

BUILT ENVIRONMENT

FEDERAL CHANNEL

- Inner Channel: Deepen (from 33' to 39'); Widen (from 300' to 450' minimum)
- Entrance Channel: Deepen (from 35' to 41'); Widen (from 400' to between 440' and 460'); plus south approach flare
- North Turning Basin: same
- Main Turning Basin: Depth: Deepen (from 33' to 39'); Width: 150' extension to the south & removal of notch on north side
- North and South Jetties: North Jetty will need sheetpile stabilization primarily because of the revised maintenance plan
- O&M: refer to advance maintenance discussion below

PLACEMENT OPTIONS

- Suitable material to be placed in the nearshore
- Non-beach compatible material will be placed at the Palm Beach Ocean Dredged Material Disposal Site (ODMDS) 4.5 miles offshore – in compliance with ocean disposal criteria; study will increase allowable disposal to > 500,000 cy per event
- Refer to Natural Environment discussion regarding Turtle Cove Dredged Hole Site and Singer Island Artificial Reef Mitigation Sites
- Peanut Island not a viable option due to limited capacity

PORT FACILITIES

- Port will modify bulkhead and deepen Slip 3 to depth (39') minimum

NATURAL ENVIRONMENT AND MITIGATION PLAN

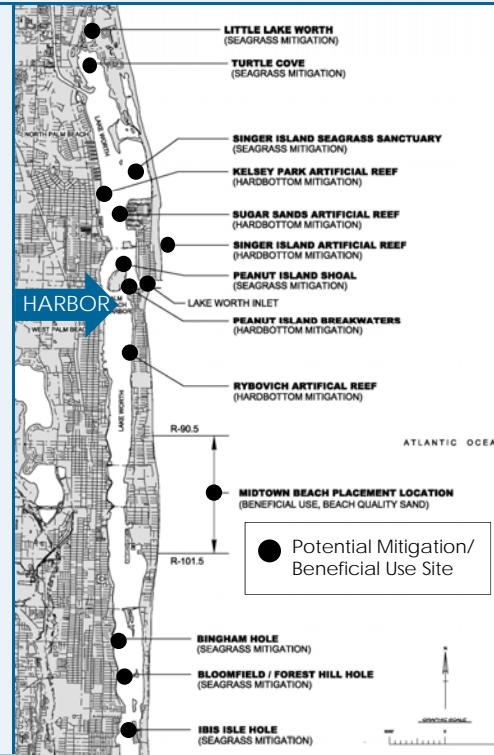
MITIGATION REQUIRED

- Under negotiation: 8.25 to 11.25 acres of seagrass mitigation and 4.9 to 9.8 acres of hardbottom mitigation
- Proposed seagrass mitigation will fill dredged hole(s) to surrounding elevation using dredged material to allow restoration of seagrass
- Proposed hardbottom mitigation will place rock in artificial reef sites to allow establishment of species

(Refer to Chapter 5.0 for a full comparison of the Tentatively Selected Plan to the Future-Without Plan/No Action Condition)



Major Affected Environmental Resources: Manatee & Seagrass



NAVIGATION ENVIRONMENT

- Improved maneuverability/safety for large vessels (tankers, bulkers and cruise ships)
- Improved access into inlet when considering currents and wind
- Less dependence on tide windows (for underkeel) during transit



DESIGN VESSEL:
55,000 DWT Bulker 705' LOA
106' Beam 41.3' Design Draft

ECONOMIC ENVIRONMENT

- Benefiting Vessels: Tankers, Bulklers
- Allows for larger vessel capacity:
 - More loads per vessel and more efficient vessels
 - Fewer vessels calling
- Less vessel operating costs = cost savings to economy

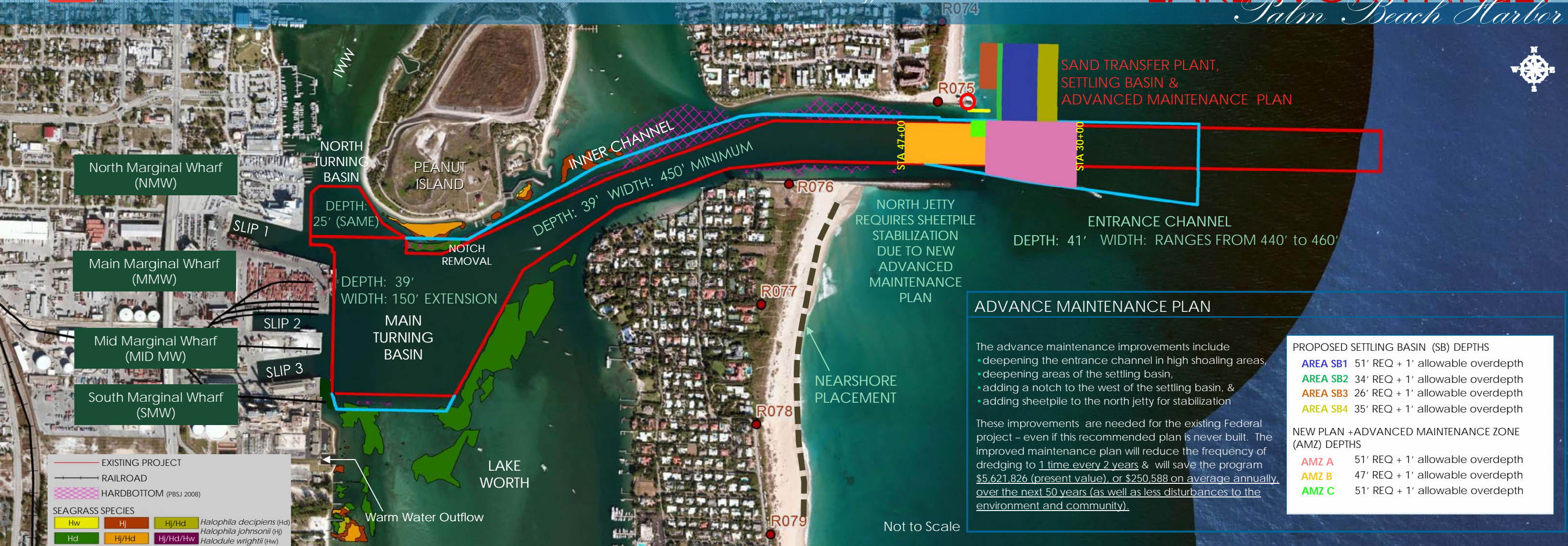
PROJECT	39' DEPTH +WIDENING
Sum of Present-Value Benefits	\$ 158,380,000
Total Costs (with Interest During Construction)	\$ 96,000,000
Annualized Transportation Cost Savings (Benefits)	\$ 7,060,000
Annualized Advanced Maintenance Cost Savings (Benefits)	\$ 250,000
Total Benefits	\$ 7,310,000
Annualized Costs	\$ 4,280,000
Net NED Benefits	\$ 3,030,000
BCR	1.71

Note: The costs and benefits in the table reflect a more refined analysis focused on the TSP.



4.0 TENTATIVELY SELECTED PLAN FIGURE ES-4 (excerpt only)

LAKE WORTH INLET *Palm Beach Harbor*



ADVANCE MAINTENANCE PLAN

The advance maintenance improvements include

- deepening the entrance channel in high shoaling areas,
- deepening areas of the settling basin,
- adding a notch to the west of the settling basin, &
- adding sheetpile to the north jetty for stabilization

These improvements are needed for the existing Federal project – even if this recommended plan is never built. The improved maintenance plan will reduce the frequency of dredging to 1 time every 2 years & will save the program \$5,621,826 (present value), or \$250,588 on average annually, over the next 50 years (as well as less disturbances to the environment and community).

PROPOSED SETTLING BASIN (SB) DEPTHS

- AREA SB1 51' REQ + 1' allowable overdepth
- AREA SB2 34' REQ + 1' allowable overdepth
- AREA SB3 26' REQ + 1' allowable overdepth
- AREA SB4 35' REQ + 1' allowable overdepth

NEW PLAN + ADVANCED MAINTENANCE ZONE (AMZ) DEPTHS

- AMZ A 51' REQ + 1' allowable overdepth
- AMZ B 47' REQ + 1' allowable overdepth
- AMZ C 51' REQ + 1' allowable overdepth