

6. CUMULATIVE EFFECTS

This section discusses potential impacts resulting from other facilities, operations, and activities that in combination with potential impacts from the proposed project may contribute to cumulative impacts. Cumulative impacts are impacts on the environment that result from the incremental impact of the proposed project when added to other past, present, and reasonably foreseeable future actions regardless of the agency (federal or non-federal) or person that undertakes such other actions (40 CFR Part 1508.7). An inherent part of the cumulative effects analysis is the uncertainty surrounding actions that have not yet been fully developed. The CEQ regulations provide for the inclusion of uncertainties in the EIS analysis, and state that “(w)hen an agency is evaluating reasonably foreseeable significant adverse effects on the human environment in an EIS and there is incomplete or unavailable information, the agency shall always make clear that such information is lacking” (40 CFR Part 1502.22). The CEQ regulations do not say that the analysis cannot be performed if the information is lacking. Consequently, the analysis contained in this section includes what could be reasonably anticipated to occur given the uncertainty created by the lack of detailed investigations to support all cause and effect linkages that may result from the proposed project, and the indirect effects related to construction and long-term operation of the facility.

Because cumulative impacts accrue to resources, it is important that the analysis of impacts focus on specific resources or impact areas as opposed to merely aggregating all of the actions occurring in and around the proposed facility and attempting to form some conclusions regarding the effects of the many unrelated actions. Narrowing the scope of the analysis to resources where there is a likelihood of reasonably foreseeable impacts accruing supports the intent of the NEPA process, which is “to reduce paperwork and the accumulation of extraneous background data; and to emphasize real environmental issues and alternatives” [40 CFR Part 1500.2(b)]. Each resource analyzed has its own spatial (geographic) boundary, although the temporal boundaries (time frame) can generally be assumed to equal the 30-year life expectancy of the proposed project.

The resources and impact areas that were identified are traffic and related issues such as noise, water quality, floodplain and wetlands, cultural resources, and socioeconomic resources including environmental justice. Except for atmospheric resources, the lack of linkage between cause and effect relationships and impacts to other resources directly affected by the proposed project precludes other resources from this cumulative effects analysis. For atmospheric resources, the cumulative impacts of regional and global sources of air emissions were discussed in Section 4 because of the logical sequence obtained by bridging the discussion from PSD increments to NAAQS. The findings indicate that the cumulative impacts of the proposed project in conjunction with other regional emission sources (within the spatial boundary of 31 miles from the proposed project that was used for atmospheric resources) would not be appreciably adverse; after implementation of the related action, impacts would be beneficial for most air pollutants and receptors (locations). For socioeconomic resources including environmental justice, Duval County was used as the spatial boundary in the analysis; for other resources, a spatial boundary of approximately 5 miles from the

proposed project was used because of the inherent absence of potential cumulative impacts beyond this distance for these resources.

During the scoping process, the Notice of Intent identified cumulative impacts as an issue requiring assessment in the EIS and encouraged the public to assist in providing input for the assessment (Section 1.6). In addition, JEA provided input regarding existing and proposed facilities, operations, and activities that would contribute to cumulative impacts, and the Northeast Florida Regional Planning Council and the Jacksonville Comprehensive Planning Division were contacted. The following existing and proposed facilities, operations, and activities were identified as a consequence of this effort:

1. The Jacksonville Port Authority is improving the western shore of Dames Point, located about 2 miles to the southwest of Northside Generating Station on the St. Johns River, to accommodate the handling of cargo including bulk materials.
2. The Jacksonville Port Authority will add three new container cranes to the south shore wharf on Blount Island, located immediately to the southeast of Northside Generating Station. The cranes will begin service about the spring of 2000. Increased truck traffic between Blount Island and Highway 9A is anticipated.
3. A new wharf along the back channel near the northwestern tip of Blount Island was completed in late 1998. The project facilitates the unloading of foreign automobiles and other machinery at Blount Island for distribution in the southeastern United States.
4. The Florida Department of Transportation is considering widening Heckscher Drive from the Highway 9A interchange to the east of the Gulf Oil terminal facility. The improvements would provide four-lane access between Interstate 95 and Blount Island. This project is in the early stage of consideration and is at least 5 years away from completion.
5. American Environmental Systems is proposing to build a hazardous waste transfer facility west of the proposed project on New Berlin Road. The project has received the required zoning in spite of opposition from the community. Currently, the necessary environmental permitting has been denied by the FDEP because of concerns regarding the proposed evacuation plan in response to the unlikely event of a release of hazardous materials. An appeal by the developers may be made.

Because the cumulative effects of the proposed project, the related action, and the St. Johns River Power Park are so intertwined, these impacts were discussed in Section 4 rather than in this section. For example, the Power Park's water discharge system is integrated into the Northside Generating

Station's system (i.e., make-up water needed by the Power Park's cooling towers is drawn from the Northside discharge and blowdown from the cooling towers is added to the Northside discharge).

Key findings from the cumulative effects analysis include that adverse cumulative impacts to existing traffic on local roadways could result from the increased vehicular traffic due to the new commercial and industrial facilities in the vicinity of the proposed project. Also, any increase in the number of trains through nearby areas as a result of additional commercial or industrial activities could intensify existing problems associated with noise, vibration, and road blockage and add to local residents' concerns. In particular, the improvements along the western shore of Dames Point to handle cargo are expected to increase train traffic. The improvements to Heckscher Drive, if made, would mitigate some of the concerns related to additional vehicular traffic because the road would be able to accommodate additional traffic.

Regarding water resources, more groundwater would be available to local users for a longer period of time because annual groundwater consumption at Northside Generating Station would decrease by 10% (compared to 1996 levels). This reduction would offset any strain on groundwater resources from other potential users. The demand for cooling water from the St. Johns River would be approximately the same as when all three units operated together from approximately 1978 until 1980. The sustained flow of the river would not be depleted by this diversion because nearly all of the cooling water would be returned to the river after passing through the condensers. Therefore, the cumulative impacts of the proposed project in conjunction with other potential users should not be measurably adverse.

Projects including improvements to the western shore of Dames Point, placement of additional cranes to the south shore wharf on Blount Island, and nearby planned road improvements would not cause enough floodplain encroachment to result in flooding at Northside Generating Station or other locations. Similarly, these projects would not alter the flow of the St. Johns River in such a way that Northside Generating Station would be threatened by diverted water. Because of the mitigation measure for the proposed project that would result in a net gain in the amount of wetlands (Section 4.1.5.3), the proposed project would not contribute to a cumulative loss of wetlands.

The proposed project would not contribute to any cumulative impacts to cultural resources *because a cultural resources assessment survey and a follow-up Phase II investigation found that there are no potentially significant historic or archaeological sites located in the area that would be disturbed by the proposed project (Section 4.1.8)*. As an additional protection, JEA would be required to notify the appropriate agencies (the SJRWMD, the FDEP, and the SHPO) immediately upon discovery of any archaeological artifacts on the project site [Rule 62-330.200(2)(c), Florida Administrative Code].

Other construction projects in Duval County could theoretically have some effect on the number of construction workers available in the local area, and consequently the amount of in-migration that occurs. However, the local labor force is so large and the local infrastructure has such capacity that the simultaneous construction projects in Duval County would not have a noticeable effect on

population, housing, public services, or offsite land use. Cumulative impacts to employment, income, and local government revenues would probably be minor as well.

There are relatively few members of minority ethnic groups living in the immediate vicinity of the proposed project, but the percentage of Blacks and Asians in Duval County overall is considerably higher than in the state as a whole. Although cumulative impacts to environmental justice could result if adverse effects from the proposed project extend beyond the immediate project area and other projects with negative environmental impacts were undertaken in the county, cumulative adverse impacts related to ethnic minorities would not be expected because many aspects of the proposed project result in beneficial effects. No cumulative adverse impacts in relation to low income persons would occur because the percentage of the Duval County population living below the poverty level is slightly less than for the state as a whole.