# PORT EVERGLADES HARBOR | Feasibility Study

#### FACTS & INFORMATION



# **OVERVIEW**

Port Everglades is a leading container port in Florida, among the most active cargo ports in the United States, and is the main seaport for petroleum products including gasoline and jet fuel for South Florida. Additionally, the port is one of the three largest cruise ports in Florida.

Port Everglades has land available for growth in warehousing and staging, and has access to rail, air and roadway transportation systems for efficient movement of goods. The continued long-term population growth in south Florida in combination with an active European, Mediterranean, South American, and Caribbean containerized cargo trade connection creates an opportunity for future growth at Port Everglades.

# **STUDY CONSIDERATIONS**

As a result of increased traffic and overall growth in vessel size, improvements including deepening and widening were considered to help alleviate vessel congestion and improve transit efficiency and safety.

In addition, strong offshore currents due to the proximity of the Florida current and the locally narrow continental shelf create unpredictable cross currents in the outer entrance channel that make transiting through the narrow channel challenging.

The present scope of the feasibility study include;

• widening and deepening the major channels and basins within the port.

# BACKGROUND

The Port Everglades Harbor Feasibility Study was initiated in 2001 with the non-federal sponsor, Broward County. The primary purpose of conducting the feasibility study is to investigate improvements to the Federal navigation project at Port Everglades. The purpose of the study was to (1) decrease costs associated with vessel delays from congestion, channel passing restrictions, and berth deficiencies at Port Everglades through the year 2060; (2) decrease transportation costs through increasing economies of scale for cargo and petroleum vessels at Port Everglades through the year 2060; (3) increase channel safety and maneuverability at Port Everglades for existing vessel use as well as for larger vessels through the year 2060; and (4) comply with USACE environmental operating principles.

The existing Federal Channel project depth of 42-feet does not provide adequate, safe depth for large tankers and container ships currently visiting the harbor. The next generation of container ships and oil tankers requires significantly more channel depth to operate efficiently.

The study will increase safety for the existing and future fleets; accommodate existing and future vessel movements; resolve navigation restriction problems; and present opportunities for national economic development.

### TENTATIVELY SELECTED PLAN FEATURES:

- Outer Entrance Channel extend, widen, and deepen from 42 to 55 feet
- Main Turning Basin deepen from 42 to 48 feet
- Inner Entrance Channel deepen from 42 to 48 feet
- Shoaling area widen by 300 feet, deepen to 48 feet; and relocate USCG Station to the east
- Southport Access Channel widen by 250 feet at theknuckle; shift channel easterly 65 feet from berth 26 to 29; deepen from 42 to 48 feet from berth 23 to south end of 32
- Turning Notch (Turning and Berthing) deepen from 42 to 48 feet plus minor widening features
- Turning and Berthing (Turning Only) Port expansion plus USACE deepening to 48 feet
- Construction of mitigation for unavoidable, minimized impacts to resources associated with project construction

The total cost of the project is \$313 million. For every \$1 spent on the project, \$1.60 is given back to the Nation.

#### UNAVOIDABLE ENVIRONMENTAL IMPACTS AND ASSOCIATED MITIGATION:

Every effort was made to first avoid and then to minimize environmental impacts through an interagency, interdisciplinary planning process. Mitigation wasthen developed for the unavoidable impacts based on functional analysis of the impacted habitats.

Proposed mitigation for the removal of 4.01 acres of seagrass in the project footprint (including within the channel and resulting side slopes) and the loss of 1.16 acres of mangroves (a reduction of up to 98% impacts based on initial plans) includes the creation of seagrass and mangrove habitats in partnership with the Broward County Parks Department's. The proposed mitigation will be included in the county's restoration, enhancement, and preservation of like habitats at West Lake Park, approximately one mile south of the project impacts.

Impacts to hardbottom communities are associated with deepening and widening of the Outer Entrance Channel and include removal of 15.17 acres of hardbottom within the middle and outer reef tracts. Due to ship simulation and geotechnical investigation, these impacts were reduced by more than 23 acres from original estimates, resulting in a 58% reduction of impacts.

To mitigate for the minimized, yet unavoidable impacts, the project will construct approximately 12.57 acres of high-profile, artificial reef habitat to mitigate for the direct removal of approximately 10.10 acres of complex, high-profile, linear and spur/groove reef habitat and construct 6.92 acres of low-profile hardbottom to mitigate for the direct removal of approximately 5.07 acres of less complex, low-profile hardbottom habitat (colonized pavement).

Additionally, coral colonies greater than 10 cm (up to 12,235 colonies) in diameter and free of disease and boring sponge would be translocated from the impact area to the mitigation sites, which would be prepared in advance of dredging. Additional mitigation will be provided due to any detectable, incidental, direct impacts of dredging equipment and indirect impacts on hardbottom habitats due to turbidity and sedimentation detected by monitoring during project construction.



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Inner Entrance Channel

**Outer Entrance Channel** 

