



“Keeping the Public Involved”

ALTERNATIVE SITE IDENTIFICATION PROCESS

The National Environmental Policy Act (commonly referred to as “NEPA”) requires the U.S. Army Corps of Engineers, Charleston District (Corps) to identify and evaluate reasonable alternatives to the SC State Ports Authority’s (SPA) proposed plans for the construction and operation of a marine container terminal at the Charleston Naval Complex.

When selecting these alternatives, the Corps is required to look at “reasonable” and “practicable” alternatives to the proposed project that may avoid or minimize adverse effects on the quality of the human environment. According to NEPA, “reasonable” alternatives are those that are practical or feasible from a technical and economic standpoint using common sense, rather than simply desirable from the standpoint of the applicant. The 404(b)(1) Environmental Guidelines for permitting dredge and fill activities define “practicable” as an alternative that is available and capable of being done after taking into consideration cost, logistics, and existing technology in light of the overall project purpose.

To identify reasonable alternative site locations for the proposed marine container terminal, the Corps developed sets of criteria against which potential sites would be compared and screened. These criteria were incorporated into a tiered approach. The approach is described in more detail in the following sections:

PURPOSE STATEMENT

The Corps developed a statement that established the purpose for the project and set the focus for the alternatives screening process. The project’s purpose is as follows,

“To provide state-owned port facilities that meet the reasonably projected throughput capacity for containerized cargo in the state of South Carolina for the next twenty years.”

The purpose statement, along with the Need Statement from the applicant (SPA), were used to develop an alternatives screening process to identify potential alternatives and screen reasonable alternatives, including the No-Action and Proposed Alternatives.

BASIC SITING CRITERIA TO SELECT POTENTIAL ALTERNATIVES

Basic siting criteria were developed to identify a wide range of potential alternatives and reflect minimum site development requirements for a modern marine container terminal. The siting criteria are described below:

- Navigation Access: A key consideration for a potential alternative site is its proximity to an existing deepwater navigation channel, preferably a channel which could be potentially deepened to a project depth of 45 feet.

- Available Backland: The preferred terminal configuration would provide substantial areas compatible with terminal operations directly behind and contiguous to each berth. The available backland for the development of container processing facilities should meet the Applicant's need for approximately 200 acres.
- Road and Rail Access: The proximity of highways, Interstate Highways, and railroads to each site is an important consideration. It was determined to consider only those sites within 50 miles of these infrastructures.

A large number of possible marine container terminal locations in South Carolina were evaluated using the siting criteria. Fifty-nine potential alternative sites were identified for further evaluation in Tier I. These potential alternative sites include new single sites and expansions of existing cargo terminals.

TIER I MINIMUM REQUIREMENTS FOR POTENTIAL ALTERNATIVES

Each of the 59 potential alternatives identified using the siting criteria was evaluated against a set of criteria developed for the first tier. The Tier I criteria described minimum requirements needed for the development and operation of a marine container terminal. Tier I criteria included:

1. Navigation Access: Potential alternative sites should be located within 10 miles of an existing deepwater channel to provide a minimum possible depth of 45 feet.
2. Road and Rail Access: Potential alternative sites should be located within 15 miles of a highway, Interstate Highway, and/or railroad.
3. Shoreline Requirements: Minimum linear footage requirements for the development of a wharf structure were determined for (a) a new single terminal site and (b) an expansion of an existing cargo terminal.
 - a. For a new single terminal site, a minimum of 2 berths consisting of 2,000 feet is required.
 - b. For an expansion of an existing cargo terminal, a minimum of 1,000 feet is required for one new berth
4. Backland Requirements: Minimum acreage requirements for the development of container storage and processing facilities and support infrastructure were determined for (a) a new single terminal site and (b) an expansion of an existing cargo terminal.
 - a. For a new single terminal site, a minimum of 200 acres is required for container storage and support facilities.
 - b. For an expansion of an existing cargo terminal, a minimum of 50 acres is required.

A total of 25 potentially reasonable and practicable alternative sites passed the Tier I evaluation process.

TIER II SCREENING PROCESS FOR POTENTIAL ALTERNATIVES

These 25 sites were then evaluated using the Tier II screening process. This screening process began with the development of a set of criteria consisting of more focused requirements relating to the construction and operation of a modern marine container terminal. Also included in these criteria were considerations to social and environmental impacts. The criteria are described in further detail below:

1. Dredging Requirements: This criterion examines the dredging likely required during the development and operation of each potential alternative site. The following are key components and, as such, will be addressed individually:
 - a. Initial dredging required (in terms of volume) to construct an authorized navigational channel 45 feet deep and 450 feet wide and a turning basin of 1500 feet;
 - b. Operation and maintenance dredging requirement with references to existing hydrodynamic data for the area;
 - c. Dredge disposal sites/options;
 - d. Impacts to any existing confined disposal facilities (i.e., the capacity and/or life).
2. Engineering and Construction Constraints: This criterion considers the requirements for demolition or relocation of existing structures, the potential for contact with contaminated soils and/or construction materials, the past history of land use, the dredging restrictions (i.e., the presence of underwater pipes, tunnels, etc.), and the geotechnical data (i.e., elevation and soil quality) of each potential site.
3. Operational Compatibility: This criterion examines maritime support infrastructure available at each site in order to assess container terminal operational compatibility. Support infrastructures include proximity to intermodal facilities, bridges with the appropriate air draft (185 feet is desirable), and appropriate land geometry.
4. Transportation Infrastructure: This criterion considers the accessibility of major highways and rails to each potential site, including the relative magnitude of effort (i.e., obstacles and costs) involved in providing such access if it did not already exist.
5. Social Impacts: This criterion assesses a range of potential impacts on existing public amenities and social infrastructure associated with each potential site. Key considerations include:
 - Potential impacts on existing community structure associated with development at each site, including environmental justice;
 - Potential impacts on existing roadways, bridges, schools, libraries, recreational facilities, and other public amenities; and
 - Potential impacts on known historic resources.

6. Potential for Significant Environmental Impacts: This criterion addresses a variety of issues related to potential environmental impacts associated with container terminal development. Key considerations include:
- Acreage of aquatic resources to be impacted (i.e., open water, freshwater wetlands, and saltwater wetlands);
 - Significant natural resources of the area to be impacted;
 - Existing landuse (i.e., pristine versus brownfield-like)
 - Presence of threatened or endangered species (loss of critical habitat); and
 - Potential impacts to aquifers.

Once the screening criteria were established, a panel of experts was assembled specializing in the planning, design, construction and operation of a marine container terminal and its associated infrastructure. This Expert Panel included representatives from the Corps (Charleston and Savannah Districts), Federal Highway Administration, SC State Ports Authority, SC Department of Health and Environmental Control, Berkeley-Charleston-Dorchester Council of Governments, Low Country Council of Governments, Charleston Branch Pilots' Association, and The Maritime Association of the Port of Charleston.

The goal of the Expert Panel was to provide technical opinions on the 25 potential alternative sites to help identify those that were reasonable and practicable. The representatives used the screening criteria presented above to identify "significant concerns", which were issues that should be considered in evaluating the reasonableness of the potential alternative sites from a technical feasibility standpoint. The Corps used this and other information collected to compare and screen the potential alternative sites and identify the reasonable alternatives.

LIST OF ALTERNATIVES FOR FURTHER EVALUATION IN THE DRAFT EIS

As part of the Tier II screening process, some sites were not considered to be suitable alternative site locations as a single site, but had the potential of being reasonable and practicable once combined with another location. Therefore, the alternatives the Corps identified for further evaluation in the draft EIS is made up of single-site locations and combination locations; these sites are illustrated in Figure 1 and listed below:

- No-Action
- Single-site: Charleston Naval Complex, South-end (Proposed Alternative)
- Single-site: Daniel Island, Cooper River
- Single-site: Clouter Island, South-end
- Combination: Drum Island and Expansion at North Charleston Terminal
- Combination: Charleston Naval Complex, North-end and Expansion at North Charleston Terminal