WELCOME

GULFPORT HARBOR, MS FEASIBILITY STUDY

Gulfport Harbor Feasibility Study

The US Army Corps of Engineers and the Mississippi State Port Authority at Gulfport are conducting a study to determine the feasibility of deepening and/or widening the channel leading to and from port facilities in Gulfport. The study includes economics, engineering, and environmental conditions.

Meeting Format

Information about our study process, the port, and the anticipated analyses for economics, environmental, and engineering are presented this evening at various stations as shown below. It is a self-guided layout. You are welcome to visit every station, at no particular order. If you choose, you may visit the comment station only.

Your Input is Welcomed

Why?

- Your input will assure that concerns have been considered during the study.

How?

Comment forms provided at the tables

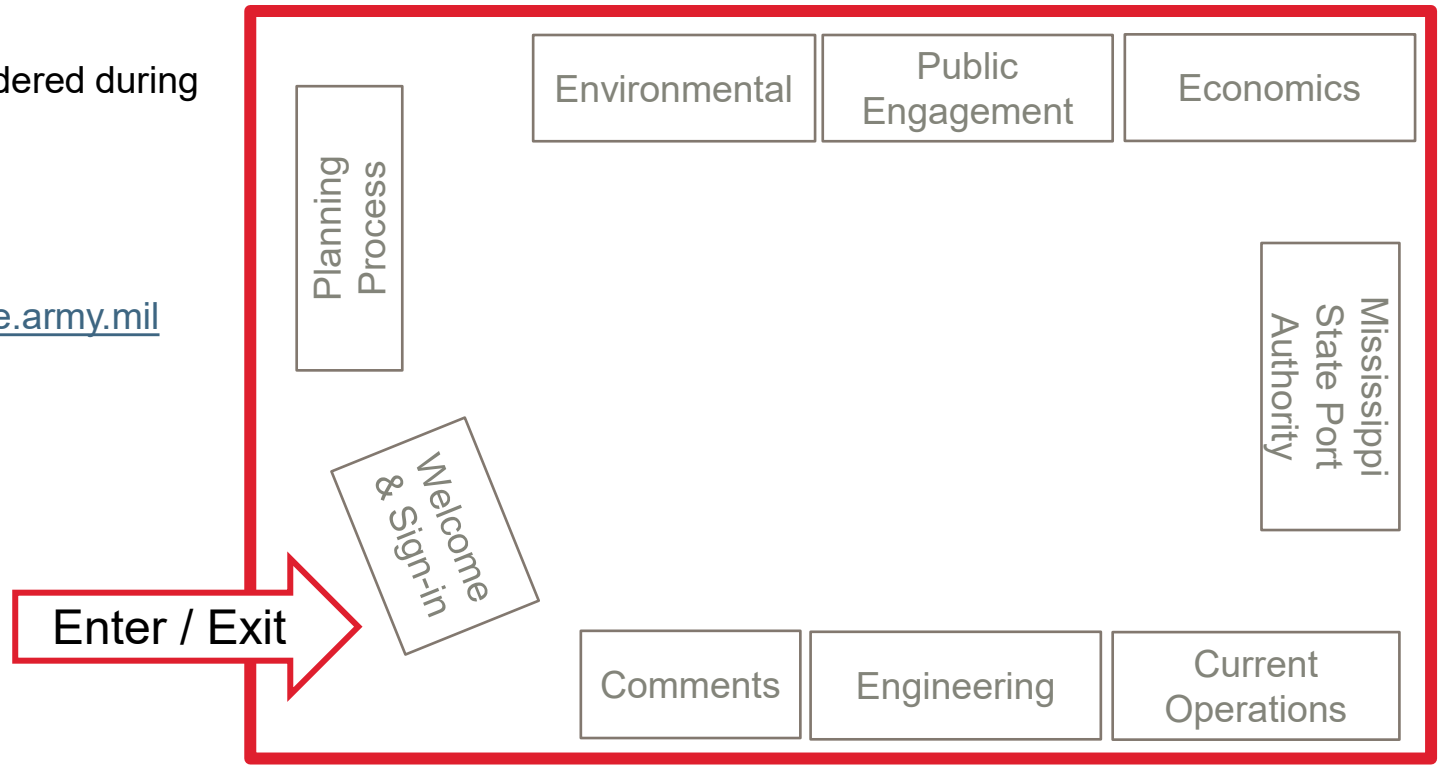
- Comment forms provided at the tables
- Email cesam-gulfportharbormsfeasibilitystudy@usace.army.mil
- Postal Mail:

  US Army Corps of Engineers
  Attn: Project Management
  PO Box 2288
  Mobile, Alabama 36628

When?

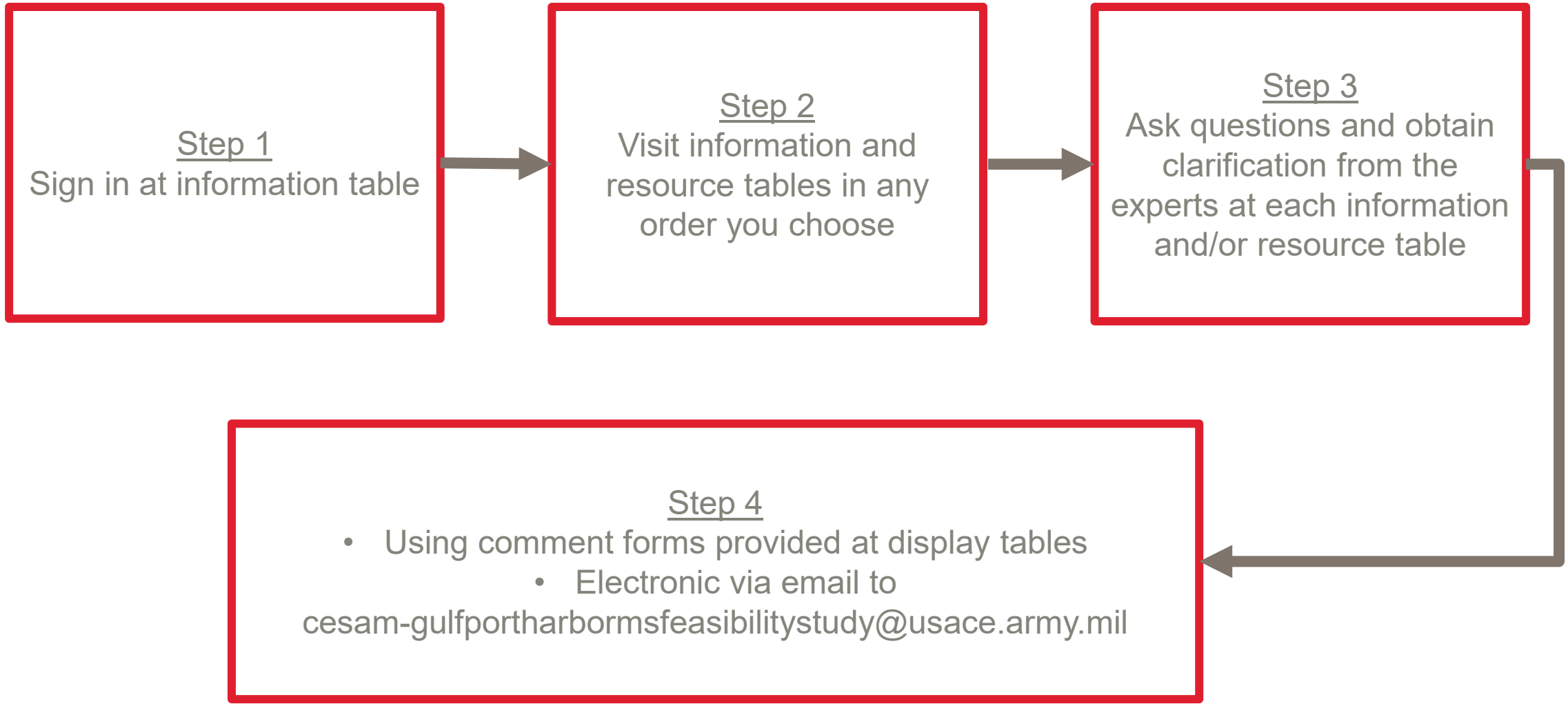
- Comments are due by July 21, 2023

Room Layout



PUBLIC MEETING WORKFLOW

GULFPORT HARBOR, MS FEASIBILITY STUDY



PLANNING PROCESS

GULFPORT HARBOR, MS FEASIBILITY STUDY

Study Authority: Section 216 of the Flood Control Act of 1970 (33 U.S. Code of § 549a) which authorizes the Secretary of the Army, acting through the Chief of Engineers, to review the operation of Gulfport Harbor Project due to significantly changed physical, economic or environmental conditions and to report to Congress with recommendations on the advisability of modifying the structures or their operation.

STUDY MILESTONES

USACE 6-STEP PLANNING PROCESS

1 Problems, Opportunities, Objectives, Constraints (POOCs)
POOCS are identified early in the process with input from all affected disciplines and stakeholders and then refined throughout the study as necessary.

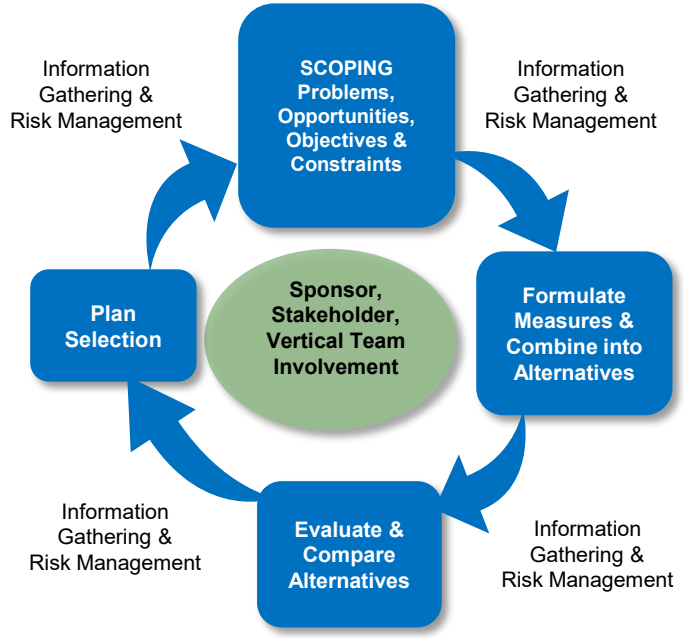
2 Formulate Alternative Plans
Identify the measures that could be implemented to address the problems and objectives. Alternative plans combine one or more "management measures."

3 Compare Alternative Plans
Identify the most important effects and compare alternative plans against each other across these effects. Rank plans or identify advantages and disadvantages of each.

4 Inventory and Forecast Conditions
What are the current conditions, and how will these change in the future if no action is taken? The "Future Without Project," or FWOP is developed.

5 Evaluating Alternative Plans
Consider how alternative plans will perform using models and other data to decide whether plans should be further considered.

6 Plan Selection
Early iterations are a winnowing process. The final iteration of planning completes the planning process with Step 6, when the single best alternative future path is chosen from all plans considered.

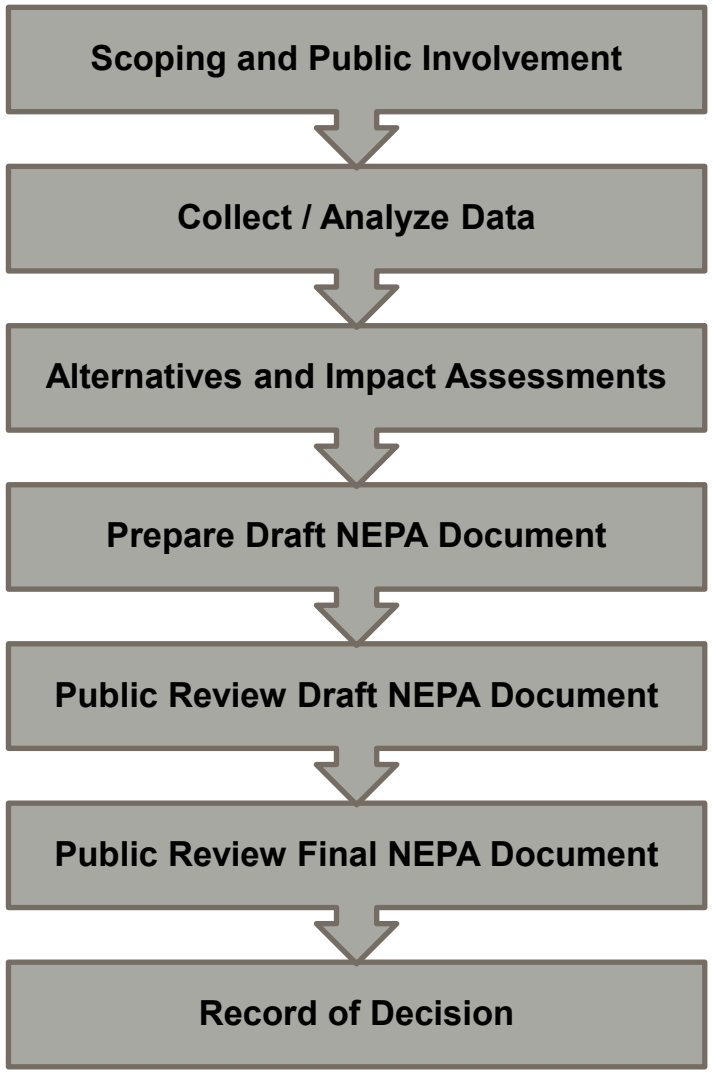


FOUR P&G ACCOUNTS

USACE planning process considers the four "Principles and Guidance" accounts outlined in Water Resources Development Act of 1986: National Economic Development (NED), Regional Economic Development (RED), Other Social Effects (OSE), and Environmental Quality (EQ).

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) PROCESS

GULFPORT HARBOR, MS FEASIBILITY STUDY



NEPA Document Product

- The NEPA document will tier from the *Gulfport Harbor Navigational Channel Final Supplemental EIS, Gulfport, Mississippi (2009)* to assess potential impacts associated with navigational improvements at Gulfport Harbor, Harrison County.
- The NEPA document identifies baseline conditions of the affected environment evaluated against the proposed action and alternatives.
- The NEPA document will evaluate impacts from a proposed action and alternatives, including a No Action alternative. Potential impacts will be disclosed in an Environmental Assessment or Supplemental Environmental Impact Statement, to be determined by level of significance.
- Analysis of effects include:
  - Natural resources (water, air, wildlife and habitat)
  - Cultural resources
  - Environmental Justice and socioeconomics
  - Land use, recreation, and aesthetics
- Opportunities for public involvement in the planning process:
  - Public Scoping Meeting
  - Public 45-Day Review of Draft NEPA document

Anticipated Federal and State Cooperating Agencies

- US Geological Survey (USGS)
- US Fish and Wildlife Service (USFWS)
- NOAA National Marine Fisheries Service (NMFS)
- US Environmental Protections Agency (USEPA)
- Mississippi Department of Marine Resources (MDMR)
- Mississippi Department of Archaeology and History (MDAH)
- Mississippi Department of Environmental Quality (MDEQ)
- Mississippi Department of Transportation (MDOT)
- Mississippi Secretary of State (MSoS)

ENVIRONMENTAL CONSIDERATIONS

GULFPORT HARBOR, MS FEASIBILITY STUDY

Protected Species and Natural Resources
- Gulf Sturgeon and Critical Habitat
- Piping Plover and Critical Habitat
- Red knot
- Sea Turtles Foraging and Nesting
- Marine Mammals - Whales and Manatee
- Giant Manta Ray
- Submerged Aquatic Vegetation
- Benthic Organisms & Oysters

Other Considerations
- Air Quality
- Noise
- Sediment characterization
- Environmental Justice
- Socio-Economics

Essential Fish Habitat (EFH)
- Waters and substrates necessary for fish spawning, breeding, feeding and reaching maturity
- Focus on aquatic physical, chemical, and biological properties
- Effective habitat management and protection of marine fisheries
- Fisheries of concern:
  - Red drum
  - Shrimp
  - Stone crab
  - Reef fish
  - Coastal pelagic & Migratory species

Water Quality / Coastal Concerns
- Water quality changes (Salinity, Nutrients, Dissolved Oxygen, & Temperature)
- Fisheries, Oyster, & Benthic community
- Hydrodynamic circulation changes in Mississippi Sound
- Wave effects due to navigation traffic
- Sedimentation transport changes

New Work and/or Future Maintenance Disposal Options
- Ocean Dredged Material Disposal Site (ODMDS)
- Existing open-water sites
- Potential Beneficial Use opportunities:

- Island Creation
- Littoral Zone Placement
- Marsh Restoration
- Shoreline Placement
- Oyster Habitat Restoration
- Other Sites

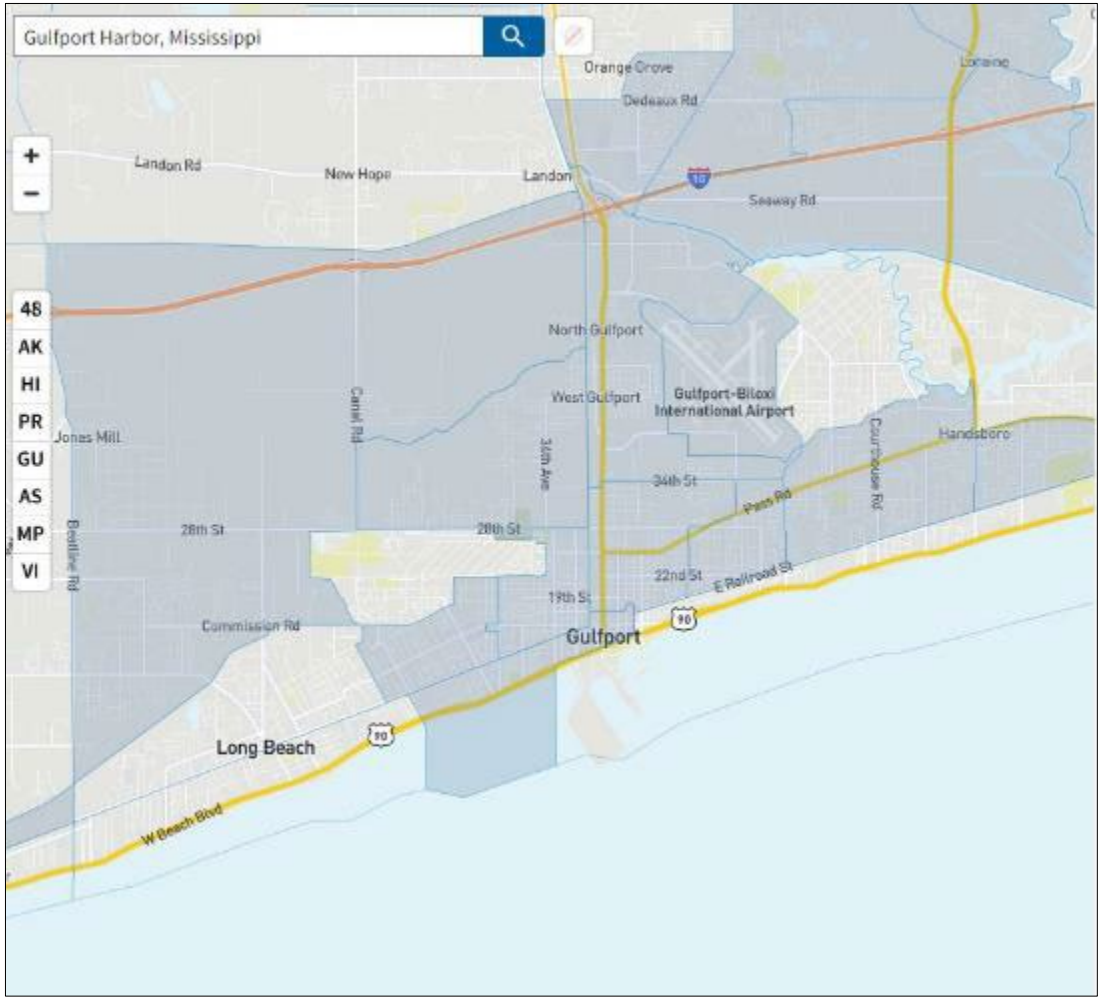
Cultural Resources Considerations
- Section 106 of National Historic Preservation Act consultation with State Historic Preservation Officer, National Park Service, and federally recognized tribes
- Phase I Submerged Cultural Resources survey to identify potential shipwrecks within the navigation improvement footprint, and within potential new placement site(s) which may need to be avoided or otherwise mitigated
- Ship Island consultation for potential effects to recorded historic shipwrecks in vicinity

ENVIRONMENTAL JUSTICE

GULFPORT HARBOR, MS FEASIBILITY STUDY

Demographic Overview

Project Boundaries: North at I-10, South at Highway 90 and the gray area adjacent to the Port, East at Beatline Road, and West at Gulfport-Biloxi International Airport



Project Boundaries Demographics

Disadvantaged Census Tracts: 9

Estimated Population: 27,600

Ethnicity: Black or African American – 45%
White – 39%
Asian - 0.01%
Hispanic or Latino – 0.05%
Two or more ethnicities - 0.02%

Threshold Burden (Criteria) Exceedances Overview

Climate Change: Projected Flood Risk/ Expected Building Loss Rate

Energy: Energy Cost

Health: Asthma/Diabetes/ Heart Disease/Low Life Expectancy

Low Income: Income is less than or equal to twice the federal poverty level

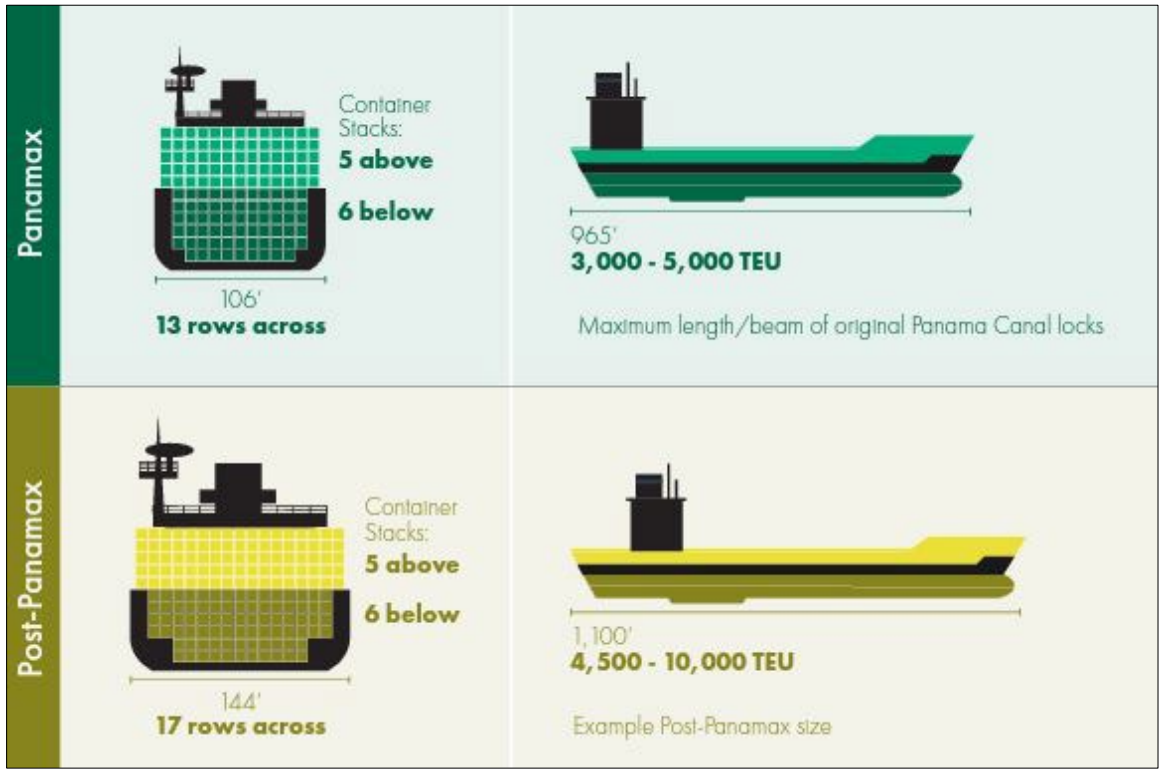
Housing: Making less than 80% of the area median family income and spending more than 30% of income on housing

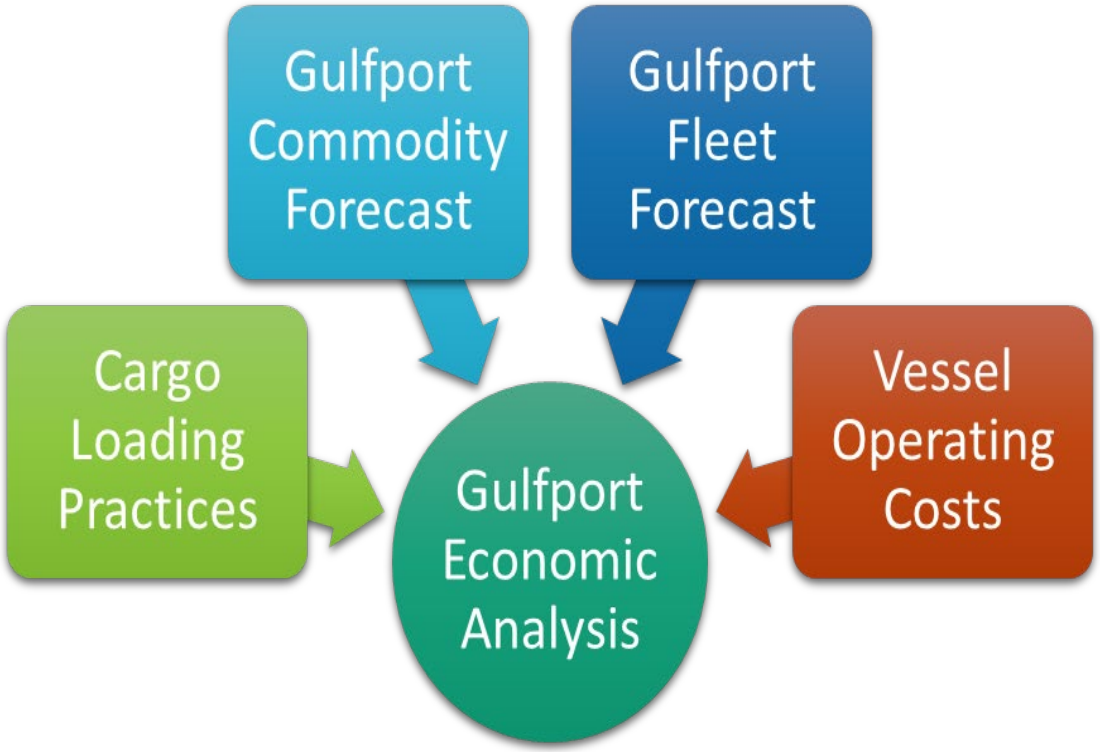
Workforce Development: Low median income, Poverty/ Unemployment

Legacy Pollution: presence of one or more Formerly Used Defense Site within the tract/Superfund Sites

ECONOMICS ANALYSIS

GULFPORT HARBOR, MS FEASIBILITY STUDY





Concepts behind Gulfport Economic Analysis:

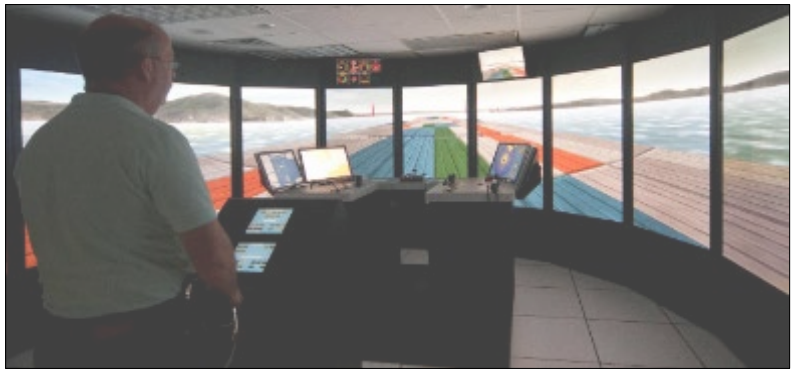
- Larger (Post-Panamax) vessels call at ports with deeper channels.
- Deeper channels allow for greater vessel loading, resulting in economies of scale and more efficient trade.
- Total voyage distance and amount of cargo are main determinants of vessel operating costs.
- Project benefits are reduction in transportation costs for goods shipped via a deeper/wider channel to Gulfport.

ENGINEERING CONDITIONS

GULFPORT HARBOR, MS FEASIBILITY STUDY

Channel Analysis and Design:

- Determine ship motions and controllability to aid design of safe and efficient channel alignments, widths, and depths.

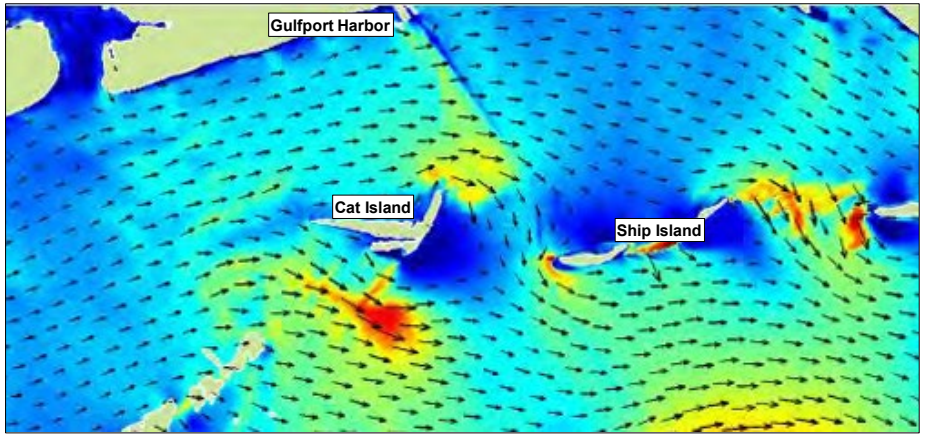


Geotechnical Investigations:

- Determine the characteristics of subsurface material to identify placement options, aid in channel design, and reduce uncertainty in dredging costs.

Coastal Modeling:

- Evaluate potential changes in hydrodynamics as a result of channel improvements.



Potential Tools:

- *ADCIRC* – Regional water level and circulation
- *CH3D* – Nearshore water level and circulation
- *AdH* – Nearshore water level and circulation
- Delft3D Flow – Nearshore water level and circulation
- Delft3D Mor – Sediment transport and morphological change
- ShipSim – Channel design
- CADET – Channel design

DREDGING AND PLACEMENT

GULFPORT HARBOR, MS FEASIBILITY STUDY

Hopper Dredge

Cutterhead/Pipeline Dredge

Mechanical Dredge

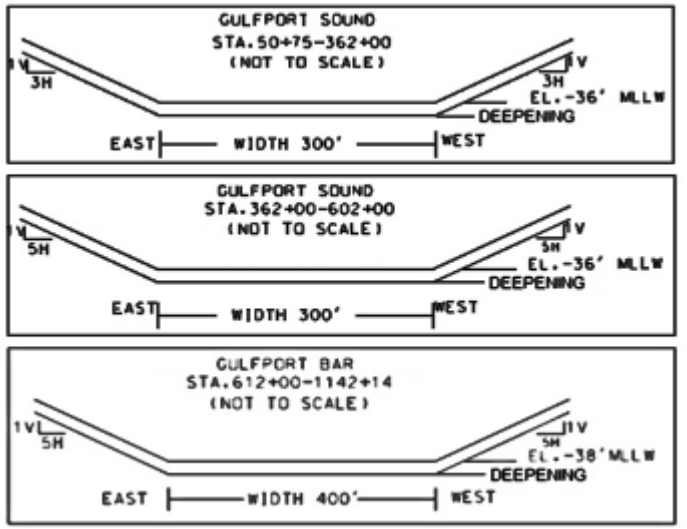
Placement Options

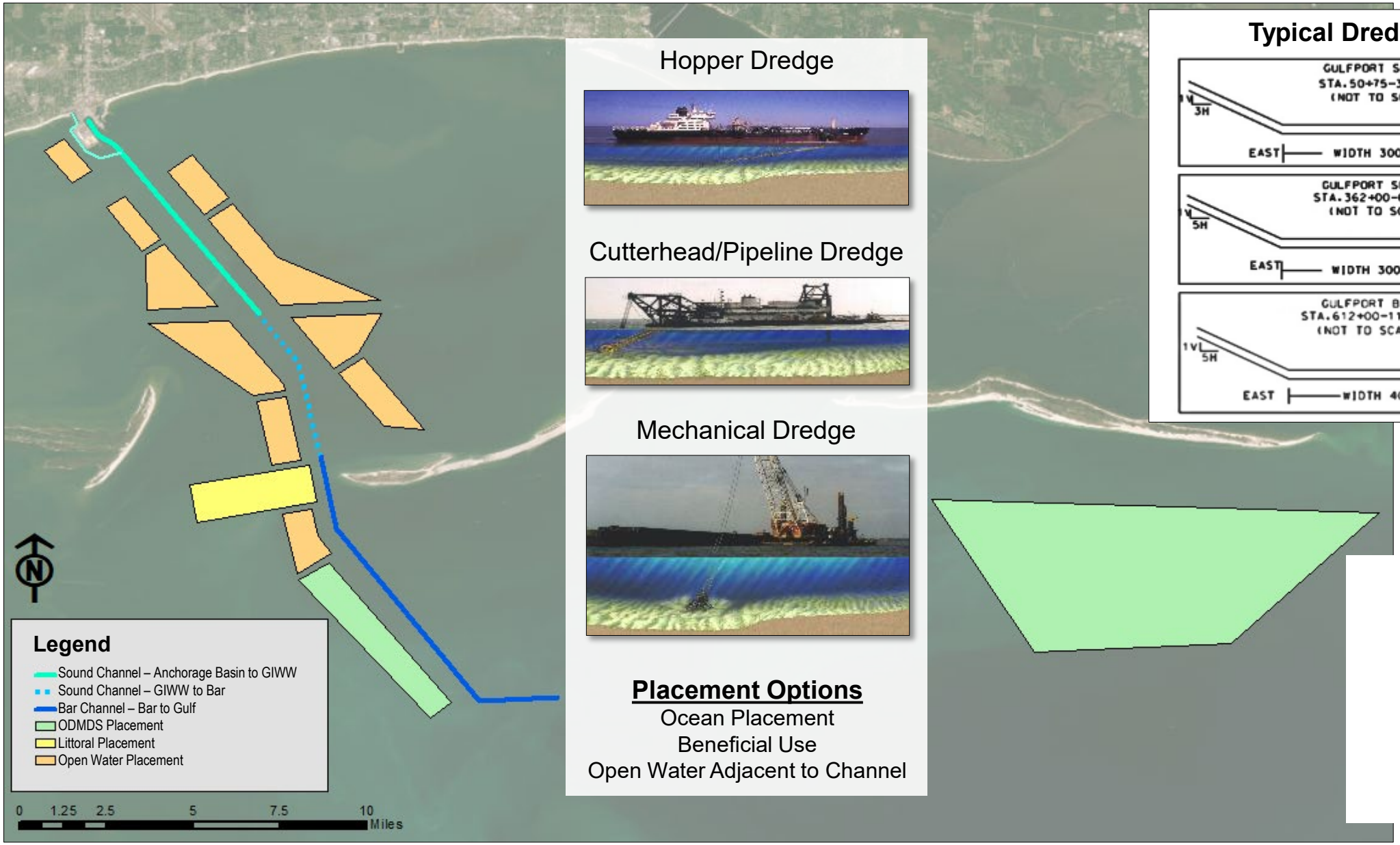
Ocean Placement

Beneficial Use

Open Water Adjacent to Channel

Typical Dredge Templates





Gulfport, MS