

APPENDIX 5.2.3-1

REVIEW OF ENVIRONMENTAL JUSTICE GUIDELINES

1.0 INTRODUCTION

Environmental justice is a relatively new factor for consideration in Environmental Impact Statements (EIS). On February 11, 1994, President Clinton signed the Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." Many of the federal agencies are still in the process of developing environmental justice guidance as noted below. This Appendix reviews the pertinent federal environmental justice guidelines and states how these requirements are addressed in the Daniel Island Marine Cargo Terminal EIS which is referenced as the Daniel Island EIS hereafter in this Appendix.

The Executive Order 12898 was accompanied by a Presidential Memorandum directed to the heads of all Departments and Agencies. The Presidential Memorandum specifically recognized the importance of utilizing the existing framework and procedures of the National Environmental Policy Act (NEPA), Title VI of the 1964 Civil Rights Act (Title VI), and laws providing for public access to information and public input to Federal Agency decisions. The Memorandum states that "each Federal agency shall analyze the environmental effects, including human health, economic and social effects, of Federal actions, including effects on minority communities and low-income communities, when such analysis is required by NEPA." The Memorandum particularly emphasizes the importance of NEPA's public participation process, directing that "each Federal agency shall provide opportunities for community input in the NEPA process." Agencies are further directed to "identify potential effects and mitigation measures in consultation with affected communities, and improve the accessibility of meetings, crucial documents, and notices."

The Council on Environmental Quality (CEQ) has oversight of the Federal government's compliance with Executive Order 12898 and NEPA. CEQ, in consultation with EPA and other affected agencies, has developed guidance to further assist Federal agencies with their NEPA procedures so that environmental justice concerns are effectively identified and addressed. In December 1997, the Council of Environmental Quality (CEQ) released its guidance document for federal agencies entitled *Environmental Justice: Guidance Under the National Environmental Policy Act*.

Development of the Proposed Project requires approval from five different federal agencies. This Executive Order provides that "each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." Stated below is the status as of June 1998 of the agency's response to the environmental justice mandates.

Army Corps of Engineers: The Army Corps of Engineers is still in the process of developing its environmental strategies. In the interim, all of the Agency's actions must conform to the intent of the Executive Order 12898 and the CEQ Guidelines. (*Conversation with Mr. Chip Smith, Army Corps of Engineers, June 11, 1998*)

U.S. Environmental Protection Agency: In April 1998, the United States Environmental Protection Agency released its document *Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analysis*. This document provides guidance to EPA staff responsible for incorporating environmental justice into environmental impact statements (EISs) and environmental assessments (EAs) under NEPA. Of particular interest is Exhibit 2 entitled "Summary of Factors to Consider in Environmental Justice Analysis." This exhibit gives a detailed outline of the various factors which should be examined as part of the environmental justice analysis. This Exhibit is reviewed in Section 4 of this Appendix.

U.S. Coast Guard: The U.S. Coast Guard is an operating administration of the Department of Transportation and is included in the DOT Order "Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." (*62 Federal Register 18377 et seq. (April 15, 1997)*) The DOT Order requirements are similar to those stated in Executive Order 12898, the Presidential Memorandum and the CEQ guidelines.

U.S. Forest Service: The U.S. Forest Service is an agency of the U.S. Department of Agriculture. The U.S. Department of Agriculture released its regulations to implement the Environmental Justice Executive Order 12898 in April 1998.

Surface Transportation Board: The Surface Transportation Board (STB) is a three-member, bi-partisan adjudicatory body administratively housed within the U.S. Department of Transportation. The STB has independent regulatory on freight rail matters and certain pipeline functions. As an independent regulatory authority, the STB is not required to conduct an Environmental Justice analysis. However, the STB voluntarily complies with Executive Order 12898. When conducting its environmental justice analysis, the STB considers the Executive Order 12898, and related guidance issued by the Council of Environmental Quality, the Environmental Protection Agency, and the U.S. Department of Transportation.

This Appendix reviews the major requirements of the Executive Order 12898 and Presidential Memorandum, the CEQ guidelines for considering environmental justice in specific phases of the NEPA process, and the EPA "Exhibit 2: Summary of Factors to Consider in Environmental Justice Analysis." The DOT Order requirements are similar to those stated in Executive Order 12898, the Presidential Memorandum, and the CEQ guidelines and therefore, are not reviewed separately. The following sections state the various federal requirements and guidelines verbatim in italics. The respective Daniel Island EIS response is stated in a bold typeface.

2.0 NEPA PROVISIONS OF EXECUTIVE ORDER 12898 AND THE PRESIDENTIAL MEMORANDUM

The Council of Environmental Quality reviewed the Executive Order 12898 in its document *Environmental Justice: Guidance Under the National Environmental Policy Act* released December 10, 1997. CEQ determined that the following issues are most relevant for the NEPA process:

- *The Executive Order requires the development of agency-specific environmental justice strategies. Thus, agencies have developed and should periodically revise their strategies providing guidance concerning the types of programs, policies, and activities that may, or historically have, raised environmental justice concerns at the particular agency. This guidance may suggest possible approaches to addressing such concerns in the agency's NEPA analyses, as appropriate.*

Daniel Island EIS Response: All lead and cooperating federal agencies were contacted by members of the EIS team in the early stages of the EIS regarding their environmental justice strategies. The June 1998 status for these agencies' environmental justice guidelines is stated previously in this Appendix.

- *The Executive Order recognizes the importance of research, data collection, and analysis, particularly with respect to multiple and cumulative exposures to environmental hazards for low-income populations, minority populations, and Indian tribes. Thus, data on these exposure issues should be incorporated into NEPA analyses as appropriate.*

Daniel Island EIS Response: Existing hazardous waste sites and hazardous materials handling operations within the project study area are described in the Daniel Island EIS. The potential impacts of the Proposed Project on existing sites and operations, as well as on the potential for creation of new environmental hazards are addressed in the Daniel Island EIS.

- *The Executive Order provides for agencies to collect, maintain, and analyze information on patterns of subsistence consumption of fish, vegetation, or wildlife. Where an agency action may affect fish, vegetation, or wildlife, that agency action may also affect subsistence patterns of consumption and indicate the potential for disproportionately high and adverse human health or environmental effects on low-income populations, minority populations, and Indian tribes.*

Daniel Island EIS Response: Subsistence fishing, hunting, gathering, farming is not common within Tri-County Region according to local officials and residents. Many of the rural residents supplement their diet with recreational fishing, hunting, and gardening, but do not depend exclusively on these activities for their daily subsistence. Moreover, the Native American population was less than 0.4 percent of the Tri-County Region's 1990 population according to the US Census. There are no concentrations of Native American in any of the "community impact areas." There has not been an in-migration of Native Americans to this Region since the 1990 US Census.

- *The Executive Order requires agencies to work to ensure effective public participation and access to information. Thus, within its NEPA process and through other appropriate mechanisms, each Federal agency shall, "wherever practicable and appropriate, translate crucial public documents, notices and hearings, relating to human health or the environment for limited English speaking populations." In addition, each agency should work to "ensure that public documents, notices, and hearings relating to human health or the environment are concise, understandable, and readily accessible to the public."*

Daniel Island EIS Response: The EIS public participation efforts have been planned to inform local residents about the Proposed Project and the EIS process. The Scoping Meeting was conducted on June 24, 1997. Public information forums were conducted on September 5, 1997, December 9, 1997, and March 4, 1998. Community leaders from the "community impact areas" were identified, interviewed, and informed concerning the EIS process from November 1997 through March 1998. A special community outreach meeting was conducted in the evening on January 26, 1998 at the St.

Johns AME Church in Wando, SC with 100 attendees. Additional evening public workshops and outreach meetings were held in Mount Pleasant on September 1, 1998, at the Cainhoy Elementary School on September 2, 1998 and at the Charleston Public Works Building located between the Naval Base and Columbia Street Terminal communities on September 3, 1998. A special outreach meeting requested by concerned Daniel Island residents was held on September 28, 1998 at the Cainhoy Elementary School.

During the 60-day review period, copies of the Draft EIS will be placed at various locations in Berkeley, Charleston, and Dorchester counties. For example, copies will be placed at the main and branch libraries located in all three counties. Copies of the Draft EIS will be available on CD-ROM.

The public hearing will be held at night in a location readily accessible to the great majority of the potentially-affected public. The objective of the public hearing is to receive public comments regarding the Draft EIS and the Proposed Project. Transportation to the public hearing may be provided by the SCSPA if necessary to ensure full public access to the hearing. Parking fees, if any, may be reimbursed.

The Army Corps of Engineers Project Manager was available to provide additional information and answer questions throughout the EIS process. All meeting materials and newsletters stated the name, address, and telephone number for the Project Manager. Comment forms were also provided at all meetings which could be submitted at the meeting or mailed to the Army Corps of Engineers.

All identified community leaders, public meeting attendees, and interested parties were placed on the mailing list. An effort was made to expand and update the mailing list as additional people were identified and information became available. The property owners within the SCSPA proposed railroad corridor were first added to the mailing list in the Fall of 1997. By the Fall of 1998, all property owners within any of the proposed railroad corridors were added to the mailing list.

Newsletters were mailed to all parties on the Daniel Island EIS mailing list in May and August 1998. A web site dedicated to the Daniel Island EIS was available as of July 1998. (<http://www.sac.usace.army.mil>.) The web site was updated periodically throughout the EIS process.

According to the 1990 US Census only 1.4 percent or 7,150 persons were of Hispanic population in the Tri-County Region and all four community impact areas had less than one percent Hispanic population. There has not been a major migration of Hispanic population in these areas since the 1990 Census according to local officials. There have not been any requests for translators at any public meetings.

The educational attainment levels are fairly low for three out of the four community impact areas. An effort was made to publicize meetings by various media instead of relying solely upon newspaper advertisements. Press releases for the September 1998 meetings and the Public Hearing were sent to the following newspapers, radio stations, and television stations: Post & Courier, Moultrie News, The Chronicle, The Berkeley Independent, WTMA and WPAL radio stations, and WCIV, WCSC, and WCBD television stations. Newsletters and correspondence were written in laymen's terms in order

to enhance comprehension. Visual aids such as graphs and maps were used during public meetings and public workshops.

3.0 CEQ GUIDANCE FOR CONSIDERING ENVIRONMENTAL JUSTICE IN SPECIFIC PHASES OF THE NEPA PROCESS

While appropriate consideration of environmental justice issues is highly dependent upon the particular facts and circumstances of the proposed action, the affected environment, and the affected populations, there are opportunities and strategies that are useful at particular stages of the NEPA process.

3.1.1 Scoping

During the scoping process, an agency should preliminarily determine whether an area potentially affected by a proposed agency action may include low-income populations, minority populations, or Indian tribes, and seek input accordingly. When the scoping process is used to develop an EIS or EA, an agency should seek input from low income populations, minority populations, or Indian tribes as early in the process as information becomes available. Any such determination, as well as the basis for the determination, should be more substantively addressed in the appropriate NEPA documents and communicated as appropriate during the NEPA process.

If an agency identifies any potentially affected minority populations, low-income populations, or Indian tribes, the agency should develop a strategy for effective public involvement in the agency's determination of the scope of the NEPA analysis. Customary agency practices for notifying the public of a proposed action and subsequent scoping and public events may be enhanced through better use of local resources, community and other nongovernmental organizations, and locally targeted media.

The participation of diverse groups in the scoping process is necessary for full consideration of the potential environmental impacts of a proposed agency action and any alternatives. By discussing and informing the public of the emerging issues related to the proposed action, agencies may reduce misunderstandings, build cooperative working relationships, educate the public and decision makers, and avoid potential conflicts. Agencies should recognize that the identity of the relevant "public" may evolve during the process and may include different constituencies or groups of individuals at different stages of the NEPA process. This may also be the appropriate juncture to begin government-to-government consultation with affected Indian tribes and to seek their participation as cooperating agencies. For this participation to be meaningful, the public should have access to enough information so that it is well informed and can provide constructive input.

Thorough scoping is the foundation for the analytical process and provides an early opportunity for the public to participate in the design of alternatives for achieving the goals and objectives of the proposed agency action.

Daniel Island EIS Response: Environmental justice concerns were initially raised early in the scoping process. EIS team members and agencies have continued to design the public participation and data analysis to involve low-income and minority groups throughout the EIS process.

3.2 Public Participation

Early and meaningful public participation in the federal agency decision making process is a paramount goal of NEPA. CEQ's regulations require agencies to make diligent efforts to involve the public throughout the NEPA process. Participation of low-income populations, minority populations, or tribal populations may require adaptive or innovative approaches to overcome linguistic, institutional, cultural, economic, historical, or other potential barriers to effective participation in the decision-making processes of Federal agencies under customary NEPA procedures. These barriers may range from agency failure to provide translation of documents to the scheduling of meetings at times and in places that are not convenient to working families.

Daniel Island EIS Response: Public participation process previously described in Section 2.0.

3.3 Determining the Affected Environment

In order to determine whether a proposed action is likely to have disproportionately high and adverse human health or environmental effects on low-income populations, minority populations, or Indian tribes, agencies should identify a geographic scale for which they will obtain demographic information on the potential impact area. Agencies may use demographic data available from the Bureau of the Census (BOC) to identify the composition of the potentially affected population. Geographic distribution by race, ethnicity, and income, as well as a delineation of tribal lands and resources, should be examined. Census data are available in published formats, and on CD-ROM available through the BOC. This data also is available from a number of local, college, and university libraries, and the World Wide Web. Agencies may also find that Federal, tribal, state and local health, environmental, and economic agencies have useful demographic information and studies, such as the Landview II system, which is used by the BOC to assist in utilizing data from a geographic information system (GIS). Landview II has proven to be a low-cost, readily available means of graphically accessing environmental justice data. These approaches already should be incorporated into current NEPA compliance.

Agencies should recognize that the impacts within minority populations, low-income populations, or Indian tribes may be different from impacts on the general population due to a community's distinct cultural practices. For example, data on different patterns of living, such as subsistence fish, vegetation, or wildlife consumption and the use of well water in rural communities may be relevant to the analysis. Where a proposed agency action would not cause any adverse environmental impacts, and therefore would not cause any disproportionately high and adverse human health or environmental impacts, specific demographic analysis may not be warranted. Where environments of Indian tribes may be affected, agencies must consider pertinent treaty, statutory or executive order rights and consult with tribal governments in a manner consistent with the government-to-government relationship.

Daniel Island EIS Response: Proportional impacts are analyzed by the comparison of smaller geographic areas within the overall impact area with "reference" geographic areas. Four smaller Community Impact Areas were identified within the overall impact area. The Community Impact Area area the areas proximate to the Proposed Project and the Alternatives which most likely will be directly impacted by the construction and the operation of the proposed port terminal, railroad, and

highway improvements or any of the action alternatives. The Community Impact Areas are identified by the 1990 Census Tract boundaries. The Community Impact Areas are as follows: the Daniel Island/Cainhoy Peninsula Community Impact Area (Census Tract 204.02), the Mount Pleasant Community Impact Area (Census Tracts 46.05 and 46.06), the Naval Base Area (Census Tracts 37, 41, 42, 43, 44, and 45), and the Columbus Street Terminal Community Impact Area (Census Tracts 9, 13, and 14). Detailed socioeconomic analysis is presented for the four identified Community Impact Areas.

These Community Impact Areas are then compared with the reference geographic areas. The primary reference area is the Tri-County Region which includes Berkeley, Charleston, and Dorchester Counties. The Tri-County Region is now classified by the United States Census as a Metropolitan Statistical Area (MSAs). MSAs are areas consisting of one or more counties which include a large population nucleus and nearby communities which have a high degree of interaction based upon population density and commuting patterns. Other reference geographic areas include the State of South Carolina, and the United States.

Socioeconomic characteristics for these geographic regions are discussed in more detail in Section 4.2 of the EIS. All three counties, the Tri-County Region, and the State of South Carolina have higher percentages of black and minority population than the United States according to the 1990 Census. The nonwhite population ranged from a low of 17 percent in the Mount Pleasant Impact Area to 79 to 93 percent in the other three remaining community impact areas. As of 1990, the Tri-County Region had only 1.4 percent Hispanic population which increased to 1.9 percent by 1996 according to the US Census. The Native American population was less than 0.4 percent of the Tri-County Region's 1990 population. All four community impact areas had less than 1.2 percent Hispanic or Native American population. There has not been a major in-migration of Hispanic or Native American population since the 1990 Census.

The income levels for most Tri-County households are lower than the median and average household incomes for the Nation, but slightly higher than the median and average household incomes for the State of South Carolina (Table 4.2.2-4.) The United States 1990 median household income was \$30,056 in contrast to \$26,256 for the State and \$28,915 for the Tri-County Region. The percent of population in poverty is another indicator of income distribution. Both the Tri-County Region (14.5 percent) and the State of South Carolina (14.9 percent) has greater percentages of population in poverty than the United States percentage of 12.8. The percentages of population in poverty ranged from a low of 6.8 percent for the Mount Pleasant Impact Area to 23 to 58 percent in the other three remaining community impact areas.

The higher percentages of black, minority, and low income populations within the Tri-County Region and three out of the four community impact areas raised the potential for environmental justice issues.

3.4 Analysis

When a disproportionately high and adverse human health or environmental effect on a low-income population, minority population, or Indian tribe has been identified, agencies should analyze how environmental and health effects are distributed within the affected community. Displaying available data spatially, through a GIS, can provide the agency and the public with an effective visualization of the distribution of health and environmental impacts among demographic populations. This type of data should be analyzed in light of any additional qualitative or quantitative information gathered through the public participation process.

Where a potential environmental justice issue has been identified by an agency, the agency should state clearly in the EIS or EA whether, in light of all of the facts and circumstances, a disproportionately high and adverse human health or environmental impact on minority populations, low-income populations, or Indian tribes is likely to result from the proposed action and any alternatives. This statement should be supported by sufficient information for the public to understand the rationale for the conclusion. The underlying analysis should be presented as concisely as possible, using language that is understandable to the public and that minimizes use of acronyms or jargon.

Daniel Island EIS Response: All three terminal locations are located within predominately minority and low-income areas. Both the Naval Base and Daniel Island/ Cainhoy Peninsula Community Impact Areas are nearly 80 percent black and only 20 percent white as presented in Tables 4.2.3-2 and 4.2.3-11. The Columbus Street Terminal Community Impact Area is nearly 93 percent black and only 7 percent white as presented in Table 4.2.3-16. All three community impact areas have higher proportions of minorities than the Tri-County Region and State of South Carolina with 30 percent black population, and the United States with only 12 percent black population according to the 1990 Census.

All three terminal community impact areas had lower median incomes and higher proportions of percent of the population in poverty than the Region, the State, or the Nation. The 1990 median household income was \$10,685 for the Naval Base Impact Area, \$22,029 for Daniel Island/ Cainhoy Peninsula Impact Area, and \$10,968 for the Columbus Street Impact Area. In comparison, the median income was \$28,915 for the Tri-County Region, \$26,256 for the State, and \$30,056 for the United States. The percent of population in poverty is another indicator of income distribution. Nearly 48 percent of the Naval Base, 23 percent of the Daniel Island/ Cainhoy Peninsula, and 58 percent of the Columbus Street Impact Areas were below poverty levels in 1990. In comparison, only 14.5 percent of the Tri-County Region, 14.9 percent of the State of South Carolina, and 12.8 percent of the United States population were below poverty levels in 1990. All three Impact Areas had higher proportions of population in poverty than the Region, the State, or the Nation. Income characteristics are presented in Tables 4.2.3-13, 4.2.3-4, and 4.2.3-18.

Based on the discussion above, it is evident that minority and low-income populations near the Naval Base, Daniel Island, and Columbus Street terminals will be disproportionately affected by the Proposed Project and alternative terminal sites. Due to the fact that the percentage of minority and

low-income persons within the Community Impact Areas is greater than that in the Tri-County, State, and U.S., it appears unavoidable that these communities will be subject to higher adverse effects from the Proposed Project or alternative terminal locations.

3.5 Alternatives

Agencies should encourage the members of the communities that may suffer a disproportionately high and adverse human health or environmental effect from a proposed agency action to help develop and comment on possible alternatives to the proposed agency action as early as possible in the process.

Where an EIS is prepared, CEQ regulations require agencies to identify an environmentally preferable alternative in the record of decision (ROD). When the agency has identified a disproportionately high and adverse human health or environmental effect on low-income populations, minority populations, or Indian tribes from either the proposed action or alternatives, the distribution as well as the magnitude of the disproportionate impacts in these communities should be a factor in determining the environmentally preferable alternative. In weighing this factor, the agency should consider the views it has received from the affected communities, and the magnitude of environmental impacts associated with alternatives that have a less disproportionate and adverse effect on low-income populations, minority populations, or Indian tribes.

Daniel Island EIS Response: The Daniel Island EIS process has included assessment of a variety of potential terminal locations throughout South Carolina and Charleston Harbor. The EIS examines three different combinations of terminal development sites, 18 railroad corridor alternatives, and two access road alternatives to the former Charleston Naval Base. All of these alternatives are evaluated in terms of 23 different biological and socioeconomic factors. The environmental justice impacts are described for each of these alternatives in Section 5.0 of the EIS.

3.6 Record of Decision

When an agency reaches a decision on an action for which an EIS was prepared, a public record of decision (ROD) must be prepared that provides information on the alternatives considered and the factors weighed in the decision-making process. Disproportionately high and adverse human health or environmental effects on a low-income population, minority population, or Indian tribe should be among those factors explicitly discussed in the ROD, and should also be addressed in any discussion of whether all practicable means to avoid or minimize environmental and other interrelated effects were adopted. Where relevant, the agency should discuss how these issues are addressed in any monitoring and enforcement program summarized in the ROD.

Dissemination of the information in the ROD may provide an effective means to inform the public of the extent to which environmental justice concerns were considered in the decision-making process, and where appropriate, whether the agency intends to mitigate any disproportionately high and adverse human health or environmental effects within the constraints of NEPA and other existing laws. In addition to translating crucial portions of the EIS where appropriate, agencies should provide translation, where practicable and appropriate, of the ROD in non-technical, plain language for limited-English speakers. Agencies should also consider translating documents into languages other than English where appropriate and practical.

Daniel Island EIS Response: The ROD will identify any disproportionately high and adverse human health or environmental effects on a low-income population, or minority population and will also address any practicable means to avoid or minimize environmental and other interrelated effects. The ROD will be written in non-technical language. It is anticipated that there is not a sufficient limited English-speaking population to warrant translation of EIS documents or the ROD.

3.7 Mitigation

Mitigation measures include steps to avoid, mitigate, minimize, rectify, reduce, or eliminate the impact associated with a proposed agency action. Throughout the process of public participation, agencies should elicit the views of the affected populations on measures to mitigate a disproportionately high and adverse human health or environmental effect on a low-income population, minority population, or Indian tribe and should carefully consider community views in developing and implementing mitigation strategies. Mitigation measures identified in an EIS or developed as part of a FONSI should reflect the needs and preferences of affected low-income populations, minority populations, or Indian tribes to the extent practicable.

Daniel Island EIS Response: Potential mitigation measures for projected project impacts are discussed in Section 5.2 of the EIS. Section 6 of the Final EIS will present an Integrated Mitigation Program which will be developed and proposed by the SCSPA in response to comments received during the Public Hearing and public comment period as well as negotiations between the SCSPA, the Army Corps of Engineers, and the other permitting and resource management agencies. The needs and preferences of affected low-income populations and minority populations have been and will be solicited throughout the EIS process. After the public hearing, follow-up community outreach meetings may be held in affected communities to discuss the EIS and proposed mitigation. Input from the hearing, and any meetings or other discussions will be taken into account in determining any revisions to the proposed Integrated Mitigation Program or any individual measures.

4.0 REVIEW OF THE *FINAL GUIDANCE FOR INCORPORATING ENVIRONMENTAL JUSTICE CONCERNS IN EPA'S NEPA COMPLIANCE ANALYSIS*

In April 1998, the United States Environmental Protection Agency released its document *Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analysis*. This document provides guidance for incorporating environmental justice into environmental impact statements (EISs) and environmental assessments (EAs) under NEPA. Exhibit 2 of this EPA document entitled "Summary of Factors to Consider in Environmental Justice Analysis" of this document outlines the various factors which should be examined as part of the environmental justice analysis. Exhibit 2 is divided into three separate sections: Factors Associated with Potential Exposure To/and Risks from Environmental Hazards, Factors Related to Cultural and Ethnic Differences and Communications Concerns, and Factors Related to Historical and Policy Issues. The following is an abstract of Exhibit 2. The EPA guidance is stated in italics and the respective Daniel Island EIS Response is stated in boldface type.

4.1 Factors Associated with Potential Exposure To/and Risks from Environmental Hazards

4.1.1 Demographic Factors

DEMOGRAPHIC FACTORS

Demographic factors are one of the key components of environmental justice. Race, ethnicity, and low-income status are some of the primary considerations of the environmental justice movement. However, numerous other demographic factors also may play vital roles in an environmental justice assessment. These include, but are not limited to:

4.1.1.1 Population Age: Older or younger populations may be more susceptible to risks, when taking into account special health concerns of the elderly and potential for greater exposure in younger populations (e.g., ingestion of soil). In addition, children's immature bodily defense systems may make them more susceptible to toxic effects.

Daniel Island EIS Response: Age characteristics for the Tri-County Region and Community Impact Areas are discussed in the Affected Environment Section 4.2 of the EIS.

4.1.1.2 Population Density: High population density may promote a synergistic effect between industrial pollutants and typical urban pollutants (e.g., ground level ozone), especially if industry is located in close proximity (5 miles or less) to high density populations. Low population density may lead the NEPA analyst to underestimate the actual environmental harm to the affected population when conducting a risk assessment.

Daniel Island EIS Response: Population density characteristics for the Tri-County Region and Community Impact Areas are described in the Affected Environment Section 4.2 of the Daniel Island EIS.

4.1.1.3 Population Literacy: If documents are technically complex and not adequately explained communities with lower levels of education may encounter difficulty in its ability to understand or sufficiently identify and interpret risk and other factors.

Daniel Island EIS Response: Educational attainment for the Tri-County Region and Community Impact Areas are described in the Affected Environment Section 4.2 of the EIS. The educational attainment levels are fairly low for three out of the four community impact areas. An effort was made to publicize the September 1998 meetings and the Public Hearing by various media instead of relying solely upon newspaper advertisements. Press releases were sent to several radio and television stations. Newsletters and correspondence were written in a manner to enhance comprehension. Visual aids such as graphs and maps were used during PIF meetings and public workshops.

4.1.1.4 Population /Economic Growth: Rapid or severe changes in population or economic growth rate may result in potential impacts to existing community or public services and infrastructure. Changes in growth

rate may include: (1) an increase in low-income or minority population(s) in an area (e.g., migration), (2) high birth rates, and (3) cumulative impacts due to multiple sources of population increases.

Daniel Island EIS Response: Population growth for both the No Action and Proposed Project Alternatives are described in the Environmental Consequences Section 5 of the EIS. It is assumed that population growth impacts attributed to a new terminal complex will be the same for both the Proposed Project and all the terminal, road, and rail location alternatives. The net increase in port-related employment would further augment regional growth. All three counties and the Tri-County Region as a whole are anticipated to grow through 2020 as predicted for the No Action Alternative. Table 5.2.3-1 of the EIS compares the population growth projected for the No Action and Action Alternatives. The net increase in port-related employment will range from 904 jobs in 2000 as construction begins to a low of 175 jobs in 2005 as construction of the terminal and railroad phases down to the high of 13,741 jobs by 2020. Increases in total port-related employment will result in additional population increases of 1,945 residents in 2000 to 28,620 new residents in 2020. The Tri-County regional population is projected to be 770,564 by 2020. Figure 5.2.3-1 of the EIS illustrates the population growth for the Action and No Action alternatives. The percent change in population growth will be higher in the Tri-County region between 2000 and 2015 for both the No Action and Action Alternative than the population growth projected for the state. During this 15-year period the Tri-County population for the No Action Alternative is projected to increase by 20.1 percent in comparison to a 22.6 percent increase for the Action Alternative. Both of these population increases are higher than the projected increase of 16.5 percent for the State of South Carolina as a whole for the same period.

4.1.2 Geographic Factors

GEOGRAPHIC FACTORS

Certain communities may be at high risk from environmental hazards or exposed to substantial environmental hazards due to geographic factors that isolate them from other surrounding communities or that tend to allow pollutants to accumulate in the environment surrounding the community. Such factors include, but are not limited to:

4.1.2.1 *Climate: Weather patterns (e.g., prevailing winds) that may concentrate pollutants in a certain area, allow pollutants to migrate, increase certain exposure pathways (such as respiration), or cause pollutants to behave in a manner that differs from that expected under normal weather conditions.*

Daniel Island EIS Response: The existing local climate is described in Section 4 of the EIS. The Proposed Project is not anticipated to have any impacts on the existing climate and does not involve significant new air quality emissions.

4.1.2.2 **Geomorphic Features:** Mountains, hills, or other surface features, natural or human in origin, that may affect pollutant dispersal and may focus or funnel pollutants in particular directions or to particular locations.

Daniel Island EIS Response: Existing local topography is described in Section 4 of the EIS and is flat, with no features which would be expected to focus or funnel pollutants in particular directions.

4.1.2.3 Hydrophic Features: Presence of surface water and/or aquifers that may provide drinking water, subsistence fisheries, cultural significance and use, and recreational use.

Daniel Island EIS Response: Existing surface water and ground water features in the project area are described in Section 4 of the EIS. The potential impacts of the Proposed Project are assessed fully in Section 5 of the EIS and include primarily impacts from dredging to relocate the existing Federal channel in the Wando Reach, potential stormwater discharges from the paved areas of the proposed terminal, and the increased potential for hazardous material spills associated with increased cargo volumes.

4.1.3 Economic Factors

Economic factors can be divided into two categories: the economic condition of the individuals in the community in question, and the overall economic base of the community. The economic condition of the individuals in the population, if poor, may exacerbate risk factors and may preclude avoidance of risk factors. The economic condition of the community at large may result in situations that preclude the local government's ability to adequately protect the population or may promote the acceptance of disproportionately high and adverse effects. Such factors include, but are not limited to:

4.1.3.1 Individual Economic Conditions

Income Level / Health Care Access: This includes such issues as whether affordable or free quality health care is available and, whether any cultural barriers exist to seeking health care. Many low-income and/or minority communities lack adequate levels and quality of health care, often due to lack of resources or lack of access to health care facilities.

Daniel Island EIS Response: The existing health facilities (hospitals) and emergency response programs in the project area are identified in Section 4 of the EIS. The potential impacts of the projected population increase resulting from new employment opportunities associated with the Proposed Project are addressed in Section 5 of the EIS, as is the potential for increased exposure to hazardous materials associated with increased cargo movements.

Infrastructure Conditions: Consideration should be given to whether existing infrastructure provides sufficient protection from adverse impacts (e.g., protection of domestic water supply, especially if the community relies on public or non-public drinking wells or surface water; adequacy of sewage facilities) and the effect that new facilities may have on the ability of existing infrastructure to be reliable and provide adequate protection. In many low-income and/or minority communities, historic allocation of resources has resulted in inadequate infrastructure development and maintenance.

Daniel Island EIS Response: Existing water supplies and domestic waste treatment facilities are discussed in Section 4 of the EIS, and the potential impacts of the Proposed Project on such supplies and facilities are addressed in Section 5 of the EIS.

Life-Support Resources: This includes subsistence living situations (e.g., subsistence fishing, hunting, gathering, farming), diet, and other differential patterns of consumption of natural resources. If a community is reliant on consumption of natural resources, such as subsistence fishing, an additional exposure pathway may be associated with the community that is not relevant to the population at large. Similarly, dietary practices within a community or ethnic group, such as a diet low in certain vitamins and minerals, may increase risk factors for that group.

Daniel Island EIS Response: Subsistence fishing, hunting, gathering, and farming are not common within the Tri-County Region according to local officials and residents. Many rural residents supplement their diet with recreational fishing and gardens, but do not depend exclusively upon these activities for their daily subsistence.

Distribution of Costs

Consideration of the distribution of costs to pay for environmental projects to the extent that regulations and programs are paid for by user fees on necessary goods and services (e.g., sewer and water bills, garbage services, electric bills, gasoline taxes). These have a substantial negative effect on low-income families who must pay a disproportionate fraction of their income for these goods and services, the addition of user fees for another plant or facility may add to the disparate treatment of those individuals.

Daniel Island EIS Response: The Proposed Project will be funded by revenues of the SCSPA and the State of South Carolina. No direct tax burden will be placed upon local low-income residents.

4.1.3.2 Community Economic Base

Industrial

Reliance on polluting industries for jobs and economic development. If the community is reliant on polluting industries for jobs and tax revenue, there may be reluctance to take actions that would avoid risk to health and the environment at a cost to the industry. In addition, minority or low-income communities may not enjoy other benefits in proportion to the risks or impacts they bear.

Daniel Island EIS Response: The Proposed Project includes only transportation facilities which are not by their nature normally considered “polluting industries.” The EIS does address the fact that the proposed facilities will encourage industrial development within the service area of the Port of Charleston, but there is no indication that the Proposed Project will differentially encourage “polluting industries.”

Brownfields

Communities with low revenues may be unable to finance economic rehabilitation efforts that would improve the physical environment of a community.

Daniel Island EIS Response: The Proposed Project does not involve development on a brownfield site. Alternative terminal development at the former Charleston Naval Base would involve such development, which is discussed in Sections 3 and 5 of the EIS.

Natural Resources

Reliance on natural resources for economic base (e.g., tourism, crops; use of resources to create salable items, such as woven baskets among Native Americans; subsistence and commercial fisheries).

Daniel Island EIS Response: Tourism is a major economic factor for the Charleston area, and is based largely on historical features of the area. Major economic uses of natural resources in the study area include production of forest products and recreation in the Francis Marion National Forest, use of coastal beaches, and both commercial and recreational fisheries dependent on coastal wetlands. The potential impacts of the Proposed Project on these natural resources in addressed in Section 5 of the EIS.

Other

Other indirect effects which a low-income or minority population, due to economic disadvantage, may not be able to avoid, that will have a synergistic effect with other risk factors (e.g., vehicle pollution, lead-based paint poisoning, existence of abandoned toxic sites, dilapidated housing stock).

Daniel Island EIS Response: A possible indirect effect would be the attraction of toxic industries to locate near the port terminal. However, only one percent of all container cargo transported by the SCSPA is classified as hazardous materials and the associated health risks are therefore limited.

4.1.4 Human Health and Risk Factors

Evaluation of human health and risk factors relevant to environmental justice concerns may prove to be complicated when detailed technical analyses of risk factors and interaction of toxic chemicals are undertaken. However, the following include, but are not limited to, factors which allow for consideration of whether more detailed risk assessments or analyses specific to minority or low-income populations are appropriate:

4.1.4.1 *Emissions: Number of point and nonpoint sources of emissions including permitted and non-permitted (violations) releases.*

4.1.4.2 *Toxics: Presence of or exposure to highly toxic pollutants.*

- 4.1.4.3 *Exposures: Multiple exposure sources and/or paths for the same pollutant.*
- 4.1.4.4 *Pollutants: Exposure to multiple pollutants.*
- 4.1.4.5 *Pesticides: Exposure to pesticides by workers and to the misuse of pesticides.*
- 4.1.5.6 *Locations: Exposure through multiple locations (e.g., workplace, home, school, ambient).*
- 4.1.5.7 *Concentrations: Exposure to emissions from concentrated locations of the same type of industry (or industries).*
- 4.1.5.8 *Health Data: Health data for population in question (e.g., abnormal levels of cancers, asthma, emphysema, birth defects, low birth weight, infant and childhood mortality blood-lead levels asbestosis). This data could indicate historical hazards and health risks which, in concert with the effects of the proposed action could cumulatively or indirectly raise environmental justice issues.*
- 4.1.5.9 *Research Gaps: Research gaps (e.g., subsistence consumption, demographics dietary effects, synergistic effects of chemicals).*
- 4.1.5.10 *Data Collection: Data collection/analysis reliability and validity.*

Daniel Island EIS Response: The potential impacts of the Proposed Project on air pollutant emissions and exposures to hazardous materials through an accidental spill are discussed in Section 5 of the EIS. The primary air pollutant emissions associated with the Proposed Project are expected to result from increased truck and train activities, which are quantified in Section 5 of the EIS. Existing and projected safety and hazardous incident response programs are expected to prevent significant increases in the potential for exposure to hazardous materials.

4.2 FACTORS RELATED TO CULTURAL AND ETHNIC DIFFERENCES AND COMMUNICATIONS CONCERNS

When determining whether communities have been afforded opportunity for meaningful involvement, broad factors for consideration include the following. Other considerations for public participation are discussed in Chapter 4 of the "Guidance on Environmental Justice in EPA's NEPA Compliance Analyses."

4.2.1 Public Access. Whether community members have access to the decision-making process (i.e., whether the community is fairly represented on commissions, boards, etc., and whether the community is fairly made aware of their role in the decision-making process).

Daniel Island EIS Response: All local town, city, and county officials within the Tri-County Region were informed by mail of the EIS meetings and received newsletters. A special effort was made to identify community leaders within the community impact areas. Suggestions were given by local governments about local residents who would be interested in the EIS. Many of these residents were interviewed. Anyone who was identified as an interested party or "stakeholder" was placed on the

mailing list and informed about the public meetings. The Army Corps of Engineers Project Manager was available to provide additional information and answer questions throughout the EIS process. All meeting materials and newsletters stated the name, address, and telephone number for the Project Manager. Comment forms were also provided at all meetings which could be submitted at the meeting or mailed to the Army Corps of Engineers.

4.2.2 *Cultural Expectations* Cultural expectations and understanding of the decision-making process.

Daniel Island EIS Response: Many of the low income and minority groups are “distrustful” of the South Carolina State Port Authority and the Federal Government. The EIS preparers and agencies have taken steps to assure the public that the EIS analysis will be conducted in an objective and open manner. Commencing prior to the scoping process, consistent efforts have been made to publicize the process, and communicate with and involve low-income and minority residents of the potentially affected areas. Efforts will continue to be made to involve and take into consideration the views of these residents.

4.2.3 *Meaningful Information* Access to meaningful and understandable information, such as clear presentation of what a facility produces, what pollutants it releases, how these are managed, and the potential risk to the population.

Daniel Island EIS Response: An effort has been made to simplify the scientific analysis supporting the EIS and to write the EIS in terms that a lay person would understand. Tables and figures are used frequently to summarize information and present information in color-coded, visual format.

4.2.4 *Job Security* Potential for fear within the community that participating in the process may jeopardize job security.

Daniel Island EIS Response: The Proposed Project will create employment opportunities throughout the Tri-County Region and the State of South Carolina. Some of the International Longshoremen Union members may fear that the Proposed Project may reduce the need for unionized labor; however, there is a national trend toward use of non-union workers and this practice may increase with or without the Proposed Project. The higher volumes of containerized shipping should help to stabilize or increase the need for port and transportation workers. Employment projections for the Proposed project will be developed. With regard to the EIS process, specifically, it does not appear that participation has been limited by the fear of job loss. There has been good community participation at public meetings..

4.2.5 *Literacy Rate* If a low literacy rate exists, consideration should be given to the clarity and accuracy of presentations to the community and whether non-written materials, such as videos, have been considered for use in presentations.

Daniel Island EIS Response: The educational attainment levels are fairly low for three out of the four community impact areas. An effort was made to publicize meetings by various media. Press releases concerning the September 1998 meetings and the Public Hearing were sent to several radio and television stations instead of relying solely upon newspaper advertisements. Newsletters and correspondence were written in laymen's terms in order to enhance comprehension. Visual aids such as graphs and maps were used during PIF meetings and public workshops.

4.2.6 *Translations* Consideration of non-English translations, both written and oral during community presentations or public meetings.

Daniel Island EIS Response: According to the 1990 US Census only 1.4 percent or 7,150 persons were of Hispanic population in the Tri-County Region and all four community impact areas had less than one percent Hispanic population. There has not been a major migration of Hispanic population in these areas since the 1990 Census according to local officials. There have not been any requests for translators at any public meetings.

4.2.7 *Community Representation* Consideration should be given to whether representatives were selected by community decree or by outside sources without proper consultation with the community.

Daniel Island EIS Response: Refer to Response 4.2.1.

4.2.8 *Community Identification* Whether identification of minority and/or low-income communities took into account all potentially-impacted communities. If communities were geographically defined rather than culturally defined, certain communities that are impacted, given other cultural factors, may be unfairly excluded.

Daniel Island EIS Response: "Community Impact Areas" are identified based on census tract boundaries. The census tracts closest to the alternative terminal sites and road and rail corridors were selected. Three out of the four community impact areas have concentrations of low-income and minority populations which are greater than the proportions for the Region, the State of South Carolina, or the Nation. These characteristics of the community impact areas are described in the Affected Environment Section 4.2 of the EIS.

4.2.9 *Indigenous Populations*

In addition, when projects or activities may affect tribal lands or resources or Native American communities, the NEPA analytical team should include one or more analysts familiar with Native American issues and culture, and the Agency should formally request the affected Indian Tribe(s) to seek participation as a cooperating agency. Specific factors to consider in such situations include, but are not limited to:

- The trust responsibility to and treaties, statutes and executive orders with federally-recognized Indian Tribes.

- *Effect of insufficient financial and technical resources for the development and implementation of tribal environmental programs.*
- *Impacts to treaty-protected resources, cultural use of natural resources, and/or sacred sites.*
- *Government-to-government relationship with affected Indian Tribes as well as meaningful participation of the affected tribal community.*
- *A dispute resolution process may be appropriate to ensure that resources are not diminished.*
- *Health and socioeconomic effects due to cultural, subsistence, and commercial use of natural resources.*
- *Potential for risk assessment to underestimate relationship between environmental degradation and human health concerns, especially in low population density areas.*
- *Fundamental differences in “world view,” where the values placed on resources vary significantly between cultures (i.e., some Native American cultures dispute the ability to “own” land and other resources.)*

Daniel Island EIS Response: The Native American population was less than 0.4 percent of the Tri-County Region’s 1990 population according to the US Census. There are no concentrations of Native American in any of the “community impact areas.” There has not been an in-migration of Native Americans to this Region since the 1990 US Census.

4.3 FACTORS RELATED TO HISTORICAL AND POLICY ISSUES

Environmental justice assessments may require looking at historical conditions, existing conditions, and the impact of future actions. Many of the factors discussed above, such as cumulative risk, will necessarily address this question, but certain other factors may also require consideration, including:

4.3.1 Industrial Concentration: Concentration of industries that may create a high risk of exposure to environmental hazards for the community’s economic base. Factors that may lead to such a result include government/industry arrangements that may reduce available public funding for adequate protection of low-income or minority populations (e.g., tax breaks provided to certain industries to encourage the location of such industries to a certain area).

Daniel Island EIS Response: Not applicable to the Proposed Project.

4.3.2 Inconsistent Standards: Non-uniformity in enforcement and site-selection standards across communities including methods for pursuing enforcement targeting, compliance actions and compliance initiatives.

Daniel Island EIS Response: Not applicable to the Proposed Project.

4.3.3 Research Gaps: Research gaps and past data collection practices and validity. For example, data relevant to low-income communities may not be adequately collected and analyzed given the potential for inadequate resources within the community to collect and analyze data.

Daniel Island EIS Response: The socioeconomic analysis of the community impact areas utilized the 1990 census tract data which was eight years old at the time of analysis. Population trends for the community impact areas were analyzed as a means to update the 1990 characteristics.

4.3.4 *Program Gaps: Program gaps between tribal, state, and federal programs (such as asbestos worker protection programs) that may have subjected communities to high risk of exposure to environmental hazards. Such gaps include the lack of explicit Congressional authorization for tribal participation in and delegation/authorization of certain EPA programs and the sufficiency of funding and technical assistance for the development of tribal environmental programs.*

Daniel Island EIS Response: Not applicable to the Proposed Project.

4.3.5 *Non-Inclusive Processes: Decision-making and documentation processes that were non-scientific, and/or non-inclusive in nature (e.g., selection of community representatives by potentially-affected industry rather than by community decree).*

Daniel Island EIS Response: Public participation efforts targeted all interested parties and were as inclusive as practical.

4.3.6 *Past Practices Adequacy of past resource allocation practices.*

Daniel Island EIS Response: Not applicable to the Proposed Project.

4.3.7 *Cultural Diversity Past and present cultural diversity or lack thereof on decision-making boards, within agencies, commissions, etc.*

Daniel Island EIS Response: Public participation efforts targeted all interested parties and were as inclusive as practical.

4.3.8 *Obligations Adherence to prior agreements, such as treaties, statutes and executive orders with tribes. EPA should be particularly careful not to diminish tribal resources, including cultural and natural resources and treaty rights, without tribal concurrence and EPA should ensure the protection of such resources from environmental harm.*

Daniel Island EIS Response: There are no prior tribal agreements applicable to the Daniel Island EIS.
