

PUBLIC SCOPING MEETING AGENDA

San Juan Harbor, Puerto Rico

Integrated Feasibility Study & Environmental Impact Statement

- Poster/Comment Session: 9:00 a.m. – 10:00 a.m.
- Presentation: 10:00 a.m. – 10:30 a.m.
- Poster/Comment Session: 10:30 a.m. – 12:00 p.m.



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NAVIGATION STUDY

San Juan Harbor, Puerto Rico Public Scoping Meeting

Integrated Feasibility Study
and Environmental Impact Statement

Presented by:
Milan Mora, Project Manager
U.S. Army Corps of Engineers, Jacksonville District

November 5, 2015



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PUBLIC SCOPING MEETING PURPOSE

San Juan Harbor, Puerto Rico

Integrated Feasibility Study & Environmental Impact Statement



- Discuss study purpose and process
- Provide a venue for public comment/input

**End of Scoping Comment Period:
November 15, 2015**



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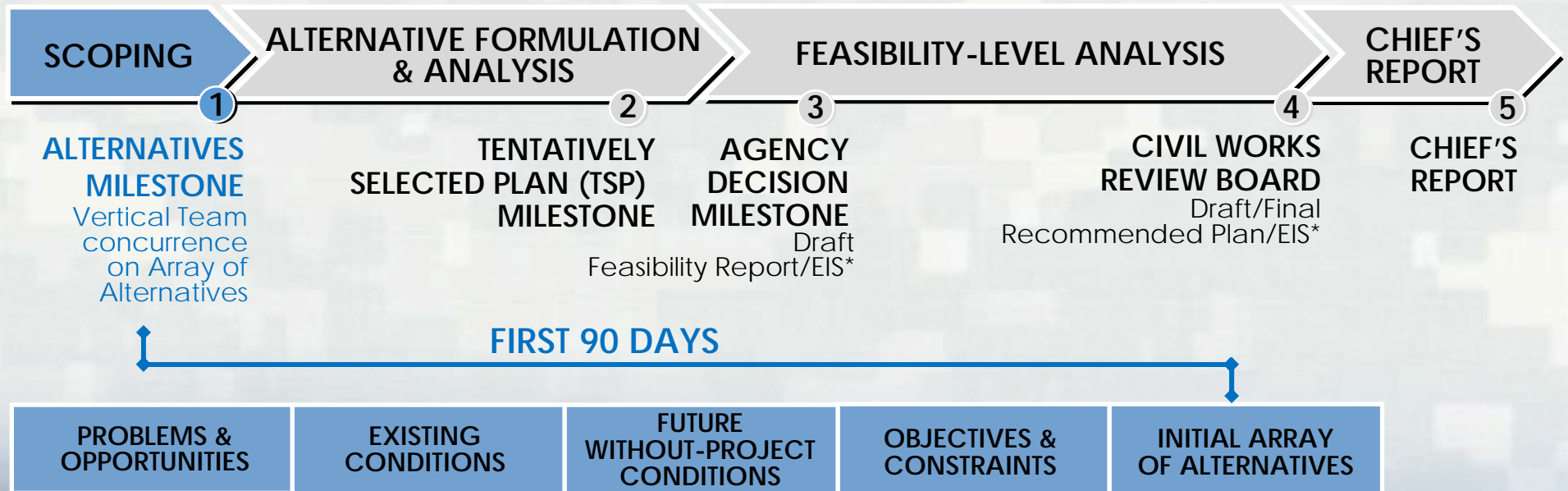


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SAN JUAN HARBOR

FEASIBILITY STUDY SCHEDULE (UP TO 36 MONTHS)

* Additional Public Comment Periods



SAN JUAN HARBOR MAJOR DEEPENING/ WIDENING EVENTS



1917

Federal interest in navigation in San Juan Harbor starts

1935

Entrance Channel deepened/widened 38 feet x 800 feet

1999

Army Terminal Channel deepened to 40'
Puerto Nuevo Channel deepened to 39'
Graving Dock Channel deepened to 36'

2001




Entrance Channel deepened 56-49 feet,
Anegado 46-40 feet

Today

Study Potential Deepening/Widening



SAN JUAN HARBOR EXISTING PROJECT

-  Existing Depths
-  Authorized Channel Depths/Not Constructed
-  Authorized Channel Limits



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SAN JUAN HARBOR NAVIGATION CONCERNS



Difficult Winds
and Waves



Limited Width
in Turning Basins



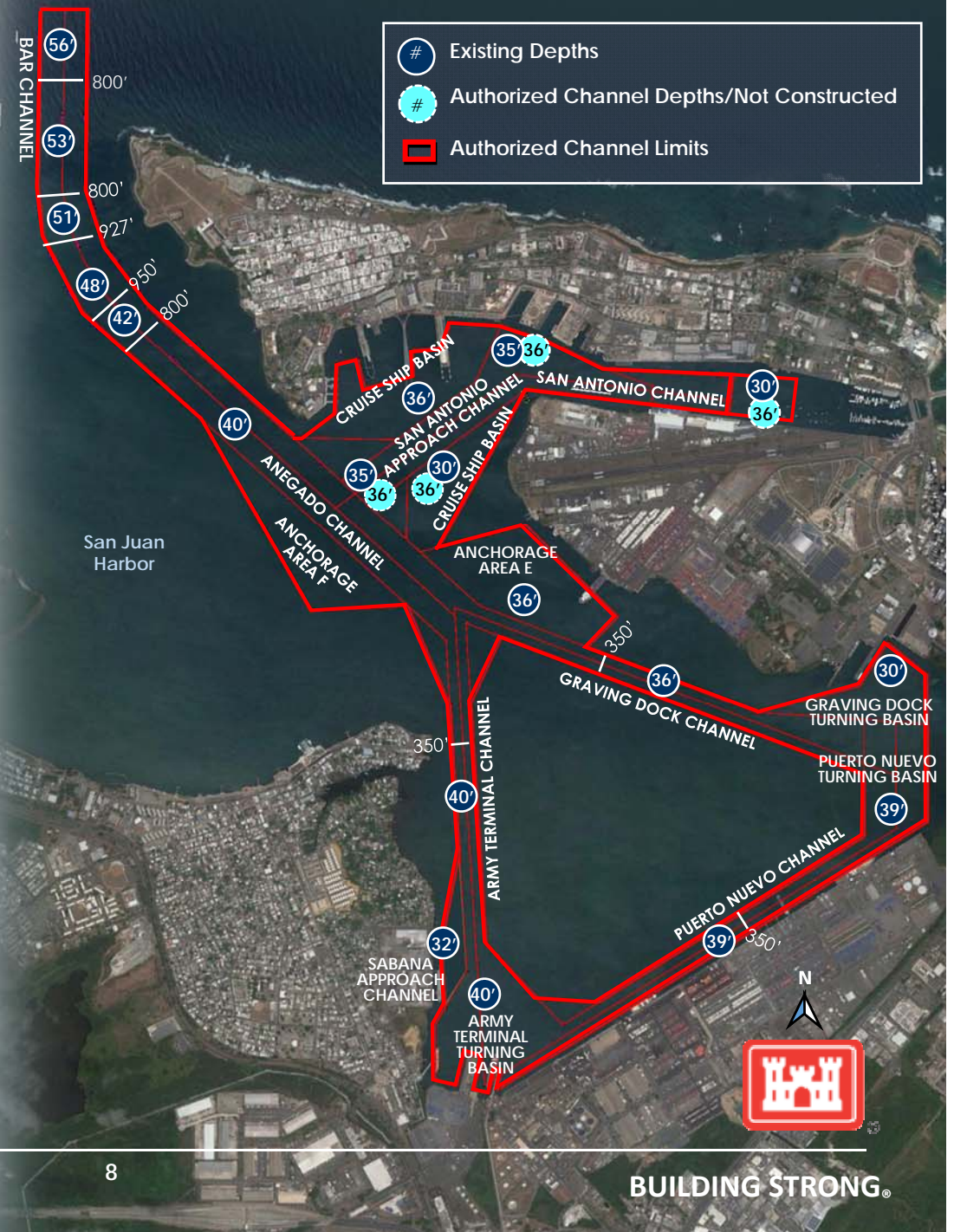
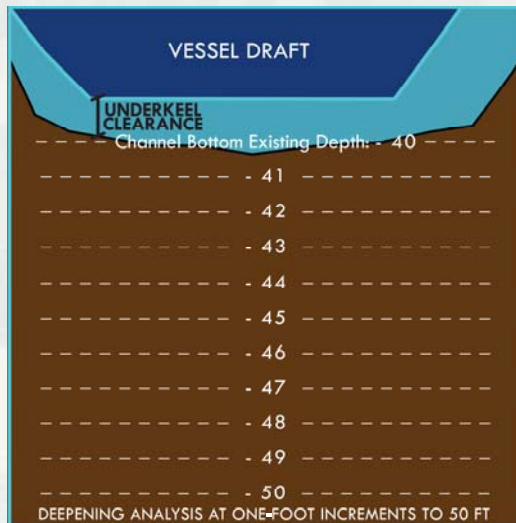
Insufficient Channel
Depths and Widths



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SAN JUAN HARBOR ECONOMIC CONSIDERATIONS

- Deepening main channels up to 50 feet
- Widening main channels up to an additional 50 feet
- Evaluate lesser increments of widening and deepening
- Other alternatives will also be evaluated



TRENDING TO LARGER VESSELS

EVOLUTION OF MODERN CRUISE SHIPS

Year	Class	Gross Tonnage (GT)	Cabins	Length (ft)	Beam (ft)	Design Draft (ft)
2009	Oasis of the Sea **	220,000	2,712	1,181	154	30
2006	Freedom of the Sea	158,000	1,816	1,112	127	28
1999	Voyager of the Sea *	137,300	1,557	1,021	127	28
1996	Grandeur of the Sea	74,000	975	918	106	25
1990	Fantasy	70,400	1,028	856	103	26
1982	Song of America	37,600	707	704	93	22
1970	Song of Norway	18,400	377	552	79	22

* Largest cruise vessel size referenced in the San Juan Harbor 2002 Limited Reevaluation Report

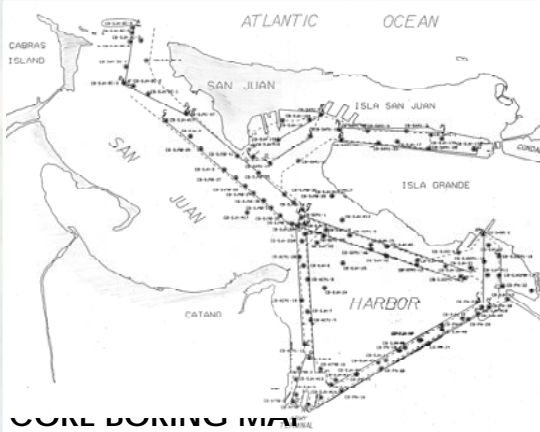
** Mega Cruise ship class slated to call San Juan Harbor in 2016



Source: <http://www.largestships.com/>



SAN JUAN HARBOR ENGINEERING CONSIDERATIONS



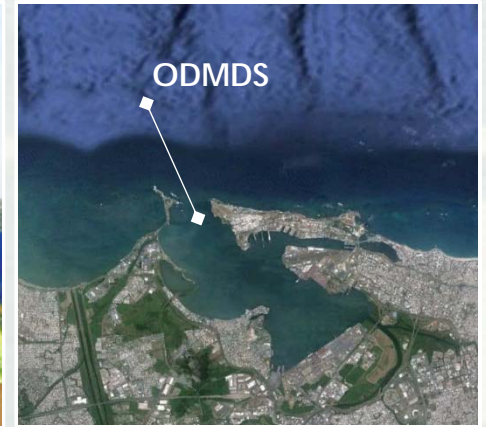
Geotechnical
Considerations
& Data Gathering



Ship Simulation



Dredging
Methodologies



Disposal Options



SAN JUAN HARBOR

ENVIRONMENTAL CONSIDERATIONS

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) OF 1969

NEPA requires a federal agency to consider, document & disclose the effects of the project on the quality of the human environment for decision making purposes.



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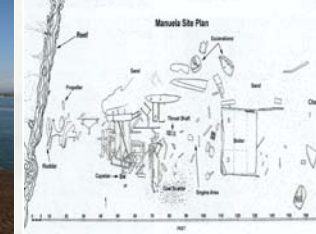
SAN JUAN HARBOR ENVIRONMENTAL CONSIDERATIONS

- Aesthetics
- Air Quality
- Archaeological/Cultural Resources
- Essential Fish Habitat
- Contaminants
- Navigation
- Noise
- Recreation
- Benthic Resources
- Socioeconomics
- Threatened and Endangered Species
- Turbidity
- Blasting
- Wetlands
- Wildlife Resources

AESTHETICS



CULTURAL RESOURCES



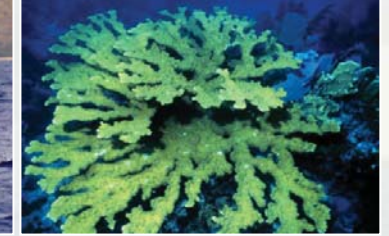
ESSENTIAL FISH HABITAT



THREATENED & ENDANGERED SPECIES



CORAL/HARDBOTTOM



TURBIDITY



CONTAMINANTS



RECREATION



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SAN JUAN HARBOR, PUERTO RICO

Integrated Feasibility Study & Environmental Impact Statement

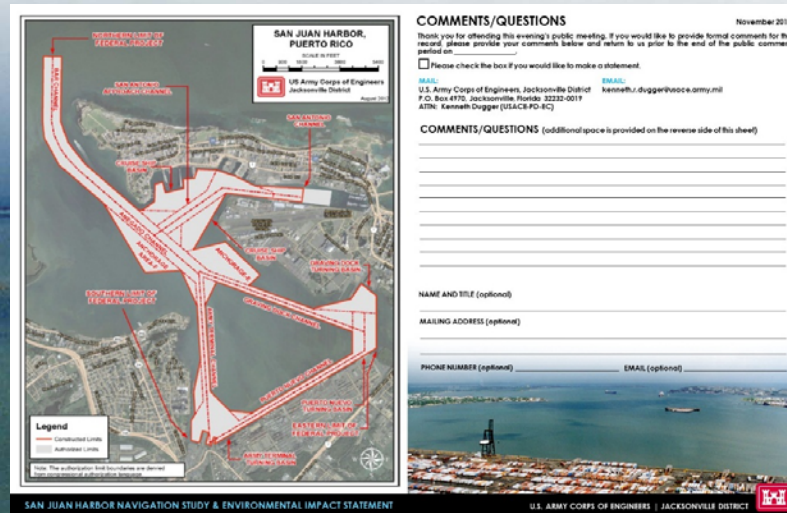
For Additional Information, Contact:

MAIL: U.S. Army Corps of Engineers
Jacksonville District
P.O. Box 4970, Jacksonville, Florida 32232-0019
ATTN: Milan Mora, Project Manager
EMAIL: Millan.A.Mora@usace.army.mil

For Current Comment Period, Contact:

MAIL: U.S. Army Corps of Engineers
Jacksonville District
P.O. Box 4970, Jacksonville, Florida 32232-0019
ATTN: Paul DeMarco, Project Biologist
EMAIL: Paul.M.Demarco@usace.army.mil

**End of Scoping Comment Period:
November 15, 2015**



SAN JUAN HARBOR, PUERTO RICO
SCALE: AS SHOWN
U.S. Army Corps of Engineers
Jacksonville District

COMMENTS/QUESTIONS November 2015
Thank you for attending this evening's public meeting. If you would like to provide formal comments for the record, please provide your comments below and return to us prior to the end of the public comment period on _____.

Please check the box if you would like to make a statement.

MAIL: U.S. Army Corps of Engineers, Jacksonville District
P.O. Box 4970, Jacksonville, Florida 32232-0019
ATTN: Kenneth Dugger (USACE P.O. #2)

EMAIL: kenneth.dugger@usace.army.mil

COMMENTS/QUESTIONS (additional space is provided on the reverse side of this sheet)

NAME AND TITLE (optional) _____
MAILING ADDRESS (optional) _____
PHONE NUMBER (optional) _____ EMAIL (optional) _____

Legend
Construction Limits
Authorized Limits

Note: The authorization, EIS documents and permit are subject to change without notice.

SAN JUAN HARBOR NAVIGATION STUDY & ENVIRONMENTAL IMPACT STATEMENT
U.S. ARMY CORPS OF ENGINEERS | JACKSONVILLE DISTRICT



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