

- I-26 Port Access Road Interchange
- I-26 widening from Exit 196 to Exit 221 (completed)
- Mark Clark Expressway (I-526) Extension

The following rail projects have been recently completed or are proposed by Palmetto Railways:

- Charleston Yard Expansion Project
- Navy Base North End Yard
- Cosgrove Yard Operations (FRA recently awarded a \$650,000 grant to the Applicant to upgrade crossing equipment at the Virginia Avenue grade crossing at this location)

## 5.4 METHODS

The analysis of cumulative impacts related to Alternative 1 (Proposed Project) and alternatives followed the four steps described below.

**Step 1:** Project-related impacts identified in Chapter 4 were reviewed to determine which environmental resources would likely be affected both by Alternative 1 (Proposed Project) and by other past, present, and Future Actions. The environmental resources not likely to be affected by the Proposed Project and therefore not likely to be affected by cumulative impacts associated with the Proposed Project were screened and then excluded from further consideration (Table 5.5-1). Environmental resources that could be affected by cumulative impacts were analyzed further. The criteria used to assess and identify cumulatively affected resources followed the methodology presented in the CEQ's *Considering Cumulative Effects* (1997).

**Step 2:** The geographic scope for the cumulative impacts analysis was determined based on the geographic area affected or influenced by the Proposed Project and alternatives. In general, the geographic scope should be consistent with the resources that could reasonably be affected. The temporal scope was established based on the timeframe of the Proposed Project and the Future Actions that were identified and evaluated.

**Step 3:** Future Actions that fell within both the geographic and temporal scopes were identified and evaluated.

**Step 4:** Cumulative impacts were evaluated together with the direct impacts of each alternative—including the No-Action Alternative, which serves as a baseline. The range of actions considered in the cumulative impacts analysis included all connected and similar actions that could cumulatively contribute to identified Project-related impacts. Criteria used in identifying cumulatively affected resources included whether (1) the resource is especially vulnerable to incremental impacts; (2) other actions in the same geographic area may result in similar impacts on the resource; (3) impacts have been historically important for the resource; and (4) cumulative impact concerns

have been previously analyzed and identified (EPA 1999b). A review of the Future Actions in combination with the Proposed Project determines whether projects in the resource-specific study areas for cumulative impacts could result in similar impacts on the resource.

**5.5 SCREENING FOR CUMULATIVE IMPACTS**

Each resource area was researched, reviewed, and evaluated to determine whether Project-related impacts on that resource in concert with other Future Actions would result in the potential for cumulative impacts. This screening revealed that Project-related impacts in several resource categories addressed in Chapter 4 have the potential to contribute in more than a minor way to cumulative impacts. Other resource areas were determined unlikely to be cumulatively affected or would potentially contribute to cumulative impacts in only a minor way. The resource areas determined to have the potential for more than minor cumulative impacts were carried forward for further consideration and analysis. The rationale for these conclusions is presented in Table 5.5-1 with additional detail on impacts included in the corresponding section in Section 4.0 Environmental Consequences. Section 5.6 includes additional analyses of the impacts to any resource areas for which Alternative 1 (Proposed Project) has the potential to contribute to cumulative impacts in more than a minor way. For some resource areas, the Corps determined that, based on the additional analysis, there would be no cumulative impacts.

Table 5.5-1  
Screening of Potential Cumulative Impacts by Resource Area

Resource Area	Potential to Contribute to Cumulative Impacts in More Than a Minor Way?	Rationale
Geology and Soils	No	Alternative 1 (Proposed Project) is anticipated to result in negligible impacts to geology and potentially minor adverse impacts to soils due to erosion, loss of topsoil, soil compaction, and runoff. Construction of Alternative 1 (Proposed Project) would cause a relatively small demand for fill material in comparison to available resources. Construction of Alternative 1 (Proposed Project) would not impact any soils that comprise sources of potable water. The interaction of Alternative 1 (Proposed Project) with other Future Actions is not anticipated to result in any cumulative impacts to geology and soils.