



Figure 16. Donaldsonville to the Gulf Alignment: #1- Swamp.

This alignment follows the upland margin of the Barataria Basin wetlands. If a traditional earthen levee were used, this alignment would minimize further disruptions to the basin hydrology. However, the length of this alignment would increase construction, operation, and maintenance costs, as well as the number of structures needed for drainage, pipeline, and water channel crossings. As a result, this alignment includes more potential locations for structural failure. In addition, this alignment provides no water storage landward of the levee. If the structure were overtopped, water would flow into populated areas. The West Bank and Vicinity project levees would also need to be raised beyond the level provided by the Corps's ongoing work, in order to achieve a greater than 1% level of protection for the West Bank of metro New Orleans. There are questions as to how feasible it would be to raise these levees—both technically and economically. Ring levees would need to be added around central basin communities, including Chackbay, Kraemer, Crown Point, Jean Lafitte, and Lafitte to provide a 1% level of protection for these communities.



Figure 17. Donaldsonville to the Gulf Alignment: #2-Hwy 90.

Because it would be built near Highway 90, an existing hydrologic barrier in the basin, this alignment would minimize further disruptions to water flow patterns. In fact, when coupled with needed drainage improvements under Highway 90, this alignment could improve water exchange throughout the basin. Its shorter length would reduce construction, operations, and maintenance costs, and it would require fewer water channel, pipeline, drainage and other ancillary structures. As a result, this alignment would have fewer potential locations for structural failure. However, this alignment would still have direct impacts on wetlands. In addition, if this alignment were built, the West Bank and Vicinity project levees would need to be raised beyond the level provided by the Corps's ongoing work, in order to achieve a greater than 1% level of protection for the West Bank of metro New Orleans. There are questions as to how feasible it would be to raise these levees—both technically and economically. A ring levee would also have to be built around Crown Point, Jean Lafitte, and Lafitte to provide a 1% level of protection to these communities.



Figure 18. Donaldsonville to the Gulf Alignment: #3-GIWW.

This alignment would follow the Gulf Intracoastal Water Way roughly between Oakville in Plaquemines Parish and LaRose in Lafourche Parish. It would provide space for temporary water storage should overtopping occur, and it could be designed to help direct water to areas such as eastern Terrebonne Parish, which would otherwise be difficult to reach using river diversions. It would also protect central Basin communities, including Crown Point, Jean Lafitte, and Lafitte. However, if it were not properly designed to increase wetland sustainability in conjunction with necessary restoration projects, this alignment would further stress ecosystems that support commercially and recreationally important fish and wildlife species in Barataria Basin. Innovative designs and technologies will need to be used to ensure the sustainability of the basin's wetlands, improve reliability of the protection structure, and reduce maintenance costs.

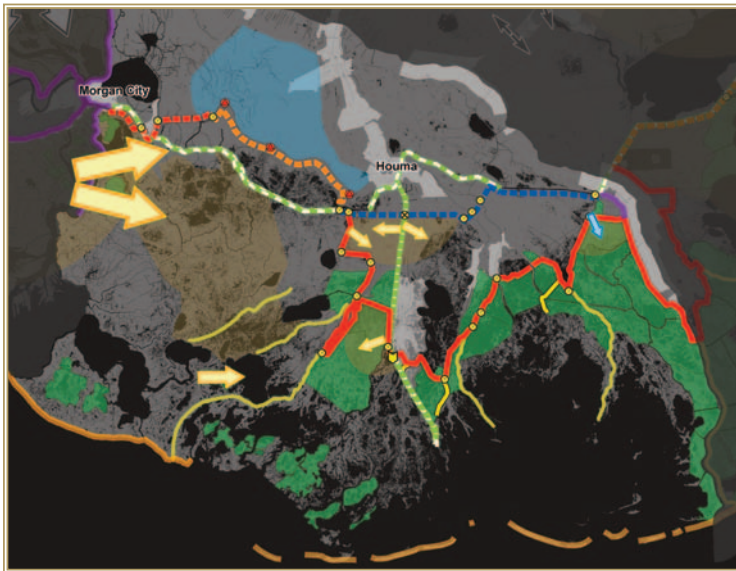


Figure 20. Morganza to the Gulf Alignment: Project Awaiting Authorization.

This alignment follows existing ridges wherever possible and incorporates floodgates and water control structures to mimic natural water flow patterns. The need to maximize protection to coastal communities was balanced with the need to make allowances for sediment and water flow. In many cases, these measures could improve water exchange through wetlands. Throughout the 15 years that this project has been developed, there has been active stakeholder and public input.

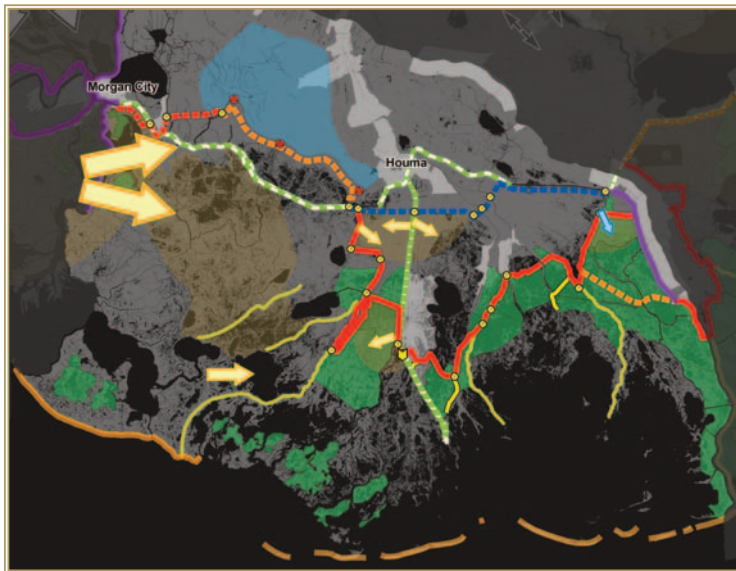


Figure 21. Morganza to the Gulf Alignment Addition: Pointe au Chien to Golden Meadow.

This additional alignment would extend from Pointe au Chien to Golden Meadow and would reduce the funnel effect created where the proposed Morganza to the Gulf Alignment meets the LaRose to Golden Meadow levee. The additional alignment would also increase protection to lower Lafourche communities. However, if not properly designed to allow for adequate water movement, this addition could further stress the area's fragile wetlands. As a result, this addition would have to incorporate floodgates and work in tandem with water and sediment diversions to ensure that water exchange contributes to wetlands sustainability. Resolution of these issues must not delay the implementation of the current Morganza to the Gulf Alignment, which is being considered for federal authorization.

The current Morganza to the Gulf alignment should be constructed to provide a 1% level of protection to communities such as Dulac, Montegut, and Chauvin, as well as larger communities to the north. To provide the Houma/Thibodaux area with a greater than 1% level of protection, meaning protection over the level needed to withstand a storm with a 1% chance of occurring in any given year, the following actions are needed: (1) either raise the Morganza to the Gulf levee further, or (2) build an inner barrier.