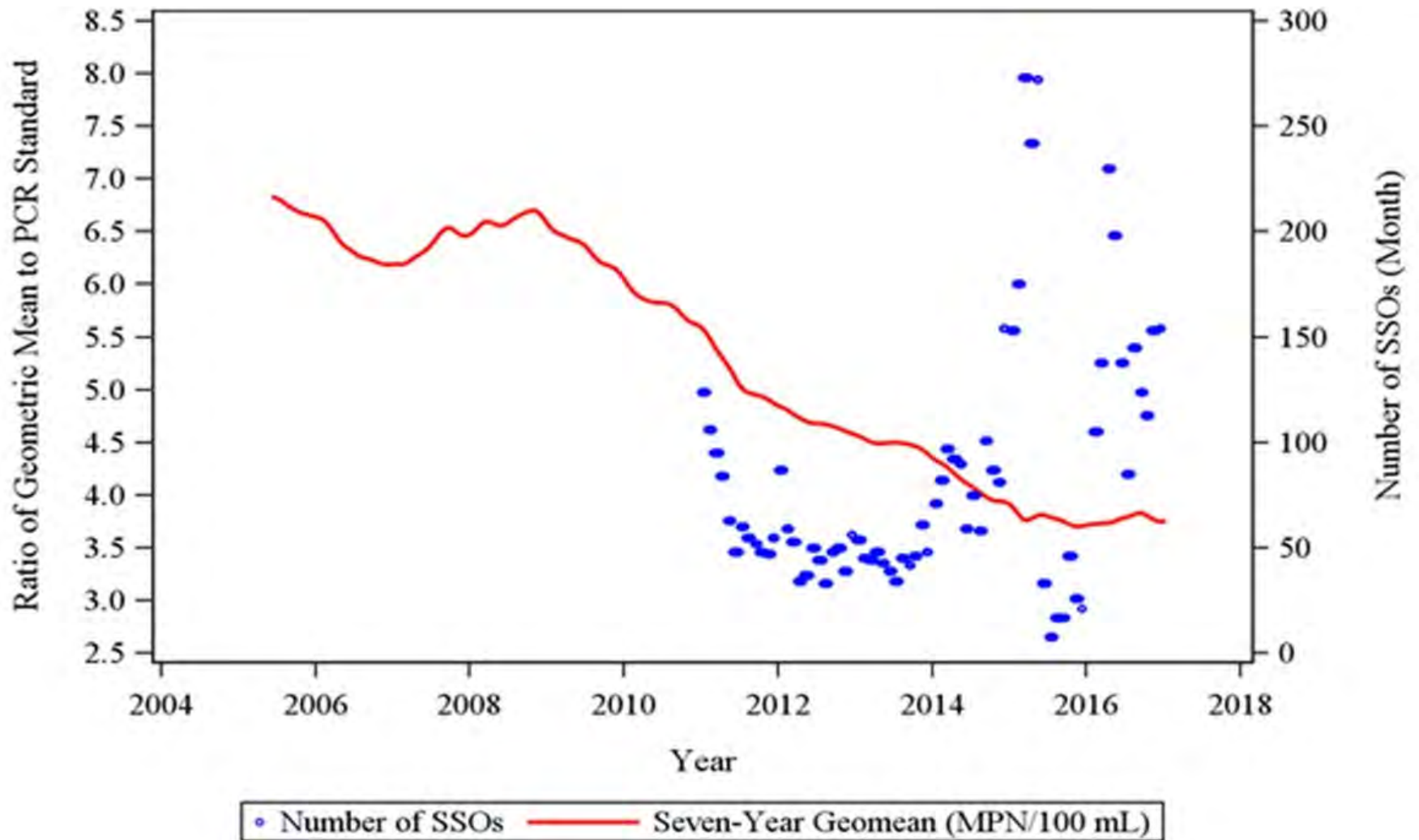
# BACTERIA TRENDS



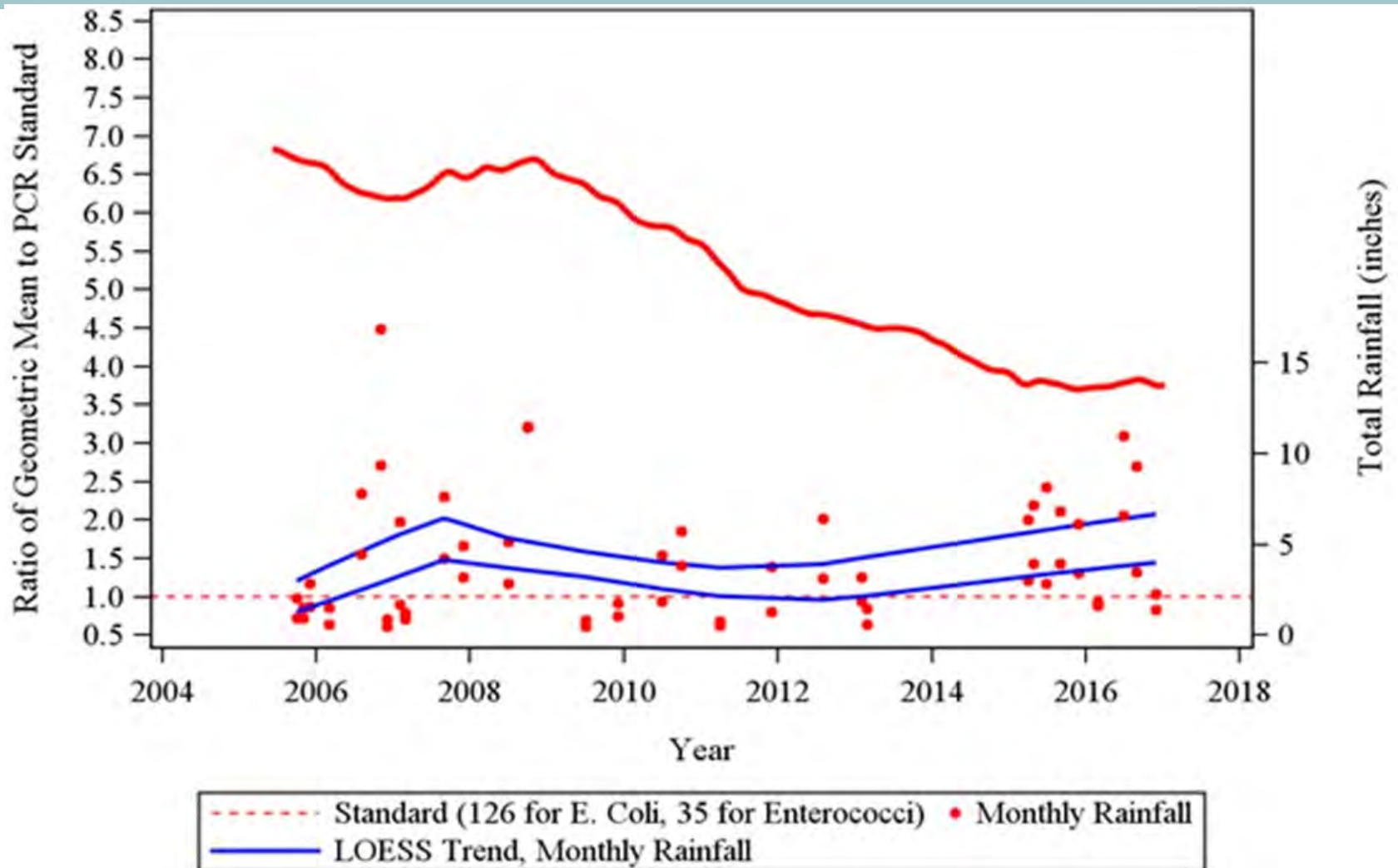
----- Standard (126 for E. Coli, 35 for Enterococci)  
• Percent Exceeding SS Limit (Previous Quarter)  
— LOESS Trend, Percent Exceeding SS Limit

Single sample standards: E. coli = 399, Enterococci = 89

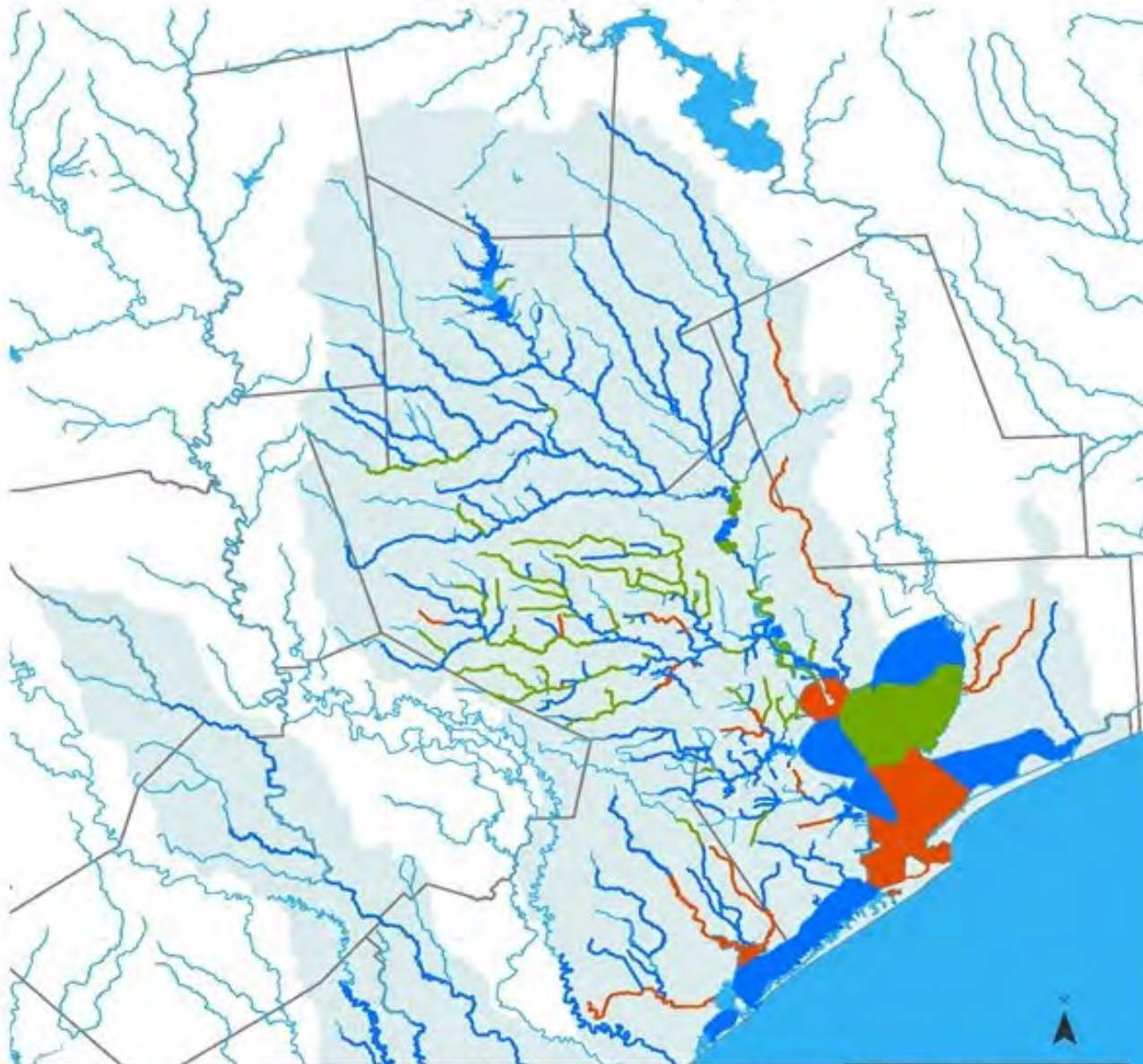
# BACTERIA TRENDS



# BACTERIA TRENDS



# Bacteria Trends



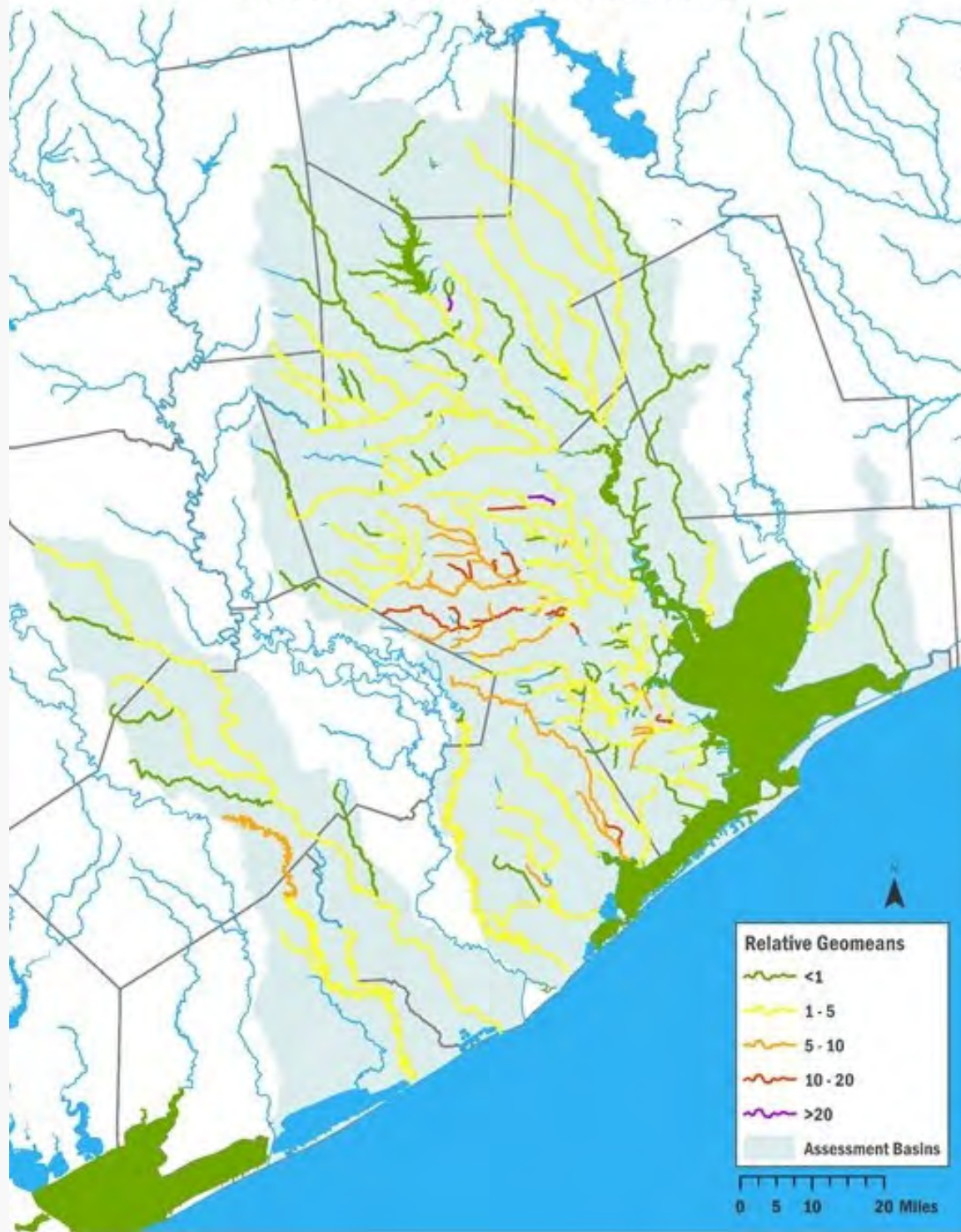
## BACTERIA TRENDS

parameter	Deteriorating	Improving	No Change
Dissolved Oxygen grab screening level	32	7	88
E. Coli	3	41	71
Enterococci	2	.	9
Nitrate-N	46	23	57
Total Phosphorus	48	25	53

Legend:

- Not Assessed (light blue wavy line)
- No Change (dark blue wavy line)
- Improving (green wavy line)
- Getting Worse (red wavy line)
- Assessment Basins (light blue shaded area)

# Bacteria Relative Geomeans



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## BACTERIA TRENDS

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**WASTEWATER  
TREATMENT  
FACILITIES**

# 2016 COMPLIANCE DATA

## 2016 Bacteria Permit Limit Compliance Taken From DMRs in EPA's ICIS Database\*

Number of Geomean Results Reported from Permittees with Limits in Permit	4,669
Number of Samples Below Daily Average Limit	4,652
Percentage of Samples Below Daily Geomean Limit	99.6%
Number of Highest Single Grab/Daily Max Samples Reported for WWTF DMR Monitoring Period	4,923
Number of Highest Single Grab/Daily Max for WWTF DMR Monitoring Period Below Limit	4,797
Percentage of Highest Single Grab/Daily Max for WWTF DMR Monitoring Period Below Limit	97.4%

# 2016 COMPLIANCE DATA

## Total Number of BIG WWTF By Type from 2016 DMR

<i>Permit Type</i>	<i>Permittees Submitting DMRs in 2016 (EPA Data)</i>	<i>Number of Permittees Reporting with E.coli Geomean Limit of 63 MPN/100 mL (EPA DMR)</i>	<i>Number of Permittees Reporting with E. Coli Geomean Limit of 126 MPN/100 mL (EPA DMR)</i>	<i>Number of Permittees Reporting with Enterococci Geomean Limit of 35 MPN/100 mL (EPA DMR)</i>	<i>No Bacteria Reported in 2016 (EPA DMR)</i>
Industrial	52	9	9	2	32
Domestic	522	442	61	9	10
Total	574	451	70	11	42



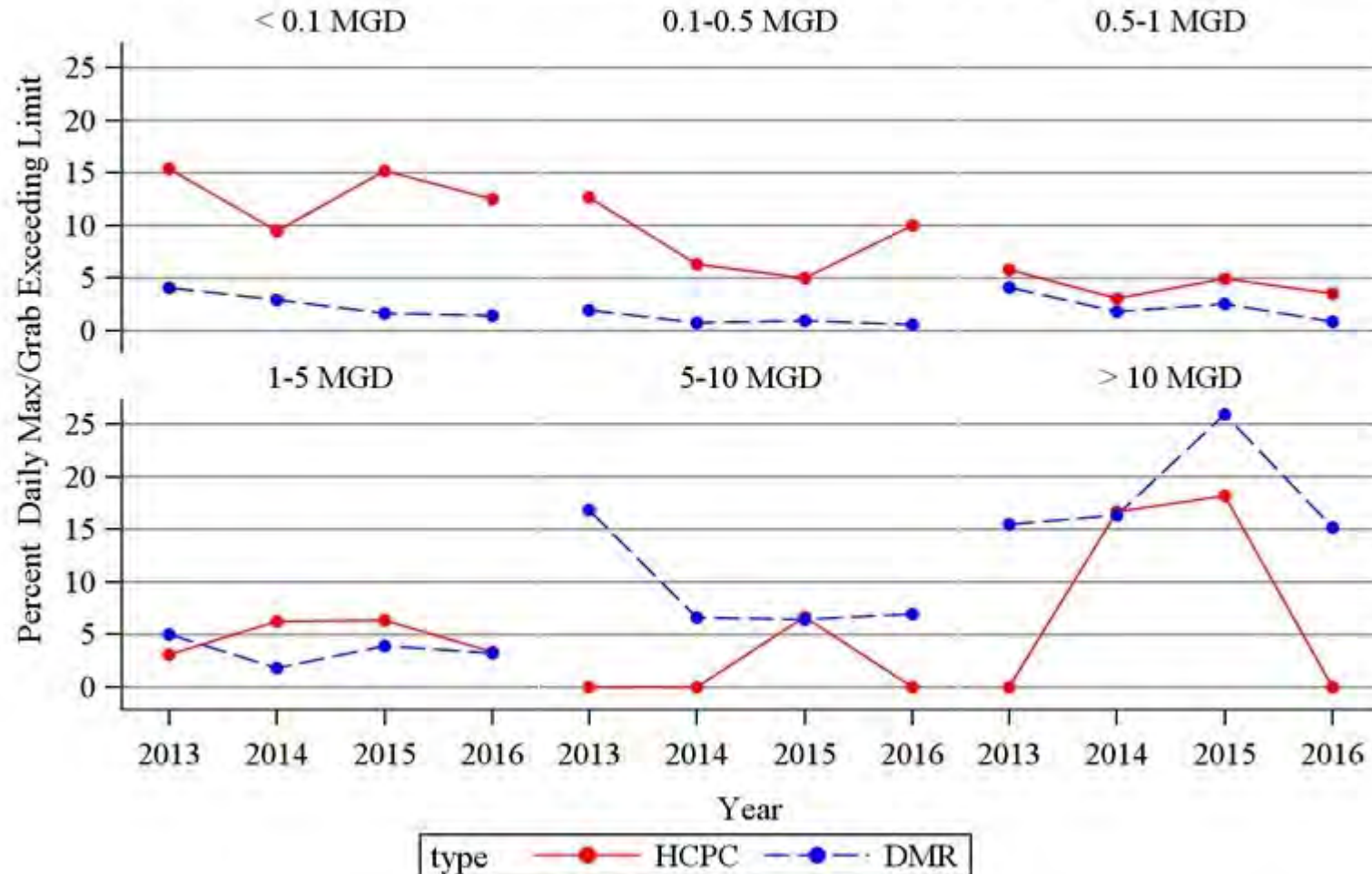
# 2016 COMPLIANCE DATA

## WWTFs in the BIG Project Area Inspected by Harris County Pollution Control Services

<i>Relative Plant Size / Permitted (MGD)</i>	<i>Data Source</i>	<i>Number of Highest Single Grab/ Daily Max for WWTF DMR Monitoring Period</i>	<i>Number of Highest Single Grab/Daily Max for WWTF DMR Monitoring Period Meeting Limit</i>	<i>Percentage of Highest Single Grab/ Daily Max for WWTF DMR Monitoring Period Meeting Limit</i>	<i>Data Source</i>	<i>Number of Random Samples Collected</i>	<i>Number of Samples Meeting TCEQ Grab/ Single Sample Limit</i>	<i>Percent HCPCS Samples Meeting TCEQ Permit Limit</i>
< 0.1 MGD	DMR	490	483	98.6%	HCPCS	176	154	87.5%
0.1-0.5 MGD	DMR	873	868	99.4%	HCPCS	100	90	90.0%
0.5-1 MGD	DMR	823	816	99.1%	HCPCS	85	82	96.5%
1-5 MGD	DMR	1179	1141	96.8%	HCPCS	120	116	96.7%
5-10 MGD	DMR	144	134	93.1%	HCPCS	12	12	100.0%
> 10 MGD	DMR	112	95	84.8%	HCPCS	11	11	100.0%
Total	DMR	3621	3537	97.7%	HCPCS	504	465	92.3%

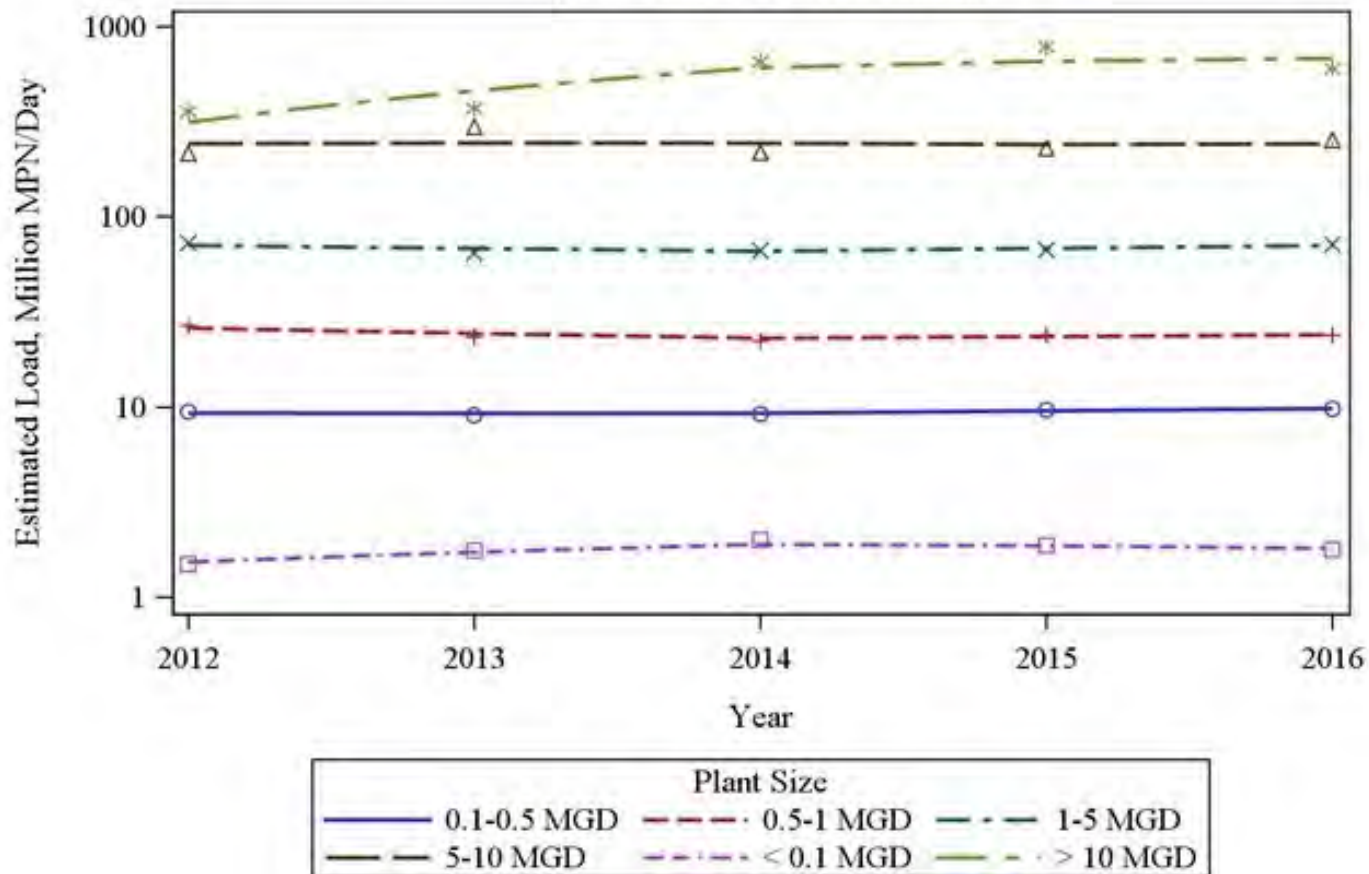
# 2016 COMPLIANCE DATA

**Analysis of Discharge Monitoring Report Data Obtained March 2017**  
**Analysis of Harris County PCS Domestic WWTF Inspection Data- BIG Area of Harris County**  
**Percent Daily Max/Grab Exceedance, DMR and HCPC Data Comparison**



# 2016 COMPLIANCE DATA

Analysis of Discharge Monitoring Report Data Obtained March 2017  
Estimated E. Coli Load from Domestic WWTF - Permittees in BIG Project Area  
By Year and Relative Plant Size



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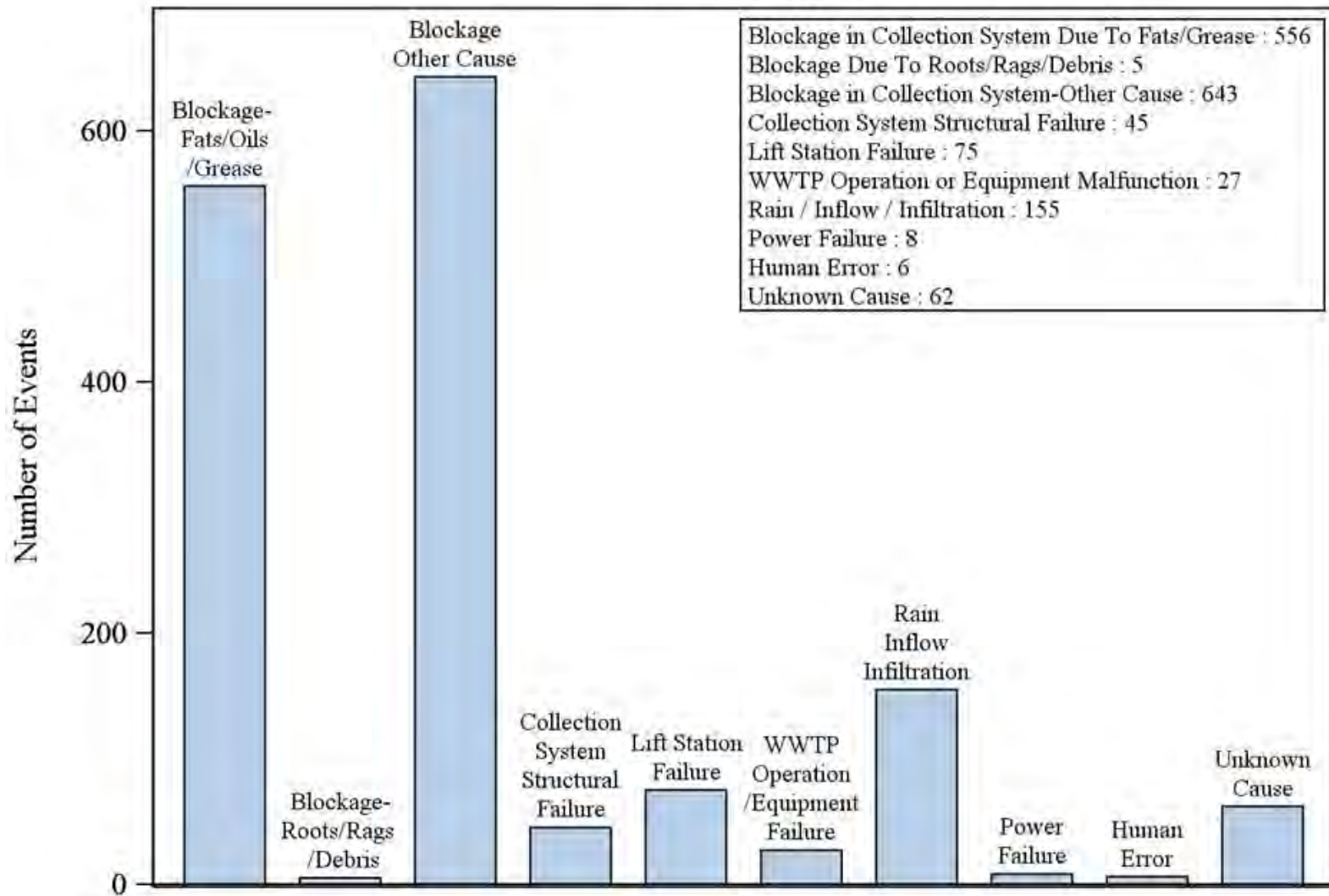
# SANITARY SEWER SYSTEMS

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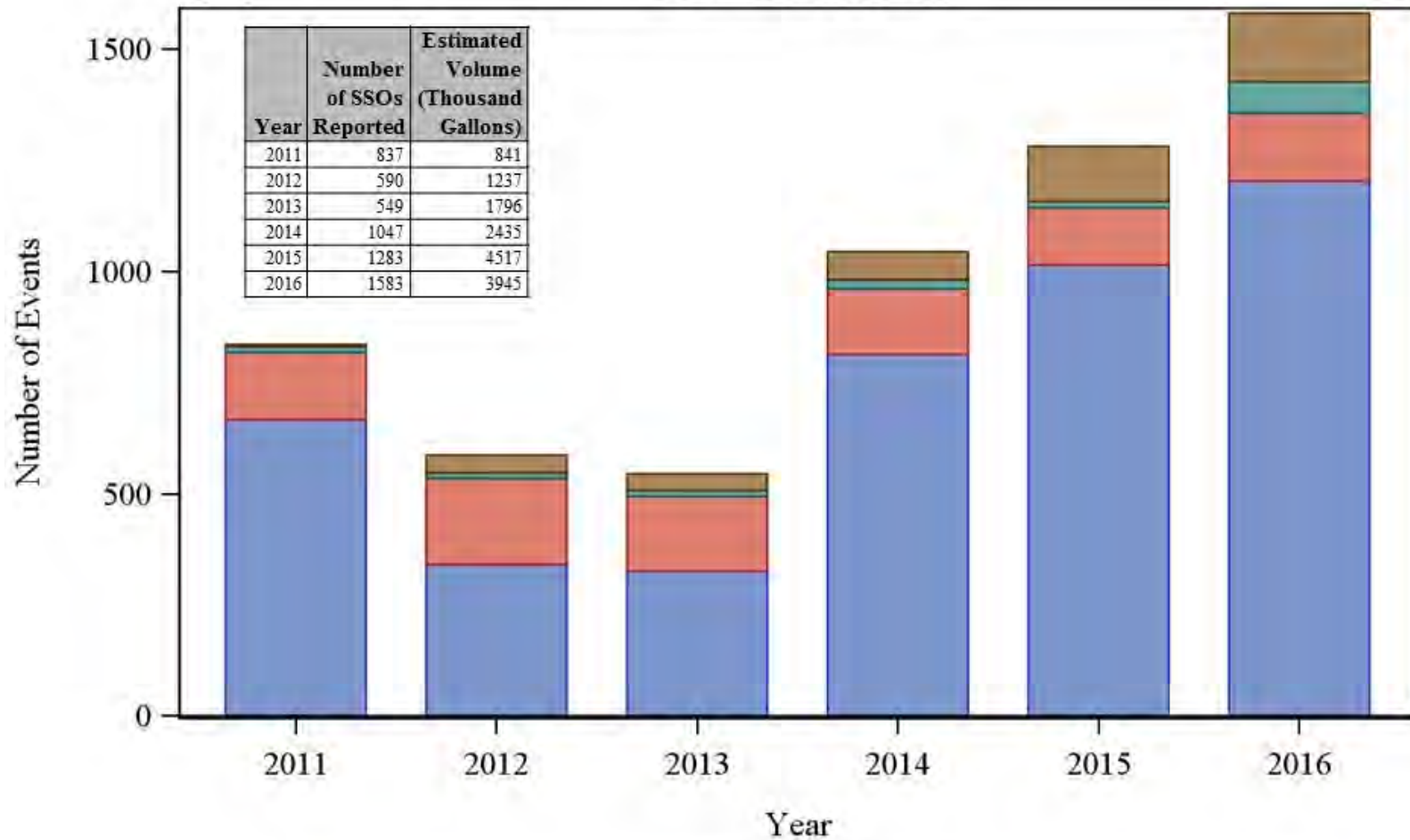
# 2016 SANITARY SEWER OVERFLOW DATA

## Cause of Reported SSOs in BIG Project Area-2016 Number of Events



# 2011 - 2016 SANITARY SEWER OVERFLOW DATA

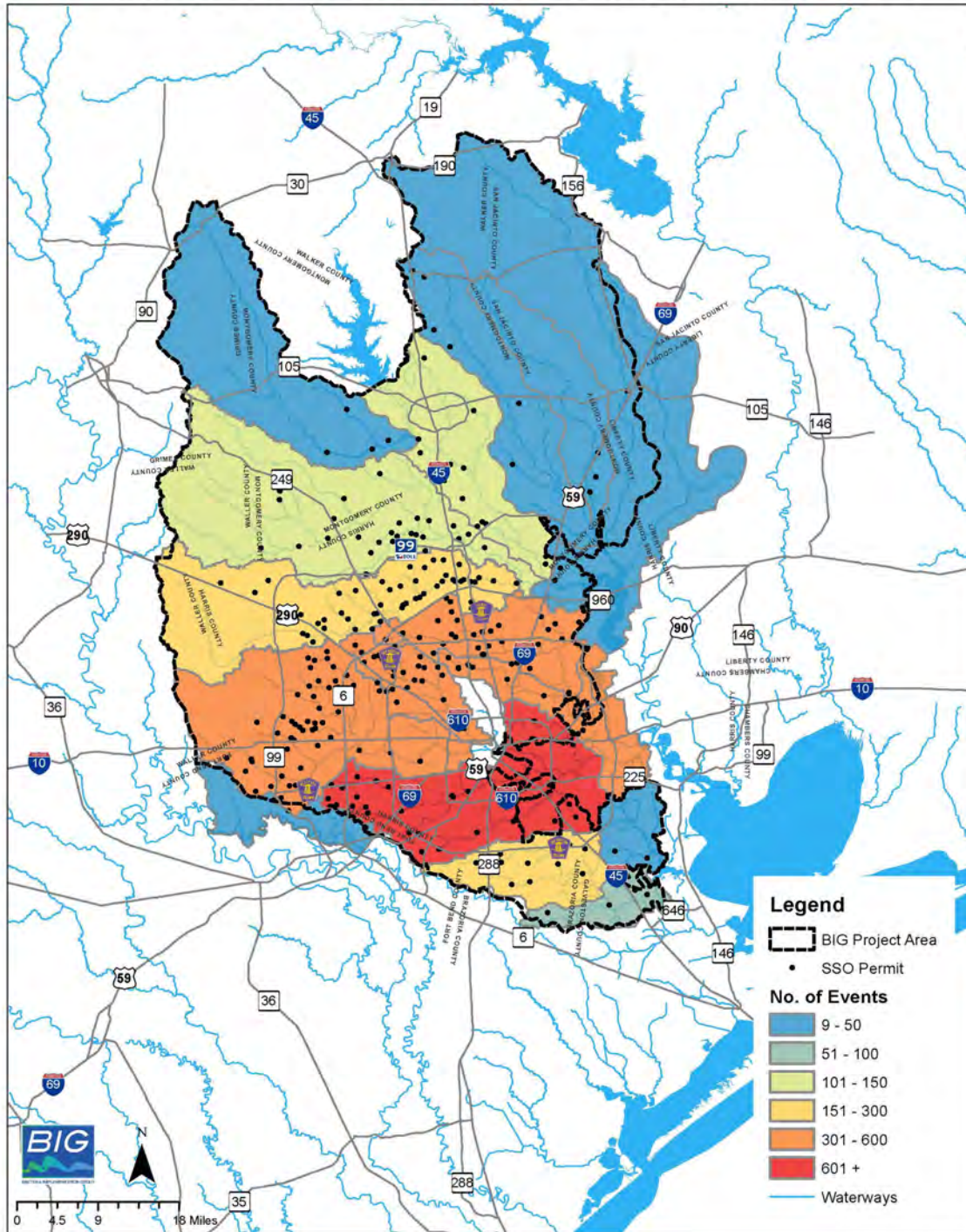
**Cause of Reported SSOs by Year in BIG Project Area, 2011-2016**  
**Number of Events**



Cause of SSO

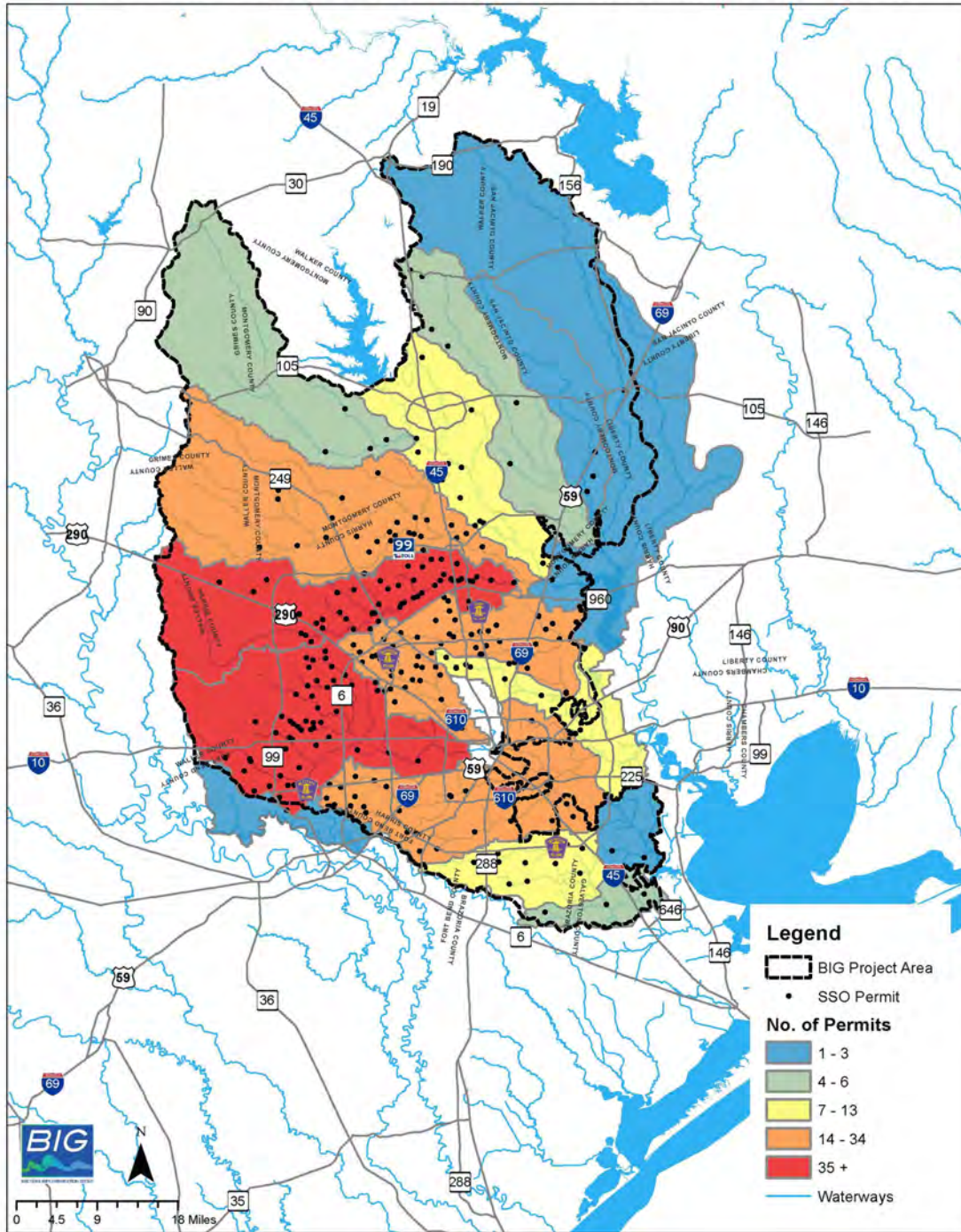
■ Blockage (All Types)   
 ■ Infrastructure/WWTP   
 ■ Other   
 ■ Rain/INI

# Sanitary Sewer Overflow (SSO) Density Map (2012-2016)



## BIG SSO DENSITY MAP

# Sanitary Sewer Overflow (SSO) Density Map (2012-2016)



## BIG WASTEWATER OUTFALL DENSITY MAP



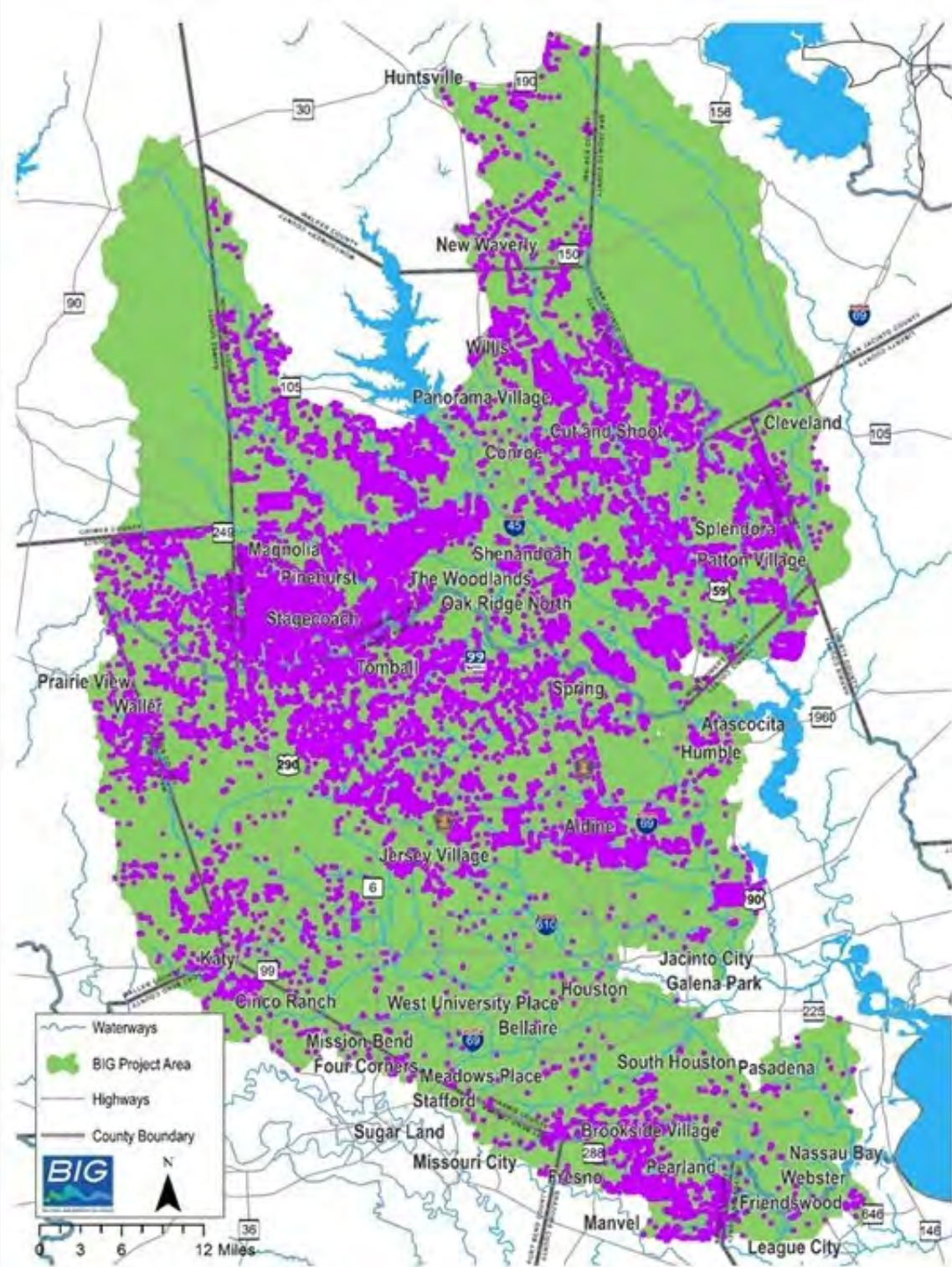
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# ON-SITE SEWAGE FACILITIES

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03.25.2010 12:13



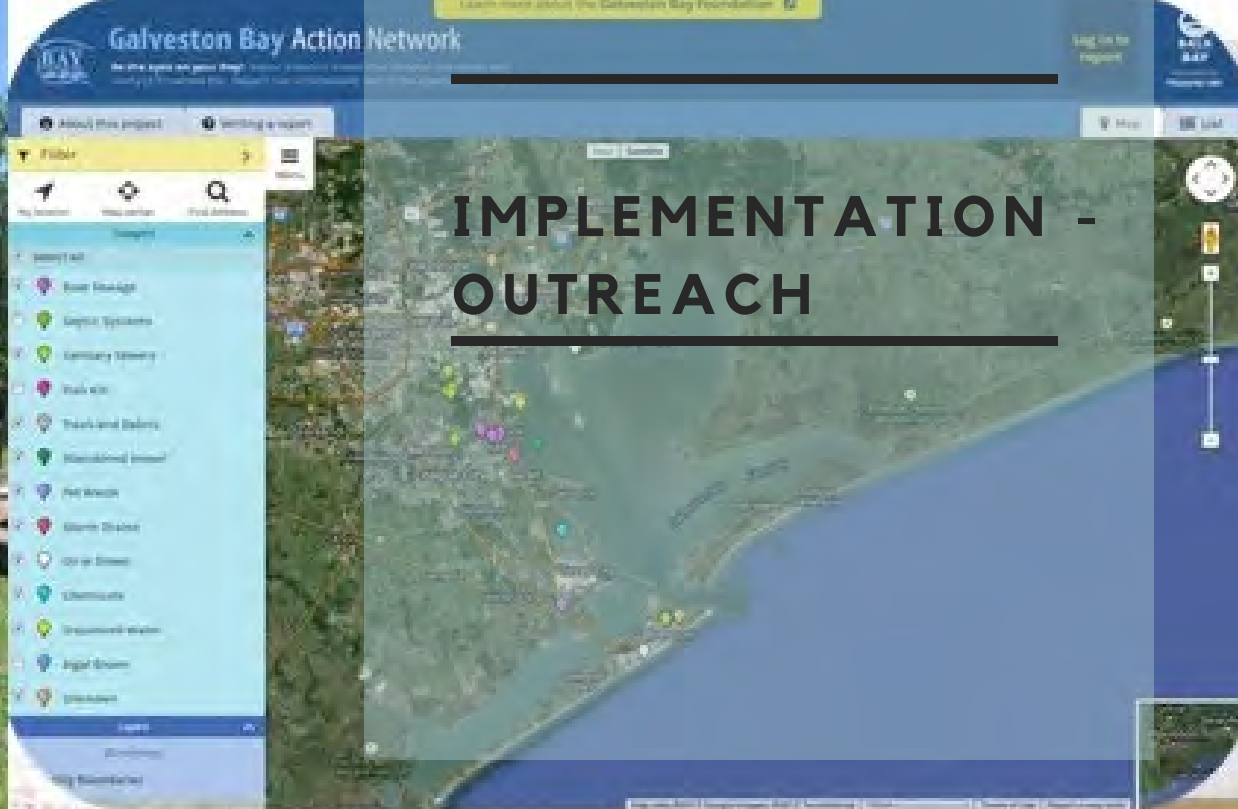

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# BIG OSSF MAP APPLICATION

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**STORMWATER**



# IMPLEMENTATION - OUTREACH





# IMPLEMENTATION- TRAINING

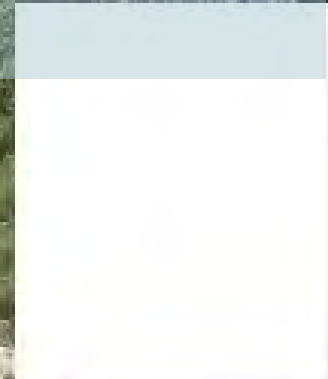




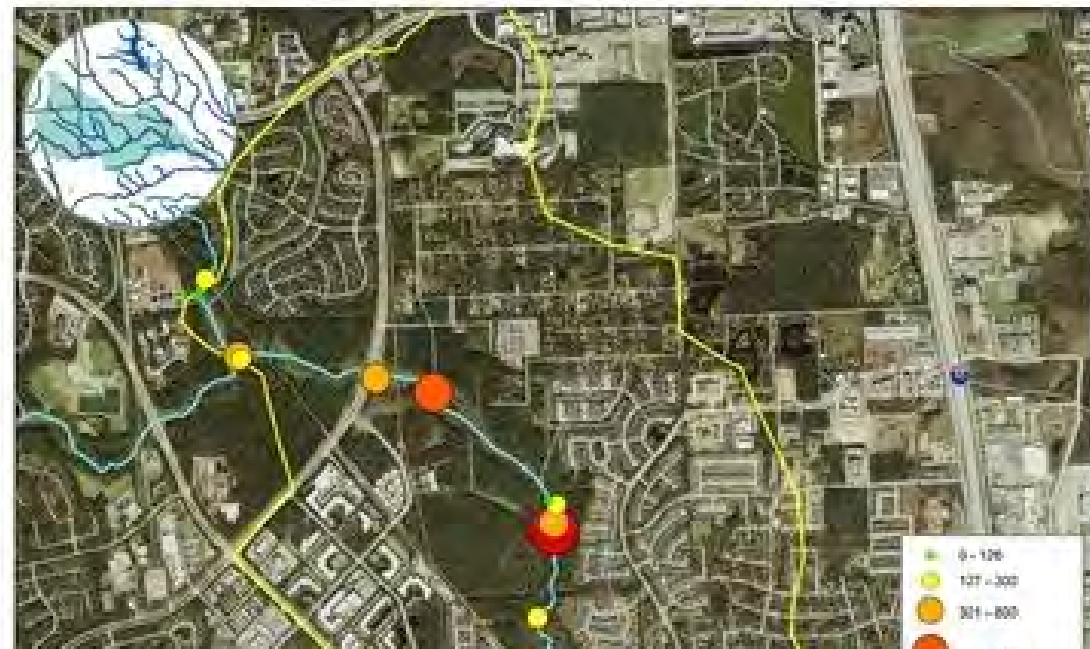
**IMPLEMENTATION-  
OSSF REPAIR AND  
REPLACE**



M. H. C. P.  
845-365-3265



1008B\_02 Upper Panther Branch Bacteria Counts



# Active BIG Report

## IMPLEMENTATION-

## BIG WEBSITE

- Progress
- Monitoring Stations
- Wastewater
- Sanitary Sewer Overflows (SSOs)
- OSSF
- Stormwater
- Agriculture
- Geographic Priorities
- Reports



In 2016, the East and West Fork of the San Jacinto River TMDL and plan for implementation was approved by the TCEQ Commissioners. Stakeholders for the San Jacinto River watershed recommended the watershed join the BIG project area and stakeholders began to implement the BIG I-Plan. The BIG had approved this decision in May 2016. The 2017 Annual Report includes the addition of the East and West Forks of the San Jacinto River to the BIG project area. The I-Plan was initially written for 72 TMDLs. With additional TMDLs completed within the project area and the inclusion of Armand Bayou and the East and West Forks of the San Jacinto River, the I-Plan now covers 102 TMDLs.

For more information: [TCEQ Total Maximum Daily Load Program \(TMDL\) and H-GAC's Bacteria Implementation Group](#)

Project Area





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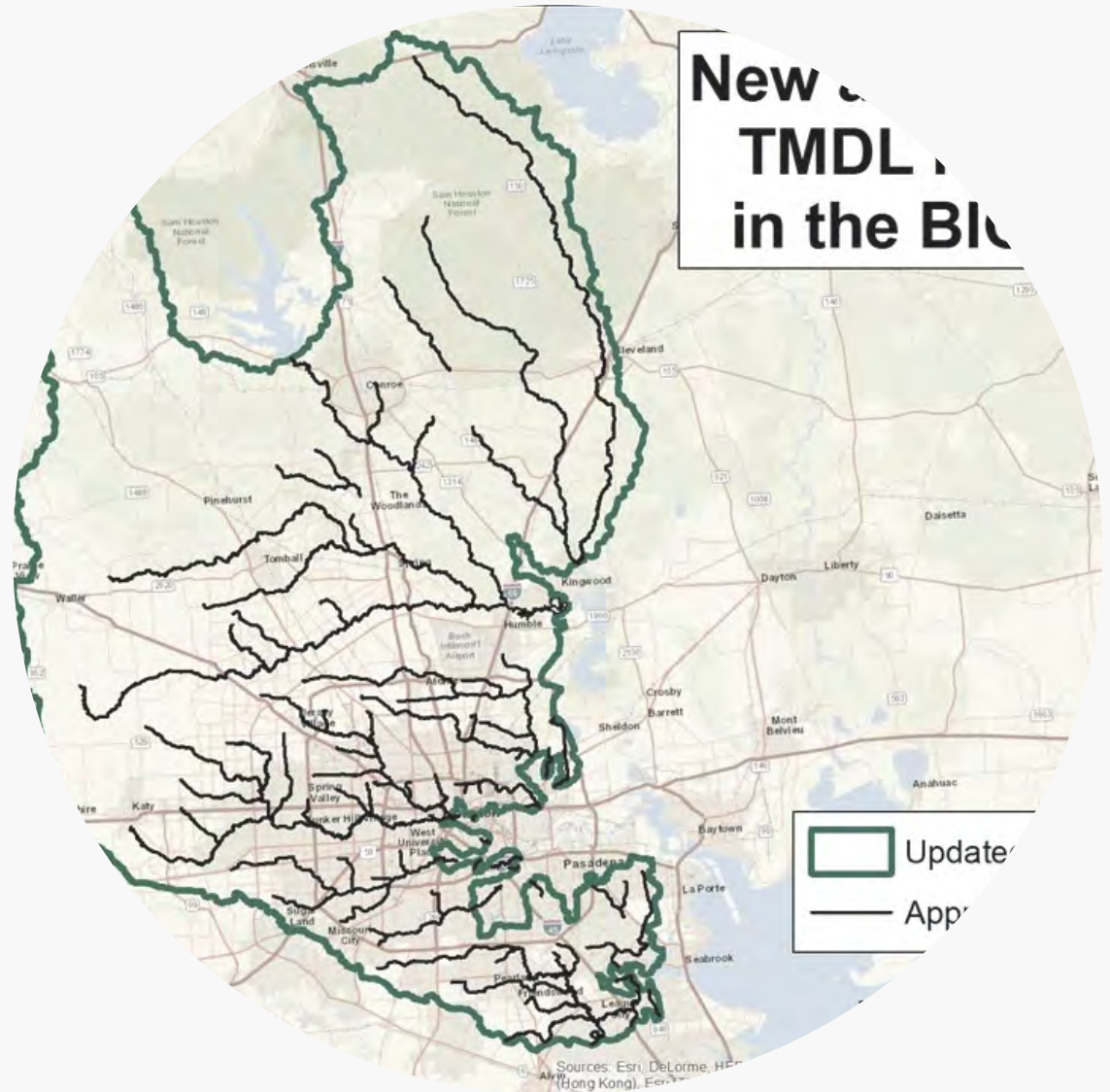
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# TCEQ UPDATE

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Mr. Jason  
Leifester



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# TOP 5 / LEAST 5

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Ms. Paniz Miesen



THE MOST & TOP FIVE LEAST IMPAIRED

BIG Springs

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**BRAZORIA-GALV  
ESTON COUNTY  
COALITION**

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Ms. Charriss York



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# WEST FORK WPP

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Mr. Justin Bower



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- **Adjourn**
- **Next Meeting - October 25, 2017**



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**THANK YOU!**

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