

St. James Parish East Bank Drainage and Flood Protection Task Force



***Report to Residents
June 2016***

Welcome

- Our purpose today is to bring you up-to-date on the work we are doing to ensure that the East Bank of St. James Parish is protected from flooding on two fronts:
 - Heavy rainfall such as occurred in May 2014
 - Storm surge such as caused by Hurricane Isaac
- When you leave here today, you will know:
 - How we are organized to do this work.
 - Our plans for the future.
 - The work completed thus far.
- We know you will have a lot of questions. We will open the floor to questions at the end of the presentation. Thank you!



**Where Community, Business, Industry and Agriculture
Grow, Work, Live and Prosper Together.**

East Bank Drainage and Flood Protection Task Force Membership

Members Appointed February 2015

- Parish Government
 - Timothy Roussel – Parish President
 - Blaise Gravois – Operations Director
 - Ryan Donadieu – Planning & Permits
 - Ashley Poche – Finance
 - Michelle Octave – Administration
 - Alvin St. Pierre – District 1 Councilman
 - Jason Amato – District 2 Councilman
 - Ryan Louque – District 3 Councilman
 - Ralph Patin – District 4 Councilman
- Pontchartrain Levee District
 - Marty Poche
- East Bank Residents
 - Richard St. Pierre – **Chairman**
 - Terry Borne
 - Jon Hotard
 - Sonny Zeringue
 - Gene Roussell
 - Barry LeBlanc
- Town of Lutcher
 - Patrick St. Pierre, Mayor
 - R. J. St. Pierre
- Town of Gramercy
 - Steve Nosacka – Mayor, Secretary



East Bank Drainage and Flood Protection Task Force

Our Vision

- St. James Parish will:
 - Effectively maintain the storm drainage system to promote optimum performance.
 - Reduce the risk of flooding with improvements to stormwater infrastructure.
 - Maintain participation and good standing in the National Flood Insurance Program and improve floodplain management practice to minimize flood damages and reduce flood insurance premiums for property owners.
 - Encourage the use of stormwater best management practices.
 - Establish development regulations that are state of the art with regards to stormwater management.
 - Fund stormwater management initiatives through a sustainable and equitable source of revenue.

Operations
Department

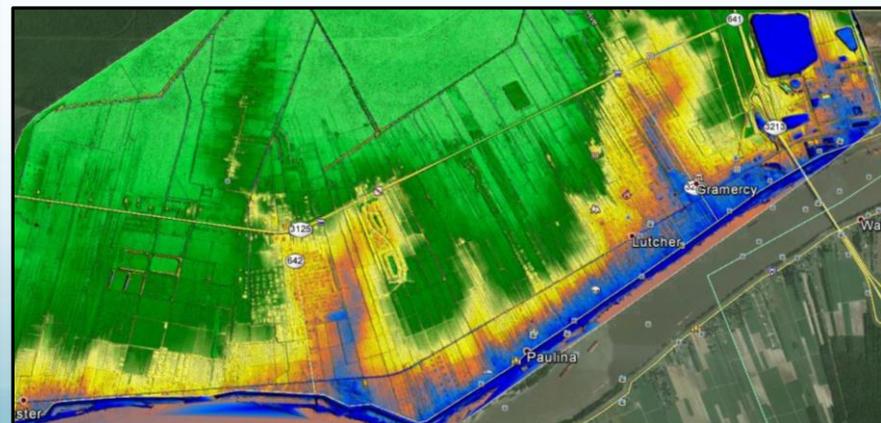
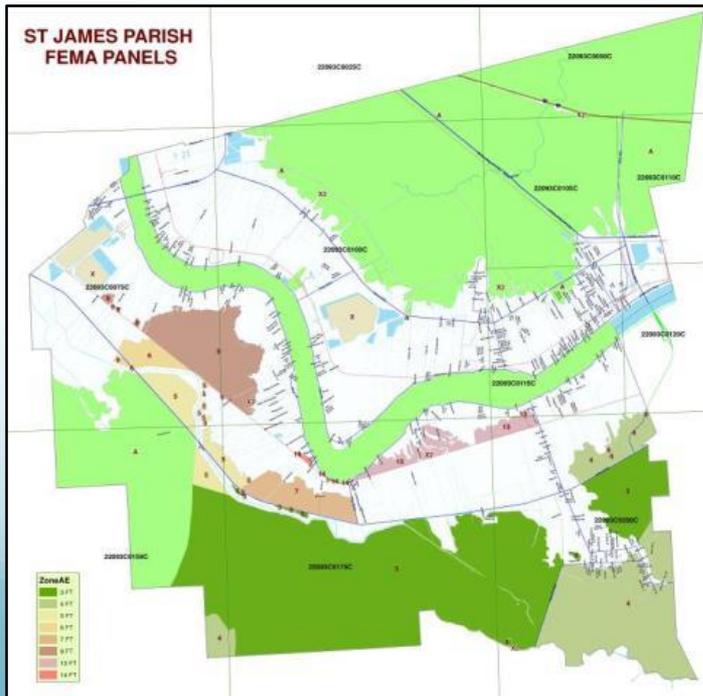
Stormwater Systems
Improvement
Subcommittee

Floodplain and Stormwater
Management Subcommittee

Financial Plan
Subcommittee

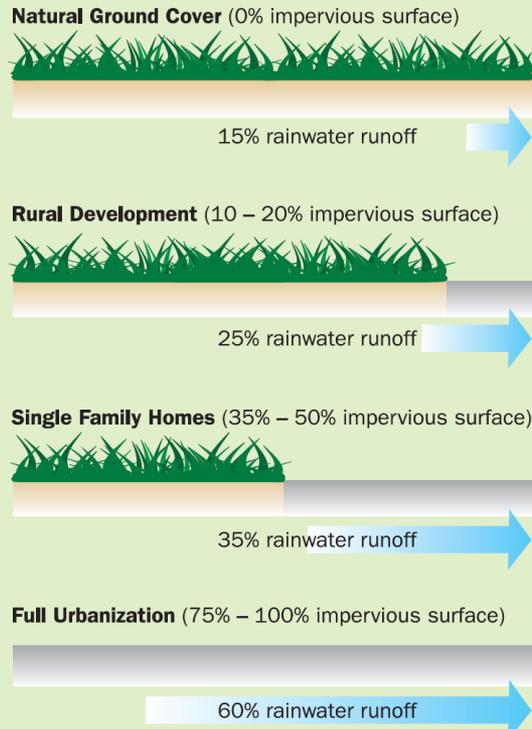
Stormwater Development

- Future Plans
 - Drainage Improvements and Maintenance
 - Better Planning for Future Development
 - Interim Ideas being Explored
 - Protection for Residents from Backwater Flooding



Stormwater Development

Stormwater runoff increases as areas are urbanized



*Note: actual values are site specific and depend on initial land use, soil type, ground saturation and the storm's duration.

When rain falls in a natural setting, as much as 85 percent of it will infiltrate into the ground, evaporate, or be absorbed by plants.

Development in the watershed and the floodplains changes the natural conditions. The result of urbanization is that there is more runoff in the watershed, as much as 60 percent of it will run off, which can increase flooding downstream.

For example, the amount of runoff from a 5-year rainfall on a developed parcel in a developed area can be more than the runoff from a 50-year rainfall on the same parcel had it been left undeveloped; this overloads the drainage system.

Future development planning is critical.

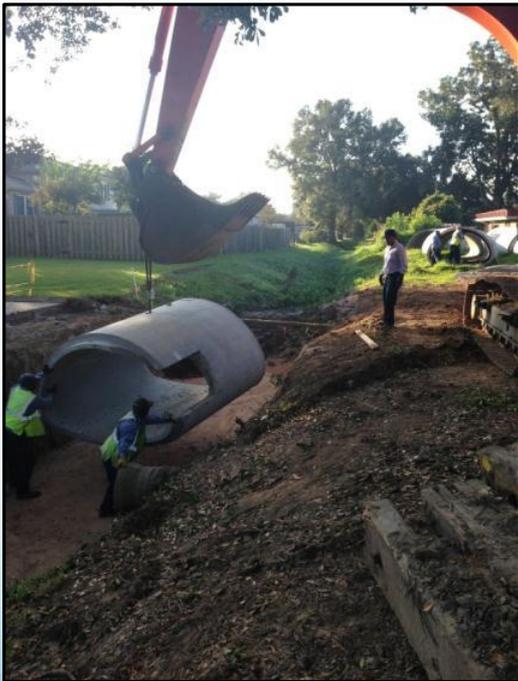
Better Planning for Future Development

Stormwater Best Management Practices

- Future Plans
 - Encourage the use of Stormwater Best Management Practices (BMPs) to reduce storm runoff volume and improve its quality. This also prevents sedimentation in drainage canals that will need to be removed.
 - Note: Simply put, a Stormwater BMP is a practice used to manage stormwater runoff. Some occur naturally, such as wetlands, woods and other natural vegetation. Other BMPs are man-made structures, such as detention ponds, swales, rain gardens or permeable pavement. The detention ponds at Bellevue Lakes Subdivision are a prime example.



Drainage Improvements



On-Going Maintenance

Drainage Improvements



Working with LA DOTD for Maintenance

St. James Parish Officials met with LA DOTD June 2, 2016 to point out drainage areas of concern along LA Hwy 3125 & LA Hwy 44

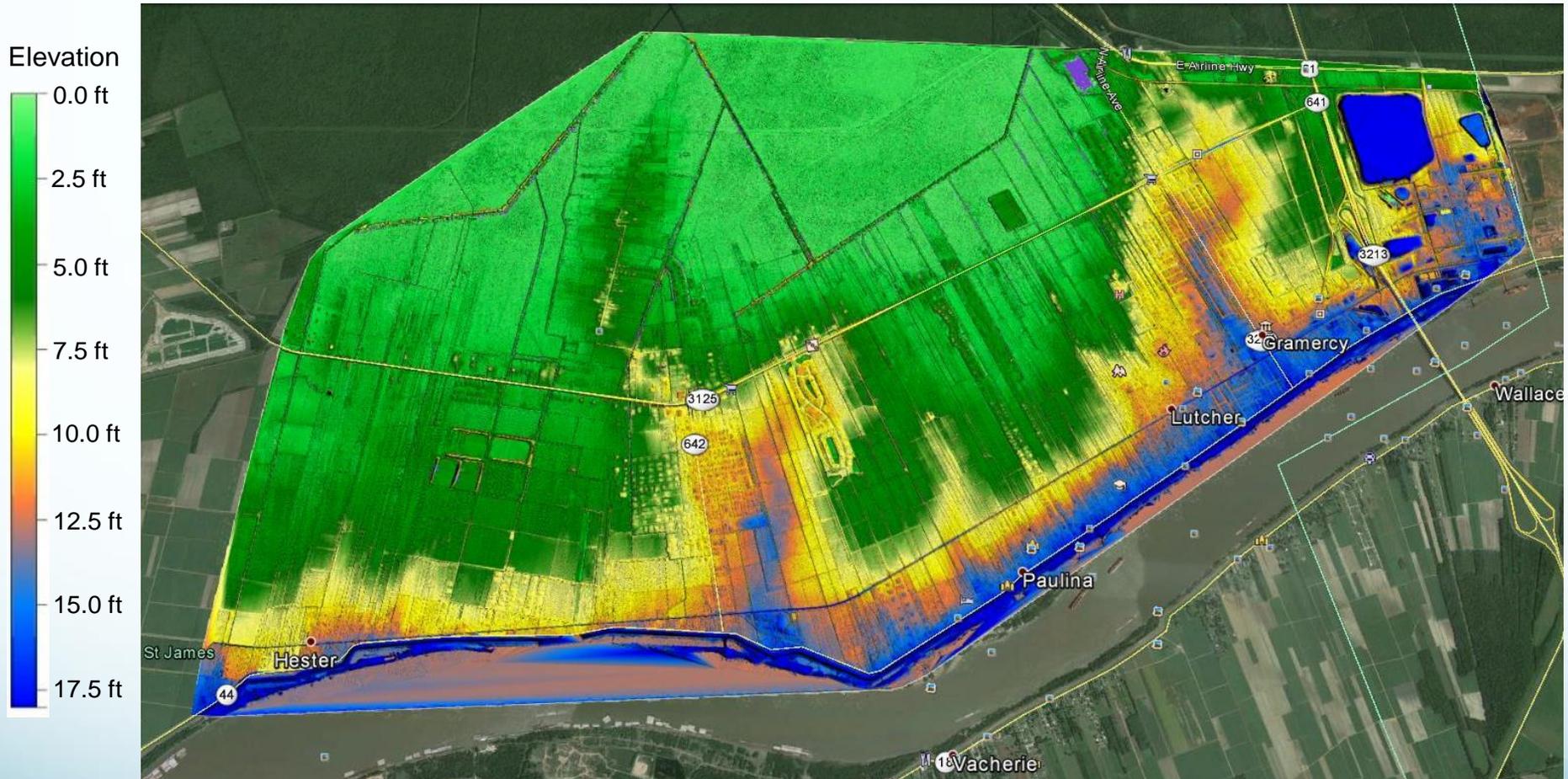
Belle Rue Subdivision

- Summarize what's been done
- New culvert at RR track to be installed soon
- Recommend firm be hired to inspect the storm sewer system with a camera or any other available method to identify problem areas preventing adequate water flow



Better Planning for Future Development

LiDAR Elevation Modeling



Elevation data showing elevation change throughout St. James Parish relative to median sea level. This aids St. James Parish during storm preparation, response, and future planning.

Pilot Pump Station

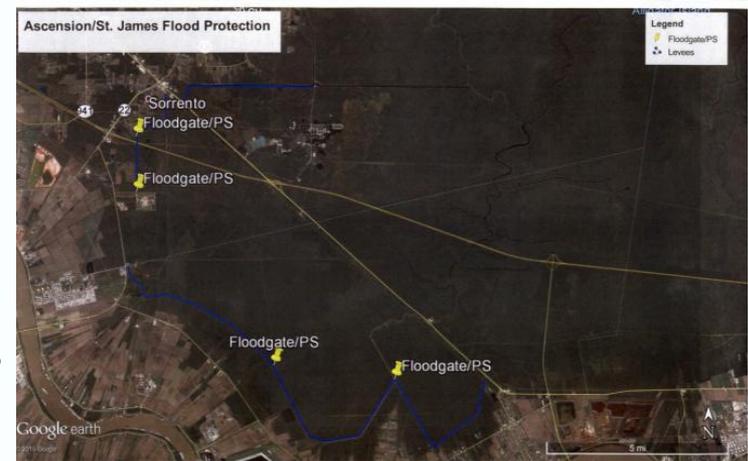
- Develop and construct a pilot pump station north of Hwy 3125 in Lutcher, across from First American Bank that would pump water from several connecting drainage canals south of Hwy 3125 into the existing low swamp basin area north of Hwy 3125 where no residential development exists.
- Project would drain Acadia Canal, Hwy 3193 Canal, King Avenue Canal and two drainage ditches between Hwy 3193 and King Avenue.
- Purpose of this pilot project is two fold:
 - Demonstrate the effectiveness of small scale pump stations at various locations along Hwy 3125 to improve the drainage of problem areas south of Hwy 3125.
 - Reduce the threat of flooding to residences that are located south of Hwy 3125 through the use of flap gates and portable pumps.



Storm Surge Projects

Levee/Pump Station System with Ascension

- Ascension/St. James Parish Joint Task Force formed to develop flood protection system(s) that benefits both parishes.
- Draft levee/pump station project developed as starting point for further discussion



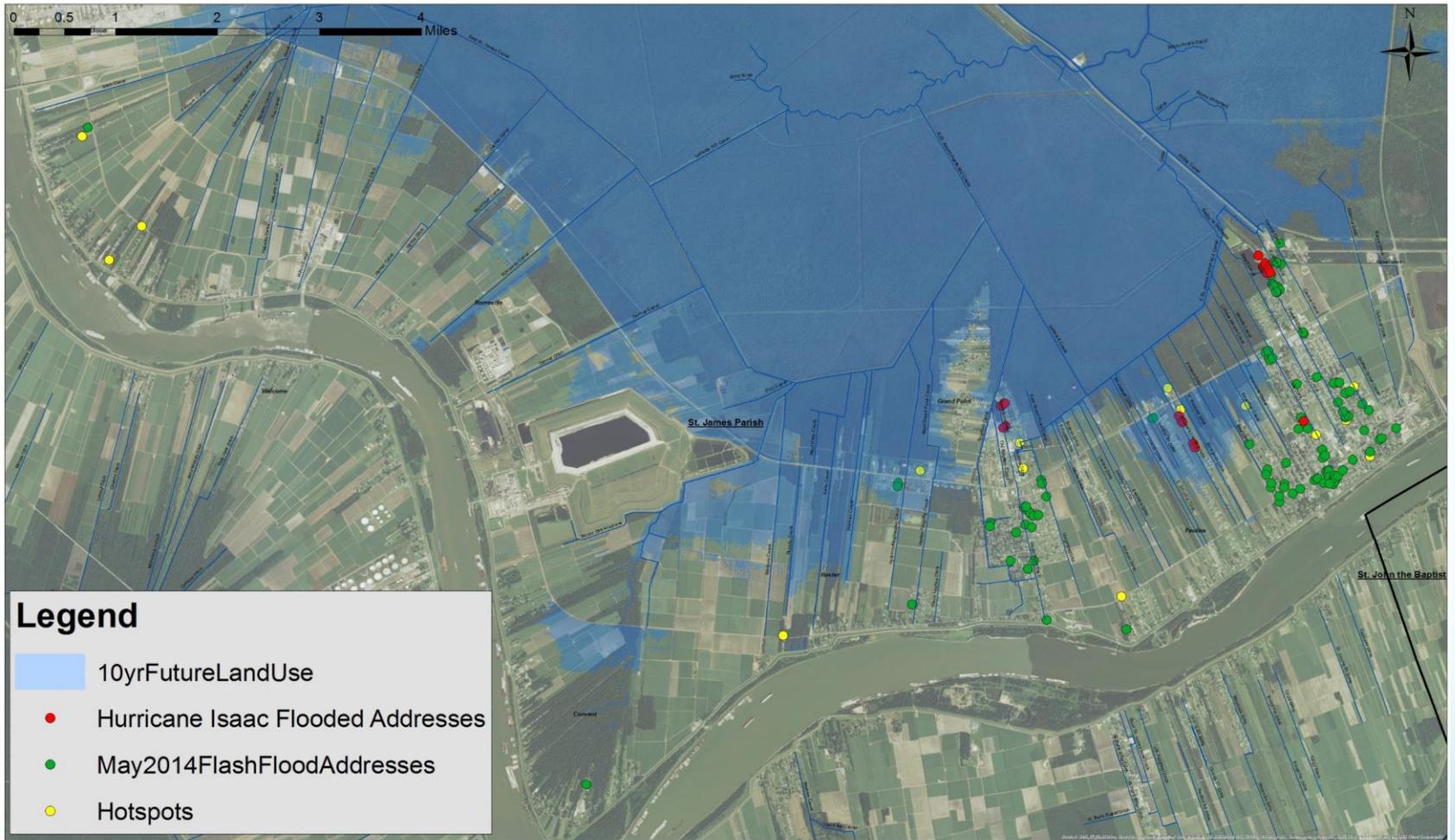
Flood Gates / Pump Station Parish Canal

- Feasibility and Location



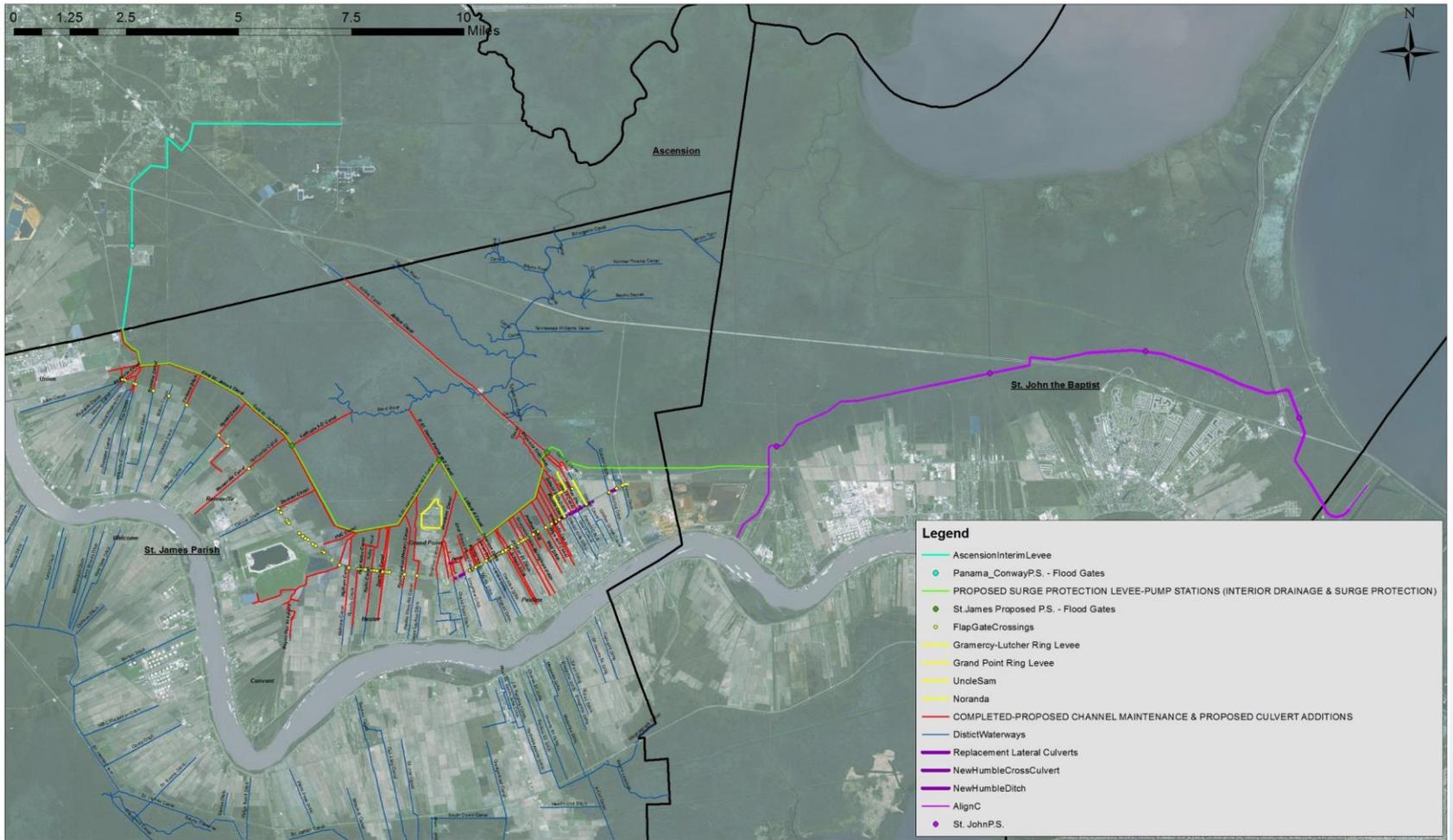
St. James Parish

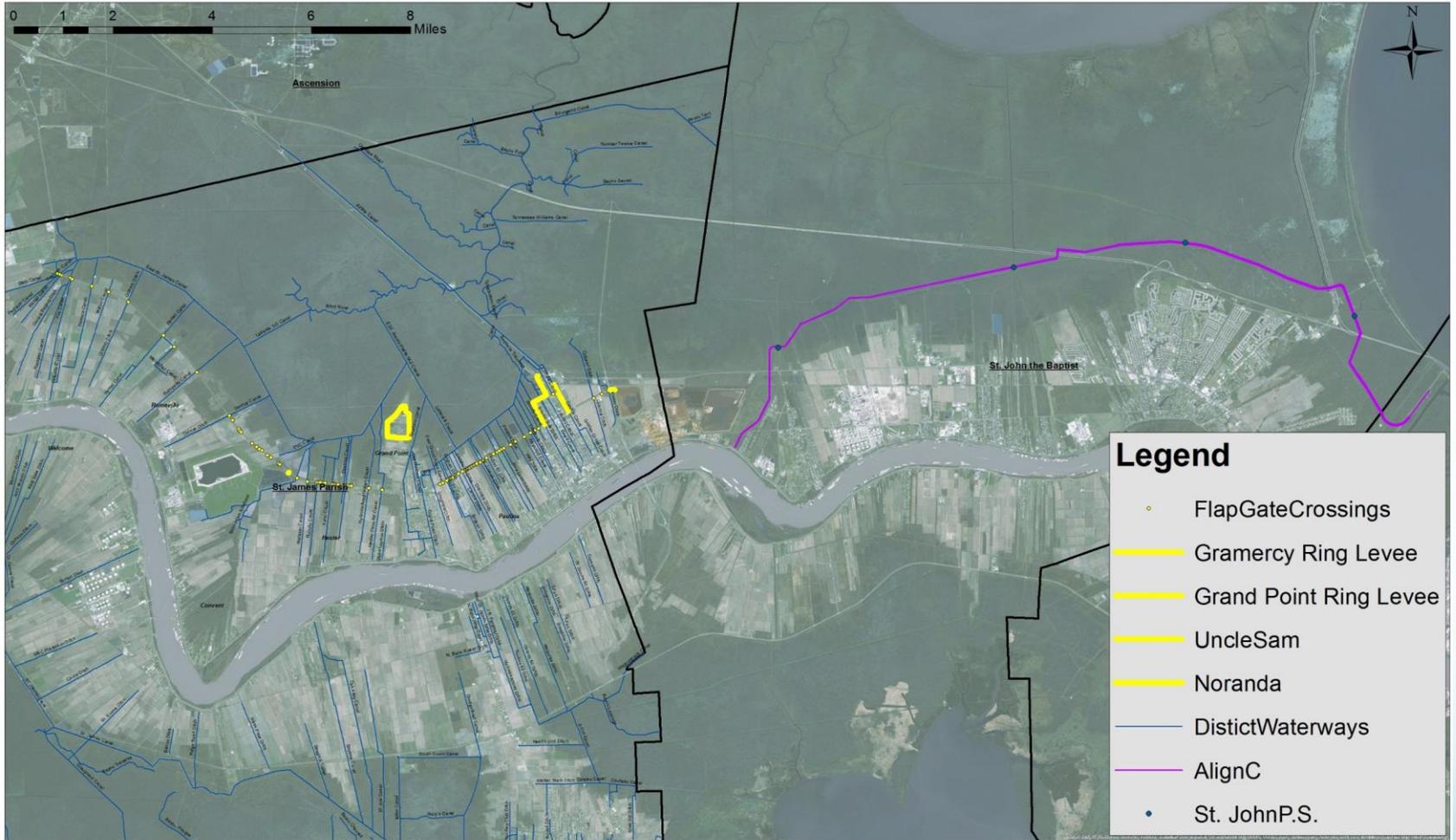
West Shore Non Structural-Drainage
Improvements-Surge Protection

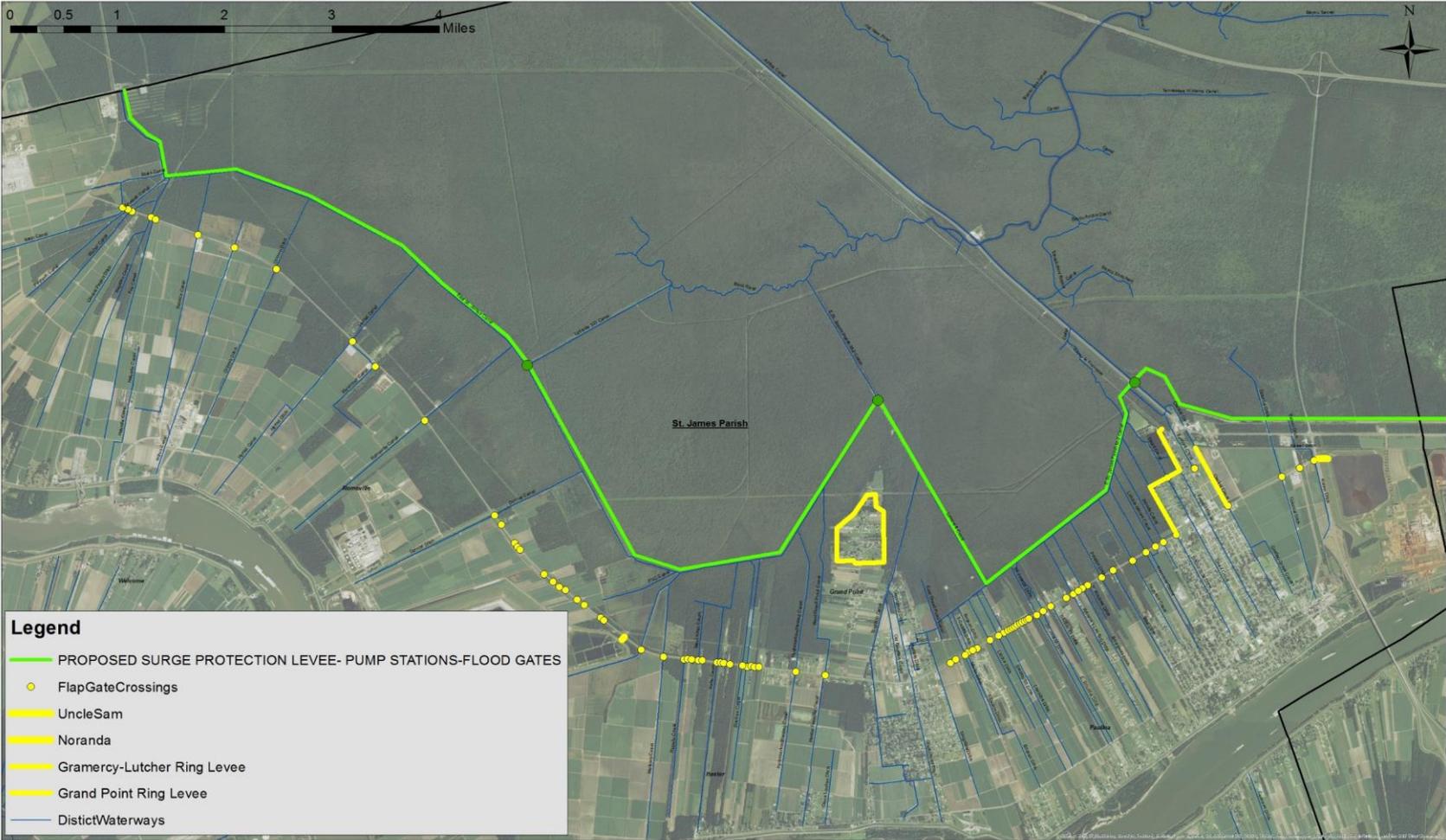


Legend

- 10yrFutureLandUse
- Hurricane Isaac Flooded Addresses
- May2014FlashFloodAddresses
- Hotspots







Legend

- PROPOSED SURGE PROTECTION LEVEE- PUMP STATIONS-FLOOD GATES
- FlapGateCrossings
- UncleSam
- Noranda
- Gramercy-Lutcher Ring Levee
- Grand Point Ring Levee
- DistrictWaterways

**USACE West Shore Non Structural-
St. James Surge Protection Projects**



0 0.5 1 2 3 4 Miles

Legend

- Replacement Lateral Culverts
- La3125 Ditch Regrading
- PROPOSED SURGE PROTECTION LEVEE-PUMP STATIONS-FLOOD GATES (INTERIOR DRAINAGE-SURGE PROTECTION)
- COMPLETED DRAINAGE CHANNEL MAINTENANCE & PROPOSED CHANNEL DREDGING AND CULVERT ADDITIONS-EAST BANK



Storm Surge Project

West Shore Lake Pontchartrain Project

- Storm Surge Protection Project includes:
 - Ring levee around the communities of Gramercy and Lutcher
 - Ring levee around the community of Grand Point
 - Installation of one-way flap gates to existing culverts under Highway 3125 (north side)
 - Non-structural elevation of homes or buyouts
- Pros:
 - Protects property owners from storm surge
 - 85% funded by Federal government
- Cons:
 - Adds to flooding problems if storm surge accompanied by heavy rainfall
 - Parish must fund the remaining 15% of the cost
 - Feds advised that funding may not be available for 10 years and recommend the parish does what it can on its own

WE NEED YOUR HELP!

- Remove simple obstructions from ditches
- Make the Parish aware of drainage problems
- Report any illegal dumping into drainage ditches



Questions?