



EBR STORMWATER MASTER PLAN

Overview/Status

2/2/2021

<https://stormwater.brla.gov/>

Agenda

Stormwater Master Plan Summary

- Why
- Goals
- Overview

Project Approach & Status

- Data Collection
- Identify Deficiencies
- Evaluate Solutions – Projects & Policies
- Master Plan and CIP
- Public Engagement

Cost and Schedule



"This effort not only seeks to understand our current status but takes a comprehensive approach to plan for our future, moving our parish forward in terms of asset management and informed decision making to reduce risk"

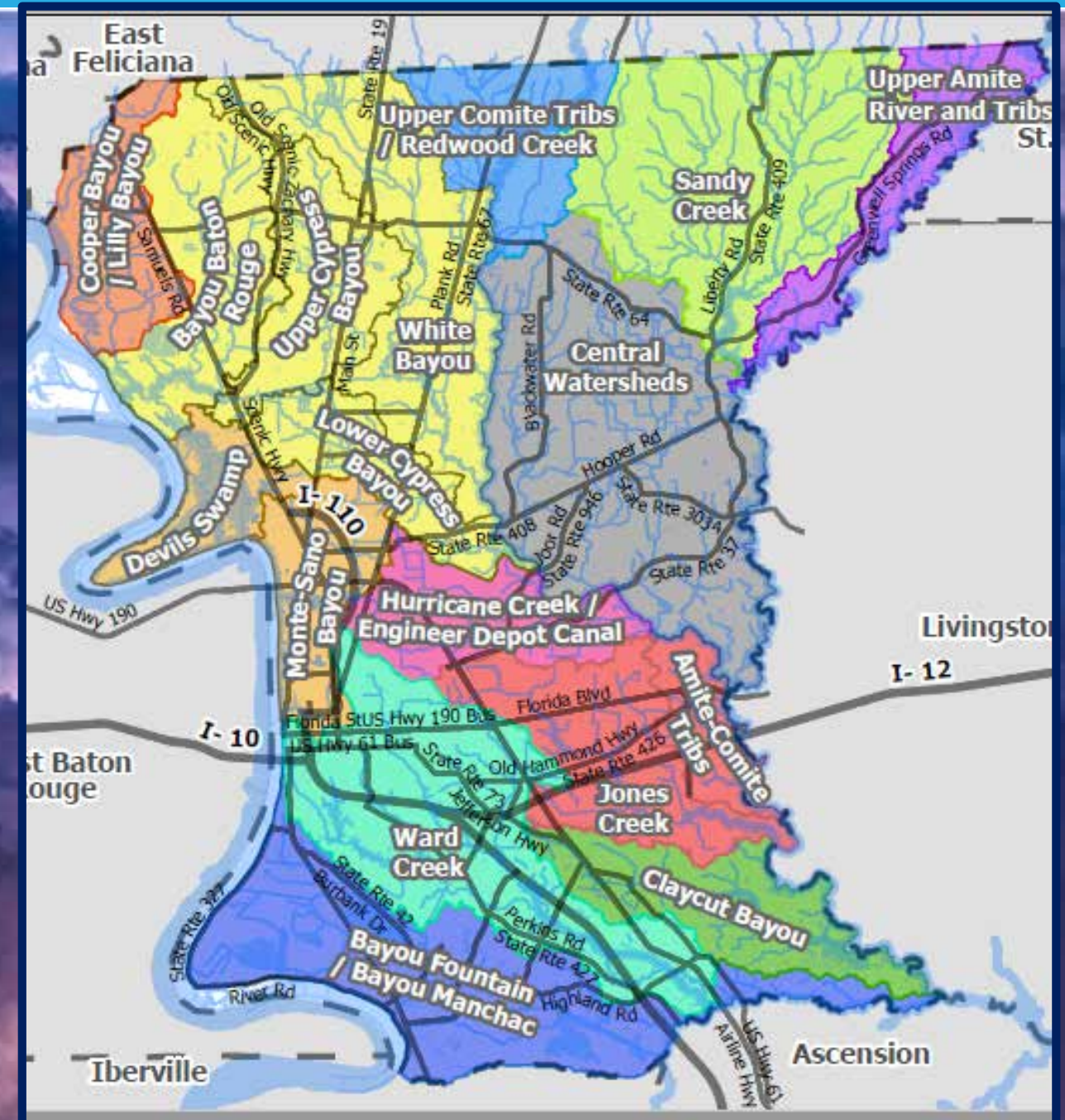
? WHY IS EBR DOING A STORMWATER MASTERPLAN?



- Over 370 drainage channels
- 59 major streams and 311 tributaries
- 42% of EBR Parish is subject to flooding from the 1% annual chance flood

Project Goals

- Watershed Based
- Identify Hazards
- Develop Technical Plan
 - Reduce flood risk
 - Minimal Local and regional negative impact
 - Account for changing climate
- Maintain Stormwater Infrastructure



11 Watersheds Identified

Masterplan Overview



PROJECT APPROACH - STATUS



Collect Data



Identify Deficiencies
& Evaluate Solutions



Develop Master Plan
20 Year CIP



Public Engagement

EBR Channel Survey

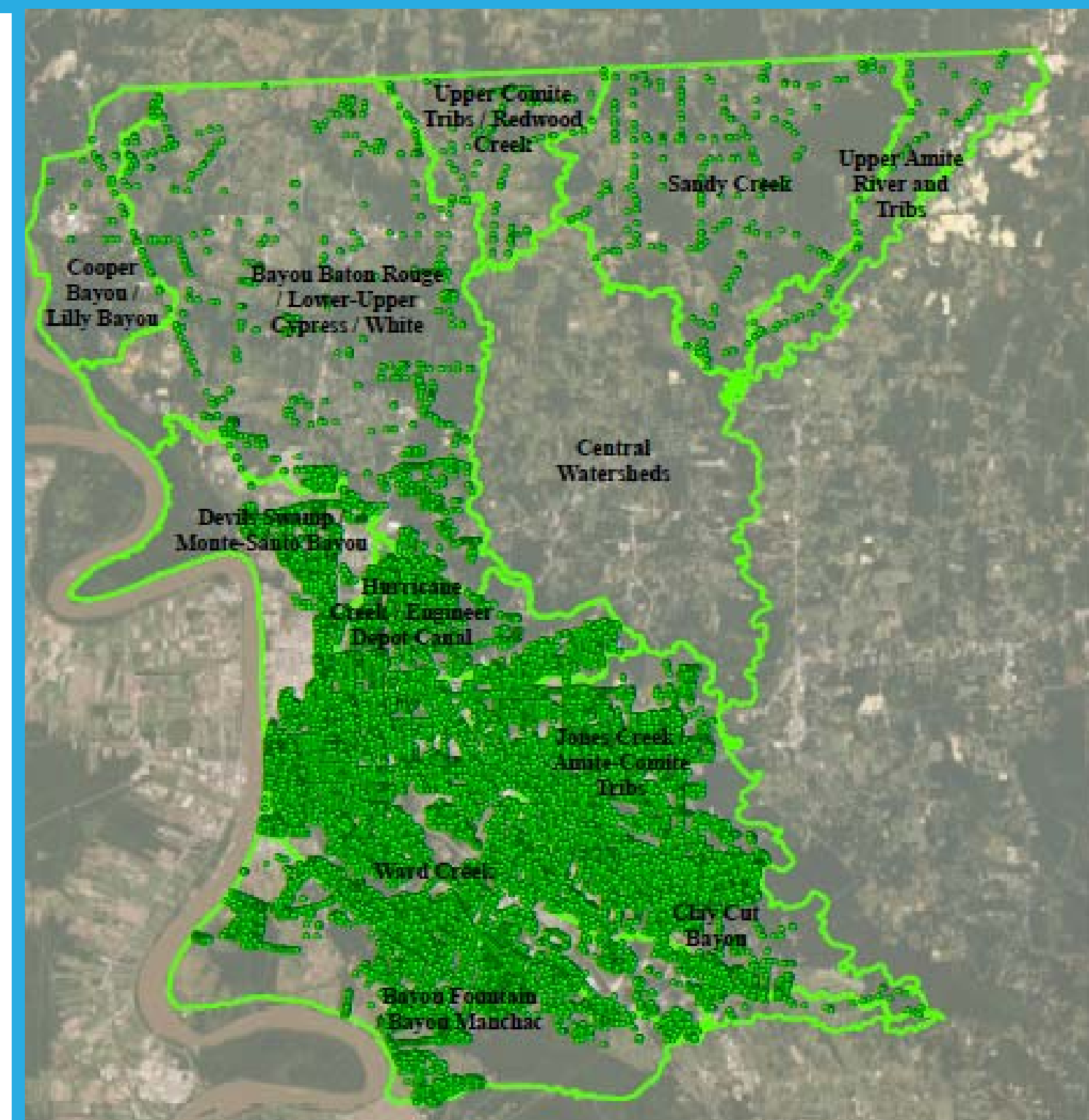


Data

- Watershed Boundaries
- Survey by Others
- EBR Channel Survey (Complete)
 - Cross Sections in over 350 miles of channels
 - Over 800 Bridges & Culverts

EBR Subsurface Data Collection

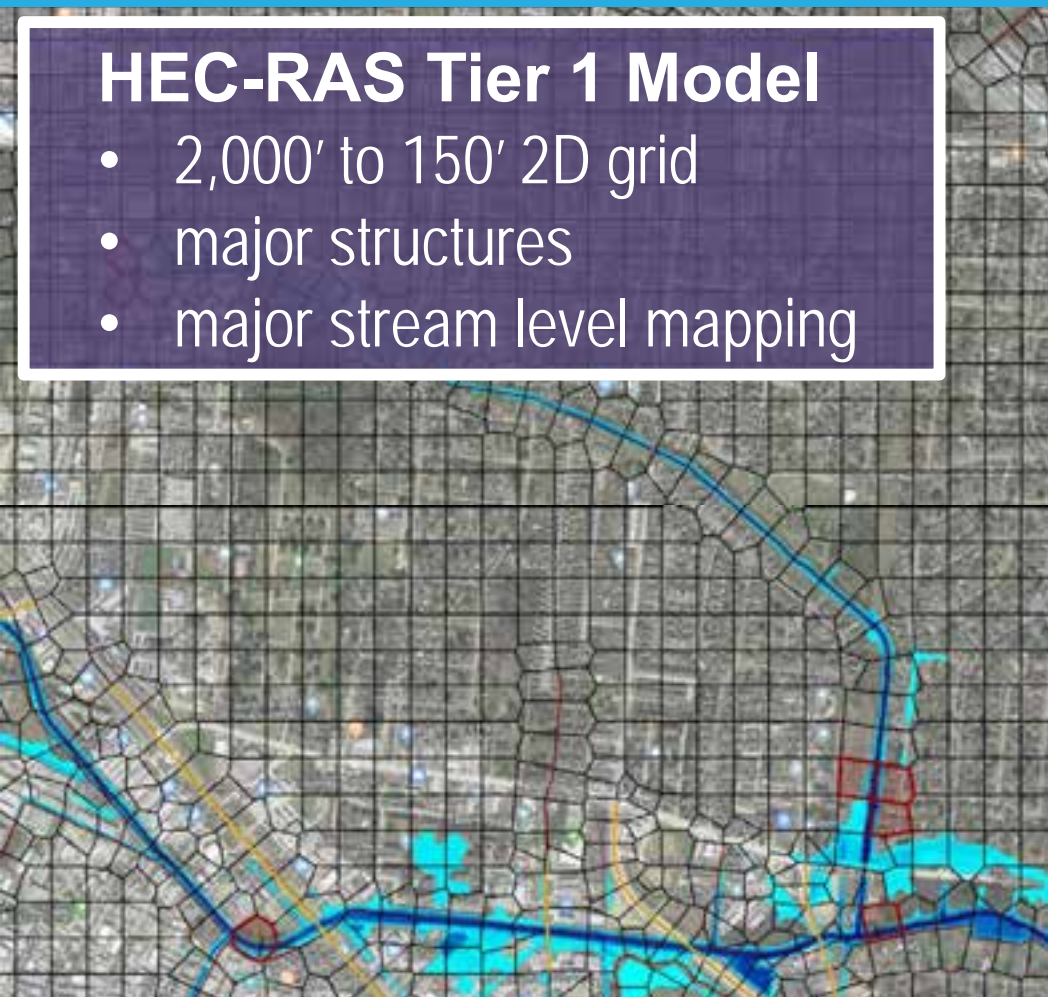
- **Over 60,000 Structures:**
 - Manholes, inlets, catch basins, cross drains & outfalls
 - Size, condition and sediment levels
- **Associated Pipe Conveyances**
 - Type, size & inverts
- **GIS Database and Asset Management Plan Developed**
- **Data currently available for system evaluation and maintenance**
 - O&M Cost development



Flood Risk Evaluation – Tiered Model Approach

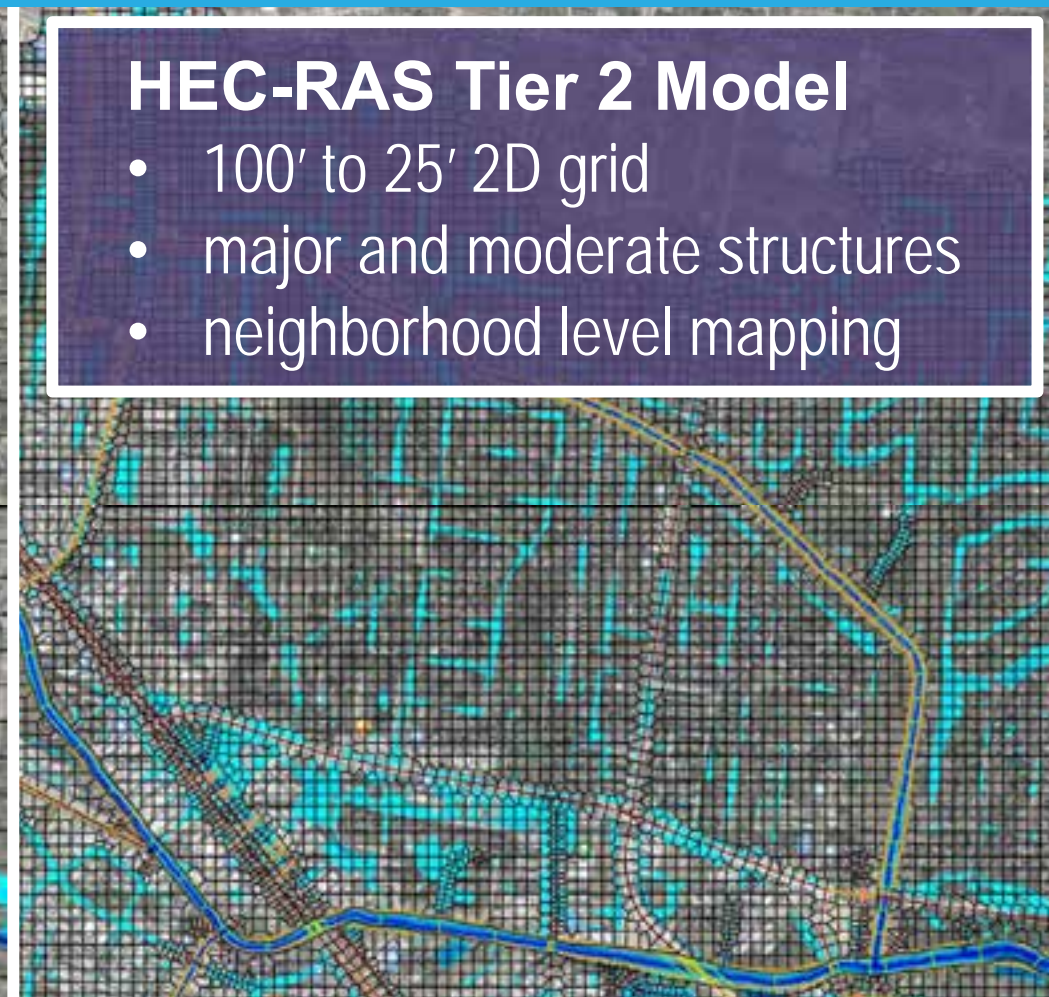
HEC-RAS Tier 1 Model

- 2,000' to 150' 2D grid
- major structures
- major stream level mapping



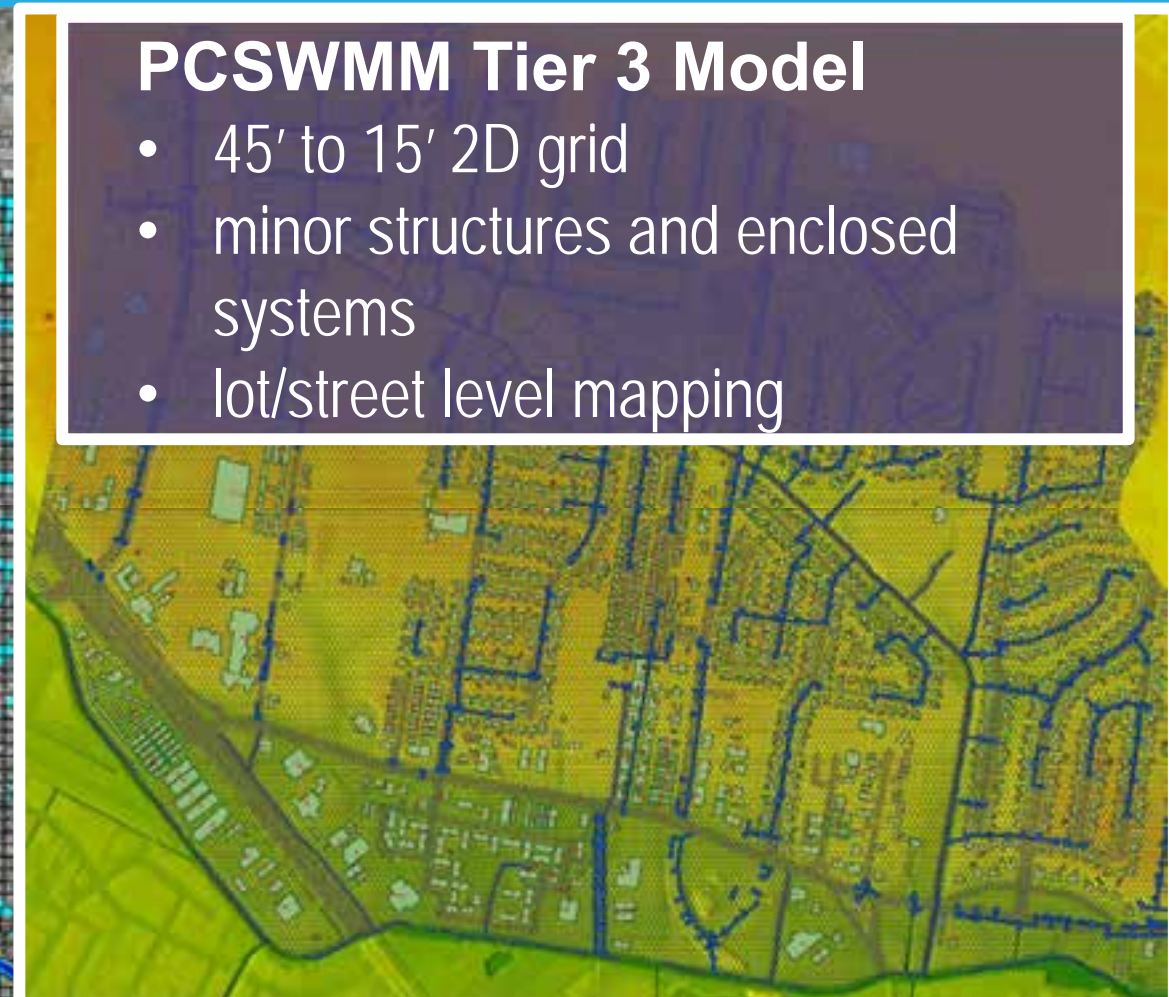
HEC-RAS Tier 2 Model

- 100' to 25' 2D grid
- major and moderate structures
- neighborhood level mapping



PCSWMM Tier 3 Model

- 45' to 15' 2D grid
- minor structures and enclosed systems
- lot/street level mapping



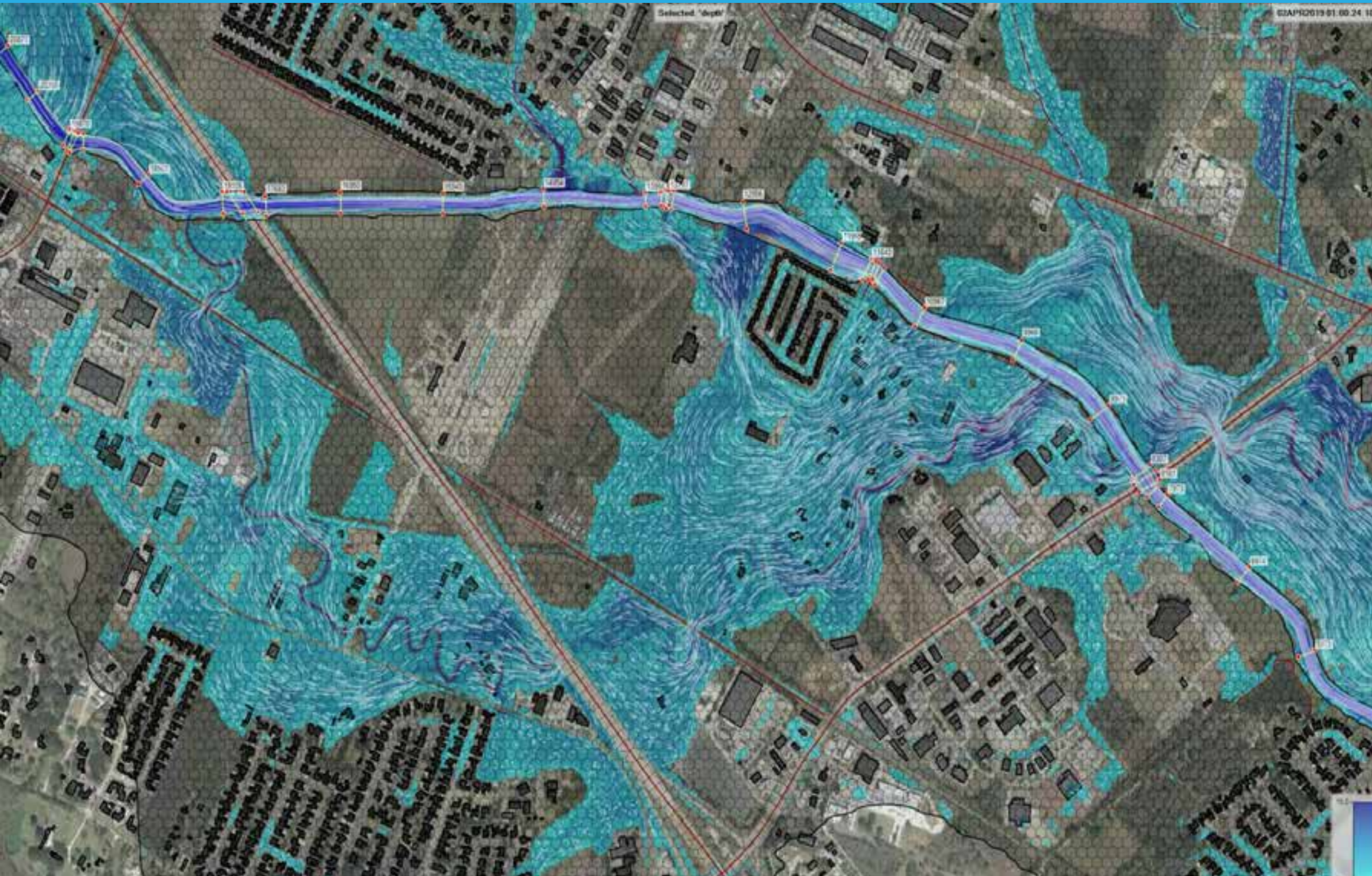
HEC-RAS – Evaluate Surface Water Flows

- 3 Watershed models in calibration phase
- 3 Watershed models in QC phase
- 2 Watershed models in development
- 3 Watershed models just starting

PCSWMM – Evaluate Sub-Surface System

- 1 Watershed models in calibration phase
- 3 Watershed models in QC phase
- 3 Watershed models in development
- 4 Watersheds – No subsurface system

Flood Risk Evaluation Summary



Model results help determine:

- Channel and overbank flow
- Flood extents & depths
- Time of inundation
- Assess which structures flood
- Calculate damages
- Develop mitigation projects to reduce risk
- Inform policy decisions

Flood Risk Reduction – Projects

Approved HMGP Projects (100% Fed Funded)

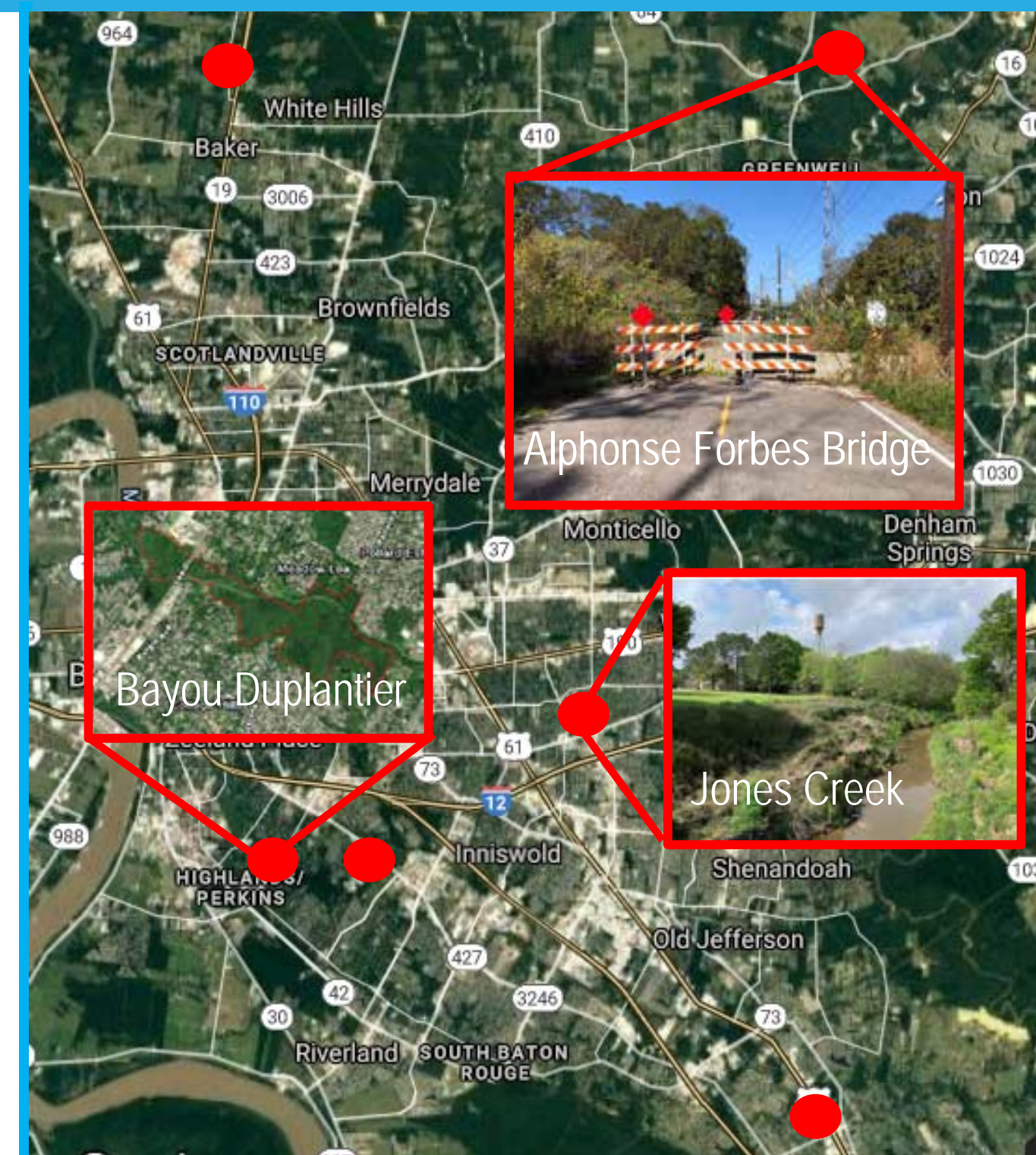
- Stormwater Master Plan (\$15M) – **In progress**
- Port Hudson Pride Road Bank Stabilization (\$3.2M) - **RFQ**
- Hurricane Creek Slope Paving near Plank Road (\$1.87M) – **In Design**
- Ward Creek at Siegen Lane Channel Improvements (\$1.4M) – **In Design**
- Hundred Oaks and Broussard Culvert Replacements on Dawson Creek (\$4.37M) - **RFQ**
- Harrelson Lateral Box Culvert – Old Hammond Hwy (\$1.05M) – **RFQ**



Flood Risk Reduction – Projects

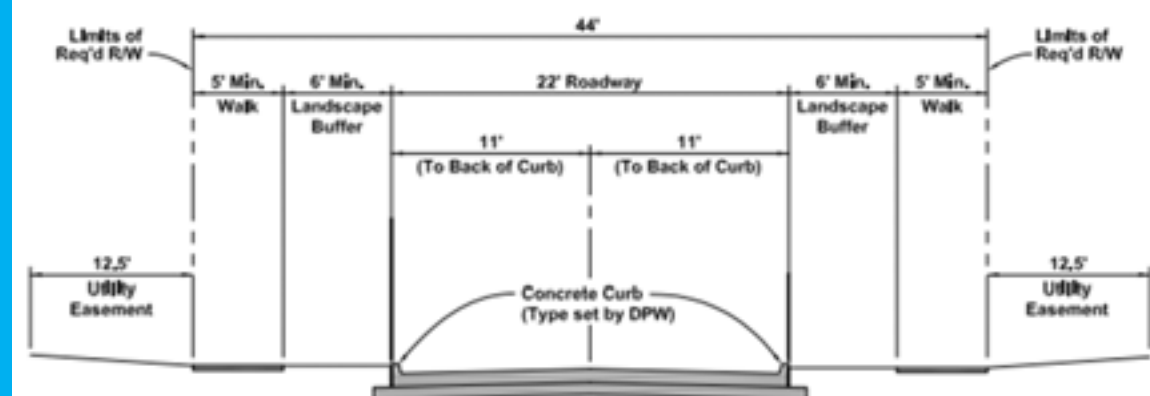
Submitted 5 LWI Project Applications

- Bayou Duplantier Floodplain Preservation
- Ward Creek Floodplain Preservation'
- Bridge Replacements (Alphonse Forbes Rd. & Twin Oaks Dr.)
- Dawson Creek Detention/Channel Improvements
- Jones Creek Detention
- Final Applications due Mid February 2021



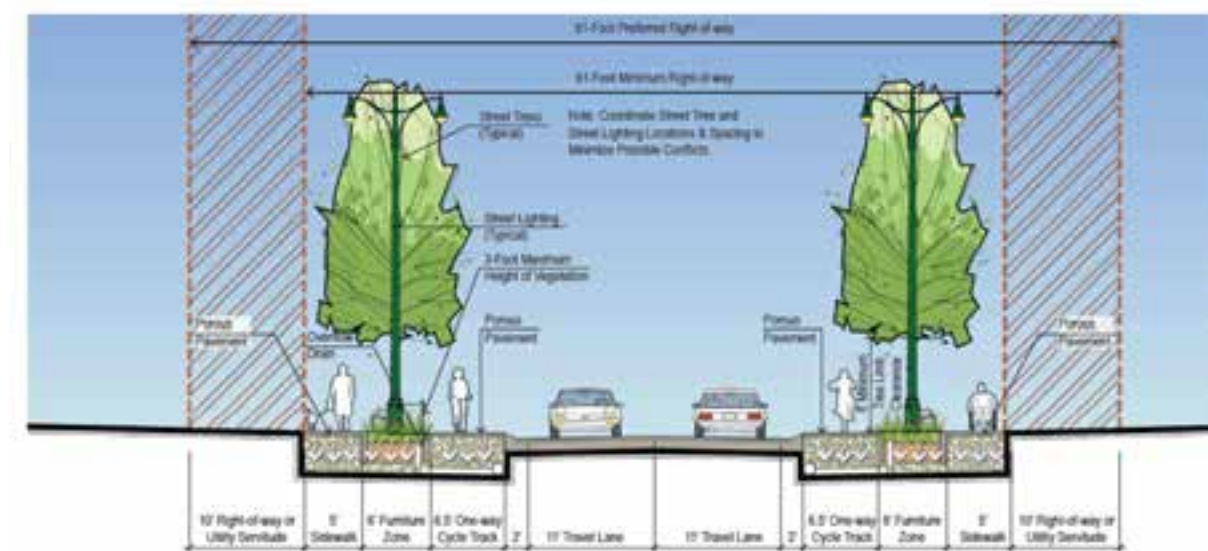
Flood Risk Reduction – Policies

- Previously updated stormwater management and floodplain technical analysis requirements
- Current Interim Recommendations:
 - Drainage Impact Studies to include conveyance check
 - Clarifications to UDC Chapter 15
 - Integrate Green Infrastructure from MOVEBR
- Future Policy considerations (Examples):
 - Increase minimum BFE
 - Conservation overlay districts along stream corridors
 - Watershed specific (upstream vs downstream, preservation vs protection, development requirements)



RESIDENTIAL LOCAL (NARROW) - 2 LANES WITHOUT PARKING

EXISTING



SUBURBAN 2-LANE

SCALE: 1/8" = 1'-0"

PROPOSED

20-Year Capital Improvement Plan

1

Ranked List of Projects

1. Project C
2. Project A
3. Project B

2

Project Groupings

Funding

Regional Collaboration

Stakeholder Input

Public Input

Other

3

Implementable Plan

20-Year CIP

Public Engagement

- Website Developed: <https://stormwater.brla.gov/>
 - Program Information
 - HMGP and LWI Projects information
 - Online Open House
- Social Media Sites established
- Steering Committee – Established and Ongoing
- Targeted Stakeholders – Ongoing
 - Policy Decisions Group - 1st Meeting Feb 2021
 - Other Targeted groups after preliminary modeling and flood risk evaluation
 - Growth Coalition Project Status Presentation – March 2021
 - LSU collaboration
- Public/Elected Officials Engagement

Collaboration

Partners
Stakeholders
Public
Elected Officials



EAST BATON ROUGE
STORMWATER MANAGEMENT
UNDERSTAND. PLAN. IMPLEMENT.

VIRTUAL OPEN HOUSE
CLICK HERE



Schedule

Task #	Task Description	Schedule
1.0	Project Management & Coordination	Jan 2020 - Jul 2022
2.0	Data Collection/Acquisition	Jan 2020 - Jan 2021
3.0	Public Outreach	Apr 2020 - Jul 2021
4.0	Design Criteria Methodology	Jan 2020 - Dec 2020
5.0	Flood Hazard Risk Assessment (H&H Models)	Jan 2020 – Jul 2021
6.0	Develop Risk Reduction Projects/Strategies	Dec 2020 – Oct 2021
7.0	Ordinance and Codes	June 2020 – May 2022
8.0	Stormwater Master Plan (SMP) Report	Nov 2020 – May 2022
9.0	20-Year Capital Improvement Plan	Oct 2021 – July 2022
Total Fee		\$15,630,000



QUESTIONS?

