

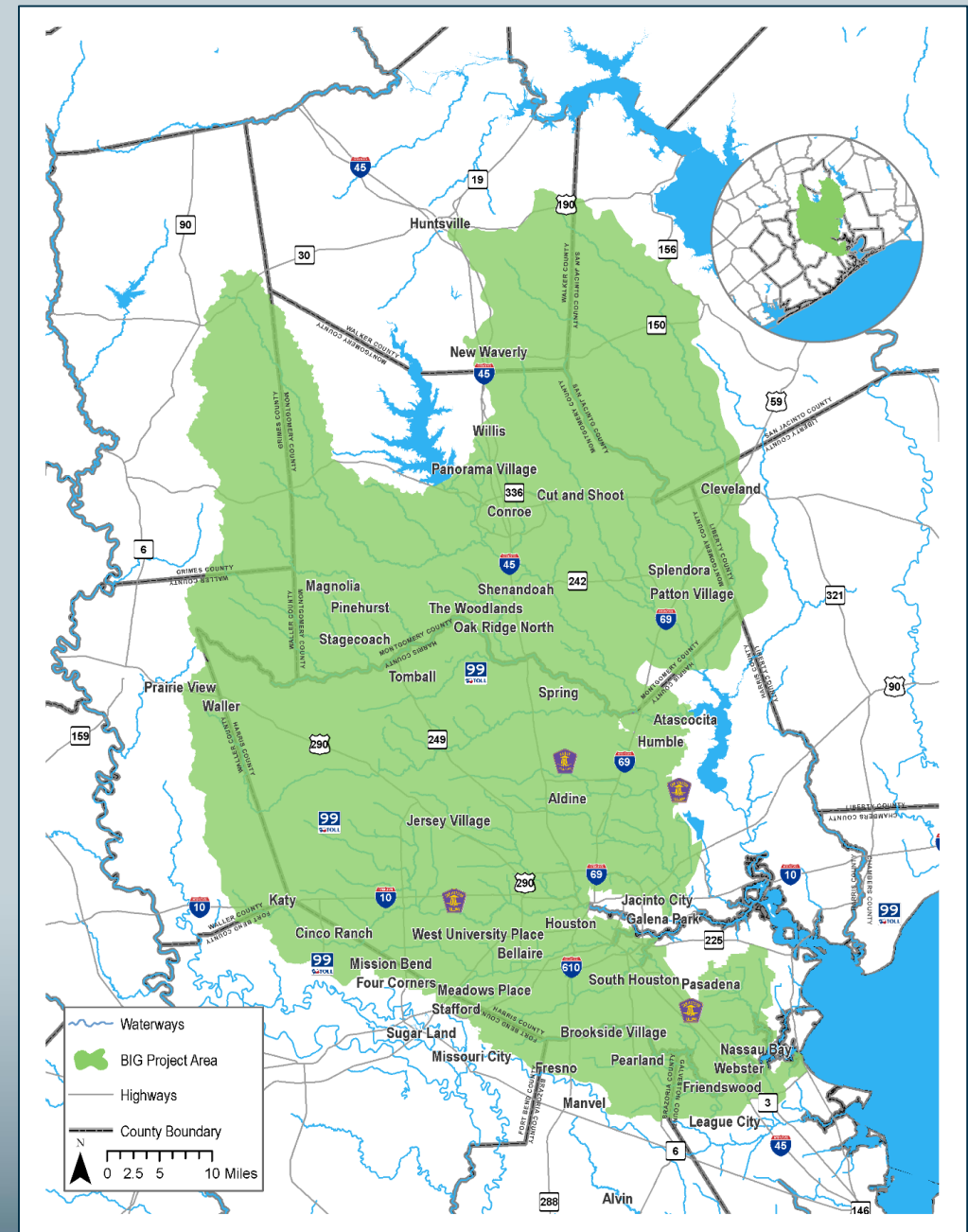
BACTERIA IMPLEMENTATION GROUP

FALL MEETING
October 29, 2019



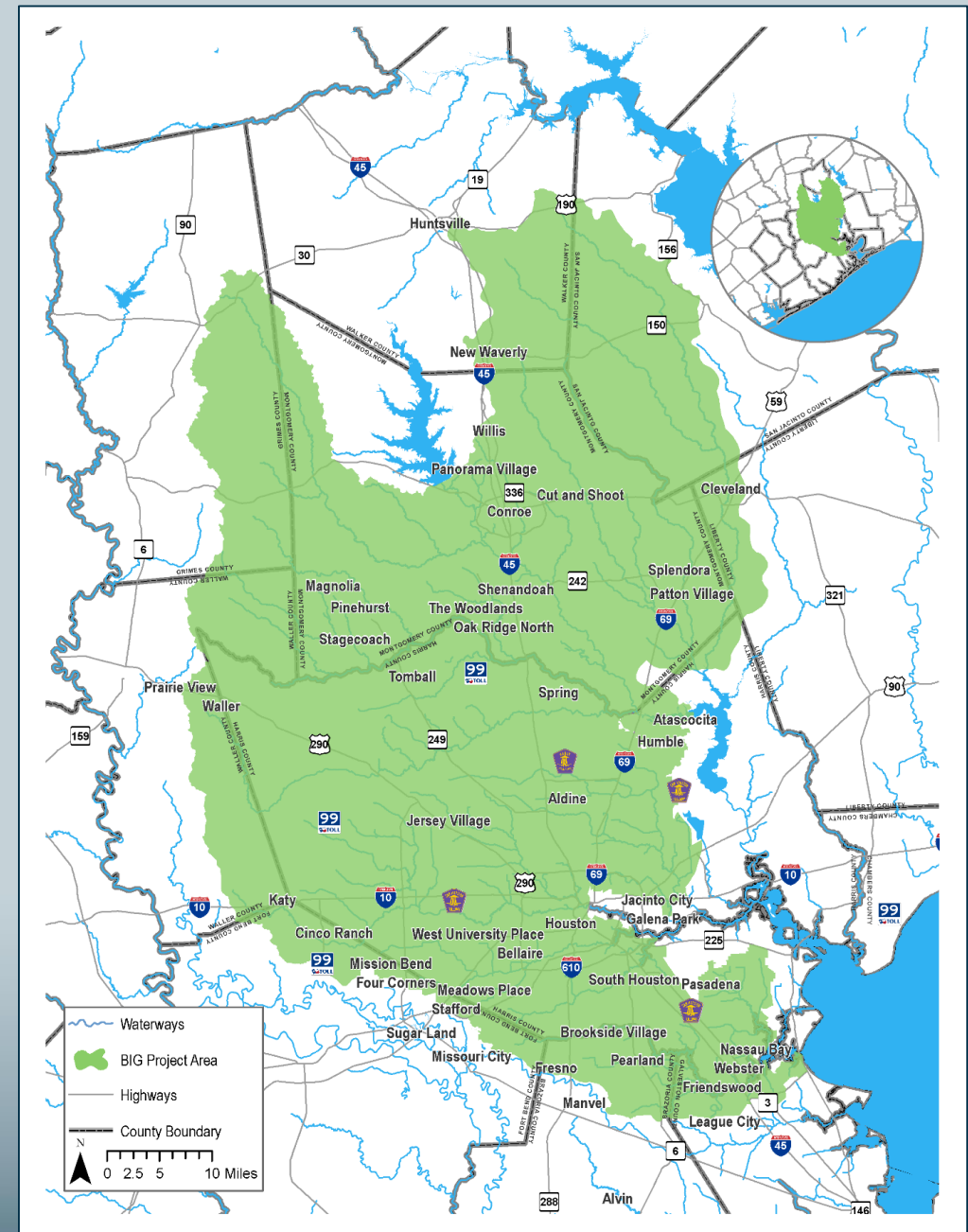
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- Call to Order/Introductions
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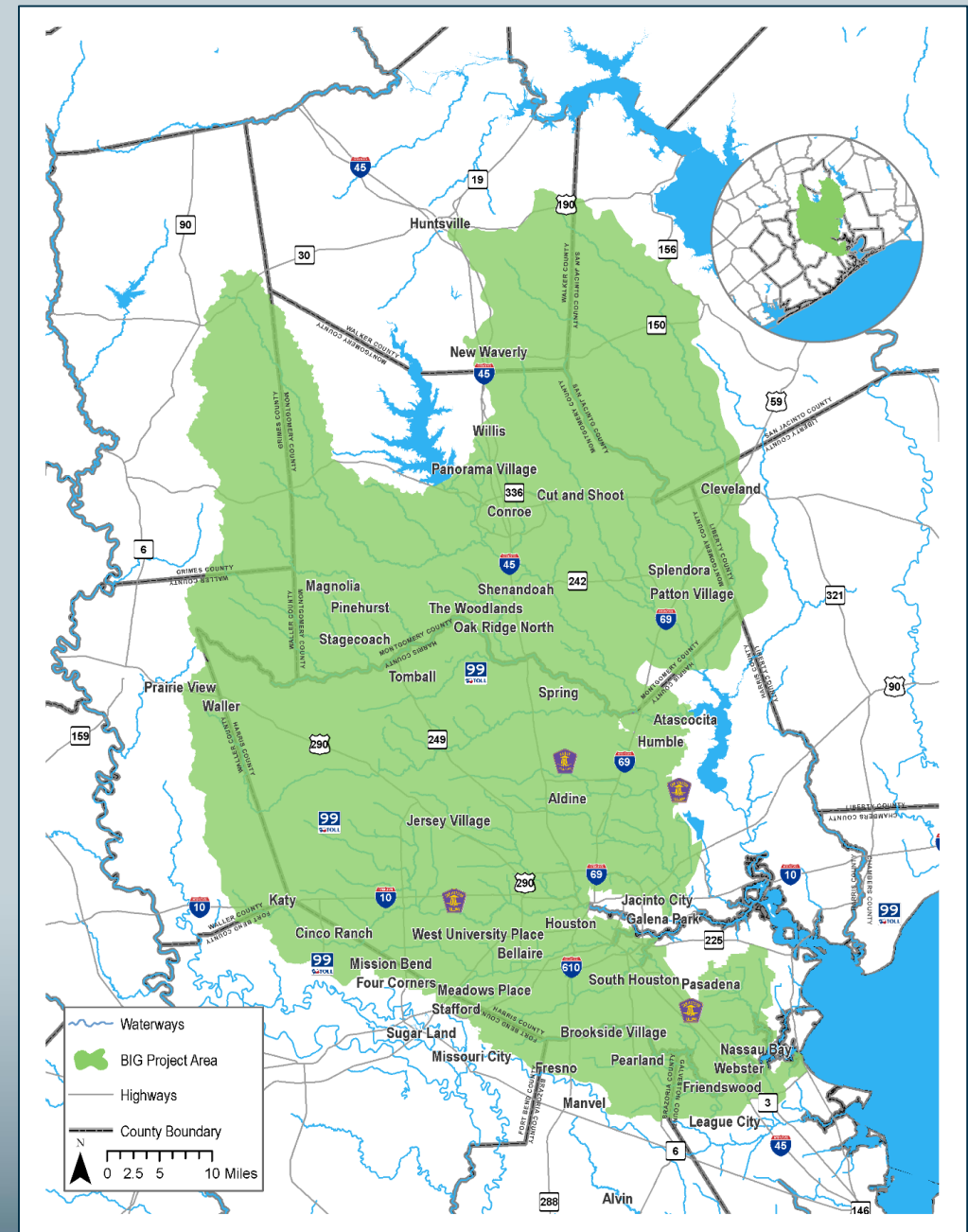
ROSTER UPDATES

- **BIG Membership**
 - Patrick Rightmyer (Large City)
 - Tom Douglas for Tom Ivy (Conservation)
 - Scott Saenger for Craig Maske (Business/Industry)
 - Mac Martin for Monica Singhania (Agriculture)
- **Alternates**
 - Lisa Montemayor (Large Cities)
 - Desta Takie (Large Cities)



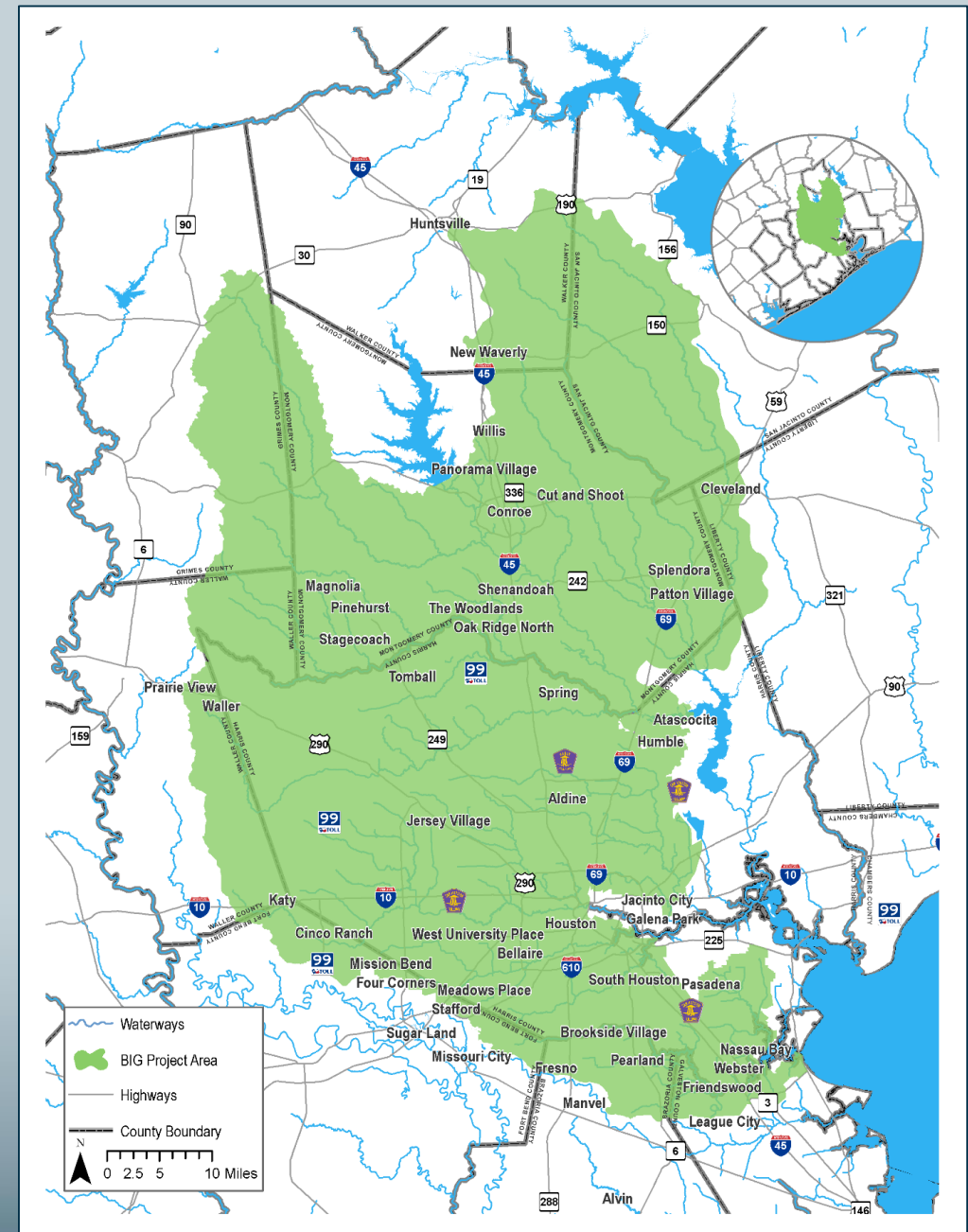
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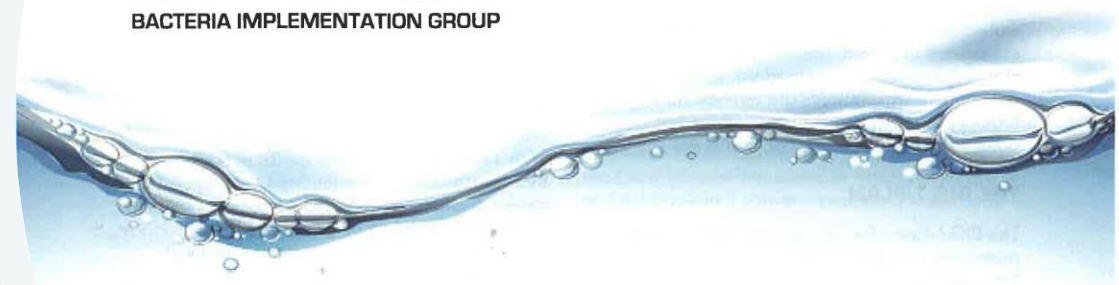
2019 Annual Report

- Met with Workgroups
 - Coordination and Policy (3/4, 5/6)
 - OSSF and Illicit Discharge (5/6)
 - Animals and Agriculture (5/23)
 - Coordination and Policy (7/23, 10/2)

BIG

BACTERIA IMPLEMENTATION GROUP

2019 ANNUAL REPORT



THE HOUSTON-GALVESTON REGION IS EXPECTED TO ADD **3.5 MILLION** PEOPLE BY 2040.

Rapid growth in the Houston-Galveston region will place greater strain on water resources in the future.

Half of the waterbodies in the region are impaired by bacteria and fail to meet state standards for contact recreation, like wading. High levels of bacteria can cause health issues and can directly impact the economy.

Water quality is a regional priority. The Houston-Galveston Area Council is committed to addressing the challenges of water quality in the region.

MONITORING THE PLAN

Many stakeholders are actively implementing and tracking progress of the I-Plan. Partners within the BIG are examining the effectiveness of implementation activities in reducing bacteria, including installing and monitoring structural best management practices; addressing bacteria impairments as part of their municipal separate storm sewer system (MS4) program; committing resources to address aging and failing infrastructure; educating and training local wastewater treatment operators, developers, water quality service providers; and

BIG

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OCTOBER 2019

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The good news is, overall, water quality is improving as a result of local and regional bacteria reduction initiatives. One of the most successful of these is the Bacteria Implementation Group (BIG).

Since 2008, a group of government, business, and community leaders as members of the BIG have joined together to develop and implement a plan, the Bacteria Implementation Plan (I-Plan), to reduce bacteria and improve water quality so that the region's waters support contact recreation.

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EXPANDING THE PROJECT AREA

Since the first annual report was written in 2013, the BIG project area has expanded. The first expansion included the Armand Bayou Total Maximum Daily Load (TMDL) project area in

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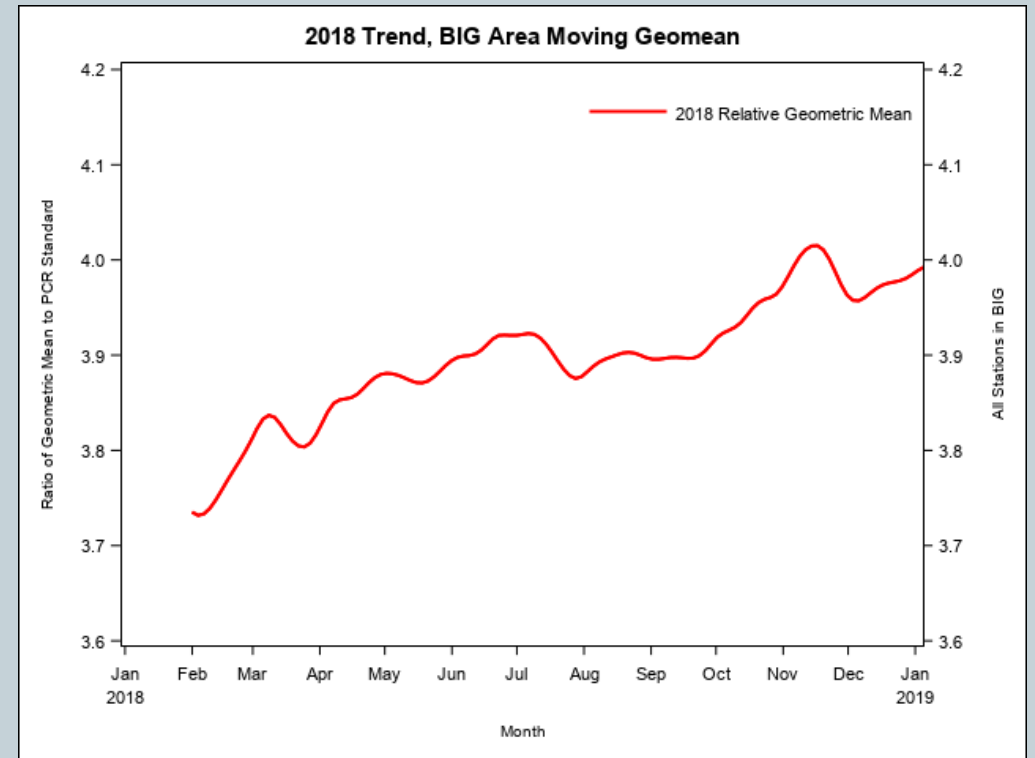
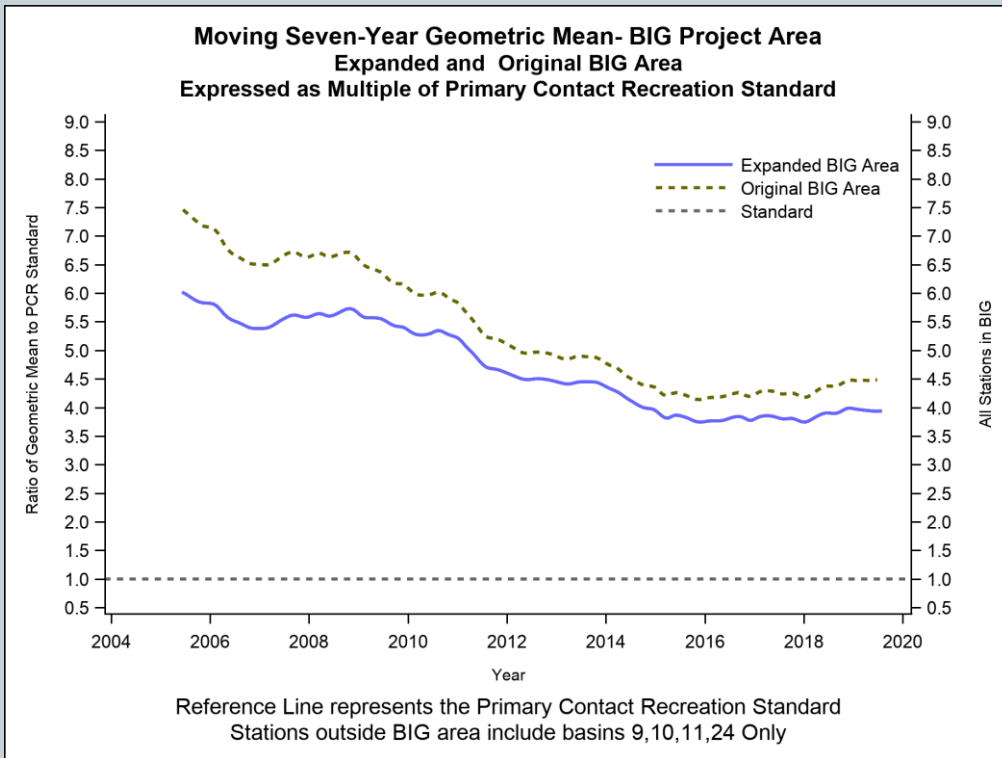
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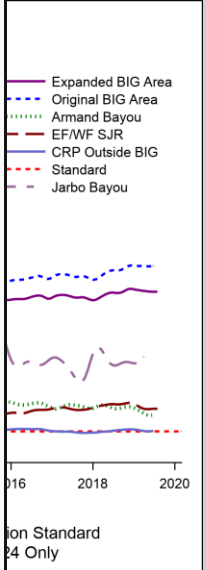
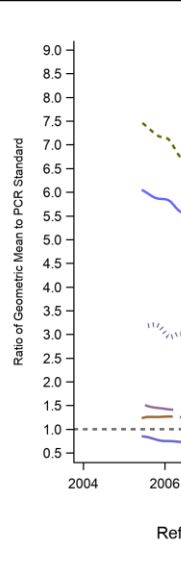
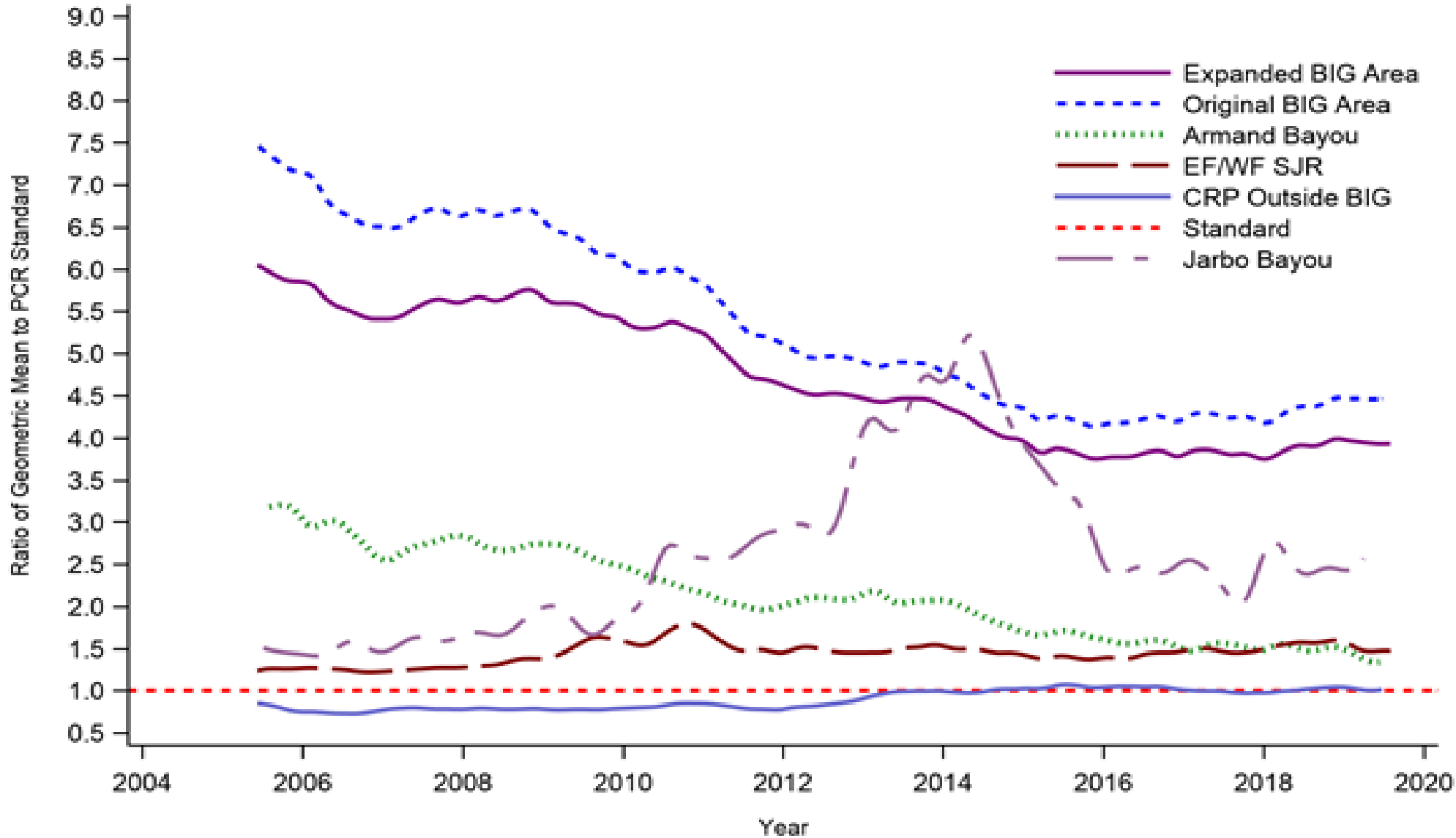
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MARY



BACTERIA TRENDS

Style B



Reference Line represents the Primary Contact Recreation Standard
Stations outside BIG area include basins 9,10,11,24 Only

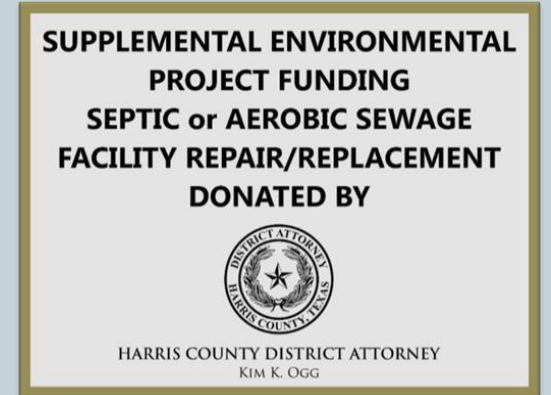
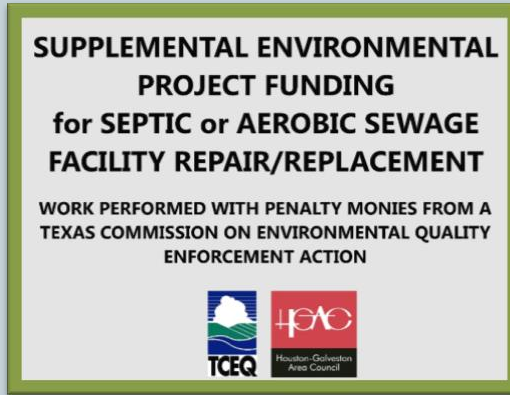
Water Quality Trend Summary by AUs

- West Fork San Jacinto River (1004_01)
- Crystal Creek (1004D_01)

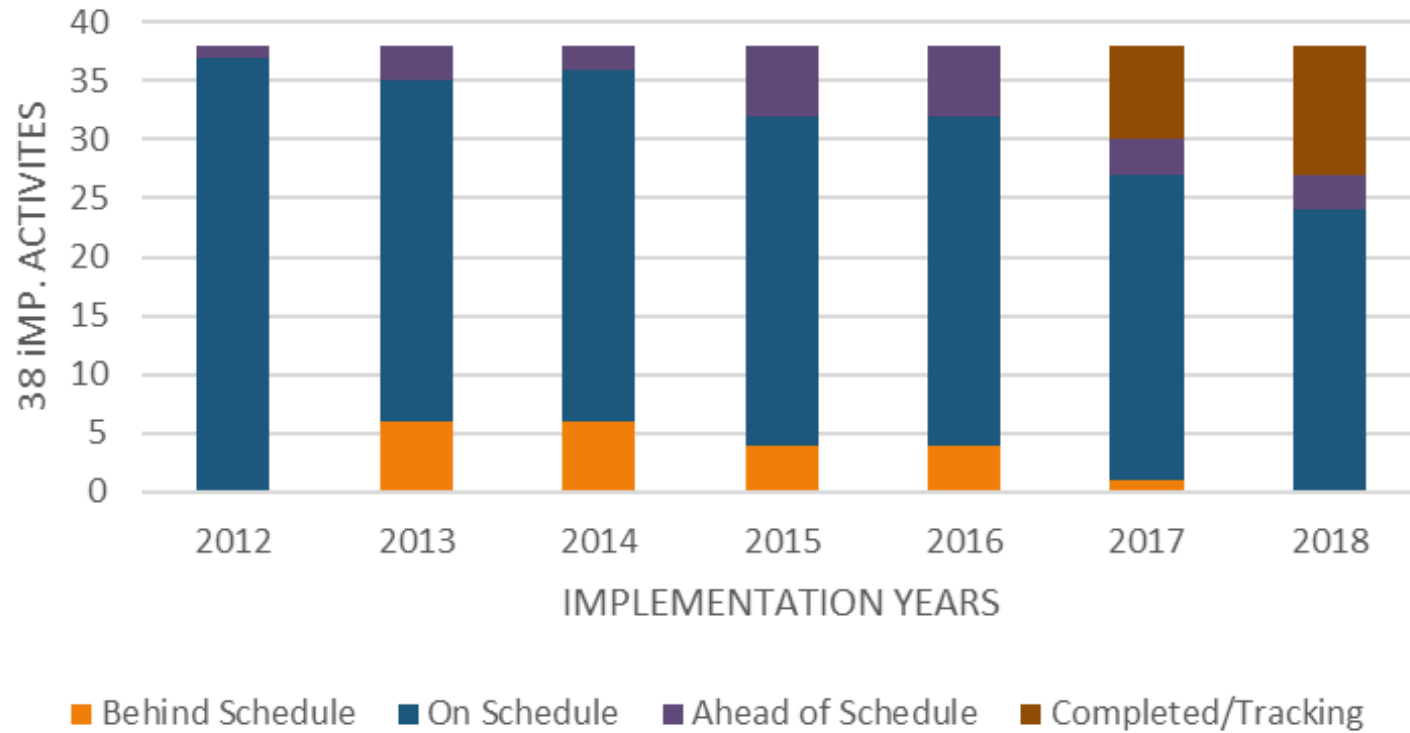
Parameter	Deteriorating	Improving	No Change
Dissolved Oxygen grab screening level	42	26	158
E. Coli	5	45	109
Enterococci	3	12	53
Nitrate-N	69	30	127
Total Phosphorus	70	30	126

SUCCESS STORIES

- Pearland LID Maintenance and Code Ordinance Project
- Residential Waste Water Assistance Program for OSSF Repair / Replacement
- Water Innovation Strategies of Excellence Awards



IMPLEMENTATION PROGRESS



PROGRESS

- Six Completed
- Three Ahead of Schedule
- 24 On Schedule

WWTFs Within the BIG Project Area

type	Number
Permittees in TCEQ Outfall Layer	636
Permittees in EPA Registry	630
Permittees Submitting DMR Data (any type)	552
Permittees Submitting DMR Bacteria Data	527



WWTF Type	Number of Permittees
Domestic	517
Industrial	35

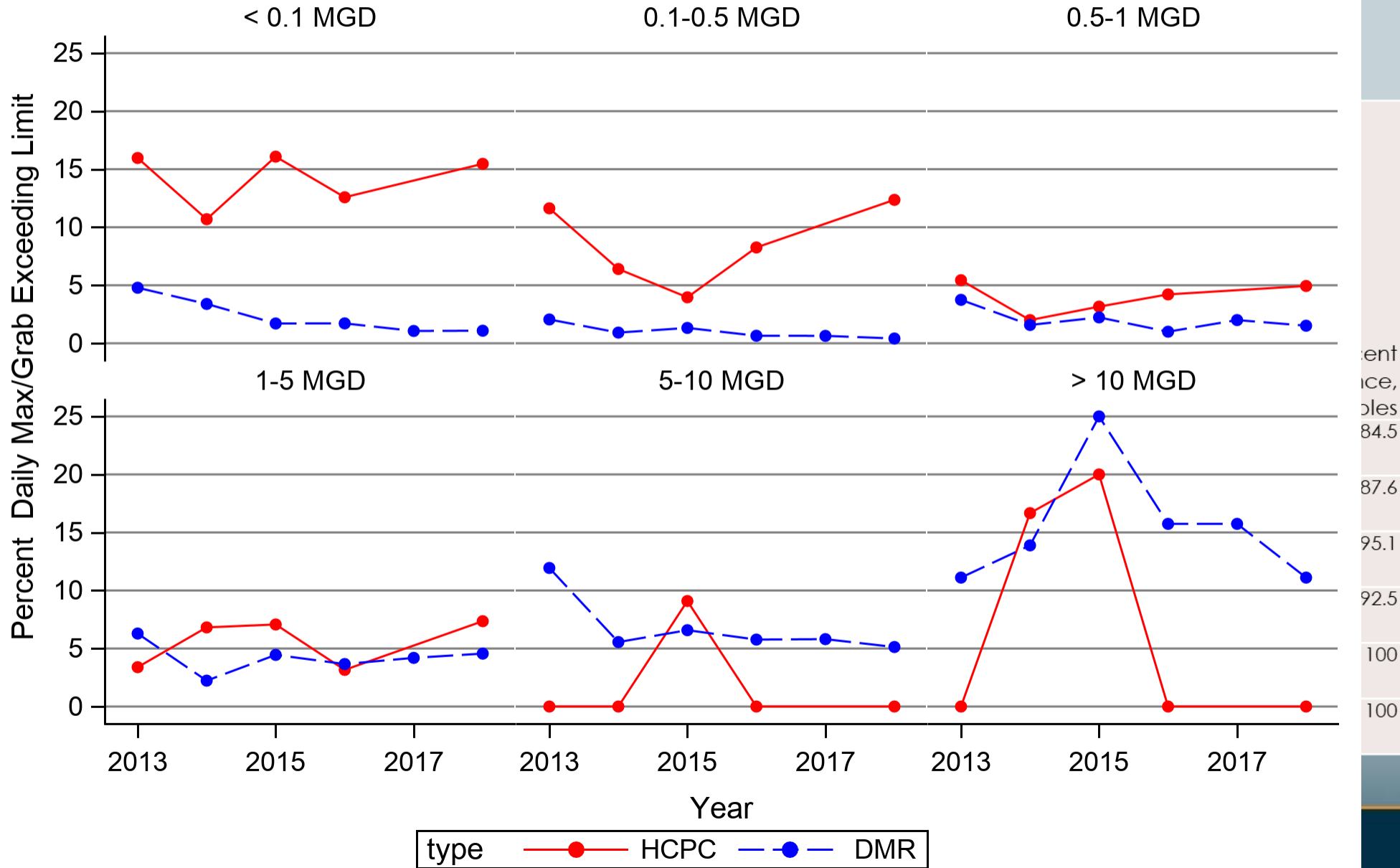


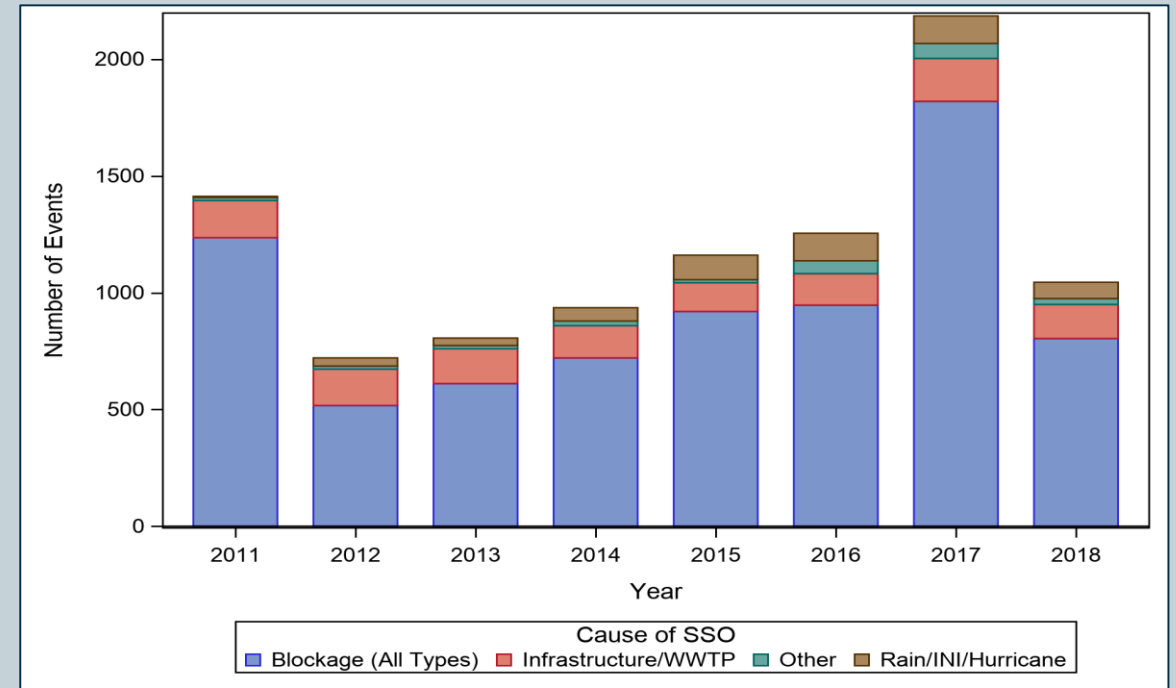
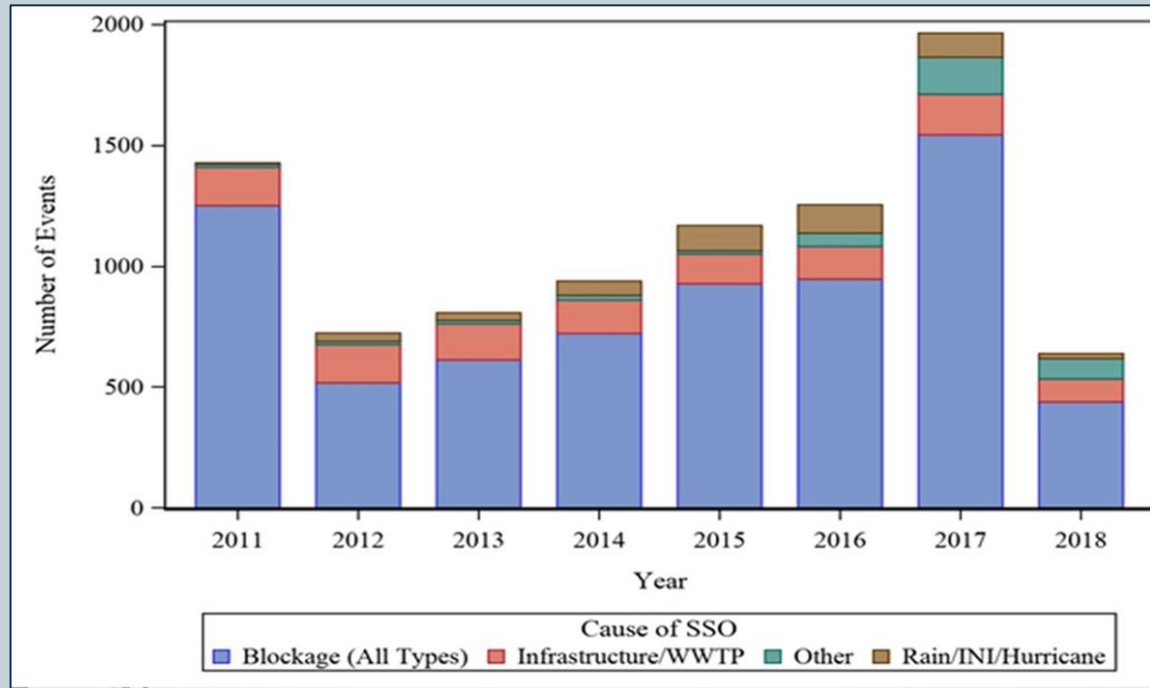
WWTF Type	Number of Permittees
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Analysis of Discharge Monitoring Report Data Obtained March-September 2019

Analysis of Harris County PCS Domestic WWTF Inspection Data- BIG Area of Harris County

Percent Daily Max/Grab Exceedance, DMR and HCPC Data Comparison

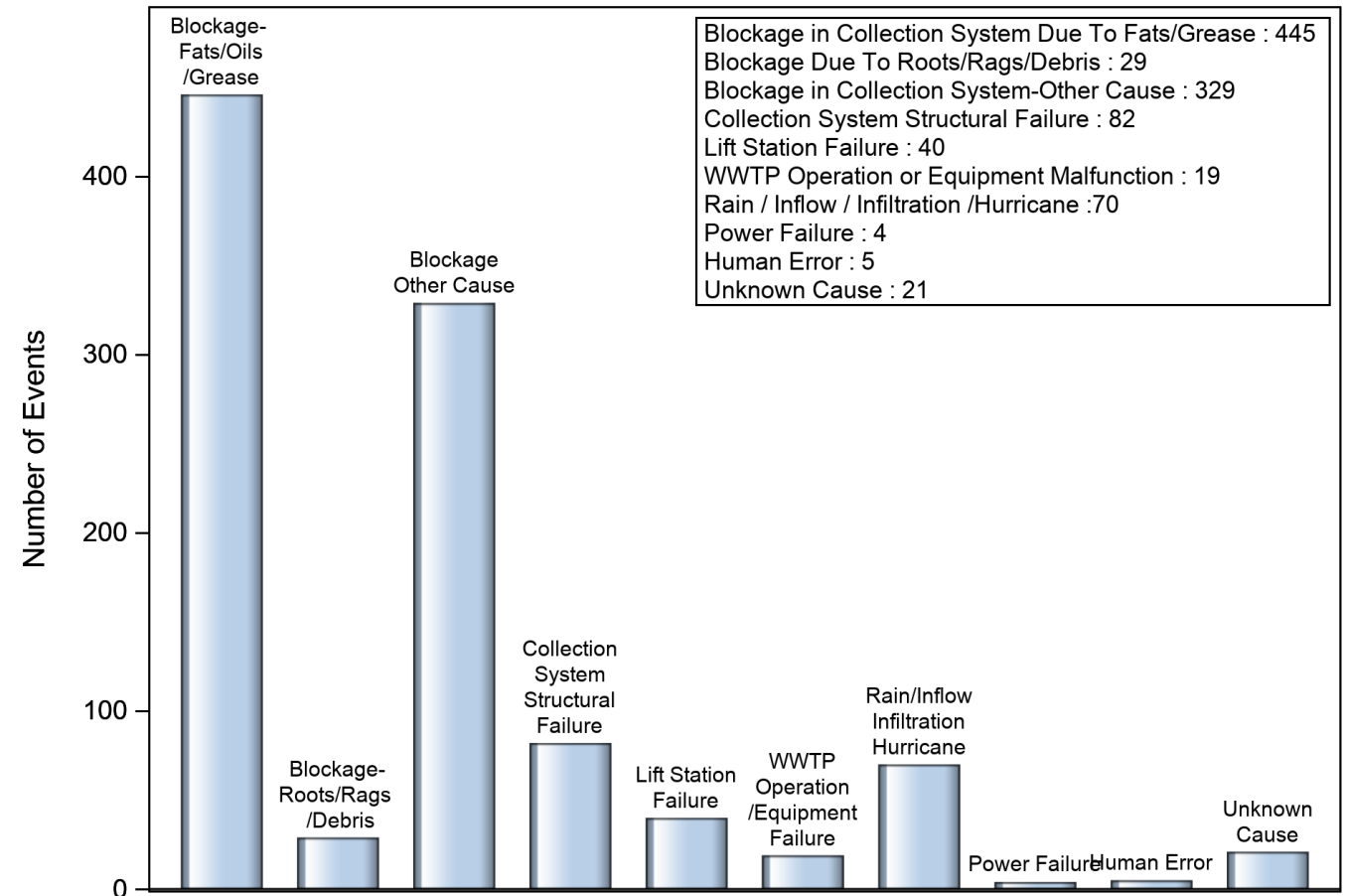




Sanitary Sewer Overflows (2011-2018)

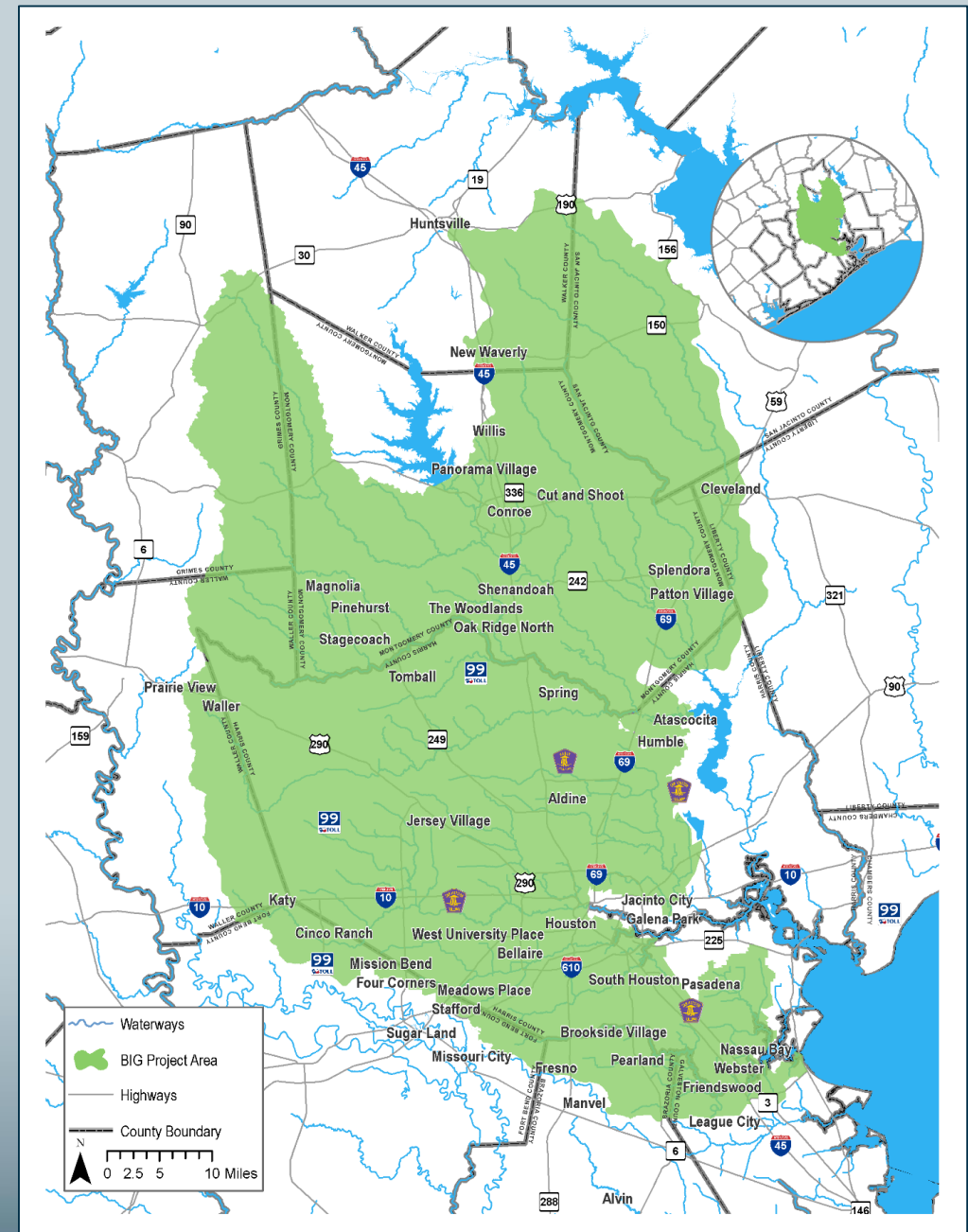
Sanitary Sewer Overflows (2011-2018)

Cause of Reported SSOs in BIG Project Area-2018
Number of Events



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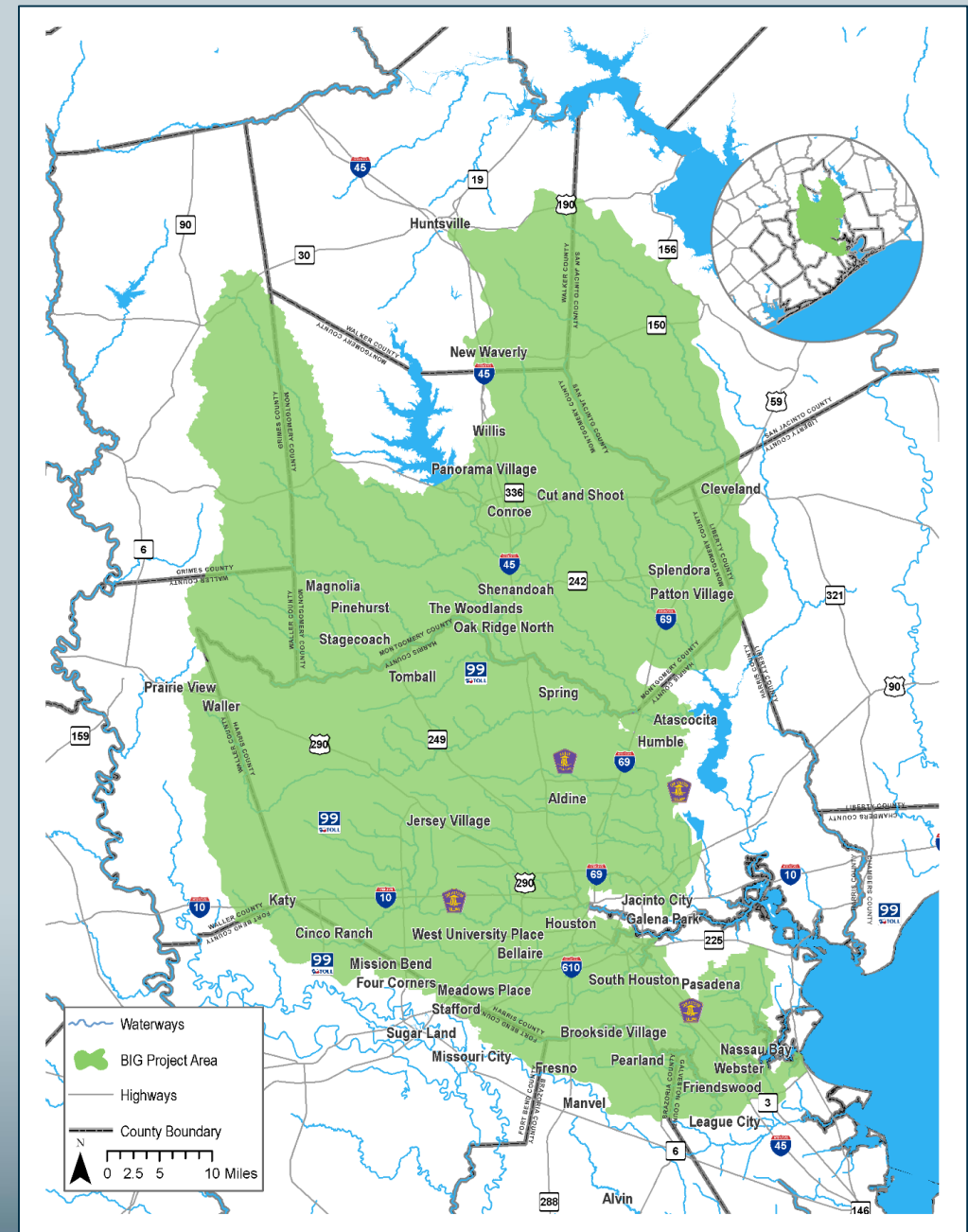
I-Plan Revision Update

- Updating Maps, Tables, and Photos
- Revising Text
 - Illicit Discharge
 - Animals and Agriculture
- Considering Changes to Actions
- Format
- Timeline



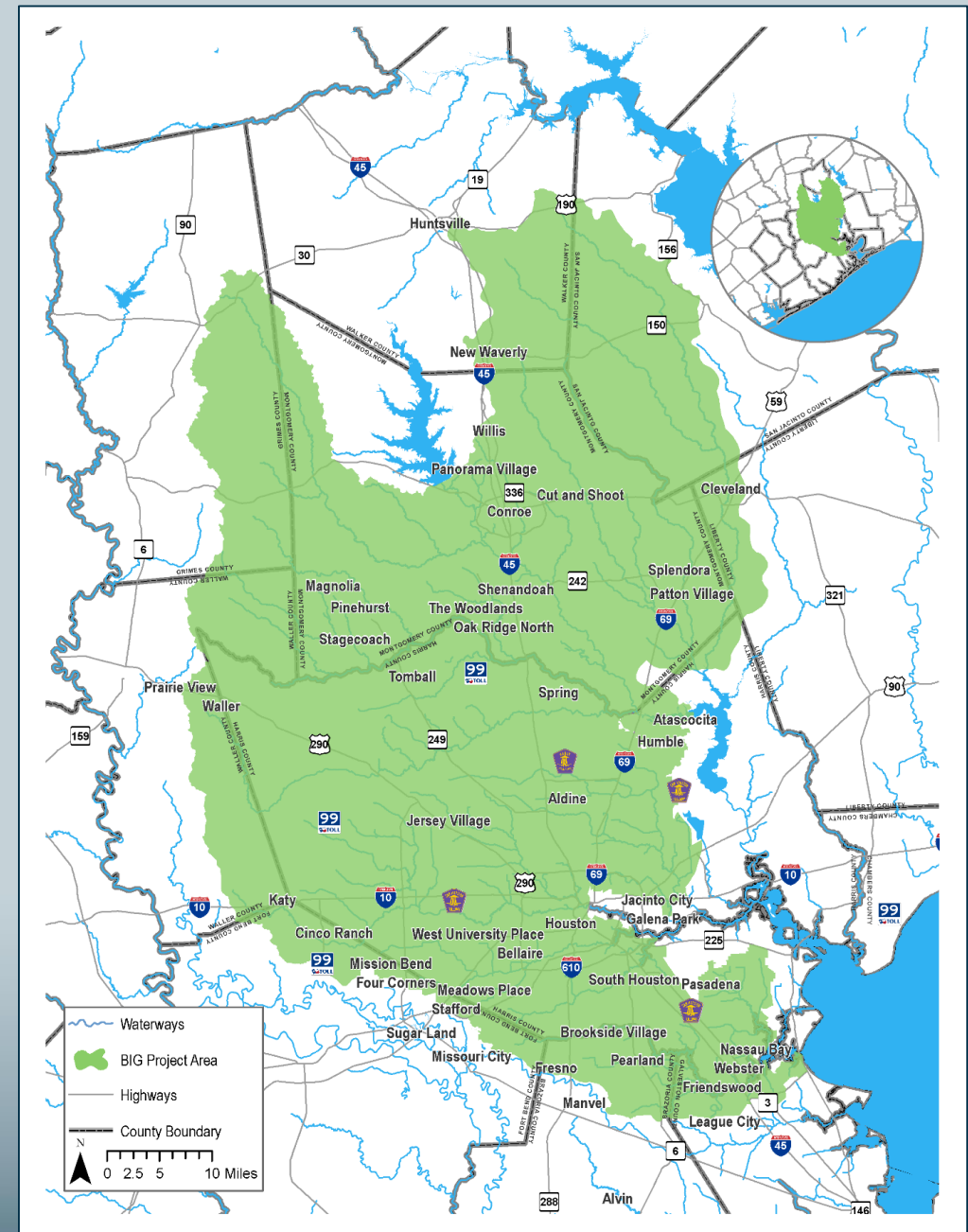
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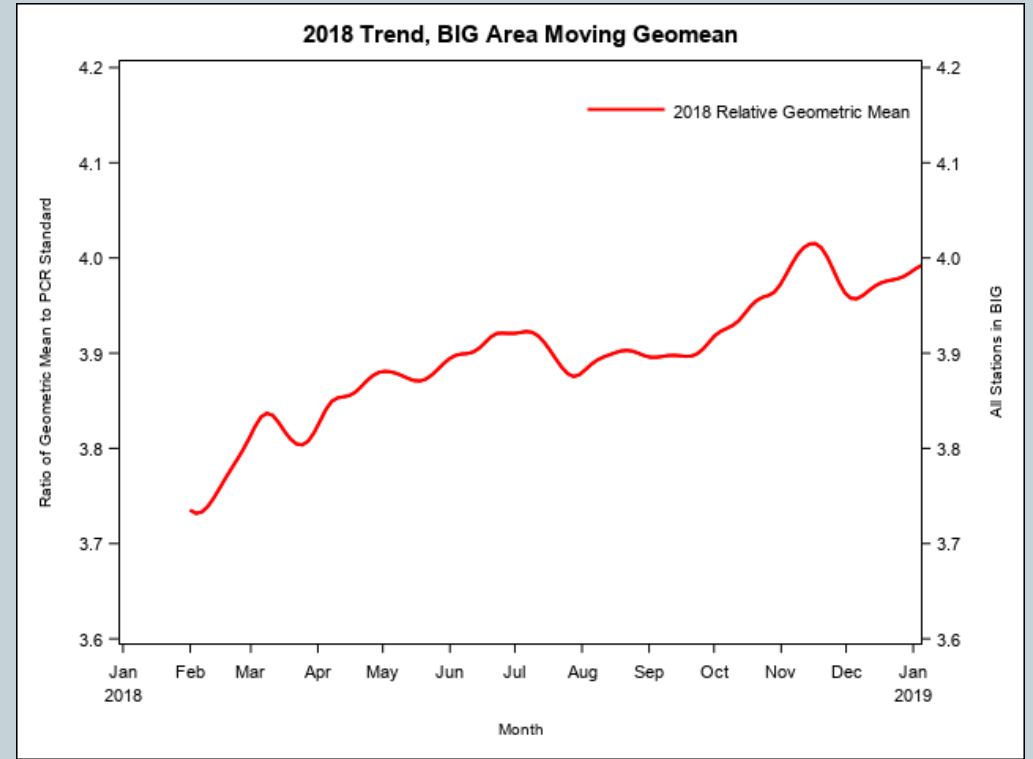
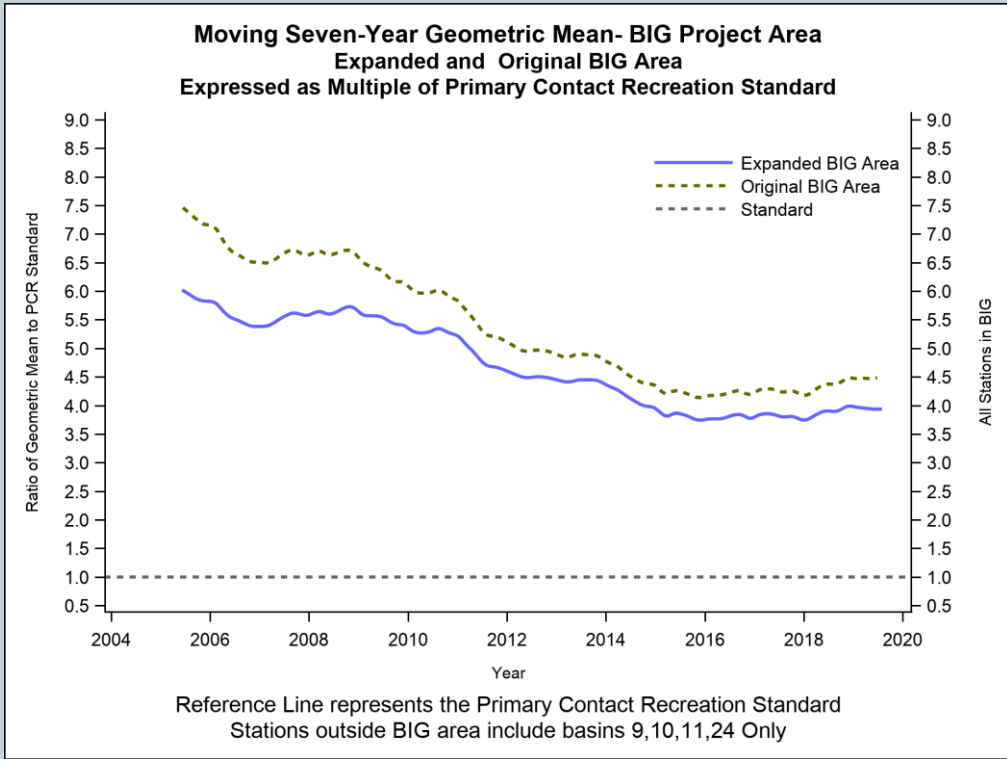
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Monitoring For Success

- CRP Projects
 - Targeted Monitoring
 - Top 5/Least 5
 - Monitoring Efficiencies
- BIG Partners
 - BST Study
 - LID/Green Infrastructure
 - Others?
- Others?
- Discussion

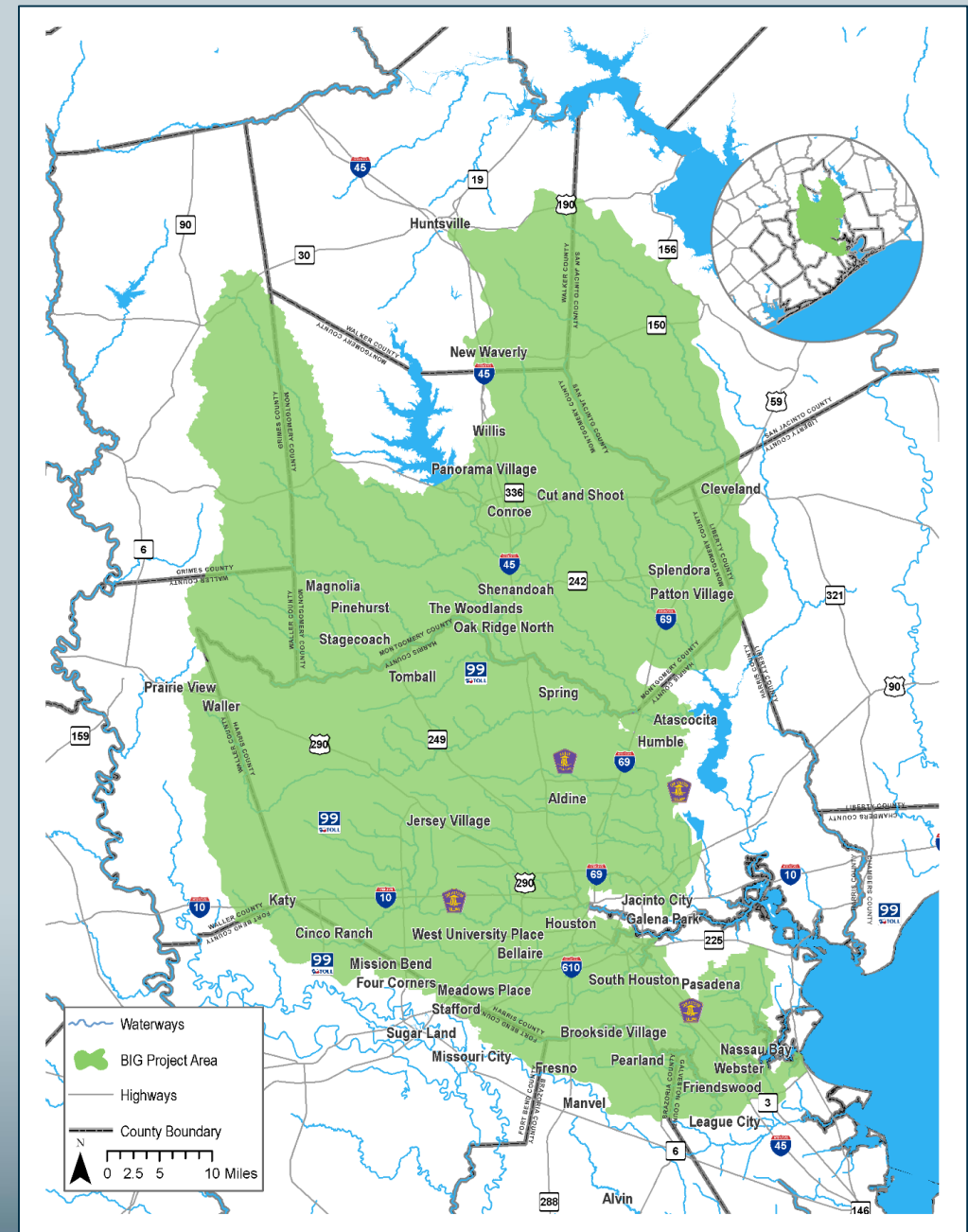




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Upcoming Events

- **October 30, 2019 –**
 - BPA symposium, “The Dirt on Watersheds – The Quest for Healthy Soils”
- **November 20, 2019 –**
 - CWI on MS4s
- **November 21, 2019 –**
 - Cypress Creek WPP Public Meeting, Barbara Bush Library, (5:30-7:30)
- **November 21, 2019 –**
 - Solid Waste Workshop: Challenging Waste Streams
- **December 10, 2019 –**
 - Oyster Creek TMDL CC Meeting, Angleton Library (1:00-3:00)
- **December 10, 2019 –**
 - Caney Creek TMDL CC Meeting, Van Vleck High School (5:30-7:30)
- **January 22-23, 2020 –**
 - 11th State of the Bay Symposium

ADJOURN

- **Steven Johnston**
- Steven.johnston@h-gac.com
- 281-681-2579

