2029 COASTAL MASTER PLAN
COMMITTED TO OUR COAST

DECISION FRAMEWORK AND PLANNING TOOL
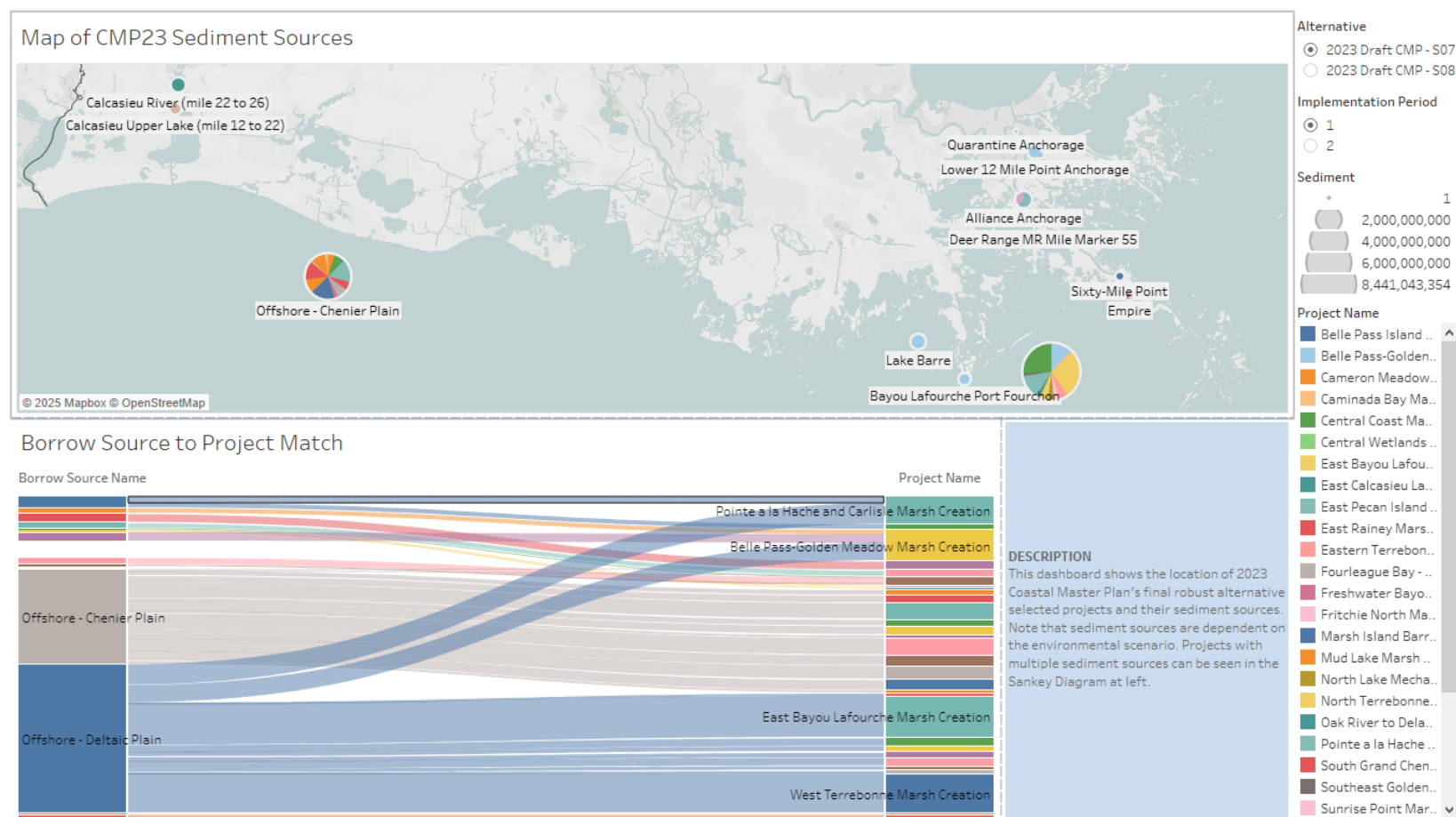
MICHAEL T WILSON

**CHRISTINA PANIS**

MAY 21, 2025

MEETING THE GOALS OF THE MP29 PROCESS

• Building on successes of previous master plans

• Improving usefulness and accessibility of master plan modeling

• Communicating the potential futures of our coast for coastal communities

• Aligning master plan decision-making with how CPRA implements projects

For example, we started by taking a deeper look at MP23 sediment sources. Were some sources constraining? Were river sources being maximized?
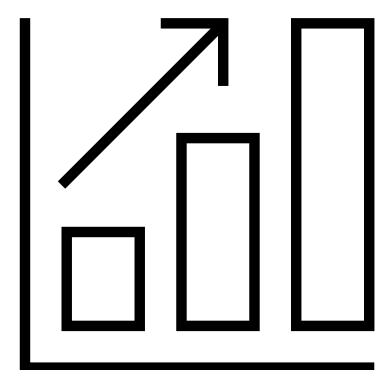
RELATIONSHIP AND ROLE OF THE PLANNING TOOL
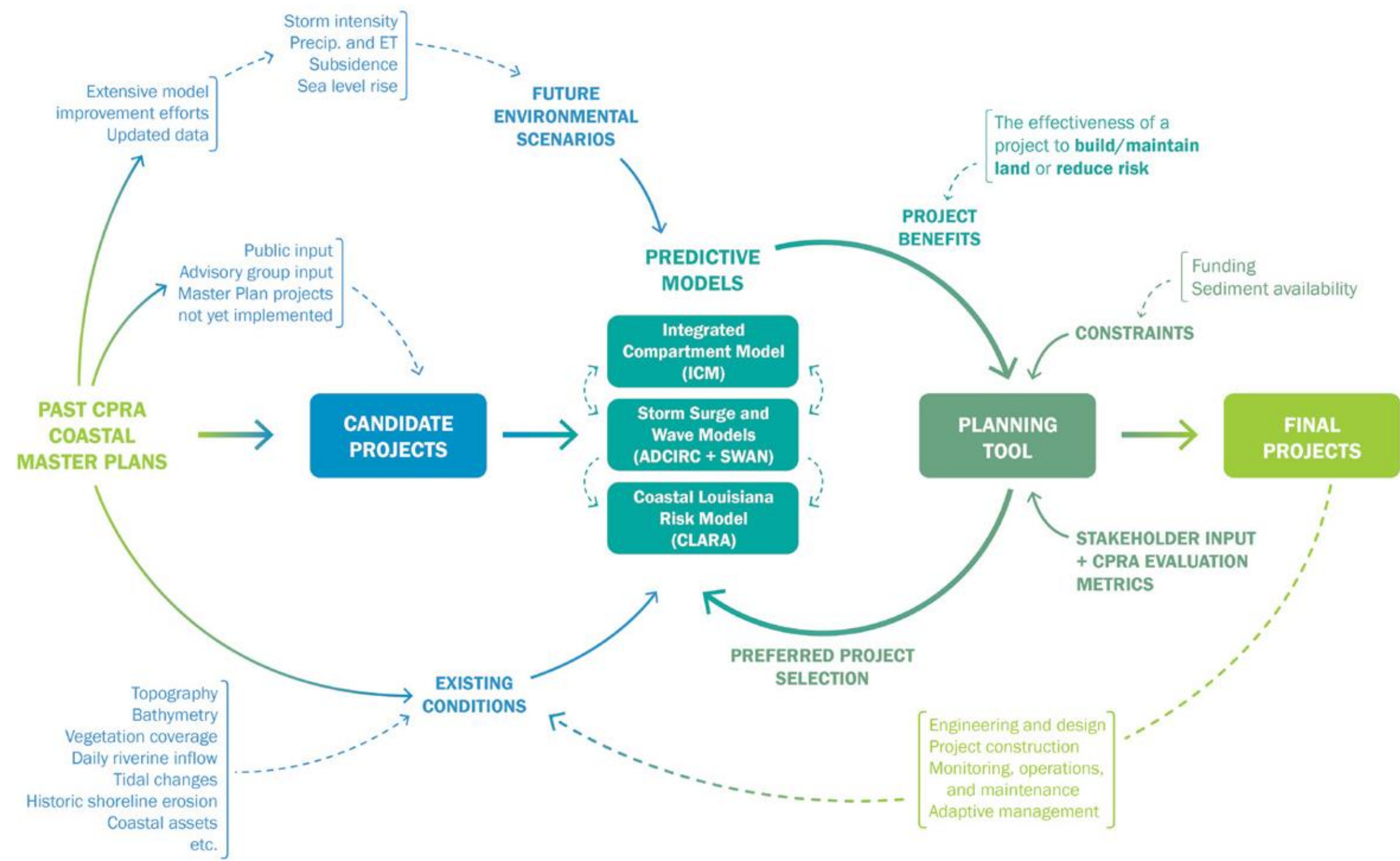
The Planning Tool is a key opportunity to incorporate feedback into the decisionmaking process.

ZOOMING IN ON THE PLANNING TOOL PROCESS...
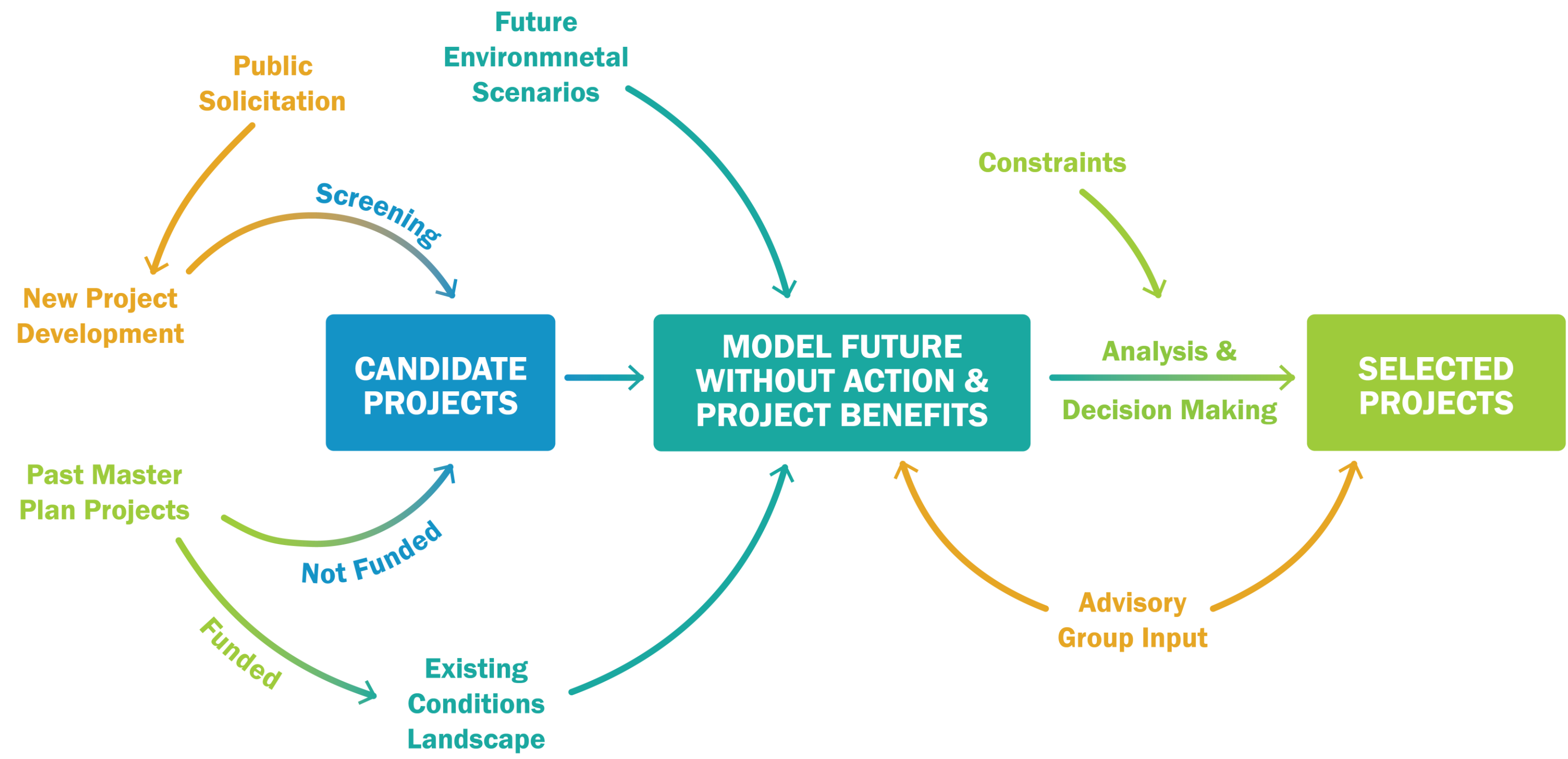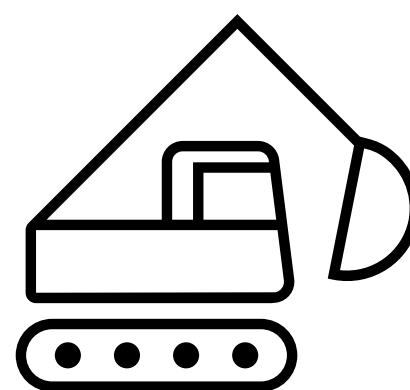
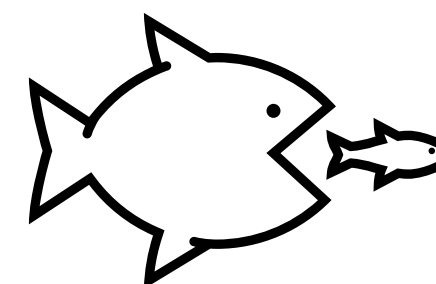# WHAT MIGHT CONSTRAIN PROJECT SELECTION?

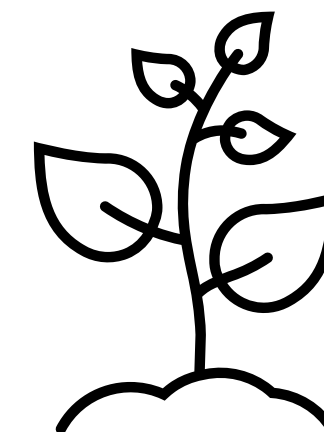Benefits
over Time
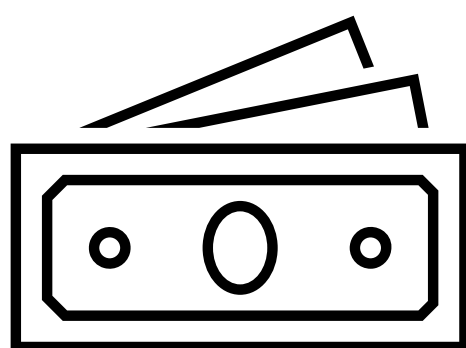
Budget
Size and Type
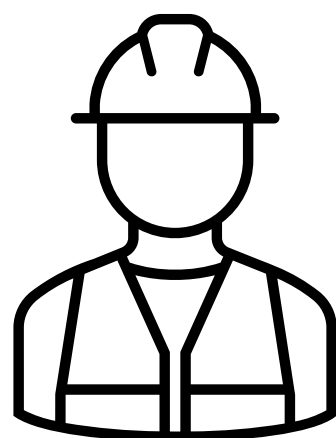
Construction
Feasibility

Available Sediment
and Location

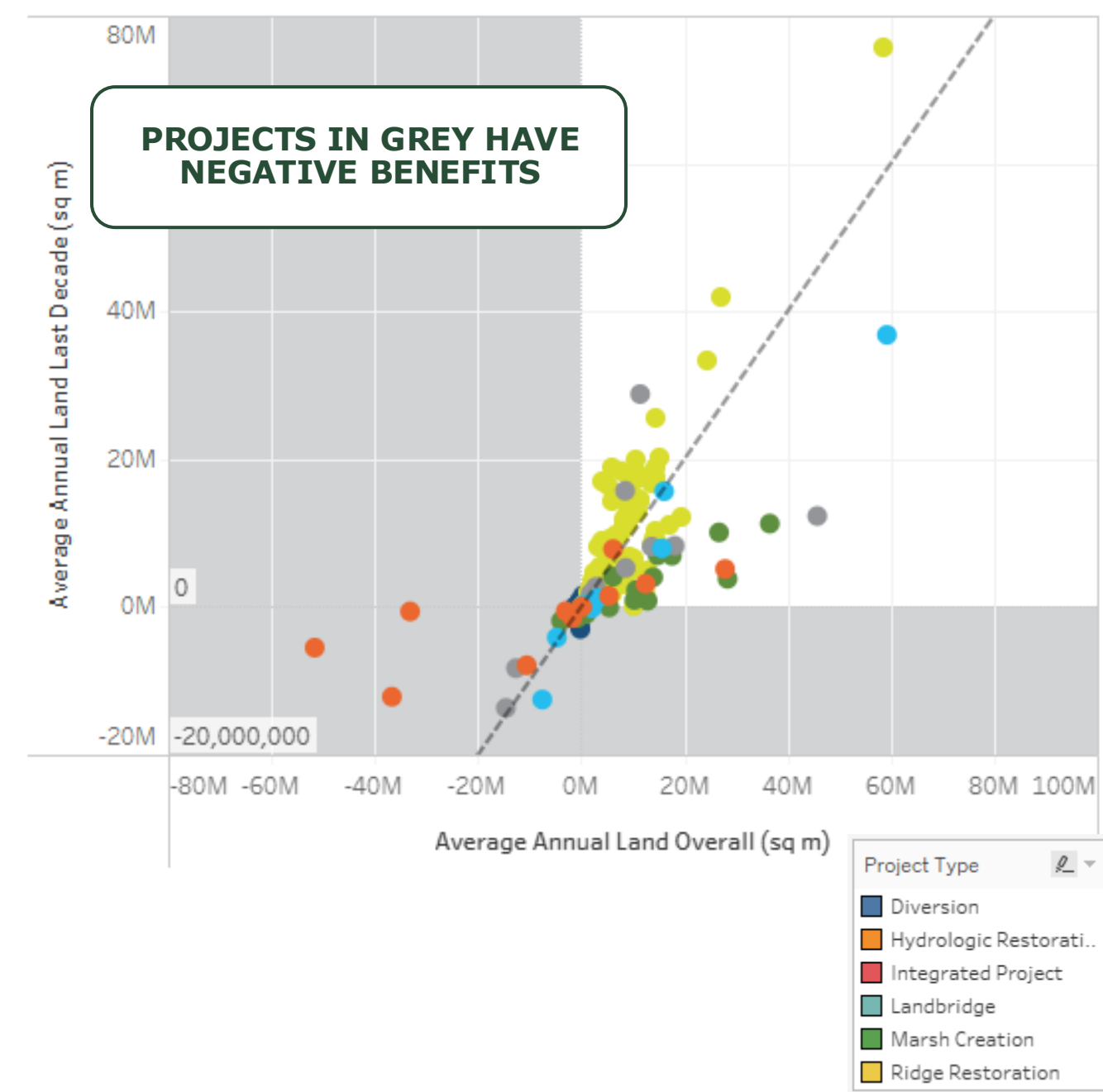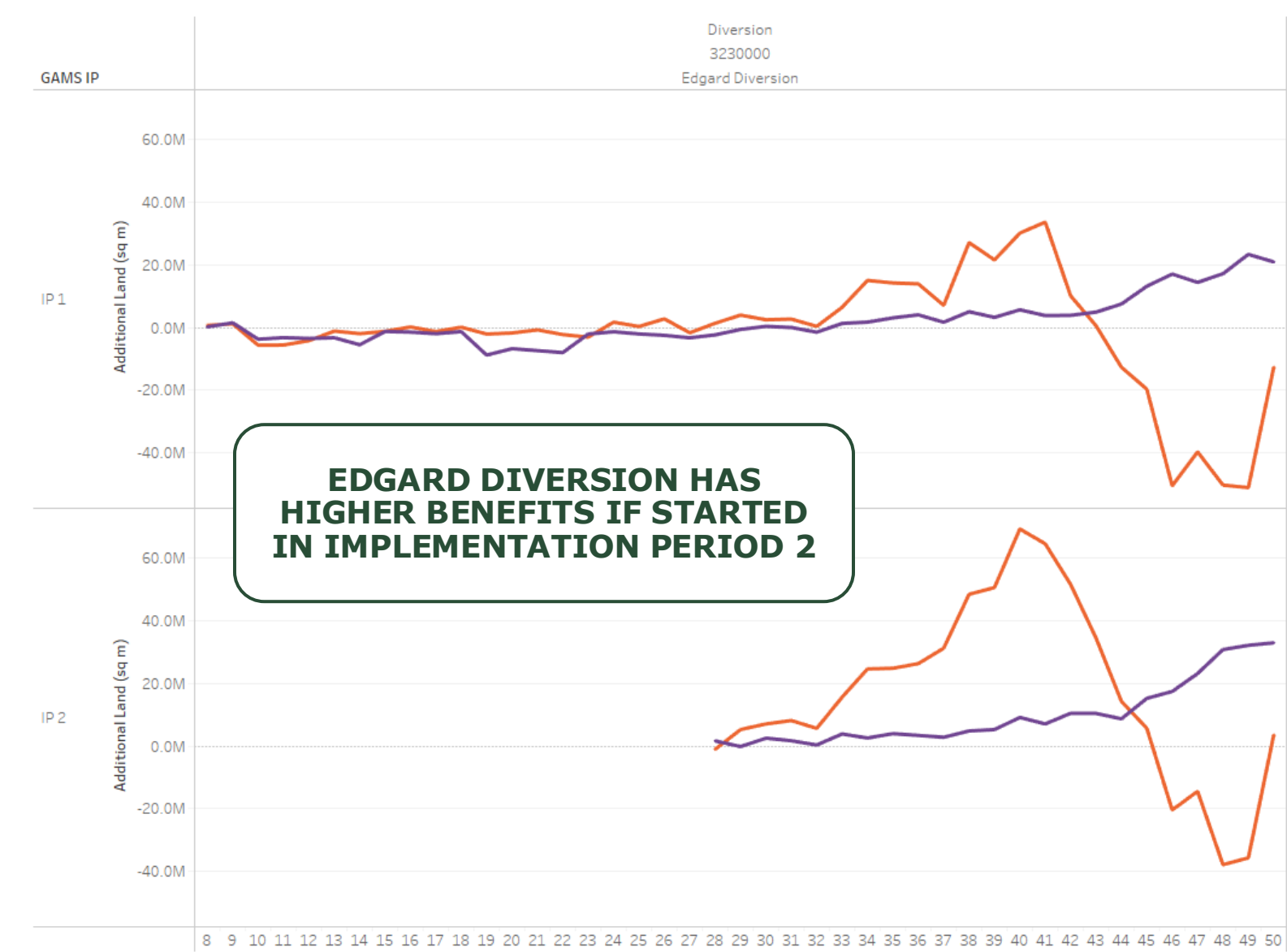Relative
Competitiveness

Environmental
Scenarios

BENEFITS OVER TIME

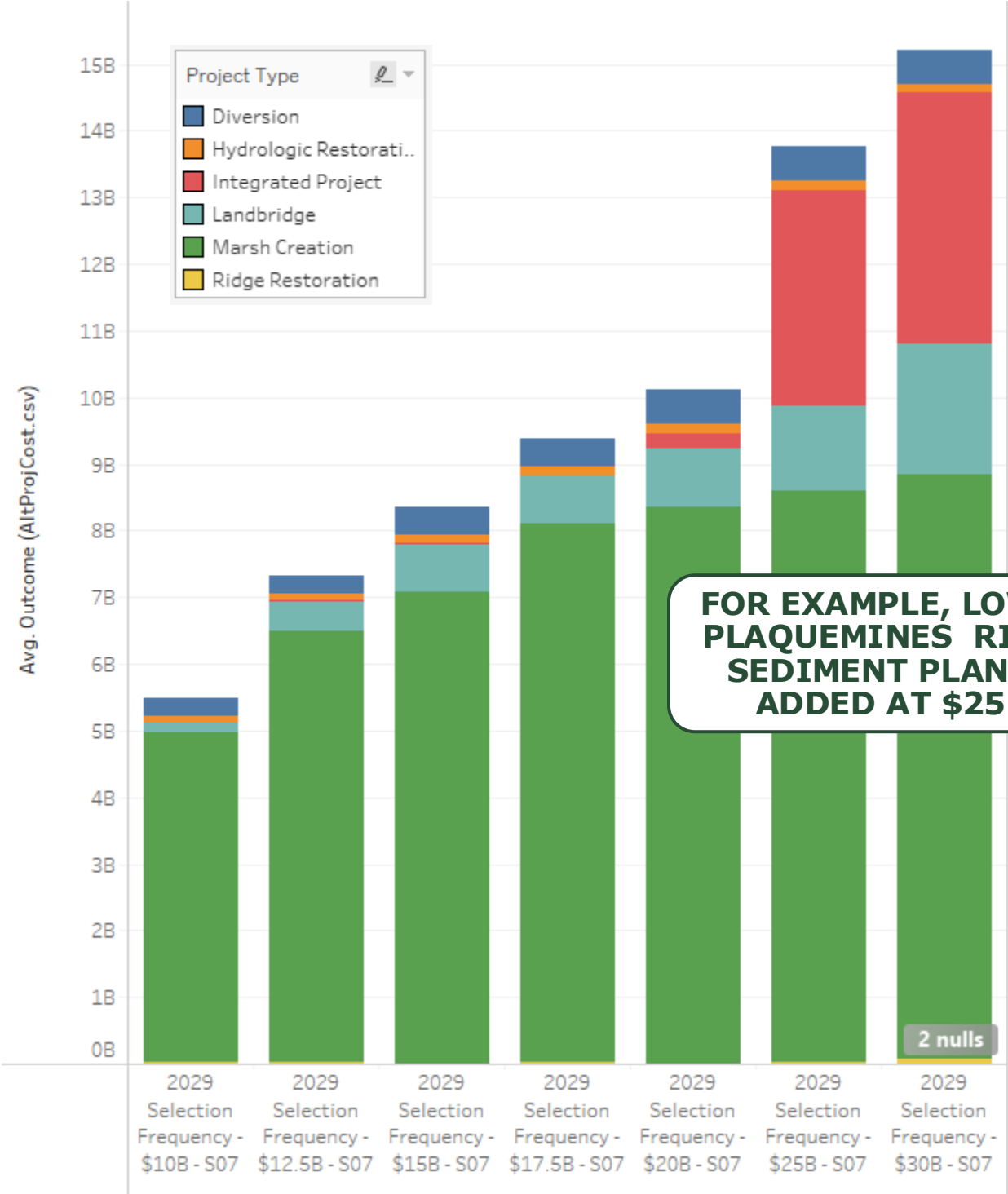Analysis from MP23 included Robustness and Land Sustainability

BUDGET SIZE

Project Selection Unlimited by Sediment

EXAMINING THE FREQUENCY OF PROJECT SELECTION BY AN INCREASING BUDGET

FOR EXAMPLE, LOWER PLAQUEMINES RIVER SEDIMENT PLAN IS ADDED AT $25B

BUDGET TYPE

Foresight Improves Use of River Sediment and Shifts Benefits in Time

ATCHAFALAYA RIVER DIVERSION EXAMPLE

LATER AND LOWER...
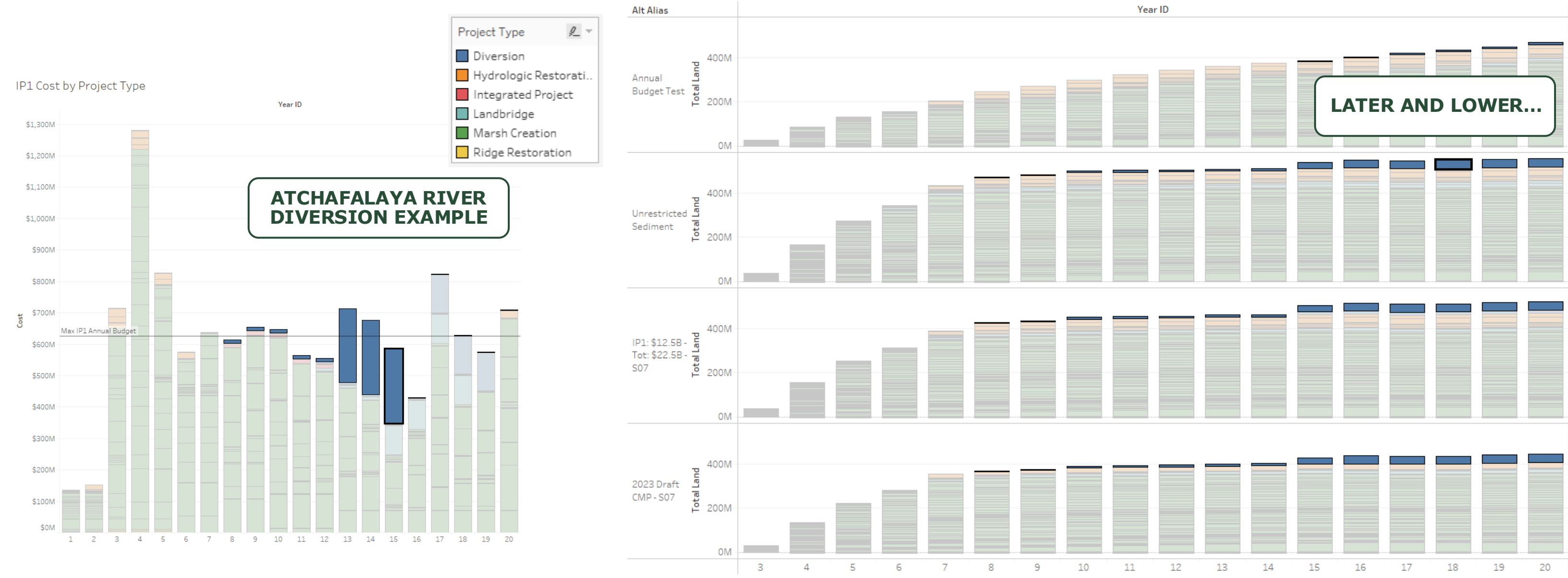
CONSTRUCTION FEASIBILITY

Annualized Phasing Offers a New Understanding of Projects

SORTED BY START DATE

ATCHAFALAYA RIVER DIVERSION EXAMPLE

SEDIMENT LOCATION

Understanding Project-Level Borrow Source Choices

DESCRIPTION
The map at left displays interior, river, and offshore sediment source locations. The borrow requirements of each element are pie sectors, color coded by project. The Sankey Diagram below can be used to trace a borrow source to its potential elements, or a project back to its potential borrow sources. Single source indicates whether an element can only use that particular borrow. Clicking on the thread brings up a tool tip, whereas selecting a box highlights all of that project, borrow, source, etc. Subsequent tabs allow for filtering by individual projects or sediments.

Sediment Source Type by Project
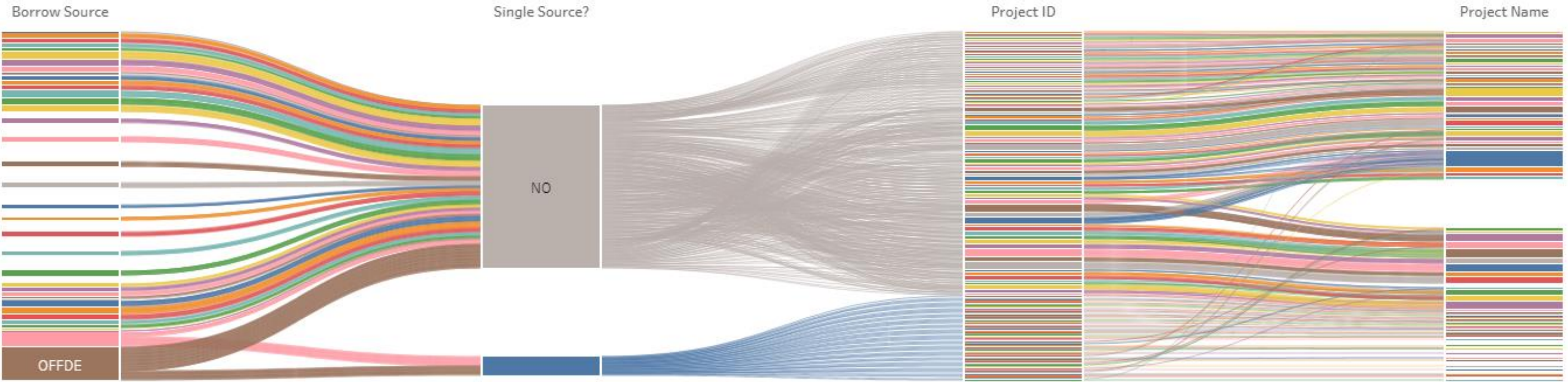
SEDIMENT AVAILABILITY

Lake Barre Sediment Source Projects Comparison

Borrow Source Name — Lake Barre; Offshore - Deltaic Plain; Bayou Lafourche; Port Fourchon

Project ID (group) — Not Picked; Picked

Project ID

Project Name — East Bayou Lafourche Marsh Creation; Belle Pass-Golden Meadow Marsh Creation
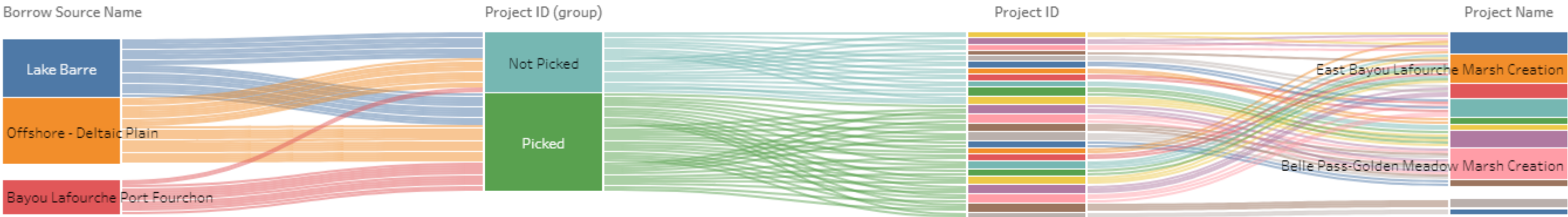
Projects Selected in IP1 under S07 for $12.5B Budget

Sediment Source Characteristic	Project Name	Project ID	Optimal Source?	
			Not Optimal Sediment	Optimal Sediment
Picked Optimal Sediment	Belle Pass-Golden Meadow Marsh Creation	12300011230000		■
		12300021230000		■
		12300031230000	■	
		12300041230000	■	
	North Terrebonne Bay Ma..	12500011250000		■
Not Enough of Optima..	Eastern Terrebonne Land..	33500013350000	■	
Picked Not Optimal Sediment	East Bayou Lafourche Marsh Creation	33000013300000	■	
		33000033300000	■	
		33000043300000	■	
		33000053300000	■	
	Eastern Terrebonne Fring..	33800013380000	■	
	South Terrebonne Mar..	28500012850000	■	

Projects Not Selected in IP1 under S07 for $12.5B Budget

Sediment Source Characteristic	Project Name	Project ID	Not Optimal Source?	
			Not Optimal Sediment	Optimal Sediment
Not Enough of Optimal Sediment Source	Eastern Terrebonne Landbridge	33500023350000	■	
		33500033350000	■	
	Eastern Terrebonne Landbrid..	33500023350200	■	
	Eastern Terrebonne Landbrid..	33500033350100	■	
	Greater Terrebonne Bay Rim Ridge Restoration with Marsh..	33600063360000		■
		33600073360000	■	
	South Terrebonne Marsh Creation	28500022850000	■	
		28500032850000		■
Less Cost Effecti..	South Terrebonne Marsh Crea..	28500042850000		■

DESCRIPTION
The above table examines the characteristics of sediment sources selected:
Picked Optimal Sediment - was available and competed favorably
Not Enough of Optimal Sediment Source – some elements competitive for optimal sediment, but others were able to be effective using another source (landbridge and integrated projects)
Picked Not Optimal Sediment - was wholly outcompeted by other projects selected in MP23, but even when using sources other than the most optimal, it was still an effective project
Picked IP/Landbridge - part of a broader project

DESCRIPTION
The Sankey Diagram at top explores one source of sediment, Lake Barre, to understand how projects accessed one of the more competitive borrows. Selecting whether elements were picked or not points back to the sources or the projects.

The above table examines the characteristics of sediment sources for projects not selected:
Not Enough of Optimal Sediment Source - was partially outcompeted, and was not effective using another source (landbridge and integrated projects)
Less Cost Effective than Average Project - even if another low-cost source was available, would not be effective
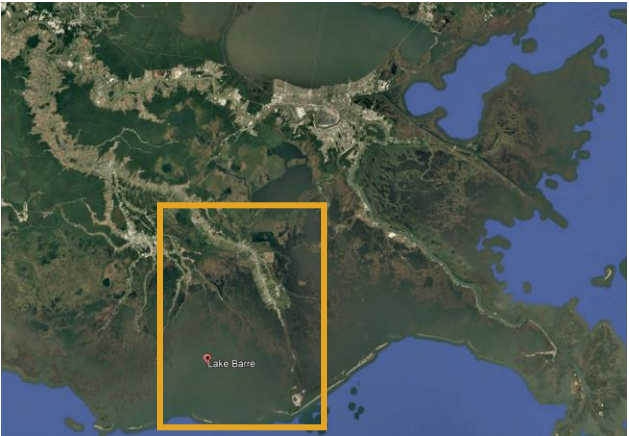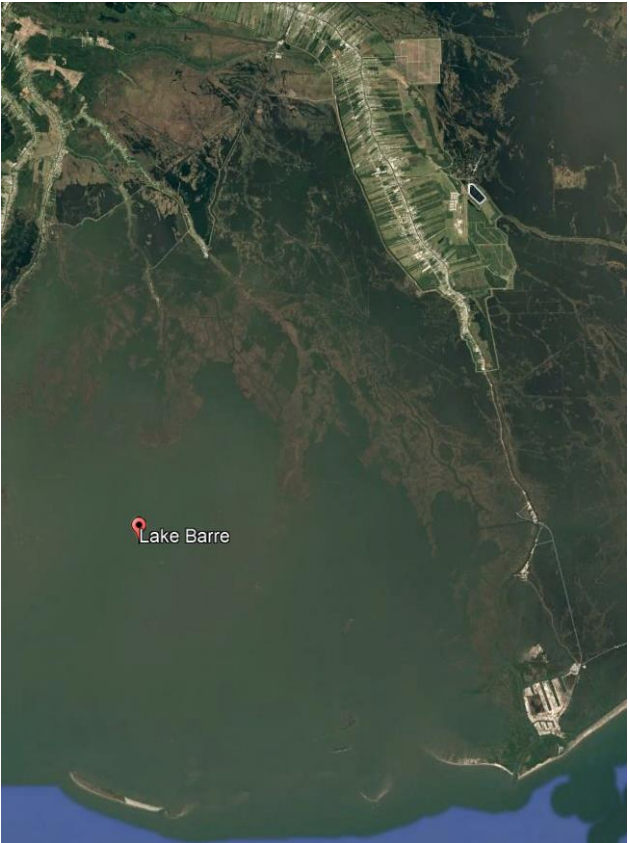
RELATIVE COMPETITIVENESS
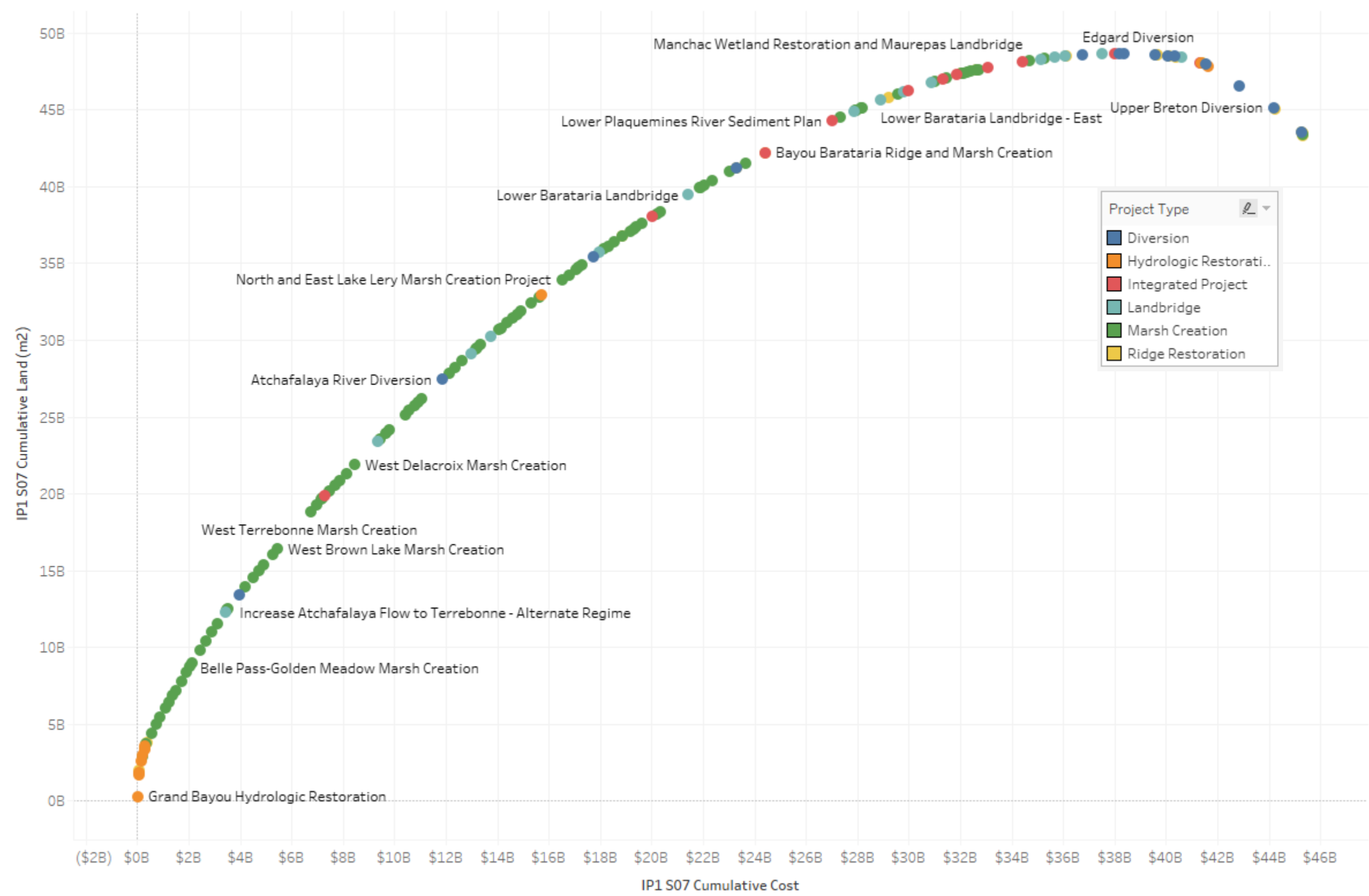
Ordering cumulative cost and benefit by rank gives a sense of the marginal next best project, with an inflection point for IP1 S07 around the Edgard Diversion example seen earlier.

ROBUSTNESS TO ENVIRONMENTAL SCENARIO

Comparing the S07 vs S08 rank orders for IP1 highlights the importance of robustness decision framework to the MP23 Planning Tool.

LESSONS LEARNED ABOUT PROJECTS TO CARRY FORWARD?
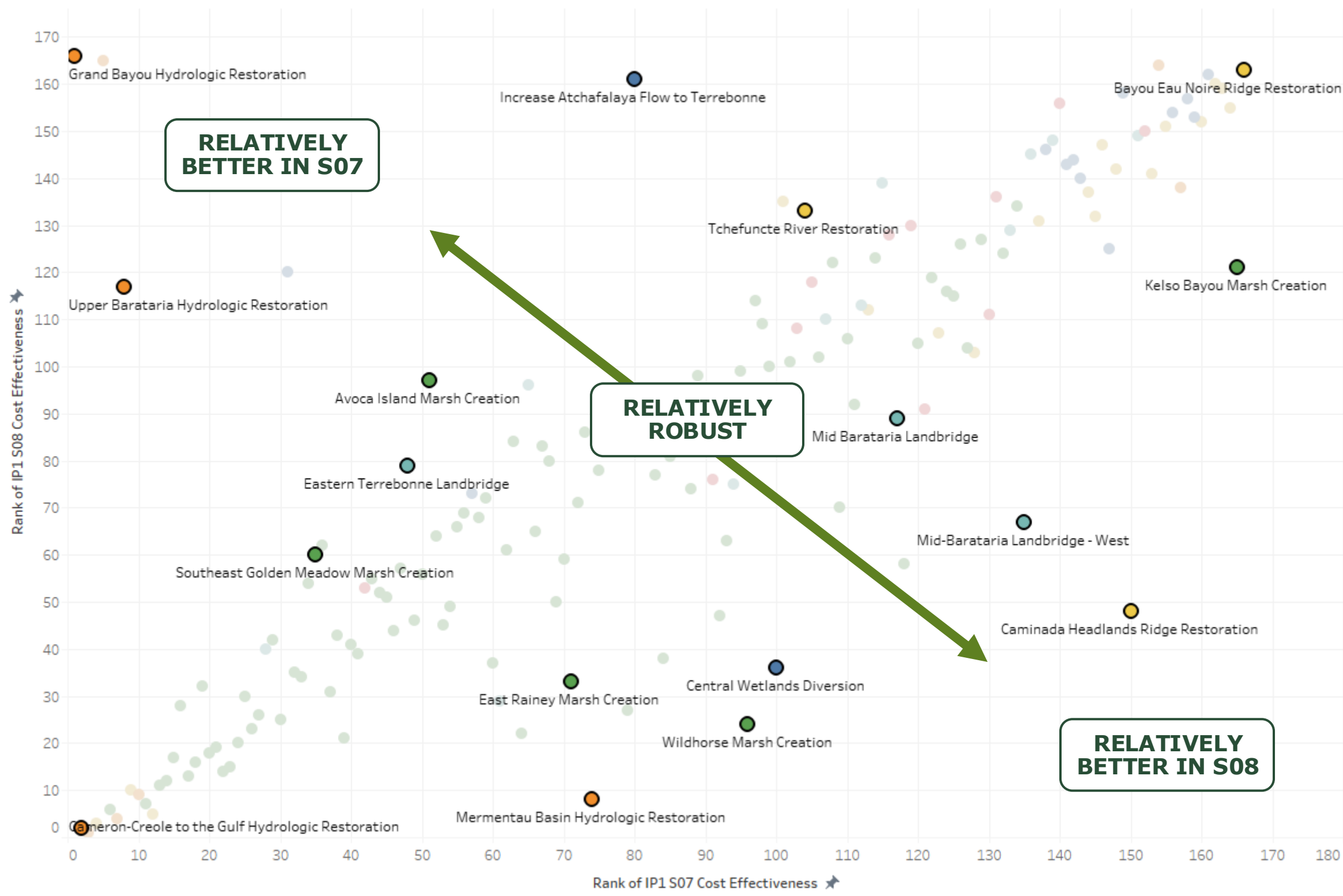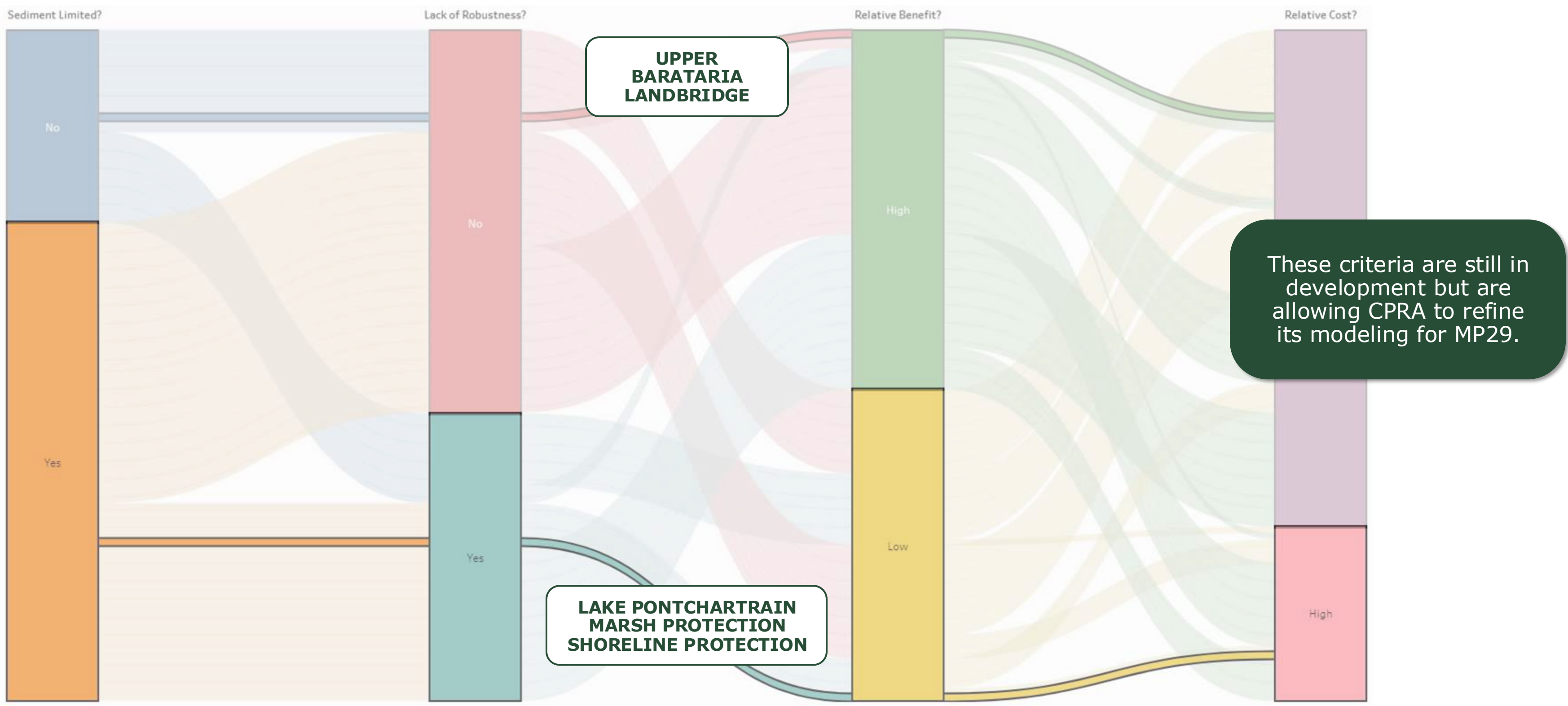
THANK YOU!

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