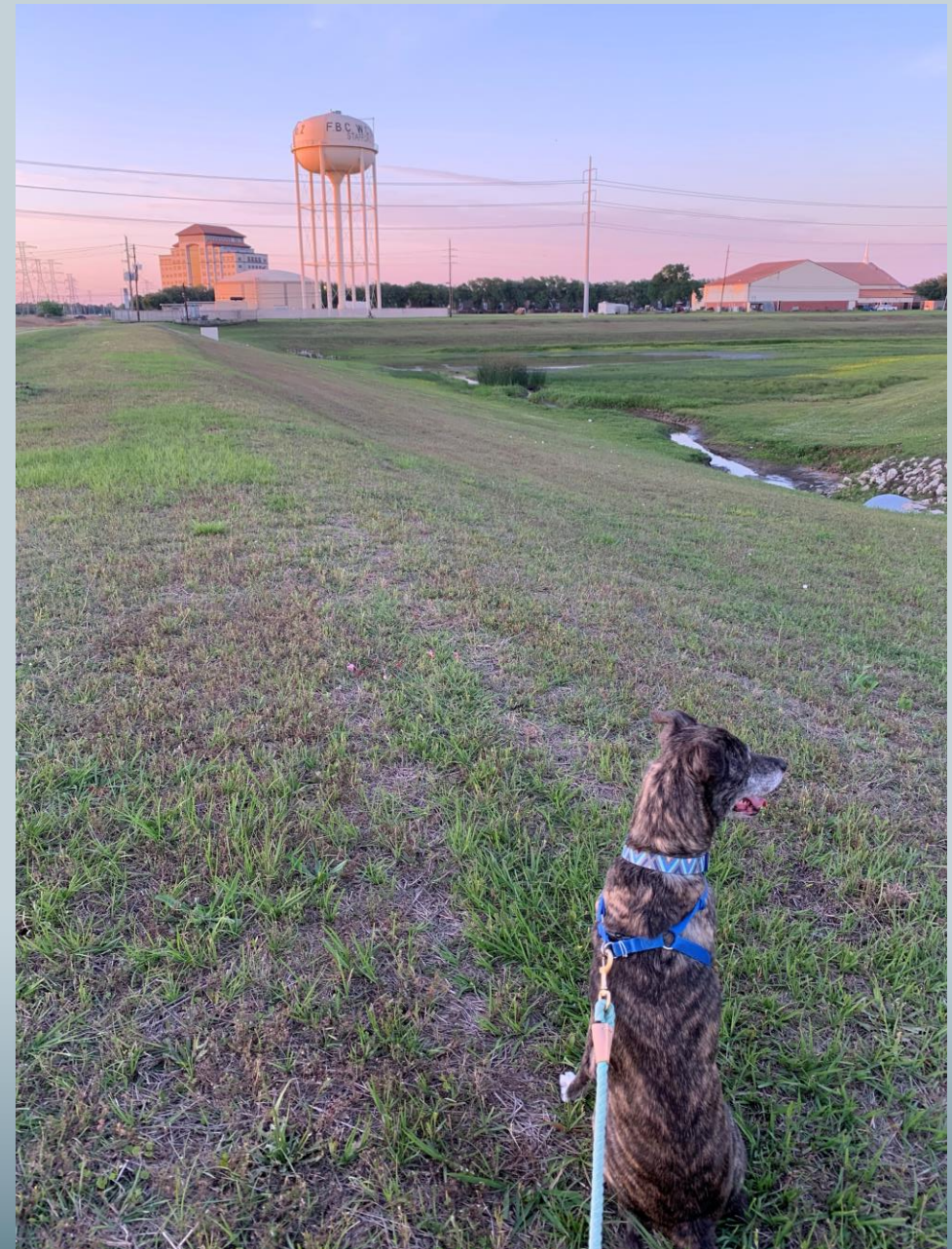




# BACTERIA IMPLEMENTATION GROUP

**Fall Meeting  
December 1, 2020**



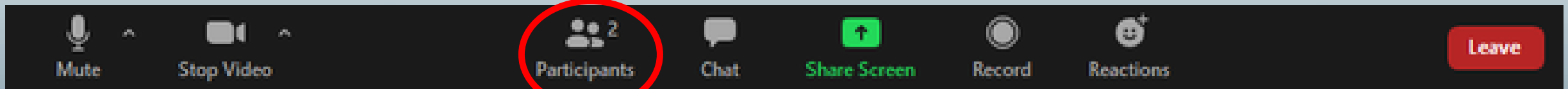
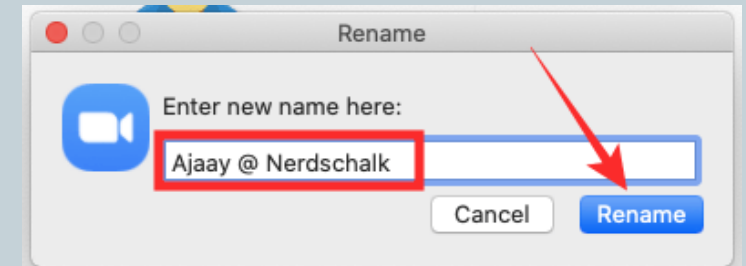
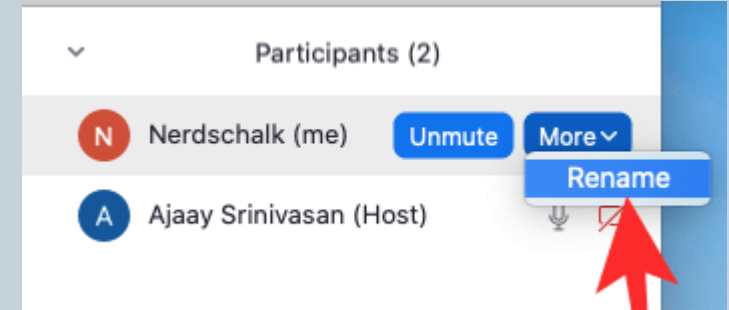
# Online Meeting Tips & Etiquette

- Mute yourself when not speaking
- Turn off your camera when not presenting
- Mute/unmute and video on/off in lower left corner of the screen
- Chat is on the bottom tool bar



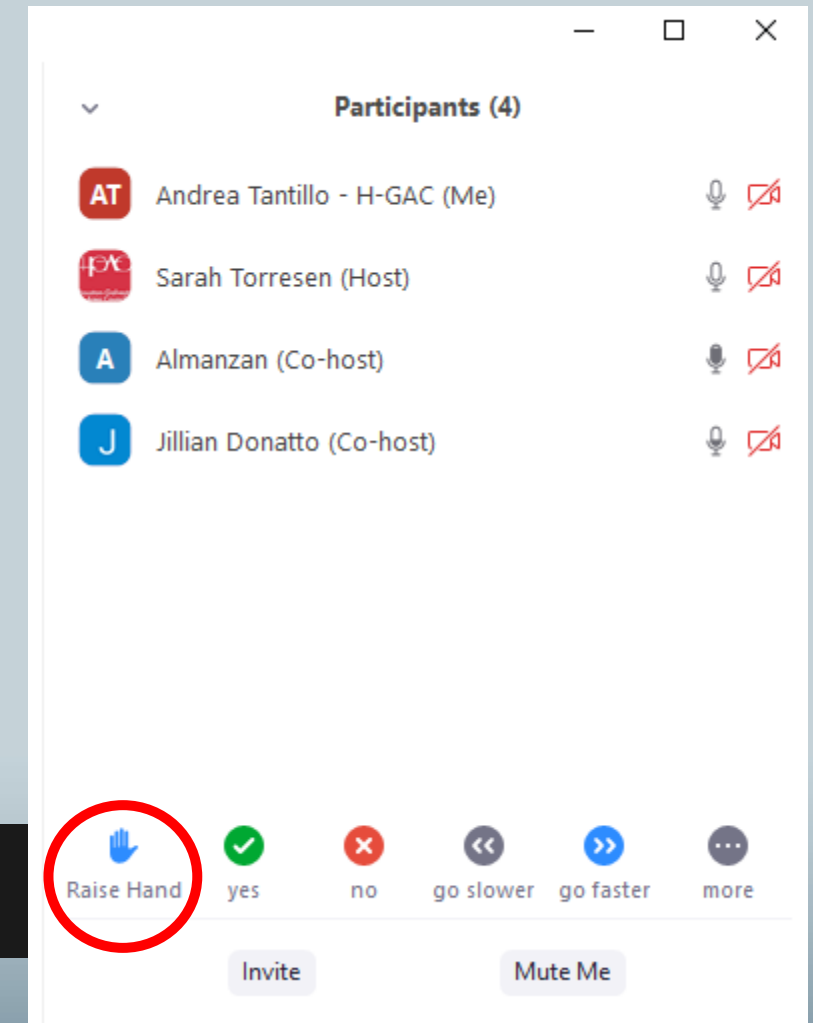
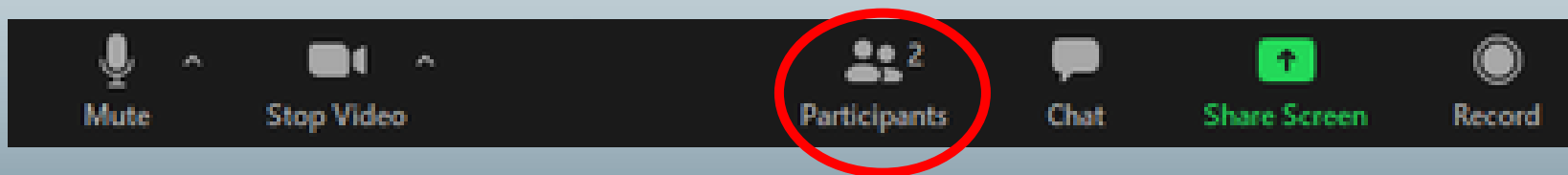
# Online Meeting Tips & Etiquette

- To change your name
  - Click on the Participants button
  - Hover over your name on the right side and click "More" the "Rename"
  - Enter the name you'd like to appear in the meeting and click "Ok"



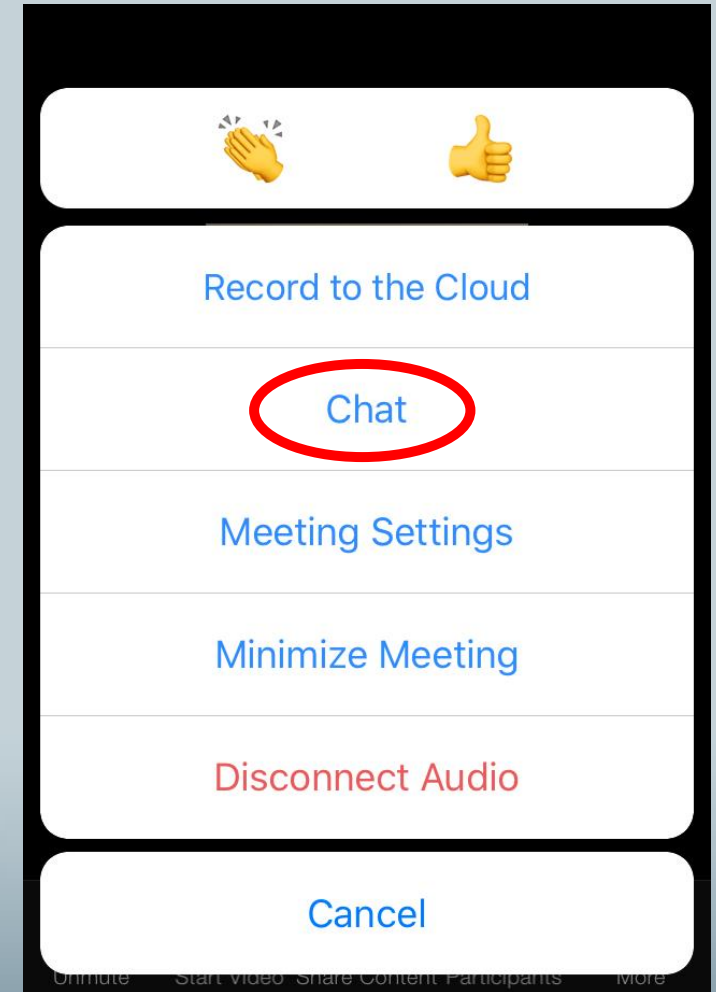
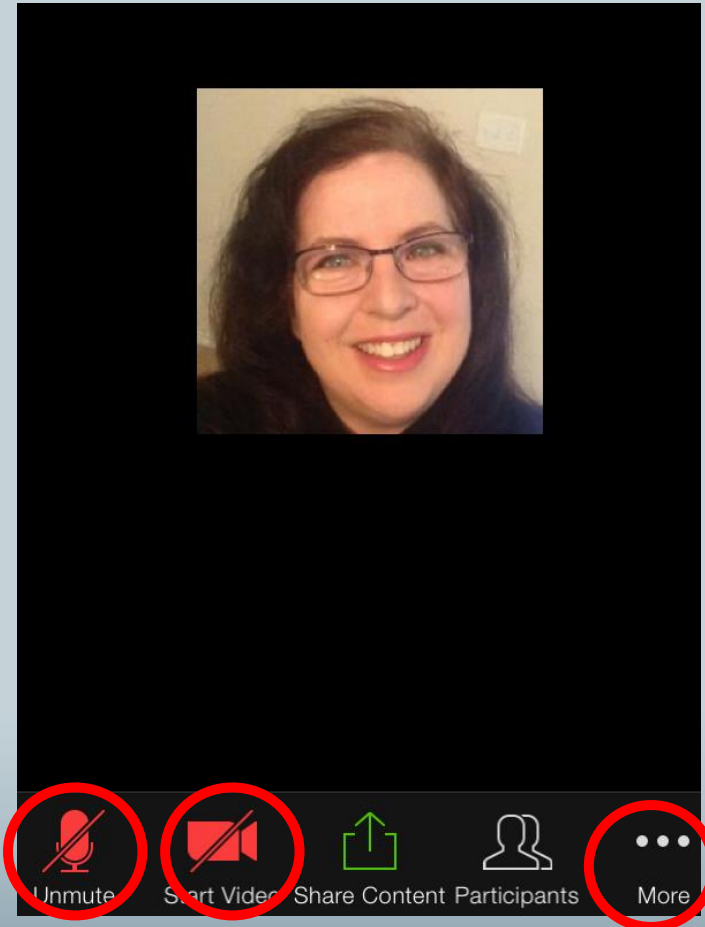
# Online Meeting Tips & Etiquette

- To raise your hand or answer questions
  - Click on the Participants button
  - Access those controls below the participants list



# I-Phone Tools

- Mute yourself when not speaking
- Mute/unmute and video on/off in lower left corner of the screen
- Access chat using the 3 dots at the bottom of the screen

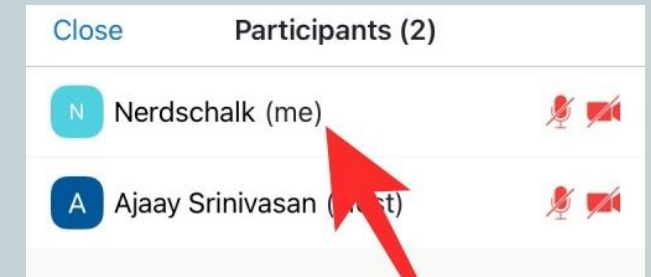
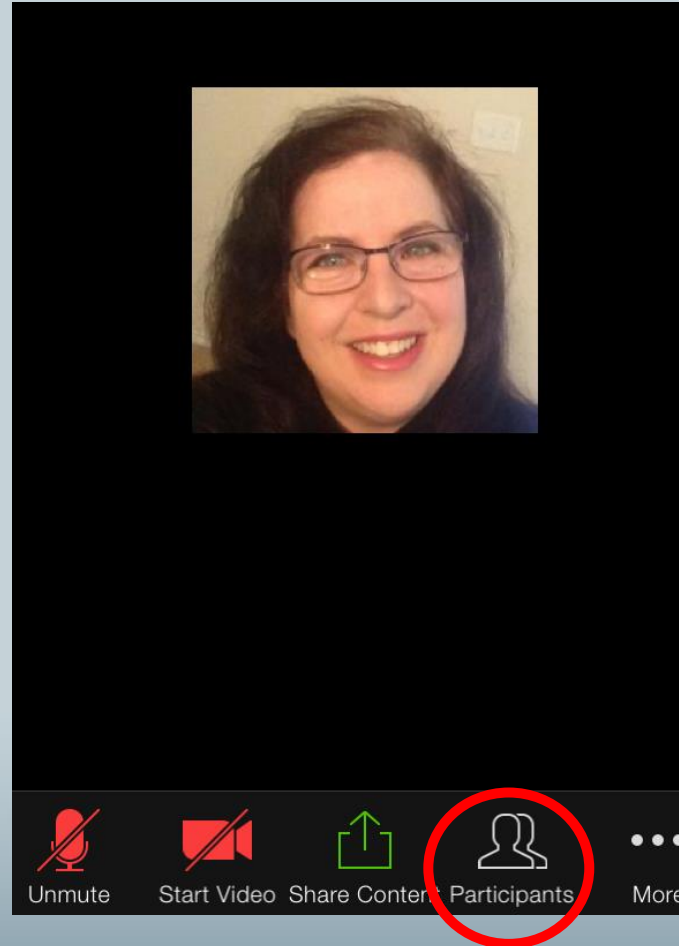




# I-Phone Tools

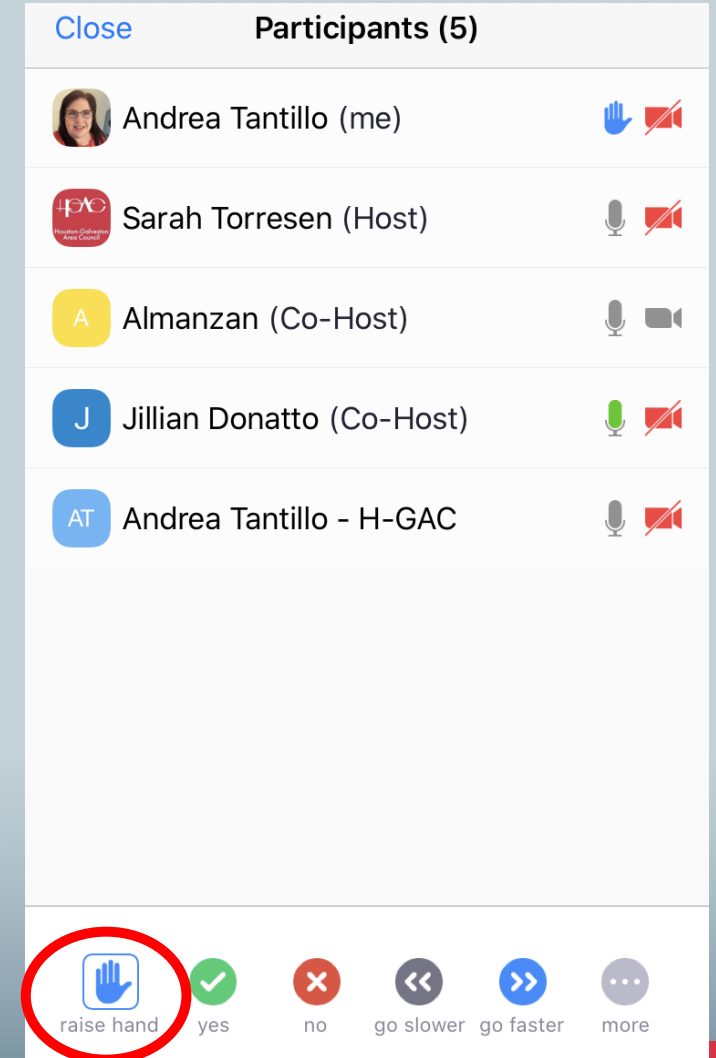
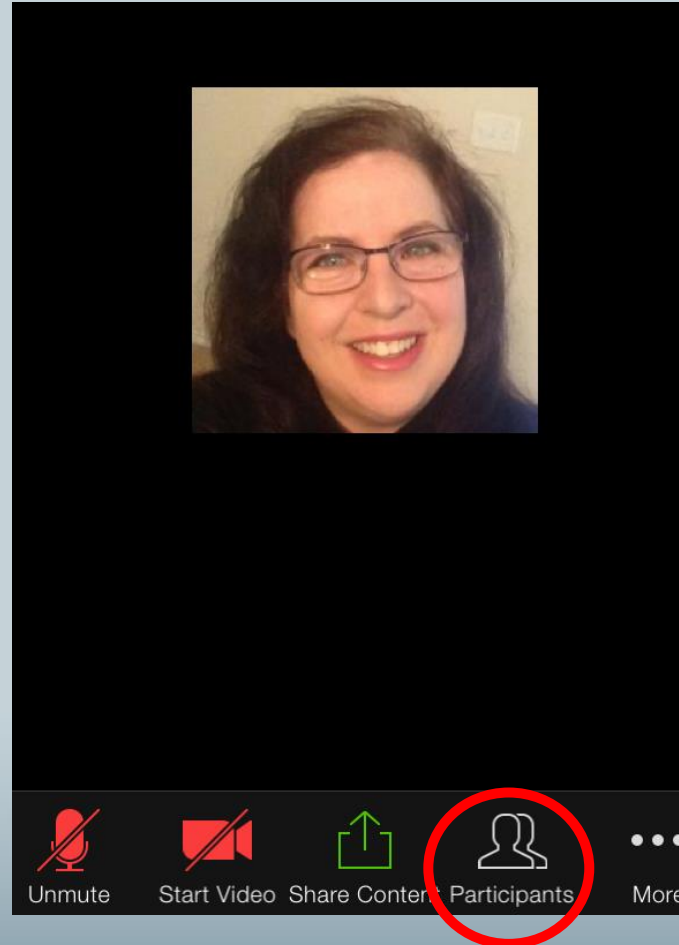
## ■ Change Your Name

- Participants Button
- Click on your name
- Click on "Rename"
- Change to the name you want to appear on Zoom
- Click "Done"



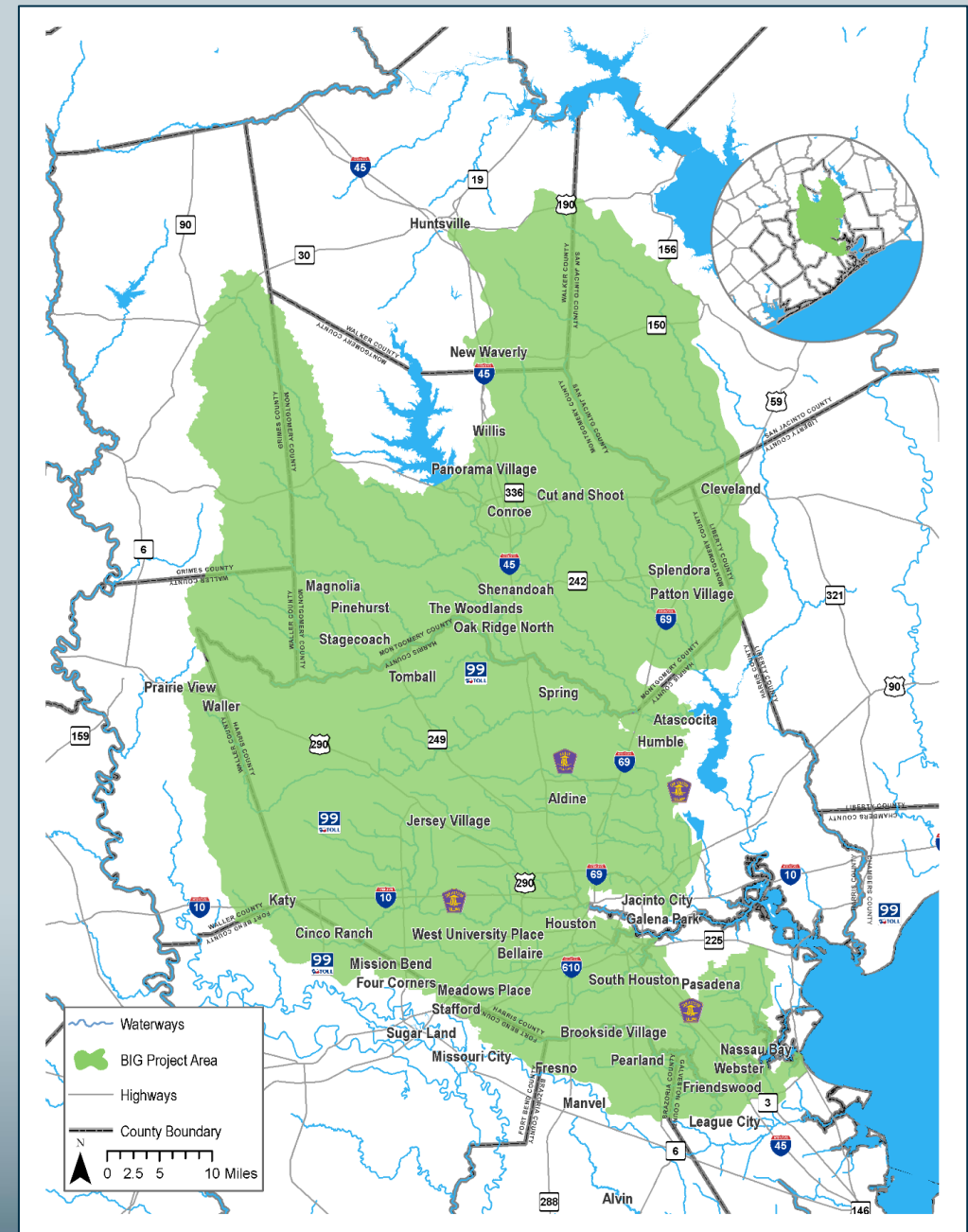
# I-Phone Tools

- Raise Your Hand
  - Participants Button
  - Controls Below List



# AGENDA

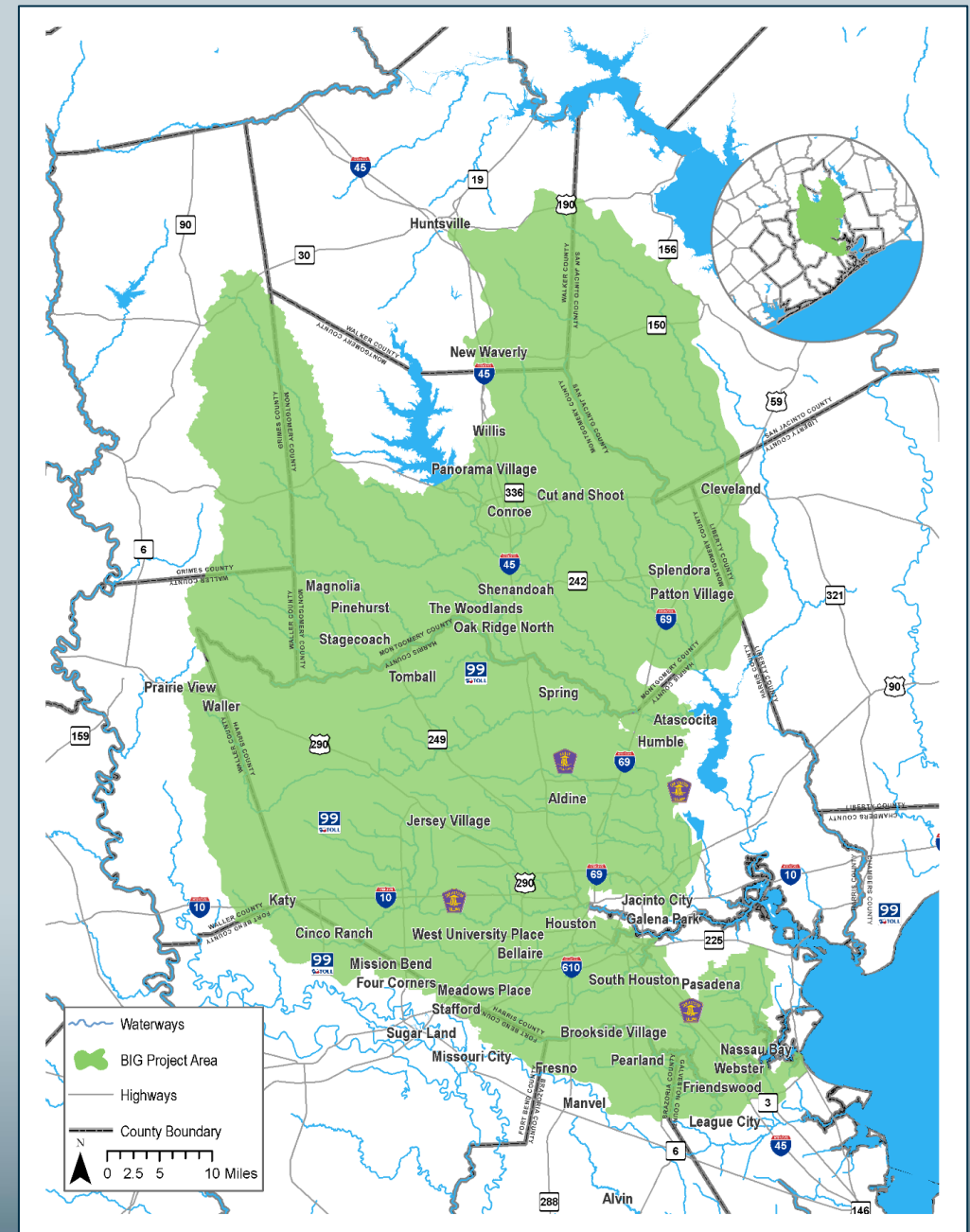
- **Call to Order/Introductions**
- **Quorum Certification**
- **Review and Approve Changes to the BIG Roster**
- **Review and Approve Minutes**
- **Public Comment**
- **Item One:** I-Plan Revision Update
- **Item Two:** 2020 Annual Report
- **Item Three:** TMDL Program Update
- **Item Four:** Implementation Project Presentations
- **Item Five:** Other Business
- **Adjourn**





# AGENDA

- Call to Order/Introductions
- Quorum Certification
- Review and Approve Changes to the **BIG Roster**
- Review and Approve Minutes
- Public Comment
- Item One: I-Plan Revision Update
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- Adjourn



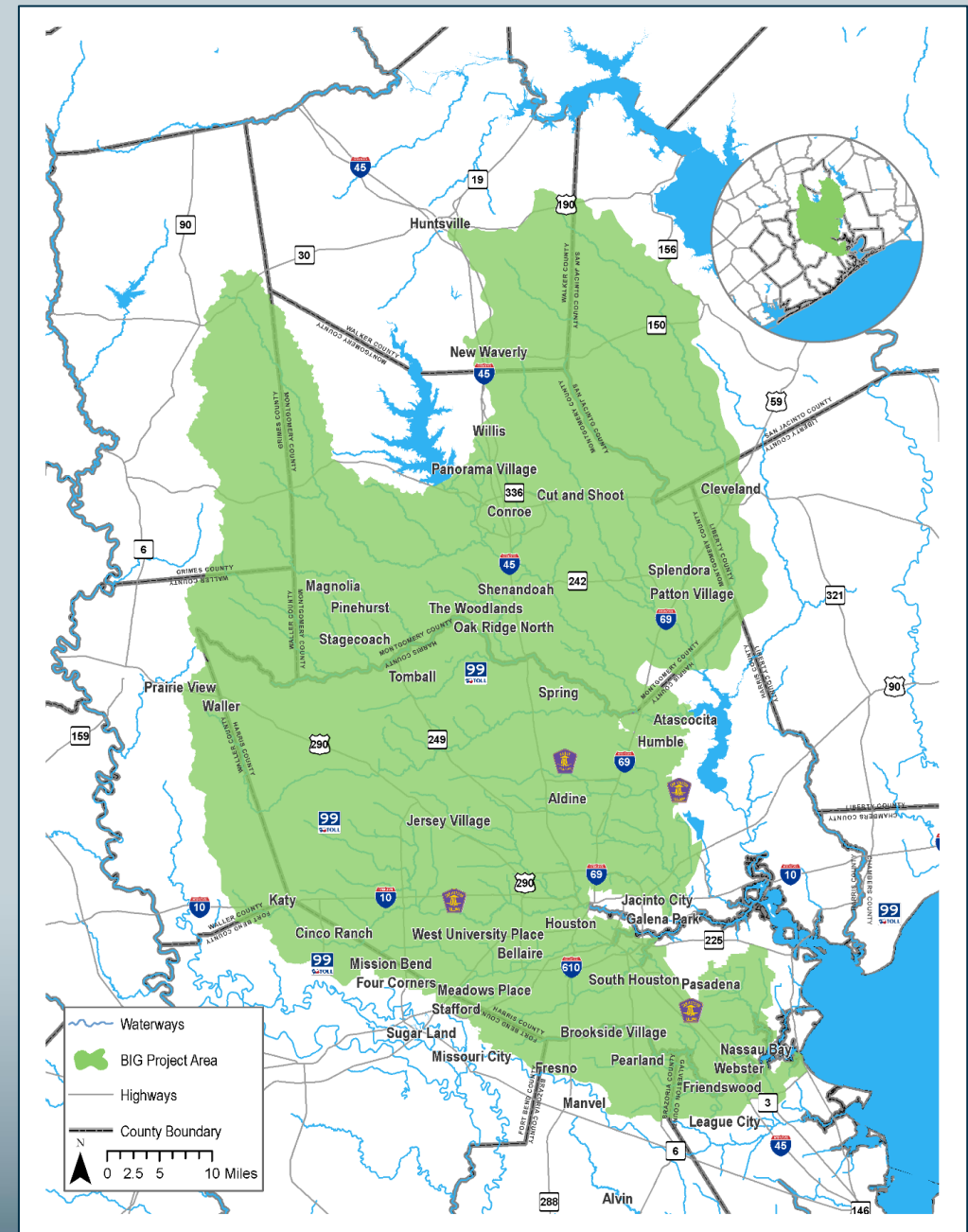
# ROSTER UPDATES

- **BIG Membership**
  - **Shane Simpson**  
(Business/Industry) San Jacinto River Authority
- **Alternates**
  - **Aaron Schindewolf**  
(Business/Industry) San Jacinto River Authority



# AGENDA

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# I-Plan Revision Update

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- Work Group Review
- Update to Map/Data Revisions
- Timeline





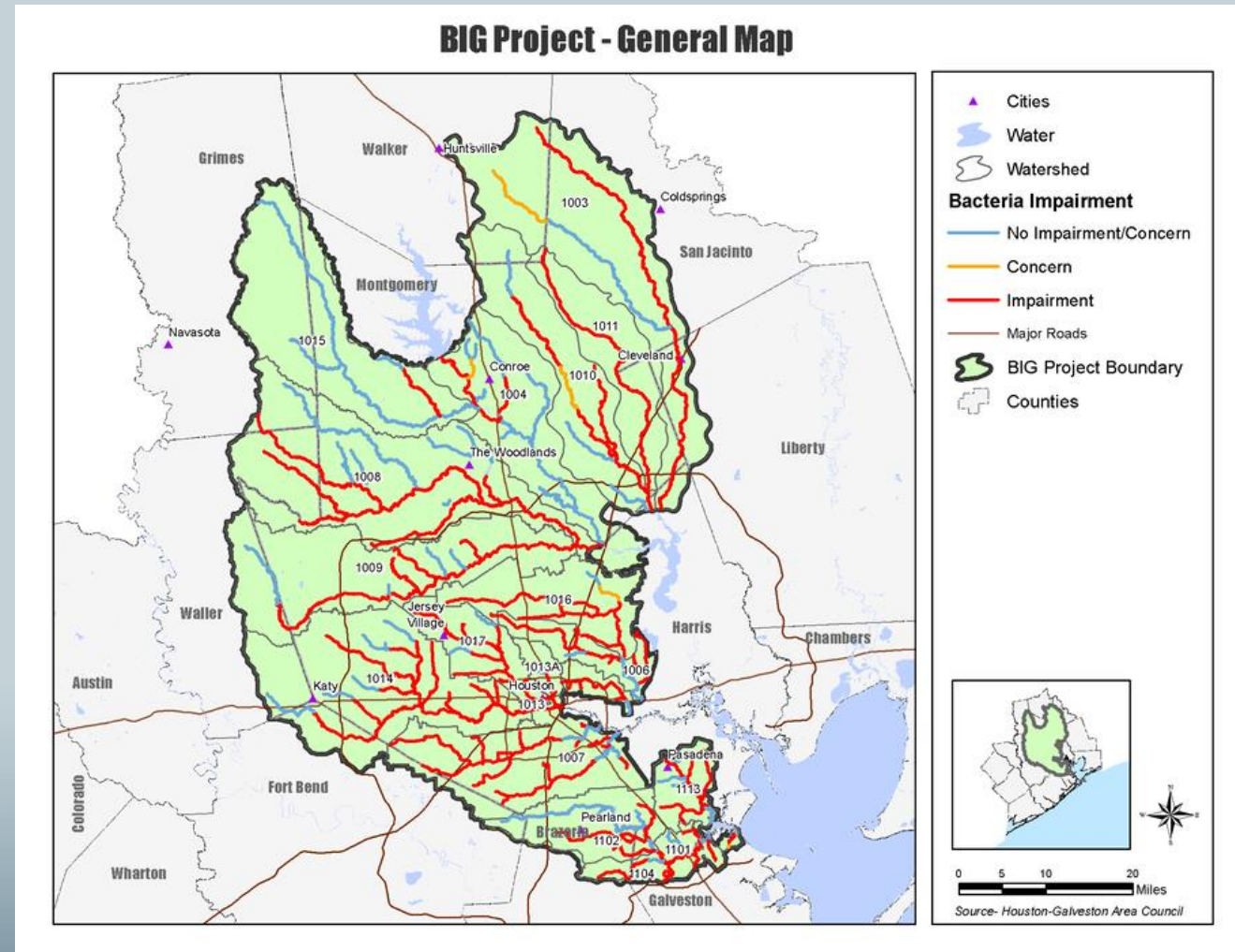
# Work Group Review

- WWTF/SSS Work Group
- Stormwater Work Group
- OSSF/Illicit Discharge Work Group
- Animals and Agriculture Work Group



# I-Plan Map/Data Revisions

- Revising All Maps
- Revising All Data Tables
- Focus – 2019 endpoint
- Comparisons 2013 to 2019
- AU and Segment Level – Geographic Focus
- Include Socio/Economic Data where appropriate

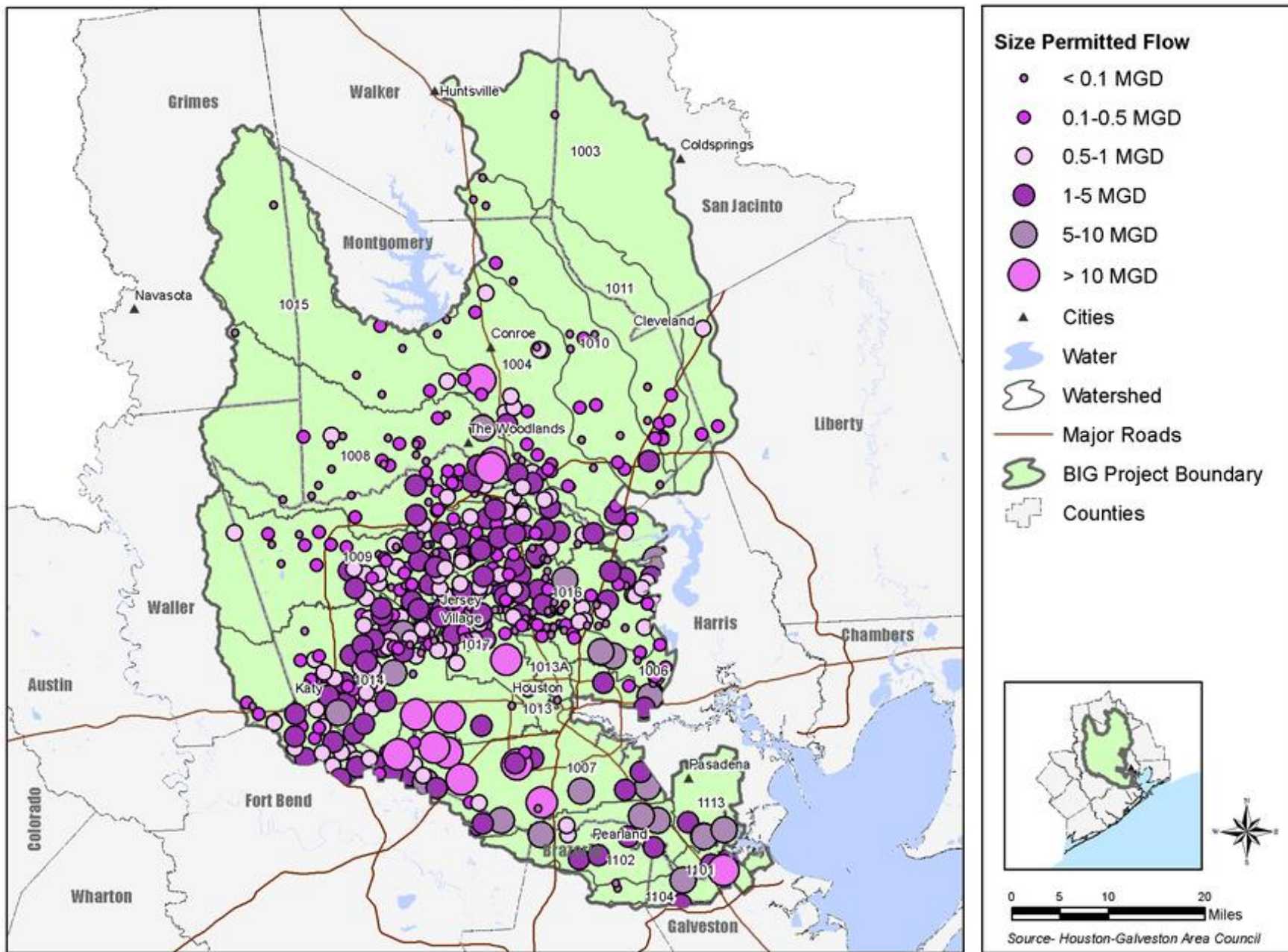


# WWTF Data

type	Number
Permittees in TCEQ Outfall Layer	636
Permittees in EPA Registry	630
Permittees Submitting DMR Data (any type)	540
Permittees Submitting DMR Bacteria Data	523



# BIG Project- WWTF Outfalls Map - Size Permitted Flow



# WWTF Data

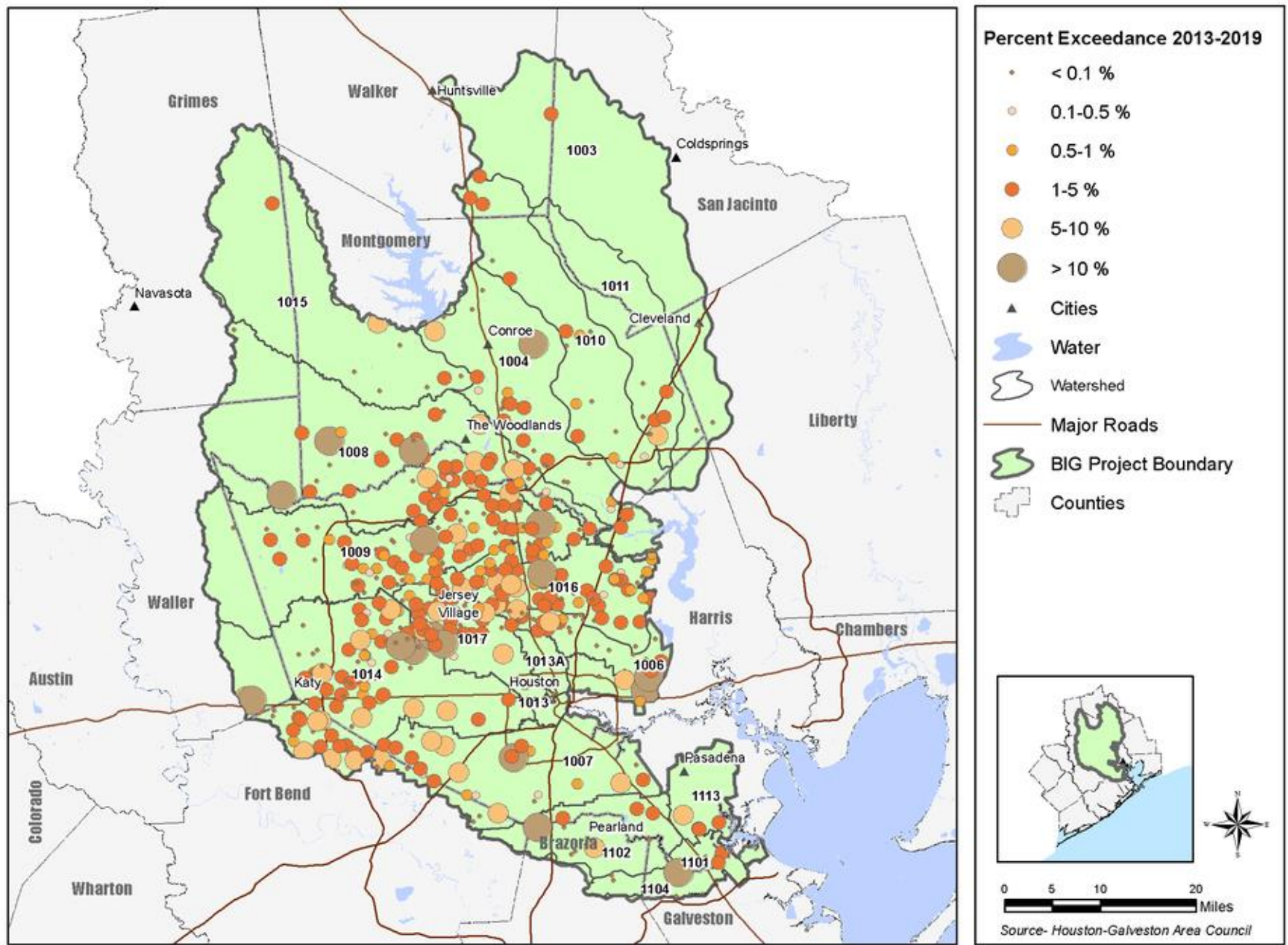
<b>Variable</b>	<b>Geometric Mean</b>	<b>Daily Maximum or Grab Sample</b>
Total Results Reported	5060	5160
Total Exceeding Limit	33	164
Percent Exceedance	0.652174	3.178295



# WWTF Data

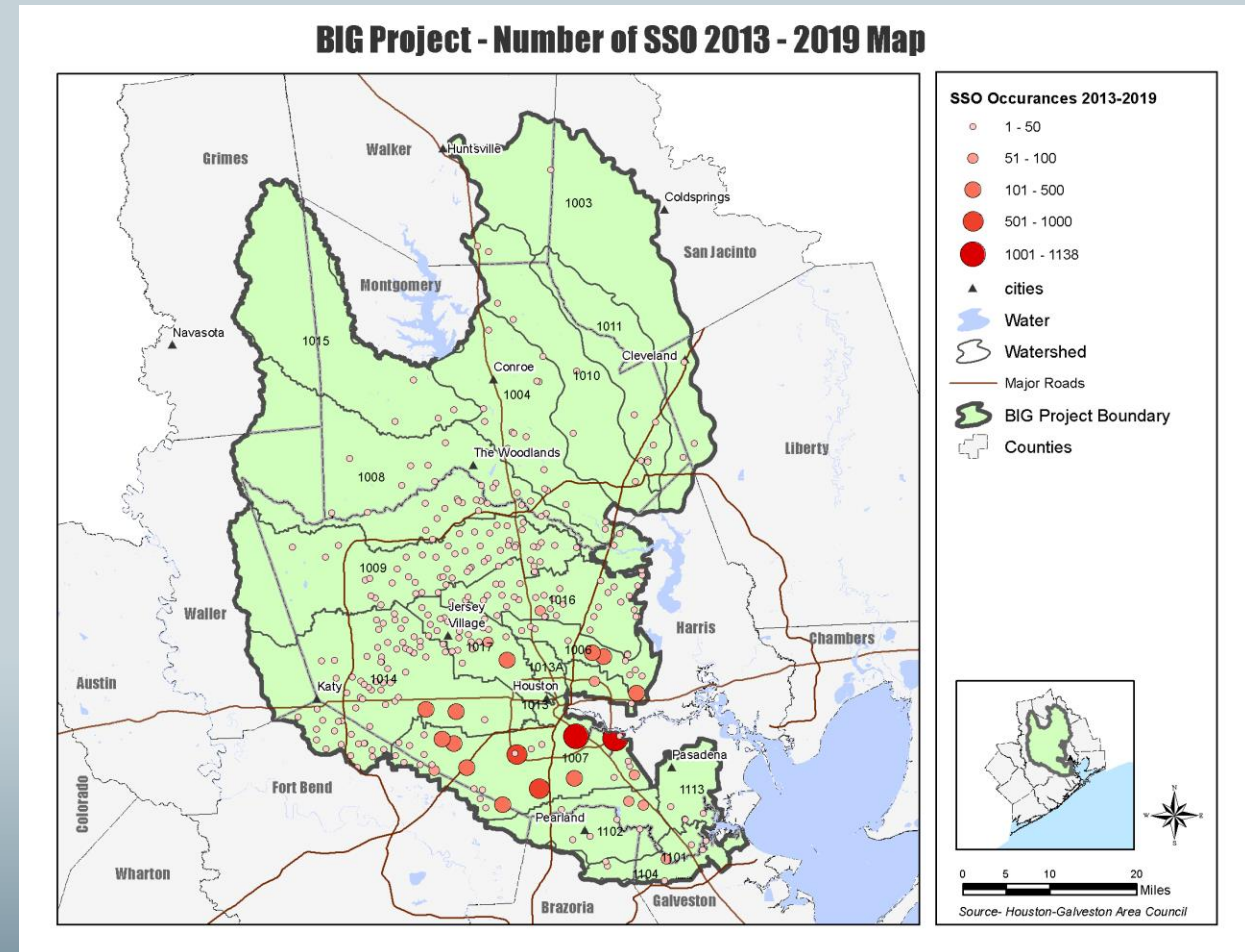
Relative Plant size	number_plants	Geometric Mean	Daily Maximum or Grab Sample
0.1-0.5 MGD	148	0.7	1.8
0.5-1 MGD	81	0.3	2.1
1-5 MGD	8	.	4.2
5-10 MGD	1	.	6.3
< 0.1 MGD	157	1.6	2.6
Variable/Intermittent Discharge	133	0.3	5.6

# BIG Project- WWTF Outfalls Map Percent Exceedance 2013 - 2019

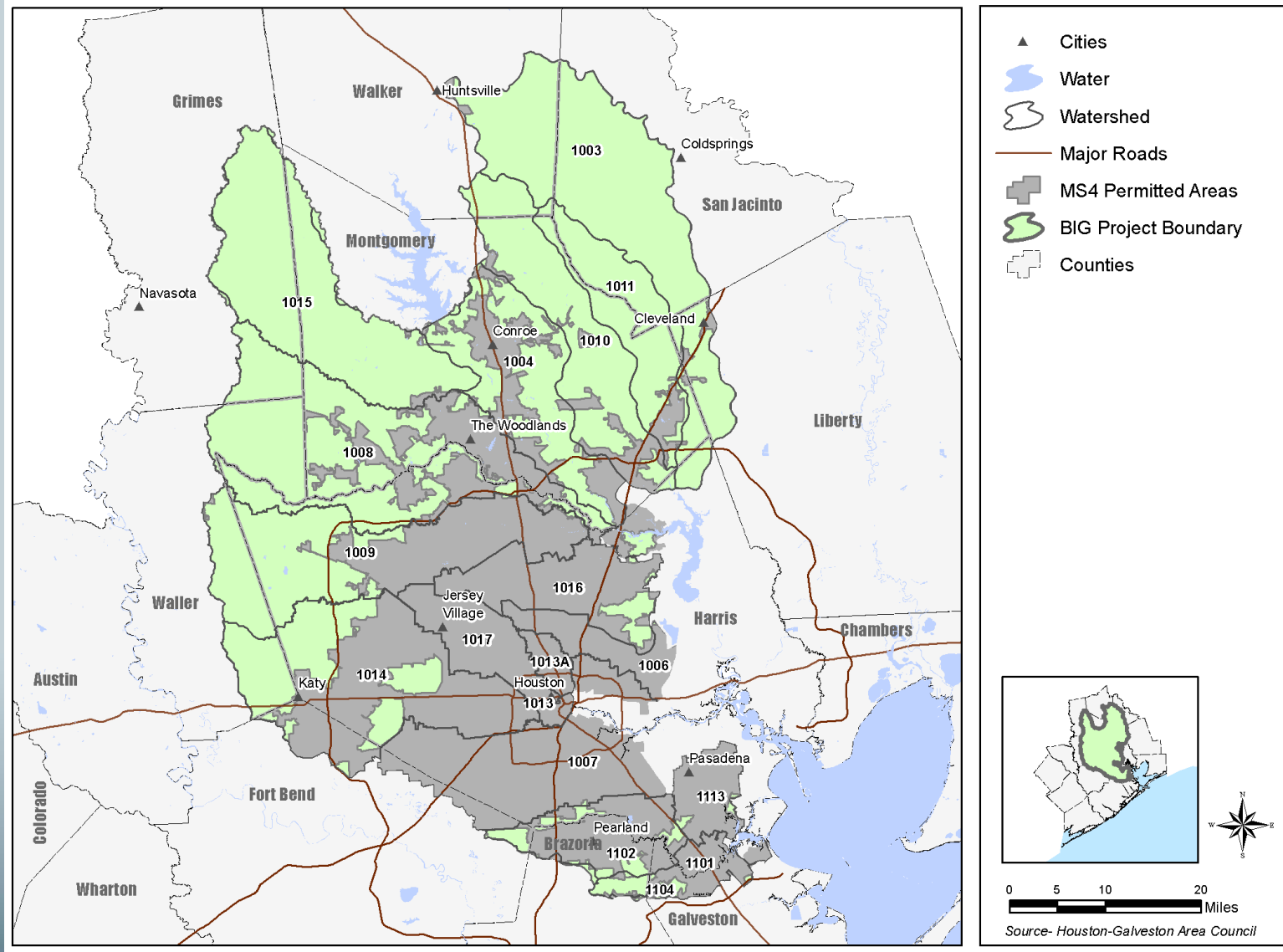


# Sanitary Sewer Overflow Data

Year	Number of SSOs Reported	Estimated Volume (Thousand Gallons)
2011	1338	821
2012	716	1,179
2013	782	1,637
2014	923	2,264
2015	1070	4,176
2016	1148	2,308
2017	1792	13,819
2018	1053	1,561
2019	767	14,439

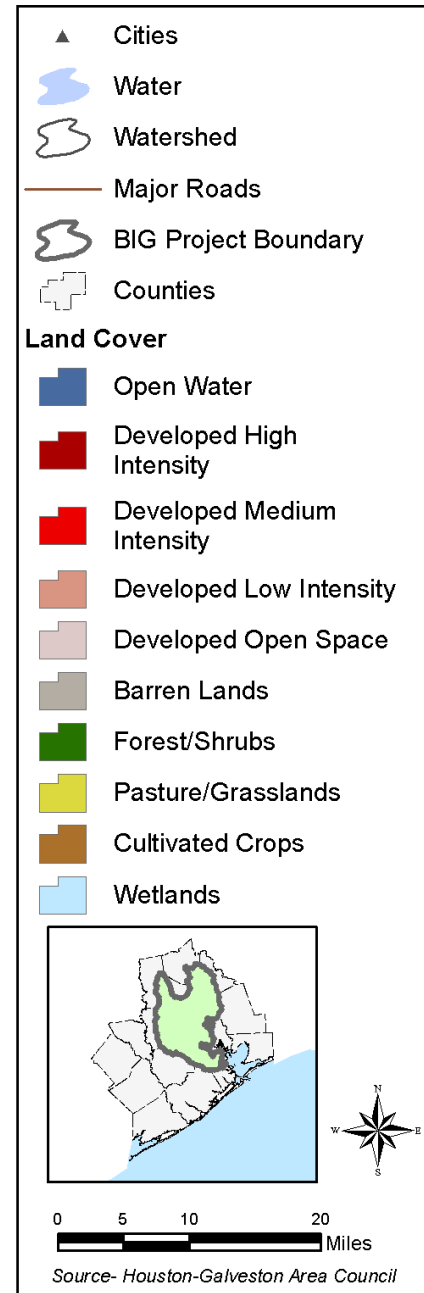
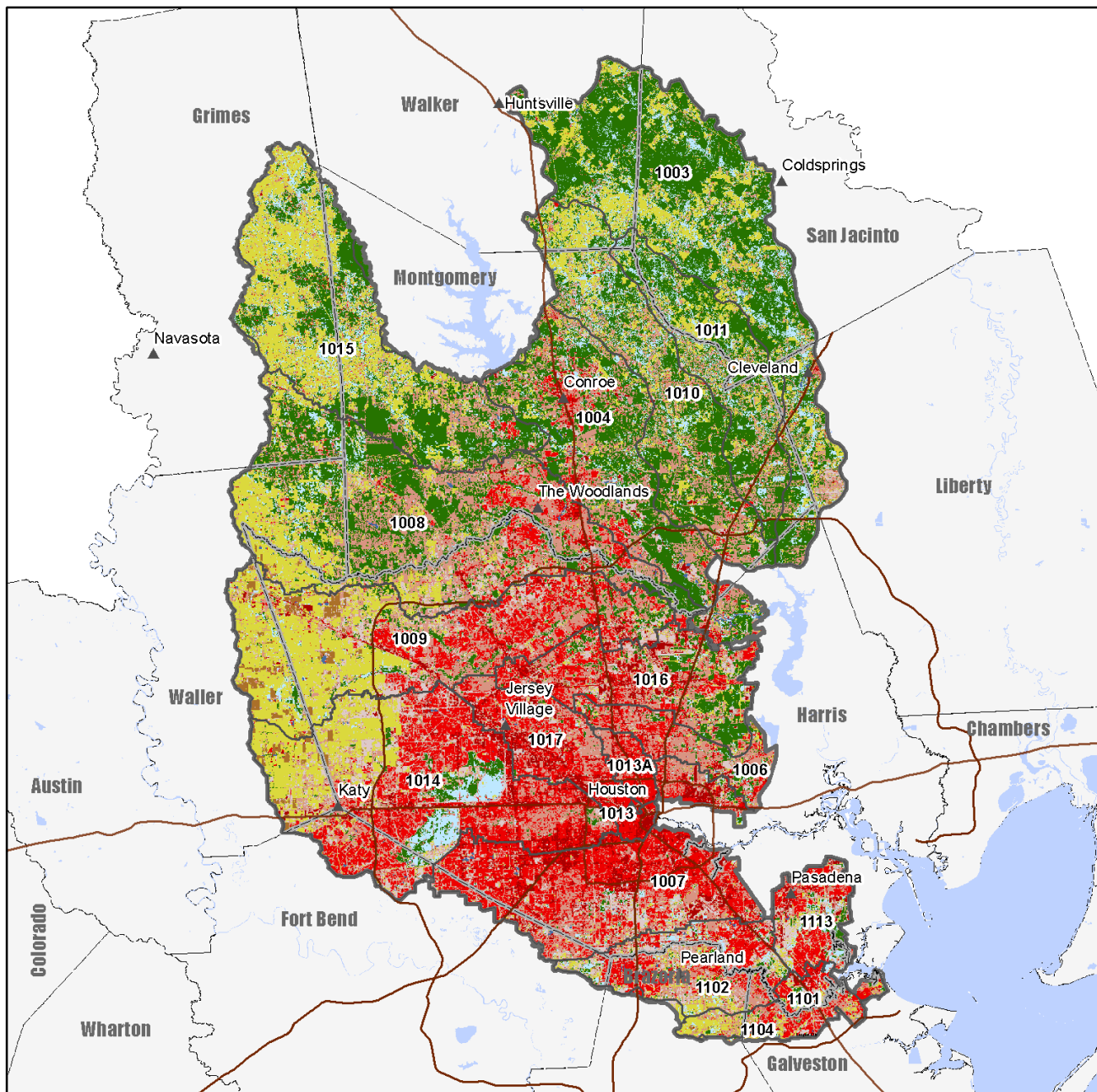


# Urbanized Area Under Stormwater Permit





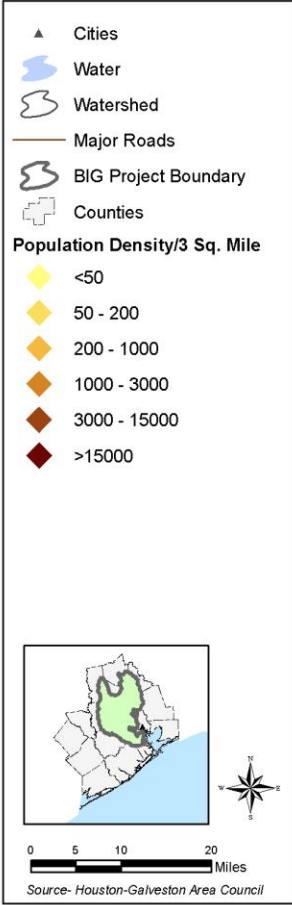
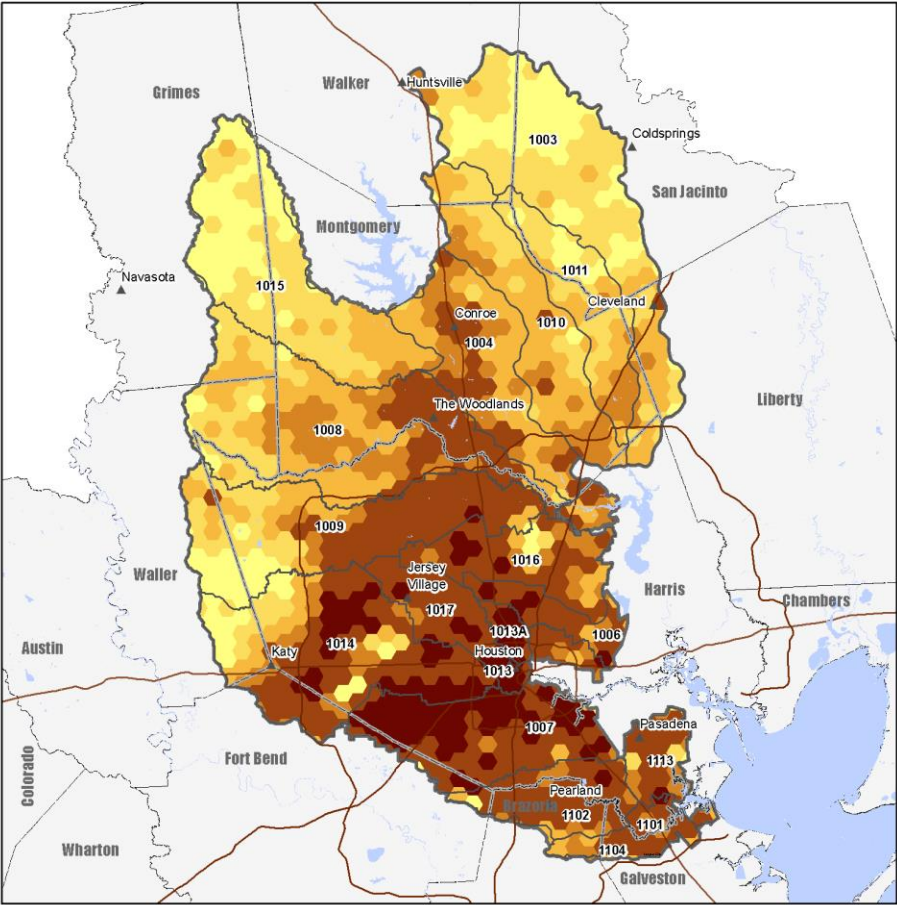
# BIG Project - Land Cover



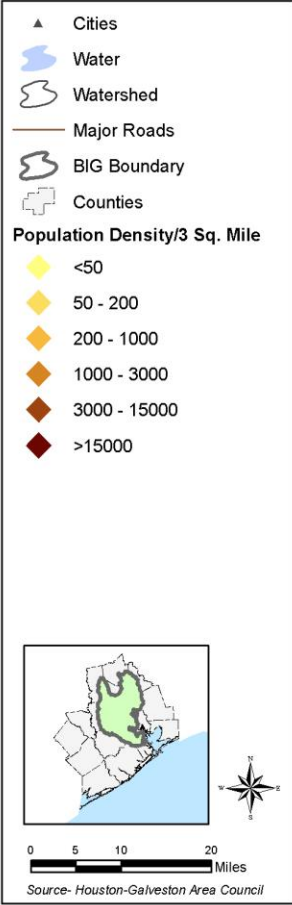
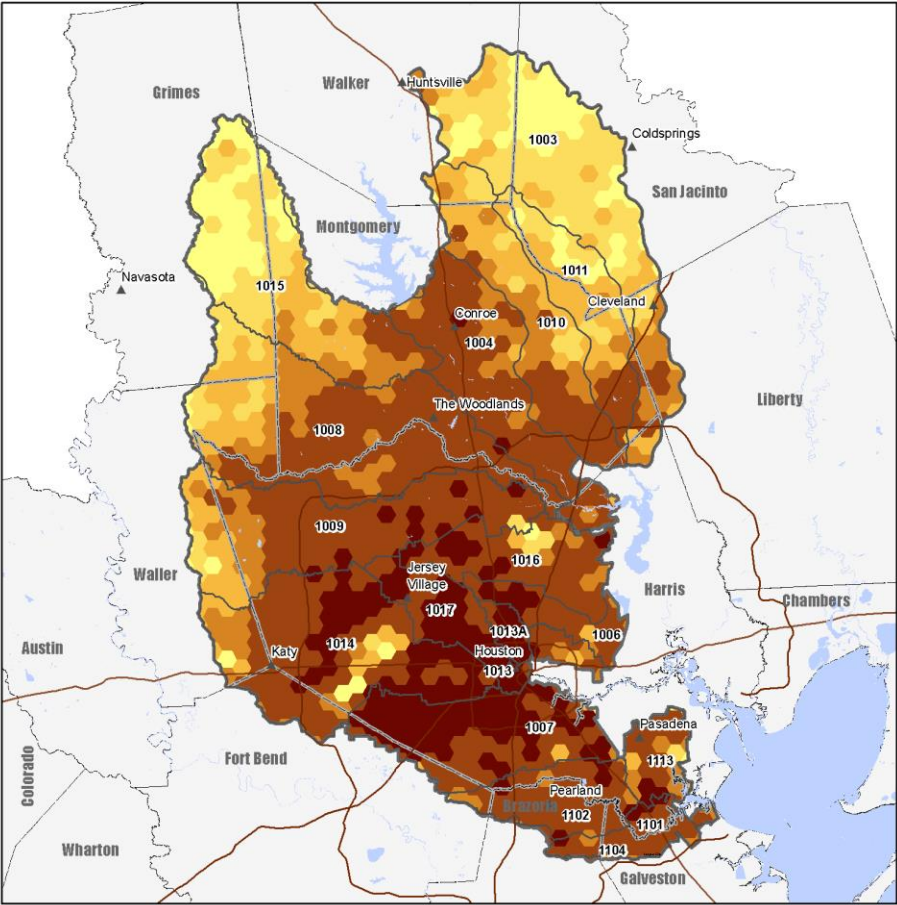


# Population 2019 - 2050

**BIG Project - Population Density 2019**



**BIG Project - Population Density 2050**



# BIG Project - Development Pressure



- ▲ Cities
- Water
- Watershed
- Major Roads
- BIG Project Boundary
- Counties

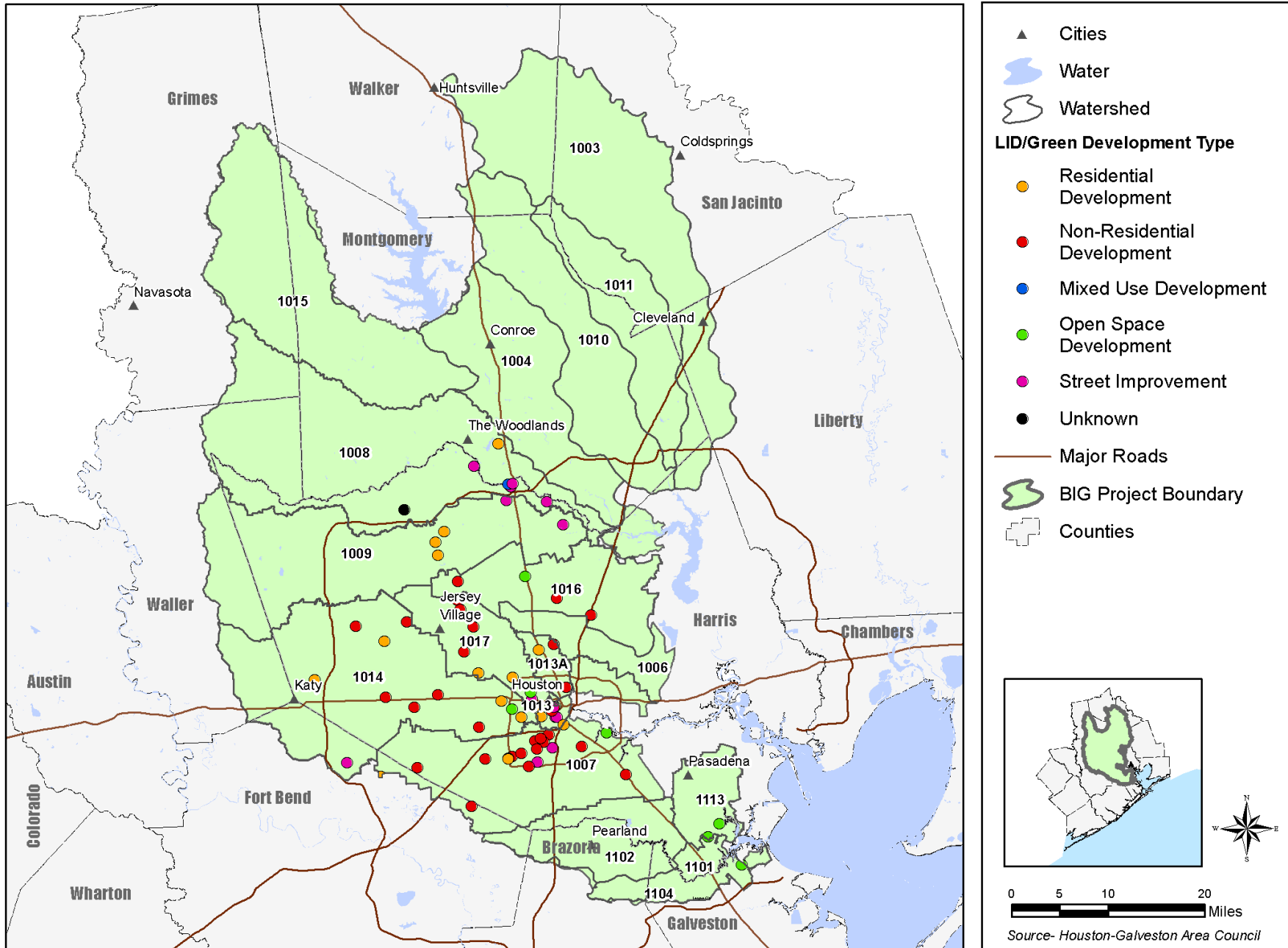
**Development Change**

- Low Development to High Development
- No Development to Open Development
- No Development to Low Development
- No Development to Medium Development
- No Development to High Development

0 5 10 20 Miles

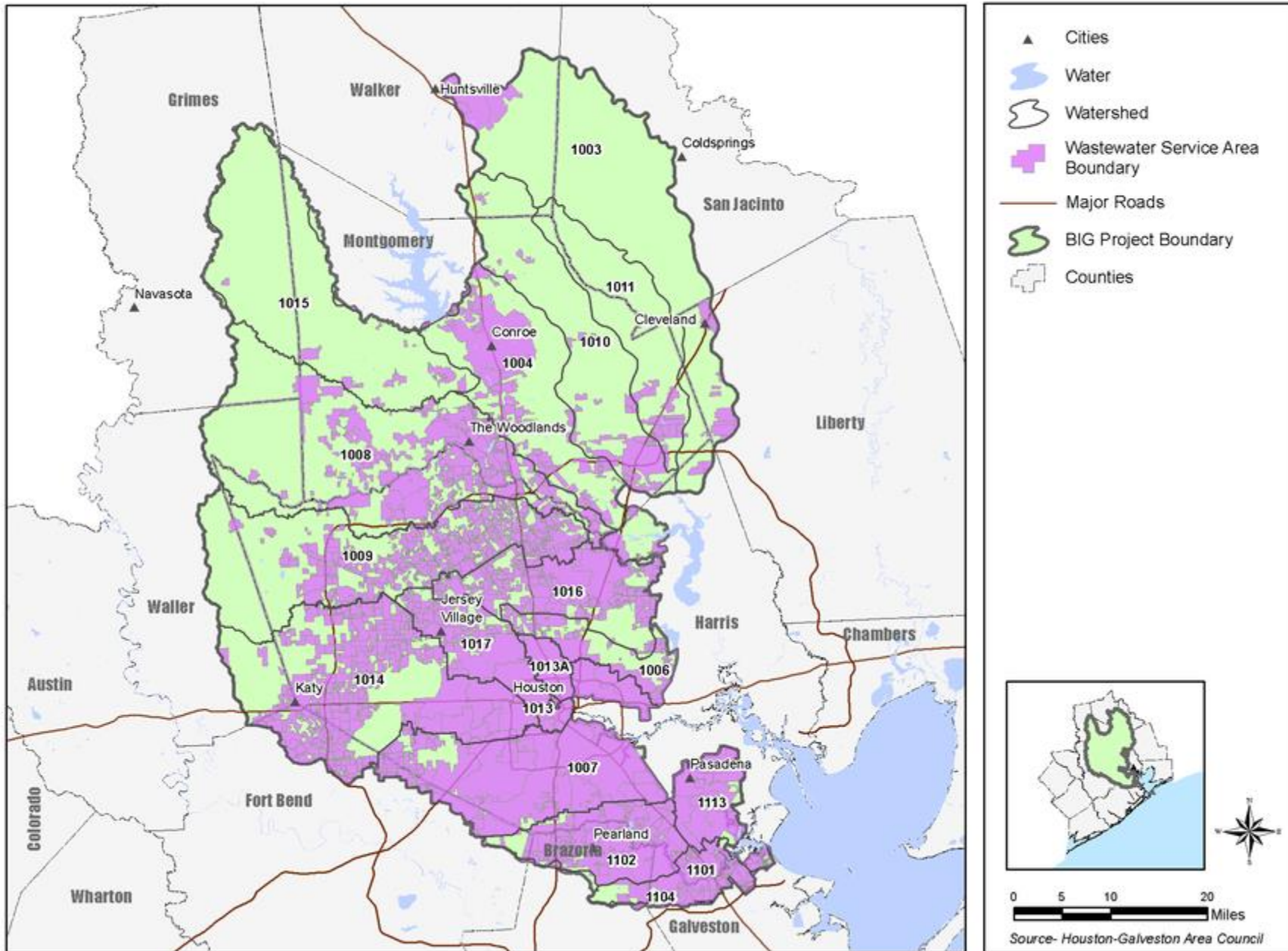
Source- Houston-Galveston Area Council

# BIG Project - LID/ Green Infrastructure Projects

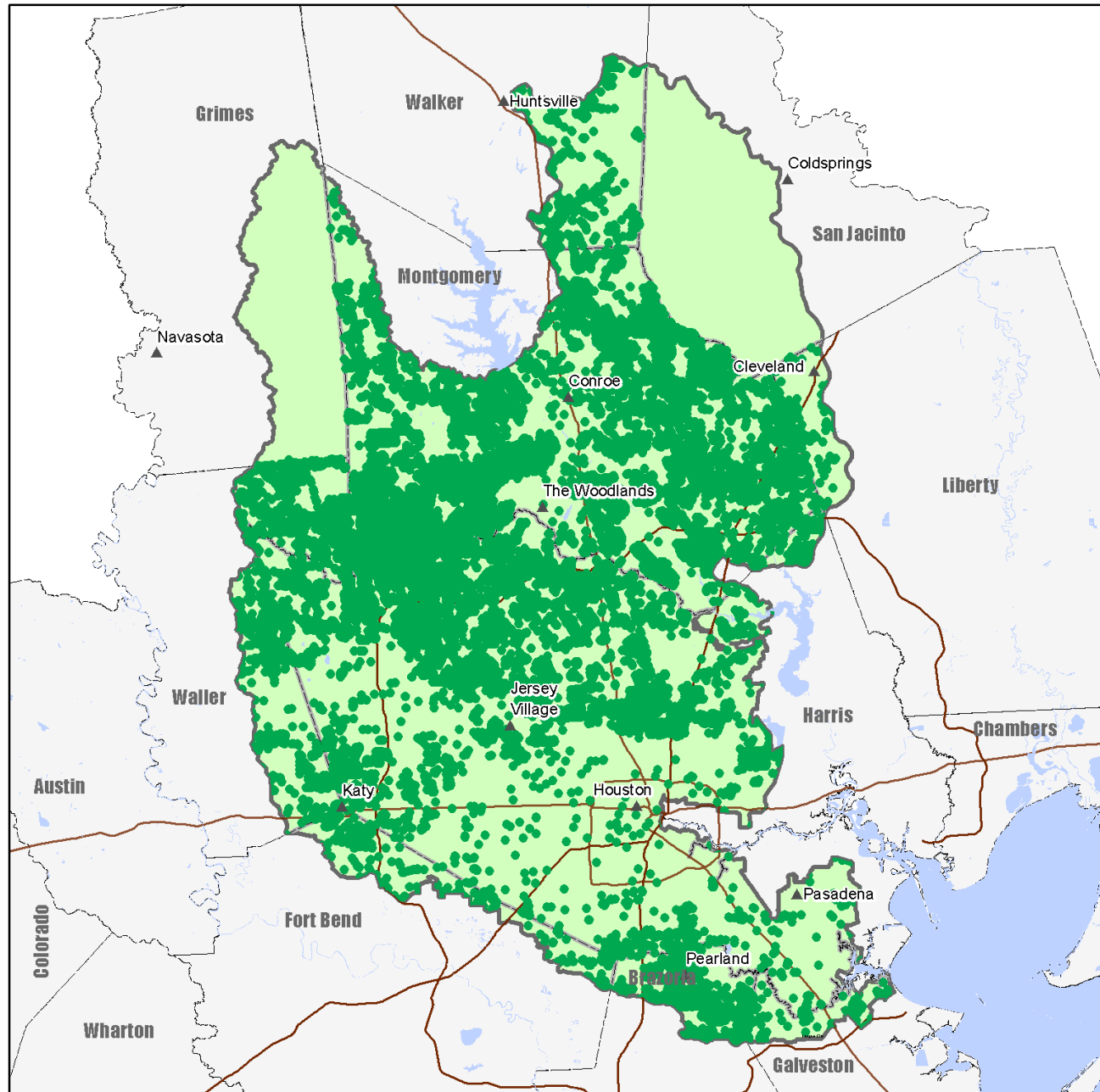




# BIG Project - Wastewater Service Area Boundaries

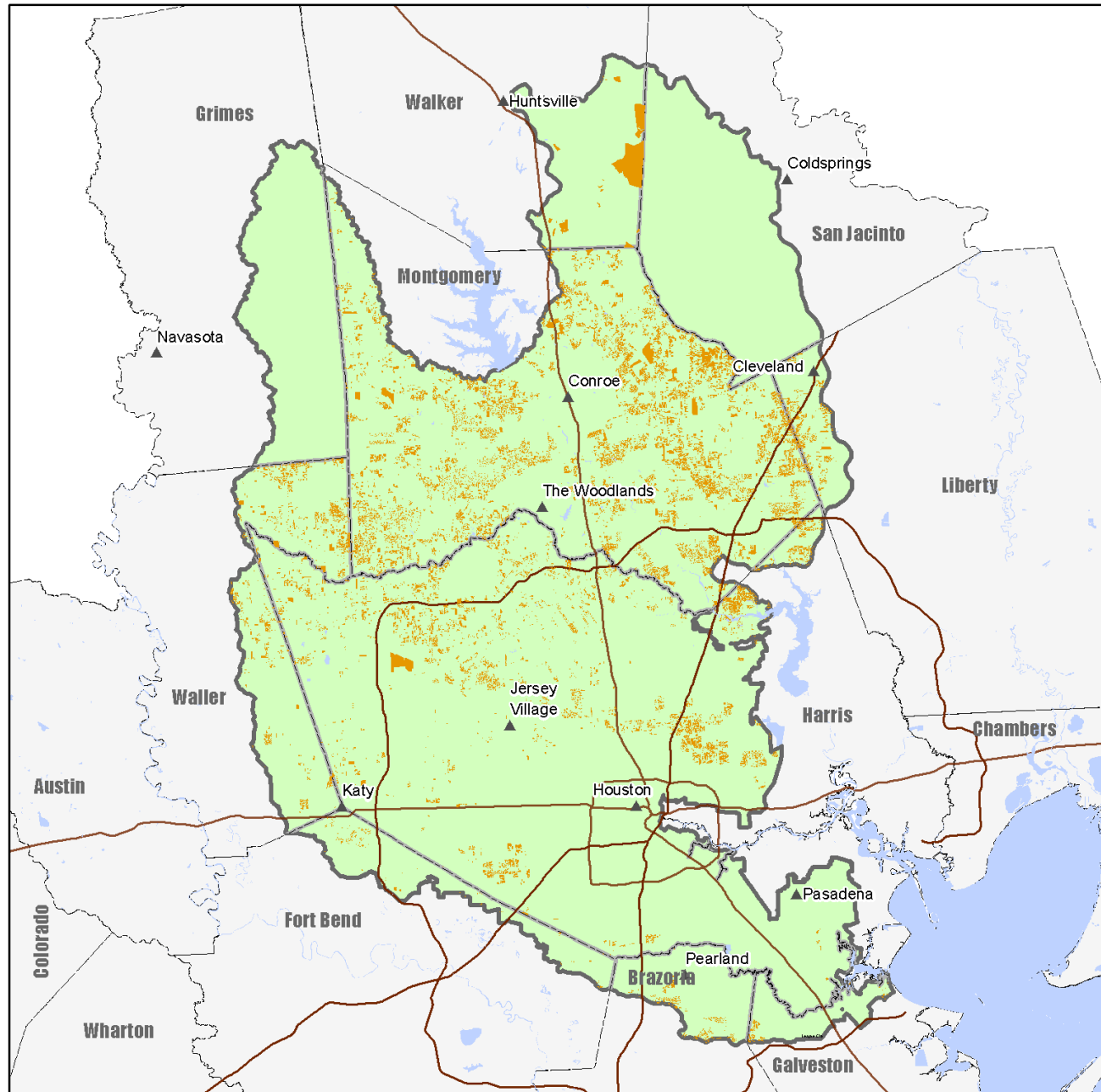


# BIG Project - Permitted OSSFs Map





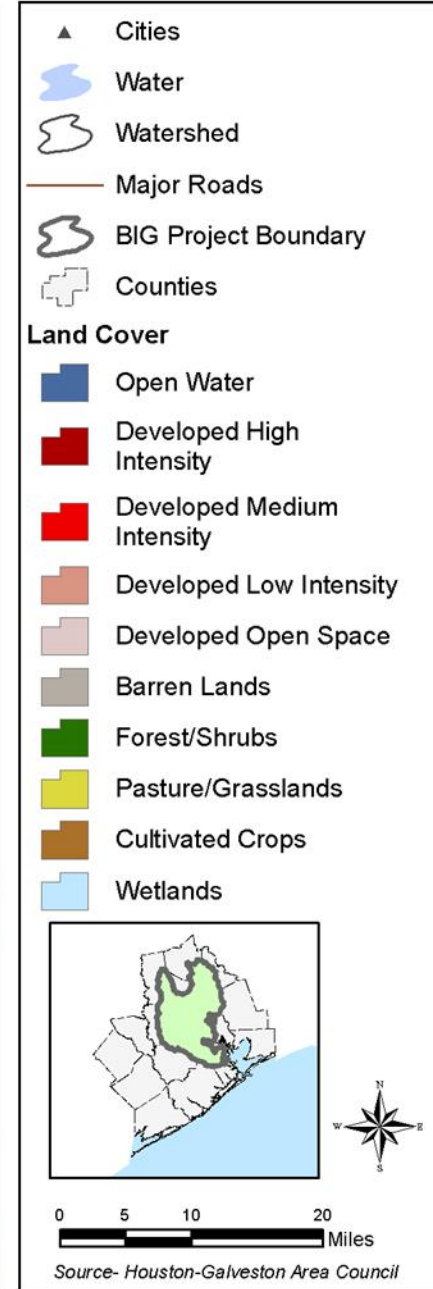
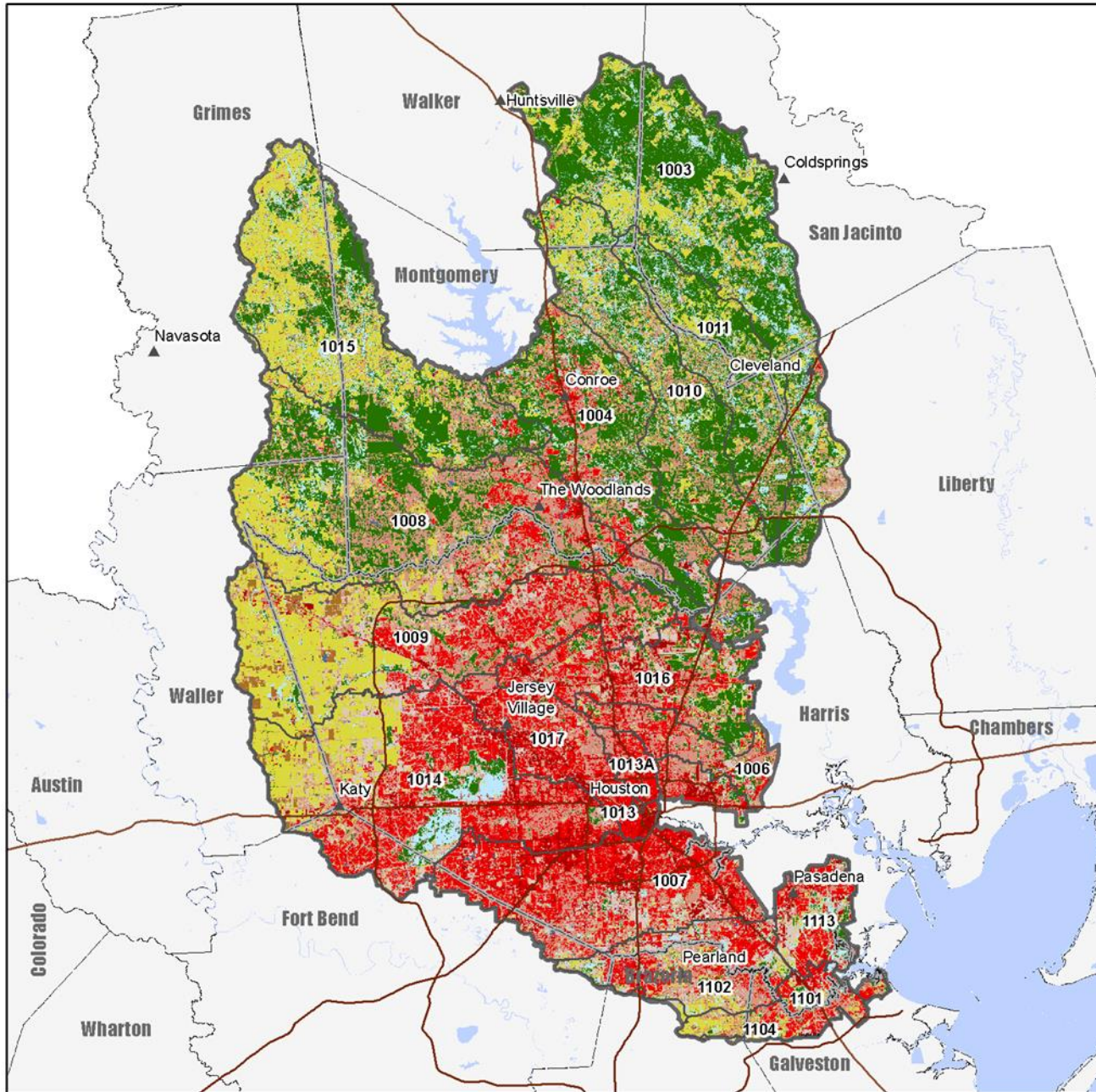
# BIG Project - Unpermitted OSSFs Map



- ▲ Cities
- Unpermitted OSSF
- Water
- BIG Project Boundary
- Major Roads
- Counties

Source- Houston-Galveston Area Council

# BIG Project - Land Cover





# I-Plan Revision Timeline



December

- Coordination and Policy

January

- BIG Meeting First Reading

February

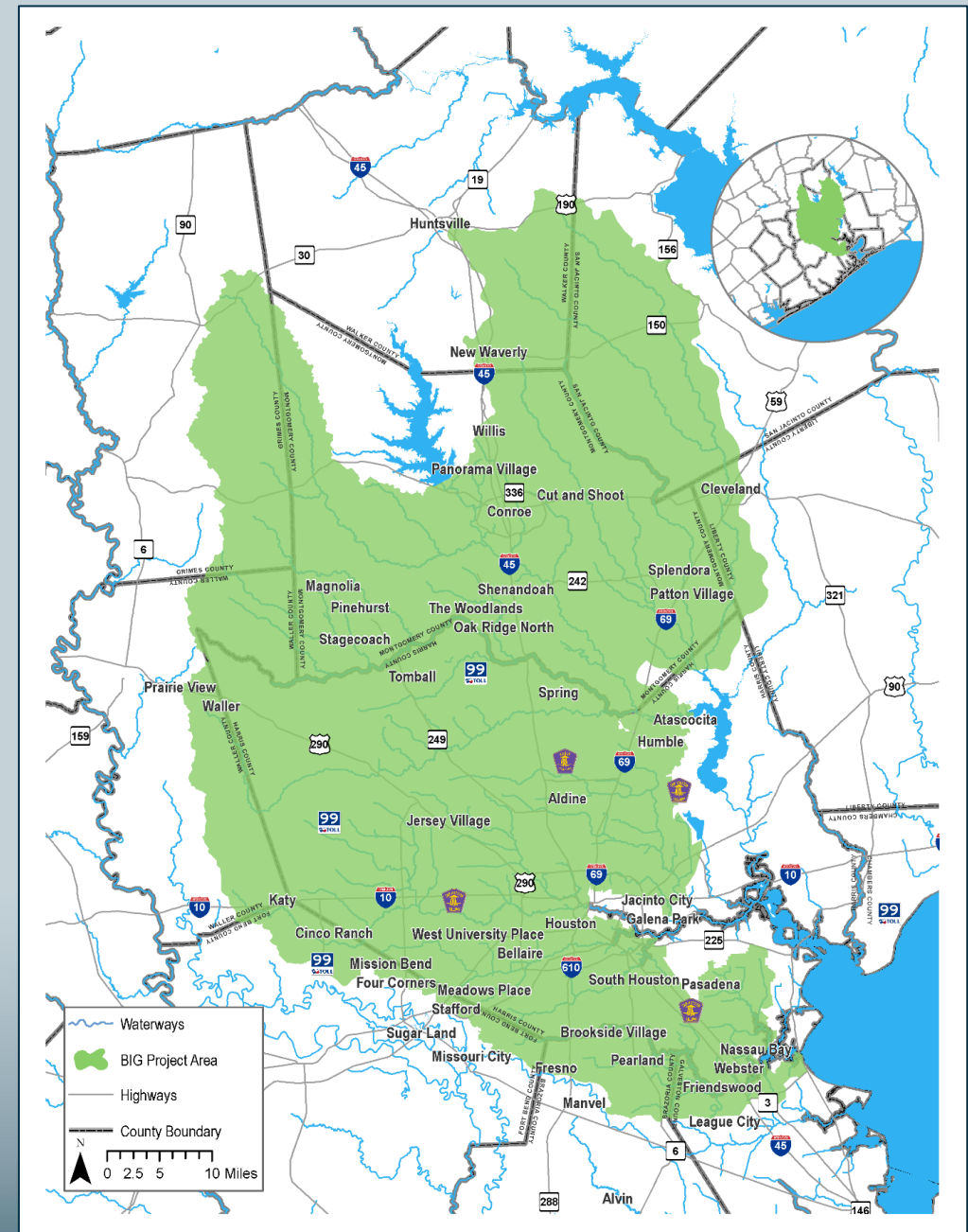
- Coordination and Policy

March

- BIG Meeting Final Reading

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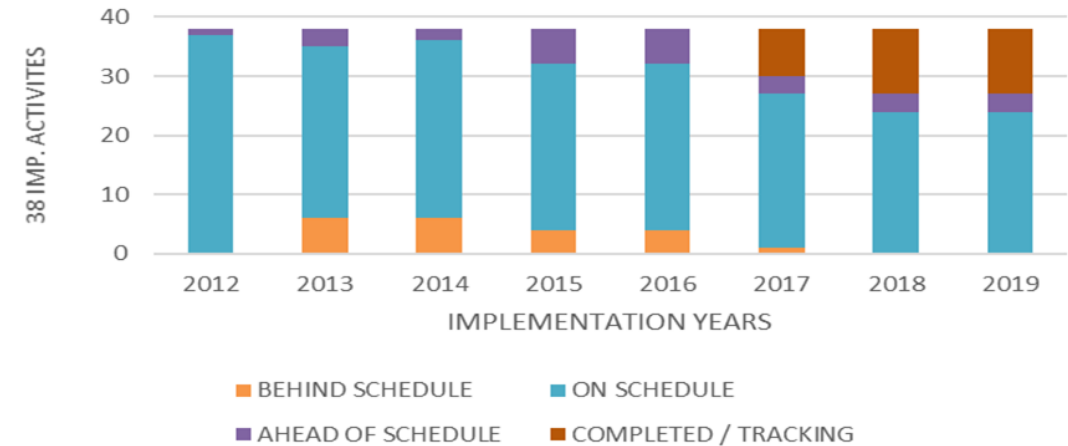
# 2020 Annual Report

- Calendar Year 2019
- Three Success Stories
- Three BIG Ideas
- Implementation Progress

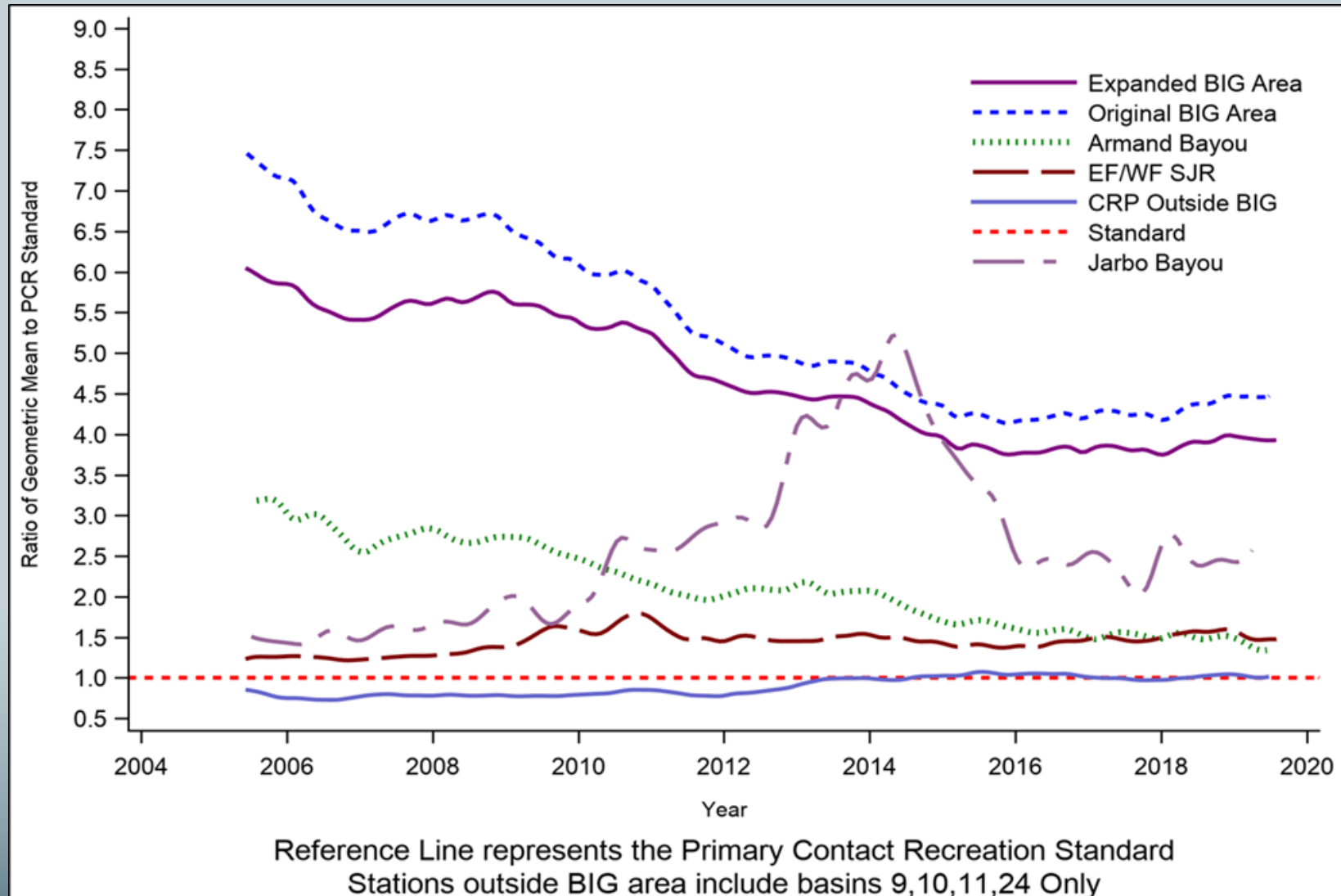
**BIG**

**2020 ANNUAL REPORT**  
JANUARY 1, 2019, DECEMBER 31, 2019

## IMPLEMENTATION PROGRESS

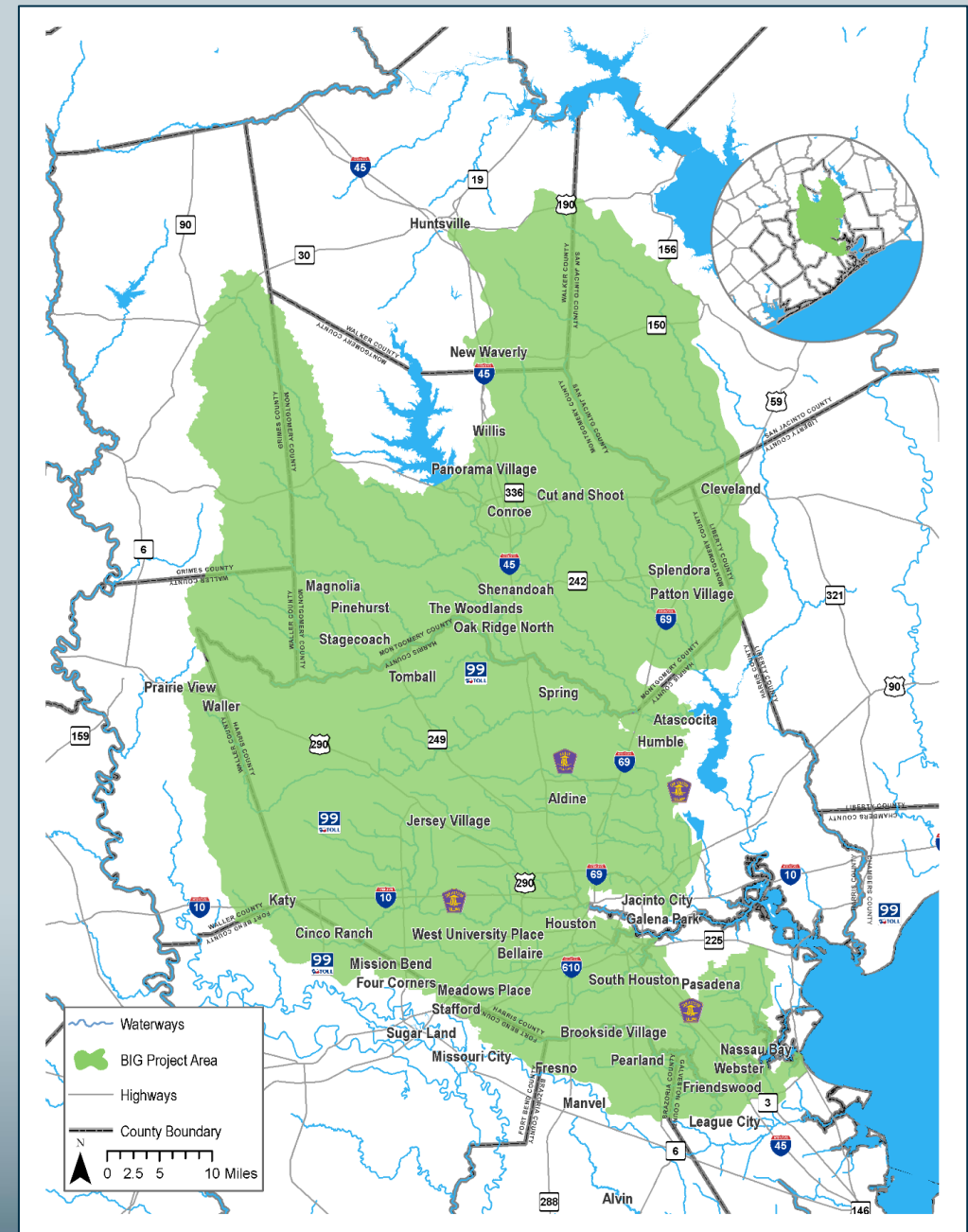


# Bacteria Trends



# AGENDA

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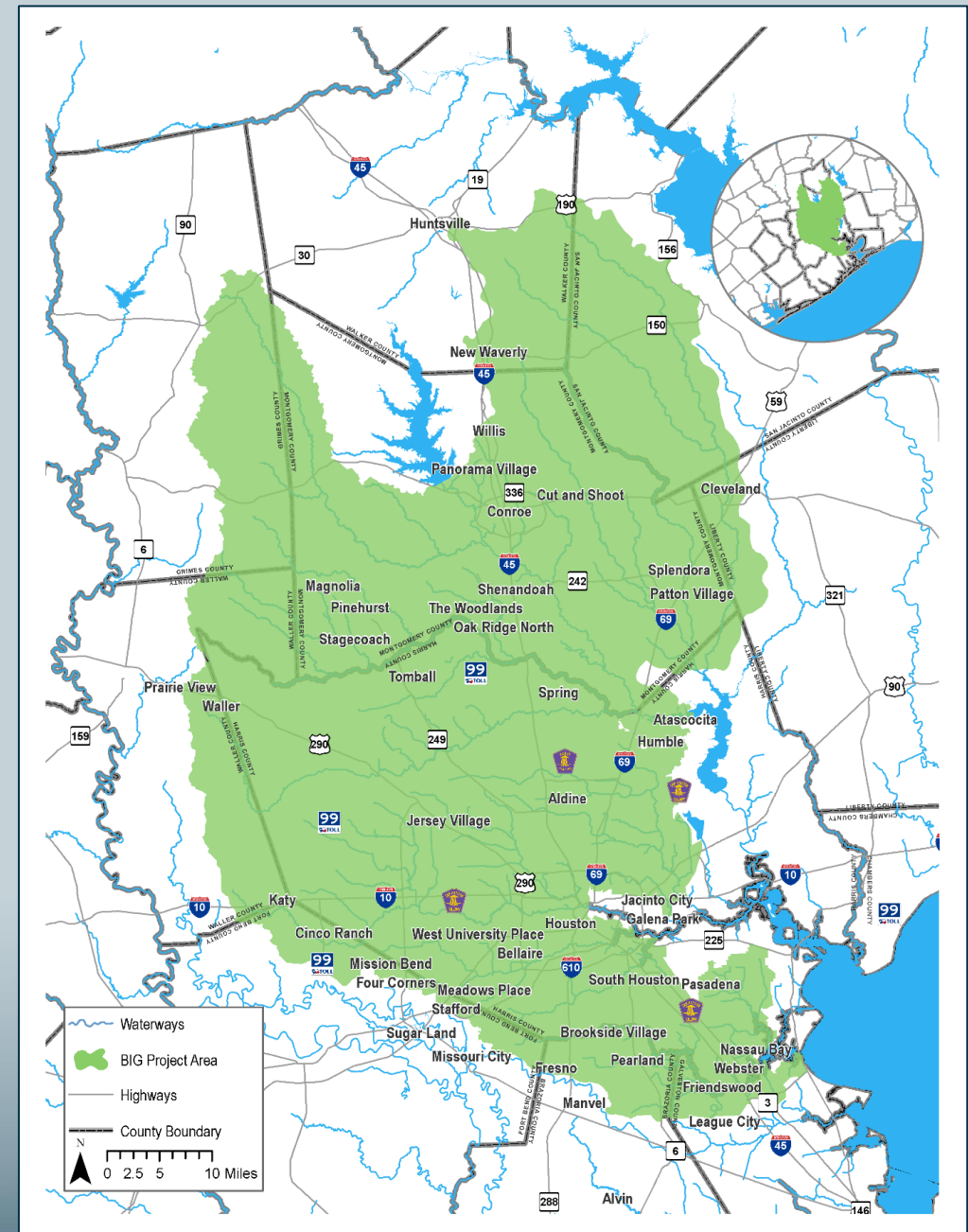
# Regional TMDL Updates

- The Walnut Creek TMDL addendum is included in the October Water Quality Management Plan update at ([https://www.tceq.texas.gov/permitting/wqmp/WQmanagement\\_updates.html](https://www.tceq.texas.gov/permitting/wqmp/WQmanagement_updates.html)) and the public comment period will be November 6 through December 9, 2020.
- Three technical support documents are posted on the TMDL website:
  - Walnut Creek (1008I\_01): <https://www.tceq.texas.gov/assets/public/waterquality/tmdl/82lakehouston/82-walnutcreek-bacteria-tsd-2020august.pdf>
  - Harris County Flood Control Ditch D 138 (1007W\_01): <https://www.tceq.texas.gov/assets/public/waterquality/tmdl/72houmetbact/72-tsd-hcfd-d138-2020august.pdf>
  - Horsepen Creek (1014C\_01): <https://www.tceq.texas.gov/assets/public/waterquality/tmdl/22buffalobayou/22-horsepencreek-tsd-bacteria-2020october.pdf>



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**HOUSTON PUBLIC WORKS**  
**PROTECT OUR PIPES**  
 Help keep fats, oils, grease, and other items from going down the drain.

**WHAT IS A SEWER OVERFLOW?**  
 A sewer overflow is a backup of untreated wastewater. It can cause costly damage to your property and harm our health and the environment. **MOST** sewer overflows **ARE PREVENTABLE**.

**70%**  
 The approximate number of sewer overflows caused by soap from grease traps in Houston.

**365**  
 The number of days a sewer main pipe needs to be replaced to prevent sewer overflows.

**\$2,500**  
 The average amount of property damage and lost time from sewer overflows in one year.

**UP TO 2X**  
 THE AMOUNT OF SEWER OVERFLOWS occur during the hotdog season due to a significant increase in grease usage.

**TABLESPOON OF GREASE**  
 down the drain is equal to an OLYMPIC-SIZED POOL every week.

**SEWER OVERFLOWS CAN MAKE YOU SICK**  
 Contact with raw wastewater can cause many different types of illness, including symptoms similar to food poisoning.

**GREASE CLOGS PIPES**  
 Put Grease in its Place

**POUR**  
 in a safe container

**COOL**  
 in the fridge

**TOSS**  
 in the trash

**WIPES CLOG PIPES**  
 Only Flush the 3 P's

**PEE**  
 is easily processed

**POO**  
 breaks down

**TOILET PAPER**  
 dissolves in water

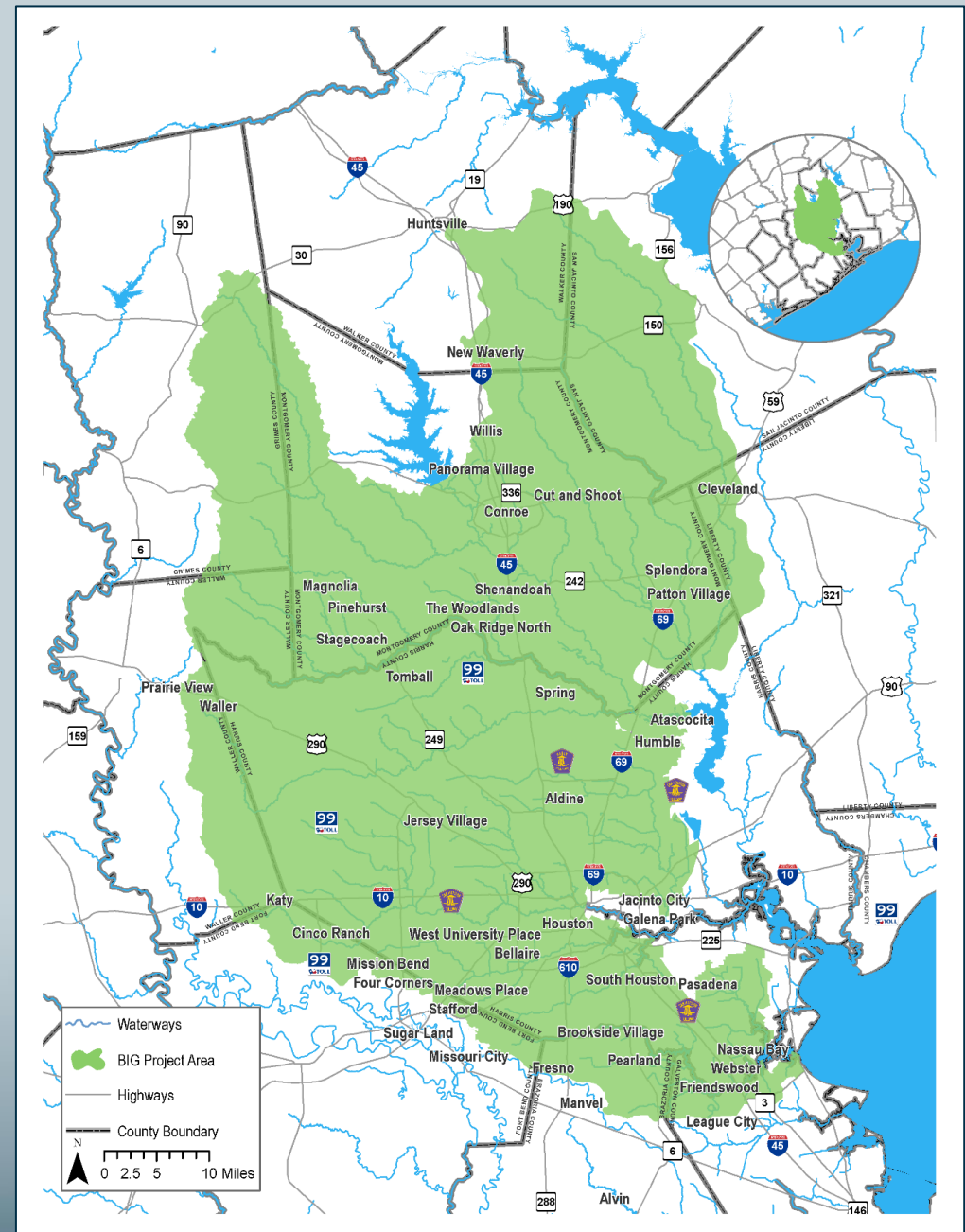
LEARN MORE AT [ProtectOurPipes.org](http://ProtectOurPipes.org)

# Implementation Project Presentations

1. **Ms. Sarah Robinson** – City of Houston. *Protect our Pipes.*
2. **Ms. Kendal Guidroz** – H-GAC. BPA/H-GAC bayou survey project to identify potential bacteria sources.
3. **Ms. Jessie Casillas** – H-GAC. H-GAC CRP project to survey urban, suburban and rural waterways to identify potential bacteria sources.

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# Upcoming Events

- BIG Spring Meeting - May 25, 2021



# ADJOURN

- **Steven Johnston**
- [Steven.johnston@h-gac.com](mailto:Steven.johnston@h-gac.com)
- 281-681-2579

