

BACTERIA IMPLEMENTATION GROUP

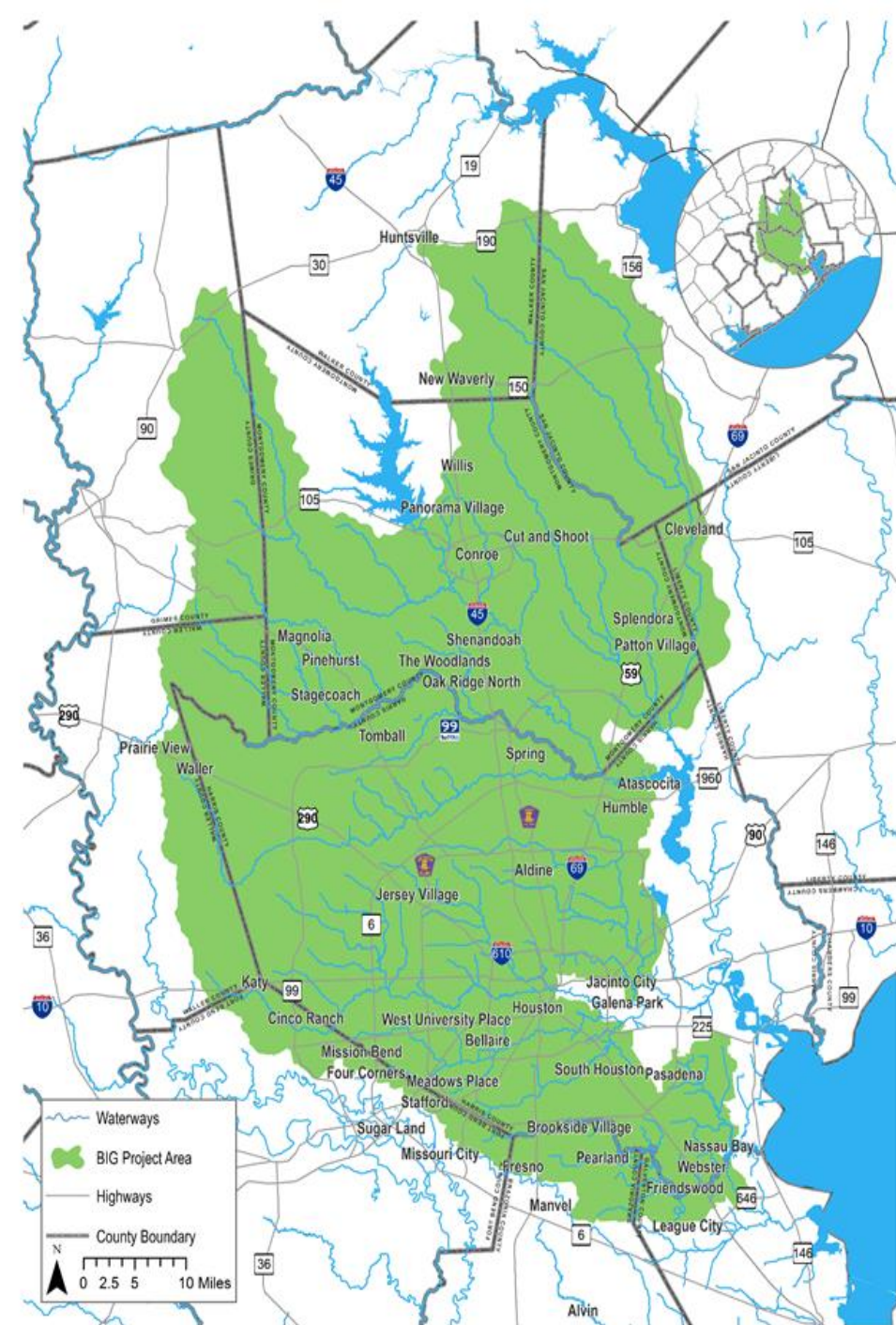
A close-up photograph of a person's hand reaching into a body of blue water. The hand is positioned on the right side of the frame, with fingers slightly curled. The water is a deep blue color and shows concentric ripples emanating from the point where the hand touches it. The background is a soft, out-of-focus light blue, suggesting a bright, sunny day. The overall mood is calm and contemplative.

SPRING MEETING

6/4/2019

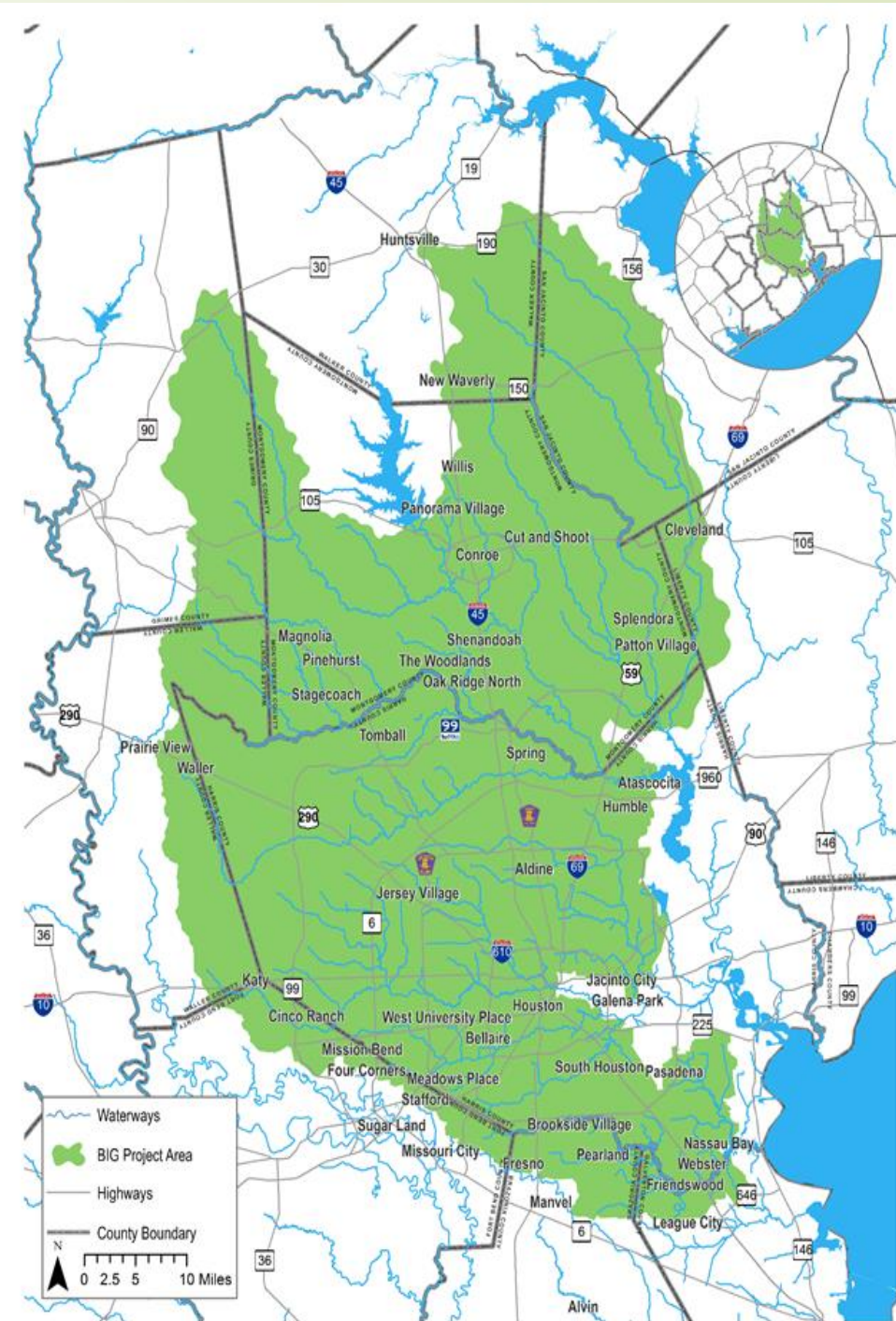
AGENDA

- **Call to Order/Introductions**
- **Quorum Certification**
- **Review and Approve BIG Roster**
- **Review and Approve Minutes**
- **Public Comment**
- **Item One:** I-Plan Revision Update
- **Item Two:** 2019 Annual Report Update
- **Item Three:** TMDL Program Update
- **Item Four:** TWRI Presentation
- **Item Five:** H-GAC Program Reports
- **Item Six:** Other Business
- **Adjourn**



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ROSTER DISCUSSION

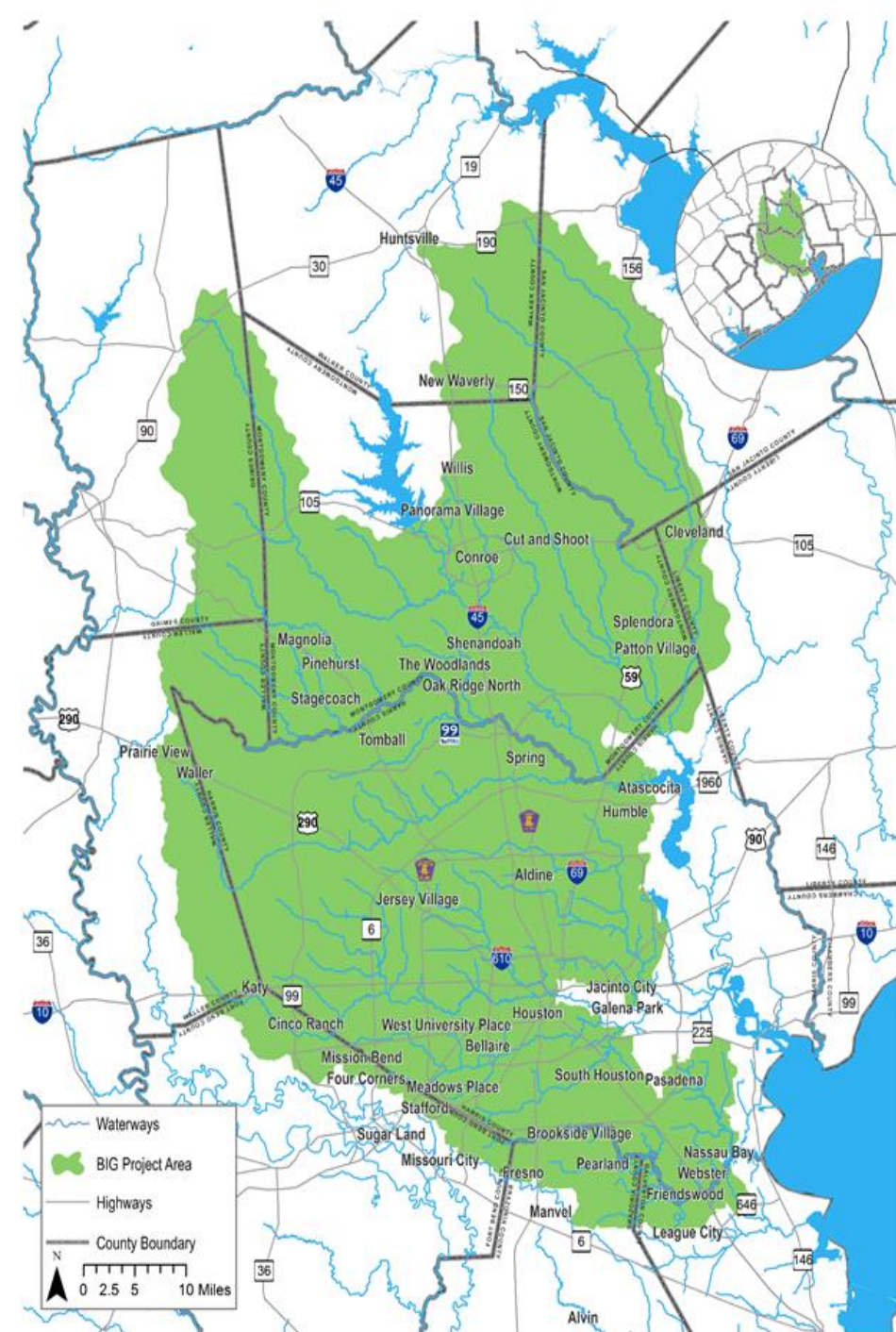
- BIG Membership
 - Rachel Powers for Anne Olson
 - Ralph Calvino for Michael Bloom

- Alternates
 - Anne Olson for Rachel Powers
 - Patrick Rightmyer



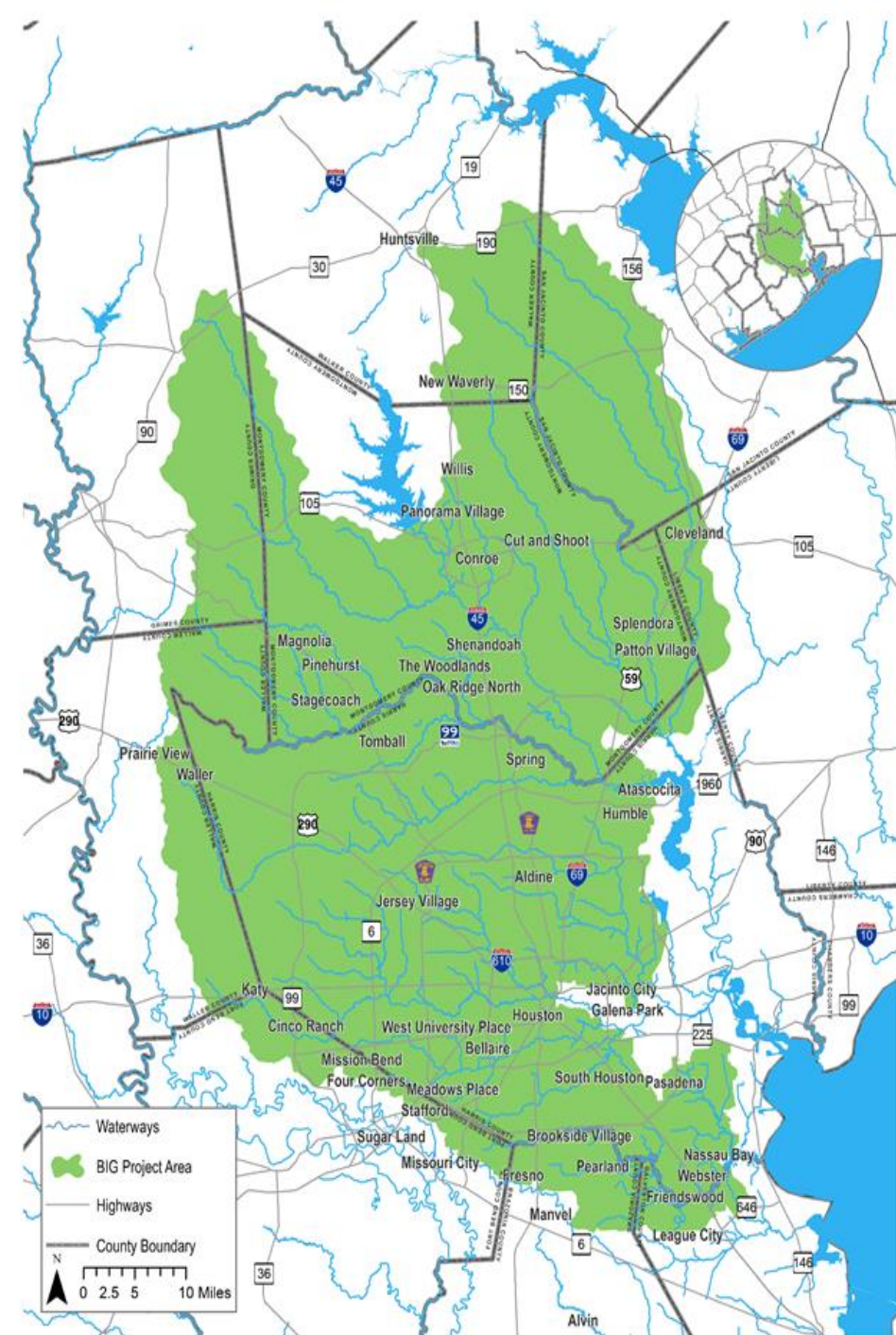
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I-Plan Revision Update

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

Implementation Plan

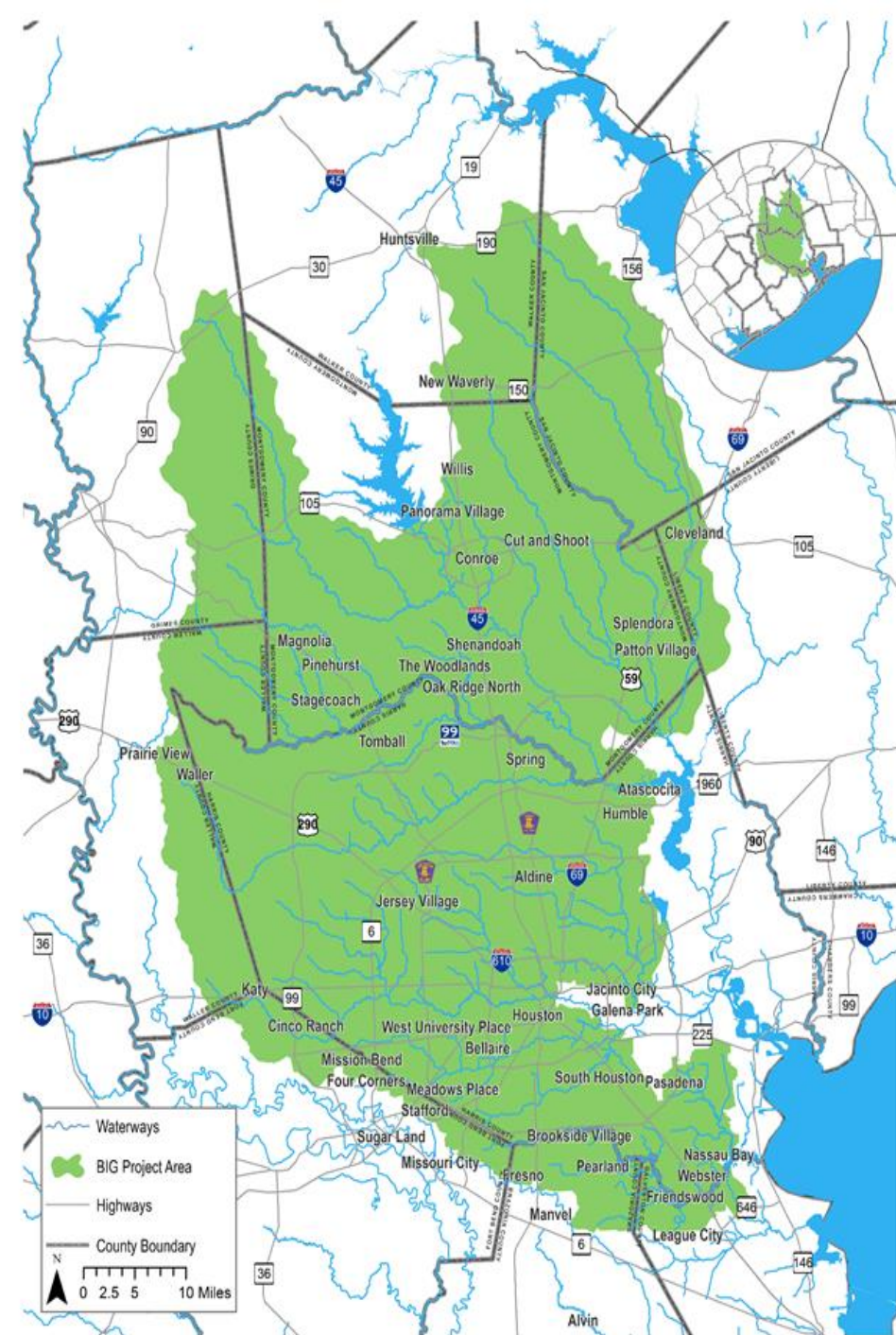
For Total Maximum Daily Loads for Bacteria
in the Houston-Galveston Region



Bacteria Implementation Group
October 2012

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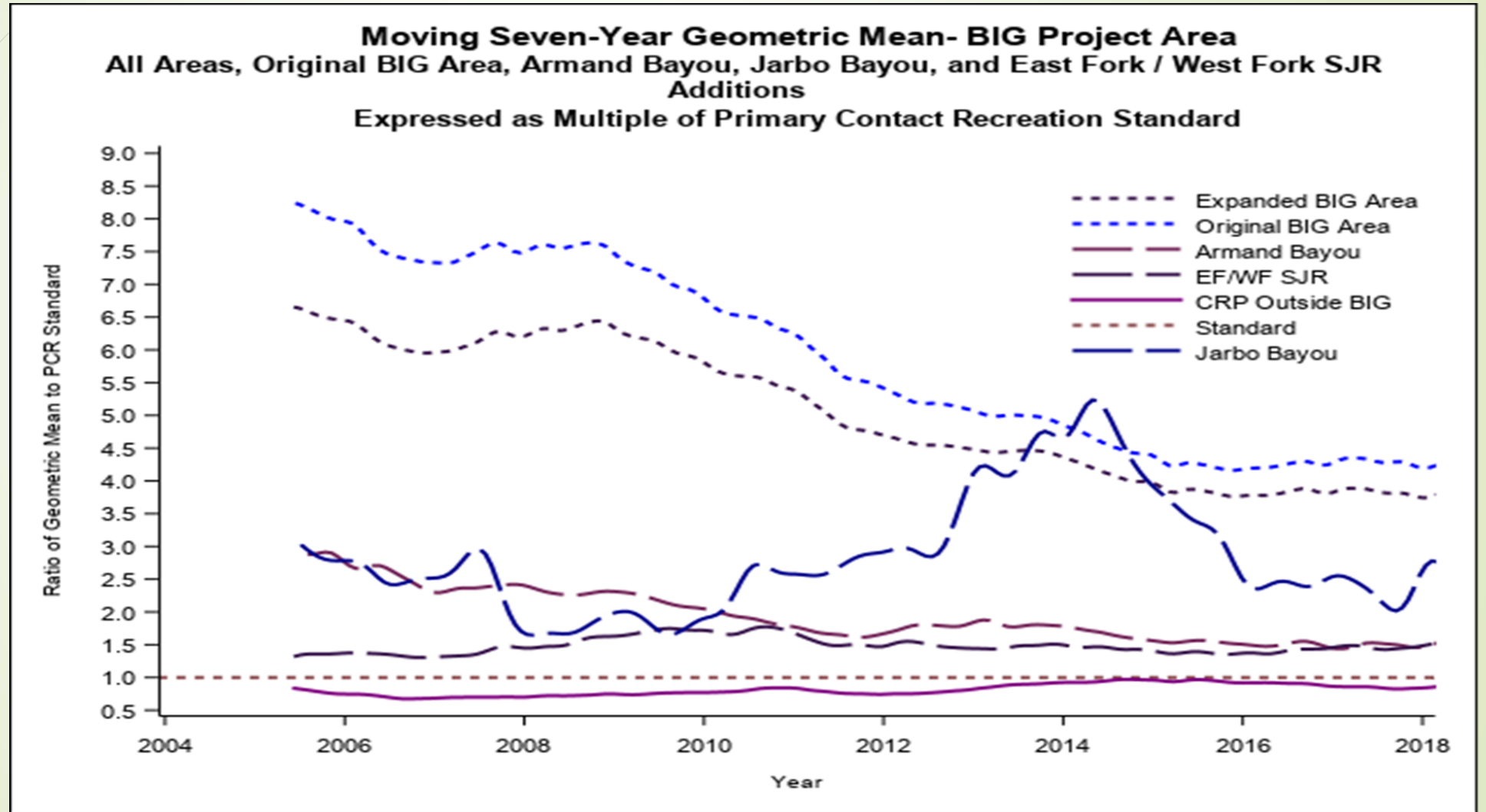


2019 ANNUAL REPORT

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



BACTERIA TRENDS





Water Quality Trend Summary by AUs

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

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
Domestic	510
Industrial	17

DMRs for WWTFs 2012-2018

Year	Total Geomean Results Reported from Permittees with Limits In Permits	Samples Exceeding Geomean Limit	Percent Samples Exceeding Geomean Limit	Geomean Percent Compliance	Total Grab/Max Results Reported from Permittees with Limits In Permits	Samples Exceeding Grab/ Max Limit	Percent Samples Exceeding Grab/Max Limit	Grab/Max Percent Compliance	Geomean of Geomean Results	Geomean of Daily Max Results
2012	2741	31	1.1	98.9	2707	151	5.6	94.4	2.4	5.7
2013	3997	35	0.9	99.1	4085	184	4.5	95.5	2.1	4.3
2014	4533	42	0.9	99.1	4693	131	2.8	97.2	2.0	3.8
2015	4652	24	0.5	99.5	4829	181	3.7	96.3	2.0	3.9
2016	4732	24	0.5	99.5	4912	132	2.7	97.3	2.0	3.9
2017	4789	33	0.7	99.3	4978	153	3.1	96.9	2.0	4.0
2018	4848	15	0.3	99.7	5072	118	2.3	97.7	2.0	3.7

Exceedances by Plant Size (DMRs 2012-2018)

Relative Plant size	Number Plants	Geometric Mean	Daily Maximum or Grab Sample
0.1-0.5 MGD	132	0.5	0.8
0.5-1 MGD	109	0.2	1.6
1-5 MGD	99	0.2	4.4
5-10 MGD	17	.	4.3
< 0.1 MGD	168	0.5	1.4
> 10 MGD	10	.	11.7
Variable/Intermittent Discharge	6	.	3.2

Relative Plant size	2012	2013	2014	2015	2016	2017	2018
Variable/Intermittent Discharge	0.0	0.0	55.6	43.8	26.9	42.9	0.0
< 0.1 MGD	3.2	2.8	3.1	1.3	0.8	1.2	0.5
0.1-0.5 MGD	1.7	0.9	0.7	0.3	0.7	0.9	0.5
0.5-1 MGD	0.5	0.4	0.2	0.0	0.1	0.1	0.2
1-5 MGD	0.5	0.4	0.2	0.2	0.1	0.3	0.2
5-10 MGD	0.6	0.0	0.0	0.5	0.0	0.5	0.0
> 10 MGD	0.0	0.0	0.8	0.0	0.0	0.0	0.0

Relative Plant size	2012	2013	2014	2015	2016	2017	2018
Variable/Intermittent Discharge	.	.	44.4	50.0	26.9	50.0	3.2
< 0.1 MGD	4.8	4.4	3.8	2.3	1.6	1.8	1.4
0.1-0.5 MGD	3.8	2.4	1.5	1.8	1.0	1.3	0.8
0.5-1 MGD	6.1	4.5	1.5	2.1	0.9	2.1	1.6
1-5 MGD	6.0	5.2	3.1	5.5	4.7	4.7	4.4
5-10 MGD	10.2	10.6	5.5	7.8	7.1	6.1	4.3
> 10 MGD	6.4	10.0	12.5	22.5	14.2	15.0	11.7

Harris County PCS Domestic WWTF Inspection Data with DMRs 2018

Relative Plant Size	DMR Grab/Max Sample Results	Percentage Exceeding Limit	Percent in Compliance	HCPC Inspection Samples	HCPC Inspection Daily Max PCT Exceedance	Percent Compliance, HCPC Samples
< 0.1 MGD	459	1.1	98.9	97	15.5	84.5
0.1-0.5 MGD	974	0.4	99.6	89	12.4	87.6
0.5-1 MGD	1003	1.5	98.5	82	4.9	95.1
1-5 MGD	931	4.6	95.4	67	7.5	92.5
5-10 MGD	156	5.1	94.9	7	0.0	100
> 10 MGD	108	11.1	88.9	4	0.0	100

Permittees with 25% or More Excursions

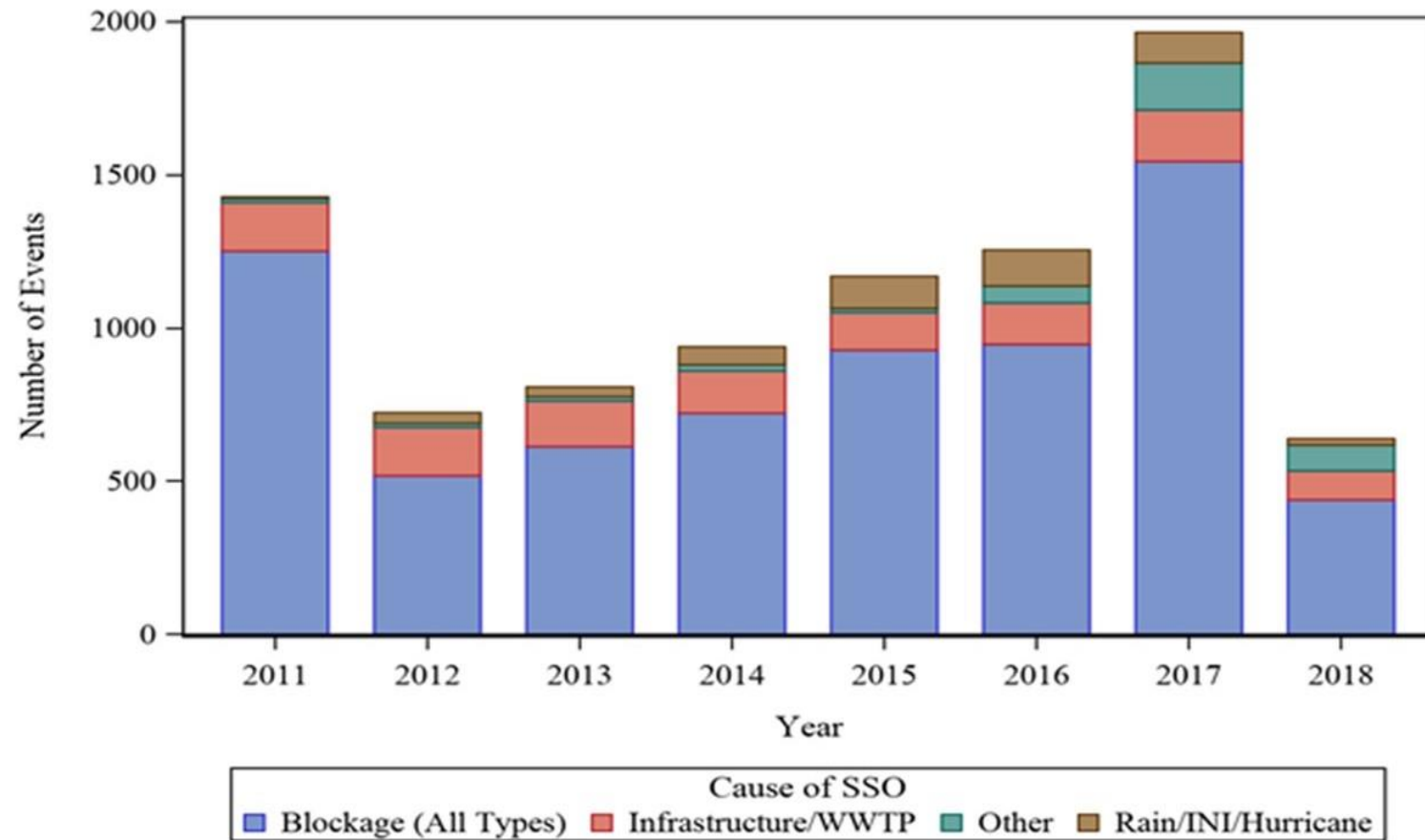
Year	Geometric Mean Limit Violation	Daily Max or Grab Limit Violation
2011	2	12
2012	6	15
2013	6	13
2014	7	9
2015	3	14
2016	1	13
2017	3	10
2018	1	7



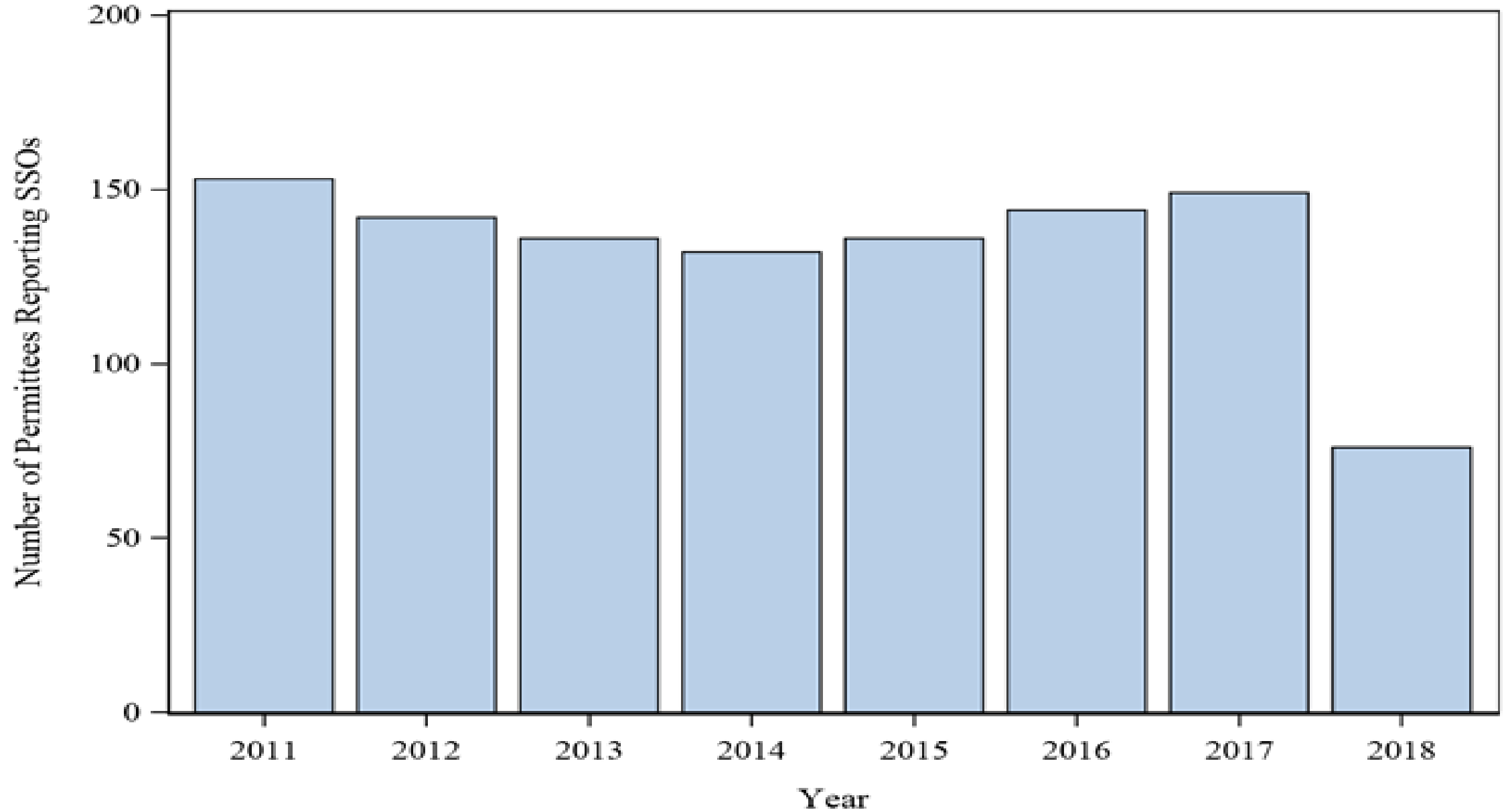
Excursions by Plant Size	Geometric Mean Limit Violation	Daily Max or Grab Limit Violation
0.1-0.5 MGD	5	5
0.5-1 MGD	1	11
1-5 MGD	.	25
5-10 MGD	.	5
< 0.1 MGD	17	26
> 10 MGD	.	15
Variable/Intermittent Discharge	6	6

Sanitary Sewer Overflows (2011-2018)

Year	Number of SSOs Reported	Estimated Volume (Thousand Gallons)
2011	1428	827
2012	724	1187
2013	810	1693
2014	941	2260
2015	1170	4297
2016	1256	3059
2017	1965	13545
2018	639	718

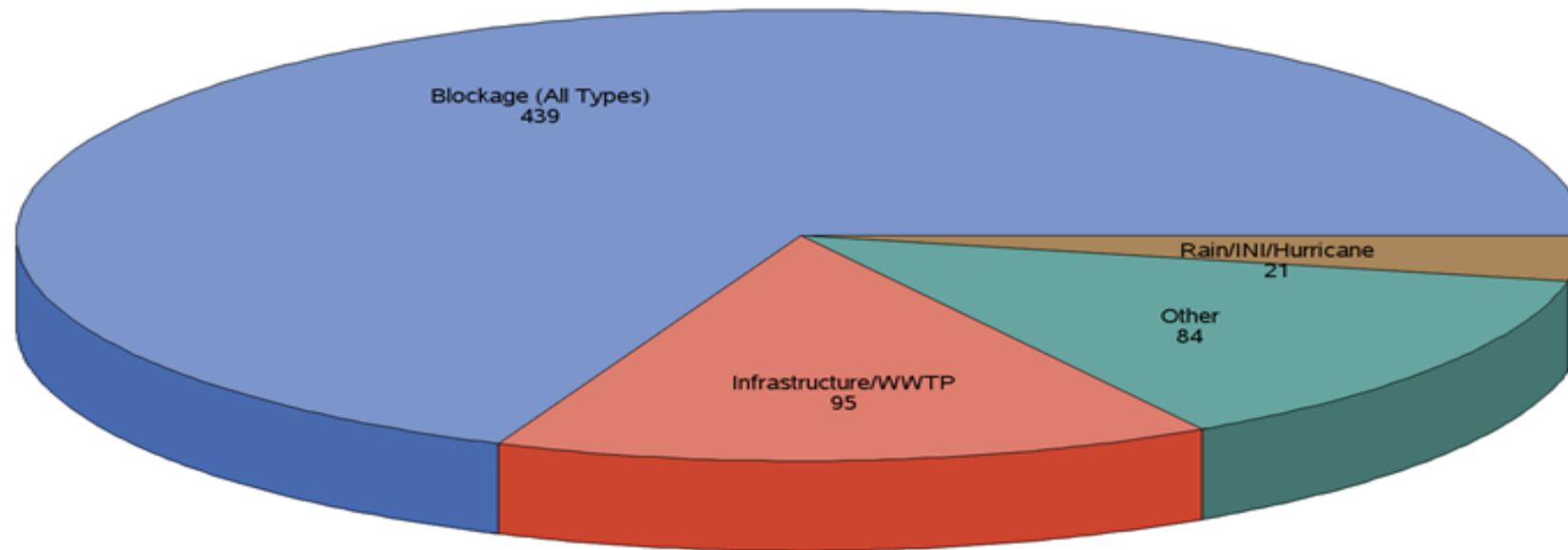


Summary of SSO Data



Cause of Reported SSOs by Year in BIG Project Area,2018

Number of Events



SUCCESS STORIES

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



**SUPPLEMENTAL ENVIRONMENTAL
PROJECT FUNDING
for SEPTIC or AEROBIC SEWAGE
FACILITY REPAIR/REPLACEMENT**

**WORK PERFORMED WITH PENALTY MONIES FROM A
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
ENFORCEMENT ACTION**



**SUPPLEMENTAL ENVIRONMENTAL
PROJECT FUNDING
SEPTIC or AEROBIC SEWAGE
FACILITY REPAIR/REPLACEMENT
DONATED BY**



**HARRIS COUNTY DISTRICT ATTORNEY
KIM K. OGG**

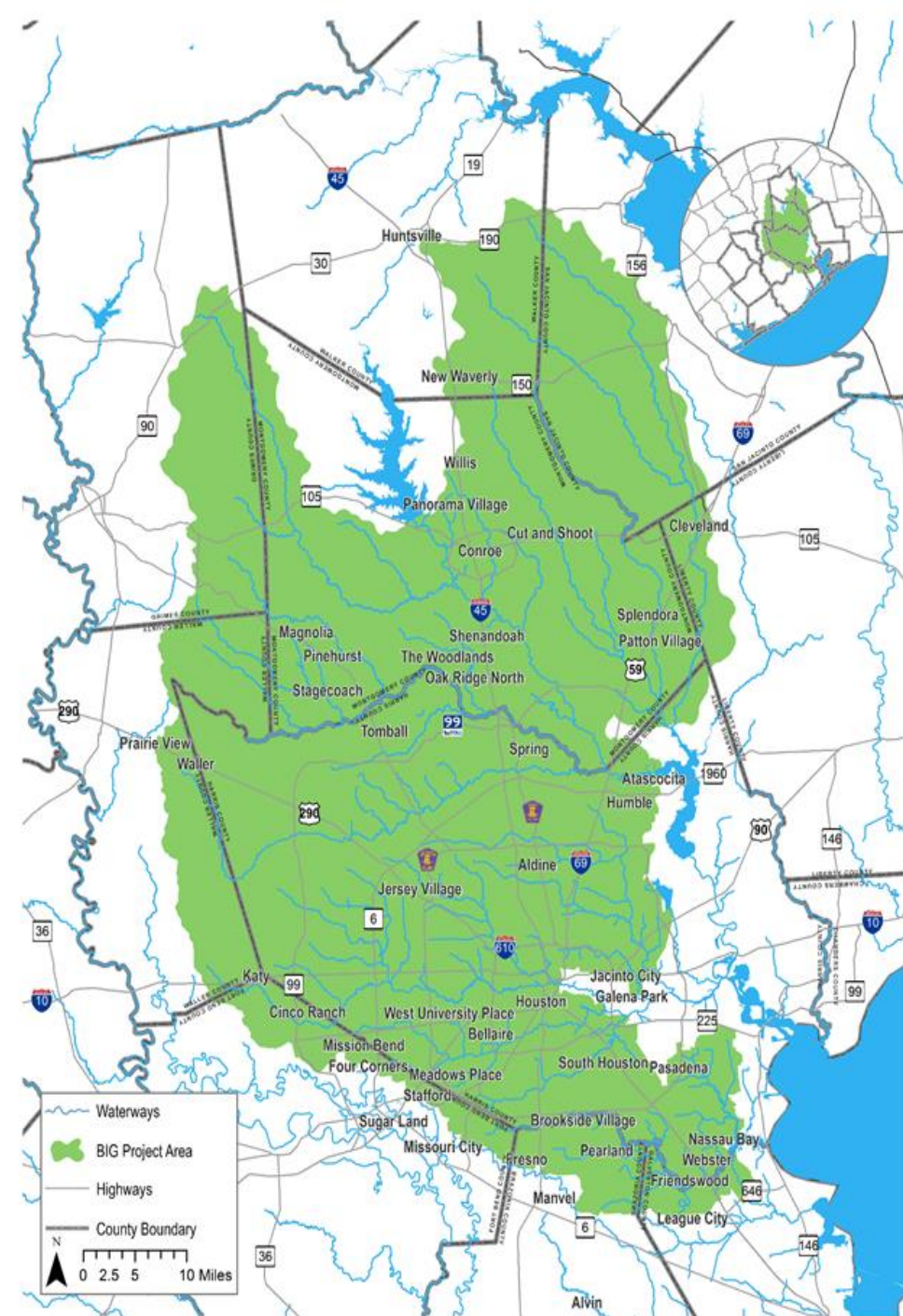
NEXT STEPS

- Draft 2019 report
(Sept. 1, 2019)
- Coord. & Policy Review
(Sept. 2019)
- BIG Fall Meeting
(October 29, 2019)



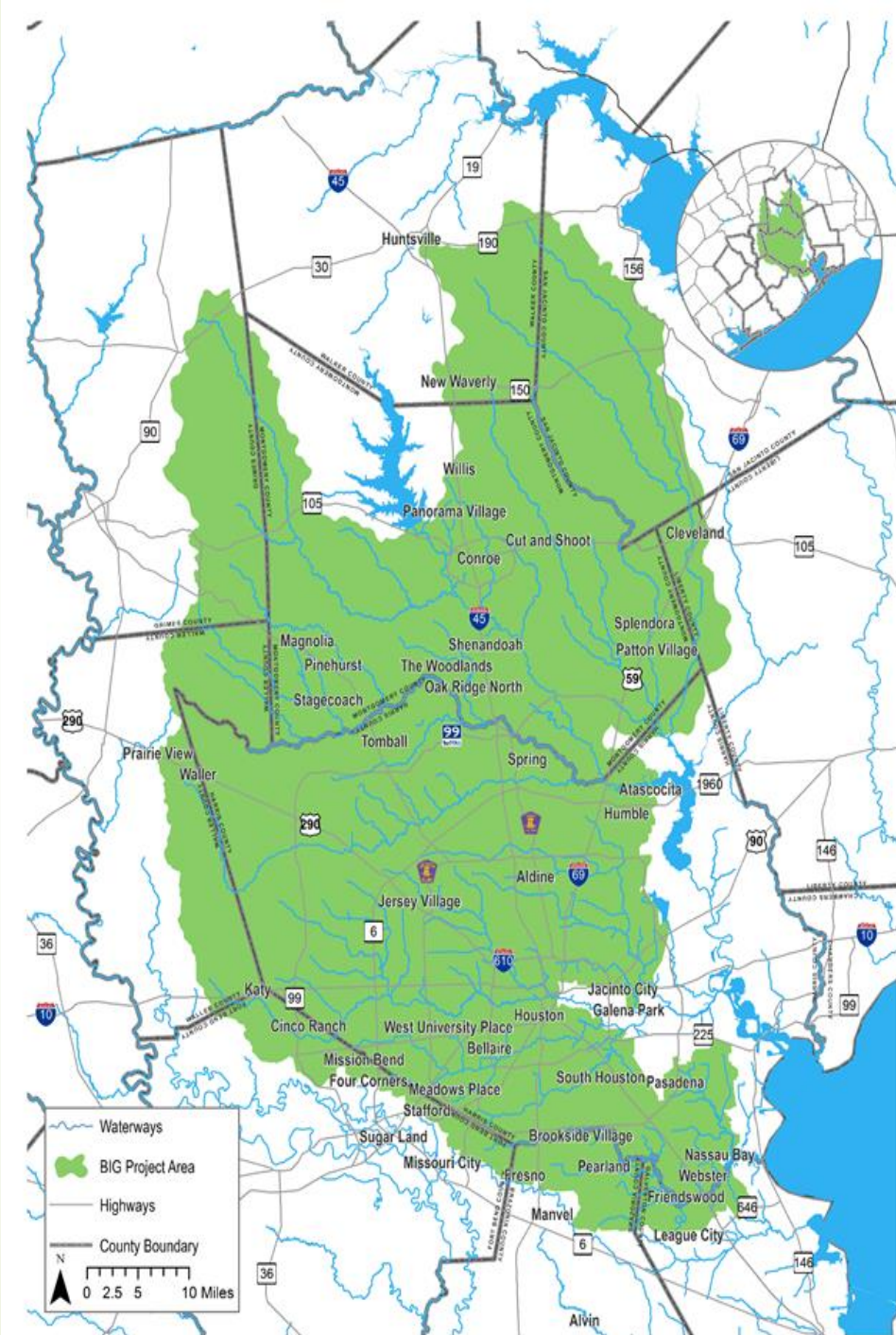
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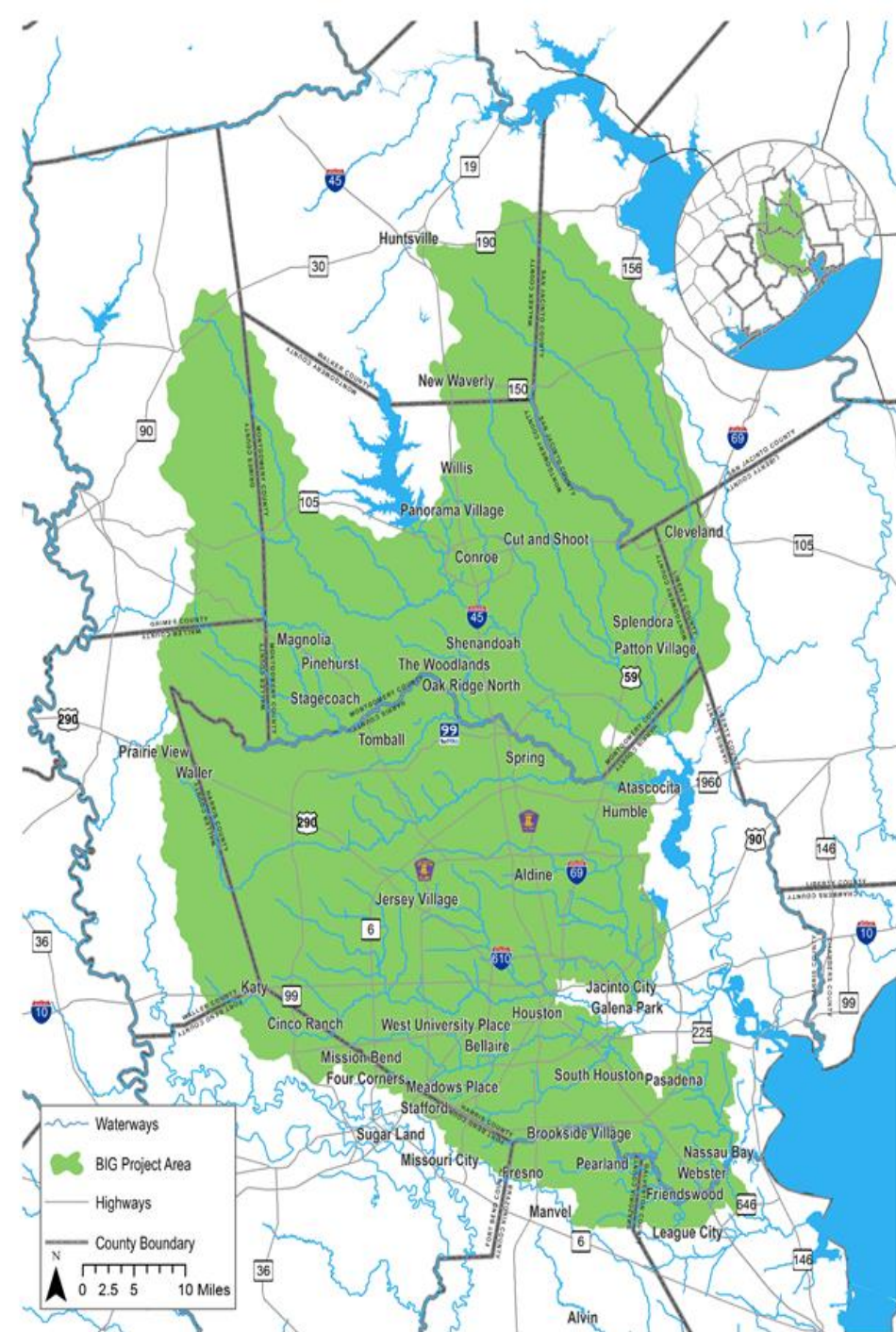
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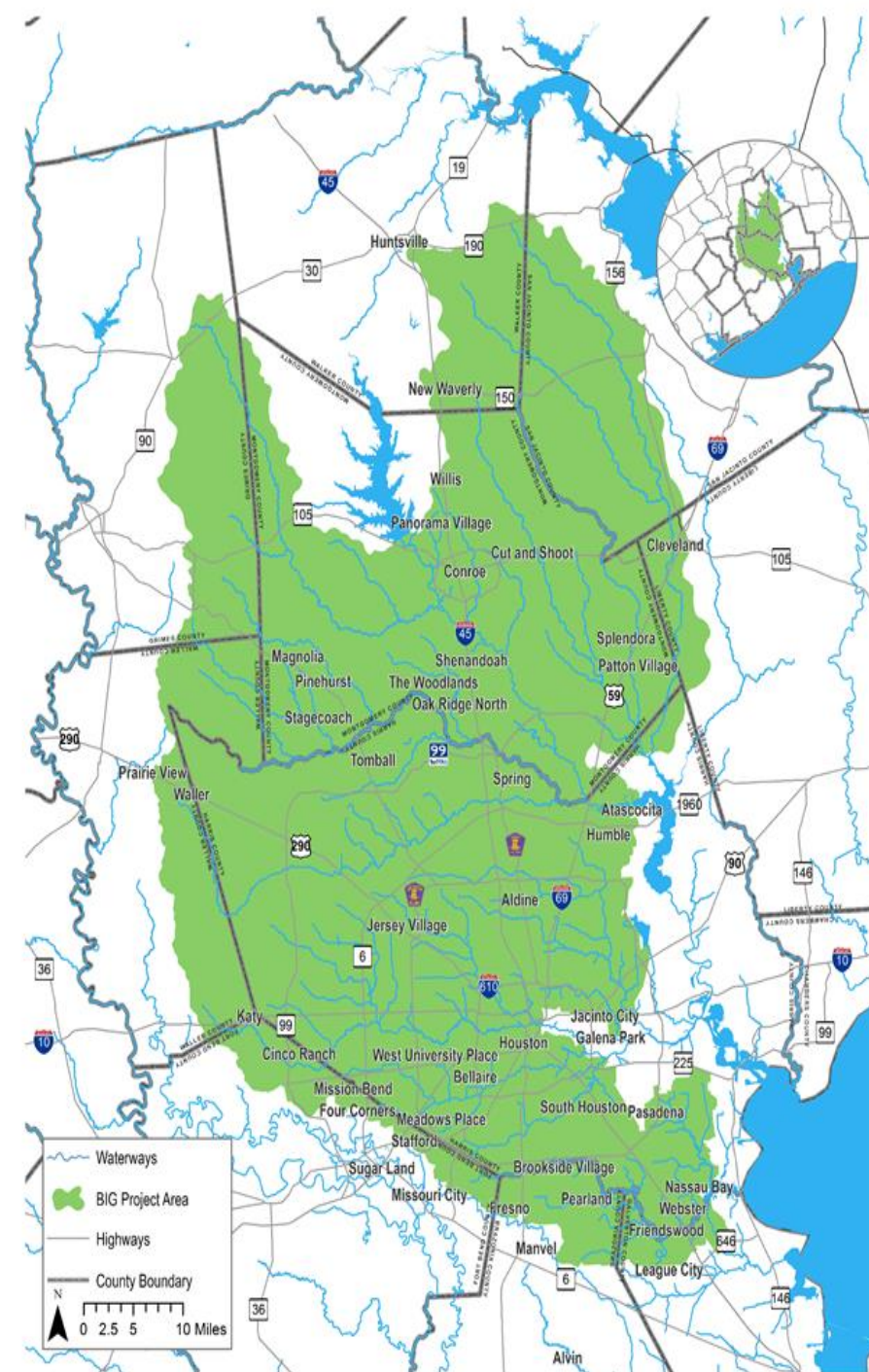
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 - **Mr. Justin Bower**
 - **Ms. Kathy Janhsen**
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- Item Two: TMDL Program Updates
- Item Three: Response to TCEQ Letter
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Up Coming Meetings

- ▶ 6/11 East and West Fork San Jacinto River CC Meeting – 10:00 AM (Houston Advanced Research Center)
- ▶ 6/12 Green Infrastructure for Texas – 1:00 PM (John Hargrove Environ. Center, Pearland, TX)
- ▶ 6/13 Basin 11 Leadership Forum – 10:00 AM (Nolan Ryan Center, ACC, Alvin, TX)
- ▶ 7/11 Caney Creek CC Meeting – 5:30 PM (Caney Creek Chapel, 2477 CR 297, Sargent, TX 77414)

ADJOURN

- Fall Meeting
 - October 29, 2019

Steven Johnston
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281-681-2579

