CPRA BOARD

2026

BRIAN LEZINA & MICHAEL COULON

AGENDA

1

- Plan Background and Development Process

2

- Issues, Challenges, and Solutions
  - •Key Issues Identified
  - •Candidate Projects Overview
  - •Sample Projects to Address Key Issues

3

- Timeline and Next Steps

ATCHAFALAYA MASTER PLAN

GOAL

MANAGE THE USE OF ATCHAFALAYA RIVER SYSTEM SEDIMENTS AND WATER TO MAXIMIZE ECOSYSTEM FUNCTIONS AND SUPPORT CONTINUED HUMAN USES

- Guides future investments across the Atchafalaya River System
- Describes and considers multiple potential future conditions
- Includes projects to address some of the key challenges
- Maps important issues such as sedimentation, water quality, and habitat degradation

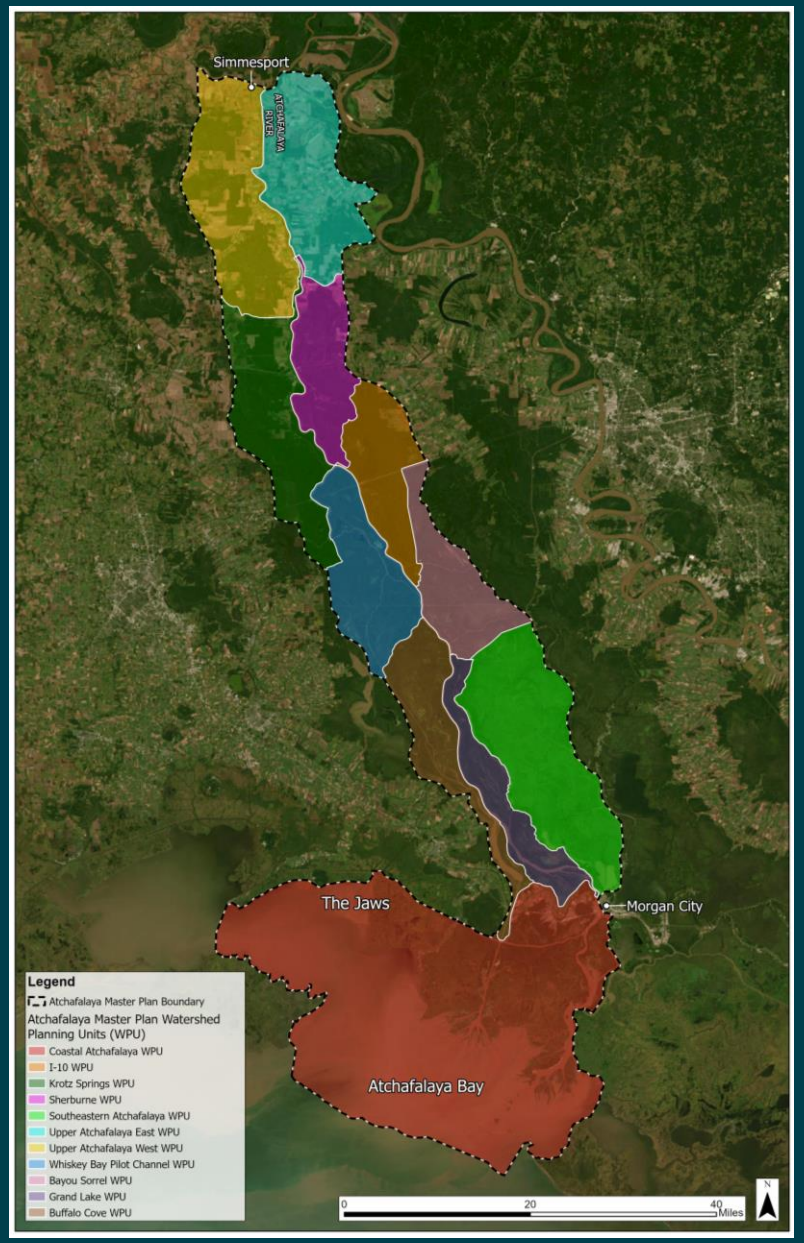
ATCHAFALAYA MASTER PLAN BOUNDARY

- 1.5M acre Atchafalaya River System

Boundary

North: Simmesport South: Gulf of America

- Area divided into 11 Watershed Planning Units (WPUs)
  - Represent the diverse challenges and needs across the system



GOAL AND OBJECTIVES

NOT FOCUSED ON FLOOD CONTROL OR DRAINAGE IMPROVEMENT

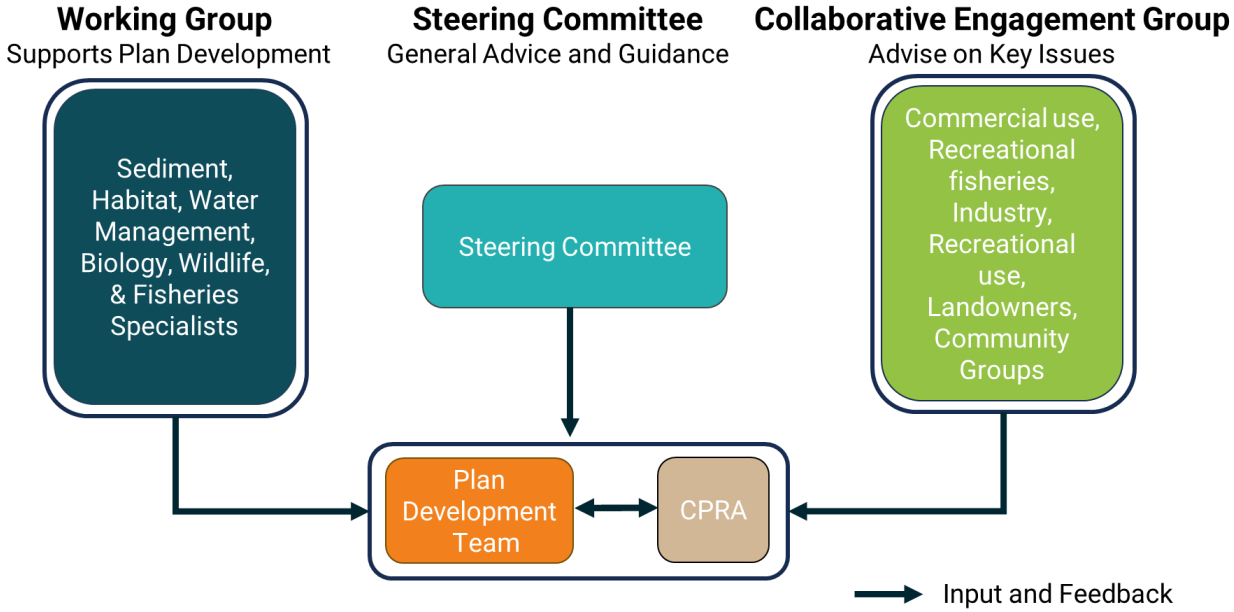
GOAL	OBJECTIVES
Manage the use of Atchafalaya River System sediments and water to maximize ecosystem functions and support continued human uses	**NATURAL PROCESSES**: Promote a sustainable ecosystem by harnessing the natural processes of the Atchafalaya River System.
	HABITATS: Provide habitats suitable to support conservation and an array of commercial and recreational activities in the Atchafalaya River System.
	CULTURAL HERITAGE: Sustain the unique cultural heritage of the Atchafalaya River System by protecting historic properties and traditional living cultures and their ties and relationships to the natural environment.
	WORKING RIVER SYSTEM: Promote a viable working Atchafalaya River System to support regionally and nationally important business and industry.

OUTREACH AND ENGAGEMENT

PUBLIC OUTREACH

- Public Webinars
- Project Solicitation
- Quarterly Newsletters
- CPRA Board Meetings

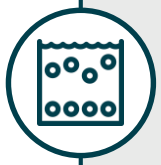
KEY ENGAGEMENT GROUPS



KEY ISSUES AND CHALLENGES

AS IDENTIFIED BY KEY ENGAGEMENT GROUPS

(STEERING COMMITTEE, COLLABORATIVE ENGAGEMENT GROUP, AND WORKING GROUP)



EXCESSIVE SEDIMENTATION

HABITAT DEGRADATION AND LOSS

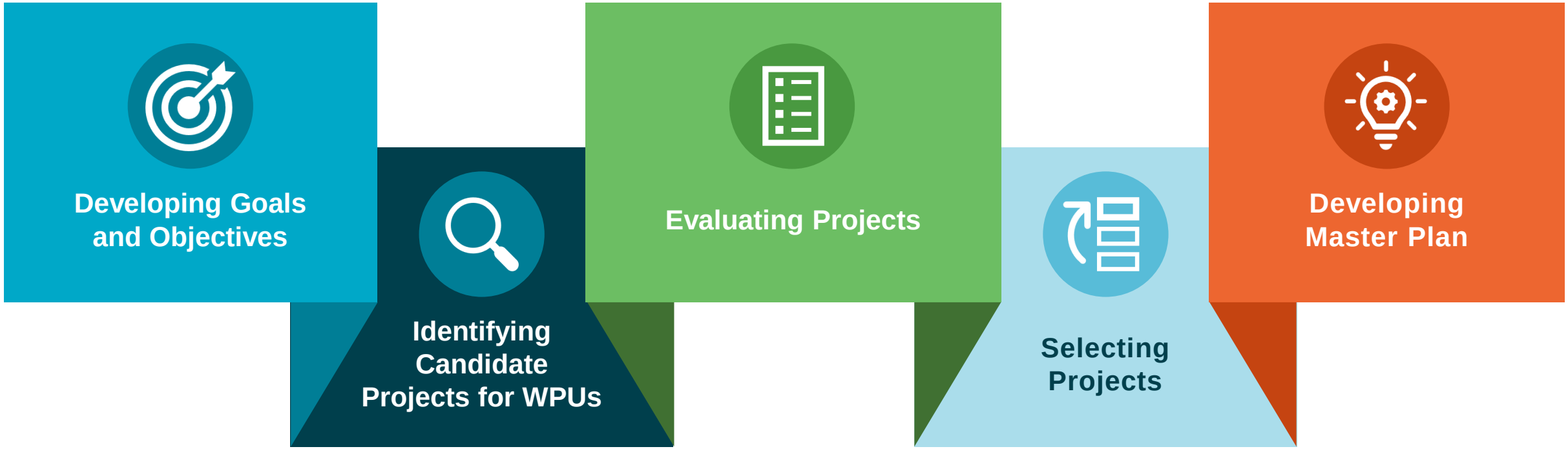
RECREATIONAL AND COMMERCIAL ACCESS

HYDROLOGIC MODIFICATION

WATER QUALITY/HYPOXIA

SYSTEM FLOOD CAPACITY

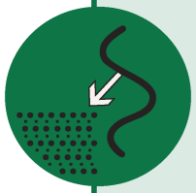
PLAN DEVELOPMENT PROCESS



PROJECT TYPES

SOLUTIONS TO ADDRESS KEY ISSUES AND CHALLENGES

HYDROLOGIC RESTORATION

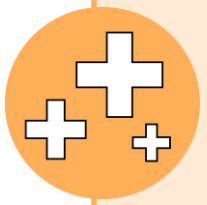


SEDIMENT DIVERSION

SEDIMENT TRAPPING

DREDGING & PLACEMENT

FRESHWATER DIVERSION

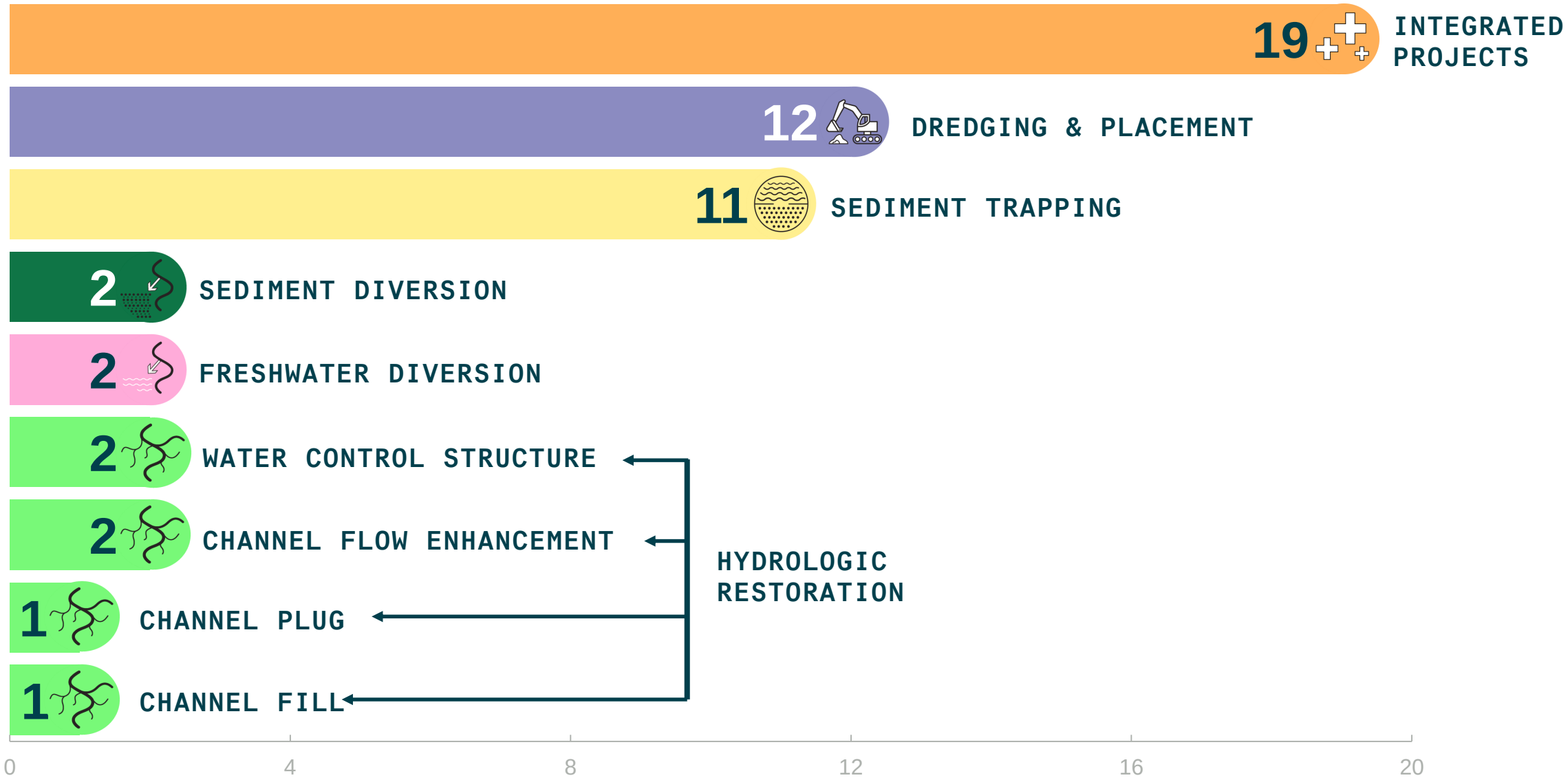


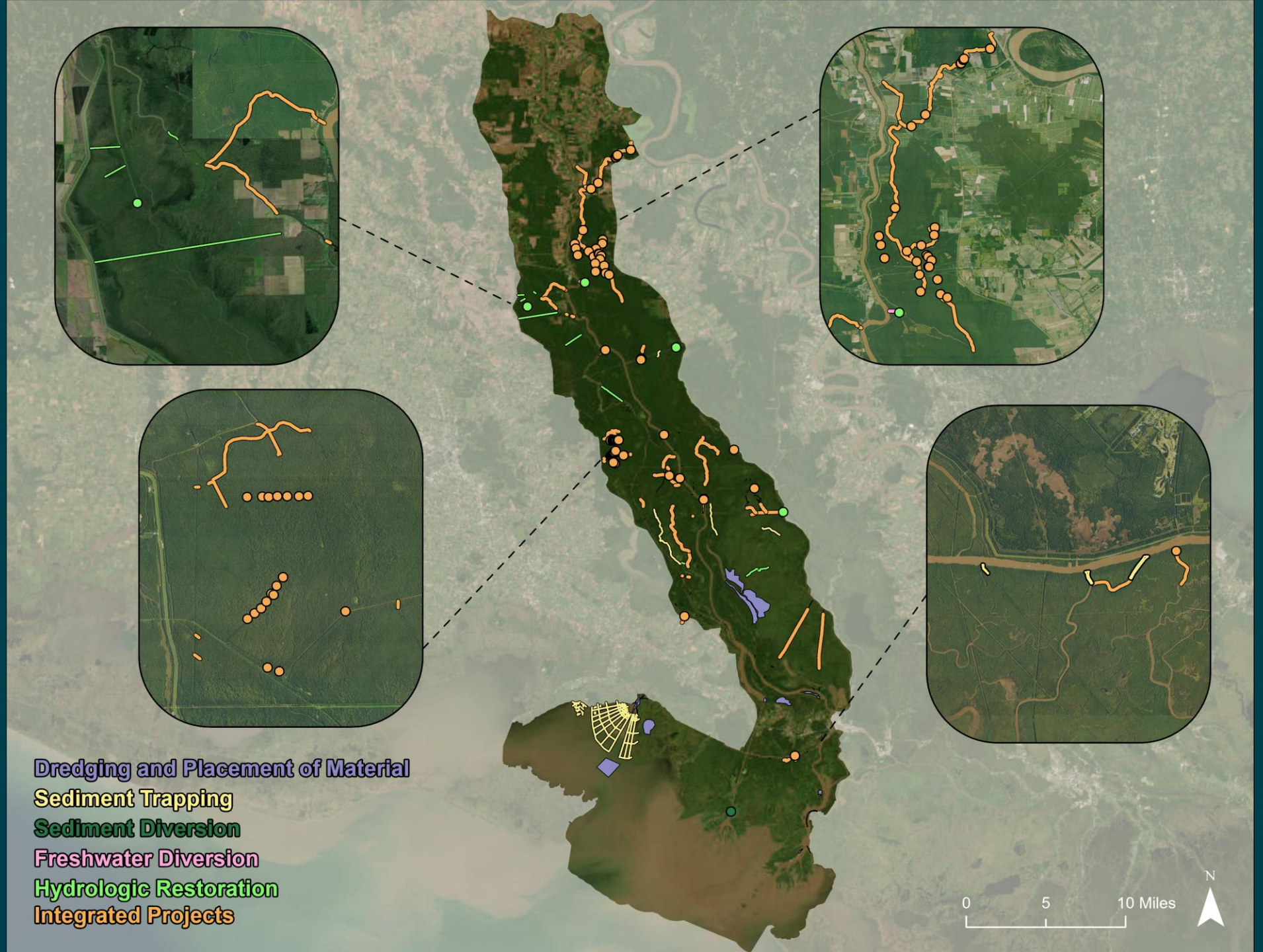
INTEGRATED PROJECTS

Include multiple features of other project types designed to work together to maximize benefit

PROGRAMMATIC STRATEGIES can be applied on an opportunistic basis across the system, such as promoting educational opportunities and managing invasive species.

CANDIDATE PROJECTS

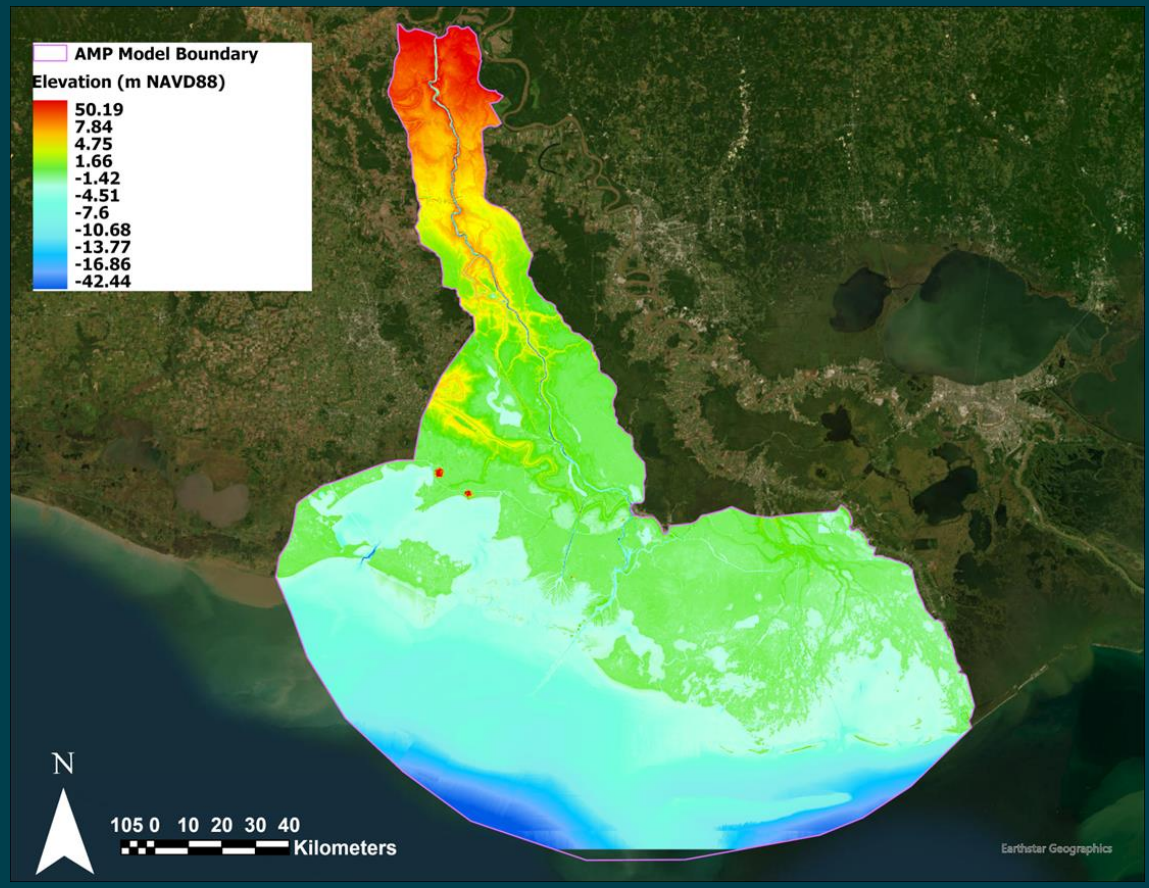



Dredging and Placement of Material
Sediment Trapping
Sediment Diversion
Freshwater Diversion
Hydrologic Restoration
Integrated Projects
0
5
10 Miles
N

Without Project Conditions

The condition that projects are evaluated against

- Variables for evaluation:
  - Wet/Dry years
  - Potential Flow regimes
  - Rate of sea level rise



Evaluating Projects

CANDIDATE PROJECTS SOURCED FROM PREVIOUS PLANNING EFFORTS, PUBLIC PROJECT SOLICITATION, STAKEHOLDER GROUPS, AND THE PLANNING TEAM

CURRENT ACTIVITIES: EVALUATING PROJECTS

CANDIDATE PROJECT EVALUATION

- Project modeling
  - Hydraulic & Hydrologic models
  - Vegetation transition model
  - Habitat models
- Assess project performance
  - How do projects perform under different assumptions about flow and sea level?
  - How well do projects meet objectives and WPU targets?
  - How do projects interact with each other?
- Refine projects as needed
- Identify the most effective projects

KEY ISSUE: HYPOXIA

IMPACTS

WATER QUALITY, HABITAT, AND RECREATIONAL AND COMMERCIAL FISHERIES

- Low dissolved oxygen in water
- Most common in summer in interior swamps disconnected from main flow channels
- Can be caused by sedimentation blocking hydrologic exchange
- Can cause fish kills and loss of biodiversity
- Species that live in mud (crawfish, worms, mollusks) cannot flee to find a new habitat

CHANNEL FLOODPLAIN EXCHANGE

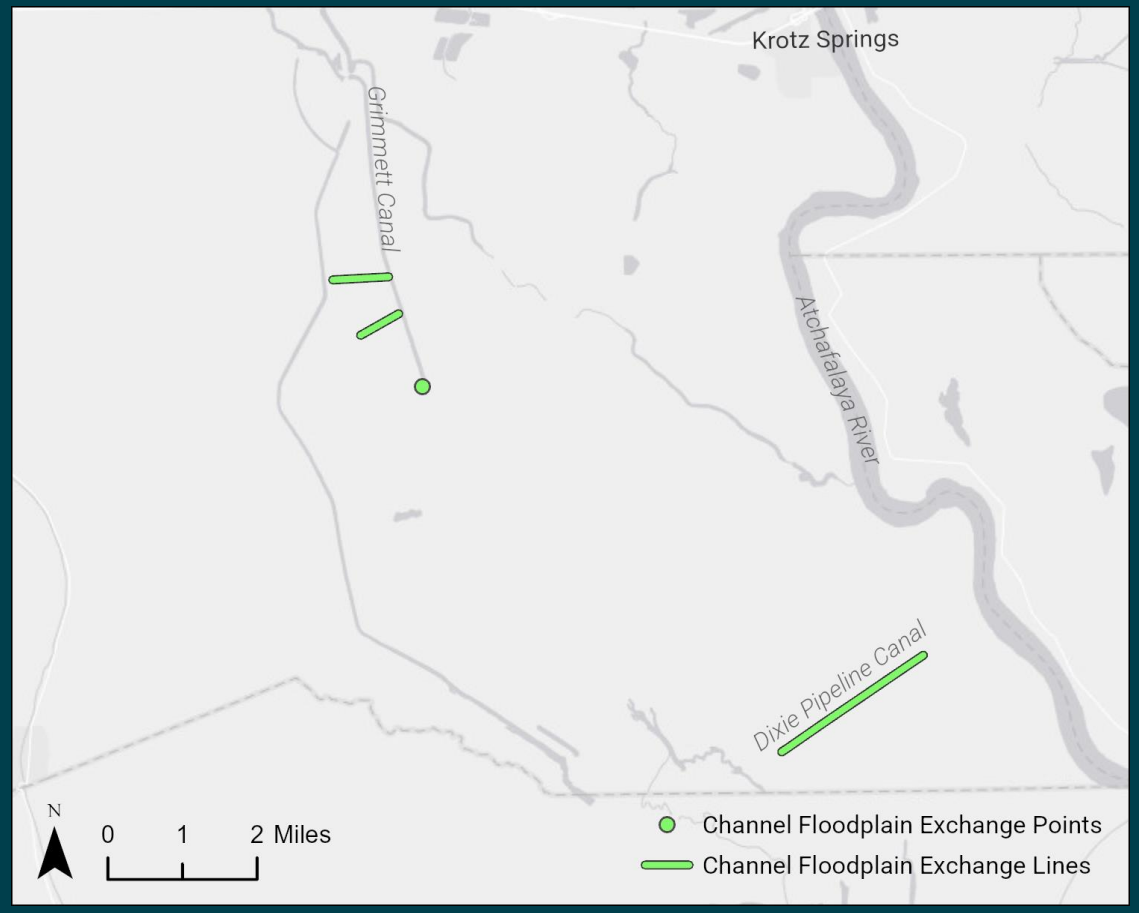
Krotz Springs WPU

- Multiple features to enhance freshwater flow in the Henderson Lake area
- Spoil gapping along the Dixie Pipeline and Grimmett Canal

Relevant Objectives

- Natural Processes
- Habitat

HENDERSON LAKE FLOW IMPROVEMENTS



IMPACTS

ACCESS, WATER QUALITY, NAVIGATION

- Sediment buildup that converts water to land
- Lowers flood capacity
- Limits commercial and recreational access
- Causes a loss of deepwater habitat in bayous and ponds
- Prevents fresh, oxygenated water from flowing naturally
- Requires constant maintenance of navigation channels
- Occurs in lower main river channel and interior swamps and channels

KEY ISSUE: EXCESSIVE SEDIMENTATION

- Areas where sedimentation is to be avoided, as identified by key engagement groups

SEDIMENT TRAPPING

Grand Lake Watershed Planning Unit

- Create a sediment trap at the mouth of the canal connecting Bayou Boutte to the Atchafalaya River.
- Intended to reduce sedimentation in Bayou Boutte

Relevant Objectives

- Natural Processes
- Working River

CANAL INTO BAYOU BOUTTE SEDIMENT TRAP

KEY ISSUE: HABITAT DEGRADATION & LOSS

RELATED TO HYDROLOGIC MODIFICATION, SEDIMENTATION, ETC.

- Degradation of swamp habitat due to prolonged inundation and lack of water exchange
- Limited low water refuge for aquatic species
- Flood pulses benefit fishery species
- Consider habitat for species of recreational, conservation, commercial, and cultural significance

DREDGING AND PLACEMENT OF MATERIAL

Southeastern Atchafalaya WPU

- Dredging 56 acres of Murphy Lake to create deep-water habitat
- Potential strategic placement of dredged material
- Plantings to follow material placement

Relevant Objectives

- Habitat

MURPHY LAKE DEPTH AND WETLAND RESTORATION

TIMELINE AND NEXT STEPS

2024-2025

COMPLETE

- Establish goals, objectives, targets, and metrics
- Refine and finalize candidate project list
- Identify and screen projects

2025-PRESENT

CURRENT ACTIVITES

- Model candidate projects to evaluate performance
- Refine candidate projects

2026-2028

UPCOMING ACTIVITES

- Refine WPU targets
- Develop Atchafalaya Master Plan
- Select projects for inclusion
- Plan Completion

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