



**Wilmington Harbor, North Carolina  
Navigation Improvement Project**

**Integrated  
Section 203 Study  
&  
Environmental Report**

**APPENDIX E  
PRELIMINARY REAL ESTATE PLAN**

**February 2020**



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## **1 General Background**

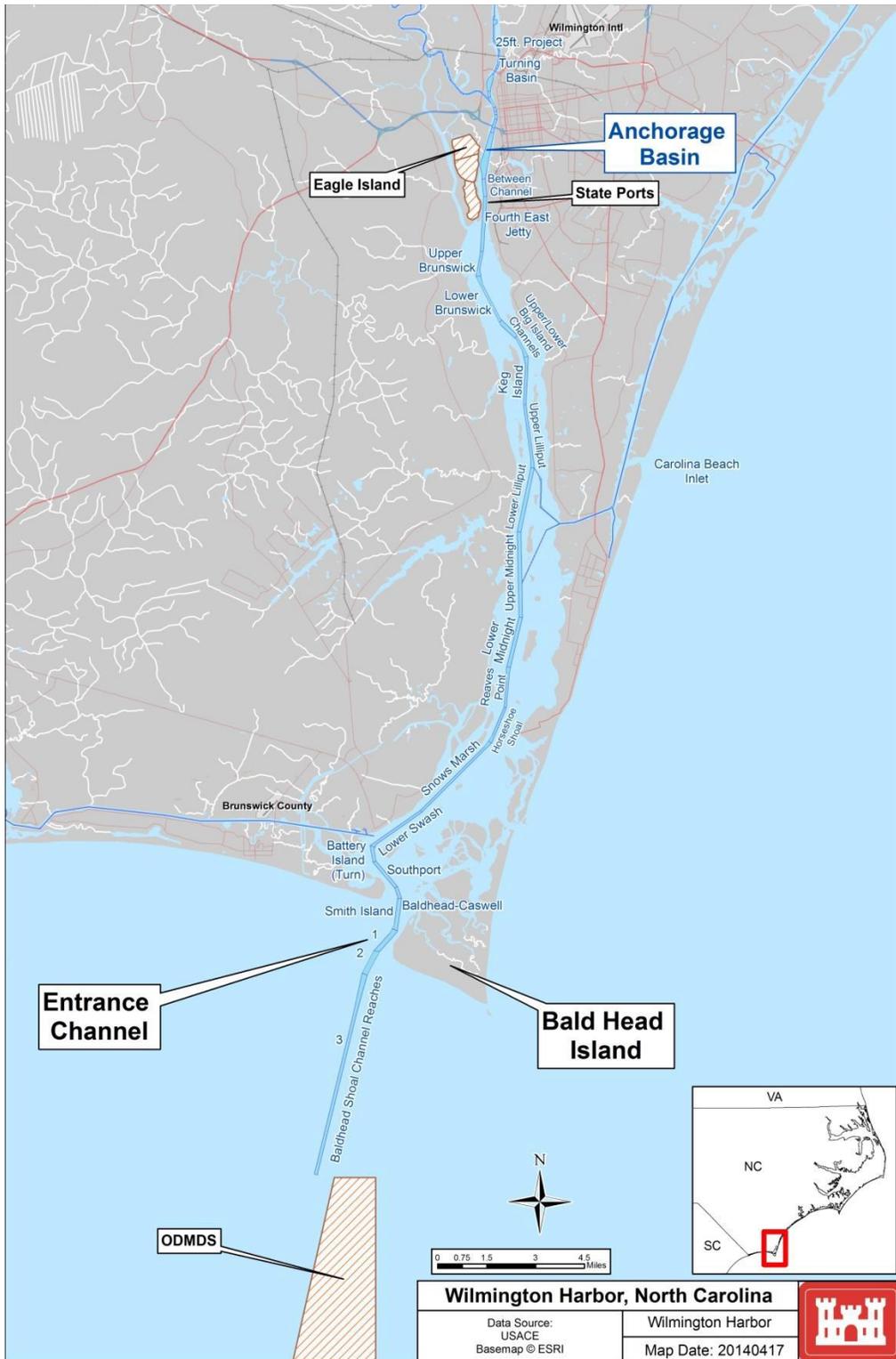
This Preliminary Real Estate Plan supports project plan formulation for the Wilmington Harbor Navigation Improvement Project (WHNIP). It identifies and describes the lands, easement, and rights-of-way (LER) required for the construction, operation and maintenance of the proposed project, including those required for relocations, borrow material, mitigation, and dredged or excavated material disposal. The Preliminary Real Estate Plan also describes the estimated LER value, though actual costs, and costs used in plan formulation, will reflect market demand.

## **2 Project Type and Applicability**

This Section 203 feasibility study has been conducted to determine the feasibility of improvements to the Federal navigation project at Wilmington Harbor. Potential improvements include deepening and widening of the Federal navigational channel, extending the ocean entrance channel farther offshore, expansion of the Turning Basin, and expanded wideners at turns along the channel. The purpose of these potential improvements is to efficiently accommodate larger cargo vessels which are already using or are projected to use the port in the near future.

## **3 Project Location**

The existing federal project at Wilmington Harbor (Figure 1) is located in southeastern North Carolina and consists of the Eagle Island Confined Disposal Facility, the New Wilmington Ocean Dredged Material Disposal Site (ODMDS), the Upper and Lower Anchorage basins, and the system of federal channels from the ocean up to the channel's terminus upstream of the Hilton Bridge. The federal channel extends for approximately 38 miles beginning offshore of the outer ocean bar at the mouth of the Cape Fear River in Brunswick County, NC, and extends upwards to the City of Wilmington in New Hanover County, NC, where it provides deep-water navigation to the Port of Wilmington.



**Figure 1**  
**Wilmington Harbor Federal Navigation Project**

## 4 Scope and Content

The federal project at Wilmington Harbor is an artificially widened and deepened channel that has been dredged from offshore through portions of the Cape Fear River. Construction of the Federal navigation channel to its current dimensions was originally authorized as three separate projects by the Water Resources Development Acts of 1986 (WRDA 86) Public Law 99-662<sup>1</sup> and 1996 (WRDA 96) Public Law 104-303<sup>1</sup>. Public Law 105-62<sup>2</sup>, The Energy and Water Development Appropriations Act of 1998, combined the Wilmington Harbor Northeast Cape Fear River Project (WRDA 1986), the Wilmington Harbor Channel Widening Project (WRDA 1996), and the Cape Fear-Northeast (Cape Fear) Rivers Project (WRDA 1996) under a single project known as the Wilmington Harbor 96 Act Project. Completed improvements under the Wilmington Harbor 96 Act Project include deepening the ocean bar and entrance channels from the authorized depth of 40 feet to 44 feet; deepening the authorized 38-foot project to 42 feet through the Cape Fear Memorial Bridge (including the anchorage basin); widening the existing 400-foot wide channel to 600 feet over a total length of 6.2 miles, including the Lower and Upper Midnight and Lower Lilliput reaches; widening five turns and bends by 100 to 200 feet; and widening the Fourth East Jetty channel to 500 feet over a total length of 1.5 miles. Additional authorized improvements to the Federal channel from the Cape Fear Memorial Bridge to the upper project limit in the Northeast Cape Fear River were deferred due to a marginal cost to benefit ratio.

The feasibility report focused on alternatives from -44 feet to -48 feet for deepening of the federal navigation channel from offshore to the Port of Wilmington. The selected plan is the -47-foot plan, the NED Plan, which includes deepening and widening the federal navigation channel.

## 5 Purpose

The purpose of the Preliminary Real Estate Plan is to identify the potential real estate requirements for the WHNIP, identify the estates that may be acquired as a part of the preliminary mitigation plan, and to present current appraised values based on publicly available information.

## 6 Real Estate Requirements

It is the responsibility of the non-Federal sponsor to acquire real estate interests required for the project. Real estate acquisition is a component of the preliminary mitigation plan. No real estate acquisition is required for deepening or widening of the Federal channel, nor is real estate acquisition required for the placement and disposal of dredged material.

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<sup>1</sup> Section 201 - WILMINGTON HARBOR-NORTHEAST CAPE FEAR RIVER, NORTH CAROLINA - The project for navigation, Wilmington Harbor-Northeast Cape Fear River, North Carolina: Report of the Chief of Engineers, dated September 16, 1980, at a total cost of \$10,000,000, with an estimated first Federal cost of \$8,300,000 and an estimated first non-Federal cost of \$1,700,000.

<sup>2</sup> Provided further, That the Secretary of the Army, acting through the Chief of Engineers, is authorized and directed to combine the Wilmington Harbor—Northeast Cape Fear River, North Carolina, project authorized in section 202(a) of the Water Resources Development Act of 1986, the Wilmington Harbor, Channel Widening, North Carolina, project authorized in section 101(a)(23) of the Water Resources Development Act of 1996, and the Cape Fear—Northeast (Cape Fear) Rivers, North Carolina, project authorized in section 101(a)(22) of the Water Resources Development Act of 1996 into a single project with one Project Cooperation Agreement based on cost sharing as a single project:

One active pipeline requires relocation and two inactive pipelines require removal. The active six-inch pipeline is at a depth of ~49 feet MLLW and needs to be relocated. The two inactive four-inch lines are at a depth of ~47 feet MLLW and need to be removed. All relocations, including utility relocations, are to be accomplished at no cost to the Federal Government. Relocation costs are included in the project cost as a 100% non-federal expense and the non-Federal Sponsor will receive equivalent credit toward its additional 10 percent cash payment required by Section 101(a)(4) of WRDA 86.

The two four-inch pipelines do not need to be relocated because they are no longer active. The non-Federal Sponsor has contacted the owner to reach a determination as to whether the owner has an interest in the existing line for which compensation is owed by the non-Federal Sponsor. If the owner has a compensable interest, the non-Federal Sponsor, as part of its requirement to provide lands, easements, and rights-of-way required for the navigation improvement project, will be responsible for acquiring this interest, at no cost to the Federal Government. At this time, it appears that there is no compensable interest in these pipelines.

## **7 Borrow Material**

The proposed plan does not require any borrow material.

## **8 Access/Staging Area**

The proposed plan does not require any access/staging areas. All of the proposed work will be performed within the existing right-of-way of the federal navigation channel and existing roads and highways within the project area. No credit be allowed for access/staging since these areas have already been provided.

## **9 Recreation Features**

The proposed project does not have any recreation features.

## **10 Induced Flooding**

There is no induced flooding anticipated due to the construction of the project. The proposed project will be constructed within the existing right-of-way of the federal navigation channel.

## **11 Mitigation Sites**

Real estate acquisition is a component of the preliminary mitigation plan. Two locations are considered the most preferable for mitigation: Alligator Creek Restoration and Enhancement Site and the Black River Wetland Mitigation Site (Figure 2). If the mitigation plan real estate requirements change during development of the Draft Environmental Impact Statement (DEIS) and finalization of the mitigation plan, then this real Estate Plan would need to be revised.



**Figure 2**  
**Proposed Mitigation Sites Associated with the Wilmington Harbor Federal Navigation Project**

## 11.1 Alligator Creek Restoration and Enhancement Site

Prior to the construction of the Eagle Island CDF by the USACE, there were several tidal creeks that traversed the lower half of the island. Many of these creeks are now gone, but the portion of Alligator Creek that runs northwest to southeast is outside of the containment dike that surrounds the CDF. This creek has closed up over the decades since the access road to Eagles Island blocked tidal flow to the creek in the early 1940s.

Located in Brunswick County, this project would restore approximately 10,000 linear feet of tidal creek with the placement of a bridge or large box culverts at the access road. Enhancement of tidal marsh through treatment and removal of Phragmites above and below ground biomass and soil excavation, where needed, would be implemented to achieve the present elevation of native tidal marsh. All excavated material (about 161,700 cy) would be pumped and hauled by truck to the Eagles Island CDF. While the present plan only includes about seven acres of tidal marsh enhancement, additional acreage is available for enhancement depending upon the mitigation requirements. Up to 81 acres of additional habitat would be suitable for enhancement to native brackish tidal marsh.

This 184-acre mitigation site comprises all or portions of four parcels – two privately held properties and two publicly owned properties (Figure 3). All parcels are zoned as either Rural Residential or Industrial-General by Brunswick County<sup>3</sup>. Privately held parcels would be acquired through fee simple purchase. Publicly held parcels would be <INSERT APPLICABLE ACTION>.

**Table 1**  
**Parcels Comprising the Alligator Creek Restoration and Enhancement Site**

Parcel Number	Deeded Acres	Mapped Acres	Parcel Acres Needed	Percent Needed	Zoning
311600286346	1414.0	1418.34	23.8	1.7%	Rural Residential
311700444386	139.9	148.6	148.6	100%	Industrial-General
311700552688	5.52	5.38	5.38	100%	Industrial-General
311700556532	4.9	5.06	5.06	100%	Industrial-General

Source: Brunswick County Assessor

<sup>3</sup>See <https://www.brunswickcountync.gov/wp-content/uploads/2015/04/UDO-Revised-and-Readopted-March-2015-Revision-15May17.pdf> and <https://www.brunswickcountync.gov/files/gis/2014/12/Countywide-Zoning-Oct-2016.pdf>



**Figure 3**  
**Parcels Within the Alligator Creek Restoration and Enhancement Site**

### 11.2 Black River Wetland Mitigation Site

Through coordination with The Nature Conservancy, Coastal Land Trust and other entities, the Black River Wetland Mitigation Site was preliminarily selected to provide mitigation of tidal swamp forest. This mitigation option may be acceptable for mitigating impacts to freshwater marsh and tidal swamp forest in the lower and middle estuarine tributaries and in the upper river-

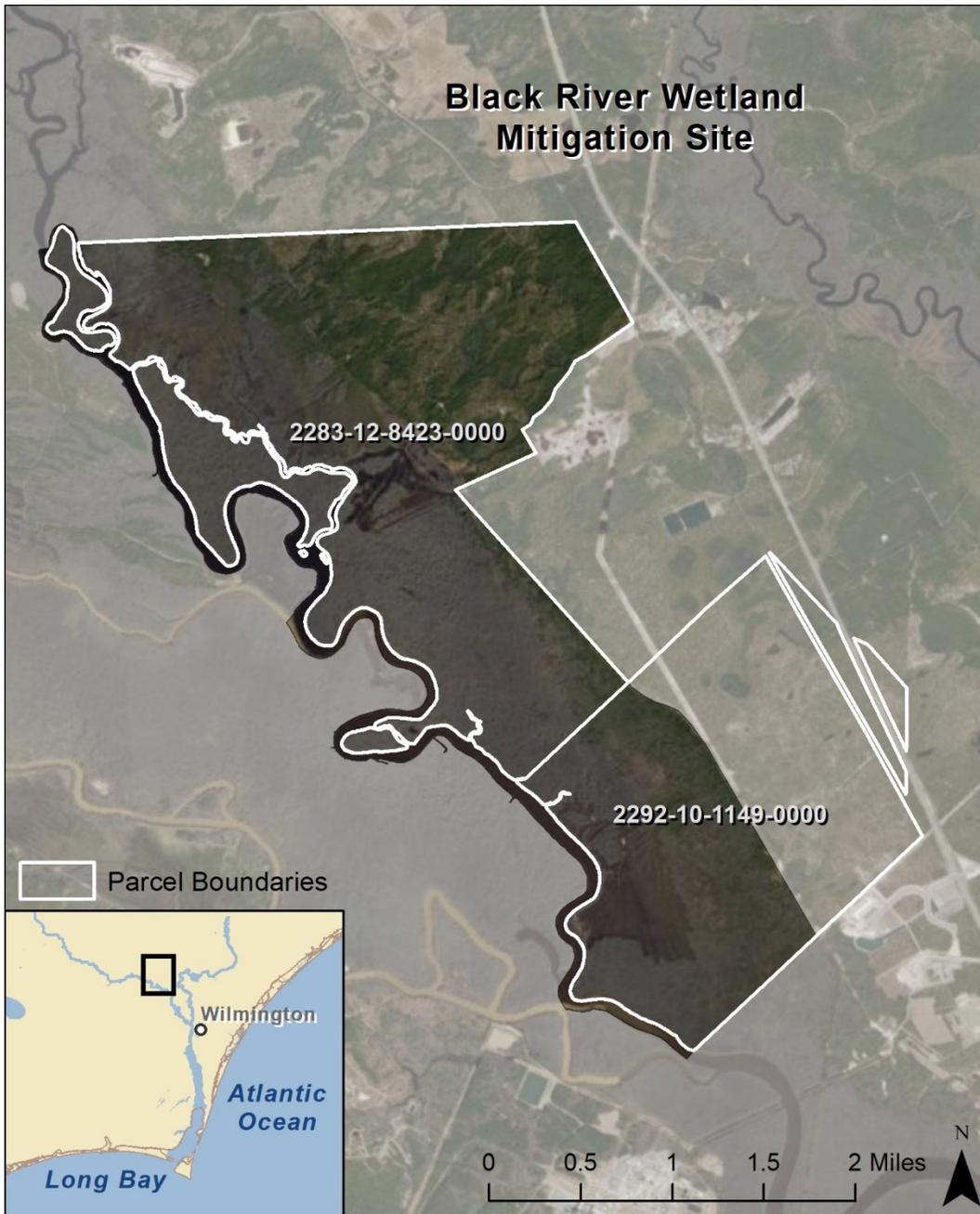
estuary. The preferred preservation approach is fee simple acquisition of tidal wetlands or headwater stream wetlands with an upland buffer. While a conservation easement may suffice if the property offers higher resource protection value than others, fee simple purchase is the preferred transaction.

Located in Pender County, this 4,761-acre mitigation site comprises all or portions of two privately held parcels (Table 2 and Figure 4). Parcels would be acquired through fee simple purchase.

**Table 2**  
**Parcels Comprising the Black River Wetland Mitigation Site**

<b>Parcel Number</b>	<b>Deeded Acres</b>	<b>Mapped Acres</b>	<b>Parcel Acres Needed</b>	<b>Percent Needed</b>
2283-12-8423-0000	2178	3251.1	3251.1	100%
2292-10-1149-0000	2518.92	2151.6	1120.3	52.1%

Source: Pender County Assessor



**Figure 4**  
**Parcels Within the Black River Wetland Mitigation Site**

12 Federally Owned Land and Existing Federal Project

Some land associated with the mitigation sites is located on federally-owned land.

13 Public Law 91-646 Relocations

There are no residential houses, business, or farms that would be required for relocation associated with PL 91-646.

## 14 Assessment of Project Sponsor Land Acquisition Capabilities

The Sponsor has the authority and capability to furnish lands, easements, and rights-of-way.

## 15 Assessed Real Estate Values

Actual costs for conservation easements and fee simple acquisition of parcels associated with the mitigation sites is expected to follow real estate market demand; however, assessment values inform the development of real estate cost estimates. Table 3 depicts the assessed land values for parcels within each mitigation site. Note that real estate values used in the project cost estimate are substantially larger than assessed values due to market conditions.

**Table 3  
Baseline Parcel Value Estimates for Mitigation Sites**

Parcel Number	Assessed Land Value	Percent Needed	Baseline Parcel Value	Preservation Type
Alligator Creek				
311600286346	\$1,170,120	1.7%	\$19,636	Fee simple
311700444386	\$925,000	100%	\$925,000	Fee simple
311700552688	\$540	100%	\$540	Fee simple
311700556532	\$197,460	100%	\$197,460	Fee simple
Black River Wetland				
2283-12-8423-0000	\$2,753,750	100%	\$2,753,750	Fee simple
2292-10-1149-0000	\$3,200,400	52.1%	\$1,667,208	Fee simple

Sources: Pender and Brunswick Counties

## 16 Mineral Activity

Mineral rights need not be acquired with any lands required for the project.

## 17 Relocation of Facilities/Utilities

There are four pipelines crossing the channel in the Fourth East Jetty Reach just south of Eagle Island that are owned by Exxon Mobile with the operation and maintenance of the pipelines contracted to Kinder Morgan. Two pipelines are active but currently have no commercial flow. These two pipelines are six-inch nominal diameter and are currently pressurized with nitrogen

awaiting future business opportunities. Two inactive pipelines are four-inch nominal diameter, filled with sea water and capped. One of the active six-inch lines is directionally drilled to a depth in excess of 68 feet MLLW and does not need to be relocated. The second active six-inch line is at a depth of ~49 feet MLLW and needs to be relocated. The two inactive four-inch lines are at a depth of ~47 feet MLLW and need to be removed. Table 4 provides the disposition of each pipeline.

**Table 4**  
**Pipeline Disposition**

Size	Status	Depth (MLLW)	Action Needed
4-inch	Inactive	~47 feet	Remove
4-inch	Inactive	~47 feet	Remove
6-inch	Active	~49 feet	Relocate
6-inch	Active	>68 feet	No Action

Pursuant to Section 101(a) of the Water Resources Development Act of 1986 (WRDA 86), as amended, the non-Federal Sponsor is responsible for performing, or assuring the performance, of all relocations, including utility relocations, which are necessary for the navigation improvement project. All relocations, including utility relocations, are to be accomplished at no cost to the Federal Government. The estimated cost of one six-inch pipeline relocation is \$2,000,000. This cost is included in the project cost as a 100% non-federal expense and the non-Federal Sponsor will receive equivalent credit toward its additional 10 percent cash payment required by Section 101(a)(4) of WRDA 86.

The two four-inch pipelines do not need to be relocated because they are no longer active. The non-Federal Sponsor has contacted the owner to reach a determination as to whether the owner has an interest in the existing line for which compensation is owed by the non-Federal Sponsor. If the owner has a compensable interest, the non-Federal Sponsor, as part of its requirement to provide lands, easements, and rights-of-way required for the navigation improvement project, will be responsible for acquiring this interest, at no cost to the Federal Government. At this time, it appears that there is no compensable interest in these pipelines.

If there is a compensable interest, the non-Federal Sponsor will receive credit toward its additional 10 percent cash payment required by Section 101(a)(2) of WRDA 86 for the value of the interest acquired, and the Corps will revoke any existing Section 10 permit and remove the line as part of construction of the navigation improvement project, with the costs of the removal shared by the Corps and Sponsor as part of the costs of the general navigation features.

If no compensation is owed to the owner of the line, then the Corps will revoke any existing Section 10 permit and remove the line as part of construction of the navigation project, with the costs of the removal shared by the Corps and non-Federal Sponsor as part of the costs of the general navigation features. The estimated removal cost for the two four-inch pipelines is \$300,000.

The non-Federal Sponsor will receive credit toward its additional 10 percent cash payment required by Section 101(a)(2) for the value of relocations provided under Section 101(a)(3) and for the costs of utility relocations borne by the Sponsor under Section 101(a)(4). Such credit will include any payment made by the Sponsor to the Corps associated with the Corps' exercise of the navigation servitude.

## **18 HTRW or Other Environmental Contaminants**

There are no known HTRW sites in the Cape Fear River that would be encountered during channel construction; therefore, no adverse effects related to HTRW would be expected under the plan.