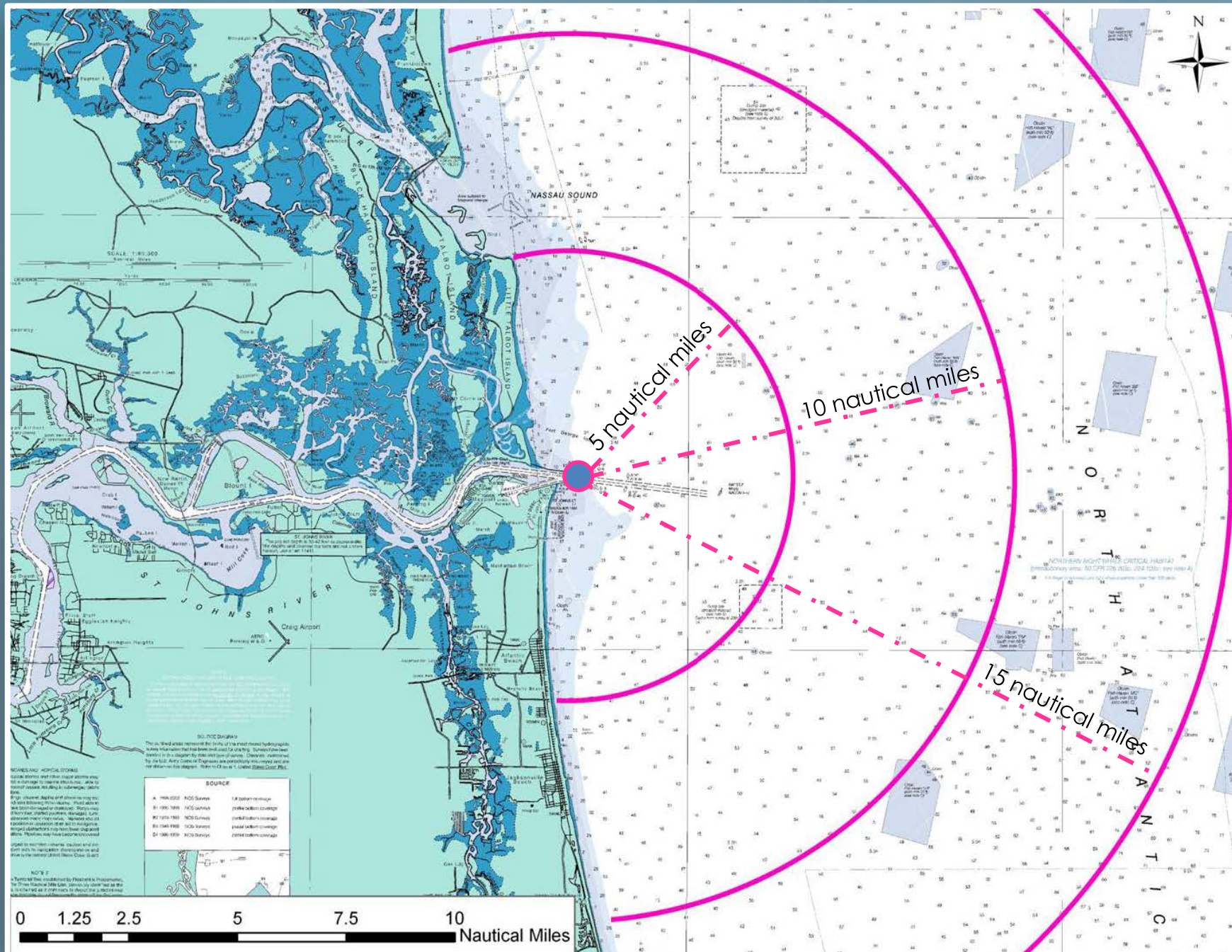


ECONOMIC CONSIDERATIONS

ODMDS Siting Analysis Objective: Provides a framework for economic feasibility for the management of dredged material that will not cause unreasonable degradation of the ocean with respect to the marine environment and human health.

ZONE OF SITING FEASIBILITY ANALYSIS



A Zone of Siting Feasibility analysis evaluates the economic and operational feasibility of various disposal site locations – in this case, measurements of 5 nautical mile (NM) increments – at distances of 5, 10 and 15 NM from the mouth of the St. Johns River.

BENEFITS AND COSTS

Benefits
Costs

U.S. Army Corps of Engineers projects must provide a benefit to cost ratio greater than one. In ODMDS scenarios, the benefits induced by harbor facilities (e.g., transportation savings in the delivery of goods) must outweigh the costs of transporting materials dredged from the Federal channel to the disposal site.



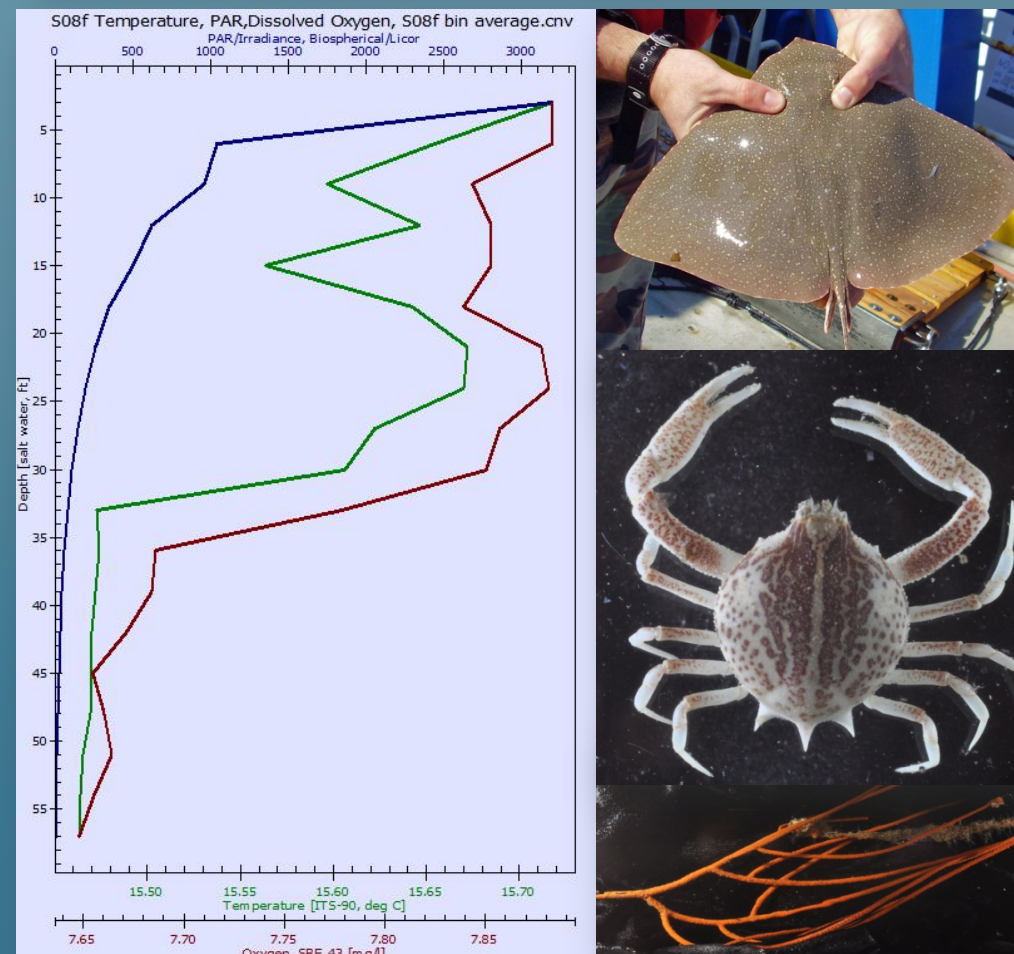
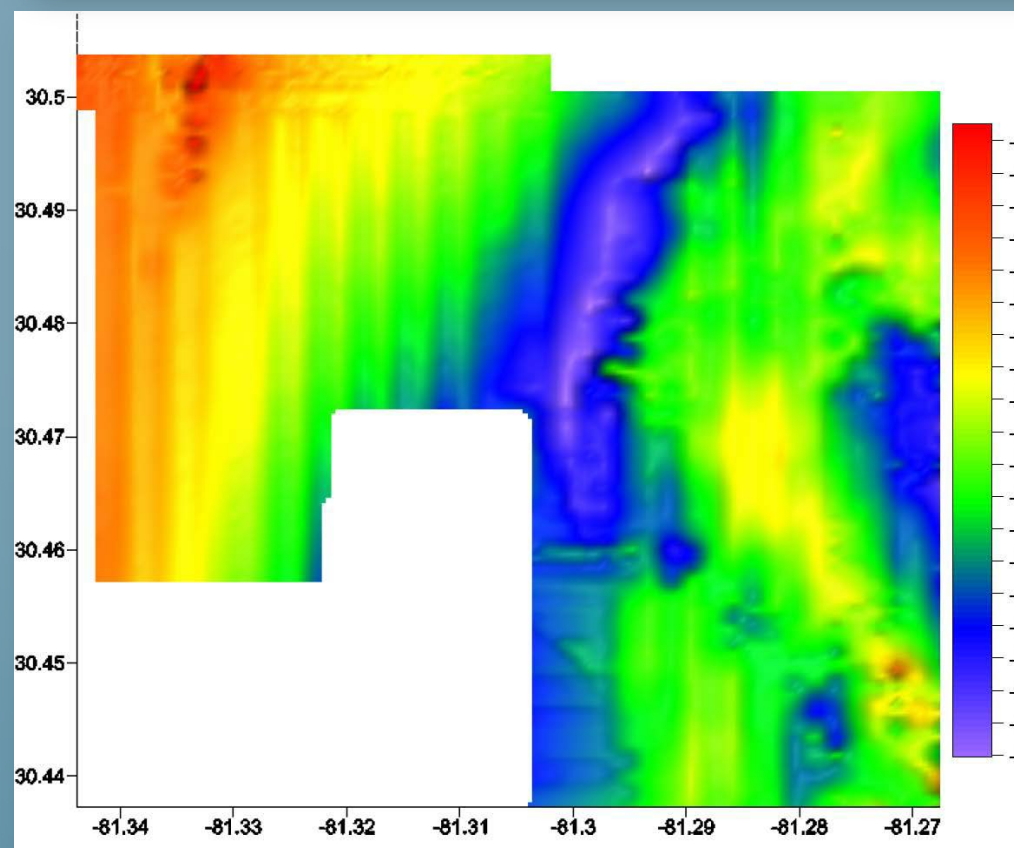
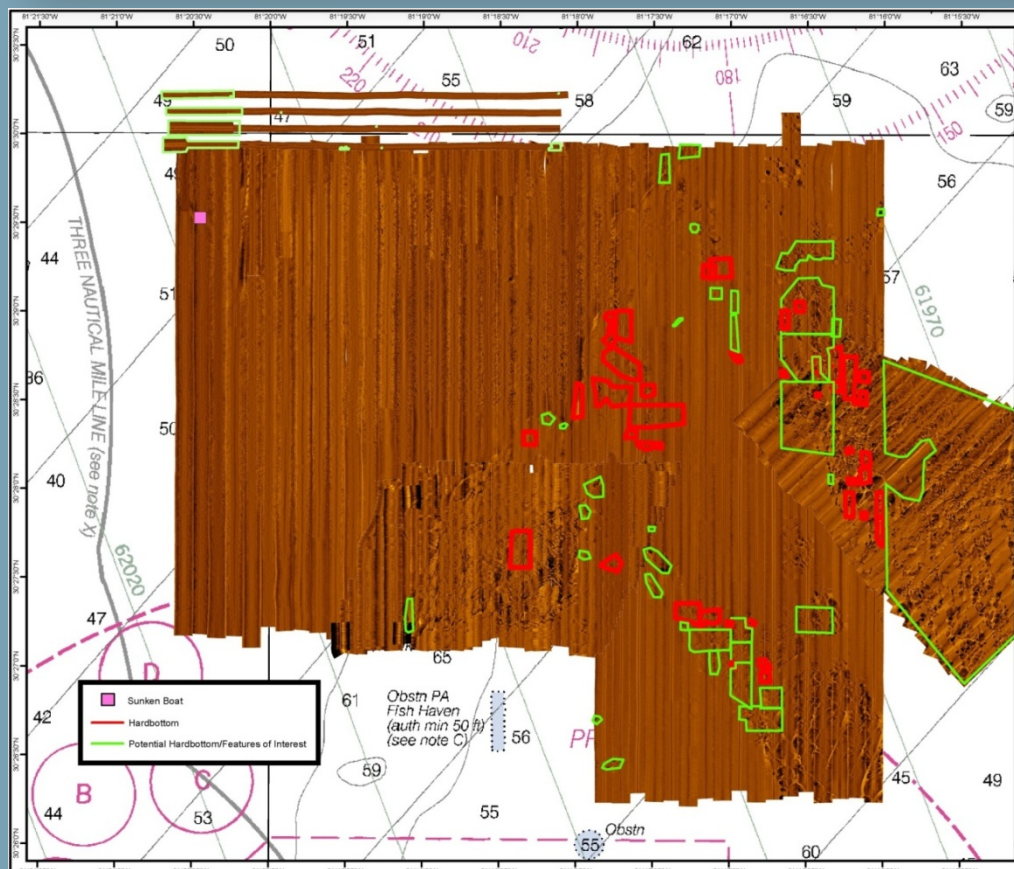
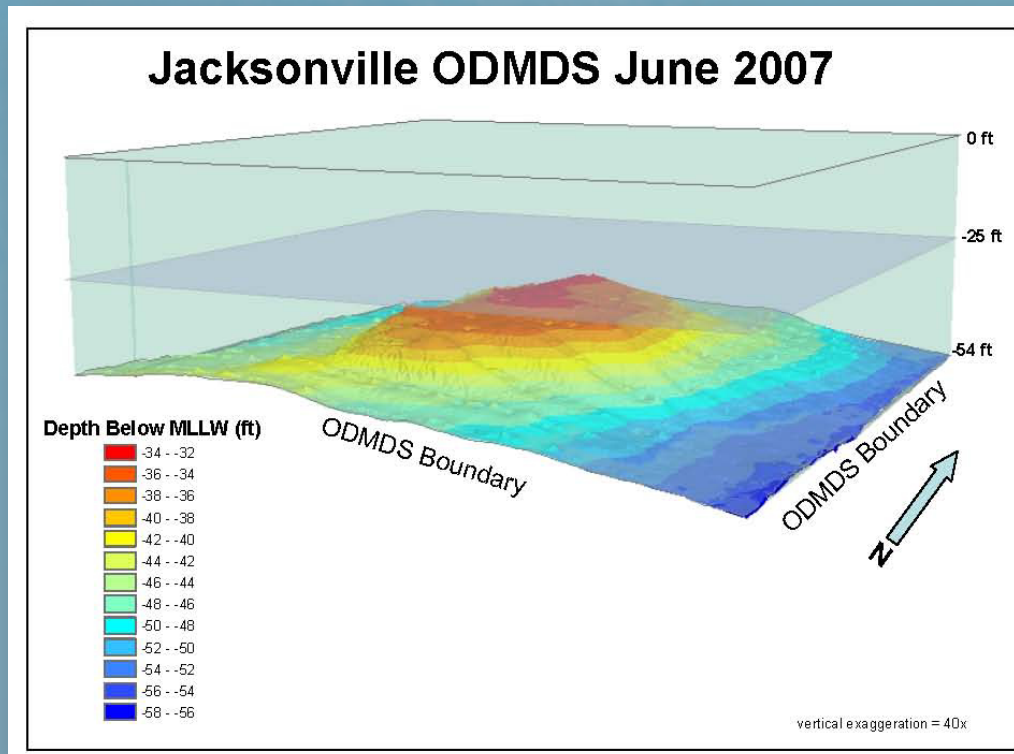
For the ODMDS benefit/cost ratio, benefits are generally static for routine maintenance, but will increase when “new work” – involving expanded or new port facilities, as well as potential channel deepening – is considered.

Costs may vary considerably depending on:

- Beneficial use of dredged material opportunities (e.g. beach placement, nearshore placement, or construction uses)
- Amount of dredged material
- Composition of dredged material
- Distance to disposal options

SURVEYS/MODELING

Surveys and modeling efforts facilitate an informed selection process by providing insight into the environmental landscape, as well as the existing ODMDS capacity and future needs.



ODMDS MODELING provide capacity information and therefore, insight into the potential need for an additional or an expanded ODMDS.

SIDESCAN SONAR DATA indicate potential hardbottom habitat and other areas of potential sensitivity such as cultural resources.

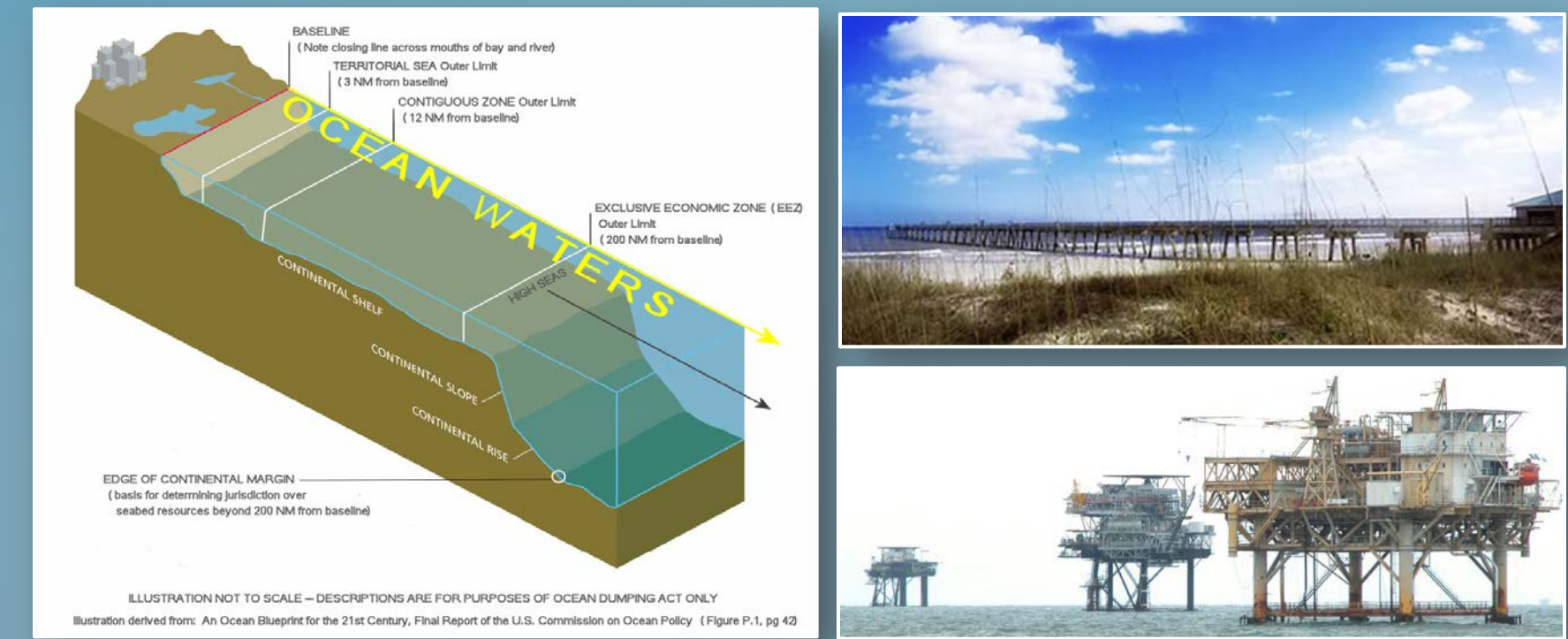
BATHYMETRIC SURVEYS illustrate the depths of the seafloors.

BIOTIC (LIVING) AND ABIOTIC (NON-LIVING) RESOURCE SURVEYS detail species populations, including those managed, conserved and imperiled; sample and test sediment and water column chemistry/characteristics; and analyze potential biological uptake of chemicals from the environment.

ENVIRONMENTAL CONSIDERATIONS

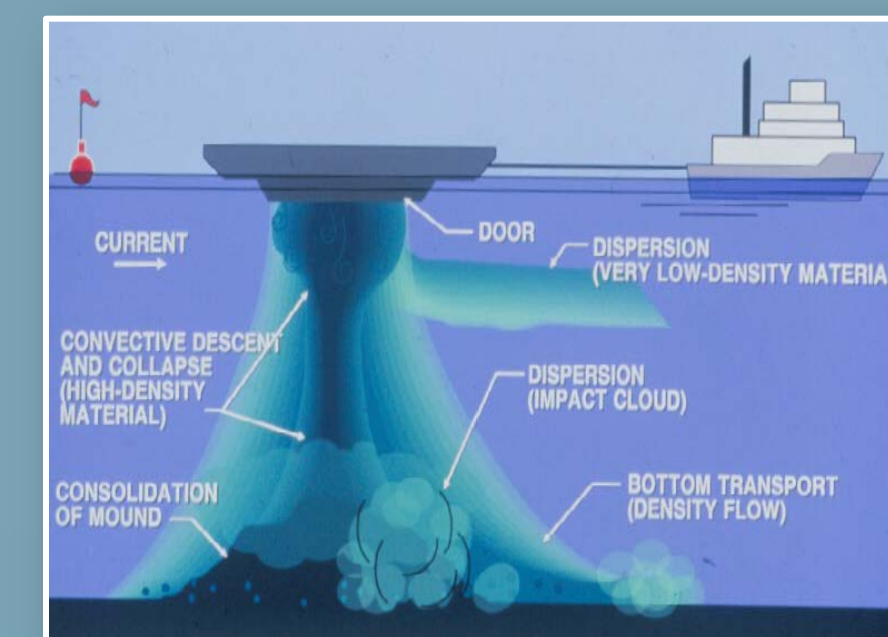
Disposal site evaluations are based on environmental studies of each site and its adjacent regions, as well as historical knowledge of dredged material disposal impacts on similar sites. The Environmental Protection Agency (EPA) considers 11 specific criteria when evaluating a site:

LOCATION AND OPERATIONS

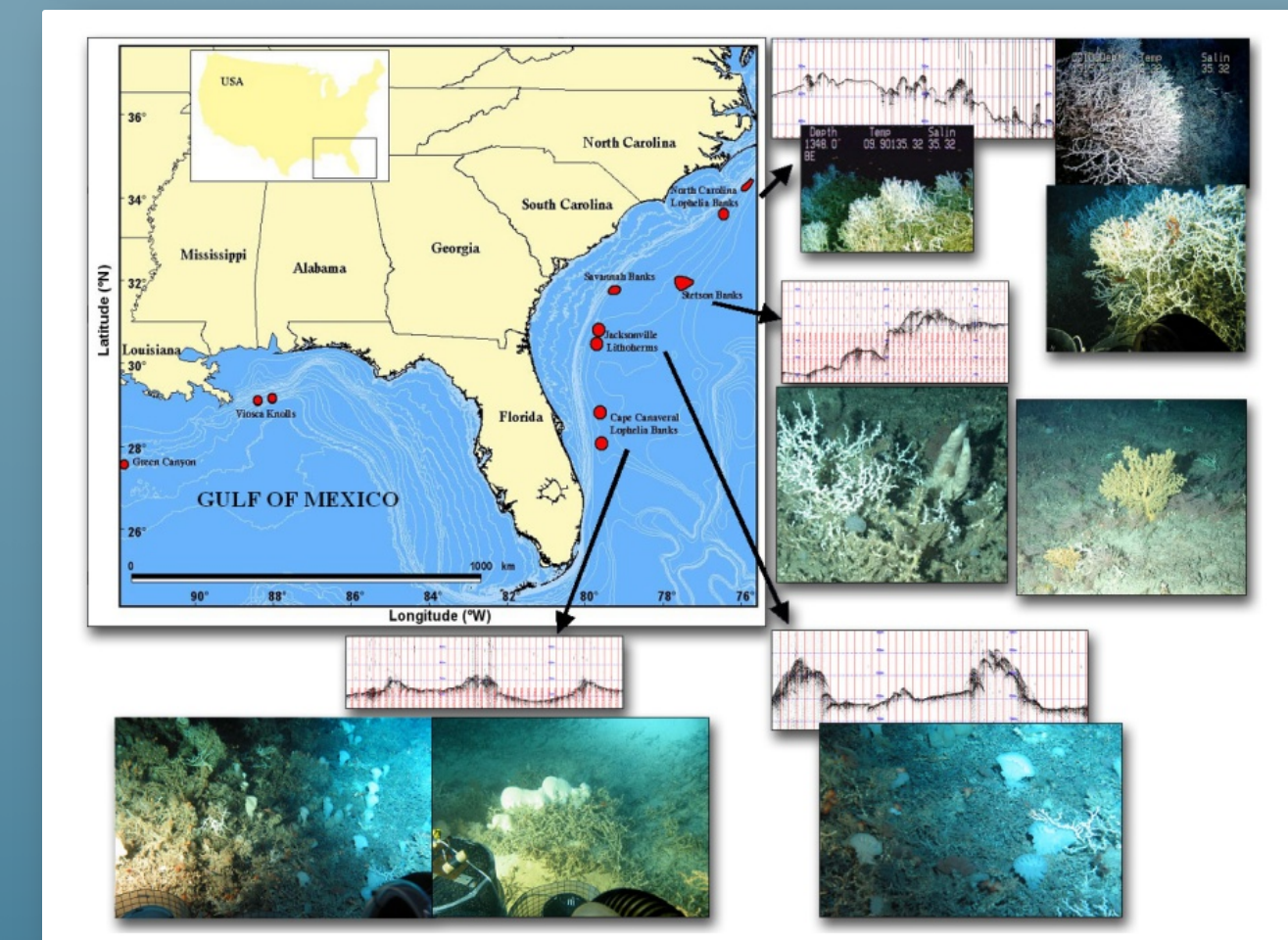


- Depth, location, and distance from the coast.
- Location relative to beaches and amenity areas.
- Interference with shipping, fishing, recreation, mineral extraction.
- Feasibility of surveillance and monitoring.

WATER QUALITY AND NATURAL/CULTURAL RESOURCES

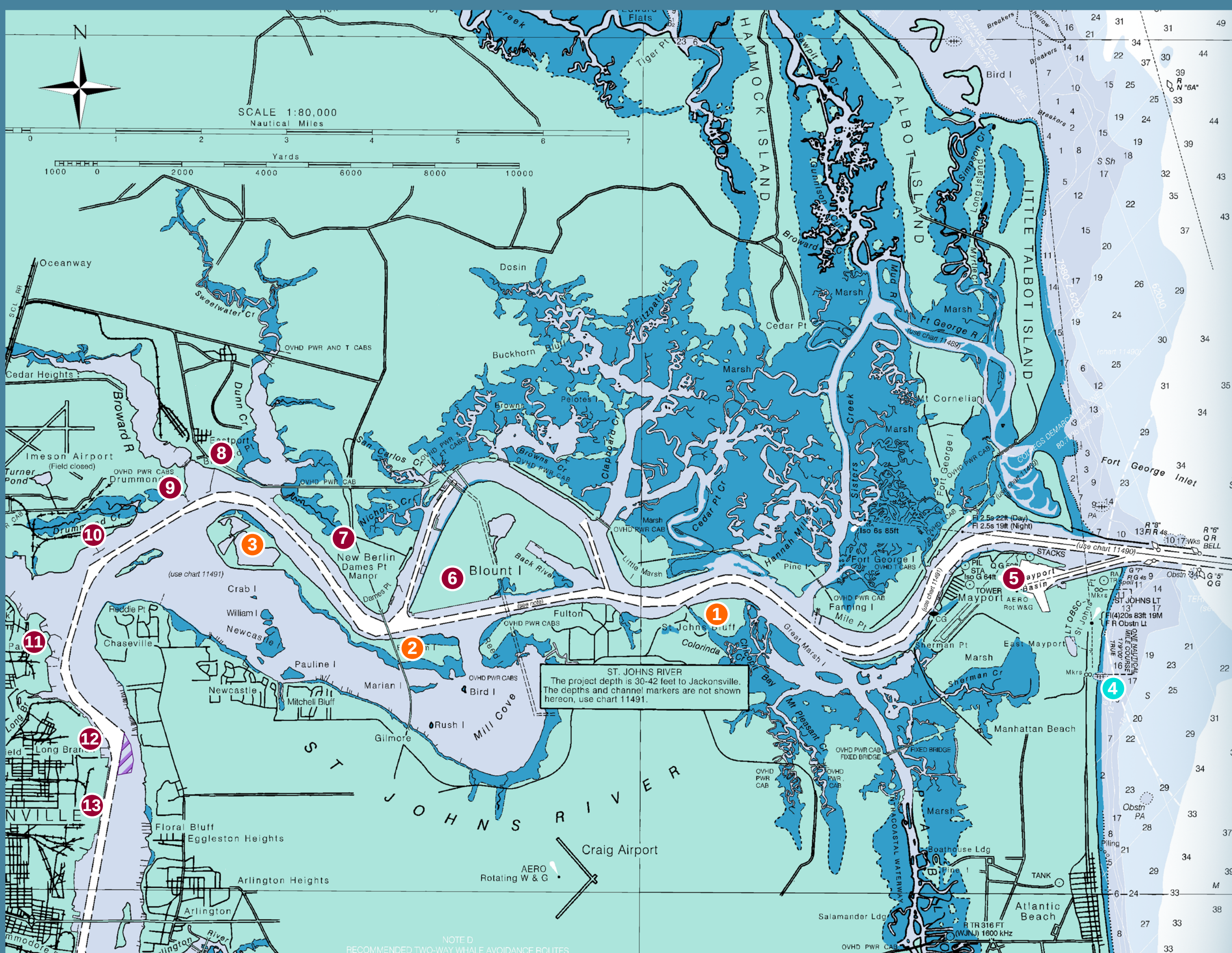


- Dispersal and transport characteristics of area, including prevailing currents.
- Effects of current and previous discharges in area.
- Types and quantity of waste and method of disposal.



- Existing water quality and ecology of site.
- Breeding, spawning, nursery, feeding or passage areas of living resources in adult or juvenile phases.
- Potential for development or recruitment of nuisance species.
- Proximity to any significant natural or cultural features of historical importance.

JACKSONVILLE OCEAN DREDGED MATERIAL DISPOSAL SITE (ODMDS) DESIGNATION ANALYSIS



ST. JOHNS RIVER FACILITIES

1. Buck Island
2. Bartram Island East
3. Bartram Island West
4. Beach Quality Dredged Material for Nearshore or Beach Placement
5. Mayport Naval Station
6. Jacksonville Port Authority Blount Island
7. Jacksonville Port Authority Dames Point
8. Oil Terminal
9. U.S. Navy Fuel Depot
10. Oil Terminal
11. Oil Terminal
12. Oil Terminal
13. Jacksonville Port Authority Talleyrand



JACKSONVILLE ODMDS ALTERNATIVES

