

# AGENDA

## JACKSONVILLE HARBOR DUVAL COUNTY, FLORIDA

### CIVIL WORKS REVIEW BOARD 25 February 2014



0900	Welcome & Introductions	MG John Peabody <i>CWRB Chair and Deputy Commanding General for Civil and Emergency Operations</i>
0910	Division Opening Remarks	BG Donald (Ed) Jackson, Jr. <i>Commander, South Atlantic Division</i>
0915	Project Briefing	COL Alan Dodd <i>District Commander, Jacksonville District</i>
0950	Sponsor Support	Mr. Brian Taylor <i>Chief Executive Officer, Jacksonville Port Authority</i> Mayor Alvin Brown
1000	Division Support	BG Donald (Ed) Jackson, Jr. <i>Commander, South Atlantic Division</i>
1010	Agency Technical Review	Mr. Todd Nettles <i>Technical Director, Deep Draft Navigation Planning Center of Expertise</i> Ms. Sheridan Willey (via phone) <i>Lead ATR Reviewer, Deep Draft Navigation Planning Center of Expertise</i>
1015	Independent External Peer Review	Ms. Karen Johnson-Young <i>IEPR Program Manager, Battelle Memorial Institute</i> Dr. William McAnally <i>Lead IEPR Panel Member, Hydraulic Engineering</i>
1025	Break (15 minutes)	MG John Peabody <i>CWRB Chair</i>
1040	Policy Review Assessment	Mr. Jeremy LaDart <i>Review Lead, Office of Water Project Review</i>
1050	Board Discussion <ul style="list-style-type: none"><li>Member Questions</li><li>Office of ASA(CW), OMB Questions</li></ul>	MG John Peabody <i>CWRB Chair</i>
1120	Action	Mr. Theodore Brown <i>Chief, Planning Community of Practice</i>
1125	Lessons Learned / After Action Report: <ul style="list-style-type: none"><li>What was supposed to happen?</li><li>What did happen?</li><li>Why did it happen that way?</li><li>How will we improve next time?</li></ul>	COL Alan Dodd <i>District Commander, Jacksonville District</i>
1130	Lessons Learned	SAD, OWPR, Sponsor, Others
1135	Close	MG John Peabody <i>CWRB Chair</i>

# JACKSONVILLE HARBOR GRRII

Civil Works Review Board (CWRB)

Duval County, Florida

Integrated General Reevaluation Report II and  
Supplemental Environmental  
Impact Statement

Presented by:  
Colonel Alan Dodd  
Jacksonville District

25 February 2014



# JACKSONVILLE HARBOR

## AN INVESTMENT IN THE NATIONAL INTEREST

- 47-foot Deepening
- 2.7 BCR
- Total Federal Cost:  
\$ 312.7 million
- Total Non-Federal Cost:  
\$ 371.5

- Nationally Significant Infrastructure Project as defined by President Obama's "We Can't Wait" Initiative
- #39 in U.S. for overall tonnage
- #12 in U.S. for container traffic
- Leading auto exporter in U.S.
- DOD and MARAD\* Designated Strategic Port

\* MARAD: United States Maritime Administration



Images, left to right: President Obama visits JAXPORT; Post-Panamax Cranes at Dames Point TraPac Terminal

# JACKSONVILLE HARBOR

## VITAL PORT/STRATEGIC LOCATION

### LOGISTICS

- Access to nationwide transportation:
  - Rail: CSX, Norfolk Southern, Florida East Coast
  - Interstates: I-10, I-75, I-95
- Port pro-active in infrastructure development (recent USDOT grant for intermodal transfer station)

### DEMAND

- S.E. U.S. most rapidly growing region

### MULTIPLE USES/VITAL PORT

- Leading automobile exporter nationwide
- #12 in container traffic nationwide
- Strategic Military Cargo Port (832<sup>nd</sup> Transportation Battalion)



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# JACKSONVILLE HARBOR

PROBLEMS



- Inadequate Depths and Widths
- Navigation Restrictions



- Vessel light-loading
- More frequent trips

OPPORTUNITIES



- Forecasted volume of goods on fewer, larger ships



- Reduce transportation costs





end of tour

2,130 MM

# JACKSONVILLE HARBOR LEGISLATIVE AUTHORITY

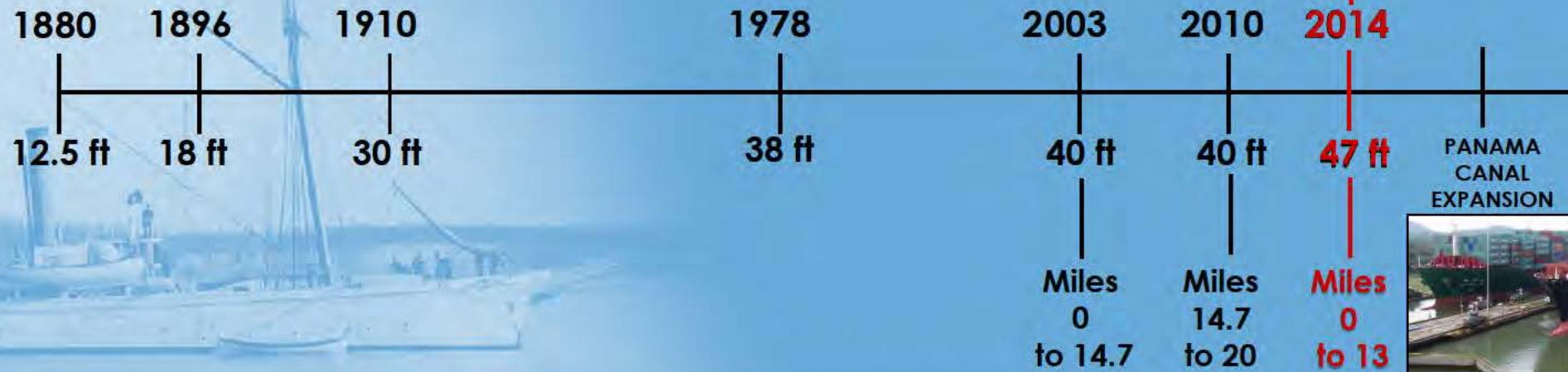
**Authorization:** Resolution from the Committee on Public Works and Transportation, United States House of Representatives, dated February 5, 1992:

“...to determine whether modifications of the recommendations contained therein are advisable at the present time, in the interest of navigation and other purposes.”

**Non-federal Sponsor:** Jacksonville Port Authority (JAXPORT)

## DEEPENING HISTORY TIMELINE

### RECOMMENDED PLAN



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# JACKSONVILLE PORT AUTHORITY

**Brian Taylor**  
Chief Executive Officer



# THE DECISION TO DELIVER 47 FEET

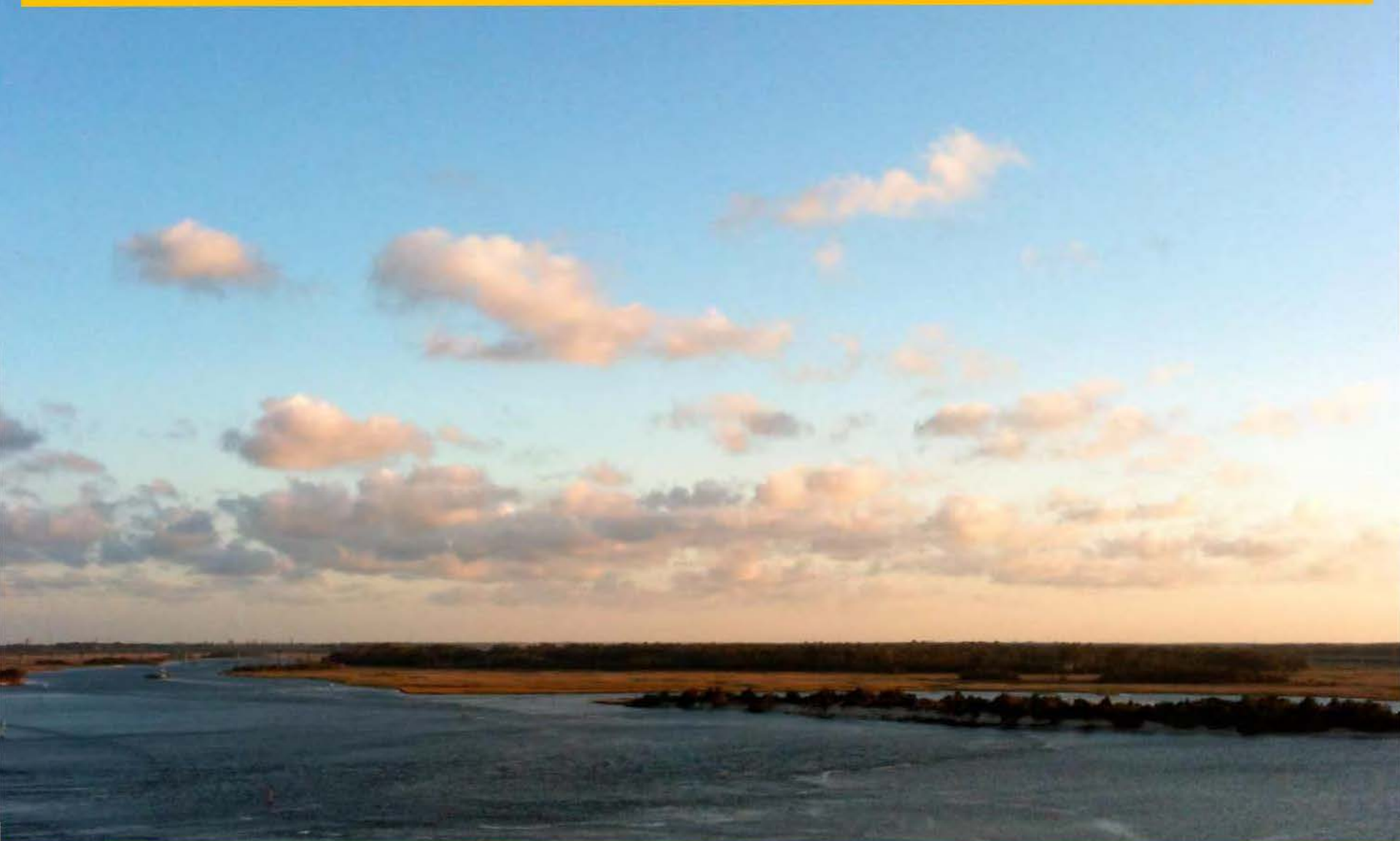


# “WE CAN’T WAIT”

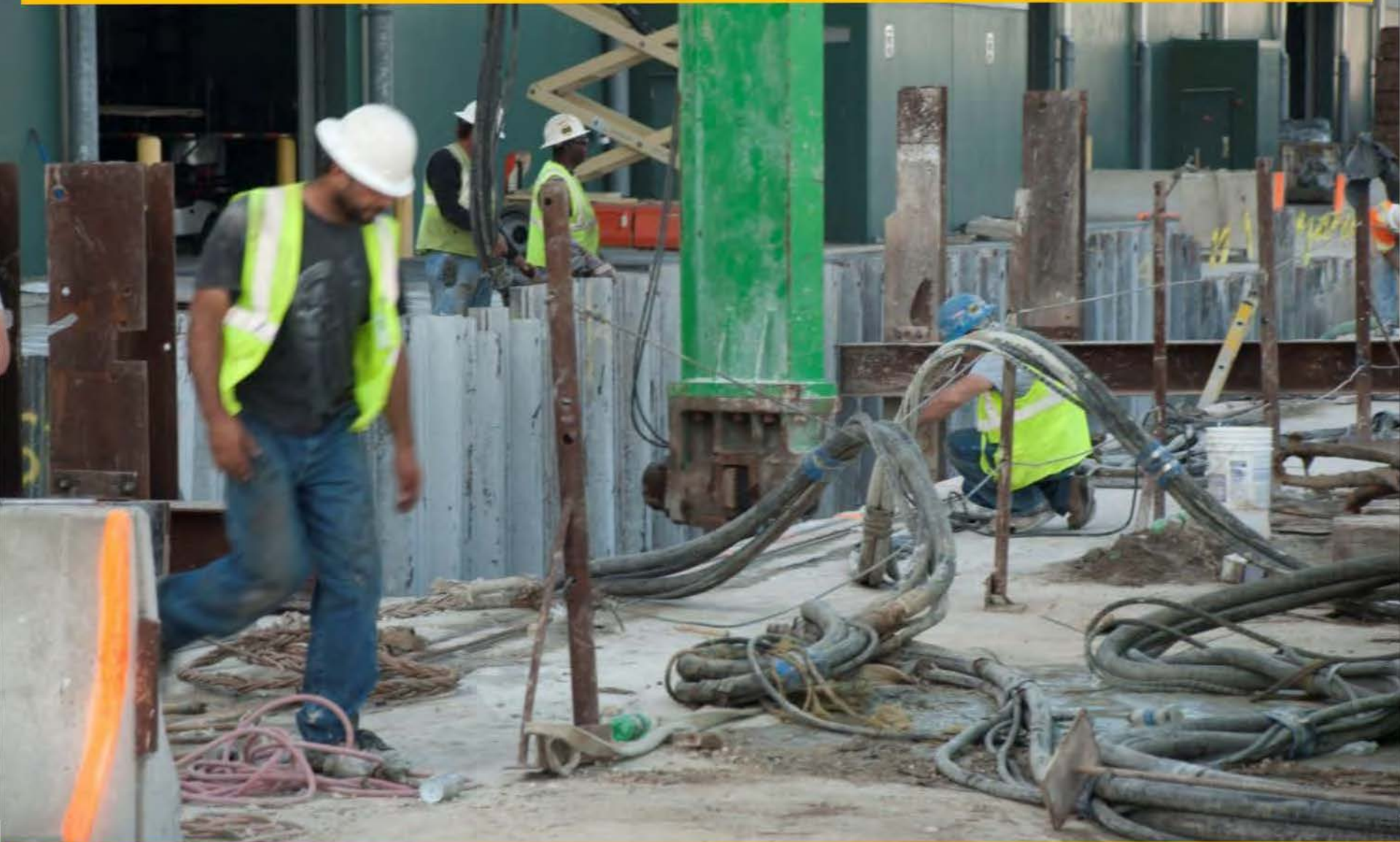


“We’ve got to create more jobs today doing what you’re doing right here at JAXPORT, and that’s building this country’s future.”

# MILE POINT



# LEVERAGING INVESTMENTS



# ECONOMIC BENEFITS



# ENVIRONMENT



# COMMUNITY INVOLVEMENT



# POLITICAL SUPPORT



## **Congresswoman Corrine Brown:**

“I will not let Jacksonville be on the losing end.”

## **Congressman Ander Crenshaw:**

“Deepening the St. Johns River means more jobs, more trade and more economic growth for the region that’s why my support for this project is stronger than ever.”

## **Florida Governor Rick Scott:**

“My top priority as Governor is job creation. Florida’s ports are critical to providing jobs for Florida families.”



## **Jacksonville Mayor Alvin Brown:**

“My administration is working to help lead our efforts with members of Congress, state leaders and national officials to elevate JAXPORT to its full potential and create jobs and investment in Jacksonville.”



# HARBOR DEEPENING ROI



**13,844**  
JOBS

**1.95 MILLION**  
TEUS: TWENTY-FOOT EQUIVALENT UNITS

**\$1 INVESTED = \$14.80**  
RETURNED TO THE ECONOMY

## ECONOMICS

- **Annual Tonnage: 15 million**
- **Annual Containers: 900,000** (12<sup>th</sup> in Continental U.S.)
- **Trade Routes: Increase in cargo throughput on major East-West trades**

## ENGINEERING

- **Dredged Material Management limited in upland capacity**
- **New ODMDS**
- **Annual O&M**
- **Advance Maintenance**
- **Shoreline Erosion**

## ENVIRONMENTAL

- **St. Johns River/American Heritage River**
- **Lower river is an estuary (great variability in salinity)**
- **Threatened and Endangered species (e.g., manatees & sea turtles)**
- **Essential Fish Habitat**
- **Timucuan Ecological & Historic Preserve (TIMU) overlaps a portion of the study area**



Problems  
Opportunities

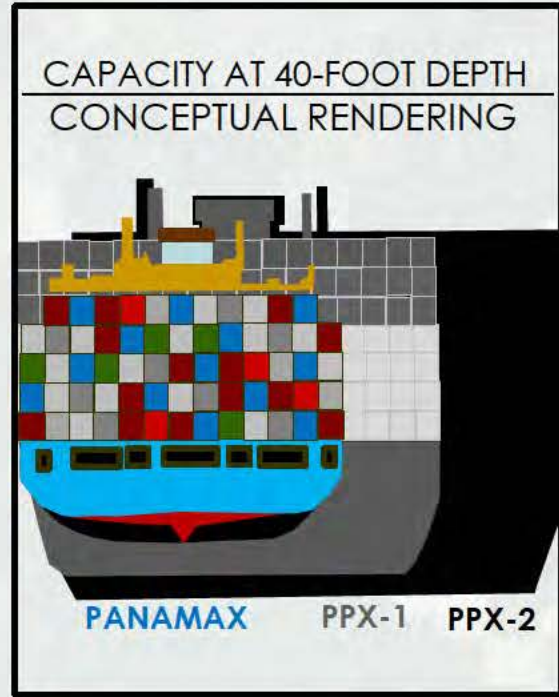
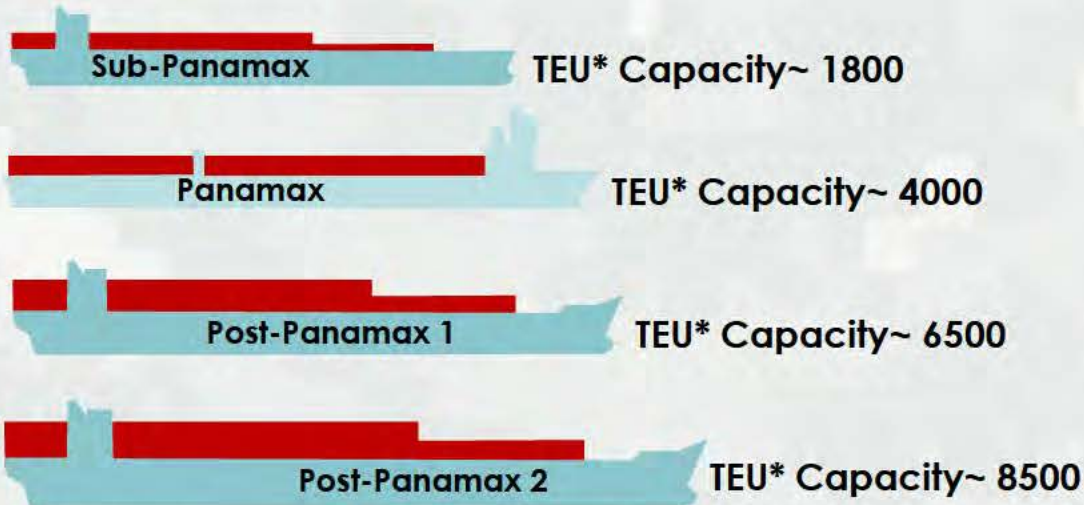
Existing  
Conditions

Future  
Without Project

Objectives  
Constraints

Plan  
Formulation

Recommended  
Plan



\* Intermodal Shipping Container Measured as a Twenty-foot Equivalent Unit (TEU)

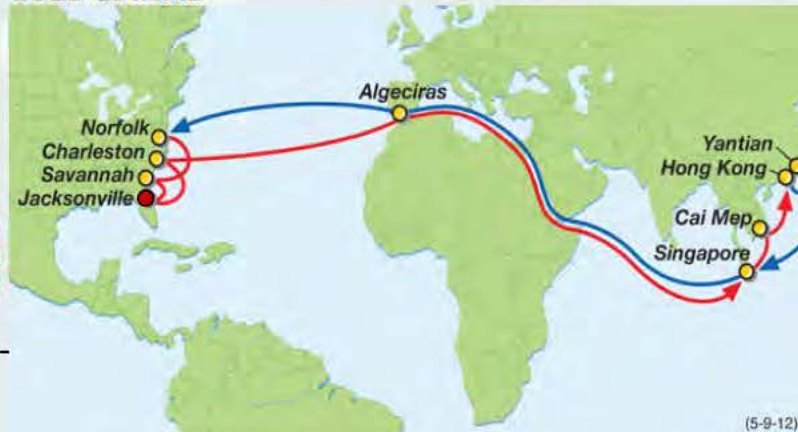
### PANAMA CANAL



### SOUTH AMERICA



### SUEZ CANAL



## Objectives:

- **Federal Objective:** Increases in net value of national output of goods and services
- **Project Objective:** Reduce navigation transportation costs and develop an alternative that is environmentally sustainable

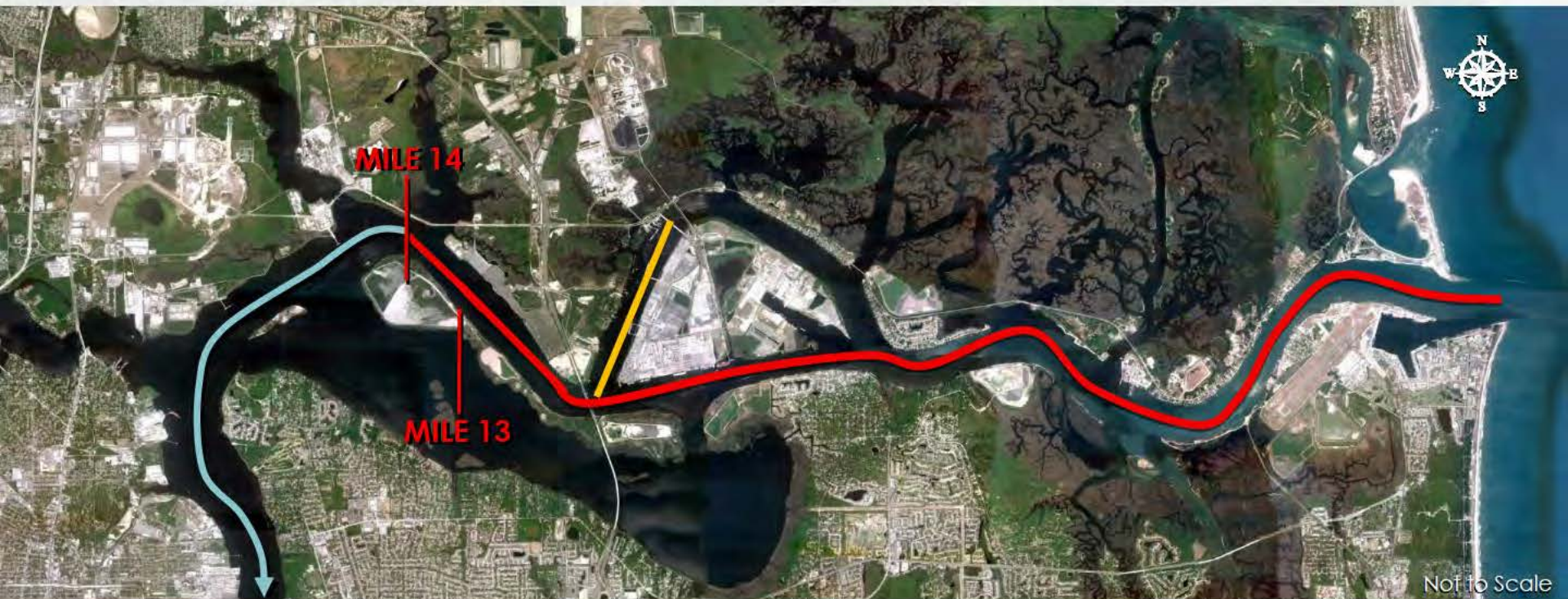
## Constraints:

- Avoid or minimize impacts on environmental resources (i.e., wetlands, submerged aquatic vegetation, and Threatened and Endangered species)



# ALTERNATIVES CONSIDERED

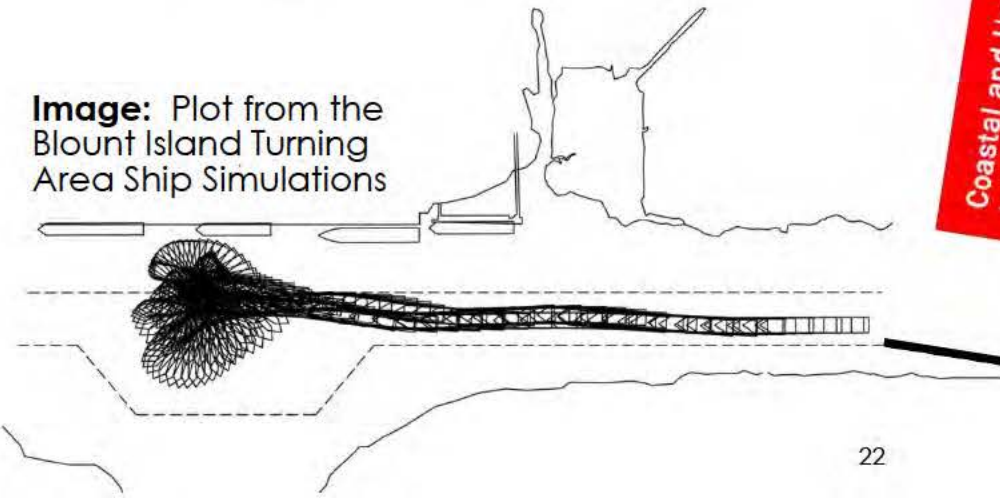
- Segment 1:** Entrance Channel to River Mile 14  
(Reduced to approximately River Mile 13)
- Segment 2:** River Mile 14 to 20 (eliminated)
- Segment 3:** West Blount Island Channel (eliminated)



# WIDENING AND SHIP SIMULATION

- **Ship simulation: Defined Widening footprint**
- **Incremental Analysis: Widening increments evaluated independently and with deepening**
- **Turning basins: Included with widening measures due to their interdependencies**

**Image:** Plot from the Blount Island Turning Area Ship Simulations



Coastal and Hydraulics  
Laboratory

ERDC/CHL



## NAVIGATION STUDY FOR SAINT JOHNS RIVER GRR-2 IMPROVEMENT PROJECT DATA REPORT

Detritis W. Webb, Phil Sylvester, Laurel Reichold, Steve  
Conger



# ECONOMIC ANALYSIS

(FY14 Discount Rate 3.5% and October 2013 Price Level)




Depth	\$Million Average Annual Equivalent			BCR
	Costs*	Benefits	Net Benefits	
44 feet	\$23.3	\$66.7	\$43.4	2.9
<b>45 feet (NED)</b>	<b>\$25.5</b>	<b>\$84.2</b>	<b>\$58.7</b>	<b>3.3</b>
46 feet	\$31.8	\$88.0	\$56.2	2.8
<b>47 feet (LPP)</b>	<b>\$33.7</b>	<b>\$89.7</b>	<b>\$56.0</b>	<b>2.7</b>

\*Costs include Interest During Construction (IDC) and O&M



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# RECOMMENDED PLAN

-  **DEEPENING:**  
Entrance Channel to ~ River Mile 13  
from existing 40-foot depth to 47 feet
-  **WIDENING:**  
Areas 1 and 2: ~ 100 to 300 feet
-  **NEW TURNING BASINS:**  
Blount Island: ~ 2700' long by 1500' wide  
Basin Brills Cut: ~ 2500' long by 1500' wide





# RECOMMENDED PLAN (LPP) 47 FEET SUMMARY OF PROJECT COST

(FY14 Discount Rate 3.5% and October 2013 Price Level)

## NED Plan (45 feet)

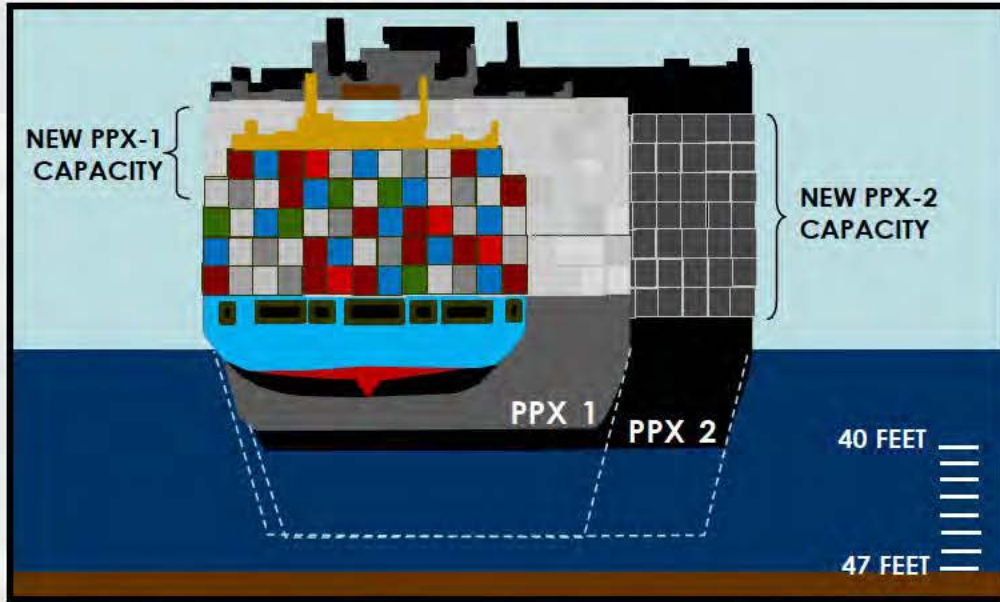
- GNF Cost: \$ 505,400,000
- First Cost (902 Basis): \$ 506,100,000
- **Total Cost: \$ 508,500,000**
- **Federal Share: \$ 312,800,000**
- **Non-federal Share: \$ 195,700,000**
- **BCR: 3.3**

## Recommended Plan (47 feet)

- GNF Cost: \$ 600,200,000
- First Cost (902 Basis): \$ 600,900,000
- **Total Cost: \$ 684,200,000**
- **Federal Share: \$ 312,700,000**
- **Non-federal Share: \$ 371,500,000**
- **BCR: 2.7**



# ECONOMICS



**CONCEPTUAL RENDERING:  
ADDITIONAL TEU CAPACITY  
AT 47-FOOT DEPTH**



TRANSPORTATION SAVINGS PER TEU BY TRADE ROUTE			
	40'	47'	SAVINGS
PANAMA / SUEZ	\$1,104.75	\$965.70	\$139.05
EUROPE	\$386.75	\$319.53	\$67.22
SOUTH AMERICA	\$532.86	\$516.30	\$16.56

# ENGINEERING

**Project Datums:** In compliance with current regulations  
(vertical: MLLW tied to NAVD 88; horizontal: NAD 83)

**Dredging Quantities:** ~18 million cubic yards of material to new ODMDS

**Blasting:** Probable (depends on selected contractor's dredging equipment)

**Advanced Maintenance:** Strategically located to maintain existing level of service (same annual dredging frequency as existing conditions)

NEW TURNING BASINS

WIDENING AREAS

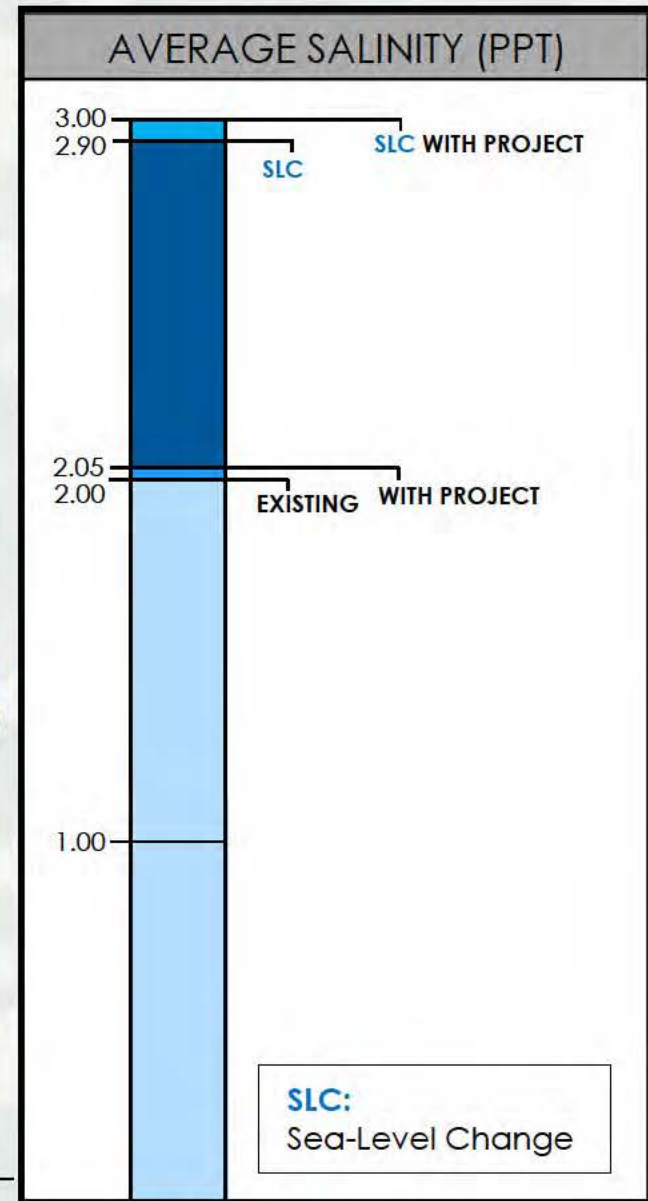
DEEPENING (includes widening & turning basin areas)

RECOMMENDED ADVANCE MAINTENANCE AREAS



# SEA-LEVEL CHANGE

- Used current guidance (EC 1165-2-212)
- Results of analysis for the 50-year period, 2018-2068:
  - Low: 0.39 feet
  - Intermediate: 0.87 feet
  - High: 2.4 feet
- **Conclusion for Navigation:**
  - Based on these sea-level rise projections and elevations of current and planned port facilities, no impacts on navigation and minor impacts on port facilities
- **Conclusion for Salinity Impacts:**
  - Majority of salinity changes will occur due to sea-level change; only minor impacts attributable to the project



# ENVIRONMENTAL IMPACTS & MITIGATION



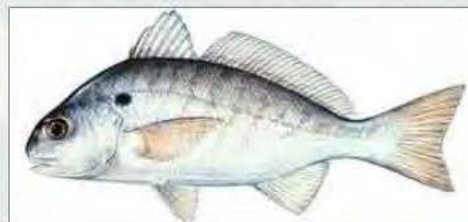
## MINOR INCREASES IN SALINITY:



**Wetlands:**  
395 acres affected by minor increase in salinity stress



**Submerged Aquatic Vegetation (SAV):**  
180 acres affected by minor increase in salinity stress



**Fish Distribution:**  
<5% change (minor impact to species distribution)

## MITIGATION

- 638 acres of Conservation Lands
- Monitoring



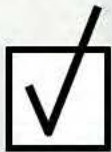
# ENVIRONMENTAL COMPLIANCE



**SEIS prepared and coordinated**



**Endangered Species Act Coordination (USFWS)**



**Endangered Species Act Coordination (NMFS)**



**Essential Fish Habitat Coordination (NMFS)**



**Cultural Resources Coordination**



**Coastal Zone Consistency**



# PUBLIC/AGENCY INVOLVEMENT

## Scoping

- Scoping letters issued, 2007
- Notice of Intent (NOI) to prepare a Draft Supplemental Environmental Impact Statement (DSEIS) published in Federal Register, 2007
- Public Meetings
  - ▶ 6 Public Meetings or Workshops
  - ▶ Bi-Monthly Teleconferences

## Agency Coordination

- Feasibility Scoping Meeting held February 7, 2008
- Cooperating Agency Letters: 2011
- Meetings on Ecological Modeling: March and October 2012
- Monthly Teleconferences
- Endangered Species Act (ESA) coordination with USFWS (November 2013) and NMFS (February 2014)
- Magnuson-Stevens Fishery Conservation and Management Act (EFH) coordination with NMFS (January 2014)



# ENVIRONMENTAL OPERATING PRINCIPLES



Foster sustainability



Proactive consideration of environmental consequences



Mutually supporting economic and environmentally sustainable solutions



Accountability for activities which may impact human and natural environments



Collaborative leveraging of scientific, economic, and social knowledge to understand environmental context



Consideration of environment and risk management in context of project and program lifecycle



Open, transparent process respecting views of individuals and groups interested in Corps activities



# RECOMMENDED NATIONAL PRIORITIES



Reduce deficit



Create jobs/restore economy



Improve resiliency and safety



Preserve and protect the environment



Maintain global competitiveness



Increase energy independence



Improve quality of life



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# REVIEWS

- FSM Guidance Memorandum: February 2008**
- Tentatively Selected Plan (TSP) Milestone Meeting: May 2013**
- LPP ASA(CW) Approval: May 2013**
- Draft Report DQC/Legal Certification: May 2013**
- Draft Report ATR/HQ Policy Review/IEPR: July 2013**
- Cost Certification/Value Engineering Analysis: 2013**
- Final ATR/DQC/Legal Certification: February 2014**
- ECO-PCX and HQ Approval for Use of Ecological Models: January 2014**
- DE Transmittal Notice: February 2014**



# RISK MANAGEMENT

## STUDY PHASE

- The Walla Walla MCX completed a CSRA and determined that a 26% contingency should be included
- State of the art modeling performed to evaluate potential impacts
- Project impacts evaluated independently and in combination with future water withdrawal and sea level rise
- VE Study, DQC, ATR and IEPR completed with improvements incorporated

## CONSTRUCTION PHASE

- Risk register and risk management plan are living documents
- PED activities will include data collection, VE, and Industry Days
- Implement Lessons Learned from previous deepening contracts
- Best acquisition strategies developed to minimize costs and increase quality (eg., structure, scope and number of contracts)
- Plans & Specifications for all contracts will undergo DQC, ATR, and BCOE reviews



# PROJECT IMPLEMENTATION

## (Key Dates)

### Feasibility Phase:

- Chief of Engineers Report: April 2014
- OMB Review: May – August 2014
- ASA Process Report and Transmittal to Congress: September 2014

### Preconstruction Engineering and Design (PED) Phase:

- Contributed Funds from JAXPORT: June 2014 – September 2015

### Construction Phase:

- Subject to Authorization and Appropriations: 2016 – 2022



# CONCLUSIONS

## We Can't Wait Project

- Selected in 2012 for the President's "We Can't Wait" Initiative reducing the study schedule by 14 months

## National Infrastructure Improvements

- Recommended Plan: Deepen 7 feet from 40 to 47 feet
- Direct return on investment (BCR 2.7)

## Economic benefit

- Project Cost at FY14 price levels yields \$56M in net annual benefits

## Comprehensive mitigation plan:

- Includes 638 acres of conservation land purchase
- Coordinated extensively with stakeholders

## Project Support

- Study support and participation by Local community, state, and Federal agencies
- Committed stakeholders and non-federal sponsor (JAXPORT)



# CLOSING COMMENTS



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# LESSONS LEARNED

- **Aggressive Schedule: “We Can’t Wait” Initiative Challenges**
  - **Benefits of the Planning Charette**
  - **Moving Forward with Uncertainty**
  - **Public Perception**
  - **Agency Challenges**
- **Agency Involvement: Start early particularly under an aggressive schedule**
- **Public workshops and meetings: Recommended even when not required by policy**

