



Port Everglades 2014 Master/Vision Plan Update

Environmental Stakeholders
Meeting

May 27, 2014

Agenda

- 2014 Master/Vision Plan Update Process
- Status of 2009 5-Year Master Plan Projects
- Summary of Market Forecasts
- Proposed 5-, 10-, and 20-Year Master/Vision Plans and Projects
- Preliminary Affordability Analysis
- Environmental Initiatives and Opportunities Update
- Next Steps



Master/Vision Plan Update Process

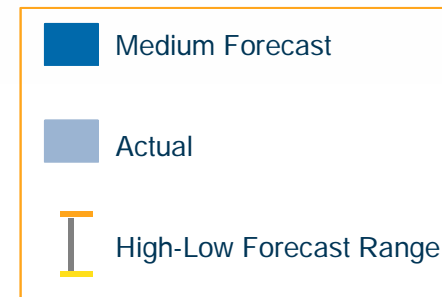
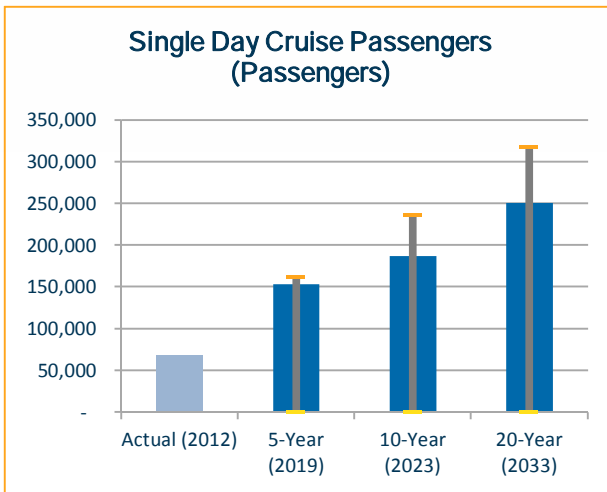
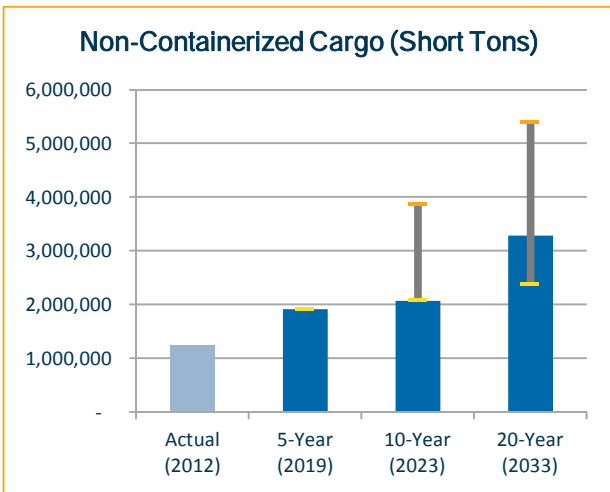
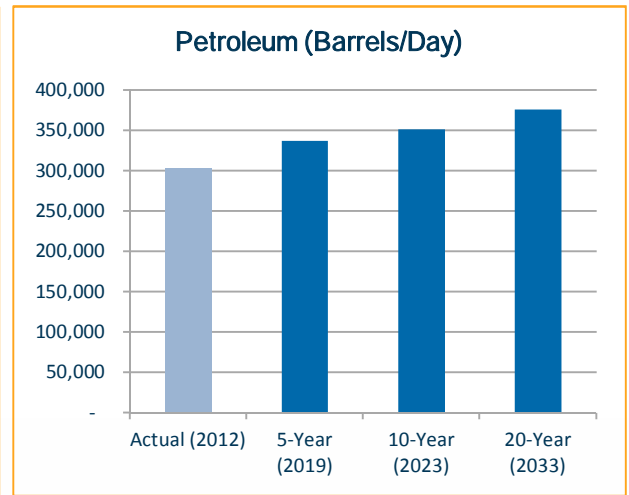
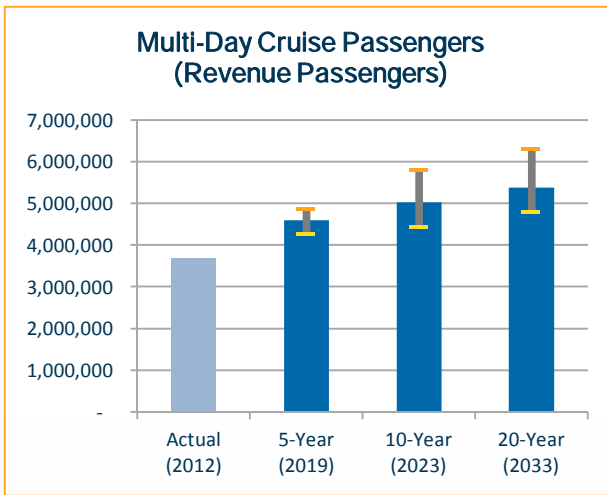
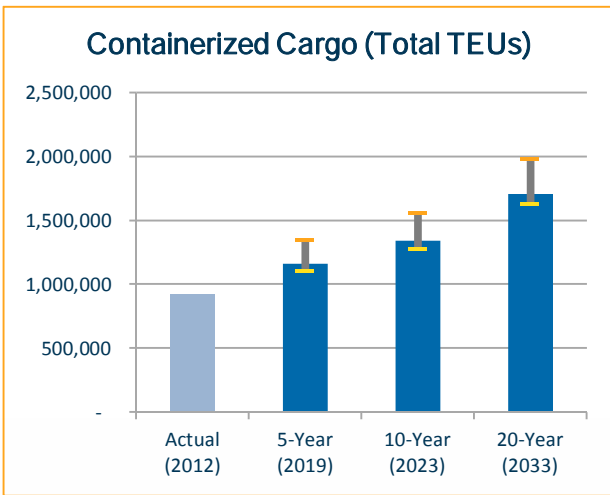
- **Phase I - End of September 2013 COMPLETED**
 - Community and Stakeholder Meetings
 - Existing Conditions Assessment
 - Market Assessment
 - Business Line Forecasts (with and without 50 feet of water)
- **Phase II - June 2014**
 - Community and Stakeholder Meetings
 - Plan Development (Terminal Design Trends, Cargo Operational Enhancement Opportunities, Facility Needs Assessment, Conceptual Planning Studies, 20-Year Vision Plan, Parking, and Rail and Truck Traffic)
 - Strategy Development (Master Plan Development & Financial Strategy)
 - Final Plan
 - Plan Implementation
- **Phase III - June 2014**
 - 3-D Computer Animated Video



Status of 2009 5-Year Master Plan

Port Area	Project	Status
Northport	Slip 1 New Bulkheads and Reconfiguration - Phase 1	RFP to be released Fall 2014
	Seaport Convention Center Security Improvement Project	Underway - Completion Summer 2015
	By-Pass Road	Removed from Program
	Cruise Terminal 2 Improvements	Completed
	Cruise Terminal 4 Improvements	Completion end of 2014
	Slip 2 Westward Lengthening	Completion Summer 2016
	New Petroleum Tank Farm	Remove from Program, Proposed for New Use
Midport	Cruise Terminal 19 Improvements	Completed
	Cruise Terminal 21 Improvements	Completed
	Cruise Terminal 26 Improvements	Completed
	Cruise Terminal 18 Parking Garage	Remove from Program
	Tracor Basin Finger Pier Replacement with Catwalk-Dolphin	Pier removal completed; catwalk cancelled
Southport	McIntosh Road Improvements	Completed
	Upland Mangrove Enhancement	Underway - Construction Completion Spring 2014
	Westlake Mitigation	Planning, Design, Permitting underway; construction commencement mid to late 2016
	Super Post-Panamax Crane (1)	Under Design for two cranes
	Turning Notch Extension	Construction 2016; completion 2018
	Intermodal Container Transfer Facility	Underway; completion Summer 2014
	USACE Deepening and Widening Design	Feasibility study released June 2013; under review
USACE Deepening and Widening Construction	Schedule dependent on study completion; target completion end of 2022	

Market Forecasts Summary



2014 Master/Vision Plan Update

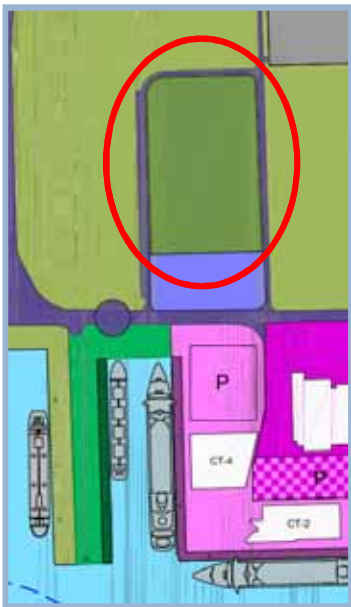
PROJECTS SUMMARY



5-Year Master Plan (2015-2019)

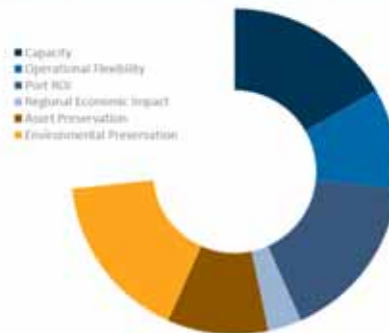
Neo-Bulk Storage Yard

Relocation of neo-bulk cargo operations to 13-acre petroleum tank farm site - **\$7.80M**



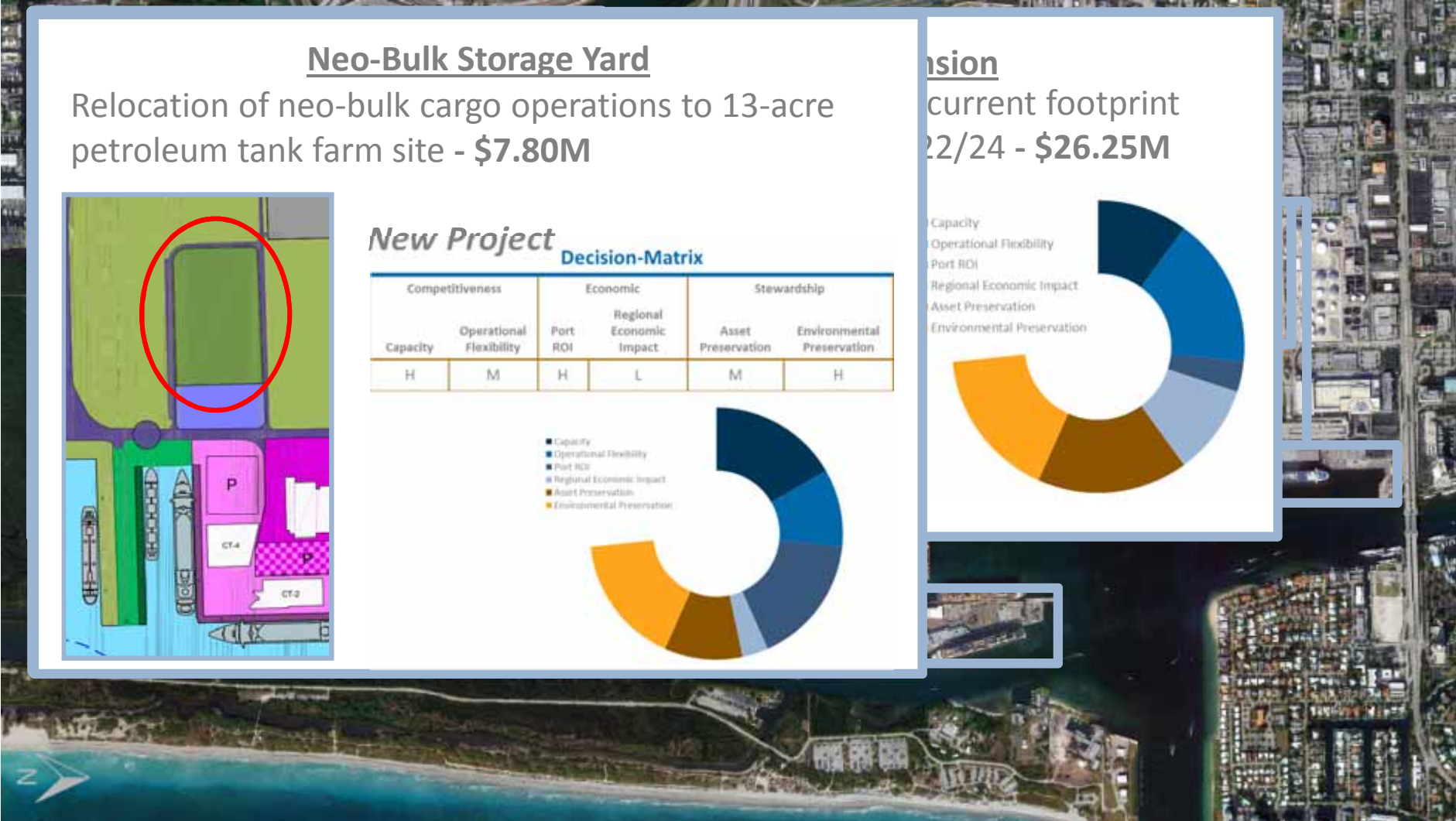
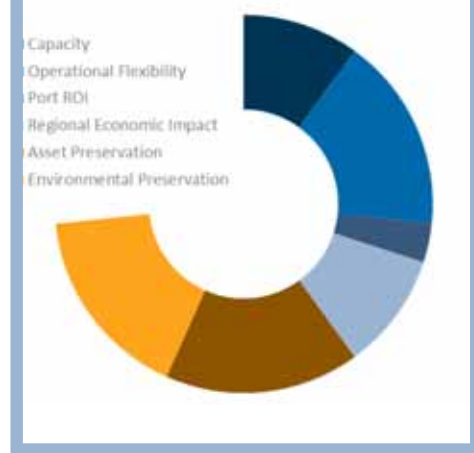
New Project Decision-Matrix

Competitiveness		Economic		Stewardship	
Capacity	Operational Flexibility	Port ROI	Regional Economic Impact	Asset Preservation	Environmental Preservation
H	M	H	L	M	H

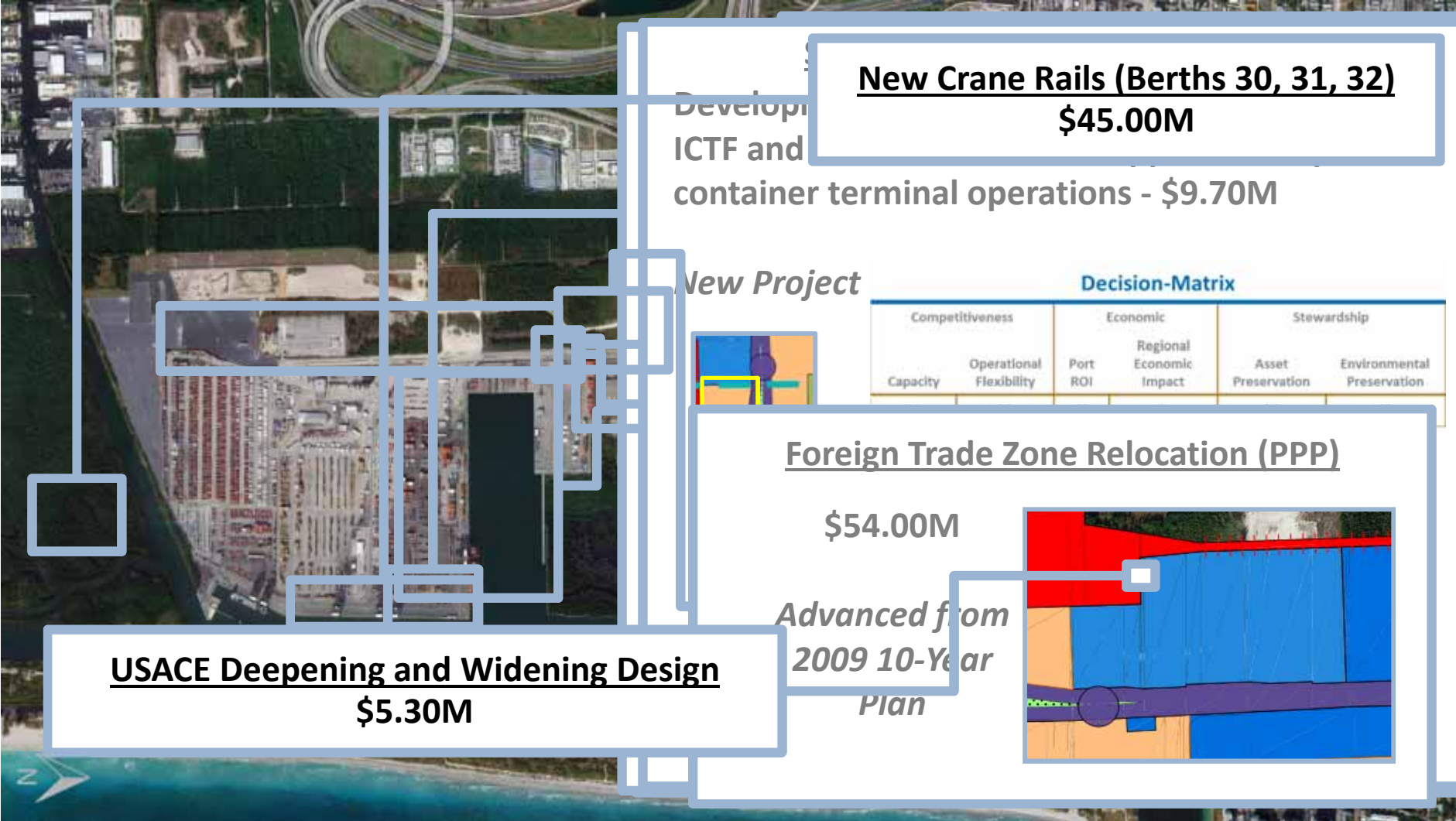


Expansion

Expansion of current footprint
2022/24 - **\$26.25M**



5-Year Master Plan (2015-2019)



New Crane Rails (Berths 30, 31, 32)
\$45.00M

Develop ICTF and container terminal operations - \$9.70M

New Project

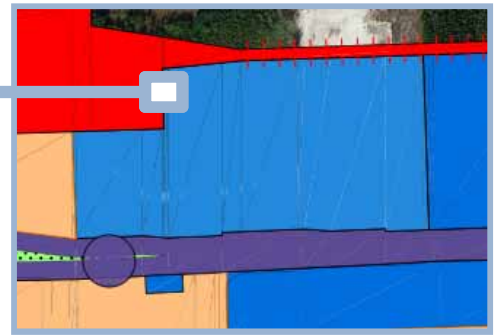
Decision-Matrix

Competitiveness		Economic		Stewardship	
Capacity	Operational Flexibility	Port ROI	Regional Economic Impact	Asset Preservation	Environmental Preservation



Advanced from 2009 10-Year Plan

Foreign Trade Zone Relocation (PPP)
\$54.00M



USACE Deepening and Widening Design
\$5.30M

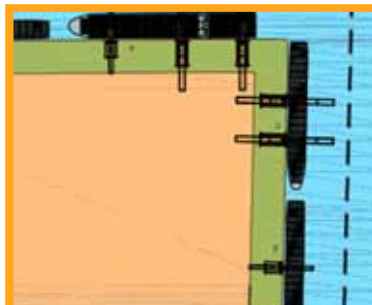
10-Year Master Plan (2020-2023)

Filling of 6 acres to
continuous linear
(Berths 26, 27, 28)
increasing the efficiency
cruise and cargo operations
\$48.40M

New Project

Berth 33 reconfiguration

Reconfiguration resulting in a linear berth (2,850LF) from Berths 31 to 33 to create greater operating flexibility and cost savings in Southport - \$56.40M



Decision-Matrix

Competitiveness		Economic		Stewardship	
Capacity	Operational Flexibility	Port ROI	Regional Economic Impact	Asset Preservation	Environmental Preservation
M	H	M	M	M	H



USACE Deepening and Widening Construction

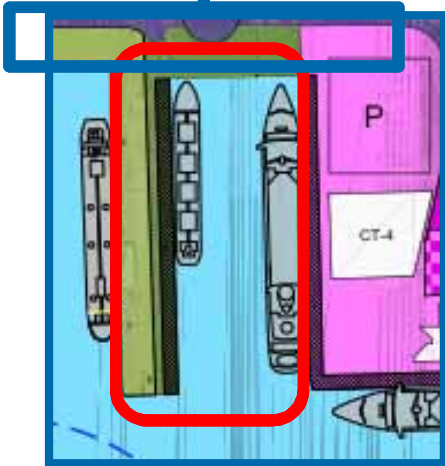
\$368.00M



20-Year Master Plan (2024-2033)

Slip 2 New Bulkheads and Widening
(Berths 4, 5, 6)

\$50.10M



Phase III

Berths 11, 12, 13,

Visi

Decisio

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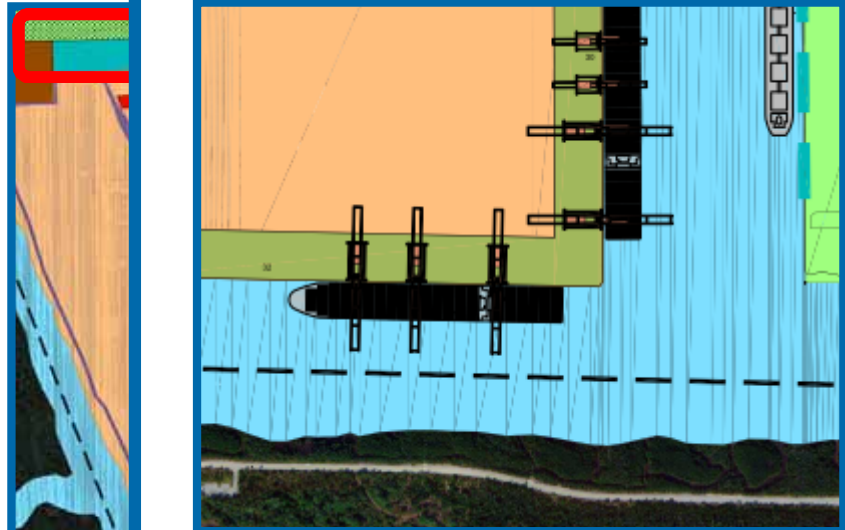
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Super Post Panamax Crane (1)

\$15.00M

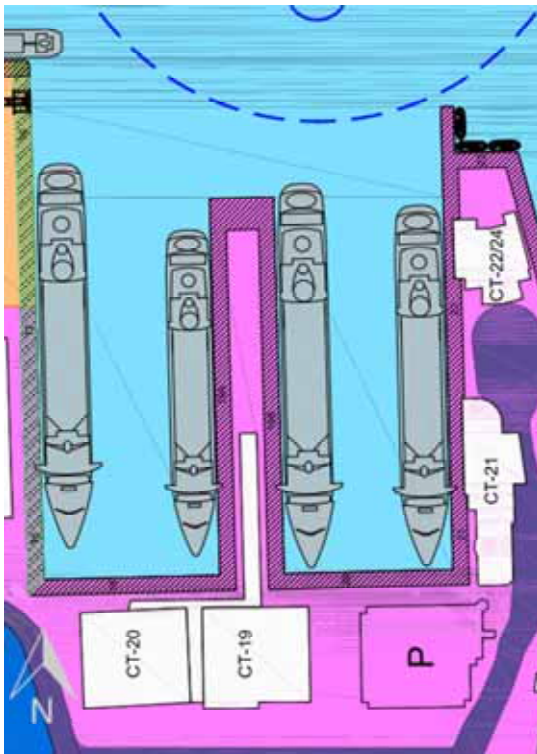


Cruise Terminal & Pier 19/20

New

Capital Cost: \$169.6M

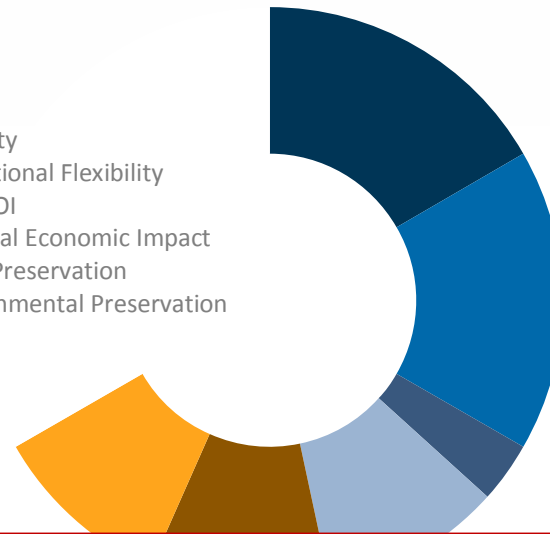
Development of a ninth cruise berth within Midport by constructing a new pier structure, cruise terminal and ground transportation area/parking at the existing Berth 19/20.



Decision-Matrix

Competitiveness		Economic		Stewardship	
Capacity	Operational Flexibility	Port ROI	Regional Economic Impact	Asset Preservation	Environmental Preservation
H	H	L	M	M	M

- Capacity
- Operational Flexibility
- Port ROI
- Regional Economic Impact
- Asset Preservation
- Environmental Preservation



Not Recommended For 2014 Final Plan

Estimated Cost Comparison of 2014 vs 2009 Master/Vision Plans

	2014 Cost (2014\$M)	2009 Cost (2011\$M)
5-Year Master Plan	\$468.91	\$453.08
10-Year Vision Plan	\$678.95	\$547.22
20-Year Vision Plan	\$387.30	\$461.00
Total	\$1,535.16	\$1,461.30

Environmental Initiatives & Opportunities Update



Air Quality

Energy Performance Project led by Trane South Florida

The Port invested in energy efficient equipment upgrades in the cruise terminals and office buildings, saving 9,507,386kWh and 2,583kW annually.



Annual Reductions equate to removing over 900 cars off the road

Air Quality



The fuel grade ethanol rail offloading facility at the Motiva terminal will allow for the delivery of ethanol unit trains directly into existing Motiva storage tanks. The use of Rail results in

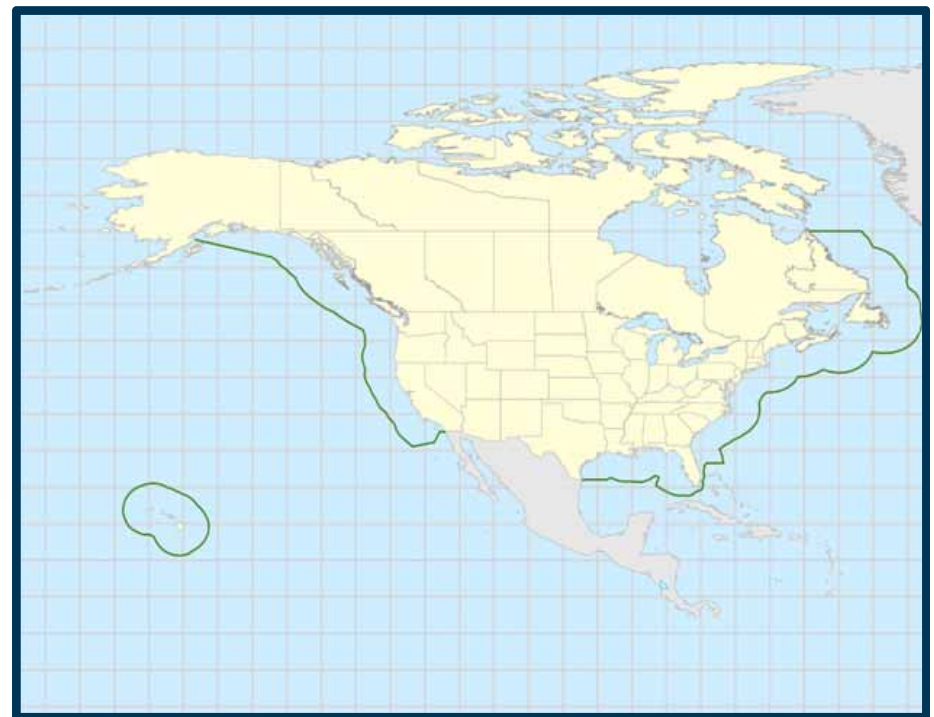
28% 

fewer pounds of CO₂ per 100 ton-miles than a single truck load.

**Motiva announces
new rail yard in Port
Everglades Terminal**

Emission Control Area

- North American Emission Control Area (ECA) began August 1, 2012.
- On August 1, 2012 the U.S. Environmental Protection Agency (EPA) and the Coast Guard begin enforcing new regulations requiring oceangoing vessels to burn lower sulfur fuel within 200 miles of the U.S. and Canadian North American coastline.
- Stricter controls on NOX, SOX and particulate matter emissions for ships.
- Maximum fuel sulfur content of 1% or equivalent strategy - ships in port will burn progressively cleaner fuels.
- Next phase, on January 1, 2015 sulfur content from 1% to .1%.
- Many cruise lines installing scrubbers to meet emission targets.



Alternative Marine Power

Estimated
Reductions

97%



89%

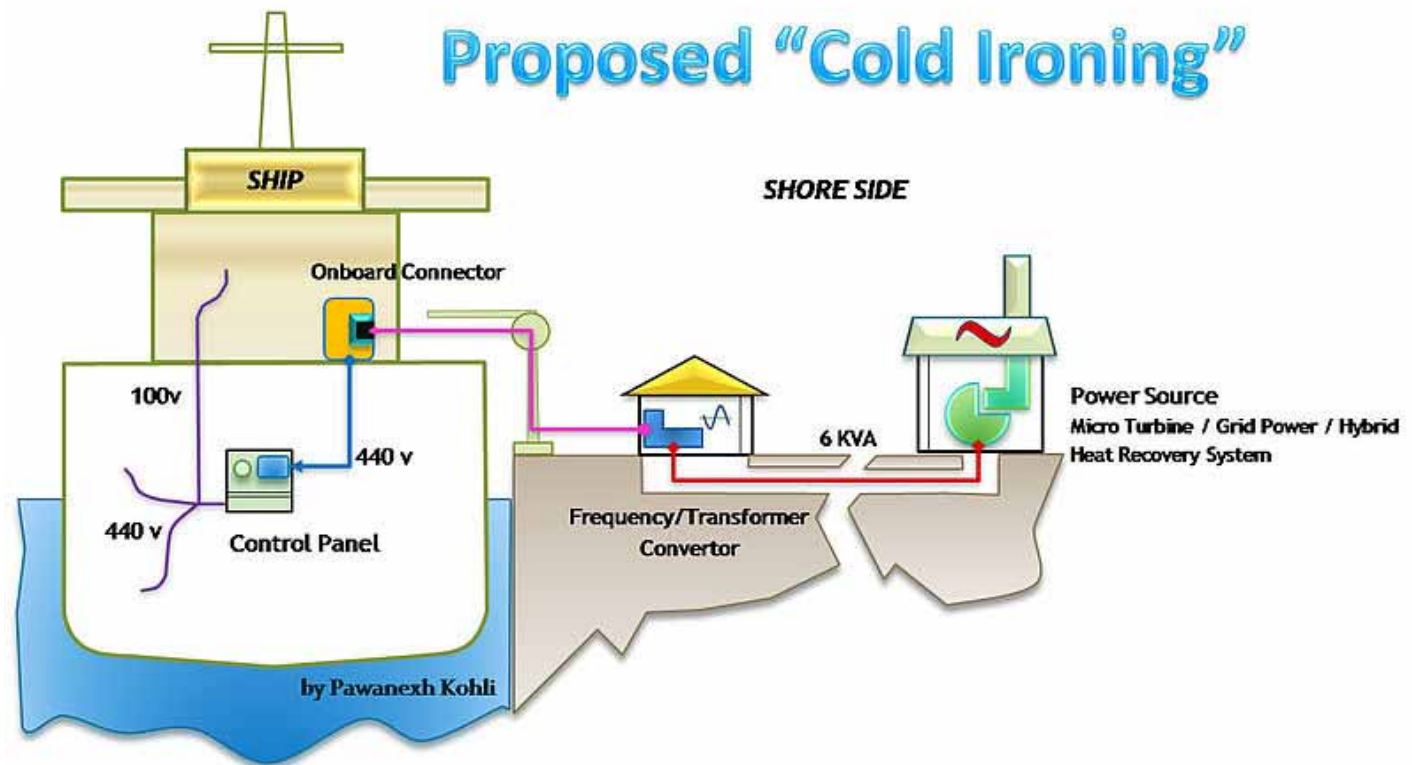


94%



Cold Ironing/
Alternative Marine
Power (AMP)

Vessels can be hooked up to an onshore power supply, i.e. connected to the local electricity grid. In this way ships' operations can proceed uninterrupted, while eliminating negative side-effects.



COLD IRONING OPPORTUNITY

FPL provided Port Everglades costs for Shore Power in 2009

- Costs were based on one “plug” at new Terminal 18 facility
- No cruise ships were equipped to take shore power at the time
- Costs for Port were high and interest from the cruise lines was limited
- No further action taken by Port Everglades

Port Everglades asked FPL to look into costs again in 2014

- Higher infrastructure costs exist now due to substation being at maximum safe capacity
 - FPL must add new transformers to current station to handle load*
- Port Everglades has 11 cruise ships visiting Port that are shore power equipped
 - Will need at least two “plugs” at two different terminals in order to meet demands*
- FPL is working to determine optimal solution for all parties involved

Water Quality

Stormwater Management efforts including:

- Updating the overall Port Everglades Stormwater Pollution Protection Plan
- Database of all National Pollution Discharge Elimination System (NPDES) authorizations within the Port
- Installation of Sediment Traps at selected Storm Drains at Southport

Maintenance Dredging Contracts Incorporating Environmental Restrictions and Compliance

Wildlife/Natural Habitat

- The Port is committed to addressing the protection of wildlife within its property and along the waterways.
- This commitment includes implementation of species protection plans, adherence to special construction techniques and/or guidelines that address wildlife concerns, and participating in scientific programs associated with resource protection.

Wildlife/Natural Habitat

Reduction of Impacts on Sea Turtles

- Changed fixtures at seaside facilities to reduce light toward ocean
- Recently conducted study of high-mast light alternatives
 - Can reduce number of fixtures
 - Decrease light spill
 - Still maintain OSHA work safety lighting standards
 - Increase energy efficiency
- Conducting additional pilot study on use of LEDs later in 2014



Wildlife/Natural Habitat



Project Mitigation: Turning Notch & Mangroves

- Mangrove restoration and creation is permitted, NTP issued, and work underway
- Permit applications submitted March 1, 2014 for expansion of Turning Notch
 - Currently providing additional information
 - Addresses offsite mitigation at West Lake Park

Wildlife/Natural Habitat



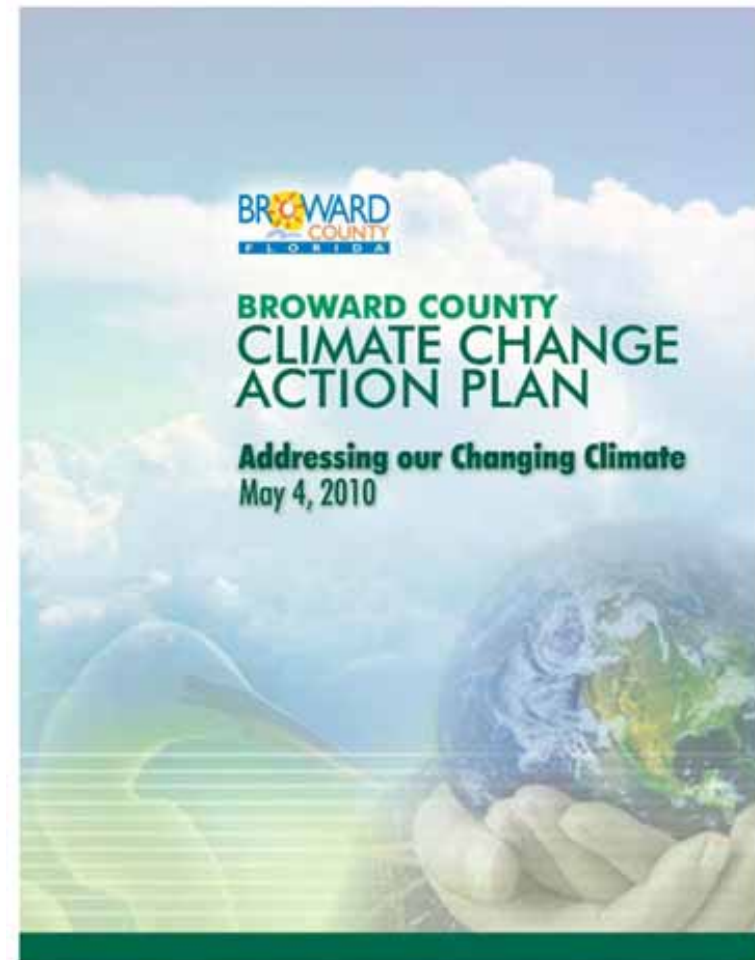
Project Mitigation: USACE Port Deepening & Widening Study

- USACE issued feasibility study and draft EIS on June 28, 2013
- Study included extensive data on environmental conditions in and near Port
- Federal agencies are coordinating on mitigation details—should be released to public soon

Broward County Climate Change Initiatives

Under the auspices of Broward County, the Port undertook the following Climate Change projects:

- Building(s) Energy Efficiency,
- Equipment and Lighting Efficiency



Broward County Climate Change Initiatives



High-Mast Lighting

Lighting alternatives to reduce light emission researched in pilot program.



Energy Efficient Vehicle Purchase

Four Ford Fusion Hybrids

Cruise Terminal Improvements

Enable simultaneous embark/debark and utilize energy efficiency measures.



LED Light Fixtures

On-going effort resulting in energy savings



Future Opportunities: Solar and Wind Installation

Hilton Hotel on Fort Lauderdale Beach



Future Opportunities - Natural Gas

NG as fuel applications worldwide:

- Ocean-Going Vessels (Domestic Trade)
- Bunkering Vessels
- Ferry, Tug and Cruise Vessels
- Container Handling Equipment (CHEs)
- Long Haul Transportation



2014 Master/Vision Plan Update

NEXT STEPS



Remaining Meetings

- Public Meeting

May 28 - 5 pm
Main Public Library

- County
Commission
Approval

June 2014



Port Everglades 2014 Master/Vision Plan Update Contact

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