



Plaquemines Parish Update on Non-Federal Levee Alignments

Bill Maloz, Senior Project Manager
28 January 2009



Project Authority

“...provided, that; ... at full Federal expense, ...that \$215,000,000 shall be used to replace or modify certain non-Federal levees in Plaquemines Parish to incorporate the levees into the existing New Orleans to Venice Hurricane Protection Project...”

- 4th Supplemental, Public Law 109-234

“...provided, that ...certain projects in the greater New Orleans metropolitan area be prosecuted in a manner which promotes the goal of continuing work at an optimal pace, while maximizing, to the greatest extent practicable, levels of protection to reduce the risk of storm damage to people and property...”

- 5th Supplemental), Public Law 160-28

“...provided ...an additional amount of \$456,000,000 ...” for the project...

- 6th Supplement, Public Law 110-252



Background

- The existing levee is a “Back Levee” approximately 32 miles long, constructed with non-federal funds, both private and public, on the west side of the Mississippi River to provide hurricane protection from Oakville to two miles up river of St. Jude.
- Three pump stations provide capacity for approximately a two year event.
- Existing levee constructed with adjacent materials:
 - ***8’ in the northern areas (8 miles)***
 - ***4’ or less in the southern areas (24 miles)***
 - ***Ground level between existing NFL and NOV (2 miles)***
- Recent hurricanes have caused several breaches resulting in severe flooding and significant property damage.



Facts

(Optimization Strategy)

- **Authorized levee elevation is 12' (NAVD 88).**
- **Funding as follows:**
 - *Total Project Appropriation:* *\$671 Million*
- **Environmental impacts will be avoided to the maximum extent practicable:**

“... impacts must be first avoided and then minimized, and that compensatory mitigation should be used only for impacts that cannot be avoided or minimized.”

 - Clean Water Act Section 404(b)(1) Guidelines
- **Risk Reduction for existing homes and property will be maximized.**



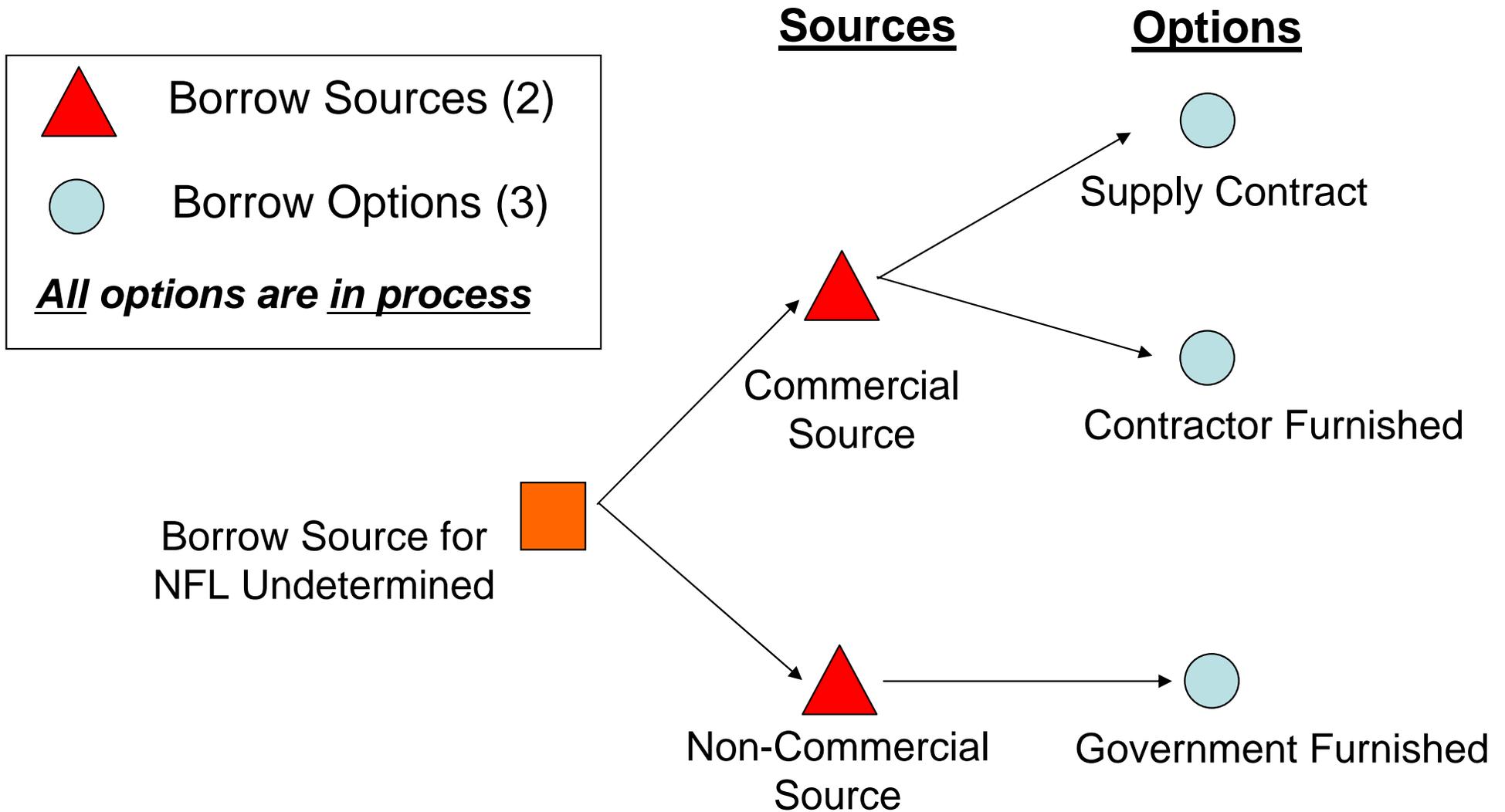
Assumptions

- Borrow assumed to be locally furnished.
- Borrow haul distance (RT-Round Trip) will vary depending on reach location.
- Fronting protection for pump station(s) is included.
- Levee cross sections (for Deep Soil Mixing, Land-side or Flood-side) applied according to geotechnical engineering and levee design judgment.
- Mitigation cost are as follows:
 - Bottom Land Hardwood (Wet); Subsidied Ridge: \$110,000 per acre
 - Bottom Land Hardwood (Dry): \$220,000 per acre
 - Wetlands*: \$ 80,000 per acre

** Includes Coastal Marsh, Scrub-Shrub, & Wet Pasture*



NFL Borrow Decisions





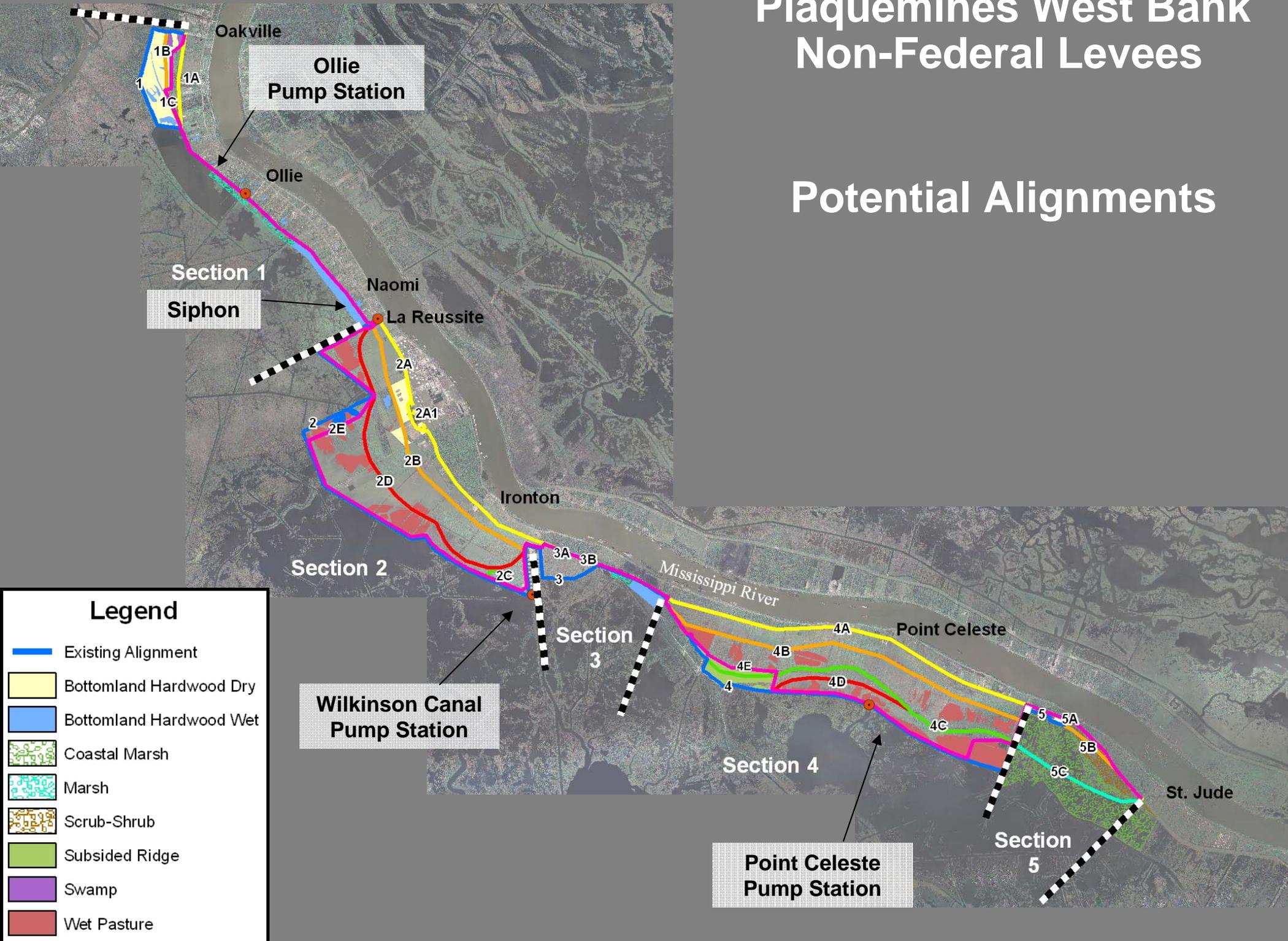
Decision Process

- **Multiple alignments under investigation using criteria, including:**
 - *Local Preferences*
 - *Protect Highway 23*
 - *Cost Considerations*
 - *Avoidance of Wetland Impacts*
 - *Avoidance of Cultural Resources*

- **Authorization limits the potential alternatives**
 - *“Repair or modification” of existing alignment*
 - *The purpose is to reduce the risk of storm damage to people and property*

Plaquemines West Bank Non-Federal Levees

Potential Alignments

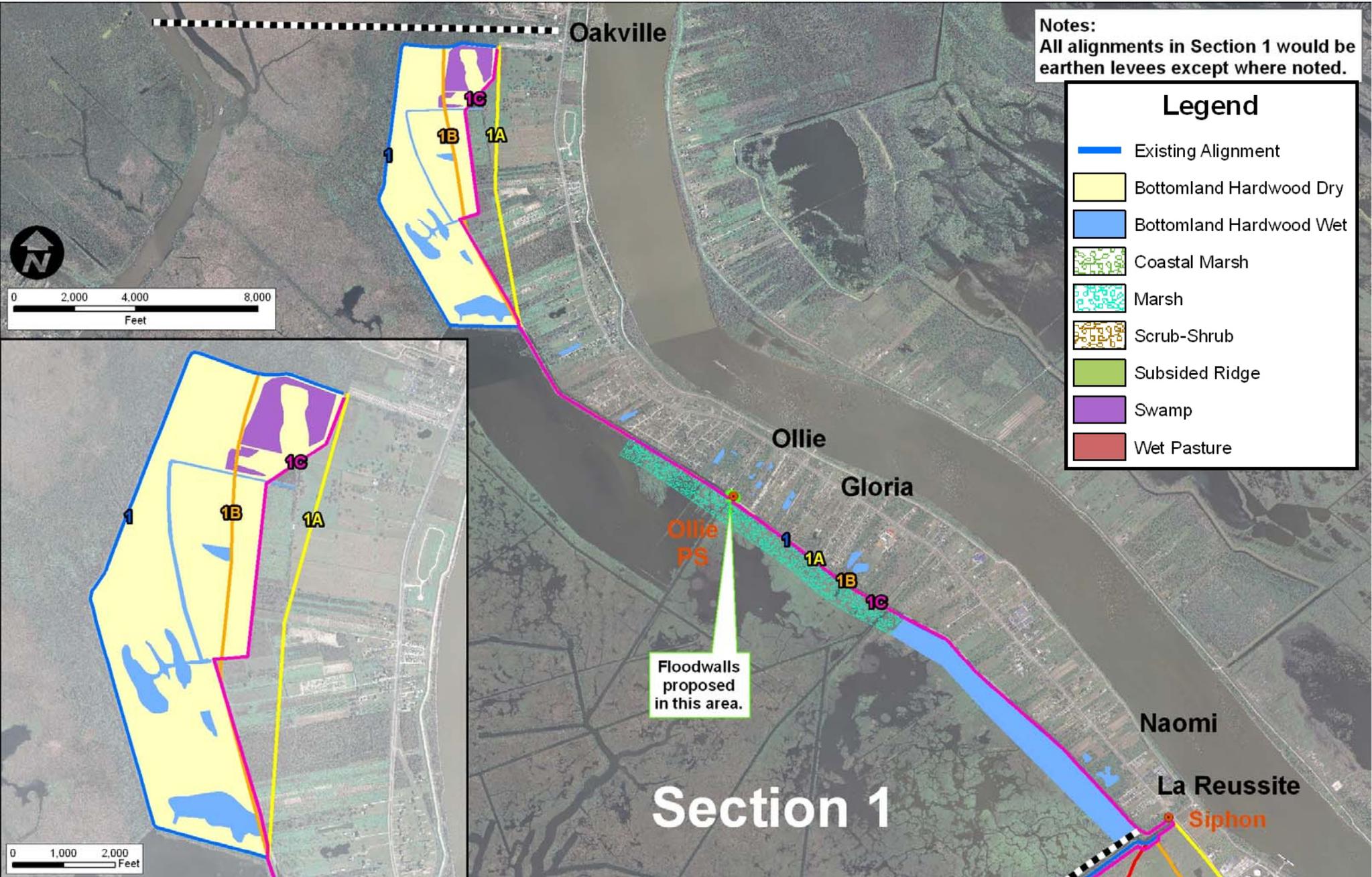




Section 1: Hero to La Reussite



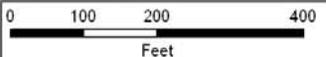
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Section 1: Hero to La Reussite Protected Side Land Use





Section 1: Hero to La Reussite

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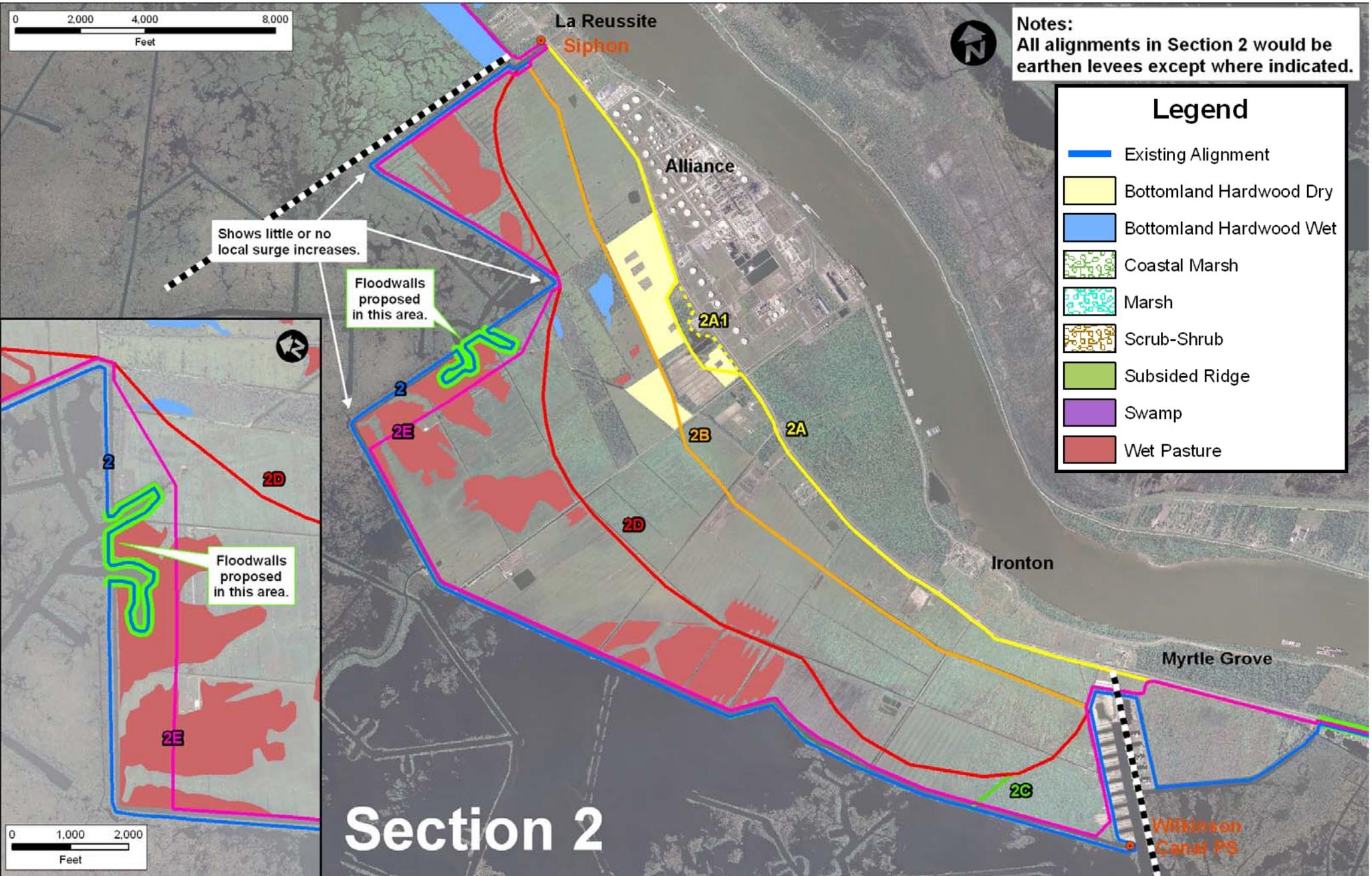
Cost Items - Borrow Materials (20 Mile RT)										Environmental Items						
Base to Go Cost Only										Direct Impacts - 322' Right of Way						
Optional Alignments	Levee Length	Acreage Protected	<u>Lands & Damages</u>	<u>L&D - Mitigation</u>	<u>Relocations</u>	<u>Construction</u>	<u>Design (E&D)</u>	<u>CM (S&A)</u>	TOTAL BASE TO GO	Impacts Direct (D) Enclosed (E)	BLH Wet / Swamp	BLH Dry	Coastal Marsh	Subsided Ridge	Wet Pasture	Scrub Shrub
											Acres	Acres	Acres	Acres	Acres	Acres
1 Existing	41,988	3,043.25	TBD	TBD	TBD	TBD	TBD	TBD	TBD	D	84.94	97.29	77.42	0.00	0.00	0.00
										E	114.85	464.44	0.00	0.00	0.00	0.00
1A Alternative	36,009	2,345.37	TBD	TBD	TBD	TBD	TBD	TBD	TBD	D	76.77	0.08	77.43	0.00	0.00	0.00
										E	23.81	0.00	0.00	0.00	0.00	0.00
1B Alternative	38,158	2,597.82	TBD	TBD	TBD	TBD	TBD	TBD	TBD	D	92.36	37.95	77.44	0.00	0.00	0.00
										E	59.00	81.05	0.00	0.00	0.00	0.00
1C Alternative	37,024	2,489.07	TBD	TBD	TBD	TBD	TBD	TBD	TBD	D	77.26	0.24	77.48	0.00	0.00	0.00
										E	24.48	0.15	0.08	0.00	0.00	0.00

- This section contains 7.95 miles of existing levee.
- Area protected by existing levee is 3,043 acres.
- Within this section, there are potential significant impacts to residents and wetlands.
- Reduces the risk for the communities of Oakville, Ollie, Gloria, Naomi and La Reussite.



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Section 2: La Reussite to Myrtle Grove





Section 2: La Reussite to Myrtle Grove



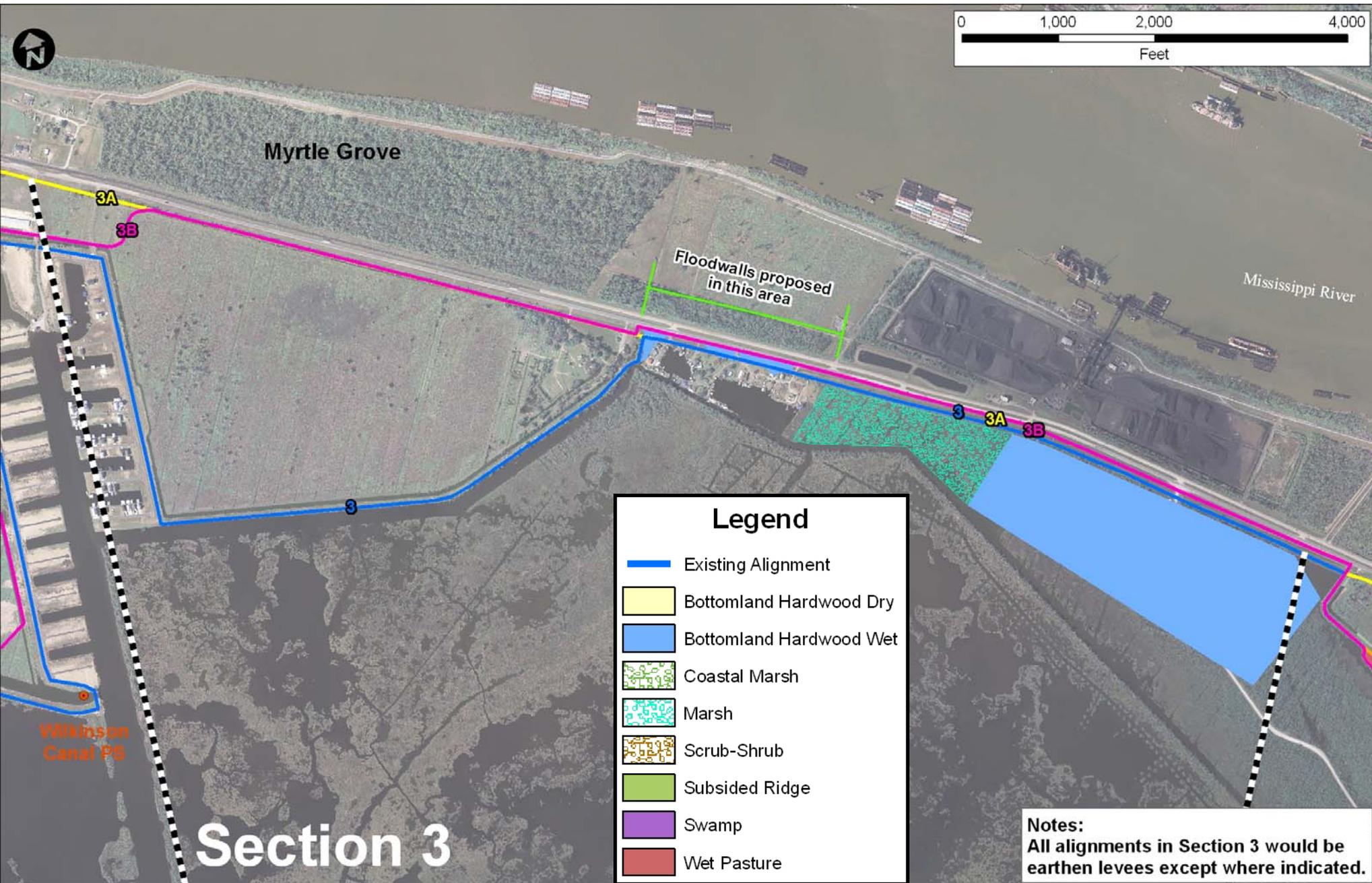
Cost Items - Borrow Materials (20 Mile RT)										Environmental Items						
Base to Go Cost Only										Direct Impacts - 322' Right of Way						
Optional Alignments	Levee Length	Acreage Protected	Lands & Damages	L&D - Mitigation	Relocations	Construction	Design (E&D)	CM (S&A)	TOTAL BASE TO GO	Impacts	BLH Swamp	BLH Dry	Coastal Marsh	Subsided Ridge	Wet Pasture	Scrub Shrub
										Direct (D) Enclosed (E)	Acres	Acres	Acres	Acres	Acres	Acres
2 Existing	62,161	6,627.69	TBD	TBD	TBD	TBD	TBD	TBD	TBD	D	0.00	0.00	0.00	0.00	61.08	0.00
										E	18.79	166.94	0.00	0.00	605.59	0.00
2A Alternative	29,035	1,627.81	TBD	TBD	TBD	TBD	TBD	TBD	TBD	D	33.43	0.00	0.00	0.00	0.00	0.00
										E	0.00	10.56	0.00	0.00	0.00	0.00
2B Alternative	31,018	2,593.02	TBD	TBD	TBD	TBD	TBD	TBD	TBD	D	28.32	0.00	0.00	0.00	0.00	0.00
										E	0.00	133.38	0.00	0.00	0.00	0.00
2C Alternative	57,072	6,423.77	TBD	TBD	TBD	TBD	TBD	TBD	TBD	D	0.00	0.00	0.00	0.00	61.24	0.00
										E	18.79	166.94	0.00	0.00	605.59	0.00
2D Alternative	37,338	4,505.34	TBD	TBD	TBD	TBD	TBD	TBD	TBD	D	2.30	0.00	0.00	0.00	6.95	0.00
										E	18.37	166.94	0.00	0.00	28.48	0.00
2E Alternative	54,753	6,292.88	TBD	TBD	TBD	TBD	TBD	TBD	TBD	D	0.32	0.00	0.00	0.00	50.92	0.00
										E	18.79	166.94	0.00	0.00	528.60	0.00

- This section contains 11.77 miles of existing levee.
- Area protected by existing levee is 6,628 acres.
- Siphon and Wilkinson Pump Station could receive additional risk reduction measures in the form of fronting protection.
- All alignments preserve Myrtle Grove Marina.
- Reduces risk for the communities of Alliance, Ironton, and Myrtle Grove.



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Section 3: Myrtle Grove to Citrus Lands





Section 3: Myrtle Grove to Citrus Lands



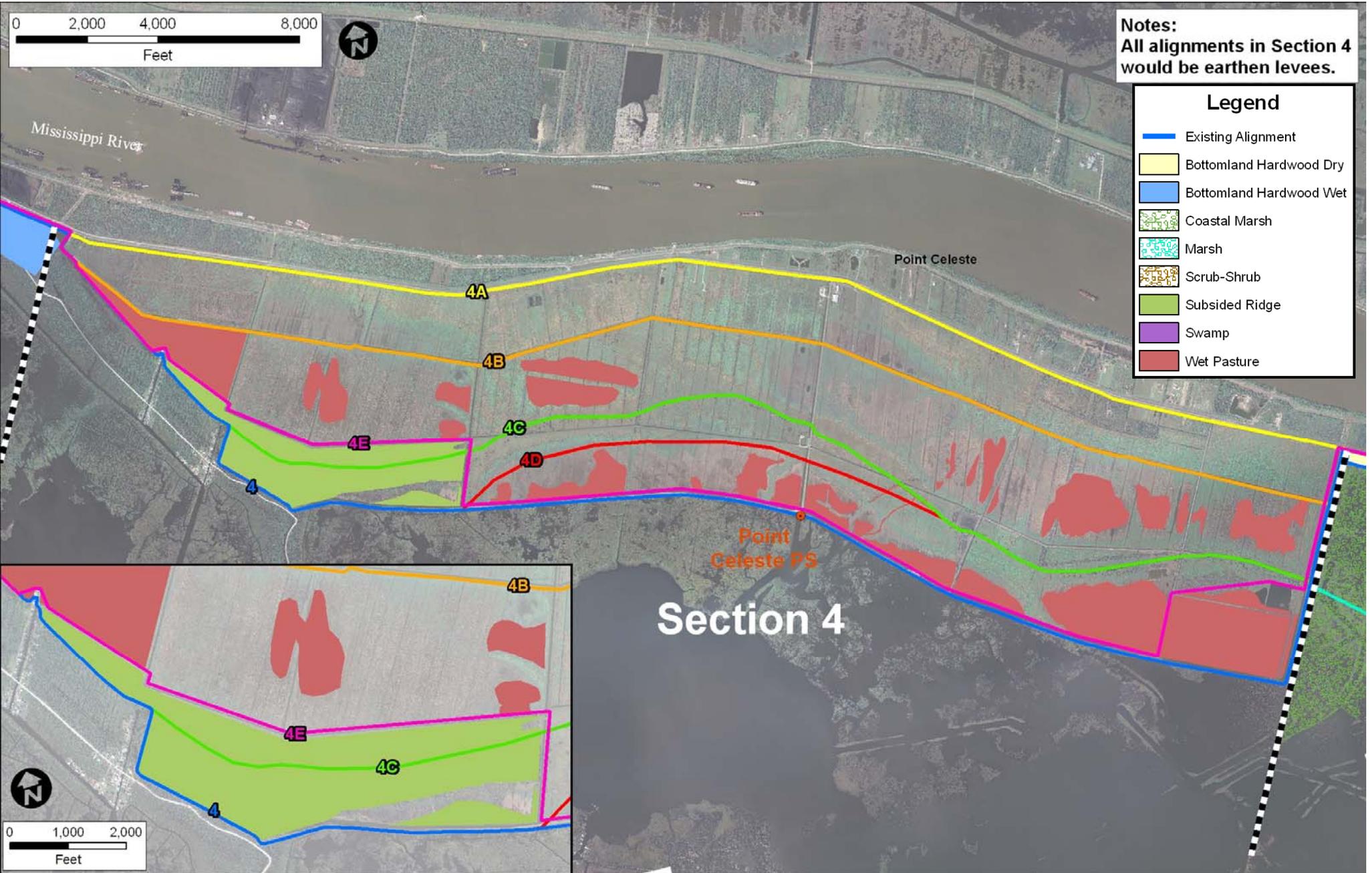
Cost Items - Borrow Materials (30 Mile RT)										Environmental Items						
Base to Go Cost Only										Direct Impacts - 322' Right of Way						
Optional Alignments	Levee Length	Acreage Protected	Lands & Damages	L&D - Mitigation	Relocations	Construction	Design (E&D)	CM (S&A)	TOTAL BASE TO GO	Impacts	BLH Swamp	BLH Dry	Coastal Marsh	Subsided Ridge	Wet Pasture	Scrub Shrub
										Direct (D) Enclosed (E)	Acres	Acres	Acres	Acres	Acres	Acres
3 Existing	16,496	749.00	TBD	TBD	TBD	TBD	TBD	TBD	TBD	D	20.51	0.00	12.70	0.00	0.00	0.00
										E	1.56	0.00	0.00	0.00	0.00	0.00
3A Alternative	13,844	468.61	TBD	TBD	TBD	TBD	TBD	TBD	TBD	D	20.52	0.00	12.70	0.00	0.00	0.00
										E	1.56	0.00	0.00	0.00	0.00	0.00
3B Alternative	14,110	471.08	TBD	TBD	TBD	TBD	TBD	TBD	TBD	D	14.64	0.00	8.59	0.00	0.00	0.00
										E	0.03	0.00	0.00	0.00	0.00	0.00

- The section contains 3.14 miles of existing levee.
- Area protected by existing levee is 750 acres.



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Section 4: Citrus Lands to Point Celeste





Section 4: Citrus Lands to Point Celeste



Cost Items - Borrow Materials (20 Mile RT)										Environmental Items					
Base to Go Cost Only										Direct Impacts - 322' Right of Way					
Optional Alignments	Levee Length	Acreage Protected	Lands & Damages	L&D - Mitigation	Relocations	Construction	Design (E&D)	CM (S&A)	TOTAL BASE TO GO	Impacts	BLH Swamp	Coastal Marsh	Subsided Ridge	Wet Pasture	Scrub Shrub
										Direct (D) Enclosed (E)	Acres	Acres	Acres	Acres	Acres
4 Existing	47,474	5,926.59	TBD	TBD	TBD	TBD	TBD	TBD	TBD	D	0.00	0.00	58.64	108.41	0.00
										E	0.00	0.00	250.28	852.08	0.00
4A Alternative	37,468	894.31	TBD	TBD	TBD	TBD	TBD	TBD	TBD	D	0.42	0.00	0.00	0.00	0.00
										E	0.00	0.00	0.00	0.00	0.00
4B Alternative	40,056	2,328.22	TBD	TBD	TBD	TBD	TBD	TBD	TBD	D	0.00	0.00	0.00	0.02	0.00
										E	0.00	0.00	0.00	0.02	0.00
4C Alternative	44,647	4,410.21	TBD	TBD	TBD	TBD	TBD	TBD	TBD	D	0.00	0.00	67.38	24.54	0.00
										E	0.00	0.00	100.08	399.88	0.00
4D Alternative	45,686	4,889.96	TBD	TBD	TBD	TBD	TBD	TBD	TBD	D	0.00	0.00	58.73	26.23	0.00
										E	0.00	0.00	250.28	402.01	0.00
4E Alternative	47,206	5,331.29	TBD	TBD	TBD	TBD	TBD	TBD	TBD	D	0.00	0.00	0.00	155.93	0.00
										E	0.00	0.00	0.00	684.83	0.00

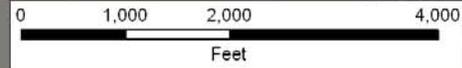
- This mostly agricultural section of land contains 8.99 miles of existing levee.
- Area protected by existing levee is 5,927 acres.
- Potential impacts to Subsided Ridge
- Point Celeste Pump Station could receive fronting protection.



Section 5: Point Celeste to St. Jude

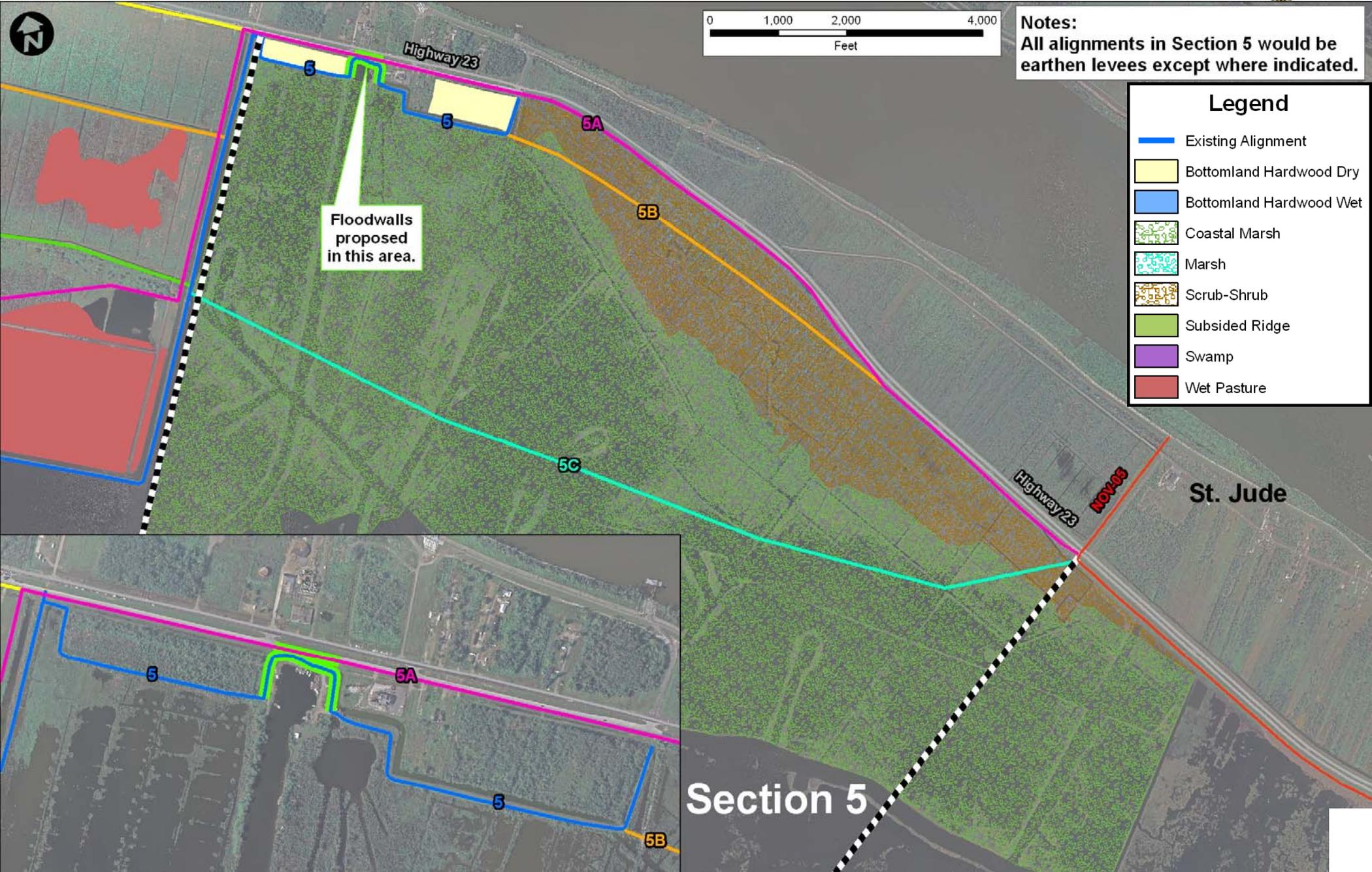


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Notes:
All alignments in Section 5 would be earthen levees except where indicated.

Legend	
	Existing Alignment
	Bottomland Hardwood Dry
	Bottomland Hardwood Wet
	Coastal Marsh
	Marsh
	Scrub-Shrub
	Subsided Ridge
	Swamp
	Wet Pasture





Section 5: Point Celeste to St. Jude



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Cost Items - Borrow Materials (30 Mile RT)										Environmental Items						
Base to Go Cost Only										Direct Impacts - 322' Right of Way						
Optional Alignments	Levee Length	Acreage Protected	<u>Lands & Damages</u>	<u>L&D - Mitigation</u>	<u>Relocations</u>	<u>Construction</u>	<u>Design (E&D)</u>	<u>CM (S&A)</u>	<u>TOTAL BASE TO GO</u>	<u>Impacts</u>	<u>BLH Swamp</u>	<u>BLH Dry</u>	<u>Coastal Marsh</u>	<u>Subsided Ridge</u>	<u>Wet Pasture</u>	<u>Scrub Shrub</u>
										<u>Direct (D) Enclosed (E)</u>	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>
5 Alternative	16,260	476.16	TBD	TBD	TBD	TBD	TBD	TBD	TBD	<i>D</i>	0.00	0.00	28.82	0.00	0.00	3.24
										<i>E</i>	0.00	21.48	0.00	0.00	0.00	0.00
5A Alternative	14,766	440.36	TBD	TBD	TBD	TBD	TBD	TBD	TBD	<i>D</i>	0.00	14.41	0.00	0.00	0.00	59.33
										<i>E</i>	0.00	0.00	0.00	0.00	0.00	0.00
5B Alternative	15,430	554.89	TBD	TBD	TBD	TBD	TBD	TBD	TBD	<i>D</i>	0.00	0.00	2.05	0.00	0.00	38.79
										<i>E</i>	0.00	21.48	2.05	0.00	0.00	60.77
5C Alternative	13,925	2,126.24	TBD	TBD	TBD	TBD	TBD	TBD	TBD	<i>D</i>	0.00	21.72	866.92	0.00	0.00	288.56
										<i>E</i>	0.00	21.72	772.28	0.00	0.00	282.73

- The section contains 3.08 miles of existing levee.
- Area protected by existing levee is 476 acres.
- Connects south of Point Celeste and connects to the New Orleans to Venice levee, approximately 2 miles north of St. Jude.
- Extends the Non-Federal Levee system into Federal Hurricane Protection System.
- Completes protection of Highway 23.



The Path Ahead



- Draft Supplemental Environmental Impact Statement (SEIS): 3rd Quarter 2009
- Record of Decision (ROD)
- Project Partnering Agreement
- Acquisition of Right of Way
- Construction Begins
- Construction Complete in 2013



Opportunities for Public Input



- **Public Meetings throughout New Orleans Metro Area**
 - Make sure to sign in tonight to get on our meeting notification mailing list
- **Comments can be submitted at any time at www.nolaenvironmental.gov**

**Questions and comments regarding Hurricane Protection Projects
should be addressed to:**

Gib Owen

PM-RS

P.O. Box 60267

New Orleans, LA 70160-0267

Telephone: 504-862-1337

E-mail: mvnenvironmental@usace.army.mil



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Welcome to NOLA Environmental! This site has been set up to share with the public the efforts being made by the U.S. Army Corps of Engineers and other Federal and state agencies in south Louisiana regarding the environmental compliance for proposed Federal and state Hurricane Protection Projects. Additional information pertaining to other Federal and state agencies' hurricane recovery efforts in southeast Louisiana will also be posted on the site as it becomes available. [Learn more...](#)

Announcements

- [IER 22 Draft Public Comment Period: 4/01 - 4/30](#)
- [IER 23 Draft Public Comment Period: 3/24 - 4/23](#)
- The Decision Record for [IER 11](#) has been signed by the District Commander; [Final IER 11 \(News Release\)](#)
- [IER 14 \(Map\)](#) and [IER 15 \(Map\)](#) Sec 404 (wetland impacts) [Public Comment Period: 3/10 - 4/14](#)
- The Decision Records for [IER 18](#) and [IER 19](#) have been signed by the District Commander

FEATURED PROJECT



USACE-MVN Emergency Alternative Arrangements
**Greater New Orleans
Hurricane and Storm Damage
Risk Reduction System Projects**

Upcoming

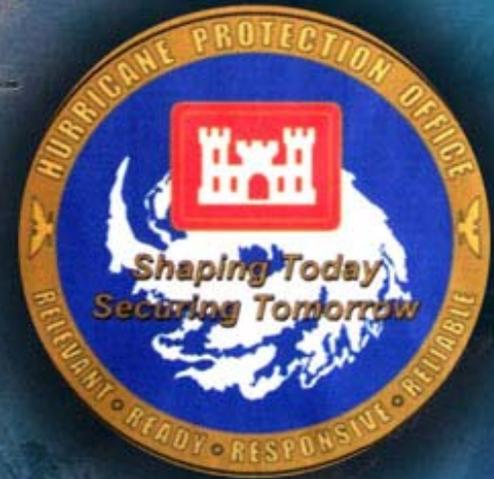
- [04/09/2008 - Public Meeting \(IERs 1 2 3 & Borrow\)](#)
- [04/10/2008 - Neighborhood Focused Public Meeting \(IERs 4 5 & 11\)](#)

[More...](#)

Newly Available

- [26 February 08 Public Meeting Summary IERs 4 5 Borrow](#)
- [28 February 08 Public Meeting Summary IERs 1 2 3 and Borrow](#)

[More...](#)



Discussion