

Some lines from **Watery Hopes and Dirty Plans**
by Chancellor "Xero" Skidmore

Everybody knew everybody The faces have changed
My parents live out of the country now
The people of means moved to higher ground
Elevation is key
We see people coming from lower lying areas
People from other places that don't get the culture
Indians and Chinese taught us how to live here
Nobody lives in the house after their parents die
My next home should be a condo in the cemetery
My generation is the last

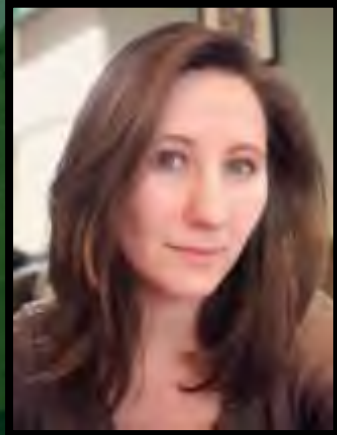
I feel like I'm pretty well rooted here
I have a decent-sized property down here
When my grandmother was a kid it was cotton fields, When I was a kid it was cattle
Now we hunt ducks Now we hunt hope
In areas that have converted to open water To think, you might not ever be able to stand On the
place you always stood
I like people to see where we stand
People of means moved to higher ground Erosion of culture
Was planning on living Hope is not a plan

Louisiana Adaptation: Mitigation to Managed Retreat



**Dakota K.
Fisher**

Louisiana Office of
Community Development



**Rachelle
Thomason**

Foundation for Louisiana



**Jeannette
Dubinin**

Center for Planning
Excellence



**Maria
Papacharalambous**

Waggoner & Ball Architects

INTRODUCTION

Dakota K. Fisher

Louisiana Office of Community Development





LASAFE

Louisiana's
Strategic Adaptations
for Future Environments

ISLE DE JEAN CHARLES RESETTLEMENT



Meet the winners.

Announced by President Obama in 2014, the **National Disaster Resilience Competition** was developed to help U.S. communities recover from prior disasters through innovative resilience projects.

67 disaster-affected communities

13 competition winners

1 billion dollars to rebuild *better*

#RebuildBETTER

Louisiana: \$92.6 million

- \$40m LA SAFE
- \$48m Isle de Jean Charles Resettlement

TARGET AREA

ST. TAMMANY

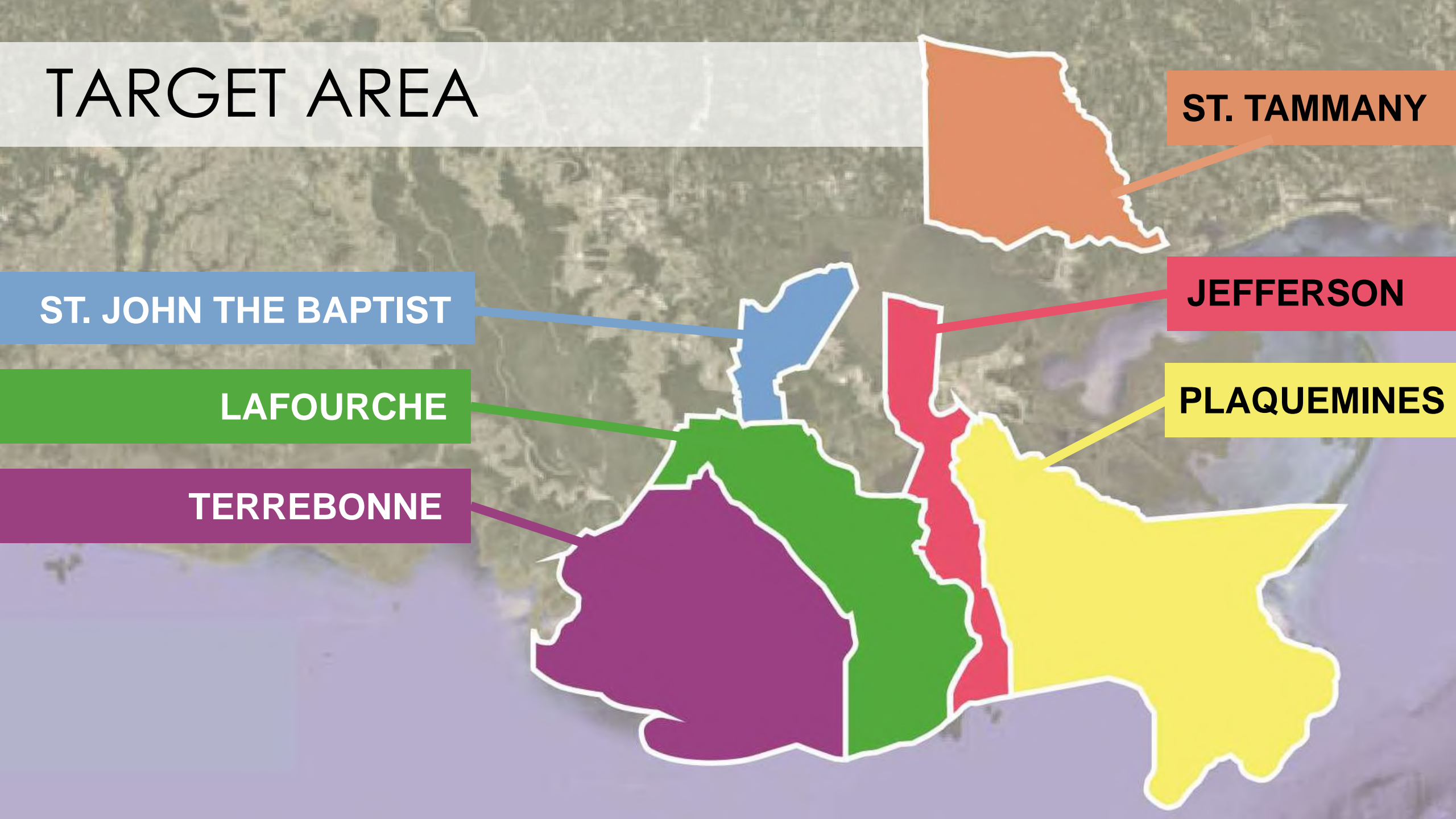
ST. JOHN THE BAPTIST

LAFOURCHE

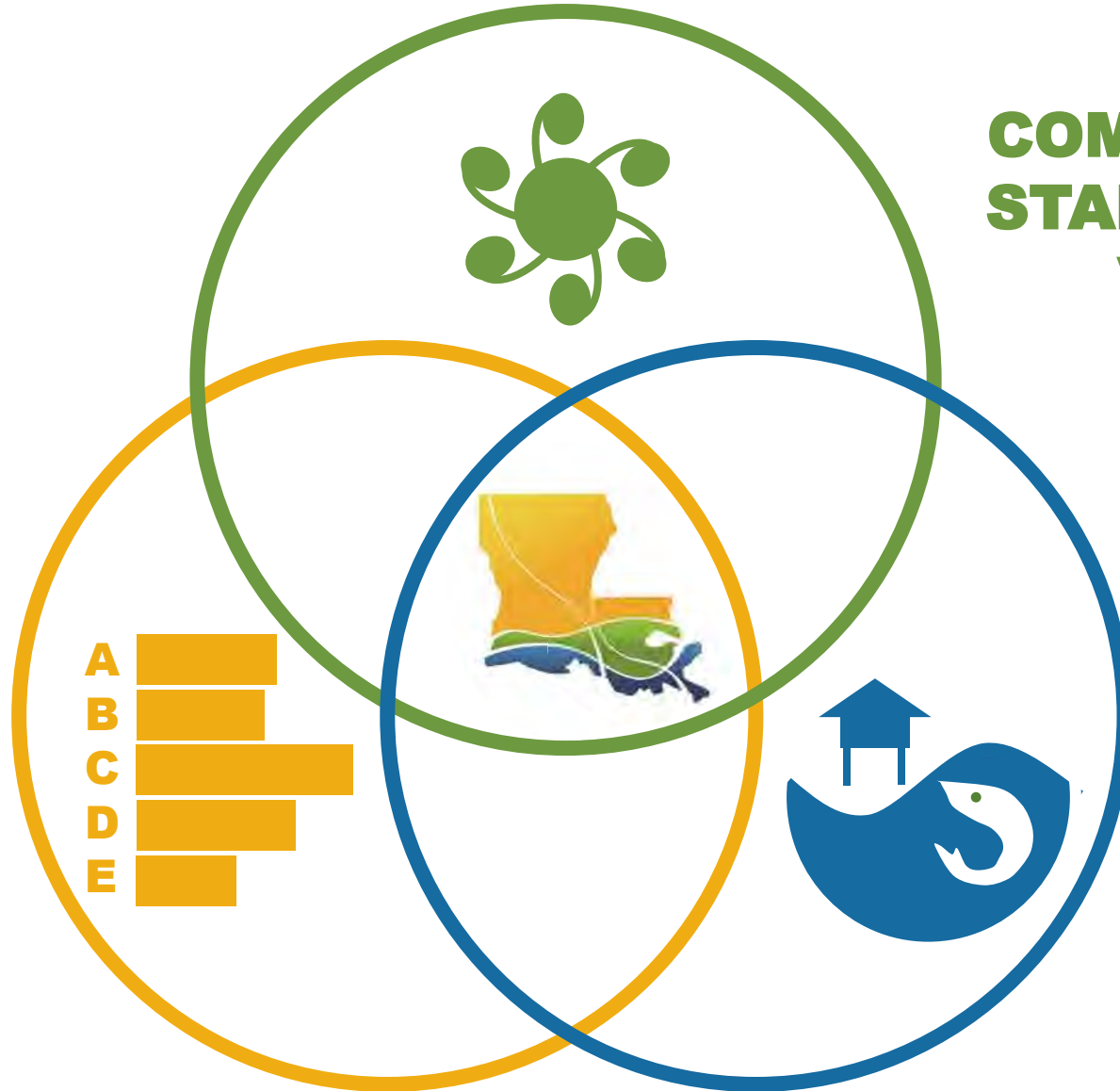
TERREBONNE

JEFFERSON

PLAQUEMINES

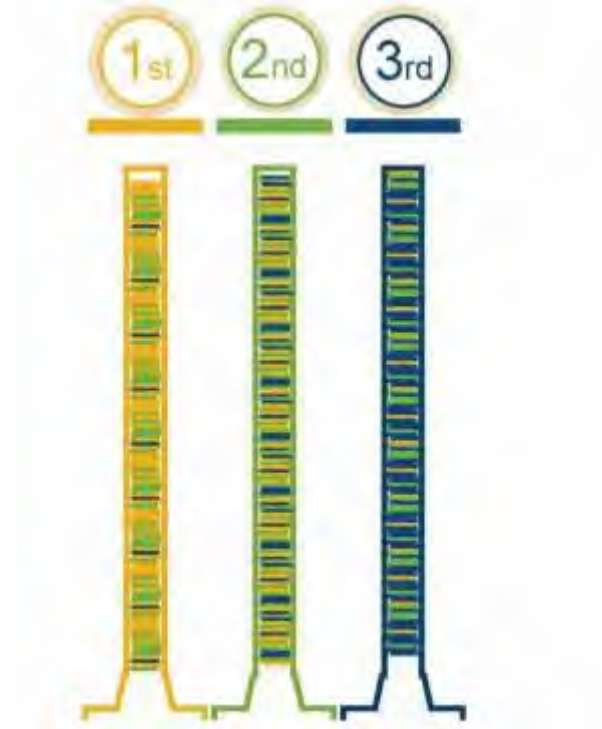
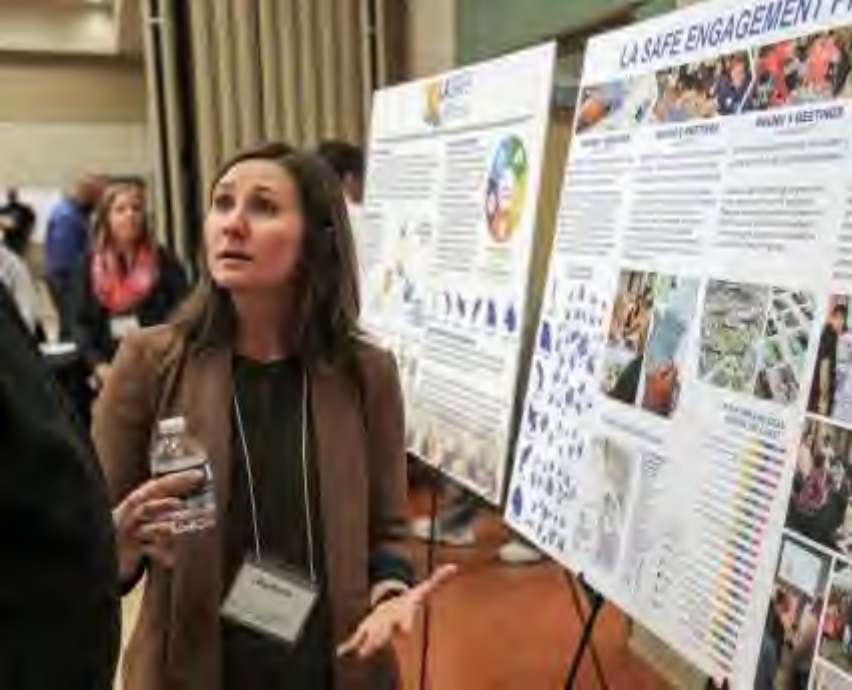


**BEST
PLANNING
PRACTICES
& EXPERTISE**

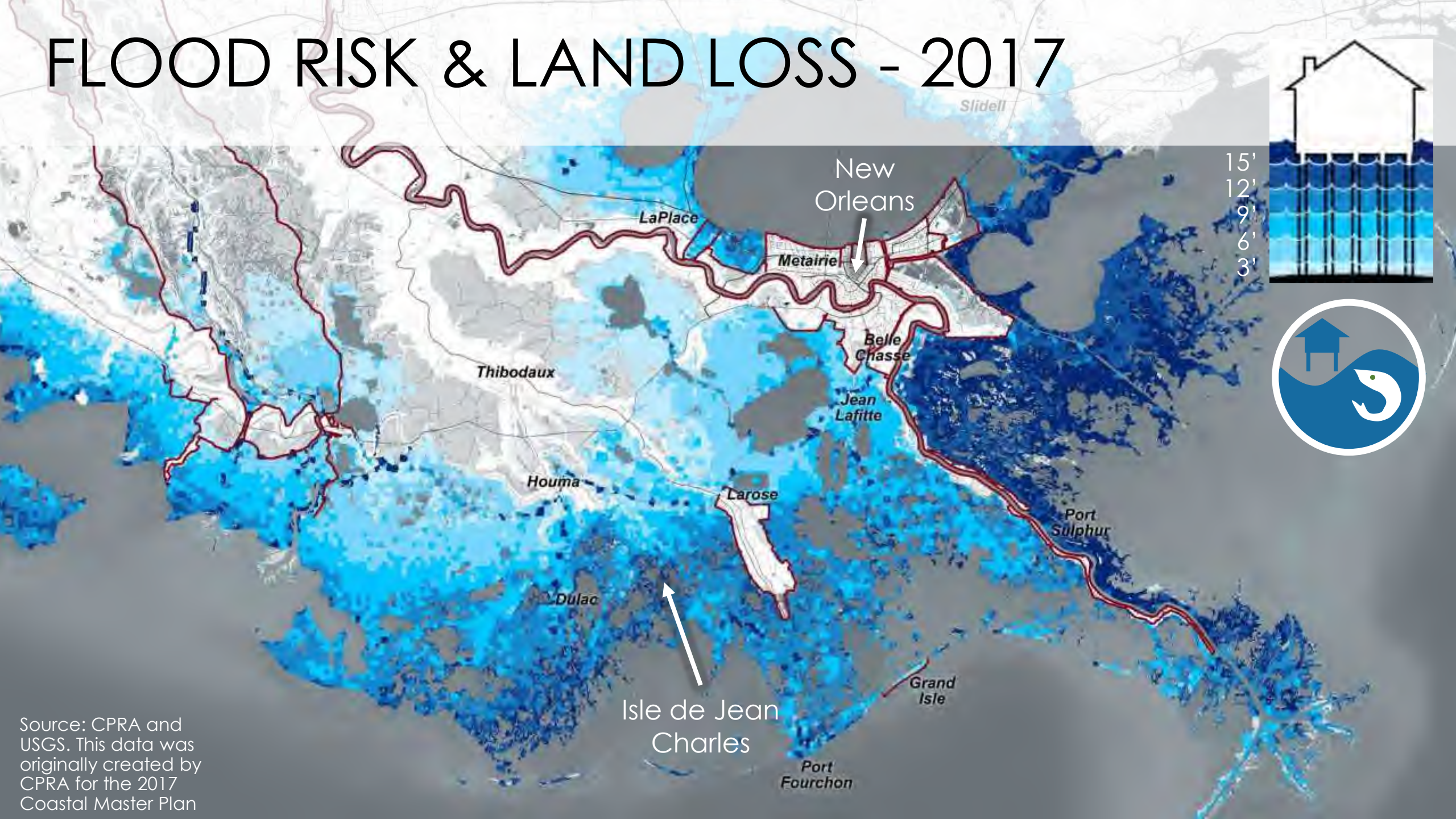


**COMMUNITY &
STAKEHOLDER
VISION**

**CURRENT &
FUTURE
ENVIRONMENTAL
CONDITIONS**



FLOOD RISK & LAND LOSS - 2017



Source: CPRA and USGS. This data was originally created by CPRA for the 2017 Coastal Master Plan



Foundation
for Louisiana



THE DATA CENTER



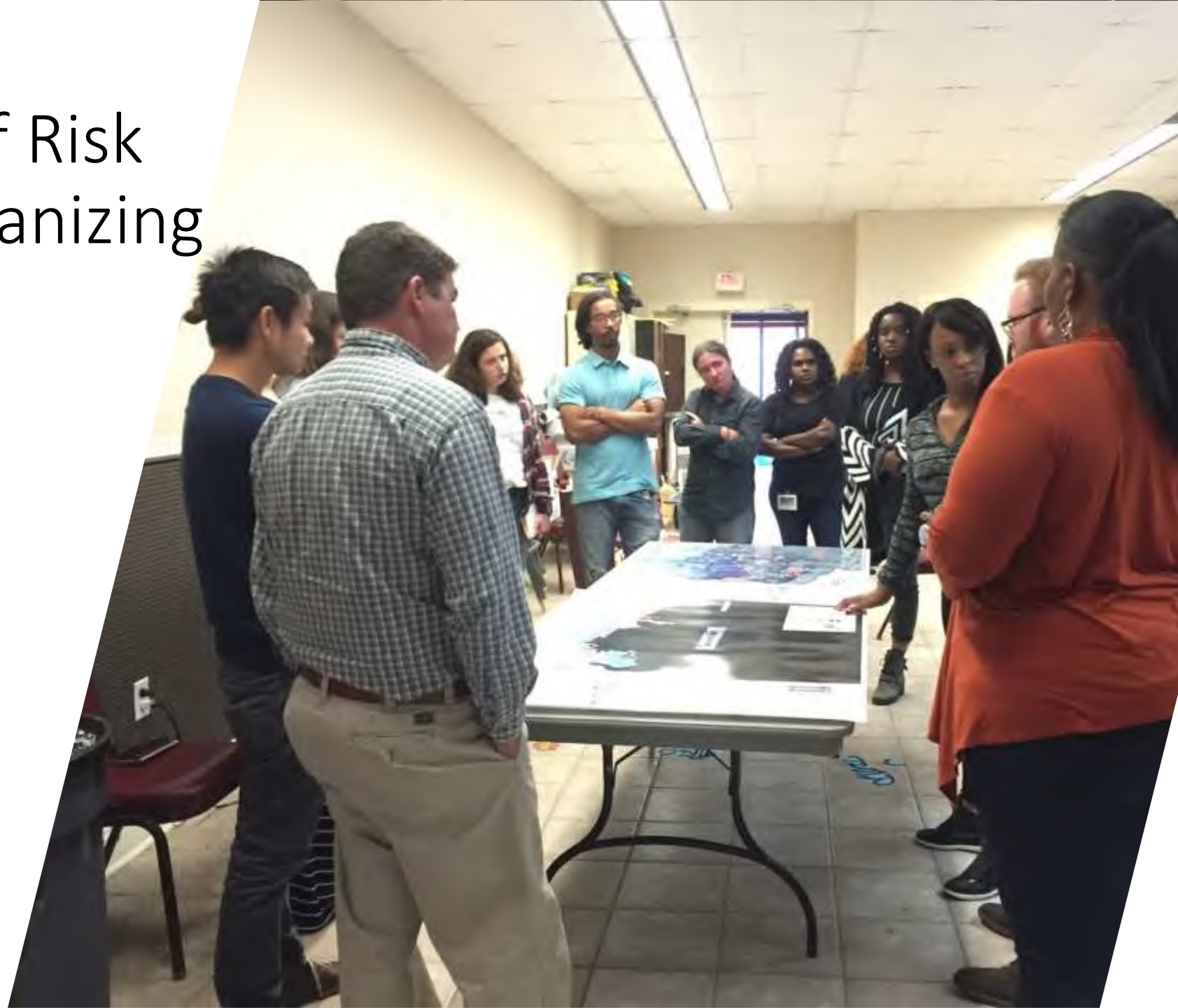
SOUTH LOUISIANA
WETLANDS
Recovery Center



Communication of Risk & Community Organizing

Rachelle Thomason

Foundation for Louisiana

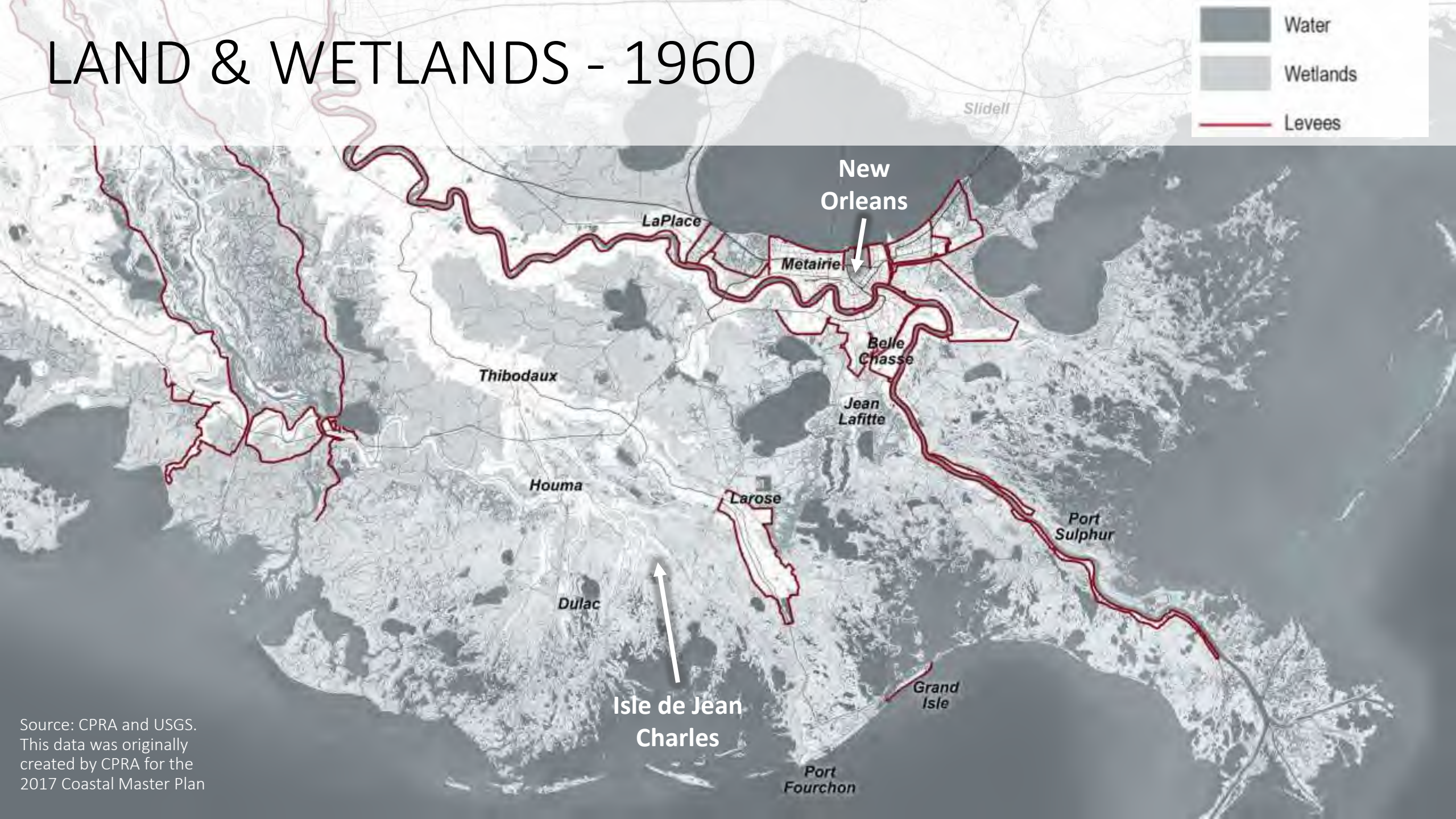




THE CHALLENGE

Source: CPRA and USGS.
This data was originally
created by CPRA for the
2017 Coastal Master Plan

LAND & WETLANDS - 1960



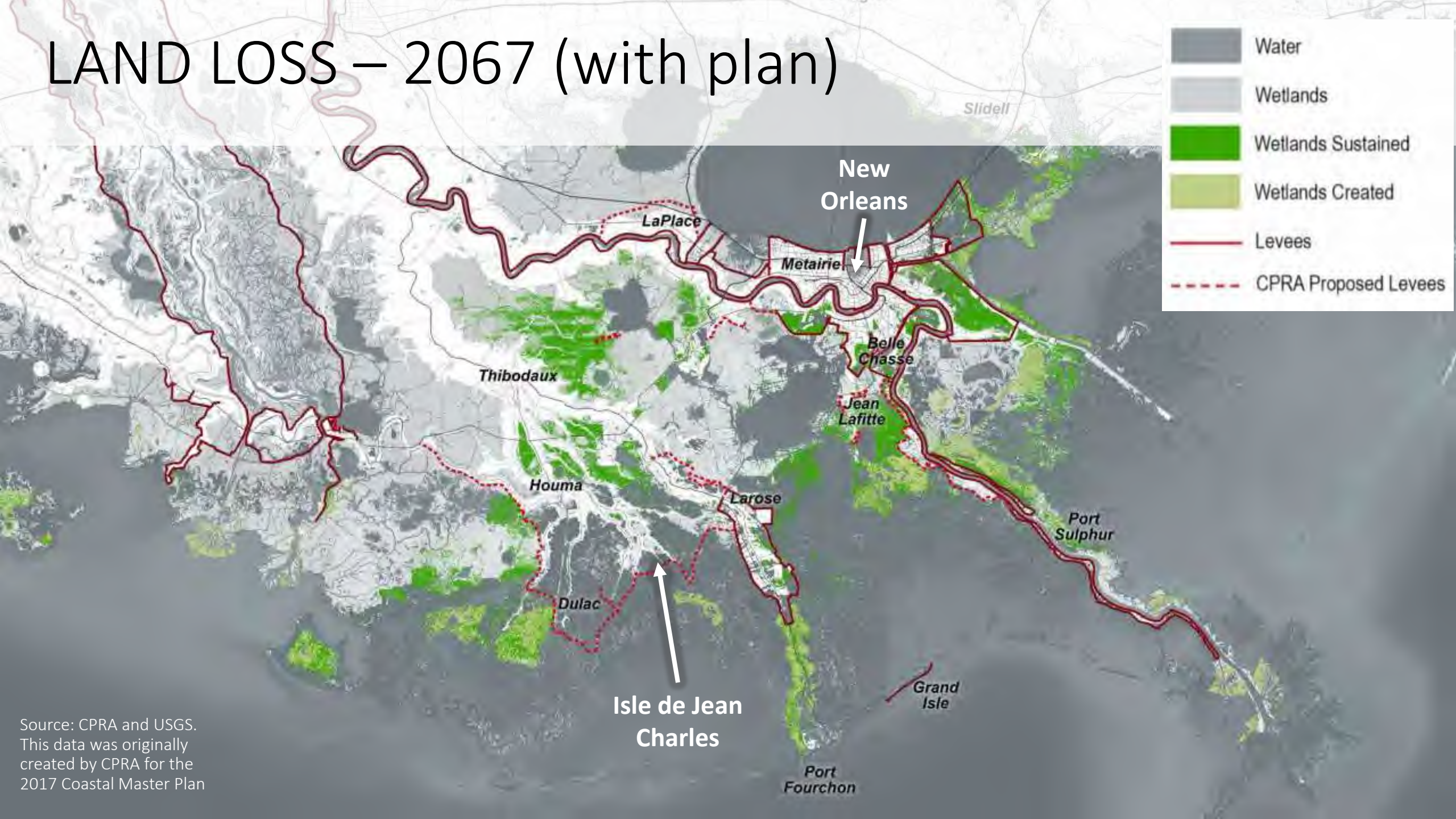
Source: CPRA and USGS.
This data was originally
created by CPRA for the
2017 Coastal Master Plan

LAND & WETLANDS - 2017



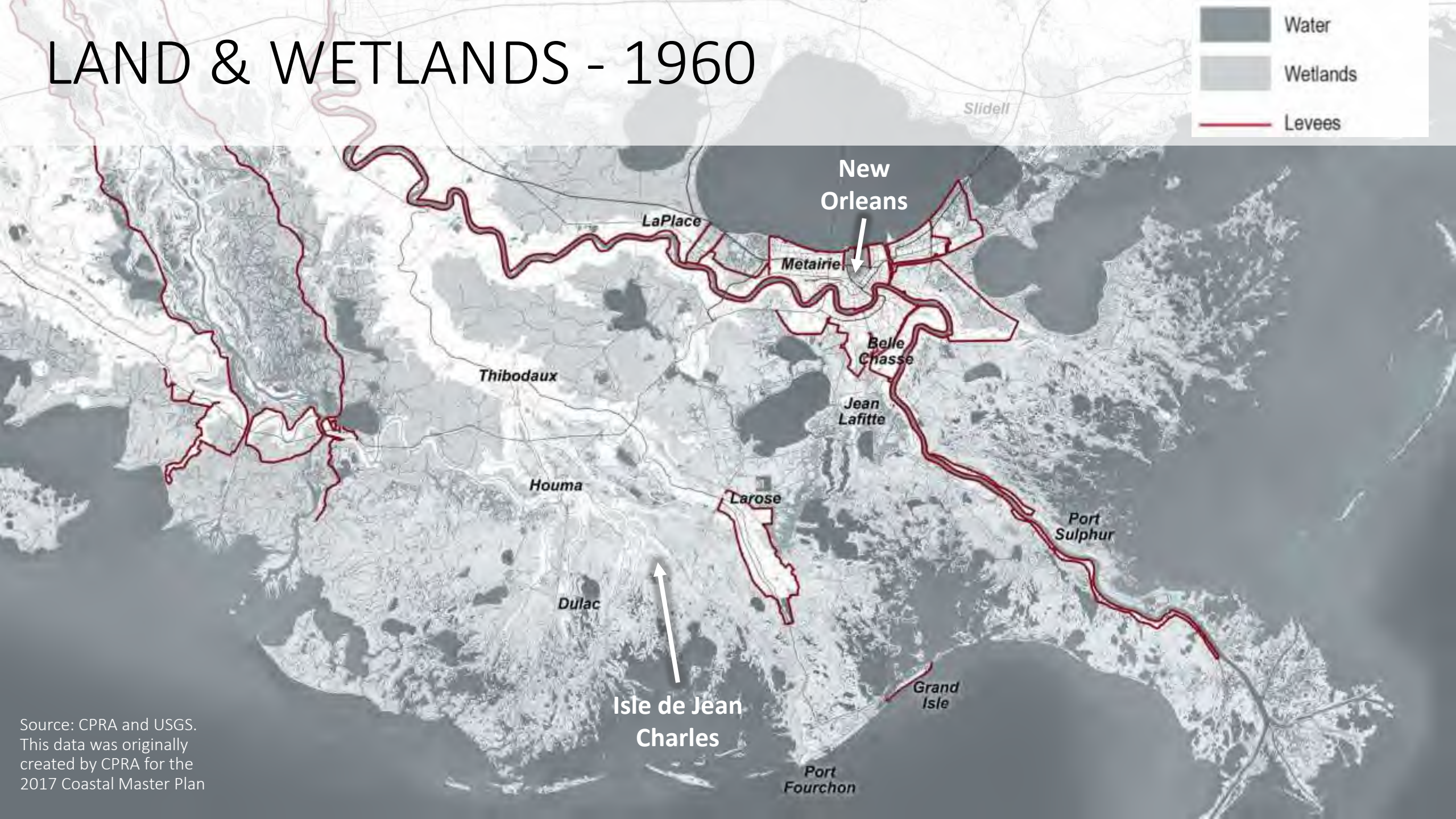
Source: CPRA and USGS.
This data was originally
created by CPRA for the
2017 Coastal Master Plan

LAND LOSS – 2067 (with plan)



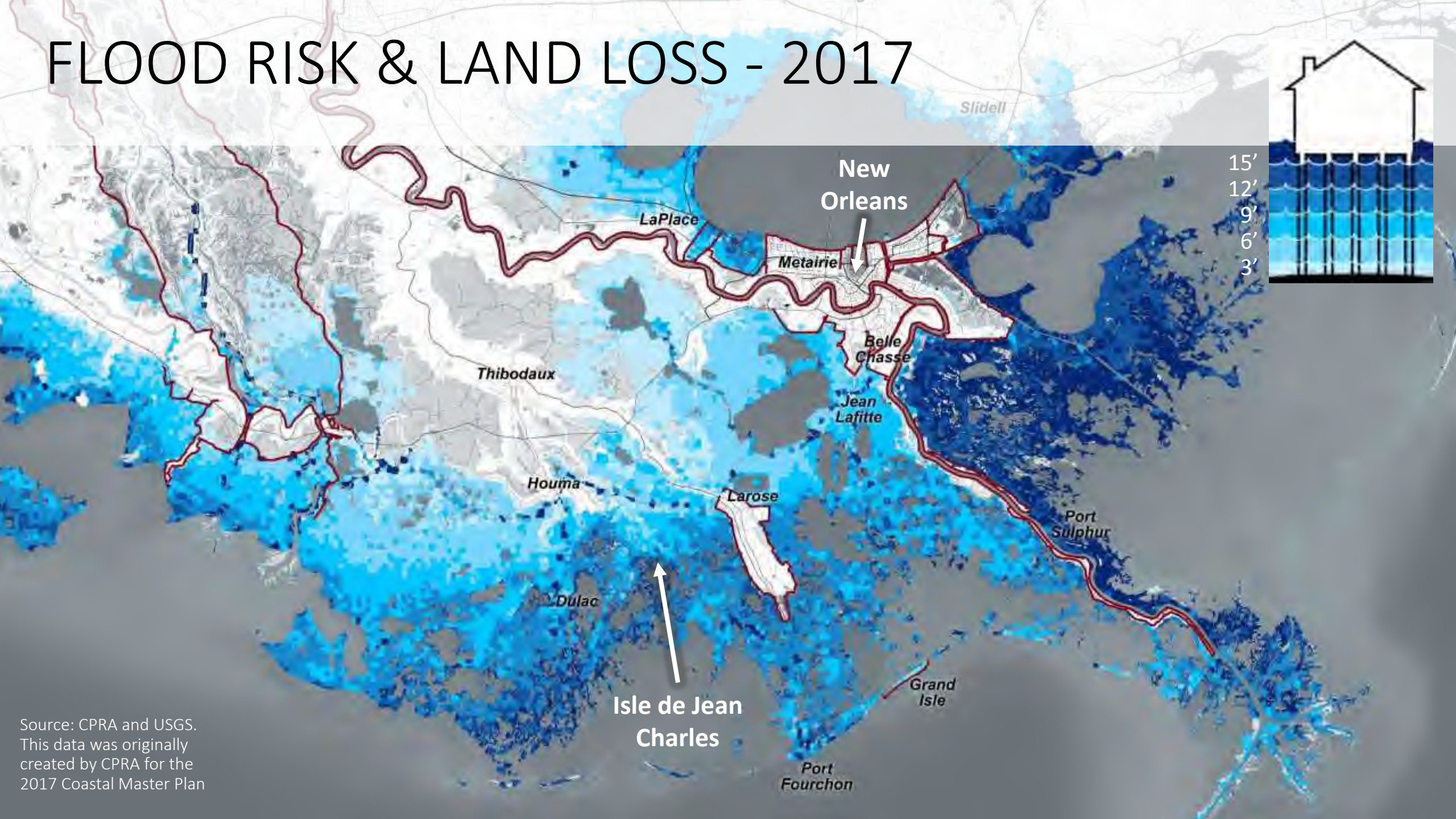
Source: CPRA and USGS.
This data was originally
created by CPRA for the
2017 Coastal Master Plan

LAND & WETLANDS - 1960



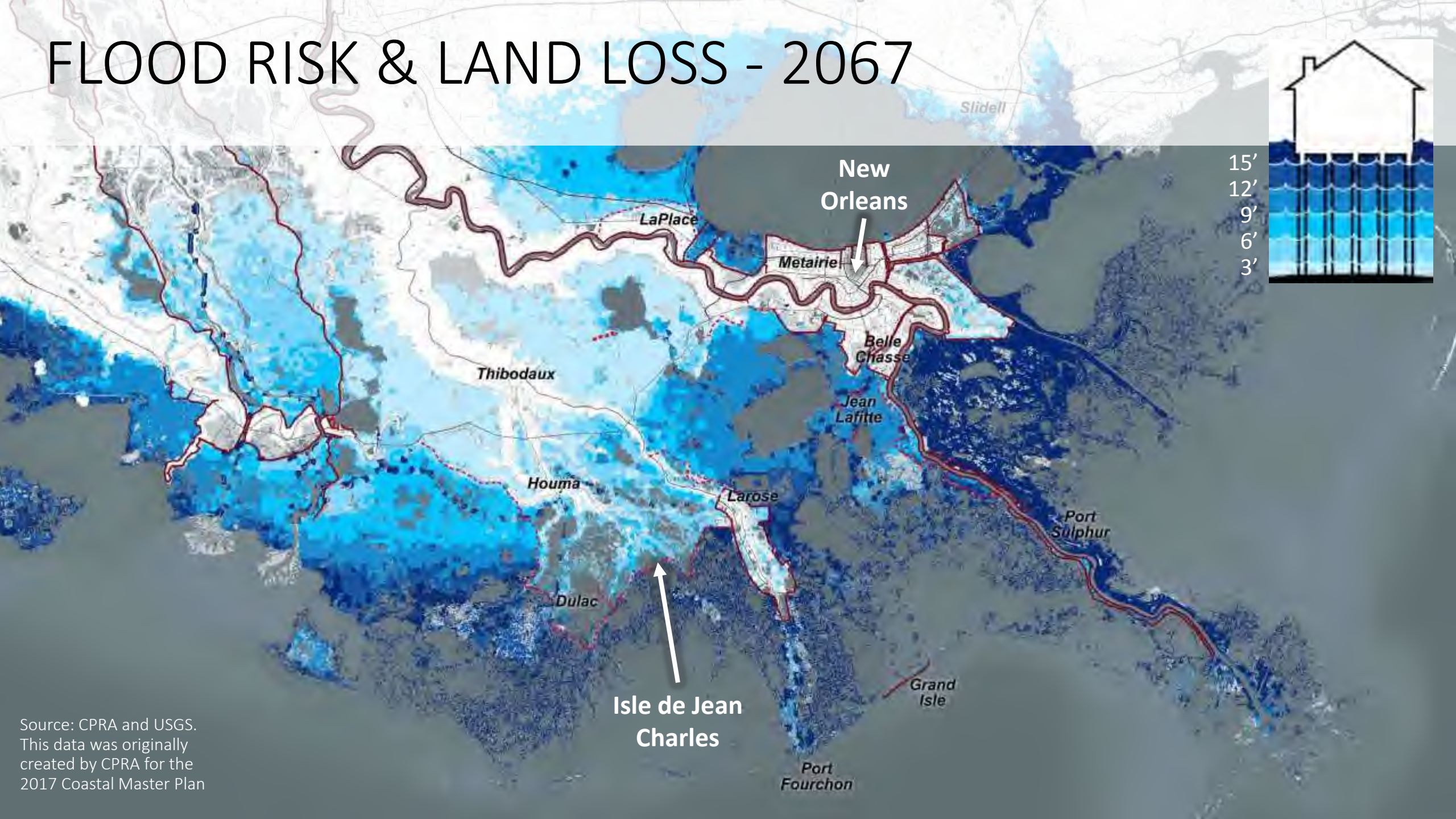
Source: CPRA and USGS.
This data was originally
created by CPRA for the
2017 Coastal Master Plan

FLOOD RISK & LAND LOSS - 2017



Source: CPRA and USGS.
This data was originally
created by CPRA for the
2017 Coastal Master Plan

FLOOD RISK & LAND LOSS - 2067






Source: CPRA and USGS.
This data was originally
created by CPRA for the
2017 Coastal Master Plan

FLOOD RISK TYPOLOGIES



Source: CPRA and FEMA

PROJECTED FLOOD DEPTHS

-  ***Low: 0'-3'***
-  ***Mod: 3'-6' ****
-  ***High: 6'+***

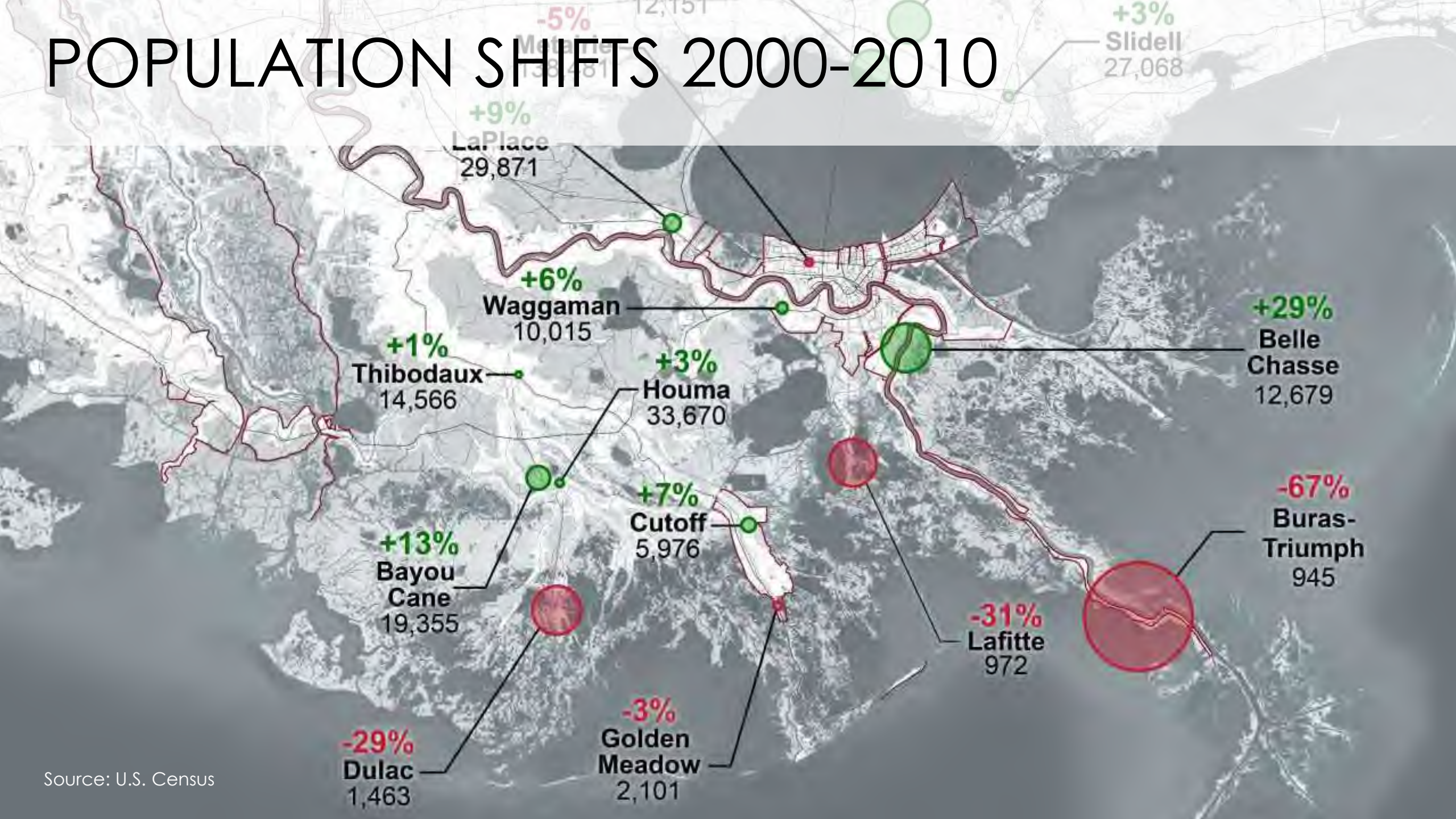
*Flood depths per
moderate scenario of
CPRA model for a
100-year storm in
2067*

** Moderate Risk is per
CPRA model OR w/in
100 year FEMA
floodplain*

ELEVATION



POPULATION SHIFTS 2000-2010



The background is a collage of various items related to the LASAFE Foundation. It includes a map titled 'LAND: 2067 THIS IS IF WE PROTECT & RESTORE' showing land use projections, a map titled 'FLOOD RISK: TODAY' showing current flood risk areas, and several LASAFE Foundation for Louisiana Social Assistance Leverage Fund brochures. The brochures feature the LASAFE logo, which consists of a stylized 'L' and 'A' in green and yellow, and the text 'LASAFE Foundation for Louisiana Social Assistance Leverage Fund'. The brochures also list social media handles: @LASAFE, @LASAFE, and @LASAFE. The entire collage is overlaid with a semi-transparent white rectangle containing the text 'COMMUNITY ORGANIZING & ENGAGEMENT'.

COMMUNITY ORGANIZING & ENGAGEMENT



LA SAFE FACILITATORS & LEAD THE COAST



COMMUNITY PARTNERS & EXPANDED CAPACITY



FRANKLIN
ASSOCIATES



COMMUNICATIONS

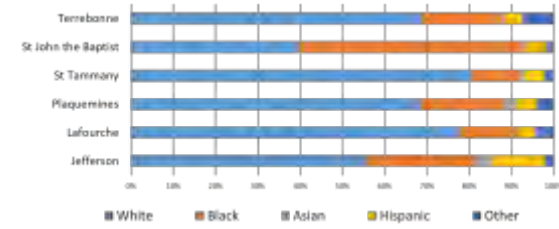
LASAFE.LA.GOV



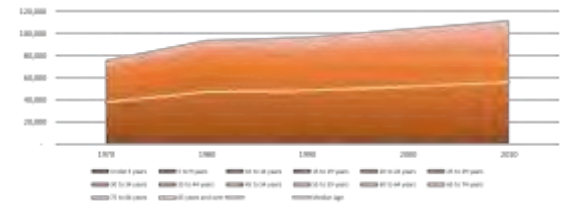
COMMUTER POPULATIONS



ETHNICITY



AGE



DATA

March & April

**Parishwide
Meeting**



**Identify
Challenges &
Opportunities**

May & June

**Community
Meetings**



**Propose
Strategies**

July & August

**Parishwide
Meeting**



**Evaluate
Vision &
Strategies**

October

**Stakeholder
Round-tables &
Open Houses**



**Policy, Program,
& Project
Development**

December

**Parishwide
Meeting**



**Project
Evaluation**

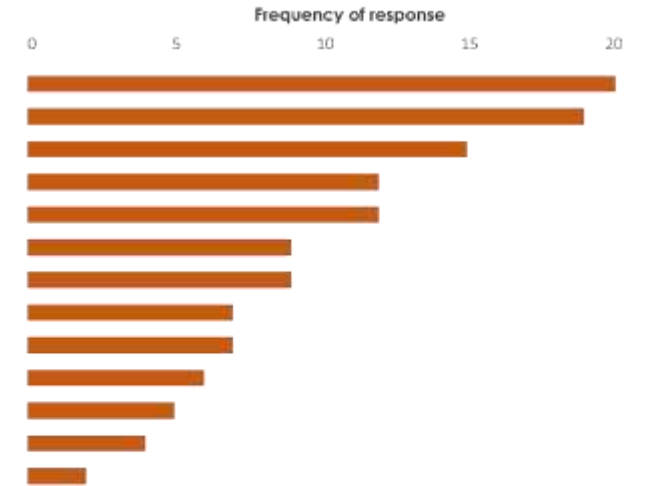
71 Community Meetings
2,835 Participants



1.GOALS AND VALUES

Challenges

1. Population loss and movement
2. Flooding
3. Loss of business and industry
4. Loss of jobs and income
5. Wildlife movement and death
6. Increasing cost of living
7. Seafood industry instability
8. Schools closing
9. Land loss and erosion
10. Home values declining
11. Cultural loss
12. Declining safety
13. Increased traffic



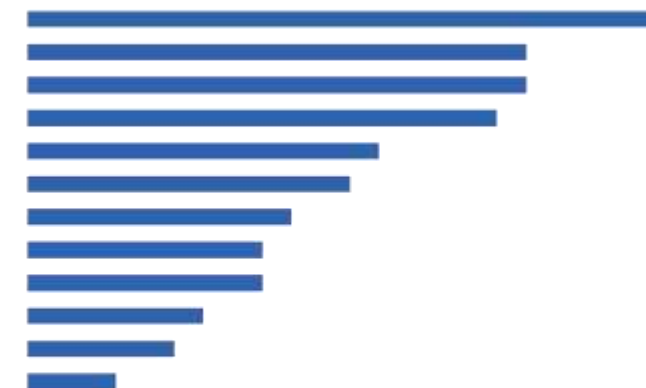
Strengths

1. Traditions and culture
2. Natural beauty
3. Quality of life
4. Community closeness
5. Fishing and hunting
6. Business & industry

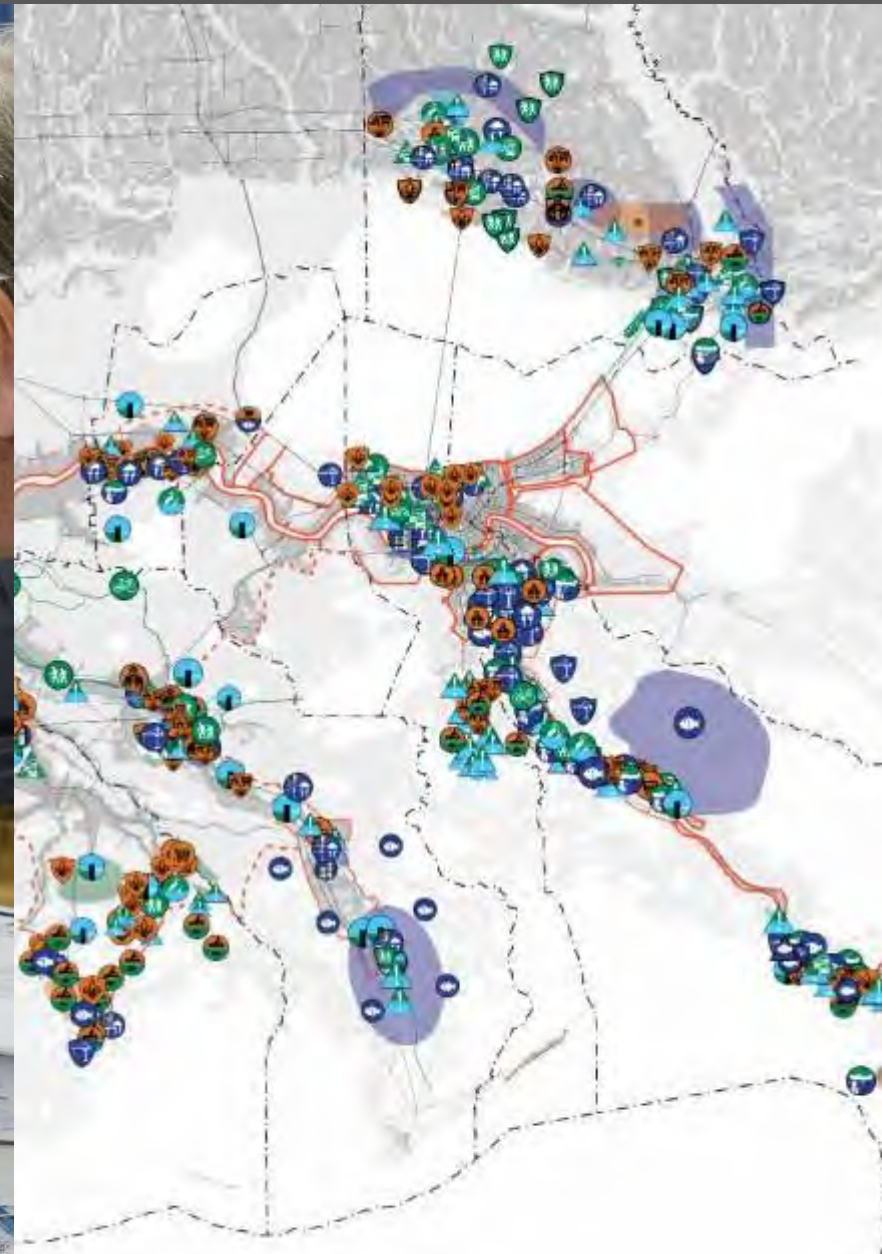


Opportunities

1. Jobs and jobs training
2. Improve education and information sharing
3. Economic development and diversification
4. Coastal protection and restoration
5. Improve regulations and policy
6. Preserve culture and promote tourism
7. Plan and build for future conditions
8. Preserve community stability
9. Recreation and youth programs
10. Promote local seafood
11. Land and water management



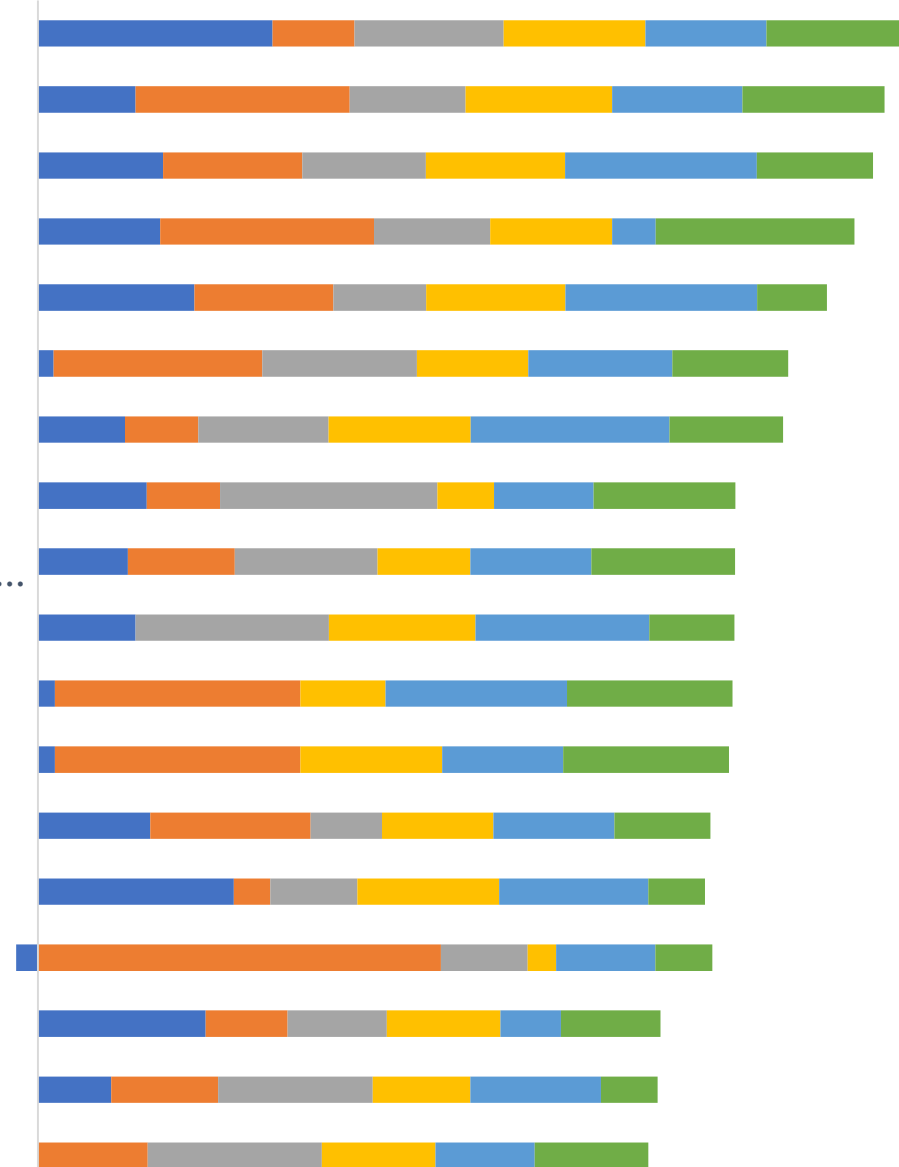
2. NEEDS & OPPORTUNITIES





3. ADAPTATION STRATEGIES

- Public Boat Docks
- Cross-Parish Stormwater Management Strategy
- Coastal Restoration Construction Jobs & Training
- Improved Parish Drainage System
- Job Training Programs
- Job Opportunities In Renewable Energy
- Increased Affordable Housing Options
- Drainage Requirements for New Developments
- Support Culturally Focused Camps & After School...
- Culvert/Ditch Maintenance
- Commuter & Regional Rail
- Complete Streets
- Community gardens and planting programs
- Incentivize Essential Service Providers
- Medium Density Housing (2-3 stories)
- Improve Public Transportation Across Parish lines
- Create a Full-Time Drain Maintenance Department
- Proaram to Restore Abandoned Property to Natural...



4. POLICY, PROGRAM, & PROJECT DEVELOPMENT



5. PROJECT EVALUATION







1. Public Preference

A proposal earns points based on public polling at the meetings and online.



2. Leverage Funds

A proposal earns points if it can identify other funding sources in addition to current funds. Points are awarded by proportion of leverage funds to LA SAFE investment.



3. LMI Benefit

A proposal earns points if 50% or more of the proposal benefits a low-to-moderate-income (LMI) population. Points will be awarded on an all-or-nothing basis.



4. Public Benefit (Quantitative)

A proposal earns points if the benefit to the public can be measured. For example, the number of units created or rehabilitated in a housing proposal, or the number of jobs created in an economic development proposal.



5. Public Benefit (Qualitative)

A proposal earns points if it addresses future flood risk and environmental conditions in a unique way and/or improves quality of life for residents..



6. CRS Score

A proposal will earn points if the activity falls under the Community Rating System (CRS). Points will be awarded on an all-or-nothing basis.

Adaptation Strategies: Programs & Policies

Jeannette Dubinin

CPEX



CENTER for PLANNING EXCELLENCE





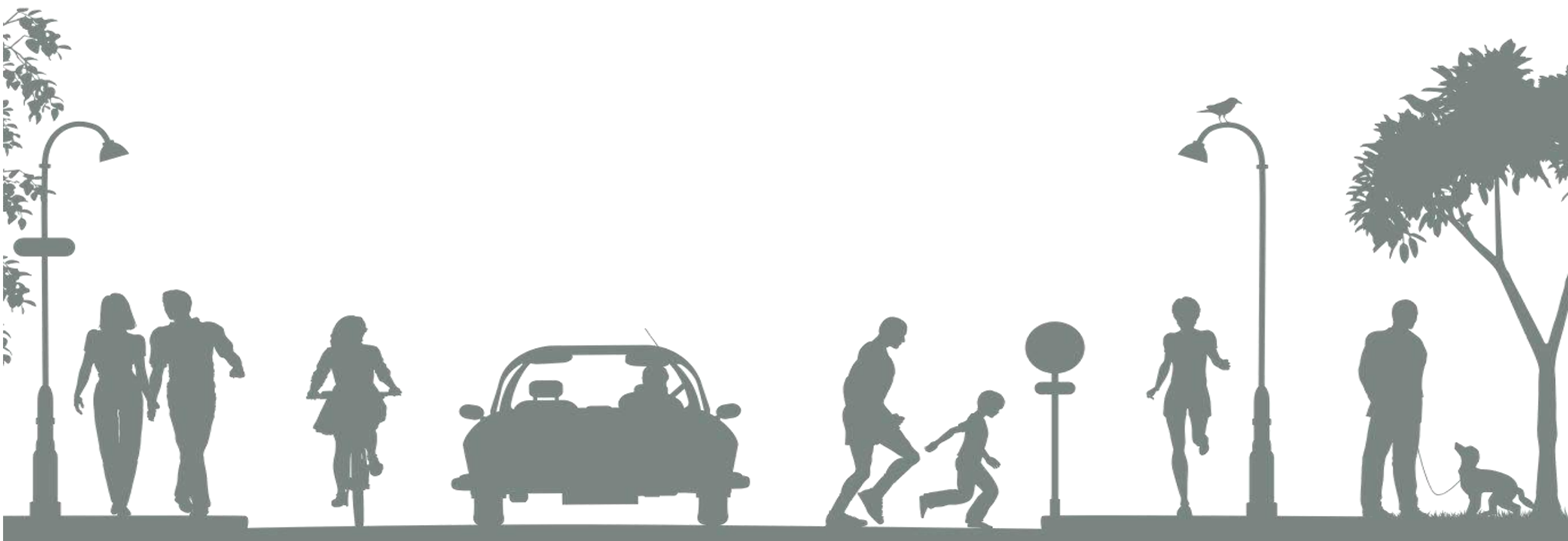


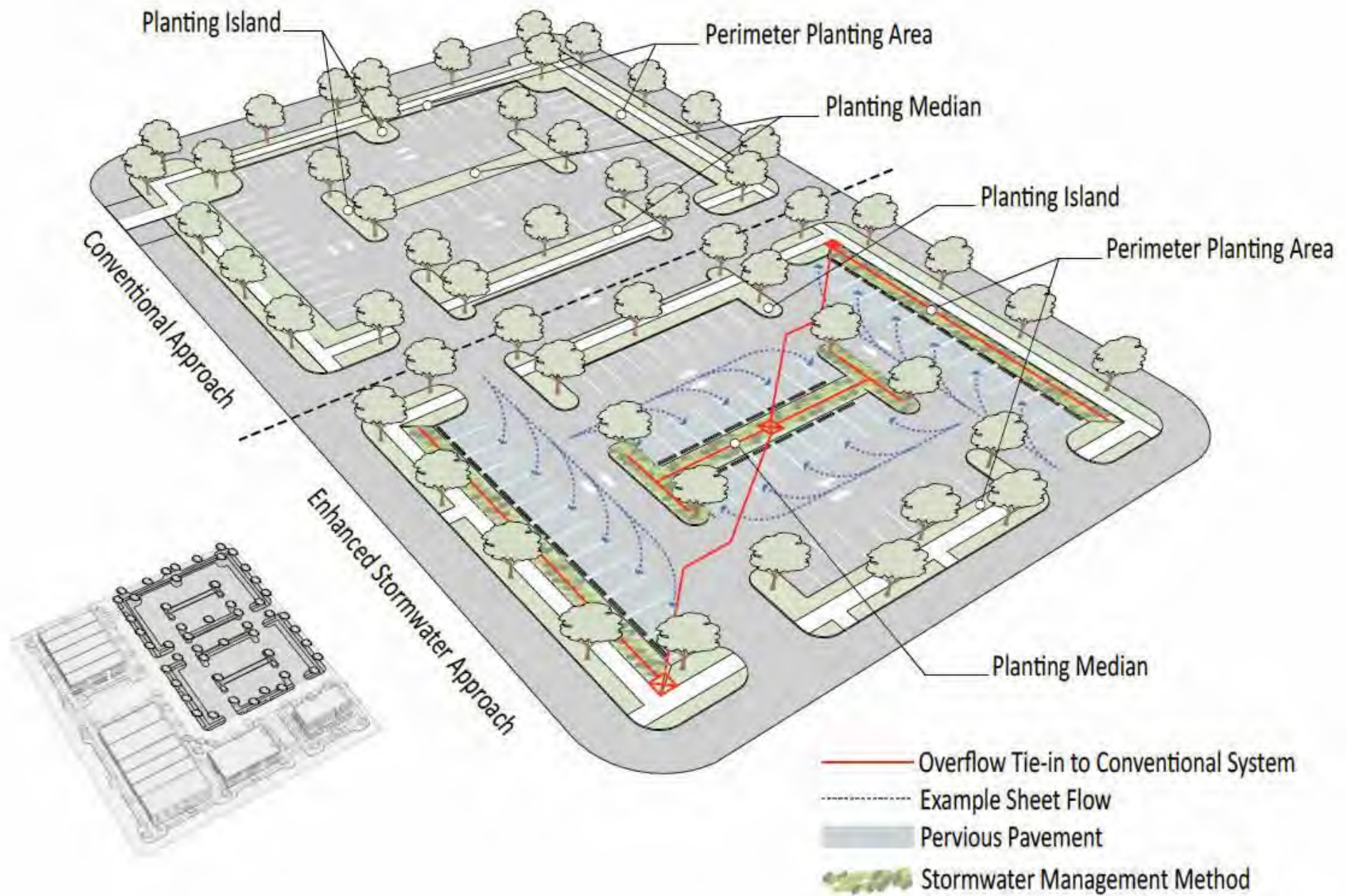












PLANNING CATEGORIES



STORMWATER MANAGEMENT



HOUSING AND DEVELOPMENT



TRANSPORTATION



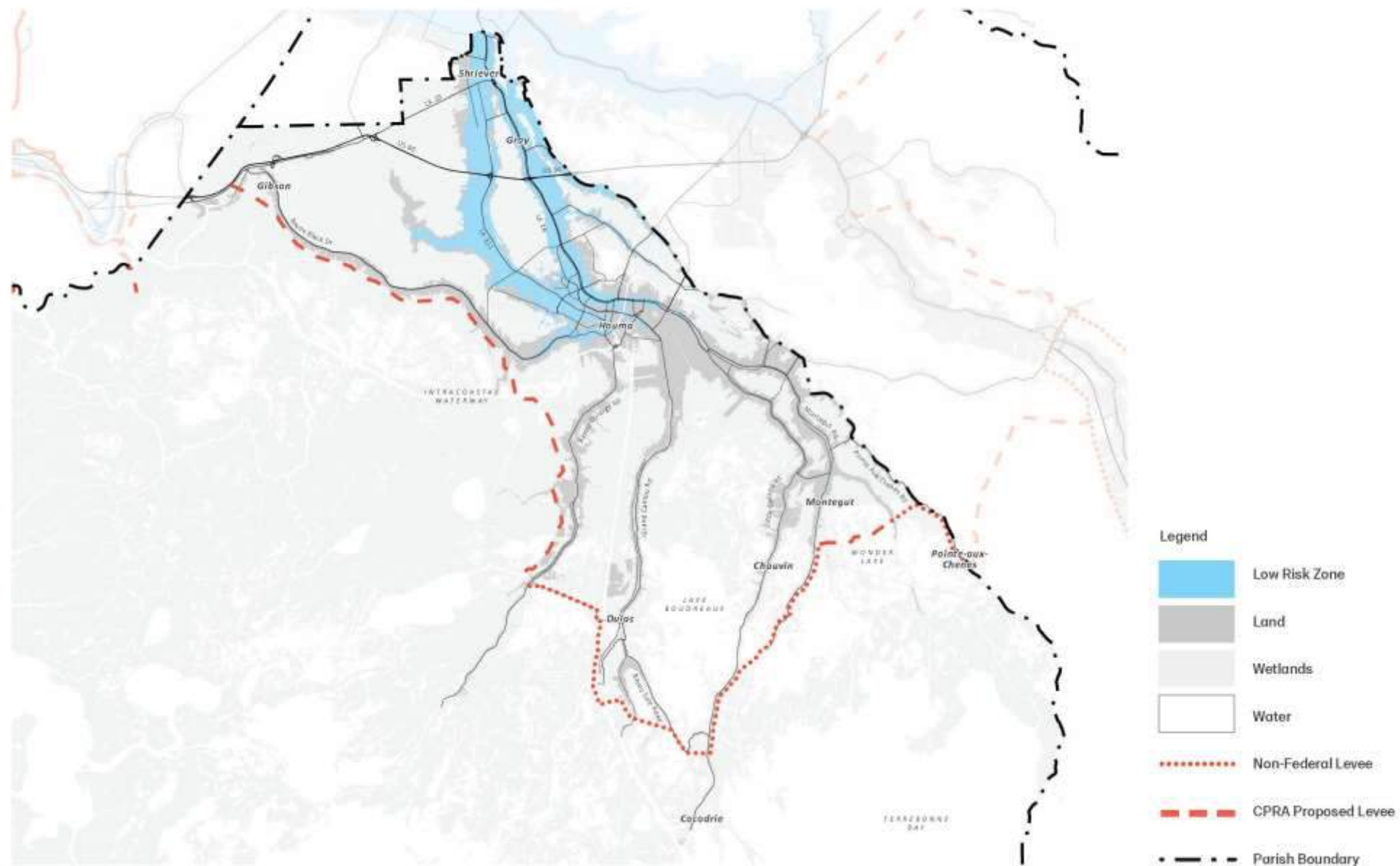
EDUCATION, ECONOMY, AND JOBS



CULTURE AND RECREATION

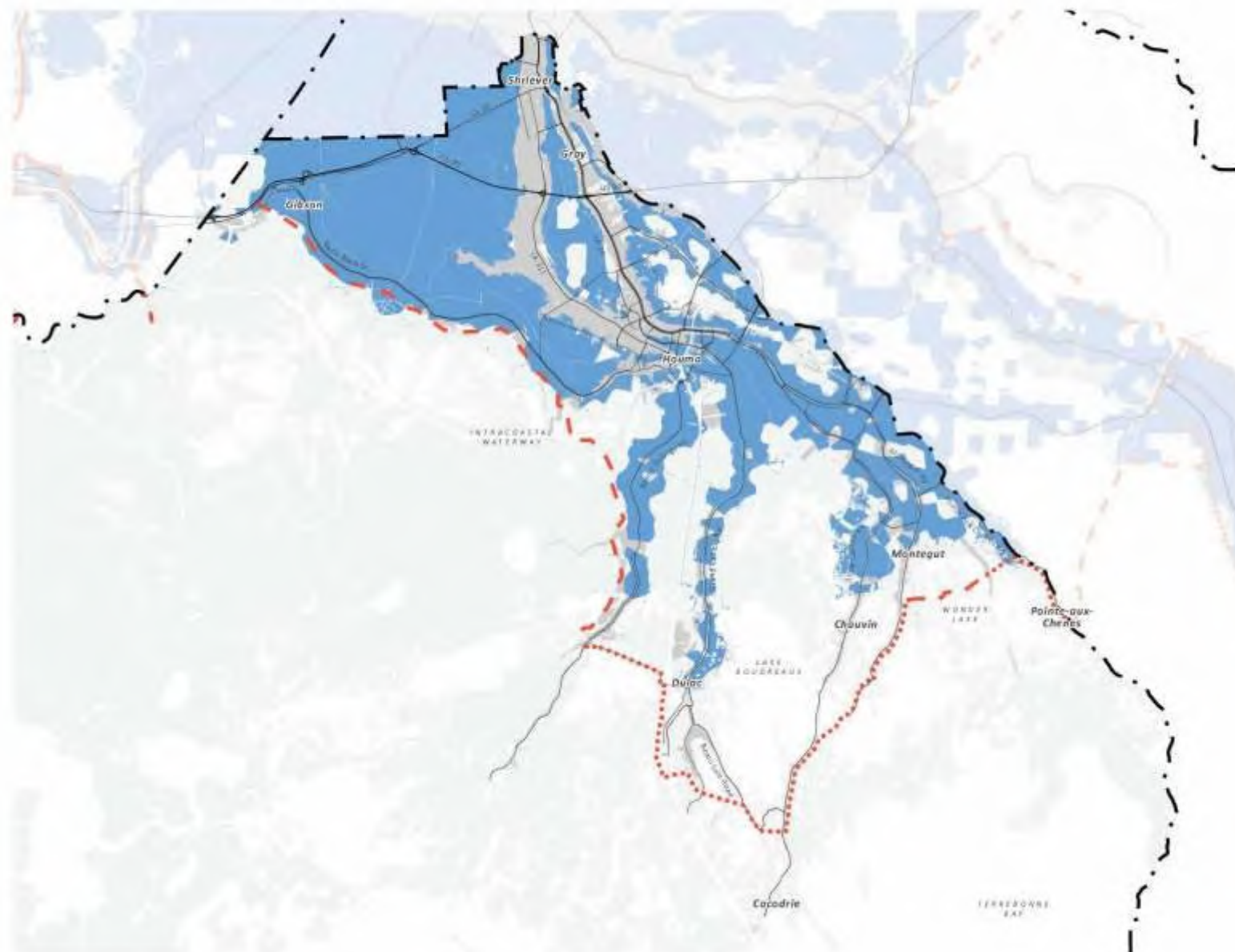
Low Risk Zone

LA SAFE - Terrebonne Parish



Moderate Risk Zone

LA SAFE - Terrebonne Parish

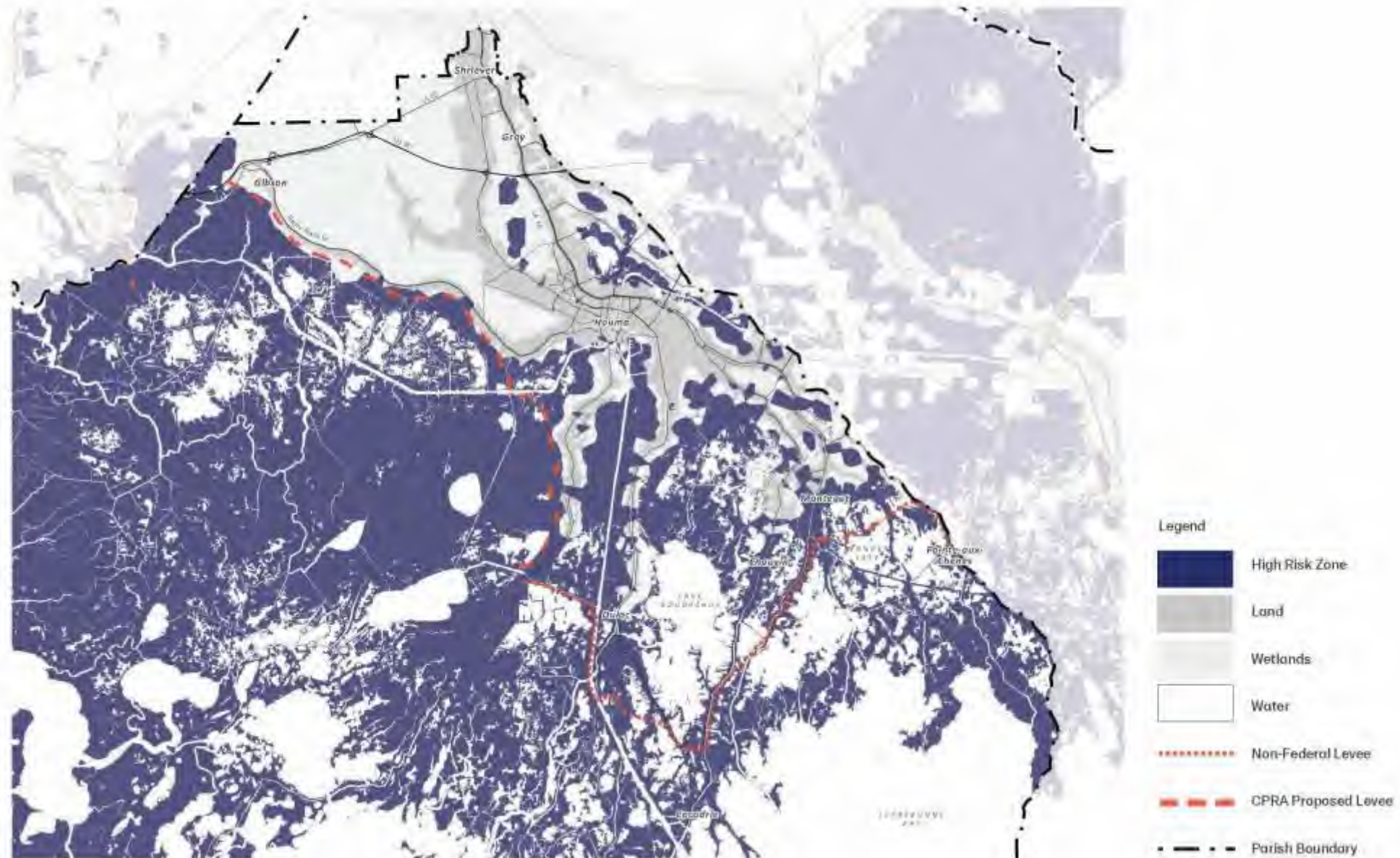


Legend

-  Moderate Risk Zone
-  Land
-  Wetlands
-  Water
-  Non-Federal Levee
-  CPRA Proposed Levee
-  Parish Boundary

High Risk Zone

LA SAFE - Terrebonne Parish



50-Year Vision by Risk Zone

LA SAFE - Terrebonne Parish



Low Risk
0' - 3' projected flood depths

Design New Growth Corridors and Urban Centers



Moderate Risk
3' - 6' projected flood depths
Within the 100-year floodplain

Protect Assets and Establish Resilient Neighborhoods

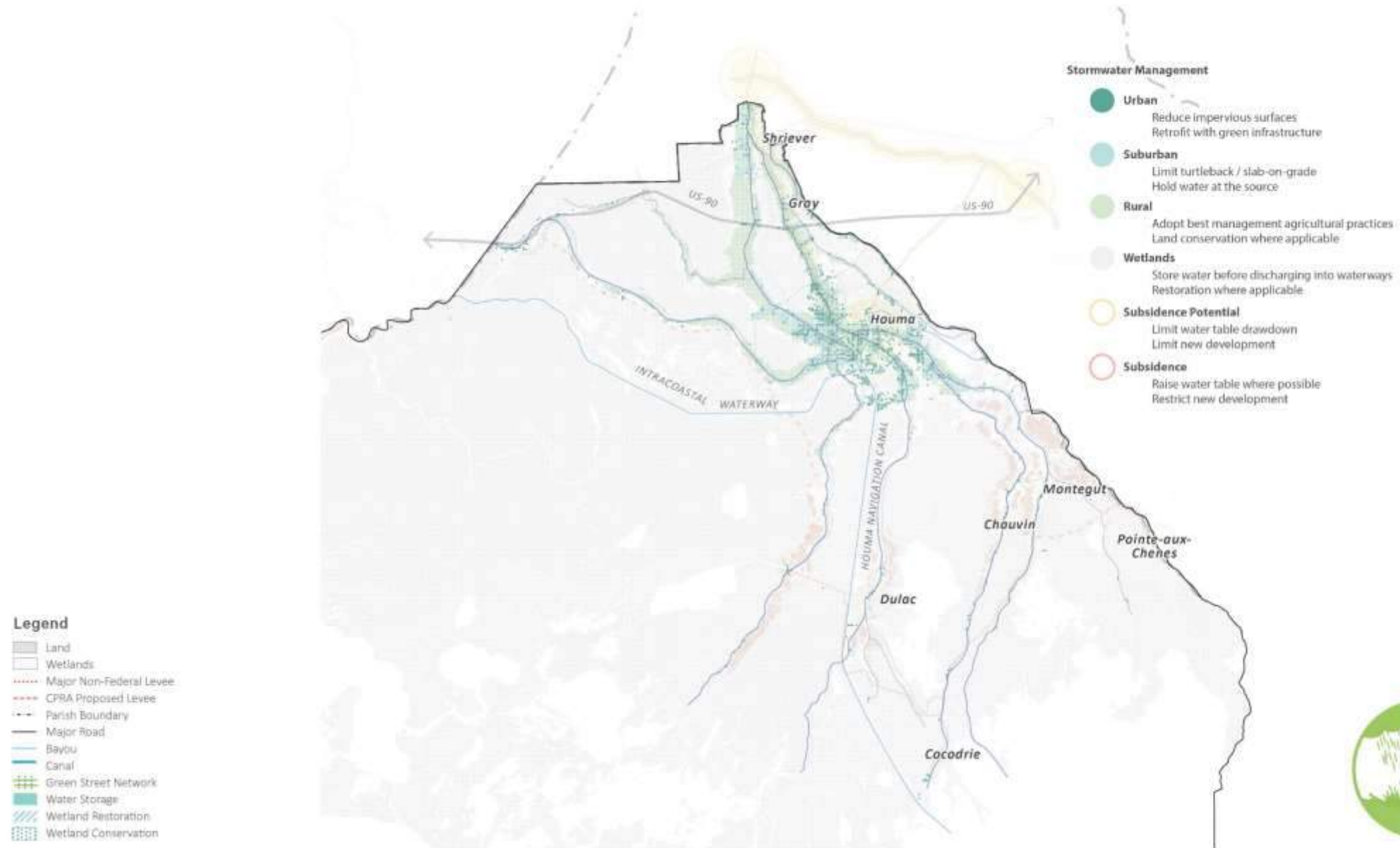


High Risk
6'+ projected flood depths

Enhance Economic Engines and Adapt to Rising Waters

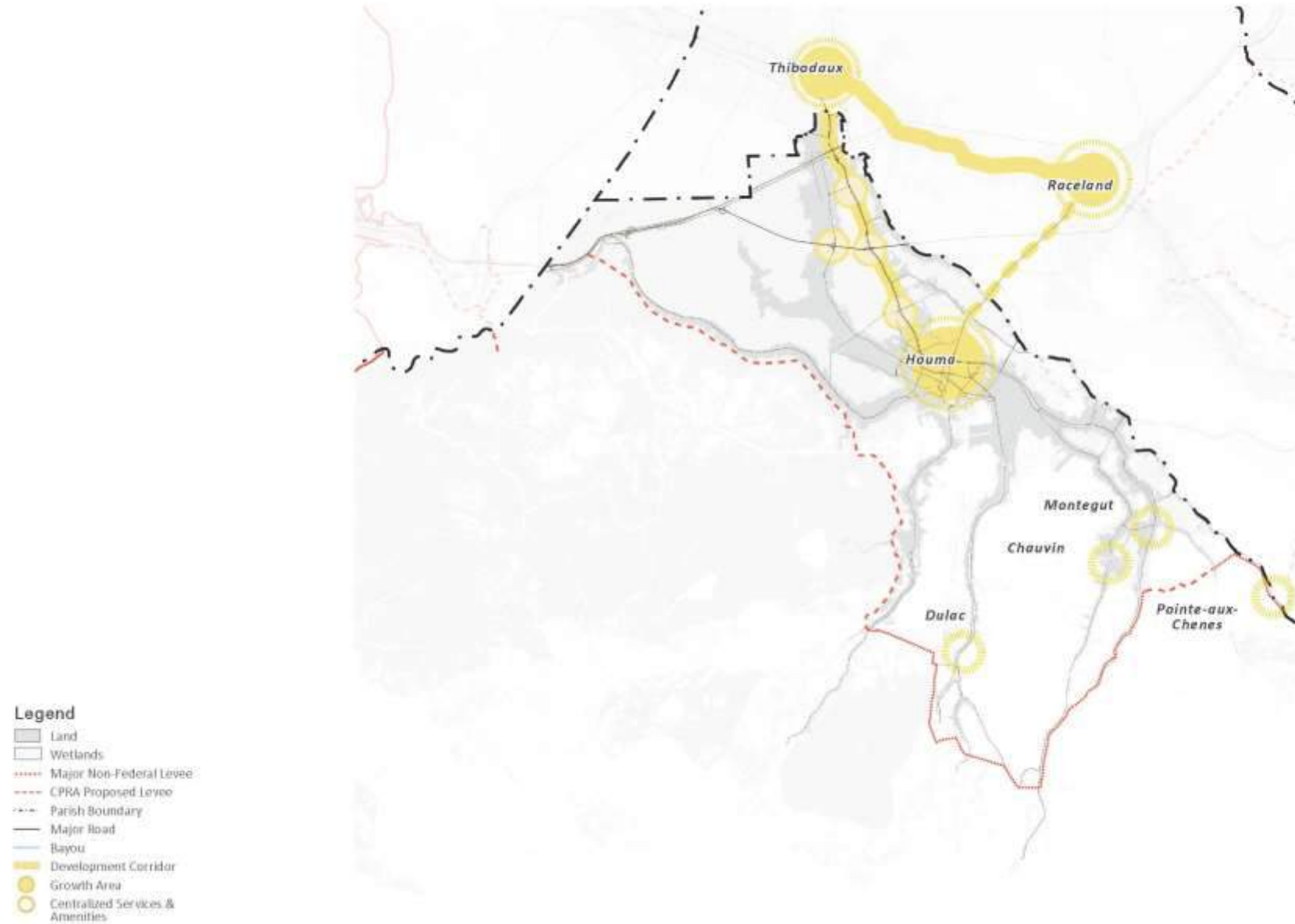
1 Mitigate Flooding & Subsidence

LA SAFE - Terrebonne Parish



2 Direct Growth to Low Risk Areas

LA SAFE - Terrebonne Parish





Goal 2: Direct growth to low-risk areas

Create safe and vibrant communities with amenities that attract and retain residents of all ages.

Strategy 1: Encourage housing and commercial development on higher ground

Strategy 2: Continue revitalization of downtown Houma

Strategy 3: Plan for a Houma-Thibodaux growth corridor

Strategy 1

Encourage housing and commercial development on higher ground

Action A: Prepare areas of higher ground for increased concentrations of development.

Action B: Develop a housing incentive program to encourage development on higher ground.

Action C: Consider repurposing unused properties.

3 Improve Mobility

LA SAFE - Terrebonne Parish



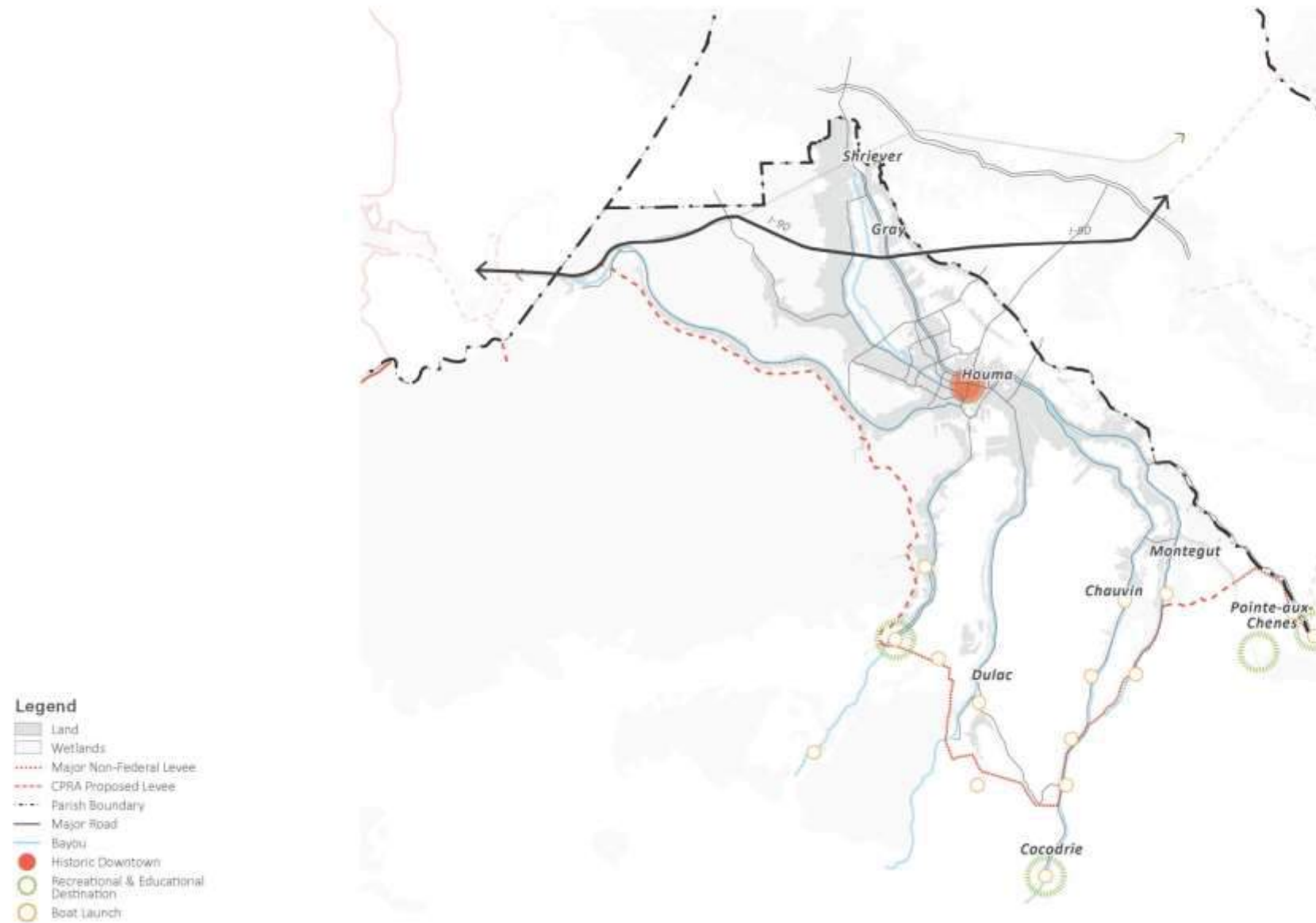
4 Build a Robust Economy

LA SAFE - Terrebonne Parish



5 Protect & Promote Assets

LA SAFE - Terrebonne Parish



DESIGNING SUSTAINABLE ENVIRONMENTS

Maria Papacharalambous
Waggoner & Ball





Image: State of Louisiana Office of Community Development



A Global Challenge

Integrated Water Management

LA SAFE 50-Year Vision

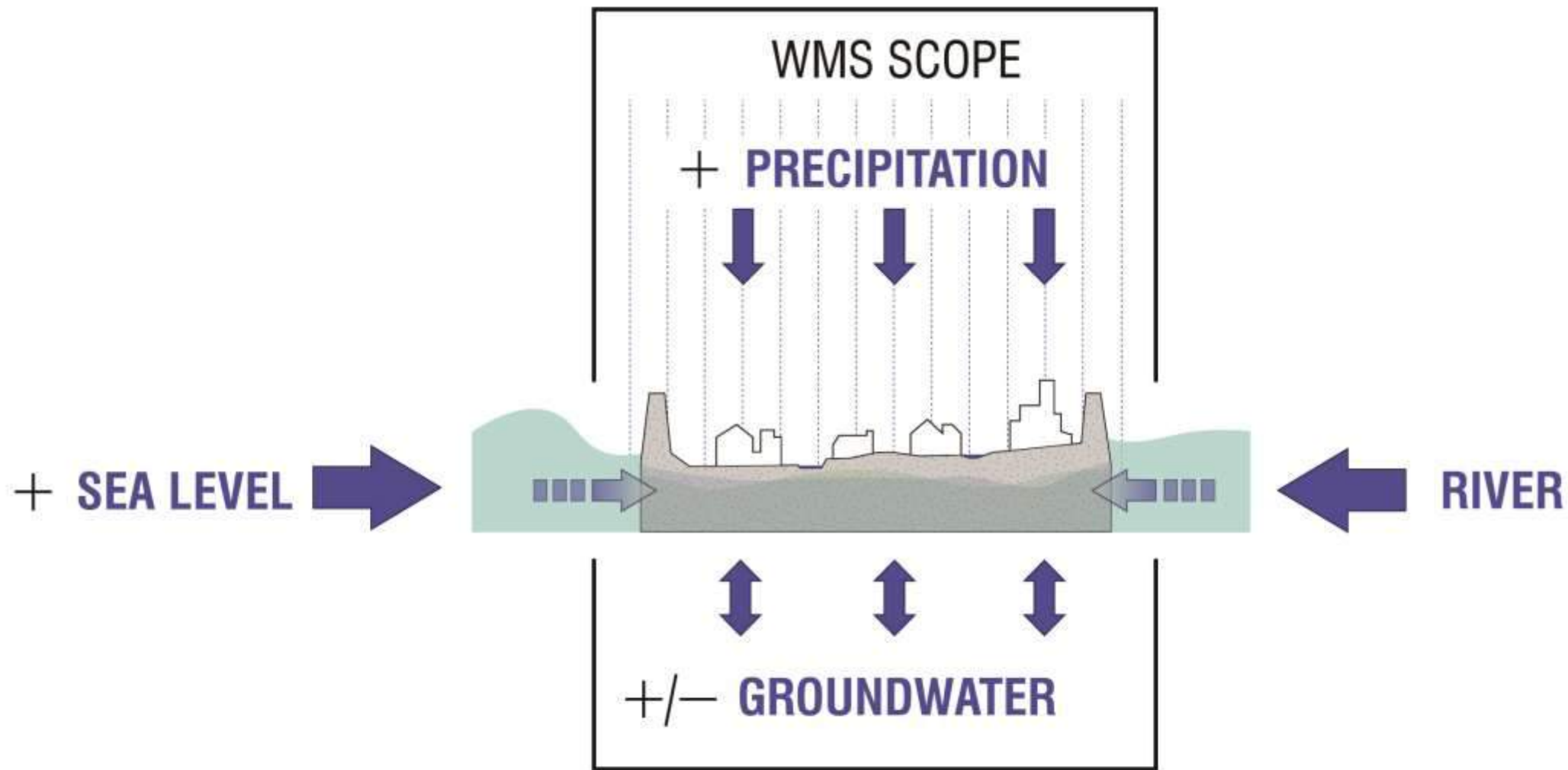
LA SAFE Pilot Projects



Portraits From a Drowning World



Images by Gideon Mendel, Nat'l Geographic

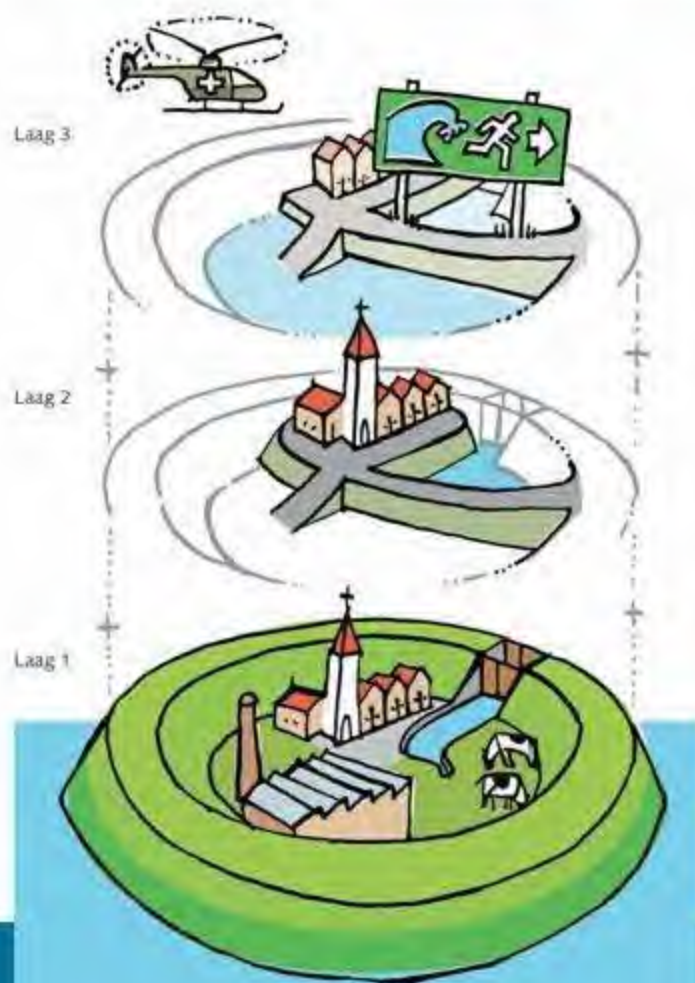


THE FORCES OF WATER

The project area is surrounded by water that pushes and pulls with human use, tides, floods, and climate change.



Flood risk management in the Delta programme*



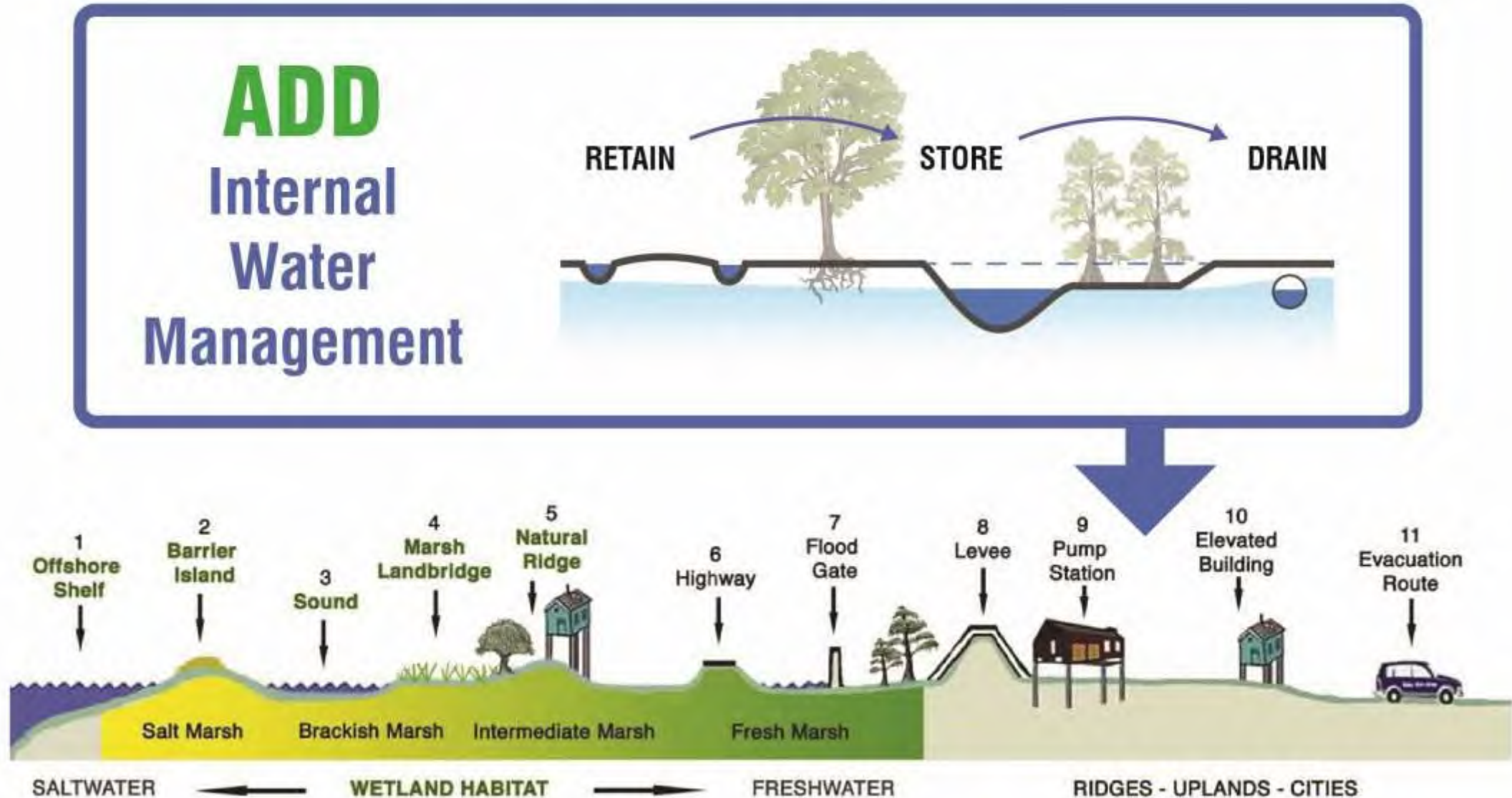
Multi-level protection strategy:

Level 3:
**Effective flood warning and
emergency plans**

Level 2:
Flood robust spatial planning

Level 1:
Flood protection

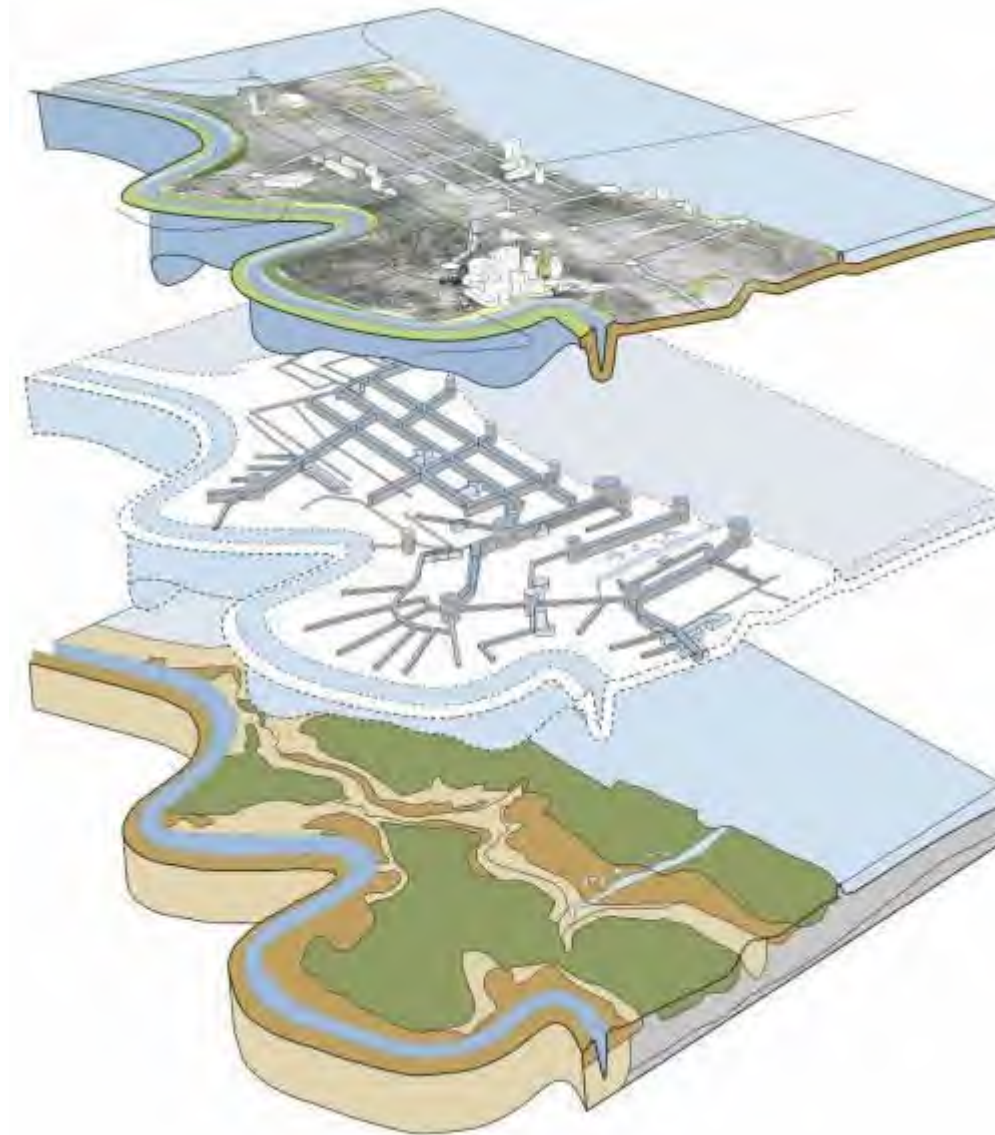
Multiple Lines of Defense





INTEGRATED WATER MANAGEMENT

Planning Approach



Inhabitation
Land Cover

Infrastructure
Networks

Soils
Water
Biodiversity

Land is Sinking As the Gulf is Rising

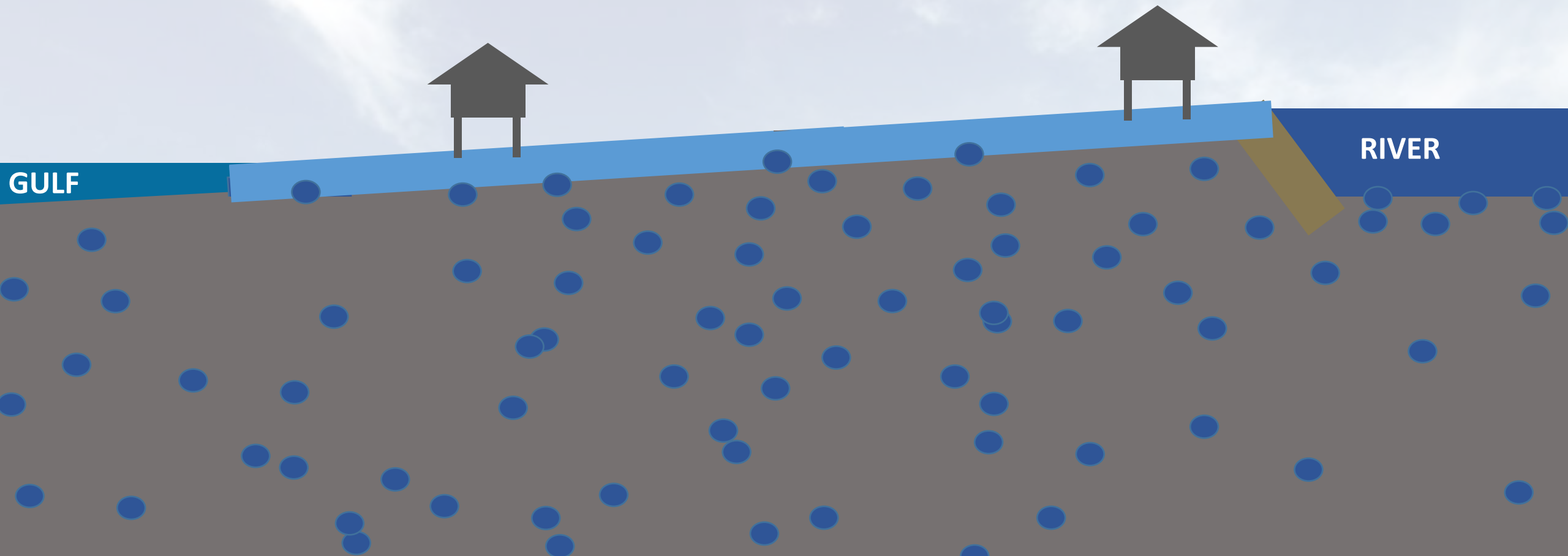
SEA LEVEL RISE



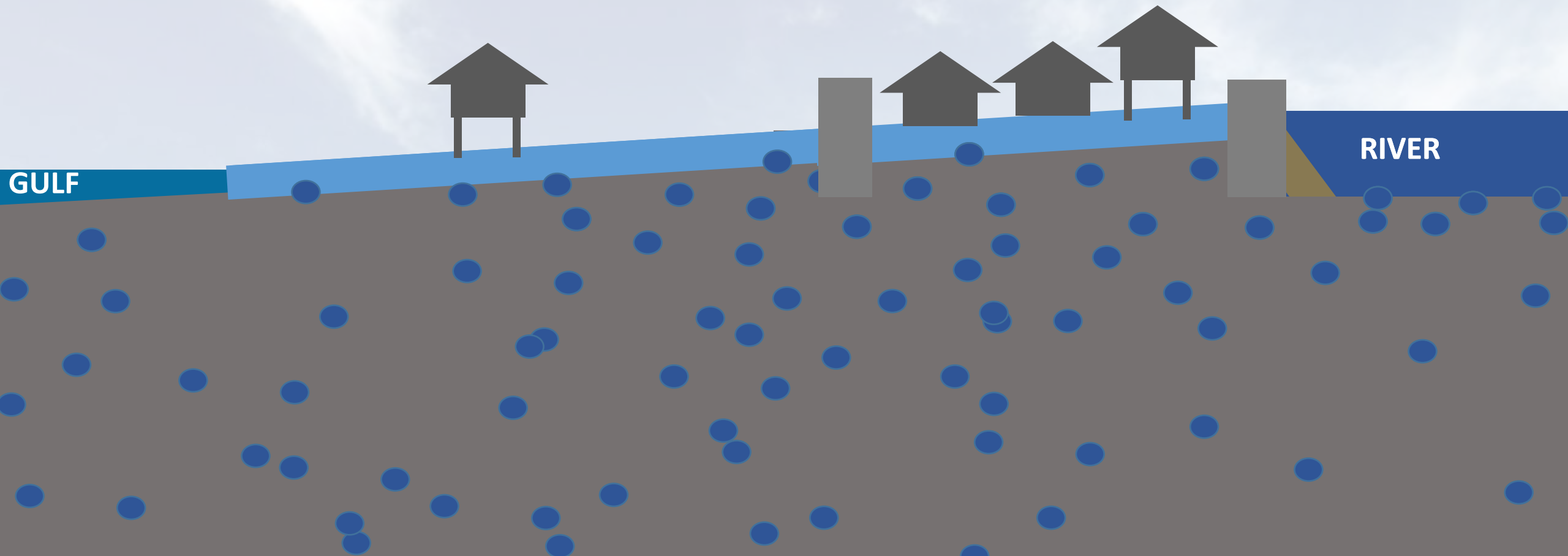
SUBSIDENCE



Historic Adaptation (Before Levees)



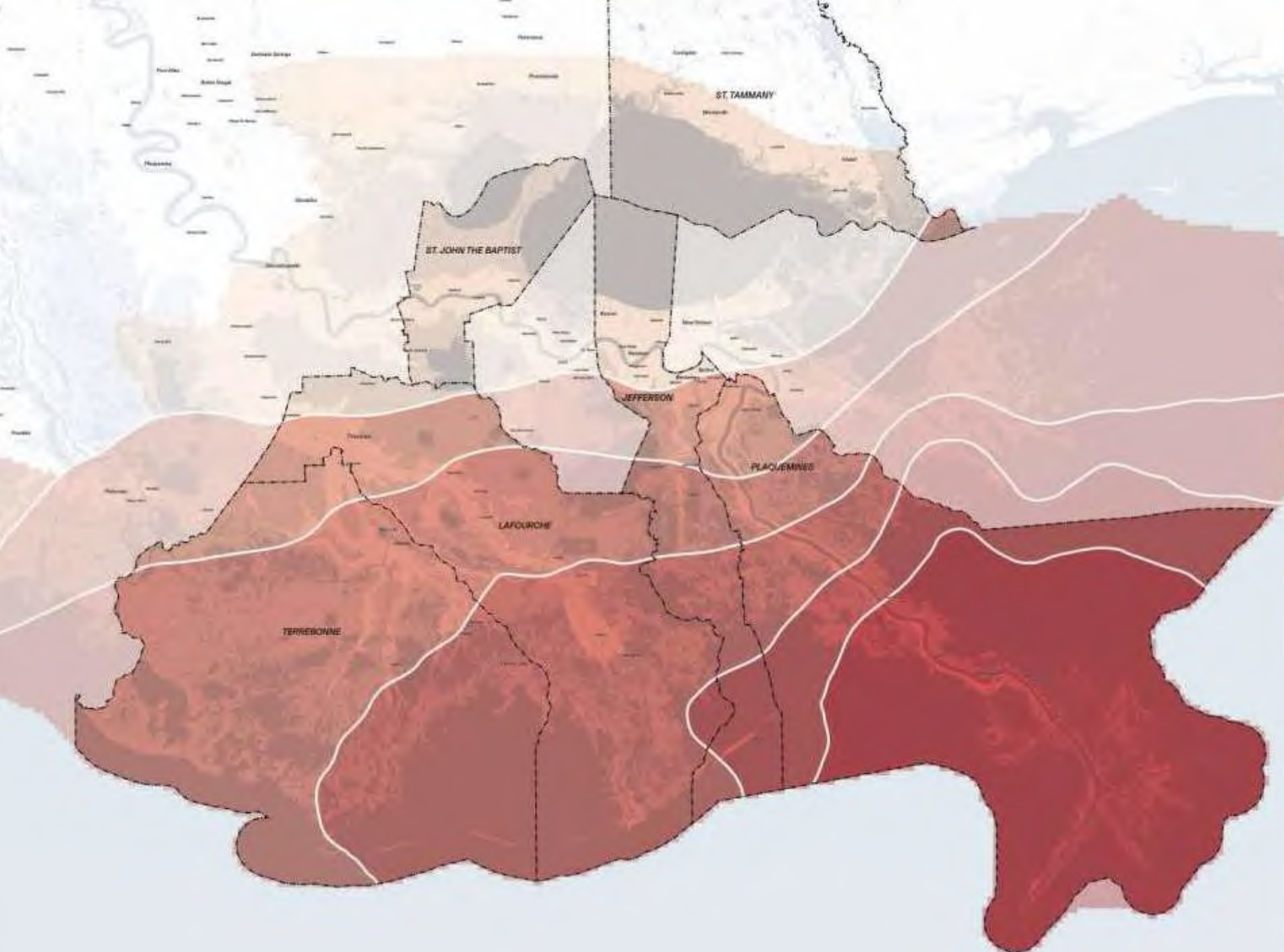
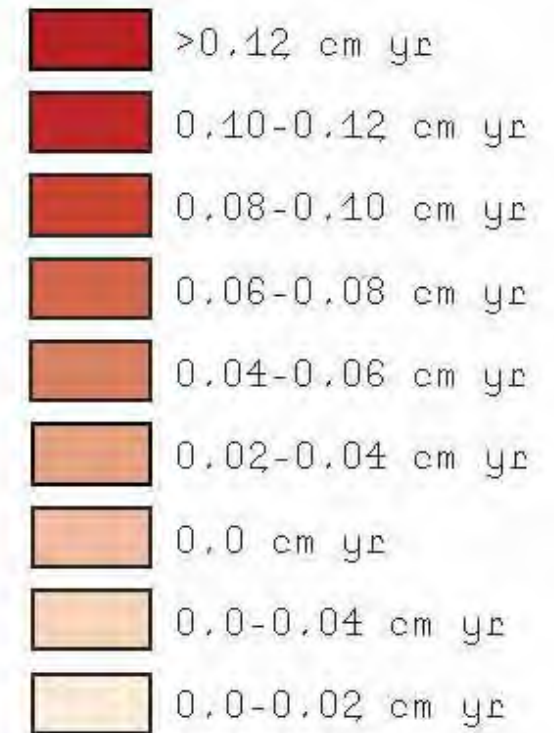
20th Century Adaptation (Levees & Slab-On-Grade Homes)



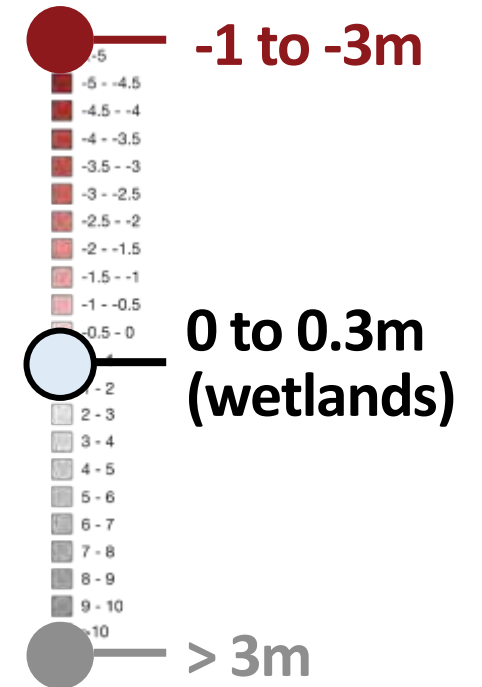
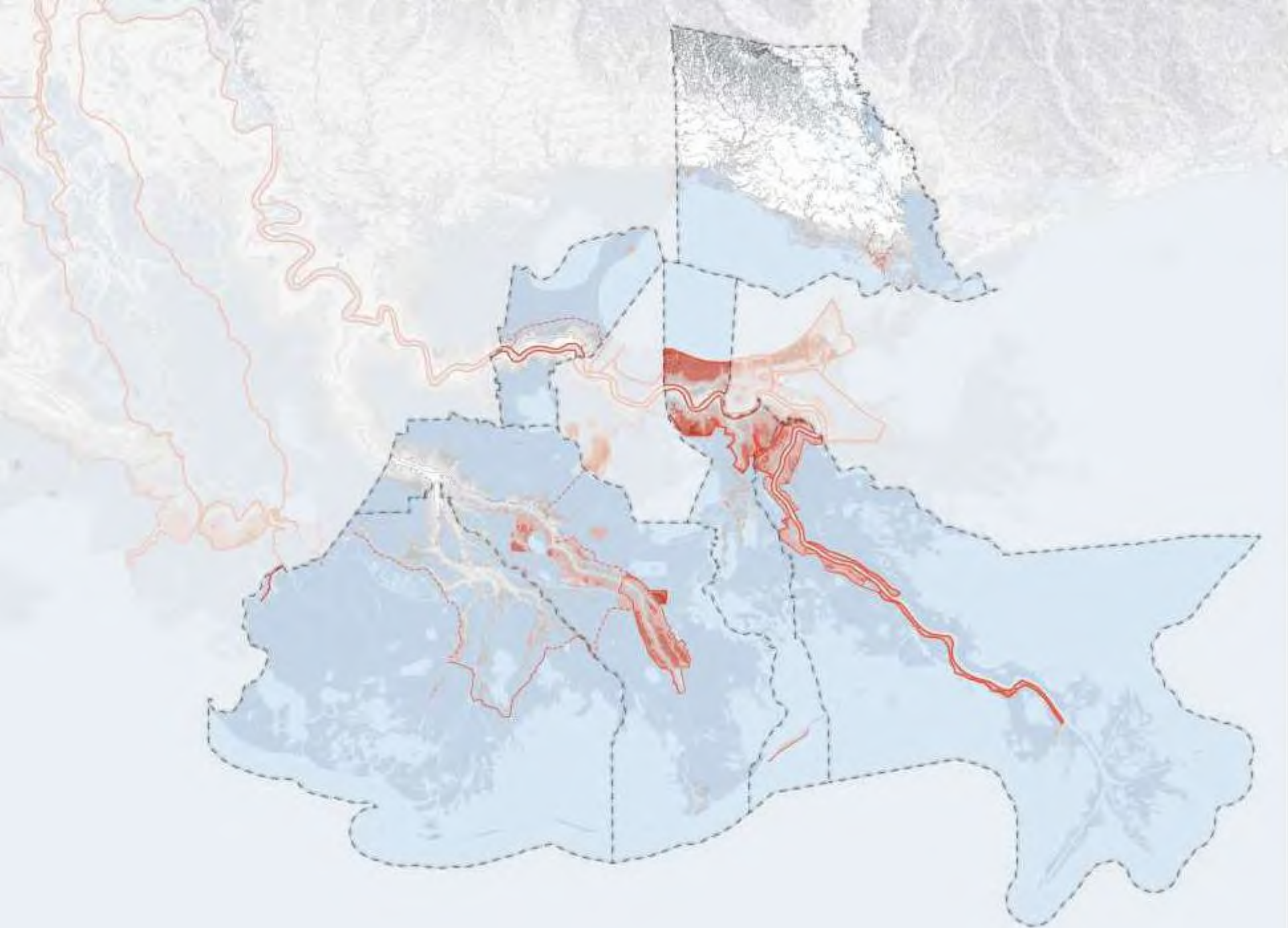
21st Century Challenges



Coastal Subsidence

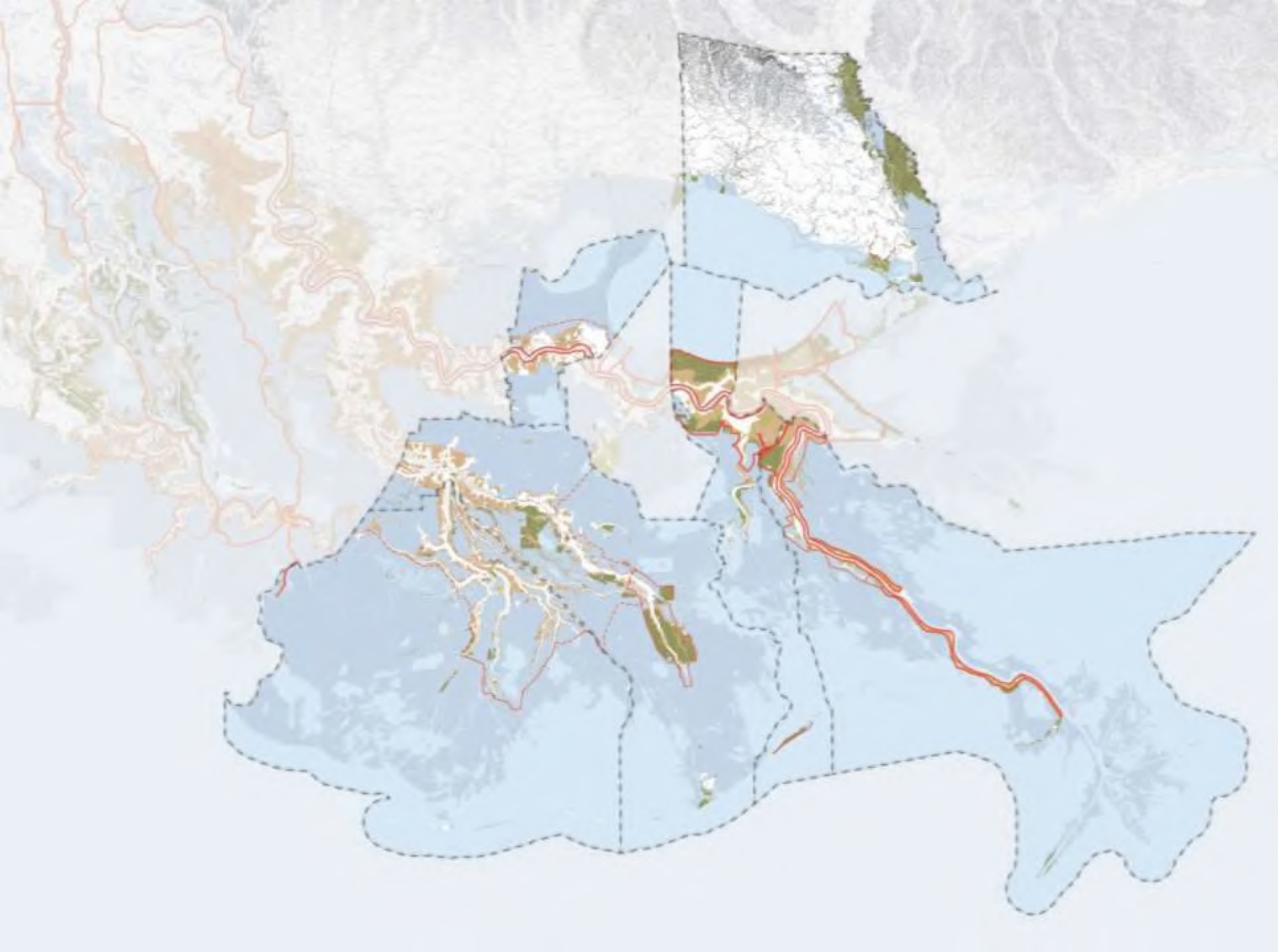


Internal Subsidence

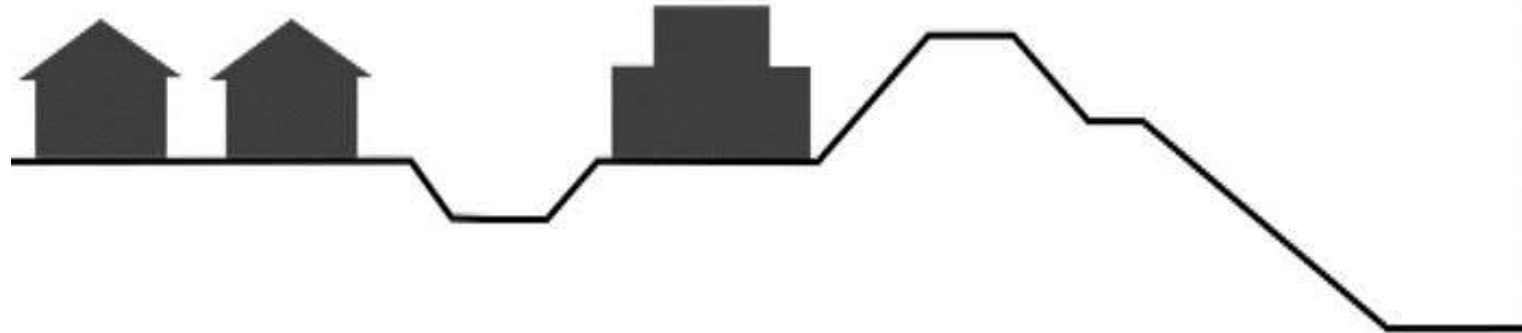


Subsidence Potential

- Highly Organic Soils
- Moderately Organic Soils
- High Plasticity Soils



Challenges of Forced Drainage



Existing



Potential



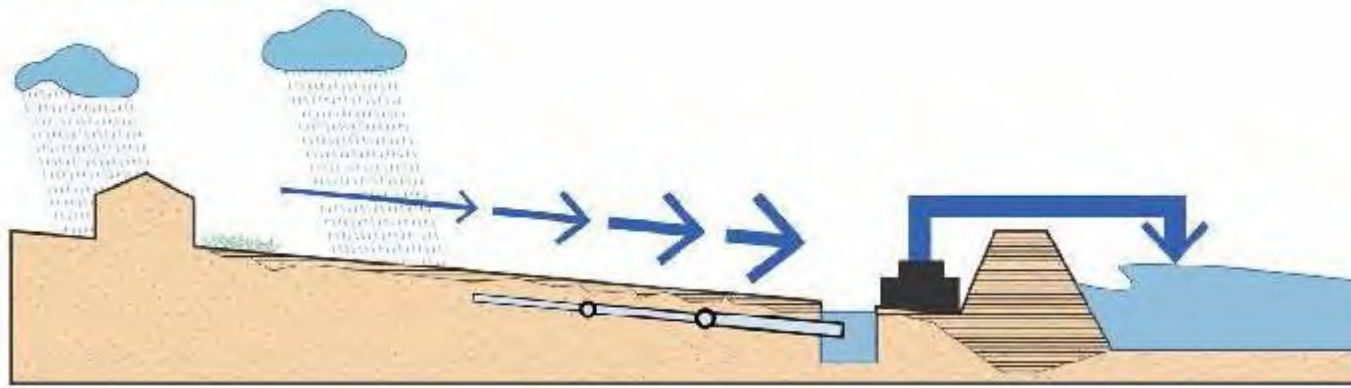
Existing Condition



Potential

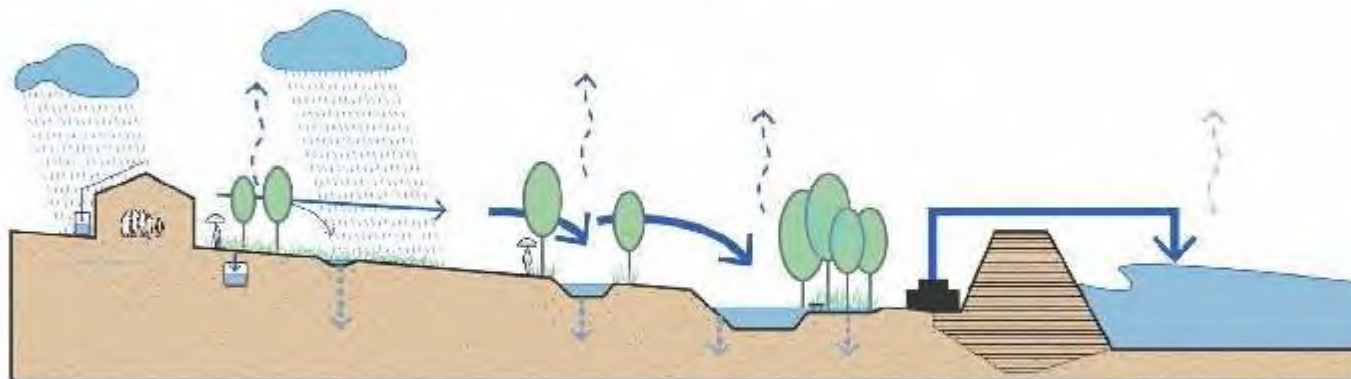


Make Space for Water



EXISTING

Pump + Drain



PROPOSED

Slow

Store

Drain

Create Blue and Green Spaces



Existing

Potential



Solutions at Multiple Scales



1 Lot



2 Block



3 District



4 Sub-basin



5 Basin



6 Region

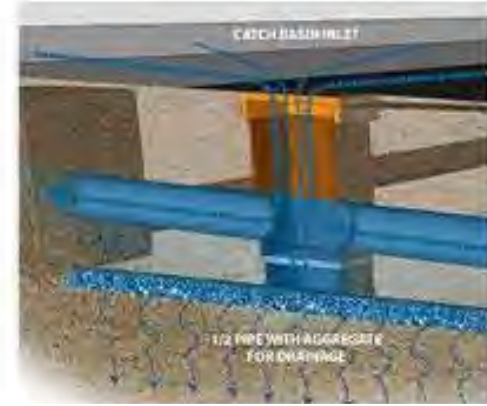
Delay



Rain Garden



Bioswale



Exfiltration Basin

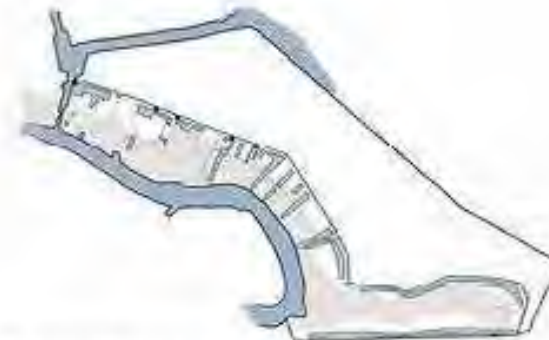
Smart Street Retrofits



Store

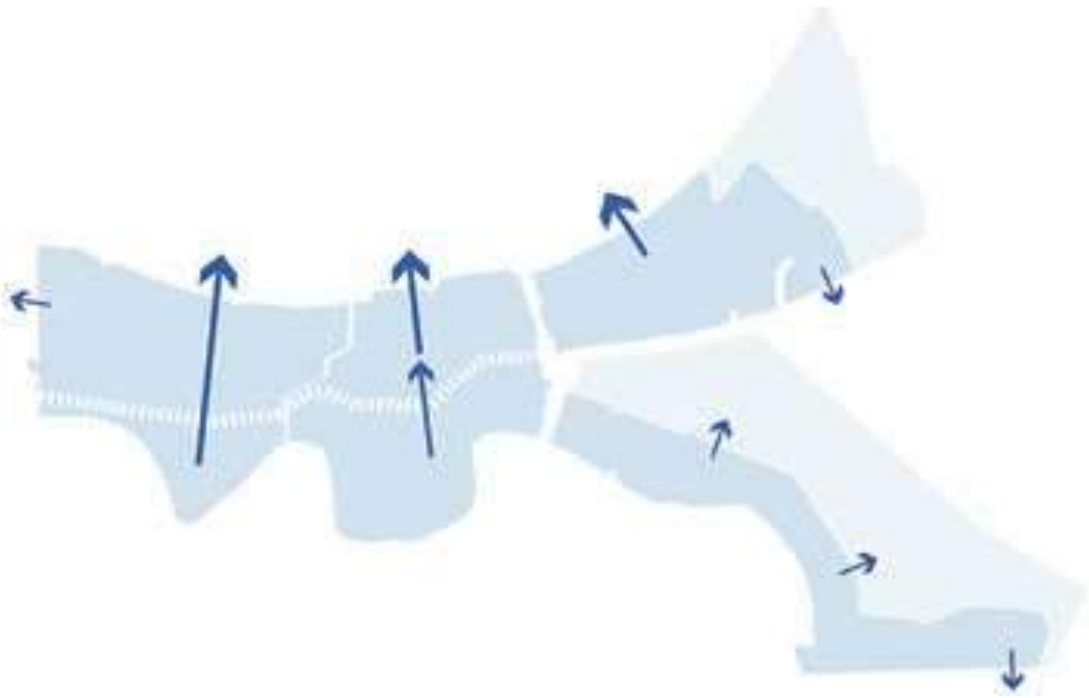


Water Storage in Public Parks

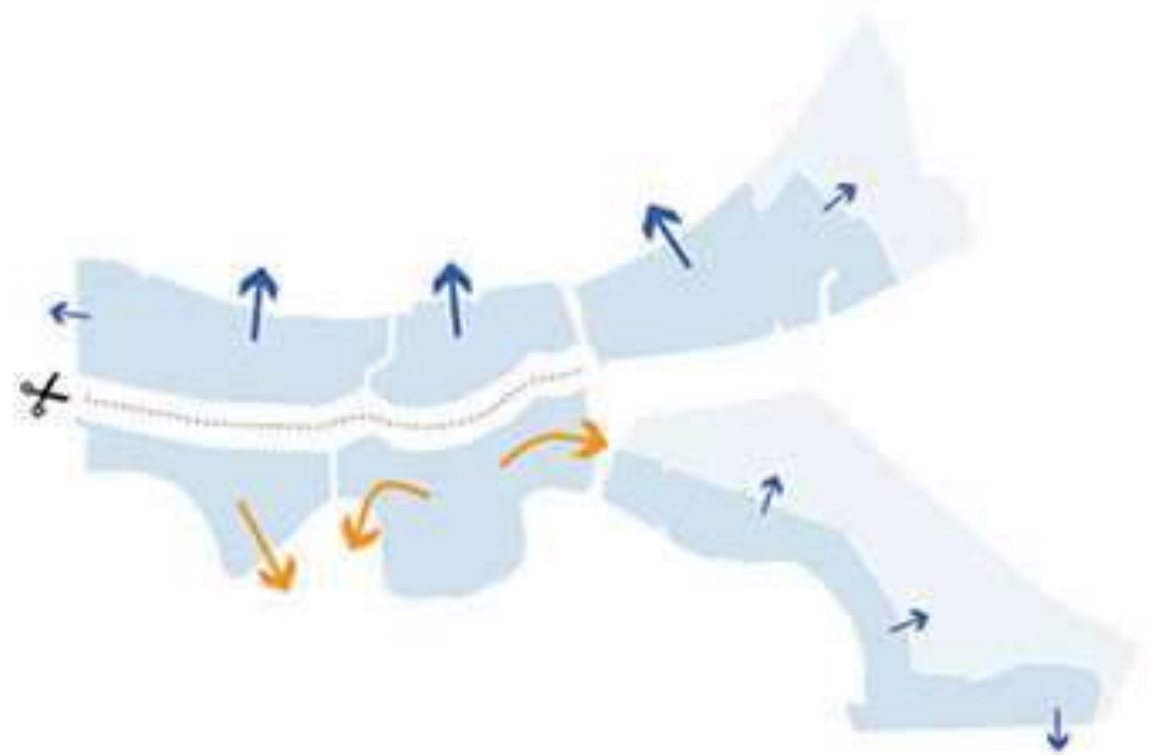


Potential Water Storage Locations

Optimize Drainage



Existing – Pump Through the Ridge



Proposed – Split Drainage at the Ridge

LA SAFE 50-YEAR VISION

- Blue-Green networks
- Permeable parking retrofits
- Canal beautification
- Limited development in floodplain
- Service consolidation
- Sustainable industries
- Ecological preservation
- Cultural preservation
- Multi-modal transportation & new connections
- Ecotourism

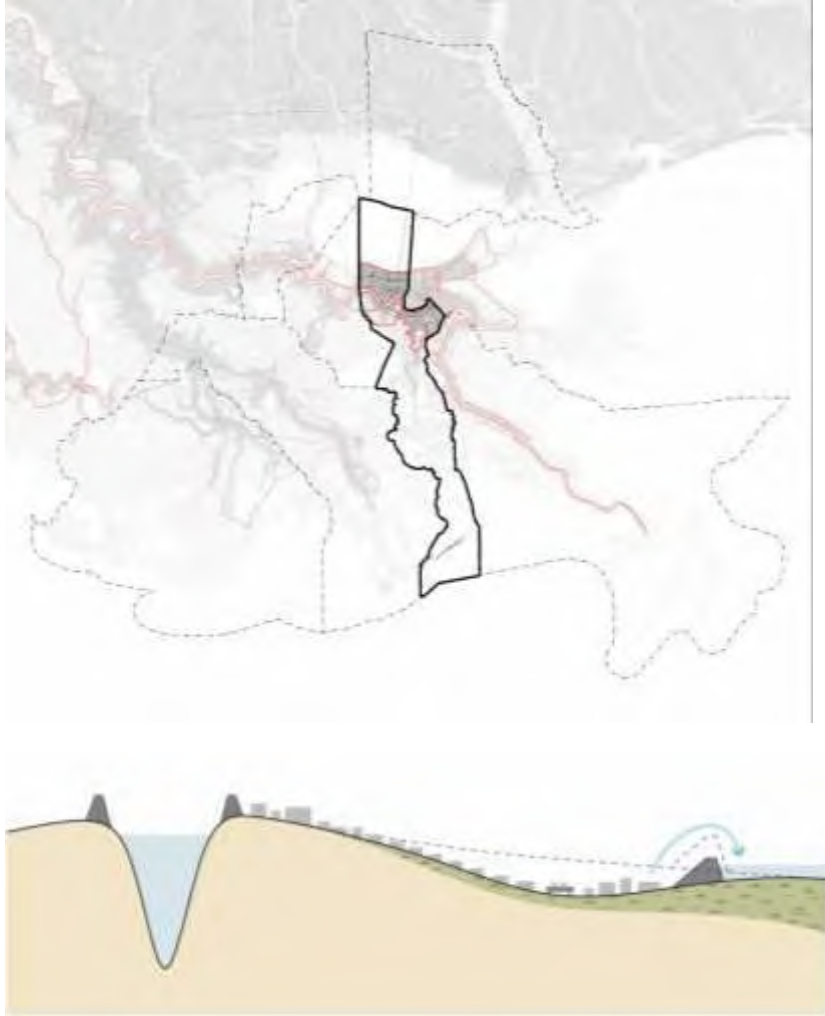
Regional Connections

50-Year Vision



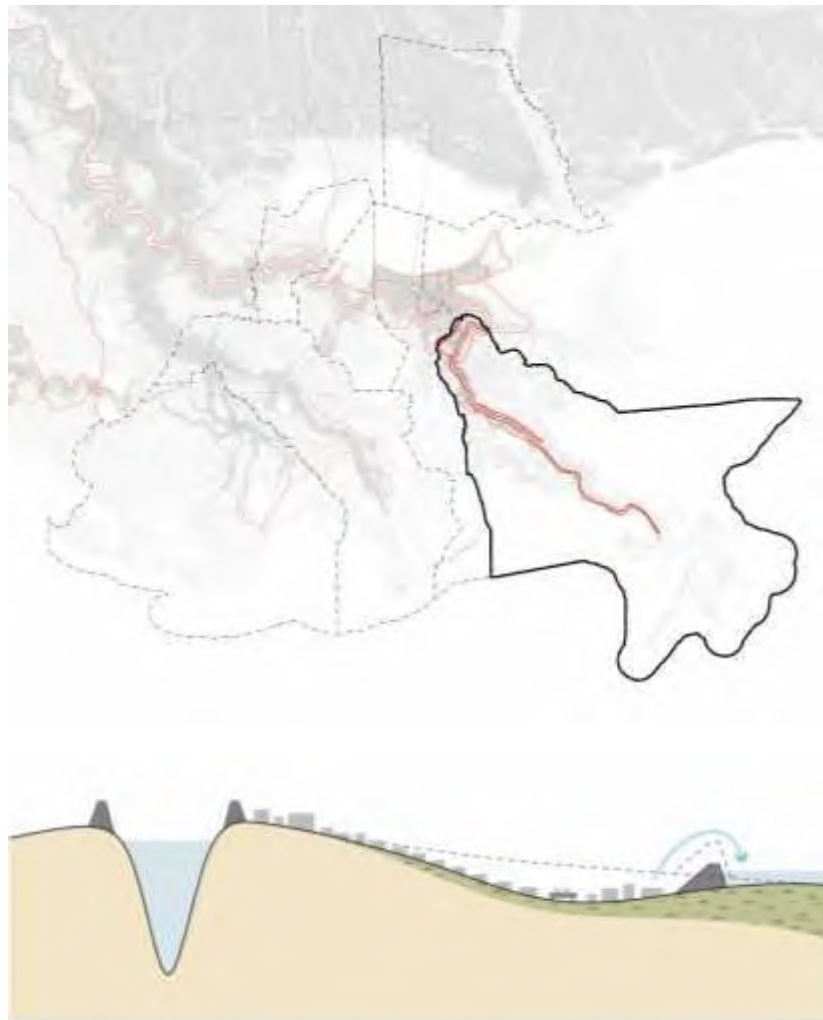
Jefferson Parish

50-Year Vision



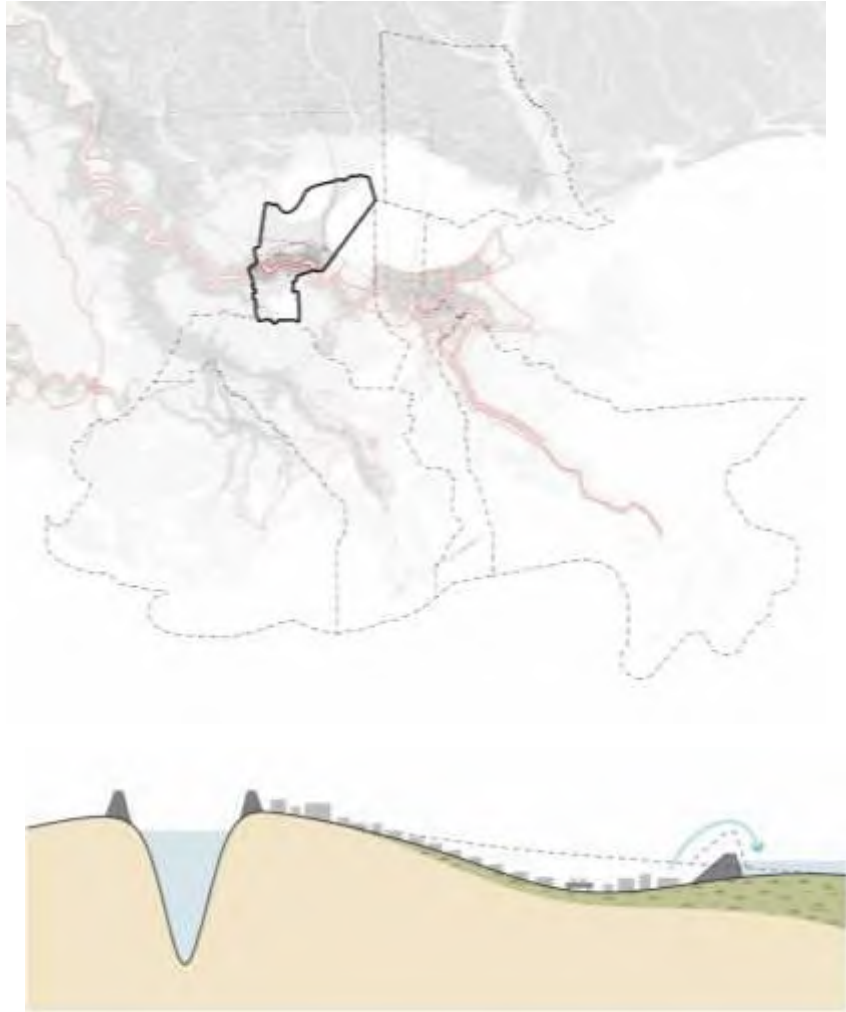
Plaquemines

50-Year Vision



St. John the Baptist

50-Year Vision



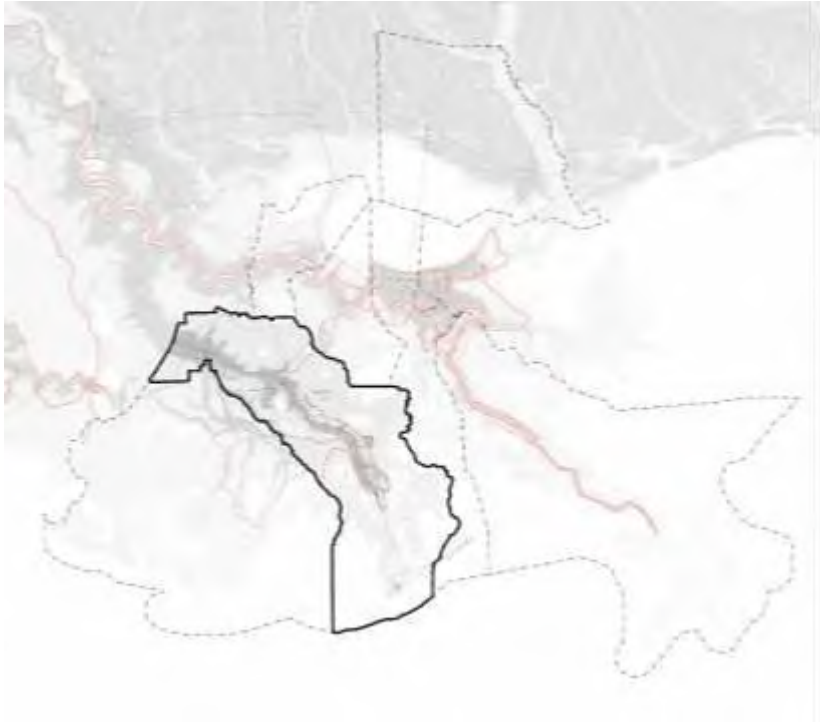
St. Tammany

50-Year Vision



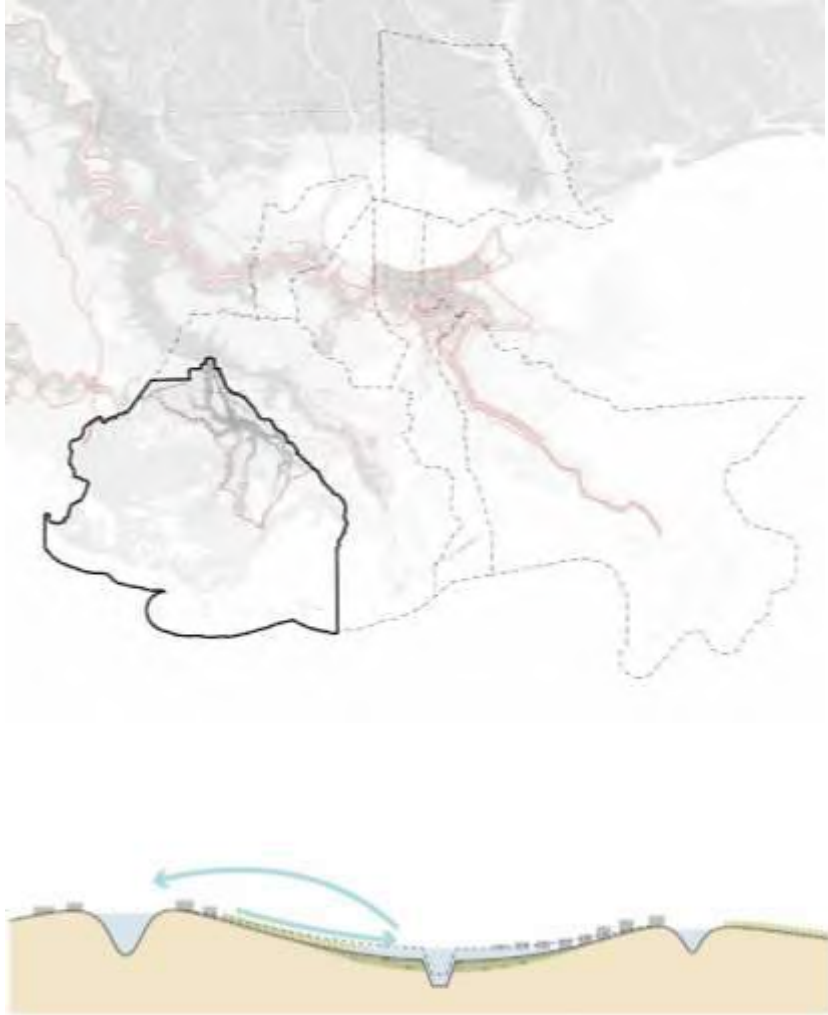
Lafourche Parish

50-Year Vision



Terrebonne Parish

50-Year Vision



Bayou La Cache Wetland Park



Grand Caillou School Repurpose



Houma Seafood Market & Harbor of Refuge



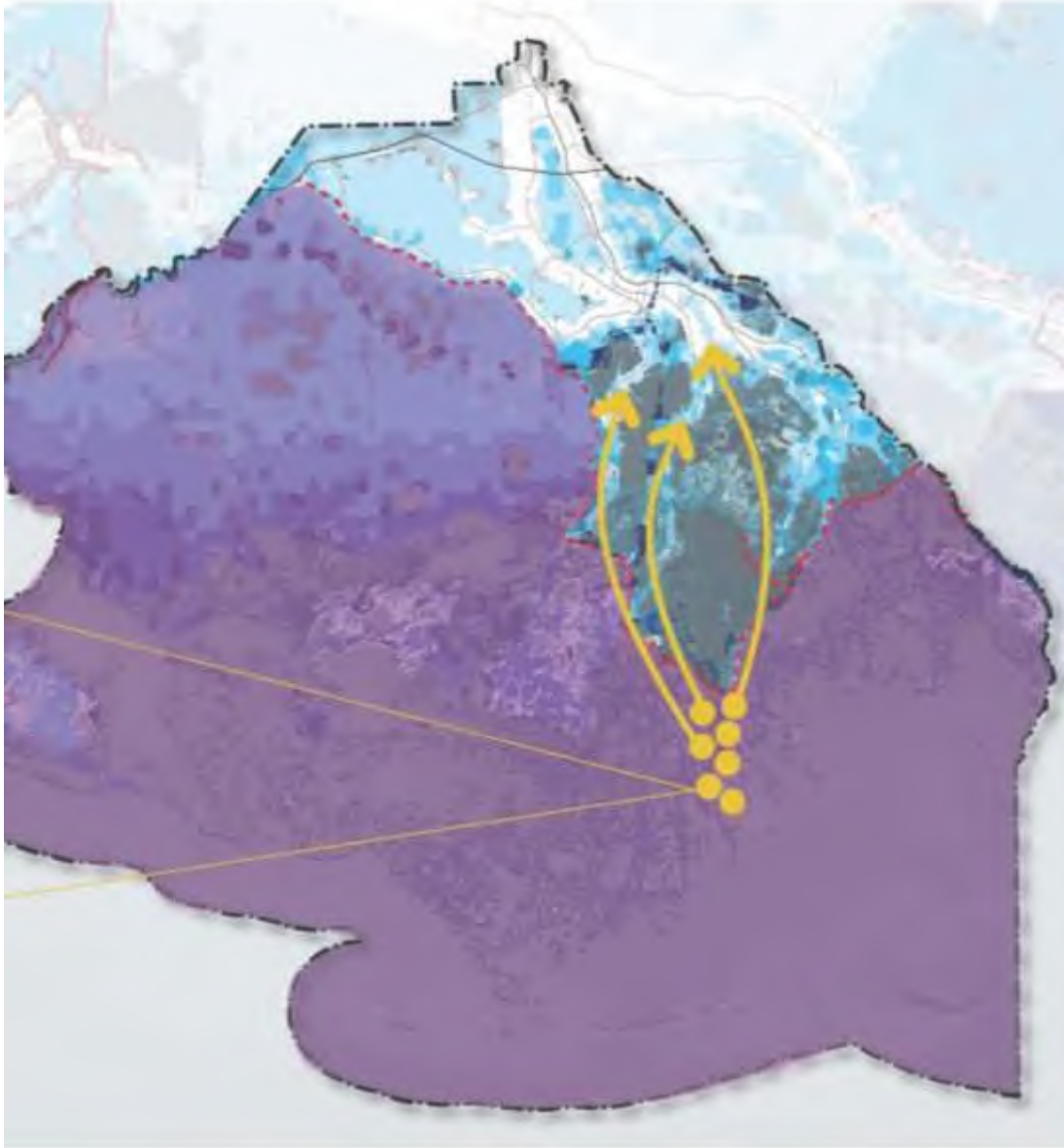
Lake Boudreaux Living Mitigation



Villages In The Woods



Buyouts for Permanent Residents





THE RESETTLEMENT OF ISLE DE JEAN CHARLES

2-57-63

4 223

OS VAF







Phase 1: Outreach & Needs Assessment



JUNE 2016 – NOVEMBER 2016

Phase 2: Site Selection & Master Planning



CURRENTLY UNDERWAY

Phase 3: Development/Construction

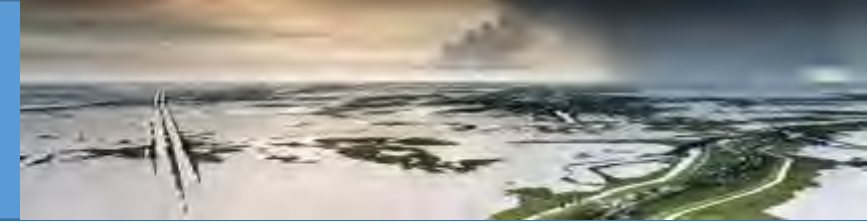


2019 – SEPTEMBER 2022

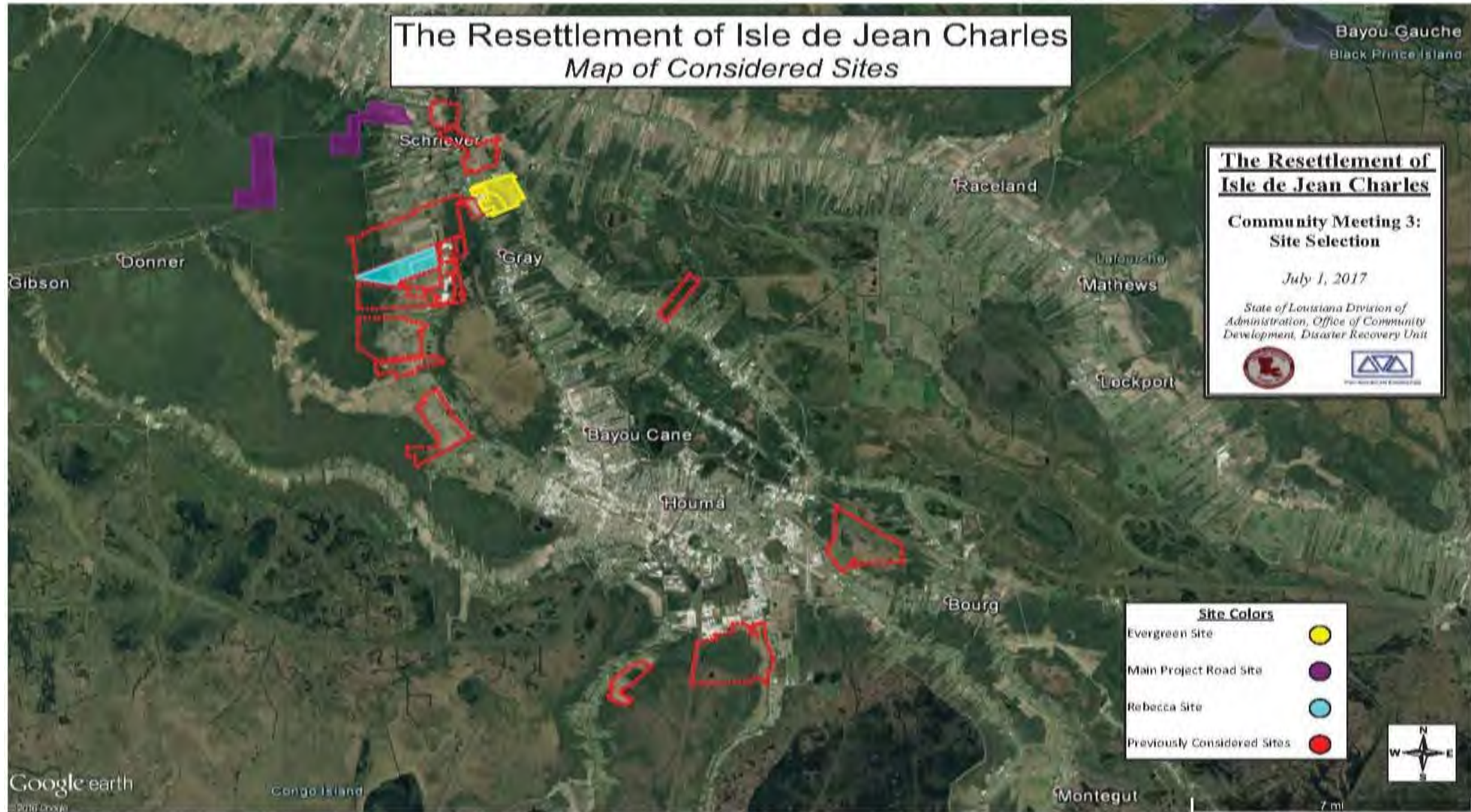
A photograph of a community meeting or outreach event. People are seated at long tables in a large, open hall with high ceilings and large windows. Some people are looking at informational posters on the wall, which include a pie chart and text. The scene is brightly lit, suggesting a sunny day outside. The overall atmosphere is one of a public consultation or community engagement session.

PHASE 1: OUTREACH & NEEDS ASSESSMENT

PHASE 1 METHODOLOGY



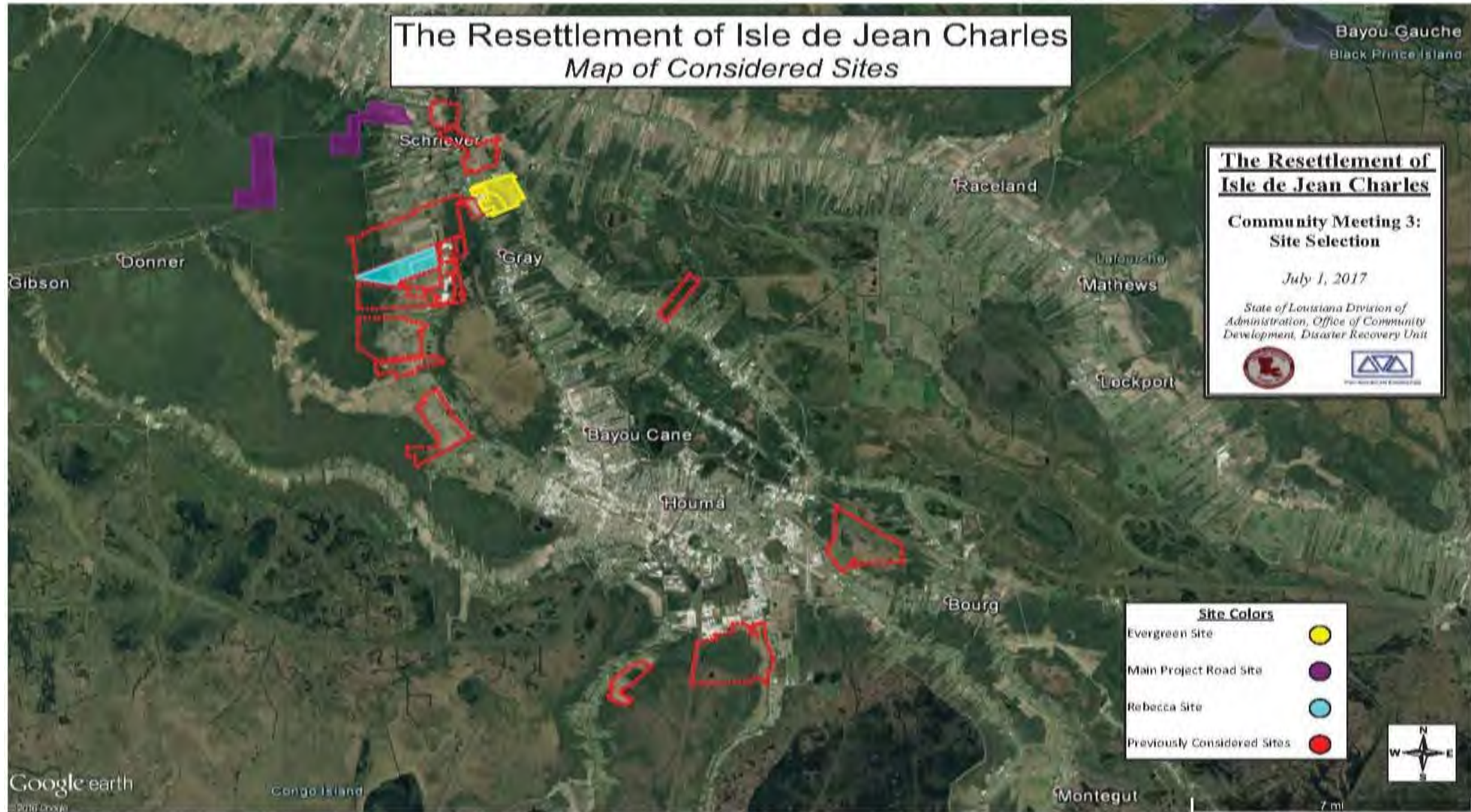
CONSIDERED SITES



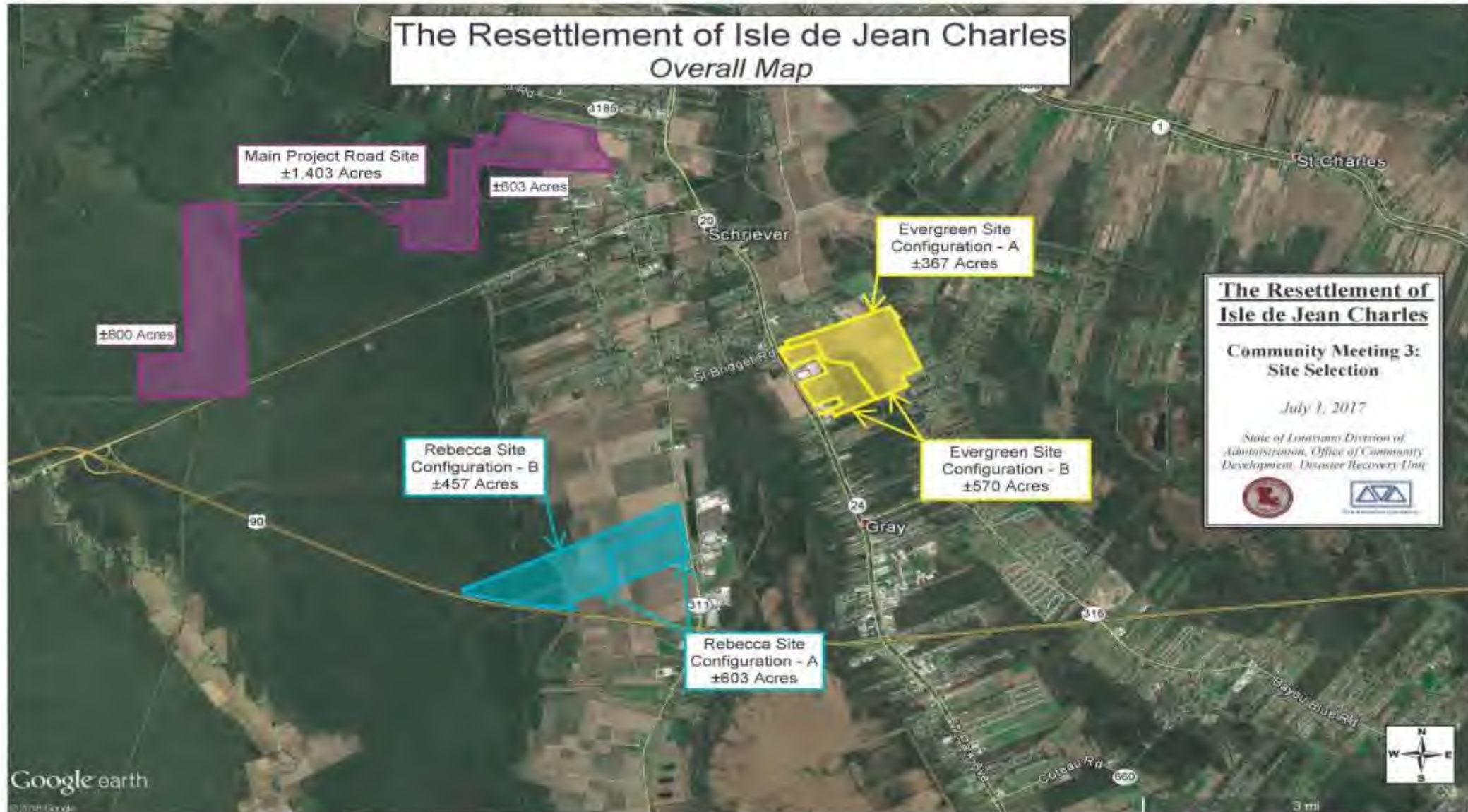
An aerial photograph of a rural landscape, overlaid with a semi-transparent green filter. The image shows a mix of agricultural fields, some with distinct furrows, and areas of dense trees. A paved road runs diagonally across the lower right portion of the frame. In the center, there is a small industrial or commercial building with a light-colored roof, surrounded by some parking areas and smaller structures. The overall scene is typical of a developing or semi-rural area.

PHASE 2: SITE SELECTION & MASTER PLANNING

CONSIDERED SITES



PREFERRED POTENTIAL SITES



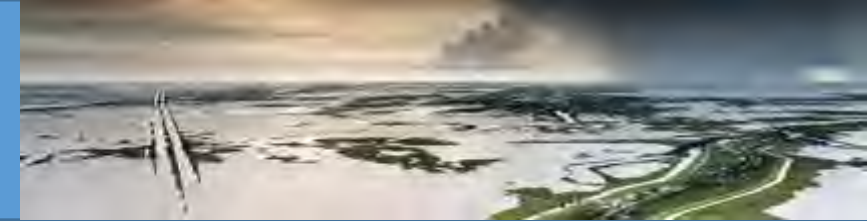
THE PREFERRED & OPTIONED SITE



An aerial photograph of a rural landscape, overlaid with a semi-transparent green filter. The image shows a mix of agricultural fields, some with distinct patterns, and a road that runs diagonally across the lower right. In the center, there is a small cluster of buildings, possibly a farm or a small industrial site. The overall scene is peaceful and expansive.

PHASE 2: RESETTLEMENT MASTER PLANNING

SITE SELECTION CONTEXT

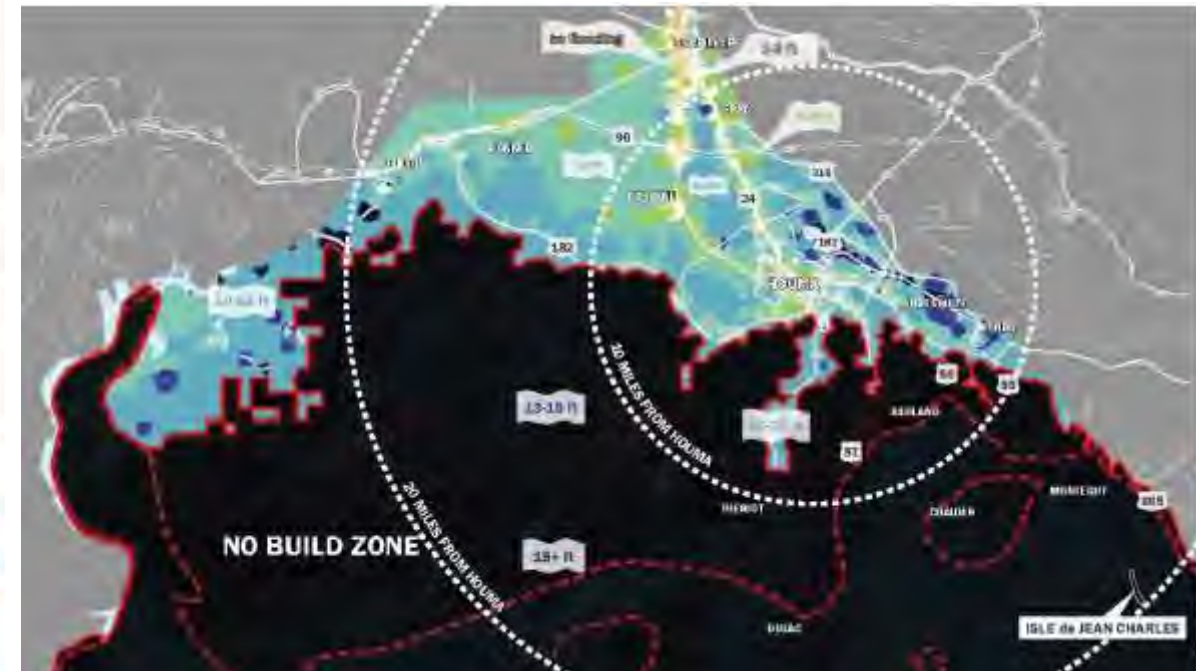
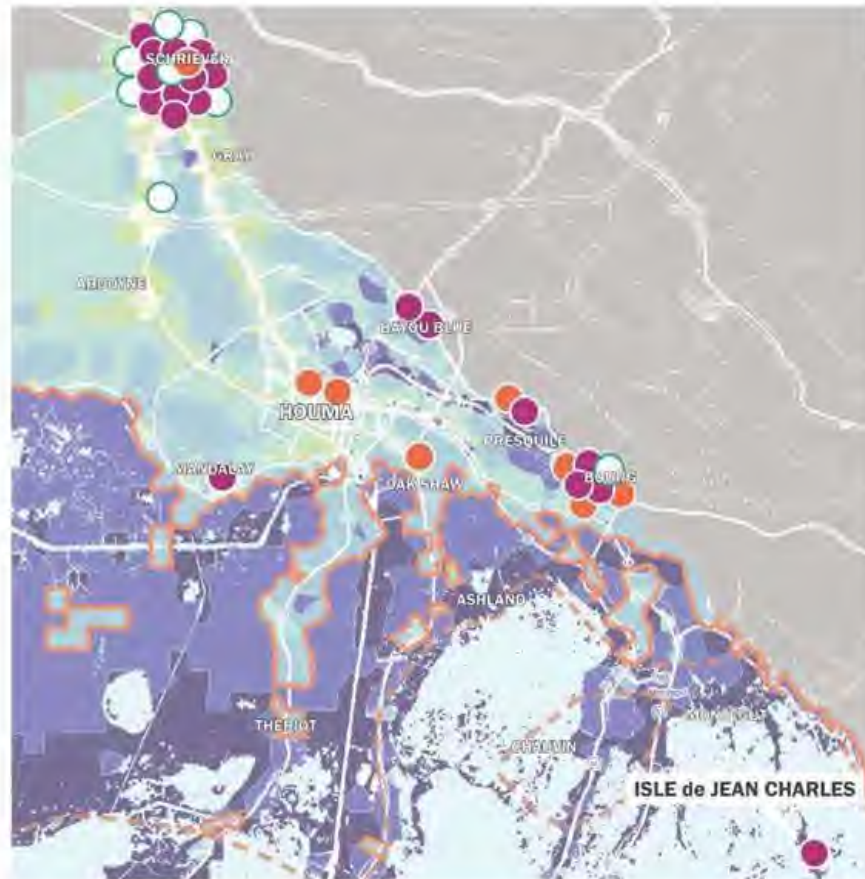


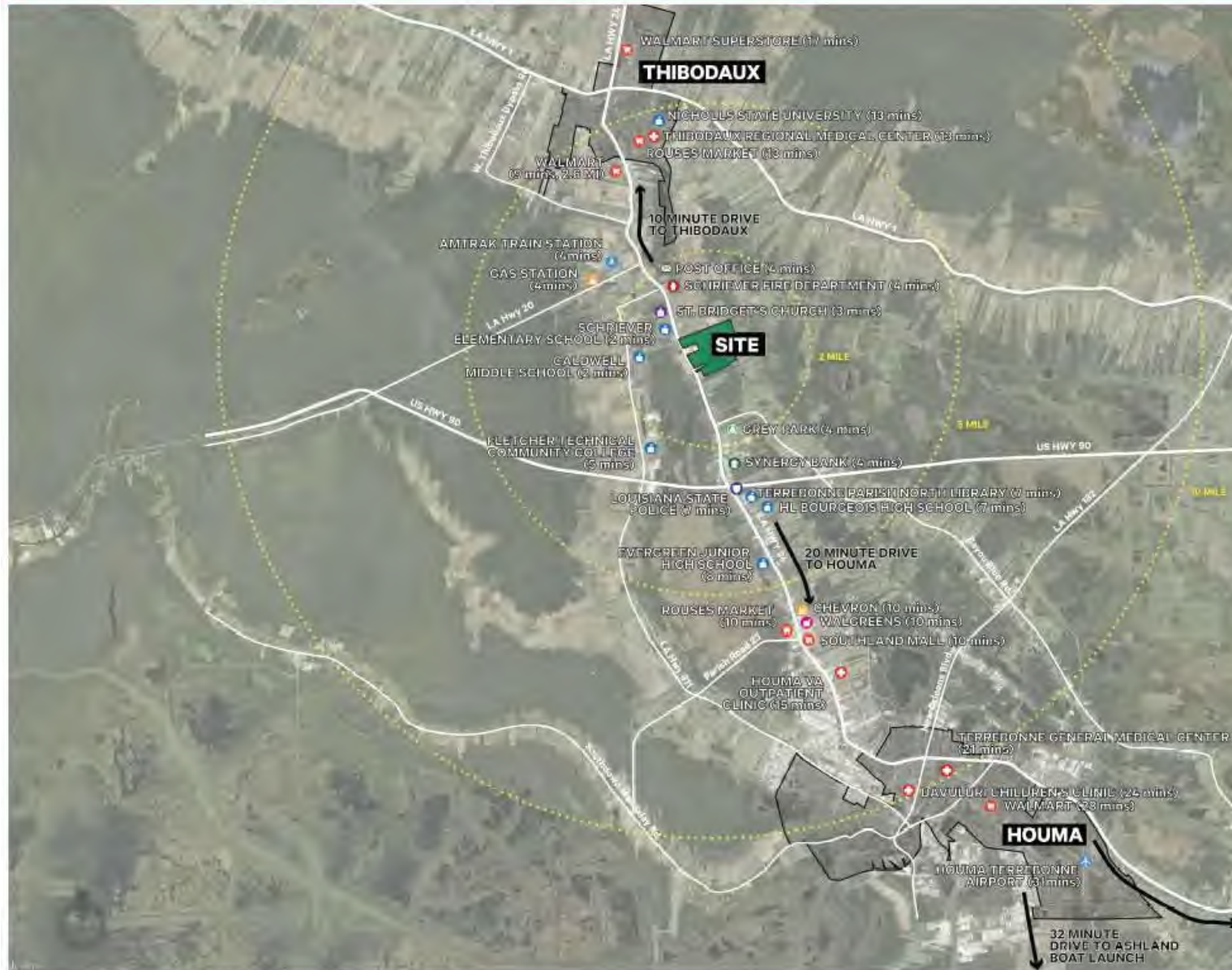
METHODOLOGY

- **ISLAND RESIDENT**
Community Meeting 2
- **ISLAND RESIDENT**
10/20/16 Island Visit
- **NON-ISLAND RESIDENT**
OR CAMP OWNER

Note: Some residents placed more than one dot, while other residents placed no dots.

- SCHRIEVER** 18 dots
- BOURG** 7 dots
- BAYOU BLUE** 2 dots
- PRESQUILE** 2 dots
- HOUMA** 2 dots
- MANDALAY** 1 dot
- OAK SHAW** 1 dot
- ISLE de JEAN CHARLES** 1 dot
- NEAR US 90 & HWY. 311** 1 dot





SERVICES WITHIN FIVE (5) MINUTES

- | | |
|-------------------------------|--------------|
| Train Station | Fire Station |
| School | Bank |
| Gas Station | Church |
| Park | Post Office |
| University / Technical School | |

SERVICES WITHIN FIFTEEN (15) MINUTES

- | | |
|----------------|-------------------------------|
| Police Station | Gas Station |
| School | Hospital / Clinic |
| Grocery Store | University / Technical School |
| Pharmacy | |

SERVICES WITHIN THIRTY (30) MINUTES

- | |
|-------------------|
| Hospital / Clinic |
| Airport |
| Grocery Store |

THE ISLE DE JEAN CHARLES (IDJC) RESETTLEMENT

Schriever, Louisiana | December 9, 2017





THE ISLE DE JEAN CHARLES (IDJC) RESETTLEMENT

Schriever, Louisiana | December 9, 2017



An aerial photograph of a construction site, overlaid with a semi-transparent green filter. The site features a large, rectangular building under construction with a light-colored roof. To the left of the building is a large, rectangular area that appears to be a parking lot or a construction yard, filled with various vehicles and equipment. The surrounding landscape consists of green fields, some of which are divided into smaller sections by roads or fences. A road runs along the right side of the image, and a small body of water is visible in the bottom right corner. The text "PHASE 3: Development/Construction" is written in white, bold, sans-serif font across the center of the image.

PHASE 3: Development/ Construction



Next Steps





LASAFE

Louisiana's
Strategic Adaptations
for Future Environments

ISLE DE JEAN CHARLES RESETTLEMENT