

# Planning Units 1 & 2 Supplement – Plaquemines Parish Maps

Louisiana Coastal Protection and Restoration – Plaquemines Parish  
**Ring Levees/Spillways**  
**PL-RS**

**General Description:** Proposed spillways in combination with ring levees in multiple locations in Plaquemines Parish. The spillway concept will be modeled to determine the potential hurricane surge risk reduction to the New Orleans area and Plaquemines Parish by degrading sections of the existing Plaquemines levees to allow storm surge transfer between Breton Sound and Barataria Bay areas. Highway bridges will be constructed over degraded levee reaches.

**Population Receiving Risk Reduction Benefits:** The New Orleans Metropolitan Area would benefit from lower surges. The New Orleans Metropolitan Area, consisting of the Greater New Orleans region (Orleans, Jefferson, St. Bernard and Plaquemines Parishes) and three additional parishes which share the perimeter of Lake Pontchartrain (St. Tammany, St. John the Baptist and St. Charles), is the largest metropolitan area in Louisiana, centered around the city of New Orleans. The pre-Katrina population of the New Orleans Metropolitan Area was over 1.2 million and is expected to grow to over 1.4 million by 2050. Plaquemines Parish residents would benefit from both the spillways (by reducing surge and wave build up) and the ring levees by providing a higher level of protection than provided by existing levees. The pre-Katrina population of Plaquemines Parish was over 28,000 with most of the Parish’s residents living on the west bank of the Mississippi River. The population of Plaquemines Parish is expected to increase to over 37,000 by 2050.

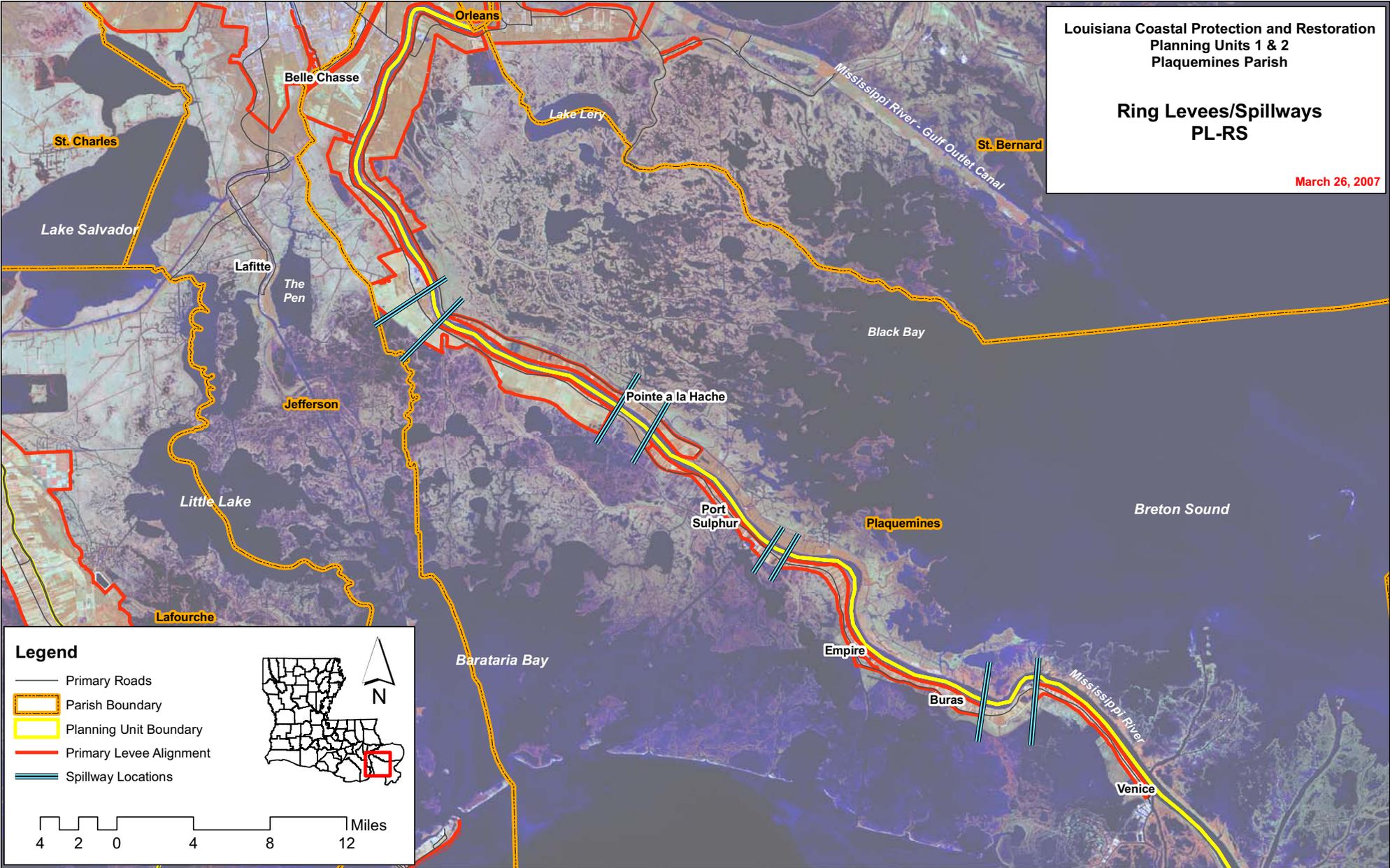
**National and Strategic Resources:** In the New Orleans area: French Quarter, Amstar Sugar, Mobil Oil, Murphy Oil, Air Products, NASA Michoud, National Finance Center, Orleans Parish Port Facilities, St. Bernard Parish Port Facilities, New Orleans International Airport, Elmwood Industrial Park, St. Charles Grain, Shell Chemical, Shell Oil, Motiva Chemical, Orion Oil, GATX Terminal, Transamerica Refining, Bunge Corporation, Inter. Matex. In Plaquemines Parish: Port of Plaquemines, ConocoPhillips Alliance Refinery, Chevron Oronite Oak Point Plant, Chevron oil storage facility at Empire, Dynegy natural gas processing plant, Facilities directly related to OCS oil and gas activities, commercial fishing ports of Empire and Venice and production facilities, etc.

Line Color on Map	Legend Description	General Location of Reach	Alignment Description	New or Existing Alignment	Structures Required	Beneficial Considerations	Challenges
Red	Primary Levee Alignment	Along Mississippi River levees and back levees in Plaquemines Parish	Ring levees	New and existing	To be determined	<ul style="list-style-type: none"> <li>• Opportunity to cluster communities and provide higher level of risk reduction</li> </ul>	<ul style="list-style-type: none"> <li>• Low density population</li> <li>• High subsidence rates</li> </ul>
Aqua	Spillway Locations	Four locations in Plaquemines Parish between Belle Chasse and Venice	Spillways	New	To be determined	<ul style="list-style-type: none"> <li>• Reduces surge and wave buildup near New Orleans and in Plaquemines Parish</li> <li>• Spillways bring freshwater and sediments to the marshes to aid in marsh creation/restoration</li> </ul>	<ul style="list-style-type: none"> <li>• Relocation of communities</li> </ul>

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**Ring Levees/Spillways  
 PL-RS**

March 26, 2007



Louisiana Coastal Protection and Restoration – Plaquemines Parish  
**Closed Ring Levee System**  
**PL-RL**

**General Description:** A series of basins (ring levees) would provide an increased level of risk reduction to critical facilities and more densely populated areas of lower Plaquemines Parish. Levee sections outside the closed ring levee areas would remain at existing height.

**Population Receiving Risk Reduction Benefits:** The pre-Katrina population of Plaquemines Parish was over 28,000 with most of the Parish’s residents living on the west bank of the Mississippi River. The population of Plaquemines Parish is expected to increase to over 37,000 by 2050.

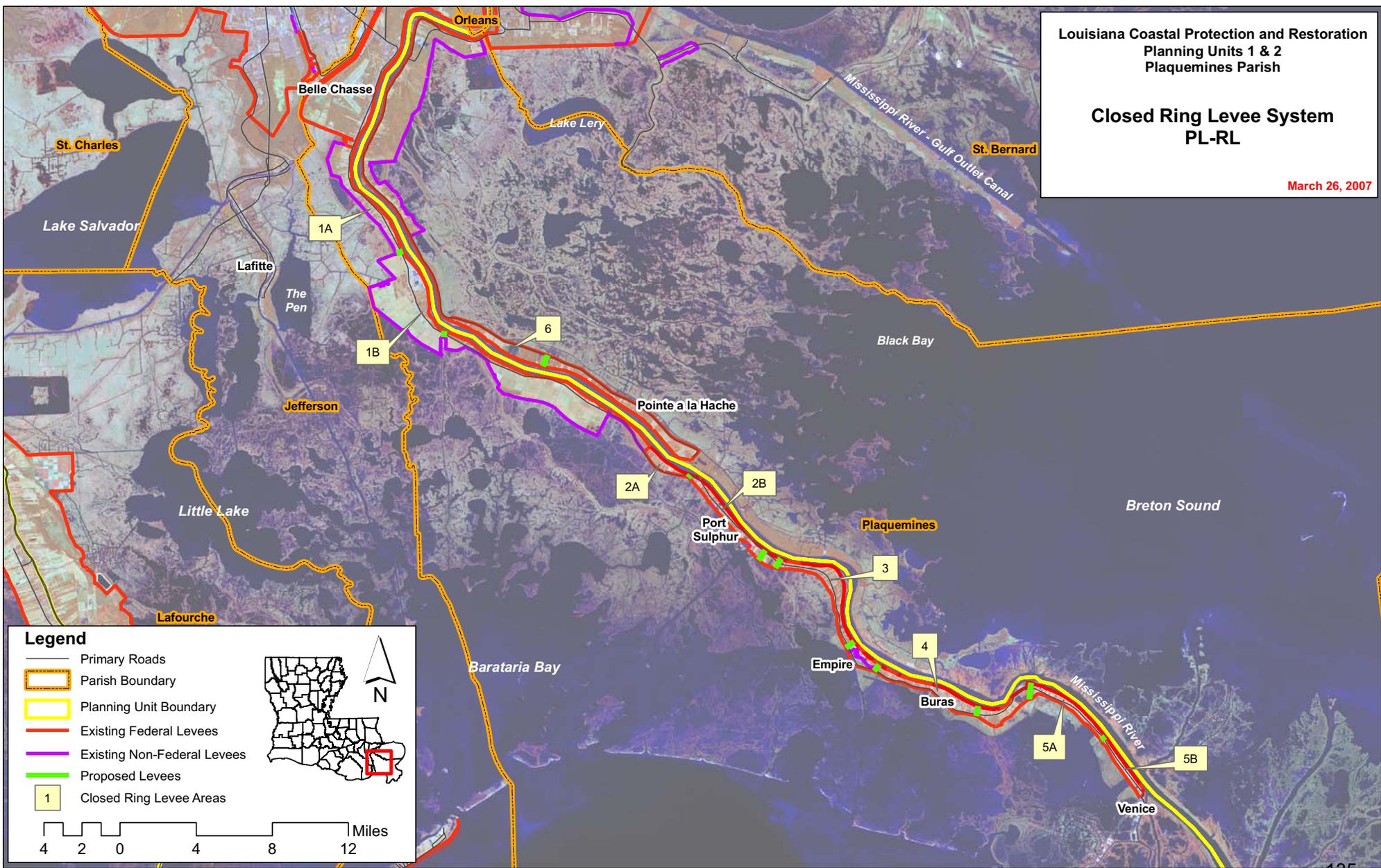
**National and Strategic Resources:** Port of Plaquemines, ConocoPhillips Alliance Refinery, Chevron Oronite Oak Point Plant, Chevron oil storage facility at Empire, Dynegy natural gas processing plant, Facilities directly related to OCS oil and gas activities, commercial fishing ports of Empire and Venice and production facilities, etc.

Basin Designation	General Location of Reach	New or Existing Alignment	Structures Required	Beneficial Considerations	Challenges
1A	From Hero Canal to La Reussite	Existing Federal and non-Federal levees with new tiebacks to the River	Where a basin interrupts existing drainage districts, new pump stations or increased pumping capacity would be required. Relocation of roads and highways atop earthen ramps would eliminate the need for floodgates.	<ul style="list-style-type: none"> <li>Opportunity to cluster communities and provide higher level of risk reduction</li> </ul>	<ul style="list-style-type: none"> <li>High subsidence rates</li> </ul>
1B	From La Reussite to Myrtle Grove				
2A	Magnolia to Happy Jack	Existing Federal levees with new tiebacks to the River			
2B	Happy Jack to Port Sulphur				
3	Bremond to just north of the Empire Lock				
4	Just south of the Empire Lock and floodgate to just north of Triumph				
5A	Just south of Fort Jackson to the Duvic Pump Station				
5B	Duvic Pump Station to Venice				
6	Phoenix to just south of Bellevue Pump Station				

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**Closed Ring Levee System  
 PL-RL**

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Louisiana Coastal Protection and Restoration – Plaquemines Parish  
**Federal Levee Alignment**  
**PL-FL**

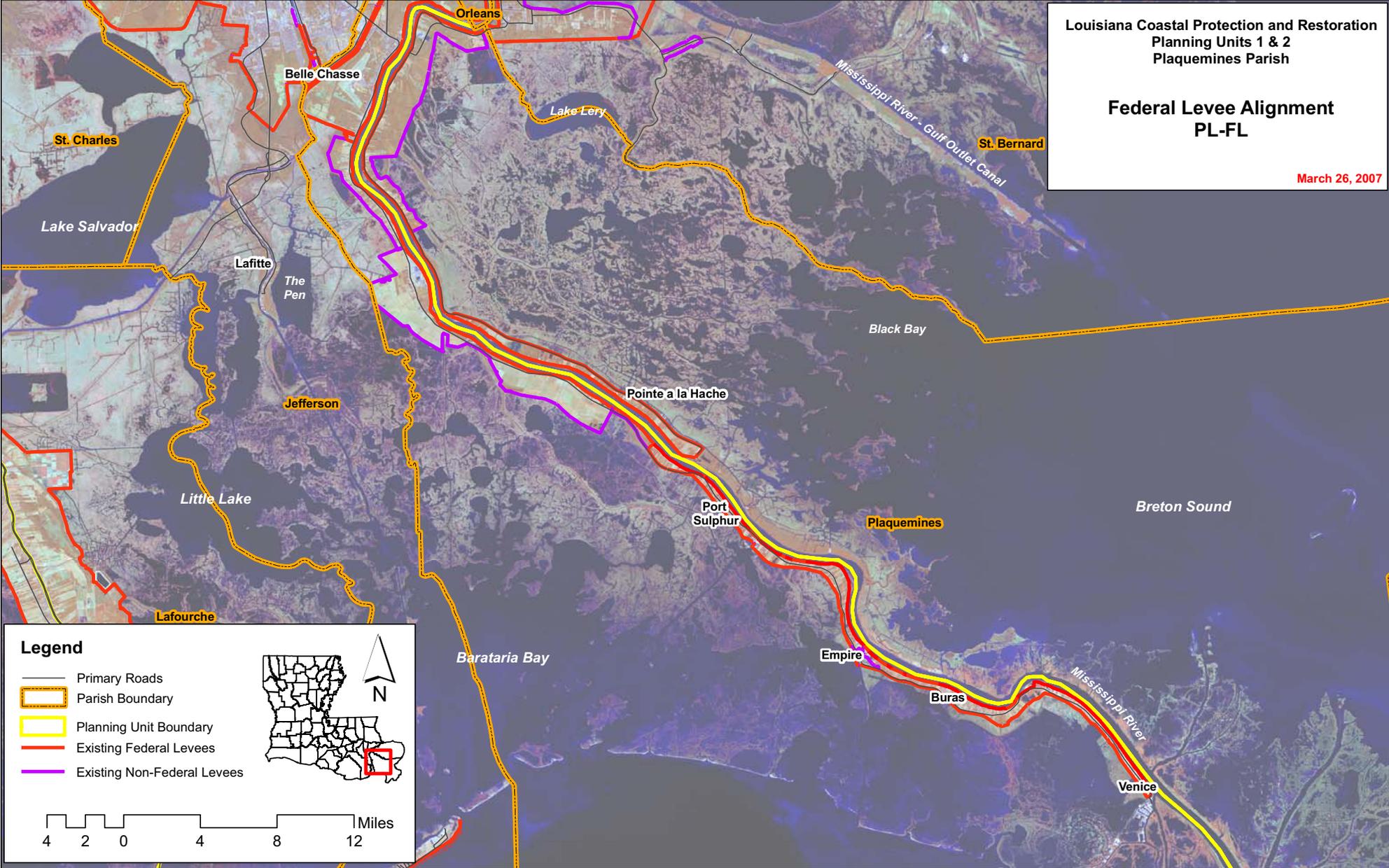
<b>General Description:</b> Raise the height of all Federal levees in lower Plaquemines Parish and leave the non-Federal levees at existing height.
<b>Population Receiving Risk Reduction Benefits:</b> The pre-Katrina population of Plaquemines Parish was over 28,000 with most of the Parish’s residents living on the west bank of the Mississippi River. The population of Plaquemines Parish is expected to increase to over 37,000 by 2050.
<b>National and Strategic Resources:</b> Port of Plaquemines, ConocoPhillips Alliance Refinery, Chevron Oronite Oak Point Plant, Chevron oil storage facility at Empire, Dynegy natural gas processing plant, Facilities directly related to OCS oil and gas activities, commercial fishing ports of Empire and Venice and production facilities, etc.

Line Color on Map	Legend Description	General Location of Reach	Alignment Description	New or Existing Alignment	Structures Required	Beneficial Considerations	Challenges
Red	Existing Federal Levees	Lower Plaquemines Parish	Raise levees along Mississippi River levees and back levees	Existing Federal levees	None	<ul style="list-style-type: none"> <li>• Communities wouldn’t need to relocate</li> </ul>	<ul style="list-style-type: none"> <li>• Low density population</li> <li>• High subsidence rates</li> </ul>
Purple	Existing Non-Federal Levees	Lower Plaquemines Parish	No change to levees along Mississippi River levees and back levees	Existing non-Federal levees	None	<ul style="list-style-type: none"> <li>• No additional cost associated with non-Federal levees, since they would remain at existing height.</li> </ul>	<ul style="list-style-type: none"> <li>• No additional risk reduction to populations behind non-Federal levees</li> <li>• High subsidence rates</li> </ul>

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**Federal Levee Alignment  
 PL-FL**

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Louisiana Coastal Protection and Restoration – Plaquemines Parish  
**Existing Levee Alignment**  
**PL-EL**

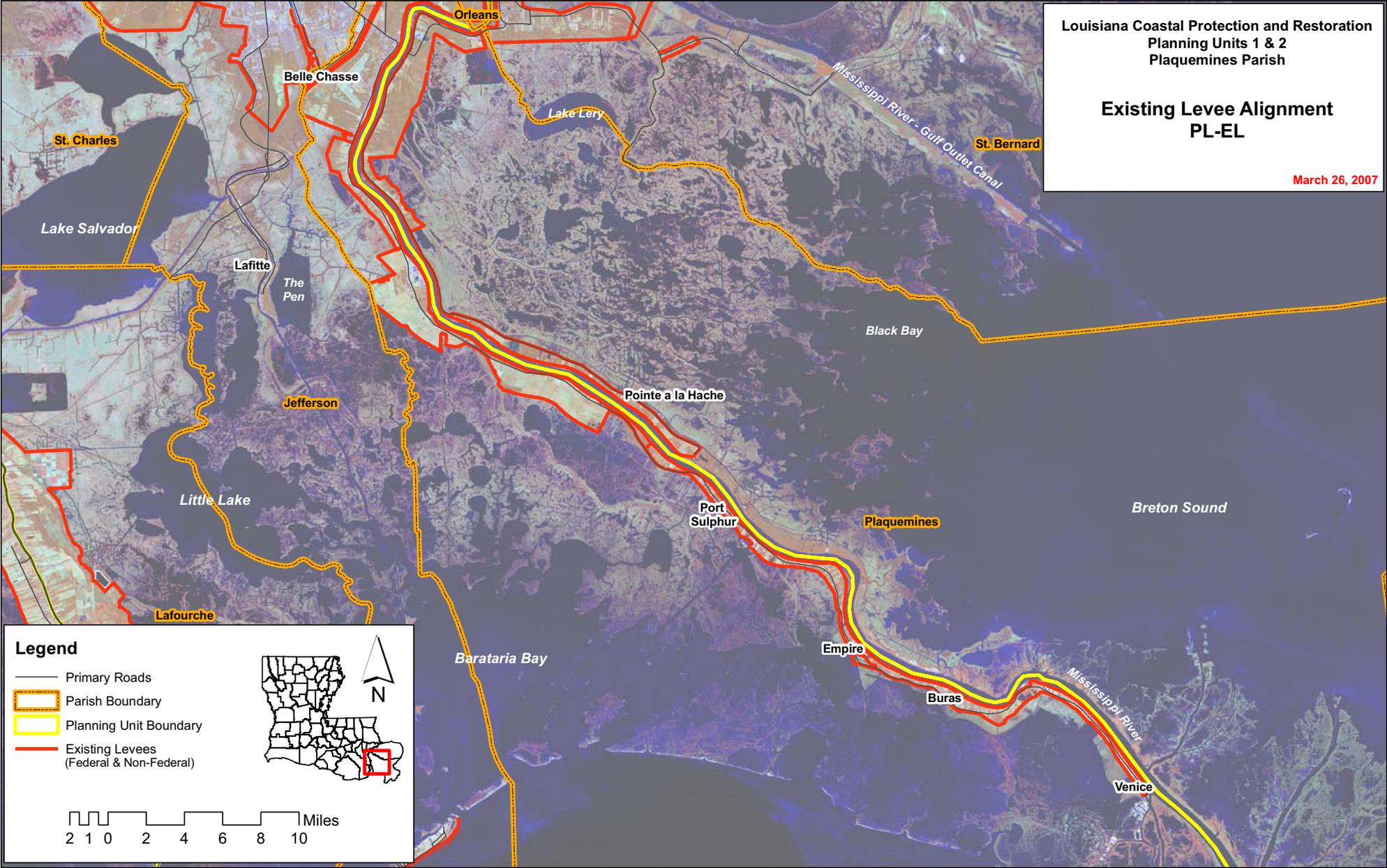
<b>General Description:</b> Incorporate non-Federal levees in Plaquemines Parish into the Federal levee system and raise the height of all existing levees in lower Plaquemines Parish.
<b>Population Receiving Risk Reduction Benefits:</b> The pre-Katrina population of Plaquemines Parish was over 28,000 with most of the Parish’s residents living on the west bank of the Mississippi River. The population of Plaquemines Parish is expected to increase to over 37,000 by 2050.
<b>National and Strategic Resources:</b> Port of Plaquemines, ConocoPhillips Alliance Refinery, Chevron Oronite Oak Point Plant, Chevron oil storage facility at Empire, Dynegy natural gas processing plant, Facilities directly related to OCS oil and gas activities, commercial fishing ports of Empire and Venice and production facilities, etc.

Line Color on Map	Legend Description	General Location of Reach	Alignment Description	New or Existing Alignment	Structures Required	Beneficial Considerations	Challenges
Red	Existing Levees (Federal and Non-Federal)	Lower Plaquemines Parish	Along Mississippi River levees and back levees	Existing Federal and Non-Federal Levees	None	<ul style="list-style-type: none"> <li>Design does not include any floodwalls, I-walls or T-walls.</li> </ul>	<ul style="list-style-type: none"> <li>Low density population</li> <li>High subsidence rates</li> <li>Fill material must be hauled a long distance</li> </ul>

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**Existing Levee Alignment  
 PL-EL**

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