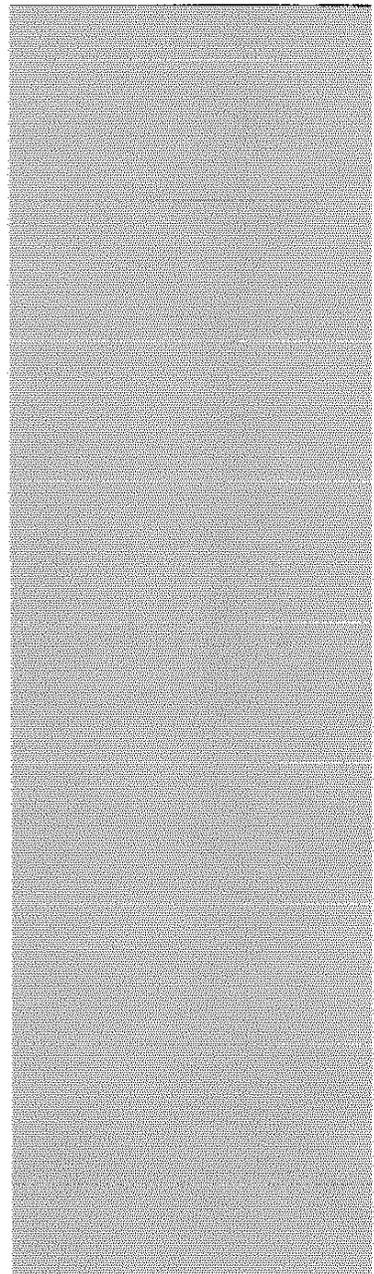
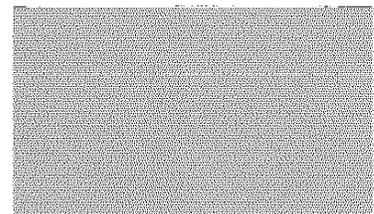


**Federal Consistency  
Determination**



**ENCLOSURE  
E**



## 1. SUMMARY DETERMINATION

The Federal Coastal Zone Management Act (CZMA), 16 U.S.C. 1451 et seq., as amended, requires each Federal agency activity performed within or outside the coastal zone (including development projects) that affects land or water use, or natural resources of the coastal zone to be carried out in a manner which is consistent to the maximum extent practicable with the enforceable policies of approved state management programs. A direct Federal activity is defined as any function, including the planning and/or construction of facilities, that is performed by or on behalf of a Federal agency in the exercise of its statutory responsibilities. A Federal development project is a Federal activity involving the planning, construction, modification or removal of public works, facilities or other structures, and the acquisition, use or disposal of land or water resources.

To implement the CZMA and to establish procedures for compliance with its Federal consistency provisions, the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), has promulgated regulations which are contained in 15 C.F.R. Part 930. This Consistency Determination is being submitted in compliance with Part 930.30 through 930.44 of those regulations.

NOAA approved the South Carolina Coastal Management Plan (SCCMP) September 1979 and the Georgia Coastal Management Plan (GCMP) in January 1998. Savannah District prepared this Consistency Determination to evaluate the proposed harbor deepening project for its consistency with both the SCCMP and the GACMP. The District requests the states review this document and its conclusions, and the District seeks concurrence from the states that the proposed project is consistent with the SCGMP and the GCMP.

The information contained within this Consistency Determination is derived primarily from the Savannah Harbor Long Term Management Strategy (*LTMS*) and the Environmental Impact Statement (*EIS*) for the proposed Savannah Harbor Deepening Project, Chatham County, Georgia, and Jasper County, South Carolina. References to the *EIS* are included in some of the discussions on the proposed project's compliance with certain individual state policies. Should further information concerning the proposed project be desired, please refer to the *EIS*, of which this Determination is a component.

In accordance with the CZMA, the U.S. Army Corps of Engineers (USACE) has determined that the proposed deepening of Savannah Harbor, Georgia is being carried out in a manner that is consistent with the enforceable policies of the South Carolina Coastal Management Program and the Georgia Coastal Management Program. The evaluations supporting that determination are presented in Sections 6 and 7 of this document.

## 2. BACKGROUND

### 2.1 Purpose

This Consistency Determination addresses the consistency of the proposed deepening and improvement of the Savannah Harbor Federal Navigation Project with the South Carolina Coastal Management Program and the Georgia Coastal Management Program, as required by the Federal Coastal Zone Management Act (CZMA).

## 2.2 Existing Savannah Harbor Federal Navigation Project

### HARBOR LOCATION

Savannah Harbor is located on the South Atlantic U.S. coast, 75 statute miles south of Charleston Harbor, South Carolina, and 120 miles north of Jacksonville Harbor, Florida. The existing harbor constitutes the lower 21.3 miles of the Savannah River and 11.2 miles of channel across the bar to the Atlantic Ocean.

### CHANNEL WIDTH AND DEPTH

The authorized Federal Navigation Project in Savannah consists of approximately 32.5 miles of channels at various depths and widths. The project can be broken into the following channel segments:

- 44 feet deep and 600 feet wide from the deep waters in the ocean (mile 11.17B) to the channel between the jetties (mile 2.6B, Station -14+000B);
- 42 feet deep and 500 feet wide from between the jetties to the harbor entrance (River Mile 0.0), and continuing to the upstream end of the Kings Island Turning Basin (River Mile 19.5, Station 103+000);
- 36 feet deep and 400 feet wide from River Mile 19.5 to the upstream end of the Argyle Island Turning Basin (River Mile 19.9, Station 105.5); and
- 30 feet deep and 200 feet wide from River Mile 19.9 to the harbor's upstream limit at River Mile 21.3 (Station 112.5).

Note: all depths are relative to Mean Low Water (MLW).

### CHANNEL LOCATION

Within the harbor limits, Savannah River is generally divided into two channels by a series of islands. From the Atlantic Ocean to River Mile 10, where the rivers converge, the harbor is separated into South and North channels. Within this area, the navigation channel is maintained in North Channel. After divergence of the river into Front and Back Rivers at River Mile 11, the navigation channel is maintained in Front River to the upper limits of the harbor at River Mile 21.3.

### ADVANCE MAINTENANCE

Advance maintenance extends the length of time during which authorized channel depths are available. This sediment management technique is performed by enlarging the channel cross-section to provide storage of deposited sediments outside the authorized navigation channel. The authorized advance maintenance in the navigation channel is as follows:

- 2 feet deep from River Mile 2.6B to River Mile 0.0 (Station -14+000B to Station 0+000);
- 2 feet deep from River Mile 0.0 to River Mile 4.5 (Station 0+000 to Station 24+000);
- 4 feet deep from River Mile 4.5 to River Mile 13.3 (Station 24+000 to Station 70+000); and
- 6 feet deep from River Mile 6.6 to River Mile 7.0 (Station 35+000 to Station 37+000);
- 2 feet deep from River Mile 13.3 to River Mile 21.3 (Station 70+000 to Station 112+000).
- 6 feet deep in the Kings Island Turning Basin;
- 2 feet deep in the Fig Island Turning Basin;

Advance maintenance in the following areas has received environmental approval, but has not yet been authorized by higher Corps offices:

- 8 feet deep in the Marsh Island Turning Basin;
- 12 feet deep in the Fig Island Turning Basin;
- 8 feet deep in the Elba Island Turning Basin;
- 4 feet deep in the Oysterbed Island Turning Basin;
- 6 feet deep in the Sediment Basin;

Advance maintenance in the following areas has been authorized by higher Corps offices, but environmental approvals have not yet been sought:

- 8 and 12 feet deep in portions of the Kings Island Turning Basin;
- 6 feet deep from River Mile 11.2 to River Mile 13.3 (Station 59+000 to Station 70+000);
- 7 feet deep on the northern side of the channel from River Mile 13.3 to River Mile 13.8 (Station 70+000 to Station 73+000);
- 4 feet deep on the southern half of the channel from River Mile 6.6 to River Mile 7.0 (Station 90+000 to Station 92+000);

No advance maintenance is presently performed between Stations 58+000 and 59+000 to reduce potential impacts to the CSS GEORGIA, which is located along that reach.

## SEDIMENT CONTROL WORKS

Authorized sediment control works in the harbor consist of a tide gate structure across Back River and a sediment basin immediately downstream of the tide gate. These structures were designed to concentrate sedimentation outside the navigation channel in a location close to the confined disposal facilities (CDFs). The Sediment Basin was authorized at a 40-foot depth, 600-foot width and approximately 2-mile length, with an entrance channel 38 feet deep and 300 feet wide. The Tidegate became operative in May 1977, but was taken out of service due to adverse environmental impacts in October 1990. A drainage canal, known as New Cut, located across Argyle Island was constructed along with the Tidegate. New Cut was closed in 1990 to reduce salinity levels in the Savannah National Wildlife Refuge (NWR), restore approximately 4,000 acres of freshwater marsh, and reduce the flushing of striped bass eggs and larvae into the Front River, thereby improving the striped bass fishery in the Savannah River. Closure of New Cut and removal of the Tidegate from operation resulted in a significant increase in the cost of maintaining adequate depths in the harbor.

## FRESHWATER CONTROL WORKS

During development of the Tidegate/Sediment Basin project in 1970, it was recognized that the saltwater wedge would move further upstream as a result of the project. This would have an unacceptable level of adverse impact on freshwater marshes in the Savannah River NWR. To offset these impacts, a freshwater supply system was included in the project. Details of the freshwater control works are listed in the *LTMS*.

## TURNING BASINS

The project has seven authorized turning basins, as listed in Table 2.1.

• Table 2.1. Savannah Harbor Turning Basins.

Name	Length (feet)	Width (feet)	Depth (feet- MLW)	Location (River Mile / Station)
Oysterbed Island	1050	1200	40	0.7 / 3+500
Elba Island	1500	2000	38	6.8 / 36+000
Fig Island	900	1000	34	13.0 / 68+500
Marsh Island	900	1000	34	17.1 / 90+500
Kings Island	1500	1600	42	18.8 / 99+500
Argyle Island	600	600	30	19.6 / 103+500
Port Wentworth	600	600	30	20.9 / 110+500

### 2.3 SCCMP and GCMP Jurisdiction

Savannah Harbor is located in Chatham County, Georgia, and Jasper County, South Carolina. The SCCMP defines critical areas as being coastal waters, tide-lands, beaches, and primary oceanfront sand dunes. SCDHEC-OCRM considers an activity located in one or more of the critical areas to have a direct effect on the coastal zone and therefore is subject to the consistency requirements. Chatham County is one of the six Georgia counties lying adjacent to the coast, and is included in the Georgia Coastal Management Plan as one of the eleven counties that are within the coastal area. The Georgia CMP lists dredging, channel improvements and other navigational works conducted by the USACE as being direct Federal activities that are subject to Federal Consistency.

### 2.4 Authority

The Federal Coastal Zone Management Act (CZMA), 16 U.S.C. SS 1451 et seq., as amended, is the legislative authority regarding the consistency of Federal actions with state coastal policies. Section 1456(c)(1)(A) of the CZMA states: "Each Federal agency activity within or outside the coastal zone that affects any land or water use or natural resource of the coastal zone shall be carried out in a manner which is consistent to the maximum extent practicable with the enforceable policies of approved state management programs." A Federal activity is defined as any function, including the planning and/or construction of facilities, that is performed on behalf of a Federal agency in the exercise of its statutory responsibilities.

To implement the CZMA and to establish procedures for compliance with its Federal consistency provisions, the U.S. Department of Commerce, National Oceanographic and Atmospheric Administration, has promulgated regulations, 15 C.F.R. Part 930. This Consistency Determination was prepared in compliance with SS 930.30 through 930.44 of those regulations.

## 3. PROJECT DESCRIPTION

Four deepening alternatives were evaluated according to environmental and economic criteria. The alternatives include deepening the existing channel depth of -42 feet MLW by 2 feet, 4 feet, 6 feet, and 8 feet, including appropriate overdredge allowances and advance maintenance. The new authorized

channel depth in the Inner Harbor would be as follows: Alternative A: -44 feet MLW; Alternative B: -46 feet MLW; Alternative C: -48 feet MLW; and Alternative D: -50 feet MLW. Channel depths on the Bar Channel would be 2-feet deeper, as they are with the existing project. The Inner Harbor area proposed for deepening roughly corresponds to channel Stations 0+000 (near Fort Pulaski) to 103+000 (just above Kings Island Turning Basin), a distance of 103,000 river feet. The Bar Channel (BC) or ocean channel proposed for deepening begins at Station 0+000 and extends to a maximum length of approximately 85,000 feet. The maximum project length is, therefore, approximately 36 miles.

The plan proposes to continue the present side slopes down to the new depths, which will provide a new channel bottom width of less than the average 500 feet of the existing channel. The project includes among its advantages the maintenance of the existing channel top width, which reduces impacts to existing marshes and structures. Side slopes will therefore not be disturbed in this project, except where bend wideners are needed.

Deepening sediment materials excavated from the inner harbor will be placed in existing upland CDFs. Savannah Harbor presently has 8 diked disposal areas that are used for annual maintenance dredging. No new disposal areas will be required for the project; however, some dike raising will be required to provide sufficient storage capacity, ponded water depth, and freeboard within the CDFs.

Material from the Bar Channel will be placed in the ocean dredged material disposal site (ODMDS) and – when suitable – in nearshore beneficial use alternatives. Beneficial use alternatives potentially include a bird island sanctuary, submerged berms, nearshore feeder berms and direct beach placement on Tybee Island and Daufuskie Island.

The details of beneficial use alternatives, as well as estimates of new work and maintenance dredge volumes are described in detail in Section 2 of the *EIS, Alternatives*. Since this information is contained in the main *EIS*, it will not be repeated here.

#### 4. EFFECTS OF PROPOSED PROJECT

The effects of the proposed project are described in detail in Section 4 of the *EIS, Environmental Consequences*. Since they are contained in the main *EIS*, they will not be repeated here.

## 5. AREAS OF ENVIRONMENTAL CONCERN

A study of previous reports and discussions held at several coordination meetings with personnel representing Federal, state, and municipal reviewing agencies, personnel from affiliated research institutions, and the interested public have served to identify 9 major issues of concern. These issues are (1) the potential of the proposed channel deepening to increase salinity intrusion levels, and (2) alter dissolved oxygen (DO) conditions in the lower Savannah River. The potential for such changes to adversely impact (3) the freshwater wetlands within the Savannah National Wildlife Refuge (SNWR), (4) striped bass spawning in the Savannah River estuary, and (5) the shortnose sturgeon (an endangered species). Another issue (6) is the disposal of dredged sediment materials and the potential for adverse impacts to water quality and to the environment. Finally, a concern exists that the deepening may affect (7) chloride concentration in the industrial water supply of the City of Savannah or that the deepening (8) may breach the potable, water-bearing Floridan aquifer. Finally, (9) a concern exists that a number of historical and cultural landmarks along the Savannah River may be affected by excavation, inundation or erosion. These issues are briefly described below.

### 5.1 Salinity

Historic alterations to the lower Savannah River estuary, including the construction of the Tidegate (and its subsequent decommissioning), channel deepening, and the opening (and subsequent closing) of New Cut, have resulted in changes in the temporal and spatial distribution of salinities within the lower estuary. The impacted surface waters include, the Front River up to the US Interstate-95 Bridge, the Middle River, the Back River, and the Little Back River.

Studies conducted in the late 1980s (Pearlstone, *et al.*, 1990) identified operation of the Tidegate, and the connection from the Little Back River to the Middle River (New Cut) as the primary causes of the increased salinity levels. Due to impacts to freshwater wetlands within the SNWR that were identified in those studies, the Tidegate was taken out of operation. This was accomplished as part of the last harbor deepening project (1993/1994). New Cut was subsequently closed as part of an Environmental Restoration Project.

In 1993/1994 the navigation channel was deepened an average of 4.0 feet. As described in Section 1.2, the proposed project will deepen the navigation channel an additional 8.0 feet on average. The upstream end of the deeper channel will not increase. The Bar Channel would be extended to reach the deeper natural ocean depths.

The *DEIS* summarizes the results of three studies conducted by ATM that examine salinity within the lower Savannah River estuary for *historic*, *existing*, and *predicted* ("with project") conditions. The first study examines the historic changes in the salinity regime from 1990 to the present. During this time period, the United States Geological Survey (USGS) monitored specific conductance at three permanent stations: one within the Front River, and two within the Little Back River. During the time period in which the data were collected, three distinct physical alterations to the system occurred:

- The Tidegate was decommissioned
- New Cut was closed
- A 4.0-foot deepening of the navigation channel was completed

From 1990 to the present, USGS collected at least 9 months of continuous data of specific conductance (and therefore salinity) at three stations prior to and after each of these physical alterations. Analysis of these data is presented within this report in order to quantify the changes in the salinity distribution through these alterations. This analysis provides insight into the level of impact attributable to the Tidegate operation and New Cut versus the impacts attributable to the last deepening project. Moreover, the analysis has helped quantify the expected impacts of the proposed deepening and to provide confidence in the results of predictive model simulations. The results of this study are summarized within this report. A detailed description of the data, analyses, and results are presented within a separate report prepared by ATM titled *Analysis of the Historical Data for the Lower Savannah River Estuary*.

The second study presents the results of an intensive monitoring effort conducted from July through September 1997. During this time period, water surface elevation, temperature, specific conductance (and therefore salinity), and dissolved oxygen were continuously monitored at 14 stations from offshore of Fort Pulaski River Mile (RM-0) to the I-95 Bridge (RM-27.3). Stations within the navigation channel monitored surface and bottom parameters to define levels of stratification. In addition, data of currents and flows were collected at various locations throughout the system. The findings from this data collection are summarized in this report. The goal was to quantify the *existing* salinity distribution within the system and how this distribution responds to varying flow, tidal and meteorological forcing. These data help define the present salinity conditions which may be impacted due to the proposed deepening project. A detailed description of the data, analyses, and results are presented in a separate report prepared by ATM titled *Hydrodynamic and Water Quality Monitoring of the Lower Savannah River Estuary, July to September 1997*.

The final study presents quantification of the *predicted* changes in the salinity distribution using a 3-dimensional hydrodynamic/salinity model of the lower Savannah River estuary. Historic model applications to the Savannah River Estuary have included one-dimensional simulations (Georgia Environmental Protection Division, 1987, Law Environmental, 1991, Martin, 1991), as well as laterally averaged 2-dimensional models (Johnson, Trawle, and Kee, 1989) and simplified 2-dimensional box models (Martin, 1991). These models have been used to evaluate both salinity and dissolved oxygen levels within the system, and the impact of channel deepening upon those parameters. The use of one-dimensional models does not account for the effects of variation in the velocity and concentration in the cross-channel as well as the variations over the vertical water column. The use of 2-dimensional, laterally averaged, models addresses the variations over the vertical water column and accounts for the density driven residual circulation (a critical mechanism in stratified systems). However, they do not resolve the lateral variations in the velocity field and their impacts on the system-wide circulation. For this study, a 3-dimensional circulation and transport model was used. The model accounts for the vertical as well as lateral variations within the system, along with the baroclinic (density driven) portion of the residual circulation. This model application is to date the most comprehensive application for the Savannah River and represents the state of the art in hydrodynamic and transport modeling.

The model was calibrated to the data set collected from July through September 1997. Model simulations were then performed under pre-determined flow conditions to examine the temporal and spatial variations in the salinity under the present and proposed channel design. The two results were then compared in order to provide the net impact of the proposed deepening. The flow conditions for the pre- and post-deepening simulations were determined primarily by the ecological and biological impacts of concern. The results of this study are summarized within this report. A detailed description of the

data, analyses, and results are presented in a separate report prepared by ATM titled *Hydrodynamic and Water Quality Modeling within the Lower Savannah Estuary*.

## 5.2 Dissolved Oxygen

In conjunction with the analysis of the impacts of the proposed harbor deepening upon the salinity, similar studies were conducted to determine the impacts of the deepening upon the dissolved oxygen concentrations. This study addresses the present dissolved oxygen concentrations and distribution throughout the system. The projected impacts to dissolved oxygen due to the deepening were evaluated in a comparative sense, i.e. the relative difference in the dissolved oxygen concentrations and distribution under critical conditions. The goal of this study was to isolate the net impact of the proposed harbor deepening on dissolved oxygen.

In comparison with the salinity concentrations, limited historic data are available to evaluate the impacts of past alterations to the system. For this reason the studies presented within this report are limited to two:

- Evaluation of the present dissolved oxygen conditions using the data collected from July to September 1997.
- Evaluation of the relative impact of the proposed deepening on the dissolved oxygen concentrations within the system.

The results of these studies are summarized within this report. A detailed description of the data, analyses, and results are presented in a separate report prepared by ATM titled *Hydrodynamic and Water Quality Modeling within the Lower Savannah Estuary and Hydrodynamic and Water Quality Monitoring of the Lower Savannah River Estuary, July to September 1997*.

The measured data were evaluated in conjunction with the water quality regulations related to dissolved oxygen to quantify the level of impact within the system. In addition, the net impacts, along with the results of the data analyses, were evaluated in relation to life stage requirements of selected indigenous species of concern.

## 5.3 Impacts to Striped Bass

One of the major concerns of the proposed deepening project is that an increase in salinity within the traditional spawning area of the striped bass, or within the habitat that serves as a feeding ground for juvenile species, may adversely impact recovery efforts now underway. The condition of the striped bass in the Savannah River has been a continuing issue of concern since their decline was noted after 1977. Researchers have argued that the Tidegate, which went into operation in 1977, caused a 95 percent decline in egg production. Researchers claimed that the principal adverse influences of the Tidegate and New Cut on striped bass spawning were (1) increased salinity within the spawning grounds in the Back River and (2) alteration of current velocities and pathways of water movement in the middle and lower estuary, and (3) transport of eggs to waters that exceeded their lethal limit for salinity tolerance. The lethal threshold for striped bass eggs is believed to be 9 ppt. The optimal range for spawning is believed to be below 2.5 ppt, though in the Savannah River, studies have shown that spawning occurs below 1 ppt. Further field studies have shown that egg spawning in the Back River, the traditional spawning area for striped bass, has remained at its reduced level even though the Tidegate

was taken out of operation in 1991. A recovery program that has included decommissioning of the Tidegate, the filling of New Cut and a stocking program have not yet resulted in a self-sustaining population.

#### 5.4 Impacts to Shortnose Sturgeon

The shortnose sturgeon is an endangered species. The proposed deepening of the channel will extend just beyond the Kings Island Turning Basin, an area that has been identified as a habitat for juvenile sturgeon. Two impacts are of special concern: (1) potential for alterations to the temporal and spatial distribution of salinity within critical habitat areas; and (2) potential for alterations to the temporal and spatial distribution of DO within critical habitat areas. The lowering of DO is a concern because juvenile populations that remain in the lower Savannah River during summer months are already subjected to stressful, high temperature and low DO conditions.

#### 5.5 Dredged Material Management

The *DEIS* examines dredging issues for a “no action” alternative and four incremental harbor deepenings ranging from 2 to 8 ft. The major issues of concern related to the dredged sediment materials are contaminants, the location of disposal sites, the volume of dredged material to be managed, the impact on aquatic life during dredging operations, and the impact to wildlife uses of the CDFs.

Maintenance dredging of the navigation channel will be required for the “no action” alternative. This dredging is typically performed on a yearly basis. In the Inner Harbor, the annual maintenance burden has been and is expected to remain at just above 7 million cubic yards. The *Long Term Management Strategy (LTMS)* indicated that this volume is expected to continue to be removed throughout that study's 20-year period of analysis.

A comprehensive channel maintenance plan was developed by the Savannah District USACE and presented in the *LTMS*. The plan addressed channel maintenance and the placement of dredged sediment materials. The *LTMS EIS*, presented a comprehensive plan for harbor operations and maintenance, and included such features as rotational use of disposal areas and a program for advanced maintenance dredging. The “no action” alternative would require a continuation of the annual maintenance dredging program and would continue use of the upland CDFs specified in the *LTMS* for placement of the material excavated from the inner harbor channel during maintenance operations. Overall, the *LTMS* found that, except for diking Disposal Area 14A, no changes are expected in the availability of inner harbor CDFs for placement of maintenance sediments.

The dikes of the CDFs are periodically raised to increase the storage capacity of the sites. With the continuation of that practice, all CDFs, except Disposal Area 2A, have a remaining life that extends beyond this study's 50-year period of analysis.

For the Bar Channel, maintenance material has historically been excavated by drag head hopper dredge and placed in the USEPA-approved Savannah Harbor Ocean Dredged Material Disposal Site (ODMDS). The *LTMS EIS* evaluated several alternatives to ocean disposal for the Bar Channel sediments. For the “no action” alternative, Bar Channel dredged material management will follow the plan selected in the *LTMS*, which includes continued placement of O&M sediments in the ODMDS and several nearshore beneficial use alternatives, including nearshore submerged berms, a bird island, a nearshore feeder berm, and various forms of beach nourishment.

The “maximum case” being evaluated under the *DEIS* is an 8-foot deepening (-50 ft MLW project). The excavation required to construct this project is scheduled to commence in July 1999. Sediment materials excavated from the inner harbor will be placed in existing upland CDFs. Material from the Bar Channel will be placed in the ODMS, and -- when suitable -- in nearshore placement alternatives.

Savannah Harbor presently has 8 upland CDFs that are used for annual maintenance dredging. The inner harbor dredging for the Savannah Harbor expansion project can be accomplished using those existing sites. Though no new disposal areas will be required, some dike raising will have to occur in order to provide storage capacity, ponded water depth, and freeboard within the CDFs.

Regulation of dredged material discharge in waters of the United States and ocean waters is a complex issue and is the shared responsibility of the USEPA and the USACE. The primary Federal environmental statute governing transportation of dredged material to the ocean, for the purpose of disposal, is the Marine Protection Research and Sanctuaries Act (MPRSA). The primary Federal environmental statute governing the discharge of dredged or fill material into waters of the United States is the Clean Water Act (CWA). All proposed dredged material disposal activities regulated by MPRSA and CWA must also comply with the applicable requirements of NEPA and its implementing regulations. To meet the complex legislative demands for dredged material evaluations, the USACE and the USEPA jointly publish a series of guidance documents to assist in an environmental effects evaluation of dredging projects and dredged material management alternatives.

The Sampling and Analysis Plan (*SAP*) for this project considered the procedures and guidance provided by these documents. Physical and chemical data were collected on both the new work and O&M sediments so that a wide range of dredged material management alternatives could be considered.

The “no action” alternative serves as the basis against which the various harbor deepening alternatives are evaluated and compared. In the case of dredged material management for the “No Action” alternative, the existing approved navigation project would continue to be maintained and the maintenance sediments would be managed according to the approved alternative selected in *LTMS*.

The new work sediments underlying the existing channel were laid down by processes long before the modern industrial age, and anthropogenic impacts to those sediments are minimal. The contaminant testing of these materials was conducted primarily to confirm this conclusion and to provide a basis for evaluating the potential of creating adverse impacts to biota by opening new pathways to naturally-occurring, though toxic concentrations of dredged material constituents, and for evaluating the potential for adverse impacts to biota where the sediments would be deposited.

The primary environmental effects expected from the management of proposed deepening dredged sediments are physical. These include water column impacts such as temporary sediment loading of the water column, benthic dislocation for open water disposal, and placement site capacity issues (e.g., the potential to more quickly reduce the useful life of upland and ocean disposal areas).

## 5.6 Industrial and Potable Water Resources

The City of Savannah expressed concern that its industrial water supply from the Savannah River may be impacted by an increase in chlorides due to a potential upriver saltwater migration. The City’s water

plant supplies water to industrial processes that require finished water with a chloride concentration of less than 12 mg/L.

To address the issue of impacts of the proposed harbor deepening upon the industrial water supply for the City of Savannah, historic chloride data from the City of Savannah Intake were compared with salinity changes measured in the lower estuary at the Houlihan Bridge. The goal was to establish some relationship between measurable salinity changes and impacts to the intake waters. An impact analyses is presented in this study.

The principal aquifer known as the Floridan Aquifer, which is the largest source of fresh water in the coastal area, has received particular attention as state groundwater agencies have begun to search for alternative groundwater resources. Measures to relieve some of the stress on the Floridan aquifer have already been put into effect by state groundwater agencies in an attempt to force groundwater users to explore and develop alternative sources.

Due to concerns that deepening the existing Savannah Harbor channel might have potential impacts on groundwater aquifers below the channel, a study was initiated by the USACE to evaluate the possible impacts. The principal objective of this investigation was to better characterize the geologic and hydrogeologic framework of the project area through the use of a subbottom geophysical survey, borehole core drilling, borehole geophysical logging, permeability analysis of core samples, and test well installation. The investigation provided the most comprehensive hydrogeologic evaluation of potential impacts to groundwater resources by dredging to be performed to date in Savannah Harbor. In summary, the study found that the proposed deepening could occur without any adverse impact to either the Floridan aquifer or the fresh water withdrawn from it for drinking purposes.

## 6. CONSISTENCY EVALUATION--GEORGIA

### 6.1 State Enforceable Policies

The goals of the Georgia Coastal Management Program are attained by enforcement of the policies of the State as codified within the Official Code of Georgia Annotated. "Policy" or "policies" of the Georgia Coastal Management Program means the enforceable provisions of present or future applicable statutes of the State of Georgia or regulations promulgated duly thereunder (O.C.G.A. 12-5-322). The statutes cited as policies of the Program were selected because they reflect the overall Program goals of developing and implementing a balanced program for the protection of the natural resources, as well as promoting sustainable economic development of the coastal area.

Table 1 on the following page contains a list of the state laws which -- along with their associated regulations -- provide the legal authority for the state's regulation of its salt marshes, beaches and dune fields, and tidal water bottoms. Each of the coastal resources and use areas of concern is discussed separately in this section, in alphabetical order. For each coastal resources and use areas of concern, a policy statement is provided with a direct citation to Georgia law. The laws are not cited in their entirety. Instead, the purpose of the statute, or a pertinent section of the statute, is cited. The Program policies are the enforceable provisions of the laws cited. A policy statement for each law describes the spirit of the law, directly cited from statements set out in the particular law. In each case, the citation for the statement is provided. The particular statements may or may not be enforceable as written, but the laws to which they relate contain enforceable provisions that have been enacted by the Georgia General

Assembly to implement the policies as stated. The policies cited here are, therefore, supported by legally binding laws of the State of Georgia, through which Georgia is able to exert control over impacts to the land and water uses and natural resources in the coastal area. The statutes referenced herein can be found in the Official Code of Georgia Annotated (O.C.G.A.), copies of which are located in headquarters offices of State and local agencies, most public libraries, local courthouses, and numerous other public offices.

A paragraph titled "General Description" is included after each cited policy to serve as a quick reference to the relevant provisions of the law. The General Description is not intended to be, nor should it be interpreted as, law, policy, or restatement of the law. It is merely provided for the convenience of the reader to gain an initial concept as to the content of the related law. The reader is advised to refer to the actual law cited, and not to rely on the General Description as a basis for a legal interpretation of the law on any particular issue. The "Policy Statement" and "General Description" paragraphs were copied directly from the Georgia CZM Program. A paragraph titled "Consistency" follows those two paragraphs to explain Savannah District's position on the extent to which the proposed project is consistent with that enforceable provision.

• Table 6.1 Pertinent State Laws and Authorities

PERTINENT STATE LAWS AND AUTHORITIES
Georgia Coastal Management Act
Coastal Marshlands Protection Act
Department of Natural Resources Authority
Endangered Wildlife Act
Game and Fish Code
Georgia Aquaculture Development Act
Georgia Air Quality Act
Historic Area Act
Georgia Boat Safety Act
Georgia Administrative Procedures Act (Revocable License Program)
Georgia Comprehensive Solid Waste Management Act
Georgia Environmental Policy Act
Georgia Erosion and Sedimentation Control Act
Georgia Fisheries Law Pertaining to Shellfish
Georgia Hazardous Waste Management Act
Georgia Heritage Trust Act
Georgia Natural Areas Act
Georgia Environmental Policy Act
Georgia Oil and Gas Deep Drilling Act
Georgia Safe Dams Act
Georgia Safe Drinking Water Act
Georgia Scenic Rivers Act
Georgia Scenic Trails Act
Georgia Surface Mining Act
Georgia Underground Storage Tank Act
Georgia Water Quality Control Act
Groundwater Use Act
Licenses to Dig, Mine, and Remove Phosphate Deposits
Protection of Tidewaters Act
River Corridor Protection Act
Title 31 – Health (Septic Tank Law)
Shore Protection Act
Water Wells Standards Act
Wildflower Preservation Act

## AQUACULTURE

### Policy Statement

Georgia Aquaculture Development Act (O.C.G.A. 27-4-251, et seq.)

27-4-254. Duty of commission to develop aquaculture development plan; contents of plan; meetings of commission; staff support.

(a) The commission shall make a thorough study of aquaculture and the potential for development and enhancement of aquaculture in the state. It shall be the duty of the commission to develop, distribute, and, from time to time, amend an aquaculture development plan for the State of Georgia for the purpose of facilitating the establishment and growth of economically viable aquaculture enterprises in Georgia. (Code 1981. SS 27-4-254, enacted by Ga.L. 1992, p. 1507, SS 8.)

#### General Description

The Georgia Aquaculture Development Act was enacted in 1992 to study aquaculture development in Georgia. A 14-member Aquaculture Development Commission composed of industry representatives, scientists, agency representatives, and others is created. The Department of Natural Resources, with assistance from the Department of Agriculture and the Department of Industry, Trade, and Tourism provides staff support for the Commission.

#### Consistency

The proposed project is fully consistent with this policy.

## AIR QUALITY

### Policy Statement

Georgia Air Quality Act (O.C.G.A. 12-9-1, et seq.)

12-9-2. Declaration of public policy.

It is declared to be the public policy of the State of Georgia to preserve, protect, and improve air quality and to control emissions to prevent the significant deterioration of air quality and to attain and maintain ambient air quality standards so as to safeguard the public health, safety, and welfare consistent with providing for maximum employment and full industrial development of the state. (Code 1933, 88-901, enacted by Ga.L. 1967, p. 581, SS 1; Ga.L. 1978, p. 275, SS 1; Ga.L. 1992, p. 918, SS 2; Ga.L. 1992, p. 2886, SS 1.)

#### General Description

The Georgia Air Quality Act provides authority to the Environmental Protection Division to promulgate rules and regulations necessary to abate or to control air pollution for the State as a whole or from area to area, as may be appropriate. Establishment of ambient air quality standards, emission limitations, emission control standards, and other measures are necessary to provide standards that are no less stringent than the Federal Clean Air Act are mandated. The Act also requires establishment of a program for prevention and mitigation of accidental releases of hazardous air contaminants or air pollutants, training and educational programs to ensure proper operation of emission control equipment, and standards of construction no less stringent than the federal Act. The Environmental Protection Division administers the Georgia Air Quality Act throughout the State. The Memorandum of Agreement between the Georgia Coastal Resources Division and the Environmental Protection Division ensures cooperation and coordination in the achievement of the policies of the Program.

#### Consistency

Adverse impacts to air quality stemming from the use of construction equipment would be minimal in extent, and both localized and temporary in nature. The proposed project is fully consistent with this policy.

## BOATING SAFETY

### Policy Statement

Georgia Boat Safety Act (O.C.G.A. 52-7-1. et seq.)

52-7-2. Declaration of policy.

It is the policy of this state to promote safety for persons and property in and connected with the use, operation, and equipment of vessels and to promote the uniformity of laws relating thereto. (Ga.L. 1973, p. 1427, SS 2)

### General Description

The Georgia Boat Safety Act provides enforceable rules and regulations for safe boating practices on Georgia's lakes, rivers, and coastal waters. This Act establishes boating safety zones for a distance of 1,000 feet from the high-water mark on Jekyll Island, Tybee Island, St. Simons Island, and Sea Island. All motorized craft, including commercial fishing vessels, jet skis, and power boats, are prohibited from these waters, except at certain pier and marina access points. This Act defines "abandoned vessels" as any left unattended for five days and provides for their removal. The Law Enforcement Section of the Georgia Department of Natural Resources, Wildlife Resources Division and the Georgia Bureau of Investigation enforces these regulations.

### Consistency

Pipelines from the hydraulic dredges would be marked to increase their visibility to boaters moving through the area. The crest of the submerged berms would be no higher than -5 feet MLW to ensure recreational boats could cross them safely. The berms would be spaced 2,000 feet apart to allow deeper draft boats to enter or leave the Bar Channel area. The proposed project is fully consistent with this policy.

## COASTAL MANAGEMENT

### Policy Statement

Georgia Coastal Management Act (O.C.G.A. 12-5-320, et seq.)

12-5-321. Legislative purpose.

The General Assembly finds and declares that the coastal area of Georgia comprises a vital natural resource system. The General Assembly recognizes that the coastal area of Georgia is the habitat of many species of marine life and wildlife which must have clean waters and suitable habitat to survive. The General Assembly further finds that intensive research has revealed that activities affecting the coastal area may degrade water quality or damage coastal resources if not properly planned and managed. The General Assembly finds that the coastal area provides a natural recreation resource which has become vitally linked to the economy of Georgia's coast and to that of the entire state. The General Assembly further finds that resources within this coastal area are costly, if not impossible, to reconstruct or rehabilitate once adversely affected by human-related activities and it is important to conserve these resources for the present and future use and enjoyment of all citizens and visitors to this state. The General Assembly further finds that the coastal area is a vital area of the state and that it is essential to maintain the health, safety, and welfare of all the citizens of the state. Therefore, the General Assembly declares that the management of the coastal area has more than local significance, is

of equal importance of all citizens of the state, is of state-wide concern, and consequently is properly a matter for coordinated regulation under the police power of the state. The General Assembly further finds and declares that activities and structures in the coastal area must be regulated to ensure that the values and functions of coastal waters and natural habitats are not impaired and to fulfill the responsibilities of each generation as public trustees of the coastal waters and habitats for succeeding generations.

#### General Description

The Coastal Management Act provides enabling authority for the State to prepare and administer a coastal management program. The Act does not establish new regulations or laws; it is designed to establish procedural requirements for the Department of Natural Resources to develop and implement a program for the sustainable development and protection of coastal resources. It establishes the Department of Natural Resources as the State agency to receive and disburse federal grant moneys. It establishes the Governor as the approving authority of the program and as the person that must submit the program to the Federal government for approval under the Federal Coastal Zone Management Act. It requires other State agencies to cooperate with the Coastal Resources Division when exercising their activities within the coastal area.

#### Consistency

Preparation of this Consistency Determination is evidence that the Corps of Engineers agrees that Georgia's coast is a vital natural resource that deserves protection from unwise use. The proposed project fully adheres to the state's enforceable policies concerning development on the coast. The proposed project is fully consistent with these policies.

## COASTAL MARSHLANDS

### Policy Statement

Coastal Marshlands Protection Act (O.C.G.A. 12-5-280, et seq.)

12-5-281. Legislative findings and declarations.

The General Assembly finds and declares that the coastal marshlands of Georgia comprise a vital natural resource system. It is recognized that the estuarine area of Georgia is the habitat of many species of marine life and wildlife and, without the food supplied by the marshlands, such marine life and wildlife cannot survive. The General Assembly further finds that intensive marine research has revealed that the estuarine marshlands of coastal Georgia are among the richest providers of nutrients in the world. Such marshlands provide a nursery for commercially and recreationally important species of shellfish and other wildlife, provide a great buffer against flooding and erosion, and help control and disseminate pollutants. Also, it is found that the coastal marshlands provide a natural recreation resource which has become vitally linked to the economy of Georgia's coastal zone and to that of the entire state. The General Assembly further finds that this coastal marshlands resource system is costly, if not impossible, to reconstruct or rehabilitate once adversely affected by man related activities and is important to conserve for the present and future use and enjoyment of all citizens and visitors to this state. The General Assembly further finds that the coastal marshlands are a vital area of the state and are essential to maintain the health, safety, and welfare of all the citizens of the state. Therefore, the General Assembly declares that the management of the coastal marshlands has more than local significance, is of equal importance to all citizens of the state, is of state-wide concern, and consequently

is properly a matter for regulation under the police power of the state. The General Assembly further finds and declares that activities and structures in the coastal marshlands must be regulated to ensure that the values and functions of the coastal marshlands are not impaired and to fulfill the responsibilities of each generation as public trustees of the coastal marshlands for succeeding generations. (Code 1981, SS 12-5-281, enacted by Ga.L. 1992, p. 2294, SS 1.)

#### General Description

The Coastal Marshlands Protection Act provides the Coastal Resources Division with the authority to protect tidal wetlands. The Coastal Marshlands Protection Act limits certain activities and structures in marsh areas and requires permits for other activities and structures. Erecting structures, dredging, or filling marsh areas requires a Marsh Permit administered through the Coastal Management Program. In cases where the proposed activity involves construction on State-owned tidal water bottoms, a Revocable License issued by the Coastal Resources Division may also be required. Marsh Permits and Revocable Licenses are not issued for activities that are inconsistent with the Georgia Coastal Management Program.

The jurisdiction of the Coastal Marshlands Protection Act extends to "coastal marshlands" or "marshlands", which includes marshland, intertidal area, mudflats, tidal water bottoms, and salt marsh area within estuarine area of the state, whether or not the tidewaters reach the littoral areas through natural or artificial watercourses. The estuarine area is defined as all tidally influenced waters, marshes, and marshlands lying within a tide-elevation range from 5.6 feet above mean high-tide level and below. Exemptions from the jurisdiction of the Act include: Georgia Department of Transportation activities, generally; agencies of the United States charged with maintaining navigation of rivers and harbors; railroad activities of public utilities companies; activities of companies regulated by the Public Service Commission; activities incident to water and sewer pipelines; and, construction of private docks that don't obstruct tidal flow.

Any agricultural or silvicultural activity that directly alters lands within the jurisdictional areas of the Coastal Marshlands Protection Act must meet the permit requirements of the Act and must obtain a permit issued by the Coastal Resources Division on behalf of the Coastal Marshlands Protection Committee. Permits for marinas, community docks, boat ramps, recreational docks, and piers within the jurisdiction of the Coastal Marshlands Protection Act are administered by the Coastal Resources Division. To construct a marina, a marina lease is required. Private-use recreational docks are exempt from the Coastal Marshlands Protection Act, but must obtain a Revocable License and a State Programmatic General Permit.

#### Consistency

The proposed project would be constructed within the jurisdiction of the Coastal Marshlands Protection Act. One project feature consists of closing off Middle and Steamboat Rivers to avoid impacts to tidal freshwater marshes. A cut would be constructed through tidal marshes to connect the downstream end of Middle River to Back River. A wetland mitigation plan is included in the project to compensate for unavoidable adverse impacts to tidal saltmarsh wetlands that would result from the proposed construction. The interagency Regulatory SOP was used to determine the amount of mitigation required. Although the project does involve construction on State-owned tidal water bottoms -- which normally requires both a Marsh Permit and a Revocable License, GA DNR typically does not issue such documents to the Federal government for Federally-authorized navigation projects. A finding by the GA DNR-CRD that this project is Consistent with the state CZM Program is required for this Federal action to be implemented. That finding serves the same function as issuance of a Marsh Permit and/or

Revocable License, i.e. obtaining state approval prior to proceeding with the project. The proposed project is fully consistent with this policy.

## DAMS

### Policy Statement

Georgia Safe Dams Act (O.C.G.A. 12-5-370, et seq.)

12-5-371. Declaration of purpose.

It is the purpose of this part to provide for the inspection and permitting of certain dams in order to protect the health, safety, and welfare of all the citizens of the state by reducing the risk of failure of such dams. The General Assembly finds and declares that the inspection and permitting of certain dams is properly a matter for regulation under the police powers of the state. (Ga.L. 1978, p. 795. SS 2)

### Consistency

Construction or operation of a dam is not included in this project. The proposed project is fully consistent with this policy.

## DEPARTMENT OF NATURAL RESOURCES

### Policy Statement

12-2-3. Departmental purposes.

It shall be the objectives of the department:

- (1) To have the powers, duties, and authority formerly vested in the Division of Conservation and the commissioner of conservation;
- (2) By means of investigation, recommendation, and publication, to aid:
  - (A) In the promotion of the conservation and development of the natural resources of the state;
  - (B) In promoting a more profitable use of lands and waters;
  - (C) In promoting the development of commerce and industry; and
  - (D) In coordinating existing scientific investigations with any related work of other agencies for the purpose of formulating and promoting sound policies of conservation and development;
- (3) To collect and classify the facts derived from such investigations and from the work of other agencies of the state as a source of information accessible to the citizens of the state and to the public generally, which facts set forth the natural, economic, industrial, and commercial advantages of the state; and
- (4) To establish and maintain perfect cooperation with any and every agency of the federal government interested in or dealing with the subject matter of the department. (Ga.L. 1937, p. 264, SS 4; Ga.L. 1949, p. 1079, SS 1; Ga.L. 1992, p. 6. SS 12.)

## General Description

The authority for the Department of Natural Resources is found at O.C.G.A. 12-21, et seq. The objectives for the Department are described, including to aid: in promoting the conservation and development of the State's natural resources; in promoting a more profitable use of lands and waters; in promoting the development of commerce and industry; and in coordinating existing scientific investigations with related work of other agencies for the purpose of formulating and promoting sound policies of conservation and development. The Act also requires the Department to establish and maintain perfect cooperation with any and every agency of the federal government interested in or dealing with the subject matter of the department."

The powers of the Department are established, including: investigations of the natural mining industry and commercial resources of the State and promotion of the conservation and development of such resources; the care of State parks and other recreational areas now owned or to be acquired by the State; examination, survey, and mapping of the geology, mineralogy, and topography of the State, including their industrial and economic utilization; investigation of the water supply and water power of the State with recommendations and plans for promoting their more profitable use and promotion of their development; investigations of existing conditions of trade, commerce, and industry in the State, with particular attention to the causes that may hinder or encourage their growth, and recommendations of plans that promote development of their interests.

The Department is set up in several Divisions. The Wildlife Resources Division is empowered to acquire land areas and to enter into agreements with landowners and the federal government for purposes of managing wildlife species and establishing specific sanctuaries, wildlife management areas, and public fishing areas. The Wildlife Resources Division administers a management plan for each area which establishes short- and long-term uses and guidelines for protection and use of each specific area. These areas owned and/or managed by the Wildlife Resources Division are important resources of the coastal area for conservation of wildlife and also for recreational hunting and fishing opportunities. Wildlife management areas within the jurisdiction of the Coastal Marshlands Protection Act and/or Shore Protection Act receive the additional protection provided by said legislation. The Environmental Protection Division is empowered to manage the State's air and water resources. The Coastal Resources Division is charged with management of coastal resources, which includes implementation of the Coastal Marshlands Protection Act and the Shore Protection Act. The Coastal Resources Division responsibilities also include management of marine fisheries resources. The Pollution Prevention Assistance Division provides technical assistance and education for reducing pollution throughout Georgia, including development of Best Management Practices for various industries. The Historic Preservation Division is charged with cataloging, protecting, and preserving the State's historic sites and areas. The Parks, Recreation, and Historic Sites Division has primary responsibility for development and maintenance of the State's parks and historic sites. The Program Support Division provides administrative support for the Department.

## Consistency

The Corps has coordinated with the GA DNR to obtain their views during development of the proposed project and the *EIS*. As a result of those views, modifications were made in the feasibility study to better predict potential adverse impacts to the environment. Savannah District will formally seek the Department's views during the public review period of the *DEIS*. The USFWS will also seek the Department's views as the Service develops its position on the project's expected impacts under the authority of the Fish and Wildlife Coordination Act. The proposed project is consistent with this policy.

## ENDANGERED WILDLIFE

### Policy Statement

#### Endangered Wildlife Act (O.C.G.A. 27-3-130, et seq.)

#### 27-3-132. Powers and duties of department and board.

- (a) The department shall identify and inventory any species of animal life within this state which it determines from time to time to be rare, unusual, or in danger of extinction; and, upon such determination, such species shall be designated protected species and shall become subject to the protection of this article.
- (b) The board shall issue such rules and regulations as it may deem necessary for the protection of protected species and for the enforcement of this article. Such rules and regulations shall not affect rights in private property or in public or private streams, nor shall such rules and regulations impede construction of any nature. Such rules and regulations shall be limited to the regulation of the capture, killing, or selling of protected species and the protection of the habitat of the species on public lands.

### General Description

The Endangered Wildlife Act provides for identification, inventory, and protection of animal species that are rare, unusual, or in danger of extinction. Additional species may be added by the Board of Natural Resources at any time. The protection offered to these species is limited to those that are found on public lands of the State. It is a misdemeanor to violate the rules prohibiting capture, killing, or selling of protected species, and protection of protected species habitat on public lands. The rules and regulations are established and administered by the Department of Natural Resources for implementation of this Act. Projects permitted under the authority of the Coastal Marshlands Protection Act, the Shore Protection Act, and the Revocable License require full compliance with the protection of endangered and protected species. Outside the jurisdiction of these laws, for those areas that are not public lands of Georgia, protection of endangered species is provided by the federal Endangered Species Act, which has jurisdiction over both private and public lands.

### Consistency

The State of Georgia has designated several species of plants and animals that are either rare within state boundaries or that have provided some measure of interest to mankind. The state includes all species listed by the Federal government as threatened or endangered, as well as those which had been considered by the USFWS as candidate species for Federal listing. The species shown in Section 3 of the EIS are listed by the state and could be found in Chatham County. Under current USACE policy, state-listed species are given the same consideration as those protected by Federal regulations and statutes. The proposed project is fully consistent with this policy.

## ENVIRONMENTAL POLICY

### Policy Statement

Georgia Environmental Policy Act (O.C.G.A. 12-16-1, et seq.)

12-16-2. Legislative findings.

The General Assembly finds that:

- (1) The protection and preservation of Georgia's diverse environment is necessary for the maintenance of the public health and welfare and the continued viability of the economy of the state and is a matter of the highest public priority;
- (2) State agencies should conduct their affairs with an awareness that they are stewards of the air, land, water, plants, animals, and environmental, historical, and cultural resources;
- (3) Environmental evaluations should be a part of the decision-making processes of the state; and
- (4) Environmental effects reports can facilitate the fullest practicable provision of timely public information, understanding, and participation in the decision-making processes of the state. (Code 1981, SS 12-16-2, enacted by Ga.L. 1991, p. 1728, SS 1.)

### General Description

The Georgia Environmental Policy Act (GEPA) requires that all State agencies and activities prepare an Environmental Impact Report as part of the decision-making process. This is required for all activities that may have an impact on the environment. Alternatives to the proposed project or activity must be considered as part of the report.

### Consistency

Although GEPA does not directly apply to the US Army Corps of Engineers, the Corps complies with a similar law, the National Environmental Policy Act (NEPA). Savannah District has prepared this CZM Consistency Determination and *DEIS* as part of the evaluation of the feasibility of the proposed harbor deepening. Preparation of these documents is fully consistent with this state law.

## EROSION AND SEDIMENTATION

### Policy Statement

Georgia Erosion and Sedimentation Act (O.C.G.A. 12-7-1, et seq.)

12-7-2. Legislative findings; policy of state and intent of chapter.

It is found that soil erosion and sediment deposition onto lands and into waters within the watersheds of this state are occurring as a result of widespread failure to apply proper soil erosion and sedimentation control practices in land clearing, soil movement, and construction activities and that such erosion and sediment deposition result in pollution of state waters and damage to domestic, agricultural, recreational, fish and wildlife, and other resource uses. It is therefore declared to be the policy of this state and the intent of this chapter to strengthen and extend the present erosion and sediment control activities and programs of this state and to provide for the establishment and implementation of a state-wide comprehensive soil erosion and sediment control program to conserve and protect the land, water, air, and other resources of this state. (Ga.L. 1975, p.994, SS 2.)

## General Description

The Georgia Erosion and Sedimentation Act requires that each county or municipality adopt a comprehensive ordinance establishing procedures governing land disturbing activities based on the minimum requirements established by the Act. The Erosion and Sedimentation Act is administered by the Environmental Protection Division of the Georgia Department of Natural Resources, and by local governments. Permits are required for specified "land-disturbing activities," including the construction or modification of manufacturing facilities, construction activities, certain activities associated with transportation facilities, activities on marsh hammocks, etc. With certain constraints, permitting authority can be delegated to local governments.

One provision of the Erosion and Sedimentation Act requires that land-disturbing activities shall not be conducted within 25 feet of the banks of any State waters unless a variance is granted (O.C.G.A. 12-7-6-(15)). Construction of single family residences under contract with the owner are exempt from the permit requirement but are still required to meet the standards of the Act (O.C.G.A. 12-7-17-(4)). Large development projects, both residential and commercial, must obtain a permit and meet the requirements of the Act. According to the Georgia Coastal Management Act, any permits or variances issued under the Erosion and Sedimentation Act must be consistent with the Georgia Coastal Management Program. Permits within the jurisdiction of the Coastal Marshlands Protection Act and the Shore Protection Act can include requirements that certain minimum water quality standards be met as a condition of the permit.

There are specific exemptions to the requirements of the Erosion and Sedimentation Act (O.C.G.A. 12-7-17 - Exemptions). The exemptions include: surface mining, granite quarrying, minor land-disturbing activities such as home gardening, construction of single-family homes built or contracted by the homeowner for his own occupancy, agricultural practices, forestry land management practices, dairy operations, livestock and poultry management practices, construction of farm buildings, and any projects carried out under the supervision of the Natural Resource Conservation Service of the U.S. Department of Agriculture. Exemptions from the requirements of the Act also apply to any project involving 1.1 acres or less, provided that the exemption does not apply to any land-disturbing activities within 200 feet of the bank of any State waters. Construction or maintenance projects undertaken or financed by the Georgia Department of Transportation, the Georgia Highway Authority, or the Georgia Tollway Authority, or any road or maintenance project undertaken by any county or municipality, are also exempt from the permit requirements of the Act, provided that such projects conform to the specifications used by the Georgia Department of Transportation for control of soil erosion. Exemptions are also provided to land-disturbing activities by any airport authority, and by any electric membership corporation or municipal electrical system, provided that such activities conform as far as practicable with the minimum standards set forth at Code Section 12-7-6 of the Erosion and Sedimentation Act. The Georgia Department of Transportation has developed a "Standard Specifications -- Construction of Roads and Bridges," which describes contractor requirements, including controls for sedimentation and erosion. The specifications describe the requirements for both temporary control measures for use during the construction phase, and permanent erosion and sedimentation control measures that need to be incorporated into the design of the project. Failure to comply with the provisions of the specification will result in cessation of all construction activities by the contractor, and may result in the withholding of moneys due to the contractor according to a schedule of non-performance of erosion control, enforced by the Georgia Department of Transportation. Forestry and agricultural land-disturbing activities are subject to the Best Management Practices of the Georgia Forest Commission and the Georgia Soil and Water Conservation Commission, respectively.

## Consistency

The proposed project includes land-disturbing activities -- specifically construction and maintenance of dikes at the inner and middle harbor CDFs -- which are within the guidelines established for this Act. Therefore, the Corps will seek an Erosion and Sedimentation Control Permit for this project. The Corps typically uses the Best Management Practices in its designs, and would use those on this project to minimize potential adverse impacts from sediment erosion. Therefore, the Corps believes this project is consistent with this policy.

## GAME AND FISH

### Policy Statement

27-1-3. Ownership and custody of wildlife; privilege to hunt, trap, or fish; general offenses. (Game and Fish Code)

- (a) The ownership of, jurisdiction over, and control of all wildlife, as defined in this title, are declared to be in the State of Georgia, in its sovereign capacity, to be controlled, regulated, and disposed of in accordance with this title. All wildlife of the State of Georgia are declared to be within the custody of the department for purposes of management and regulation in accordance with this title. However, the State of Georgia, the department, and the board shall be immune from suit and shall not be liable for any damage to life, person, or property caused directly or indirectly by any wildlife.
- (b) To hunt, trap, or fish, as defined in this title, or to possess or transport wildlife is declared to be a privilege to be exercised only in accordance with the laws granting such privilege. Every person exercising this privilege does so subject to the right of the state to regulate hunting, trapping, and fishing; and it shall be unlawful for any person participating in the privileges of hunting, trapping, fishing, possessing, or transporting wildlife to refuse to permit authorized employees of the department to inspect and count such wildlife to ascertain whether the requirements of the wildlife laws and regulations are being faithfully complied with. Any person who hunts, traps, fishes, possesses, or transports wildlife in violation of the wildlife laws and regulations violates the conditions under which this privilege is extended; and any wildlife then on his person or within his immediate possession are deemed to be wildlife possessed in violation of the law and are subject to seizure by the department pursuant to Code Section 27-1-21.
- (c) It shall be unlawful to hunt, trap, or fish except during an open season for the taking of wildlife, as such open seasons may be established by law or by rules and regulations promulgated by the board or as otherwise provided by law.
- (d) It shall be unlawful to hunt, trap, or fish except in compliance with the bag, creel, size, and possession limits and except in accordance with such legal methods and weapons and except at such times and places as may be established by law or by rules and regulations promulgated by the board.
- (e) It shall be unlawful to hunt, trap, or fish for any game species after having obtained the daily or season bag or creel limit for that species.
- (f) A person who takes any wildlife in violation of this title commits the offense of theft by taking. A person who hunts, traps, or fishes in violation of this title commits the offense of criminal attempt. Any person who violates any provision of this Code section shall be guilty of a misdemeanor.
- (g) If any court finds that any criminal violation of the provisions of this title is so egregious as to display a willful and reckless disregard for the wildlife of this state, the court may, in its discretion, suspend the violator's privilege to hunt, fish, trap, possess, or transport wildlife in this state for a period not to

exceed five years. Any person who hunts, fishes, traps, possesses, or transports wildlife in this state in violation of such suspension of privileges shall be guilty of a misdemeanor of a high and aggravated nature and upon conviction thereof shall be punished by a fine of not less than \$1,500.00 nor more than \$5,000.00 or imprisonment for a period not exceeding 12 months or both. (Ga.L. 1968, p. 497, SS 1; Code 1933, SS 45-201, enacted by Ga.L. 1977, p. 396, SS 1; Ga.L. 1978, p. 816, SS 13, 14; Ga.L. 1992, p. 2391, SS 1.)

#### 27-1-4. Powers and duties of board generally.

The board shall have the following powers and duties relative to this title:

- (1) Establishment of the general policies to be followed by the department under this title;
- (2) Promulgation of all rules and regulations necessary for the administration of this title including, but not limited to, rules and regulations to regulate the times, places, numbers, species, sizes, manner, methods, ways, means, and devices of killing, taking, capturing, transporting, storing, selling, using, and consuming wildlife and to carry out this title, and rules and regulations requiring daily, season, or annual use permits for the privilege of hunting and fishing in designated streams, lakes, or game management areas; and
- (3) Promulgation of rules and regulations to protect wildlife, the public, and the natural resources of this state in the event of fire, flood, disease, pollution, or other emergency situation without complying with Chapter 13 of Title 50, the "Georgia Administrative Procedure Act." Such rules and regulations shall have the force and effect of law upon promulgation by the board. (Ga.L. 1911, p. 137, SS 1; Ga.L. 1924, p. 101, SSSS 1, 3,4; Ga.L. 1931, p. 7, SS 25; Ga.L. 1937, p. 264, SSSS 1, 4, 9; Ga.L. 1943, p. 128, SSSS 1, 2, 14; Ga.L. 1955, p. 483, SS 3; Ga.L. 1972, p. 1015, SS 1527; Ga.L. 1973, p. 344, SS 1; Code 1933, SS 45-103, enacted by Ga.L. 1977, p. 396, SS 1; Ga.L. 1978, p. 816, SS 7; Ga.L. 1979, p. 420, SS 3; Ga.L. 1987, p. 179, SS 1)

#### General Description

The Official Code of Georgia Annotated, Title 27, Chapter I (known as the Game and Fish Code) provides the ownership of, jurisdiction over, and control of all wildlife to be vested in the State of Georgia. The section declares that custody of all wildlife in the State is vested with the Georgia Department of Natural Resources for management and regulation. The Wildlife Resources Division is the principal State agency vested with statutory authority for the protection, management and conservation of terrestrial wildlife and fresh water wildlife resources, including fish, game, non-game, and endangered species. All licensing of recreational and commercial fish and wildlife activities, excluding shellfish, is performed by the Wildlife Resources Division. The Coastal Resources Division issues shellfish permits, regulates marine fisheries activities including the opening and closing of the commercial shrimp harvesting season, areas of shrimp harvest, regulates marine species size and creel limits, and enforces the National Shellfish Sanitation Program. The Commissioner of the Department of Natural Resources has directed that there will be cooperation and coordination between the Divisions of the Department in the administration of their respective responsibilities.

#### Consistency

The proposed project includes no feature to hunt, trap, fish, possess or transport any recreational and commercial fish or wildlife species. Therefore, no such license is required by the project. The proposed project is fully consistent with this policy.

## GEORGIA HERITAGE

### Policy Statement

Georgia Heritage Trust Act (O.C.G.A. 12-3-70, et seq.)

12-3-71. Legislative purpose.

The General Assembly finds that certain real property in Georgia, because it exhibits unique natural characteristics, special historical significance, or particular recreational value, constitutes a valuable heritage which should be available to all Georgians, now and in the future. The General Assembly further finds that much of this real property, because of Georgia's rapid progress over the past decade, has been altered, that its value as part of our heritage has been lost, and that such property which remains is in danger of being irreparably altered. The General Assembly declares, therefore, that there is an urgent public need to preserve important and endangered elements of Georgia's heritage, so as to allow present and future citizens to gain an understanding of their origins in nature and their roots in the culture of the past and to ensure a future sufficiency of recreational resources. The General Assembly asserts the public interest in the state's heritage by creating the Heritage Trust Program which shall be the responsibility of the Governor and the Department of Natural Resources and which shall seek to protect this heritage through the acquisition of fee simple title or lesser interests in valuable properties and by utilization of other available methods. (Ga.L. 1975, p. 962, SS 2.)

### General Description

Georgia's Heritage Trust Act of 1975 seeks to preserve certain real property in Georgia that exhibits unique natural characteristics, special historical significance, or particular recreational value. This Act created the Heritage Trust Commission, composed of 15 members appointed by the Governor who represent a variety of interests and expertise. The Commission served as an advisory body to the Governor and to the Board of the Department of Natural Resources, making recommendations concerning the identification, designation, and acquisition of heritage areas. Although this Act is still in Georgia law, the Commission's term expired and the implementation and administration of many of the goals of the Act has been superseded by the Heritage 2000 Program.

### Consistency

The project contains no property that possesses sufficient historical significance to receive protection under this Act. Therefore, the proposed project is fully consistent with this policy.

## GROUNDWATER USE

### Policy Statement

Groundwater Use Act (O.C.G.A. 12-5-90, et seq.)

12-5-91. Declaration of policy.

The general welfare and public interest require that the water resources of the state be put to beneficial use to the fullest extent to which they are capable, subject to reasonable regulation in order to conserve these resources and to provide and maintain conditions which are conducive to the development and use of water resources. (Ga.L. 1972, p. 976, SS 2.)

## General Description

The Groundwater Use Act charges the Board of Natural Resources with the responsibility to adopt rules and regulations relating to the conduct, content, and submission of water conservation plans, including water conservation practices, water drilling protocols, and specific rules for withdrawal and utilization of groundwater. The Environmental Protection Division administers these rules and regulations. Groundwater withdrawals of greater than 100,000 gallons per day require a permit from the Environmental Protection Division. Permit applications that request an increase in water usage must also submit a water conservation plan approved by the Director of Environmental Protection Division (O.C.G.A. 12-5-96). The Environmental Protection Division has prepared a comprehensive groundwater management plan for coastal Georgia that addresses water conservation measures, protection from saltwater encroachment, reasonable uses, preservation for future development and economic development issues. The Memorandum of Agreement with the Environmental Protection Division ensures that permits issued under the Groundwater Use Act must be consistent with the Coastal Management Program.

## Consistency

Due to concerns that deepening the existing Savannah Harbor channel might have potential impacts on groundwater aquifers, a study was performed to evaluate the possible impacts. The principal objective of this investigation was to better characterize the geologic and hydrogeologic framework of the project area through the use of a subbottom geophysical survey, borehole core drilling, borehole geophysical logging, permeability analysis of core samples, and test well installation. The investigation provided the most comprehensive hydrogeologic evaluation of potential impacts to groundwater resources by dredging to be performed to date in Savannah Harbor.

Previous studies indicated that an area along the present navigation channel approximately between Stations 30+000 and -30+000B warranted particular attention due to (1) a general rise and thinning of sediments, and (2) the existence of buried relict stream channels. The study primarily focussed in this area. This portion of the channel lies roughly between the Intracoastal Waterway (AIWW) at Fields Cut and the area immediately offshore from Tybee Island.

Approximately 50 miles of subbottom geophysical surveying was performed along and across the centerline of the present navigation channel. Six core borings were drilled in or near the channel, and two borings were drilled on land near the channel. Four test wells were installed on land at two sites near the channel. Water quality analyses were performed on groundwater samples from the four test wells, and hydraulic head data was collected. Permeability and grain size analyses was performed on 22 core samples from six borings.

The study generally focused on the upper 150 feet of Oligocene, Miocene, and Recent to Pleistocene sediments below the project area, which included the upper Floridan aquifer (Oligocene), and a zone within the lower Miocene described by a Georgia Geologic Survey report (Clarke and others, 1990) as the "upper Brunswick aquifer".

Analysis of data from the study indicated sediments within the lower Miocene, where the "upper Brunswick" is supposed to occur, were consistently found to be more like confining materials than aquifer materials. The upper and lower Miocene sediments should be considered as confining materials for the Floridan aquifer below. The thickness of the combined upper and lower Miocene confining units, below the proposed project dredging depth of -54 feet MLW in the study focus area, was found to range from

about 45 to 60 feet, except in certain areas where relict stream channels have cut down into the Miocene to as deep as -73 feet MLW. In the remaining project area, the confining unit thickness below -54 feet MLW is generally greater than 60 feet, and in the upper reaches of the harbor is over 225 feet thick.

Due to the thickness and impermeability of the Miocene confining unit, and the impermeability of the in-filling sediments of the relict stream channels, preliminary analysis of data indicates that dredging to the proposed project depths will not impact the Floridan aquifer.

The proposed project would not adversely affect groundwater resources. Therefore, the proposed project is fully consistent with this policy.

## HAZARDOUS WASTE

### Policy Statement

Georgia Hazardous Waste Management Act (O.C.G.A. 12-8-60, et seq.)

12-8-61. Legislative policy.

It is declared to be the public policy of the State of Georgia, in furtherance of its responsibility to protect the public health, safety, and well-being of its citizens and to protect and enhance the quality of its environment, to institute and maintain a comprehensive state-wide program for the management of hazardous wastes through the regulation of the generation, transportation, storage, treatment, and disposal of hazardous wastes. (Ga.L. 1979, p. l 1 27, SS 2; Ga.L. 1992, p. 2234, SS 5.)

### General Description

The Georgia Hazardous Waste Management Act describes a comprehensive, state-wide program to manage hazardous wastes through regulating hazardous waste generation, transportation, storage, treatment, and disposal. Hazardous waste is defined by the Board of Natural Resources, and it includes any waste that the Board concludes is capable of posing a substantial present or future hazard to human health or the environment when improperly treated, transported, stored, disposed, or otherwise managed, based on regulations promulgated by the U.S. Environmental Protection Agency. The Hazardous Waste Management Act is administered and implemented by the Environmental Protection Division.

### Consistency

The channel design minimizes the project impact to adjacent upland areas along the channel. There are five areas at proposed bend-wideners where adjacent uplands may be removed. No hazardous or toxic substances are known to exist at hazardous concentrations in any of these sites. No evidence of past disposal practices of materials such as petroleum, scrap metal, ordnance, radioactive materials, organic chemicals (e.g., insecticides), or building products has been found at these sites.

Dredged material is not generically considered as either a "hazardous substance" under the definitions of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. 9601(14)) or a "hazardous waste" under the definitions of the Resource Conservation and Recovery Act (RCRA) (42 U.S.C. 6921 et seq.). Some industries do transport goods through the harbor that could be considered hazardous or toxic. The U.S. Coast Guard establishes procedures for such movement to ensure those operations are done safely. No such movements have resulted in spills that caused

widespread threats to human health or safety. One major oil spill did occur on December 4, 1986 when the Amazon Venture leaked a significant amount of oil into the harbor.

## HISTORIC AREAS

### Policy Statement

#### Historic Areas (O.C.G.A. 12-3-50, et seq.)

12-3-50. 1. Grants for the preservation of "historic properties"; additional powers and duties of department.

- (a) It is declared to be the public policy of the State of Georgia, in furtherance of its responsibility to promote and preserve the health, prosperity, and general welfare of the people, to encourage the preservation of historic properties which have historical, cultural, and archeological significance to the state. (Code 1981, SS 12-3-50.1, enacted by Ga.L. 1986, p. 399, SS 1; Ga.L. 1996, p. 6, SS 12.)

### General Description

The authority found at O.C.G.A. 12-3-50 provides the Department of Natural Resources with the powers and duties to "promote and increase knowledge and understanding of the history of this State from the earliest times to the present, including the archeological, Indian, Spanish, colonial, and American eras, by adopting and executing general plans, methods, and policies for permanently preserving and marking objects, sites, areas, structures, and ruins of historic or legendary significance, such as trails, post roads, highways, or railroads; inns or taverns; rivers, inlets, millponds, bridges, plantations, harbors, or wharves; mountains, valleys, coves, swamps, forests, or Everglade; churches, missions, campgrounds, and places of worship; schools, colleges, and universities; courthouses and seats of government; places of treaties, councils, assemblies, and conventions; factories, foundries, industries, mills, stores, and banks; cemeteries and burial mounds; and battlefields, fortifications, and arsenals. Such preservation and marking may include the construction of signs, pointers, markers, monuments, temples, and museums, which structures may be accompanied by tablets, inscriptions, pictures, paintings, sculptures, maps, diagrams, leaflets, and publications explaining the significance of the historic or legendary objects, sites, areas, structures, or ruins." The Department is also required to "promote and assist in the publicizing of the historical resources of the State by preparing and furnishing the necessary historical material to agencies charged with such publicity; to promote and assist in making accessible and attractive to travelers, visitors, and tourists the historical features of the State by advising and cooperating with State, federal, and local agencies charged with the construction of roads, highways, and bridges leading to such historical-points." The Historical Preservation Division is charged with carrying out these duties, and coordinates its activities in the coastal area with the Coastal Resources Division.

## Consistency

Savannah District has prepared a draft Programmatic Agreement (PA) outlining procedures for complying with the National Historic Preservation Act (P.L. 98-665, as amended) and the Advisory Council on Historic Preservation's procedures for complying with that act (36 C.F.R. Part 800). The PA requires the District to identify, evaluate, and avoid and/or mitigate impacts to significant properties. Signatory and concurring parties to the PA include: the Advisory Council, Savannah District, the Georgia Ports Authority, the Georgia and South Carolina State Historic Preservation Officers, the General Services Administration (as owner of the C.S.S Georgia), the U.S. Navy Historical Center, and the Coastal Heritage Society (administrators of Old Fort Jackson).

The initial investigations to be conducted will include archival research and land and remote sensing surveys of the Bar Channel extension area, bend widenings, side slopes of the King's Island Turning Basin, and any potential nearshore disposal sites. The remote sensing surveys will include hydrographic, magnetometer, and side scan sonar investigations, and, in the case of the Bar Channel extension area, sub-bottom profiler investigations. Diver investigations will be made to determine whether submerged anomalies are generated by potentially significant cultural resources or modern debris. Anomalies identified as potentially significant cultural resources will be investigated through archival research and testing to determine their identity and significance, the effect of the proposed project upon them, and alternatives for avoiding or mitigating effects.

Hydrographic surveys will be conducted in areas where known significant or potentially significant properties abut the existing navigation channel in areas where no new channel modifications are proposed. The data will be used to determine if the proposed project will affect these resources and measures to avoid or lessen this effect.

Engineering investigations of Old Fort Jackson have determined that the proposed deepening project will adversely affect this resource. Alternatives to mitigate this effect were identified and evaluated. The project will include protection of xx feet of shoreline along the site. This bank protection will cover the portion of the site that geotechnical investigations indicate would be impacted by the proposed project.

The C.S.S. *Georgia* will be adversely affected by the proposed deepening project. Hydrographic, side scan sonar, and cesium magnetometer surveys have been completed. A Phase I investigation will be conducted of the site during the PED Phase. The investigation will be designed to determine the degree of effect and mitigation alternatives. Avoidance of impacts through realignment of the navigation channel is not possible since Old Fort Jackson is located on the opposite shore. Mitigation of adverse impacts is expected.

In accordance with the requirements of the PA, all study results will be coordinated with the signatory and concurring parties of the agreement. The data from the studies will be used to determine the need for, and scope of, additional investigations and mitigation activities.

The Georgia and South Carolina SHPOs will review the *EIS* to confirm this determination. Based on that determination, the proposed project is fully consistent with this policy.

## NATURAL AREAS

### Policy Statement

#### Georgia Natural Areas Act (O.C.G.A. 12-3-90, et seq.)

12-3-91. Legislative findings and declaration of purpose.

The General Assembly finds that there is an increasing nation-wide concern over the deterioration of man's natural environment in rural as well as urban areas; that there is a serious need to study the long-term effects of our civilization on our natural environment; that while the State of Georgia is still richly endowed with relatively undisturbed natural areas, these areas are rapidly being drastically modified and even destroyed by human activities; that it is of the utmost importance to preserve examples of such areas in their natural state, not only for scientific and educational purposes but for the general well-being of our society and its people. Therefore, it shall be the purpose and function of the Department of Natural Resources to:

- (1) Identify natural areas in the State of Georgia which are of unusual ecological significance;
- (2) Use its influence and take any steps within its power to secure the preservation of such areas in an undisturbed natural state in order that such areas may:
  - (A) Be studied scientifically;
  - (B) Be used for educational purposes;
  - (C) Serve as examples of nature to the general public; and
  - (D) Enrich the quality of our environment for present and future generations; and
- (3) Recommend areas or parts of areas for recreational use. (Ga.L. 1969, p. 750, SS 2; Ga.L. 1972, p. 1015, SS 151 1.)

12-3-92. "Natural areas" defined.

As used in this article, the term "natural areas" means a tract of land in its natural state which may be set aside and permanently protected or managed for the purpose of the preservation of native plant or animal communities, rare or valuable individual members of such communities, or any other natural features of significant scientific, educational, geological, ecological, or scenic value. (Ga.L. 1966, p.330, SS 2; Ga.L. 1969, p.750, SS 3.)

### General Description

The Georgia Natural Areas Act authorizes the Department of Natural Resources to identify areas in the State of Georgia which are of unusual ecological significance, and to secure the preservation of such areas in an undisturbed natural state. The purpose for such acquisition is to allow scientific study of the property, to educate, to "serve as examples of nature to the general public," and to "enrich the quality of our environment for present and future generations." Natural areas, as defined by the Act, are tracts of land in their natural state that are to be set aside and permanently protected or managed for the purpose of preserving natural plant or animal communities, rare or valuable members of such communities, or any other natural features of significant scientific, educational, geologic, ecological, or scenic value.

## Consistency

In order to offset the direct loss of less than 11 acres of subsaline, intertidal marsh at six bend-wideners, a wetland creation project is proposed. The site of the wetland creation area will be located within the harbor area and be selected during PED studies. The mitigation would be performed concurrent with construction of the proposed project.

Another component of the proposed project is fee acquisition of freshwater wetlands as compensation for adverse project impacts to similar wetlands located at the upper end of the harbor. The purchased wetlands would be provided to the USFWS for incorporation into the Savannah National Wildlife Refuge. This would ensure their preservation in an undisturbed natural state or management for the purpose of preserving natural plant or animal communities, and natural features of significant scientific, educational, geologic, ecological, or scenic value. These actions make the proposed project fully consistent with this policy.

## OIL AND GAS AND DEEP DRILLING

### Policy Statement

Georgia Oil and Gas and Deep Drilling Act (O.C.G.A. 12-440, et seq.)

12-441. Legislative findings and declaration of policy.

The General Assembly finds and declares that its duty to protect the health, safety, and welfare of the citizens of this state requires that adequate protection of underground fresh water supplies be assured in any drilling operation which may penetrate through any stratum which contains fresh water. This duty further requires that adequate protection be assured in any drilling or the use of such drilled wells in certain other environmentally sensitive areas or in other circumstances where the result of such drilling and use may endanger the health, safety, and welfare of the citizens of this state. It is not the policy of the General Assembly to regulate the drilling of shallow exploration or engineering holes except in such environmentally sensitive areas as defined in this part. The General Assembly further finds and declares that, with the current energy shortage which this state and nation face, it must encourage oil and gas exploration to identify new sources of energy, but not at the expense of our important natural resources such as residential, municipal, and industrial supplies of fresh water. The General Assembly further finds and declares that with an increase in oil exploration, it must provide assurances to persons engaging in such exploration that adequate safeguards regarding results of exploration will remain privileged information for a specified time. The General Assembly further finds and declares that it is in the public interest to obtain, protect, and disseminate all possible geologic information associated with drilling operations in order to further the purposes of future energy related research. (Ga.L. 1975, p. 966, SS 1.)

### General Description

Georgia's Oil and Gas and Deep Drilling Act regulates oil and gas drilling activities to provide protection of underground freshwater supplies and certain "environmentally sensitive" areas. The Board of Natural Resources has the authority to implement this Act. The Act establishes requirements for drilling, casing, and plugging of wells for oil, gas, or mineral exploration: (1) to alleviate escape of gas or oil from one stratum to another; (2) to prevent the pollution of freshwater by oil, gas, salt water or other contaminants; (3) to prevent drowning of any stratum that might reduce the total ultimate recovery of gas or oil; and, (4) to prevent fires, waste, and spillage of contaminants such as oil.

### Consistency

Studies conducted during the feasibility phase indicate that the project includes no drilling or construction that is likely to penetrate through a geologic stratum that contains a fresh water aquifer used for drinking purposes. Borings that will be performed prior to the construction will comply with the state standards for casing, capping and plugging. Based on this, the proposed project is fully consistent with this policy.

## PHOSPHATE MINING

### Policy Statement

Licenses to dig, mine, and remove phosphate deposits; restrictions on license holders. (O.C.G.A. 12-4-100, et seq.)

12-4-101. Restrictions on license holders.

Whenever any person discovers phosphate rock or phosphatic deposits in the navigable streams or waters of this state or in any public land on their banks or margins and files with the Secretary of State notice of such discovery and a description of the location thereof, he shall be entitled to receive from the Secretary of State a license giving him or his assigns the exclusive right, for ten years from the date of the license, of digging, mining, and removing from such location and from an area for a distance of five miles in any or all directions therefrom the phosphate rock and phosphatic deposits that may be found therein, provided that persons receiving or holding such licenses shall in no way interfere with the free navigation of the streams and waters or the private rights of any citizen residing on or owning the lands upon the banks of such navigable rivers and waters; provided, further, that as long as the license remains in effect, no person, natural or artificial, shall have the privilege of locating a claim within 20 miles of any other claim for which he has received a license. (Ga.L. 1884-85, p. 125, SS 1; Civil Code 1895, SS 1726; Civil Code 1910, SS 1977; Code 1933, SS 43-401.)

### General Description

The laws found at O.C.G.A. 12-4-100, et seq., describe the State's management of phosphate deposits. There is great interest in phosphate mining in Georgia. In fact, the citizens of Georgia developed the Coastal Marshlands Protection Act in an effort to limit potential adverse environmental impacts from a proposed phosphate mining operation. The Secretary of State is charged with the administration of this statute, and is networked with the Georgia Coastal Management Program.

### Consistency

No mining of phosphates is proposed in this project. Therefore, the proposed project is fully consistent with this policy.

## PROTECTION OF TIDEWATERS

### Policy Statement

#### Protection of Tidewaters Act (O.C.G.A. 52-1-1. et seq.)

#### 52-1-2. Legislative findings and declaration of policy.

The General Assembly finds and declares that the State of Georgia became the owner of the beds of all tidewaters within the jurisdiction of the State of Georgia as successor to the Crown of England and by the common law. The State of Georgia continues to hold title to the beds of all tidewaters within the state, except where title in a private party can be traced to a valid Crown or state grant which explicitly conveyed the beds of such tidewaters. The General Assembly further finds that the State of Georgia, as sovereign, is trustee of the rights of the people of the state to use and enjoy all tidewaters which are capable of use for fishing, passage, navigation, commerce, and transportation, pursuant to the common law public trust doctrine. Therefore, the General Assembly declares that the protection of tidewaters for use by the state and its citizens has more than local significance, is of equal importance to all citizens of the state, is of state-wide concern, and, consequently, is properly a matter for regulation under the police powers of the state. The General Assembly further finds and declares that structures located upon tidewaters which are used as places of habitation, dwelling, sojournment, or residence interfere with the state's proprietary interest or the public trust, or both, and must be removed to ensure the rights of the state and the people of the State of Georgia to the use and enjoyment of such tidewaters. It is declared to be a policy of this state and the intent of this article to protect the tidewaters of the state by authorizing the commissioner of natural resources to remove or require removal of certain structures from such tidewaters in accordance with the procedures and within the timetable set forth in this article. (Code 1981, SS 52-1-2, enacted by Ga.L. 1992, p. 2317, SS 1.)

### General Description

The Protection of Tidewaters Act establishes the State of Georgia as the owner of the beds of all tidewaters within the State, except where title by a private party can be traced to a valid British Crown or State land grant. The Act provides the Department of Natural Resources the authority to remove those "structures" that are capable of habitation, or incapable of or not used for transportation. Permits for such structures may not extend past June 30, 1997. The Act provides procedures for removal, sale, or disposition of such structures. (This is similar to the Right of Passage Act, except that it is specific to tidewaters rather than all waters of Georgia.)

### Consistency

The project does not propose construction of any structure over tidal waters. Therefore, the proposed project is fully consistent with this policy.

## RECREATIONAL DOCKS

### Policy Statement

50-16-61. General supervision and office assignment (Under the Administrative Procedures Act, Revocable License Program)

The Governor shall have general supervision over all property of the state with power to make all necessary regulations for the protection thereof, when not otherwise provided for.

### General Description

The provisions of O.C.G.A. 50-16-61 describe the general supervision of State properties as the responsibility of the Governor. Under this authority, the Department of Natural Resources, Coastal Resources Division issues Revocable Licenses for recreational docks on State-owned tidal water bottoms. In 1995, the Georgia Supreme Court found that the State owns fee simple title to the foreshore on navigable tidal waters and, as a result, owns the river's water bottoms up to the high water mark and may regulate the use of these tidelands for the public good. (*Dorroh v. McCarthy* 265 Ga. 750, 462 S.E. 2d 708 (1995)). The opinion of the State Attorney General states: "In managing tidelands, the Department of Natural Resources acts under the authority of this section and the Department's employment of the extension of property lines method of allocating use of State-owned water bottoms may be generally acceptable, but rigid adherence to such a policy when it denies deep water access to a riparian or littoral owner, may cause inequitable results (1993 Opinion Attorney General No. 93-25). As described in the State Properties Code (O.C.G.A. 50-16-30, et seq.), the term "Revocable License" means "the granting, subject to certain terms and conditions contained in a written revocable license or agreement, to a named person or persons (licensee), and to that person or persons only, of a revocable privilege to use a certain described parcel or tract of the property to be known as the licensed premises for the named purpose." A Revocable License may be revoked, canceled, terminated, with or without cause, at any time by the licensor.

### Consistency

No recreational docks are included in the proposed project. Therefore, this project is fully consistent with this policy.

## RIGHT OF PASSAGE

### Policy Statement

Right of Passage Act (O.C.G.A. 52-1-30, et seq.)

52-1-31. Legislative findings and declaration of policy.

The General Assembly finds and declares that by the common law the citizens of this state have an inherent right to use as highways all navigable streams and rivers which are capable of transporting boats loaded with freight in the regular course of trade either for the whole or part of the year and that this right of use extends to the entire surface of the stream or river from bank to bank. The General Assembly further finds that the common law regarding such right of use has not been modified by statute nor is it incompatible with the federal or state constitutions. Therefore, the General Assembly declares that ensuring the right of use by all the citizens of this state of navigable streams and rivers which are capable of transporting boats loaded with freight in the regular course of trade either for the whole or part

of the year as highways has more than local significance, is of equal importance to all citizens of the state, is of state-wide concern, and, consequently, is properly a matter for regulation under the police powers of the state. The General Assembly further finds and declares that structures located upon navigable streams and rivers which are used as places of habitation, dwelling, sojournment, or residence interfere with the citizens' right to use the entire surface of such streams and rivers which are capable of transporting boats loaded with freight in the regular course of trade either for the whole or part of the year from bank to bank as highways and must be removed to ensure the rights of the citizens of this state to such usage. It is declared to be a policy of this state and the intent of this article to ensure such rights of the citizens of this state by authorizing the commissioner of natural resources to remove or require removal of certain structures from such streams and rivers which are capable of transporting boats loaded with freight in the regular course of trade either for the whole or part of the year in accordance with the procedures and within the timetable set forth in this article. (Code 1981, SS 52-1-31, enacted by Ga.L. 1992, p. 2317, SS 1.)

#### General Description

The Right of Passage Act declares the right of use of all navigable waterways of the state by all citizens of Georgia. The Act establishes the mechanism to remove "structures" that are capable of being used as a place of habitation, are not used as or are not capable of use as a means of transportation, and do not have a permit under the Act. Permits shall not be issued for a term ending after June 30, 1997. The Right of Passage Act is implemented by the Department of Natural Resources Law Enforcement Division. (This is similar to the Protection of Tidewaters Act, except that it is specific to all navigable waters rather than tidewaters Georgia.)

#### Consistency

The project does not propose construction of any habitable structure or dock over navigable waters that could restrict use of those waters. Therefore, the proposed project is fully consistent with this policy.

## RIVER CORRIDORS

### Policy Statement

#### Mountain and River Corridor Protection Act (O.C.G.A. 12-2-1. et seq.)

12-2-8. Promulgation of minimum standards and procedures for protection of natural resources, environment, and vital areas of the state.

- (a) The local governments of the State of Georgia are of vital importance to the state and its citizens. The state has an essential public interest in promoting, developing, sustaining, and assisting local governments. The natural resources, environment, and vital areas of the state are also of vital importance to the state and its citizens. The state has an essential public interest in establishing minimum standards for land use in order to protect and preserve its natural resources, environment, and vital areas. The purpose of this Code section shall be liberally construed to achieve its purpose. This Code section is enacted pursuant to the authority granted the General Assembly in the Constitution of the State of Georgia, including, but not limited to, the authority provided in Article 111, Section VI, Paragraphs I and 11(a)(1) and Article IX, Section 11, Paragraphs III and IV.
- (b) The department is therefore authorized to develop minimum standards and procedures, in accordance with paragraph (2) of subsection (b) of Code Section 50-8-7.1 and in accordance with the

procedures provided in Code Section 50-8-7.2 for the promulgation of minimum standards and procedures, for the protection of natural resources, environment, and vital areas of the state, including, but not limited to, the protection of mountains, the protection of river corridors, the protection of watersheds of streams and reservoirs which are to be used for public water supply, for the protection of the purity of ground water, and for the protection of wetlands, which minimum standards and procedures shall be used by local governments in developing, preparing, and implementing their comprehensive plans as that term is defined in paragraph (3) of subsection (a) of Code Section 50-8-2. (Code 1981, SS 12-2-8, enacted by Ga.L. 1989, p. 1317, SS 5. 1; Ga.L. 199 1, p. 1719, SS 1; Ga.L. 1992, p. 6. SS 12; Ga.L. 1993, p. 91, SS 12.)

#### General Description

The statute that is informally known as the Mountain and River Corridor Protection Act (O.C.G.A. 12-2-8) authorizes the Department of Natural Resources to develop minimum standards for the protection of river corridors (and mountains, watersheds, and wetlands) that can be adopted by local governments. The Act is administered by the Environmental Protection Division. All rivers in Georgia with an average annual flow of 400 cubic feet per second are covered by the Act, except those within the jurisdiction of the Coastal Marshlands Protection Act. Some of the major provisions of the Act include: requirements for a 100 foot vegetative buffer on both sides of rivers; consistency with the Georgia Erosion and Sedimentation Act; and local governments must identify river corridors in land-use plans developed under their respective comprehensive planning acts.

Regional Development Centers are instrumental in helping local governments enact the provisions of this Act. The Coastal Georgia Regional Development Center prepared a Regional River Corridor Protection Plan for counties within their jurisdiction. The Plan describes the ten local governments and the associated rivers that are affected by the River Corridor Protection Act, and puts forward a regional plan for the protection of river corridors. Regional plans are preferable to having local governments prepare individual plans. The plan provides for construction of road crossings, acceptable uses of river corridors, maintenance of a vegetative buffer along the river for a minimum of 100 feet from the river's edge (residential structures are allowed within the buffer zone), timber production standards, wildlife and fisheries management, recreation, and other uses. The local governments within the Coastal Regional Development Center jurisdiction affected by the River Corridor Protection Act, and their respective rivers are listed below. Eight coastal counties and two coastal cities (Richmond Hill and Woodbine) are affected.

Adoption of language addressing the River Corridor Protection Act is required in local comprehensive plans. The counties and cities listed in Table 6-2 have adopted a Regional River Corridor Protection Plan.

• Table 6.2. Counties with Adopted Regional River Corridor Protection Plan

COUNTY/CITY	RIVER
Bryan County	Canoochee River Ogeechee River
City of Richmond Hill	Ogeechee River
Camden County	Satilla River St. Mary's River
City of Woodbine	Satilla River
Chatham County	Savannah River
Effingham County	Ogeechee River Savannah River
Glynn County	Altamaha River
Liberty County	Canoochee River
Long County	Altamaha River
McIntosh County	Altamaha River

The following coastal counties have not yet adopted a River Corridor Protection Plan (as of August 1997).

• Table 6.3. Counties without Adopted Regional River Corridor Protection Plan

COUNTY/CITY	RIVER
Charleton County	St. Mary's River
Brantley County	Satilla River
Wayne County	Altamaha River

Jurisdiction of the River Corridor Protection Act extends along the above named rivers from the limit of Coastal Marshlands Protection Act jurisdiction upstream through the coastal counties.

Consistency

The project area is under the jurisdiction of the Coastal Marshlands Protection Act, rather than the River Corridor Protection Act. The proposed project is fully consistent with this policy.

## SAFE DRINKING WATER

### Policy Statement

#### Georgia Safe Drinking Water Act (O.C.G.A. 12-5-1 70, et seq.)

12-5-171. Declaration of policy; legislative intent; Environmental Protection Division to administer part. As a guide to the interpretation and application of this part, it is declared to be the policy of the State of Georgia that the drinking waters of the state shall be utilized prudently to the maximum benefit of the people and that the quality of such waters shall be considered a major factor in the health and welfare of all people in the State of Georgia. To achieve this end, the government of the state shall assume responsibility for the quality of such waters and the establishment and maintenance of a water-supply program adequate for present needs and designed to care for the future needs of the state.

This requires that an agency of the state be charged with this duty and that it have the authority to require the use of reasonable methods, that is, those methods which are economically and technologically feasible, to ensure adequate water of the highest quality for water-supply systems. Because of substantial and scientifically significant variations in the characteristics, usage, and effect upon public interest of the various surface and underground waters of the state, uniform requirements will not necessarily apply to all waters or segments thereof. It is the intent of this part to confer discretionary administrative authority upon such agency to take the above and related circumstances into consideration in its decisions and actions in determining, under the conditions prevailing in specific cases, those procedures to best protect the public interests.

The Environmental Protection Division of the Department of Natural Resources shall be the state agency to administer the provisions of this part consistent with the above-stated policy. (Code 1933, SS 88-2601, enacted by Ga.L. 1964, p.499, SS 1; Ga.L. 1977, p.351, SS 1.)

### General Description

The Georgia Safe Drinking Water Act of 1977 charges the Environmental Protection Division with the responsibility for maintaining the quality of drinking water and for maintaining a water-supply program adequate for present and future needs of the State. The Environmental Protection Division is designated as the agency to establish rules and policies for the proper administration of drinking water management programs.

### Consistency

A valuable freshwater aquifer, the Late Eocene aged Ocala Limestone (Upper Floridan) Aquifer, would be expected to be at no higher elevation than -190 feet MLW in this area. The uppermost freshwater aquifer is confined by the highly impermeable middle Miocene clays of 40 to 70 feet in thickness. Clayey sands and soft limestone overlie these clays. Above the Upper Miocene are soft granular Pliocene and Pleistocene age deposits in which most of the recent harbor deepening took place, along with current soft deposits of the Holocene Age. Introduction of water into the upper Floridan Aquifer would require contact with a fissure, fault, or ancient stream channel that would lead to this stratum. This is possible, but not likely. Another way for water to be introduced into the upper Floridan Aquifer would be for the entire Miocene Age cap to be removed to expose the underlying limestone. This would require dredging the harbor to -100 feet MLW. Based on this information, no impact to the upper confined freshwater aquifer

or the principal confined drinking water aquifer in Savannah Harbor is projected to occur from the proposed harbor deepening or from continued maintenance of that Navigation Project.

The existing diked upland disposal areas (CDFs) are not lined, but are constructed on top of the soil substrate that was originally on the site. In most cases, soft organic soils supporting wetland vegetation previously covered the sites. Due to the unlined nature of those facilities and the short-term ponding of water within those diked areas, there is a potential for migration of water down through the soil layers to levels of shallow groundwater. Groundwater can be found at various depths in the project vicinity, while drinking water is taken only from depths more than 100 feet below the surface. As described in the previous paragraph, clay lenses of 40 to 70 feet in thickness separate the various groundwater-bearing strata. Those lenses effectively limit the depth to which migration could occur from the CDFs. No drilling operation is proposed which is likely to penetrate through a geologic stratum that contains a fresh water aquifer used for drinking purposes. The drilling which will be performed will comply with state standards for casing, capping and plugging. Based on this, the proposed project is fully consistent with this policy.

The Savannah River serves as a water supply for a number of domestic and industrial users in the Savannah area. The City of Savannah operates a water treatment plant with a raw water intake on Abercorn Creek, a tributary to the Savannah River. Abercorn Creek connects to the Savannah River at RM 29, approximately 1 mile above the I-95 Bridge. The City of Savannah supplies industrial process water through that conventional surface water treatment plant and must limit the amount of chlorides in the treated water to 12mg/L. Since the treatment plant does not remove chlorides, the raw water source must be monitored carefully. Currently the City monitors chlorides at the intake and has noticed an increase of chlorides during high tides and low flow events, suggesting a potential relationship to salinity conditions in the Savannah River. Since salinity increases in the upper harbor are expected to result from a harbor deepening, increases in the chloride levels at the City's industrial raw water intake could occur.

## SCENIC RIVERS

### Policy Statement

Georgia Scenic Rivers Act (O.C.G.A. 12-5-350, et seq.)

12-5-352. Rivers comprising the Georgia Scenic River System.

(a) The Georgia Scenic River System shall be comprised of the following:

- (1) That portion of the Jacks River contained within the Cohutta National Wilderness Area and located in Fannin and Murray counties, Georgia, which portion extends a length of approximately 16 miles;
- (2) That portion of the Conasauga River located within the Cohutta National Wilderness Area and located in Fannin, Gilmer, and Murray counties, Georgia, which portion extends a length of approximately 17 miles;
- (3) That portion of the Chattooga River and its West Fork which are now designated as part of the Chattooga National Wild and Scenic River and located in Rabun County, Georgia, which portion extends a length of approximately 34 miles; and (4) That portion of Ebenezer Creek from Long

Bridge on County Road S 393 to the Savannah River and located in Effingham County, Georgia, which portion extends a length of approximately seven miles.

- (b) The Georgia Scenic River System shall also be comprised of any river or section of a river designated as a scenic river by Act or resolution of the General Assembly. (Ga.L. 1969, p. 933, SS 3; Ga.L. 1978, p. 2207, SS 1; Ga.L. 1981, p. 459, SS 1.)

#### General Description

The Georgia Scenic Rivers Act of 1969 defines "scenic river" to mean certain rivers or section of rivers that have valuable scenic, recreational, or natural characteristics that should be preserved for the benefit and enjoyment of present and future generations. Certain sections of rivers are named in the Act, and the process for designating other sections of Georgia rivers is described. The Georgia Scenic Rivers Act is administered by the Environmental Protection Division.

#### Consistency

Although the project area includes rivers that contain valuable scenic, recreational and/or natural characteristics, none have been defined as a "scenic river" by this Act. The proposed action would not substantially alter the scenic properties of the project area rivers, so the project is fully consistent with this policy.

## SCENIC TRAILS

#### Policy Statement

Georgia Scenic Trails Act (O.C.G.A. 12-3-110, et seq.)

12-3-111. Legislative purpose.

In order to provide for the increasing outdoor recreation needs of an expanding population with an increasing amount of leisure time, in order to promote the enjoyment and appreciation of the outdoor areas of Georgia, and in order to provide for a healthful alternative to motorized travel, trails should be established in urban, suburban, rural, and wilderness areas of Georgia. Therefore, the purpose of this article is to provide for a Georgia Scenic Trails System. (Ga.L. 1972, p. 142, SS 2.)

#### General Description

The Georgia Scenic Trails Act authorizes the Department of Natural Resources to establish a Scenic Trails System in Georgia. The Department is authorized to construct, maintain, and manage trails on lands acquired through purchase, easement, lease or donation. The purpose is to create a balanced system of trails throughout the State, including urban, bicycle, horse, rural hiking, primitive hiking, historical, bikeways and combination trails. The Georgia Department of Transportation is authorized to construct the bicycle trails and bikeways after the Department of Natural Resources has determined their routes.

#### Consistency

No project lands are well suited for establishing a scenic trail. The only project lands that could be appropriate for such use would be the CDFs. Since (1) those sites are regularly used for deposition of dredged sediments requiring the use of large construction equipment, (2) the property is not owned in fee by the Corps, and (3) the owners of that property are concerned about liability for accidents to visitors to

the sites if access is unrestricted, the sites are not proposed for establishment of a public trail. The proposed project is fully consistent with this policy.

## SEPTIC TANKS

### Policy Statement

#### Title 31 -- Health (O.C.G.A. Title 31 generally) (Septic Tank Law)

#### 31-2-7. Standards for individual sewage management systems.

(b) The Department of Human Resources shall have the authority as it deems necessary and proper to adopt state-wide minimum standards for on-site, individual sewage management systems, including but not limited to standards for the size and construction of septic tanks. The Department is authorized to require that any on-site, individual sewage management system be examined and approved prior to allowing the use of such system in the state. Any on-site, individual sewage management system which has been properly approved shall, by virtue of such approval and by operation of law, be approved for installation in every county of the state; provided, however, that such on-site, individual sewage management system shall be required to meet local regulations authorized by law. Upon written request of three or more health districts, the department is authorized to require the reexamination of any such system or component thereof, provided that documentation is submitted indicating unsatisfactory service of such system or component thereof. Before any such examination or reexamination, the department may require the person, persons, or organization manufacturing or marketing the system to reimburse the department or its agent for the reasonable expenses of such examination. (Code 1981, SS 31-2-7, enacted by Ga.L 1992, p. 3308, SS 1; Ga.L. 1994, p. 1777, SS 1.)

31-3-5.1. Regulations for septic tanks for individual sewage management systems in unincorporated areas; conformity to building permit.

(b) No building permit for the construction of any residence, building, or other facility which is to be served by a septic tank or individual sewage management system shall be issued by or pursuant to the authority of a county governing authority unless the septic tank or individual sewage management system installation permit is in conformity with any statewide minimum standards for sewage management systems or the rules and regulations of the county board of health adopted pursuant to the authority of subsection (a) of this Code section. No person, firm, corporation, or other entity shall install a septic tank or individual sewage management system in violation of any state-wide minimum standards or the regulations of a county board of health adopted pursuant to the authority of subsection (a) of the Code section. Each county governing authority shall provide by ordinance or resolution for the enforcement of the provisions of this subsection. (Code 1981, SS 31-3-5.1, enacted by Ga.L. 1986, p. 227, SS 1; Ga.L. 1992, p. 3308, SS 2; Ga.L. 1994, p. 1777, SS 2.)

### General Description

As stated above, the standards and regulations for individual sewage management systems are found at O.C.G.A. 31-2-7 and 31-3-5.1. The Department of Human Resources and the county boards of health are described and established by Title 31. There are other references for managing septic systems throughout the Code, including references within the River Corridor Protection Act (O.C.G.A. 12-2-8), the Georgia Water Quality Control Act (O.C.G.A. 12-5-20), and others, which make reference to safe siting

of septic systems to ensure that leachate from those systems does not infiltrate the waters of the State. The county board(s) of health are provided the authority and the responsibility of ensuring safe installation and maintenance of septic systems.

#### Consistency

No septic tanks are proposed as part of this project. The proposed project is fully consistent with this policy.

#### SHELLFISH

##### Policy Statement

##### Game and Fish Code (O.C.G.A. 27-1-1. et seq.)

27-4-190. Master collecting and picker's permits; hours for taking shellfish; recreational harvesting.

- (a) It shall be unlawful to take or possess shellfish in commercial quantities or for commercial purposes without first having obtained a master collecting permit or without proof of purchase that such shellfish were purchased from a certified shellfish dealer. Master collecting permits shall specify whether the permittee is authorized to take oysters, clams, or other shellfish and shall only be issued to persons certified by the Department of Agriculture to handle shellfish unless permission to take and possess shellfish for mariculture purposes has been granted by the department as described in subsection (d) of Code Section 27-4-197. Such permits shall be provided annually at no cost by the department but shall only be issued to persons with the right to harvest shellfish pursuant to Code Sections 44-8-6 through 44-8-8 or to holders of leases from such persons. A permittee may request authorization from the department for employees or agents, who shall be referred to as pickers, of such permittee to take shellfish from permitted areas. Such request shall be in writing to the department and shall include the name, address, and personal commercial fishing license number of the picker. It shall be unlawful for pickers to take or possess shellfish as authorized under their employer's master collecting permit unless they carry on their person while taking or in possession of shellfish a picker's permit as provided by the department indicating the exact area and circumstances allowed for taking. Such pickers' permits and charts shall be provided annually by the department at no cost and shall be in a form as prescribed by the department. Pickers must possess a valid personal commercial fishing license as provided for in Code Section 27-4-110 and, when a boat is used, a valid commercial fishing boat license as provided in Code Section 27-2-8. Master collecting permits and pickers' permits shall not be issued to persons who have been convicted three times in the two years immediately preceding the filing of an application for a permit of violations of this Code section, subsection (b) of Code Section 27-4-193, subsections (a) and (b) of Code Section 27-4-195, or Code Section 27-4-199. Master collecting permits and pickers' permits issued to master collecting permittee's agents shall be surrendered to the department upon termination of Department of Agriculture certification for handling shellfish, upon termination of right to harvest shellfish, or upon violation of any provision of this title. If a picker is removed from authorization to take shellfish by the master collecting permittee, that picker shall immediately surrender to the department his picker's permit. It shall be unlawful to possess unauthorized pickers' permits or pickers' permits issued to another person.

- (b) It shall be unlawful for any person to take or possess shellfish from unauthorized locations and during unauthorized periods of taking. It shall be unlawful to take shellfish except between the hours of one-half hour before sunrise and one-half hour after sunset. (Code 1981, SS 27-4-190, enacted by Ga. L. 1991, p. 693, SS 6.)

27-4-193. Taking shellfish from unapproved growing areas; operating facility for controlled purification of shellfish.

- (a) As used in this Code section, the term "approved growing area" means that area or areas approved by the department for shellfish harvesting and "unapproved growing area" means all other areas.
- (b) It shall be unlawful to take or possess shellfish from unapproved growing areas except at such times and places as the department may establish. The department is authorized to close approved growing areas to allow transplanting at any time between January 1 and December 31. It shall be unlawful to engage in transplanting of shellfish from unapproved growing areas without written authorization from the department. Such authorization may condition the transplanting upon compliance with current, sound principles of wildlife research and management. In approving growing areas, the department shall consider such current guidelines as have been established by the National Shellfish Sanitation Program at the time of approval of the growing areas and current, sound principles of wildlife research and management. (Code 1981, SS 27-4-193, enacted by Ga.L. 1991, p. 693, SS 6; Ga.L. 1992, p. 6, SS 27.)

### General Description

The provisions of O.C.G.A. Title 27 (Game and Fish Code), Part 4 describe the regulation of shellfish in Georgia. The provisions describe the requirements for a commercial shellfish harvester to have a license, issued by the Department of Natural Resources pursuant to the requirements of the U.S. Department of Agriculture. The Department also is authorized to approve shellfish growing areas for commercial harvest, and must consider the guidelines established by the National Shellfish Sanitation Program. The Department conducts water sampling in areas that are approved for shellfish in conjunction with the National Shellfish Sanitation Program.

### Consistency

No commercial shellfish harvesting is proposed as part of this project. The proposed dredging and sediment deposition would not adversely impact any approved shellfish growing area. The proposed project is fully consistent with this policy.

## SHORE PROTECTION

### Policy Statement

Shore Protection Act (O.C.G.A. 2-5-230, et seq.)

12-5-231. Legislative findings and declarations.

The General Assembly finds and declares that coastal sand dunes, beaches, sandbars, and shoals comprise a vital natural resource system, known as the sand-sharing system, which acts as a buffer to protect real and personal property and natural resources from the damaging effects of floods, winds, tides, and erosion. It is recognized that the coastal sand dunes are the most inland portion of the sand-sharing system and that because the dunes are the fragile product of shoreline evolution, they are easily disturbed by actions harming their vegetation or inhibiting their natural development. The General Assembly further finds that offshore sandbars and shoals are the system's first line of defense against the potentially destructive energy generated by winds, tides, and storms, and help to protect the onshore segment of the system by acting as reservoirs of sand for the beaches. Removal of sand from these bars and shoals can interrupt natural sand flows and can have unintended, undesirable, and irreparable effects on the entire sand-sharing system, particularly when the historical patterns of sand and water flows are not considered and accommodated. Also, it is found that ocean beaches provide an unparalleled natural recreation resource which has become vitally linked to the economy of Georgia's coastal zone and to that of the entire state. The General Assembly further finds that this natural resource system is costly, if not impossible, to reconstruct or rehabilitate once adversely affected by man related activities and is important to conserve for the present and future use and enjoyment of all citizens and visitors to this state and that the sand-sharing system is an integral part of Georgia's barrier islands, providing great protection to the state's marshlands and estuaries. The General Assembly further finds that this sand-sharing system is a vital area of the state and is essential to maintain the health, safety, and welfare of all the citizens of the state. Therefore, the General Assembly declares that the management of the sand-sharing system has more than local significance, is of equal importance to all citizens of the state, is of state-wide concern, and consequently is properly a matter for regulation under the police power of the state. The General Assembly further finds and declares that activities and structures on offshore sandbars and shoals, for all purposes except federal navigational activities, must be regulated to ensure that the values and functions of the sand-sharing system are not impaired. It is

declared to be a policy of this state and the intent of this part to protect this vital natural resource system by allowing only activities and alterations of the sand dunes and beaches which are considered to be in the best interest of the state and which do not substantially impair the values and functions of the sand-sharing system and by authorizing the local units of government of the State of Georgia to regulate activities and alterations of the ocean sand dunes and beaches and recognizing that, if the local units of government fail to carry out the policies expressed in this part, it is essential that the department undertake such regulation. (Code 1981, SS12-5-231, enacted by Ga.L. 1992, p.1362, SS 1.)

#### General Description

The Shore Protection Act is the primary legal authority for protection and management of Georgia's shoreline features including sand dunes, beaches, sandbars, and shoals, collectively known as the sand-sharing system. The value of the sand-sharing system is recognized as vitally important in protecting the coastal marshes and uplands from Atlantic storm activity, as well as providing valuable recreational opportunities.

The Shore Protection Act limits activities in shore areas and requires a permit for certain activities and structures on the beach. Construction activity in sand dunes is limited to temporary structures such as crosswalks, and then only by permit from the Georgia Coastal Resources Division. Structures such as boat basins, docks, marinas, and boat ramps are not allowed in the dunes. Shore Permits, which are administered by the Coastal Resources Division, are not granted for activities that are inconsistent with the Georgia Coastal Management Program. The Shore Protection Act prohibits operation of any motorized vehicle on or over the dynamic dune fields and beaches, except as authorized for emergency vehicles, and governmental vehicles for beach maintenance or research. The Shore Protection Act also prohibits storage or parking of sailboats, catamarans, or other marine craft in the dynamic dune field.

Direct permitting authority regarding any proposed facilities located within the jurisdictional area the Shore Protection Act lies with the Shore Protection Committee. These permits are administered by the Georgia Coastal Resources Division. This authority is a very important aspect of the Georgia Coastal Management Program, since recreation at the water's edge is a significant demand. Providing public access and recreational opportunities at or near the beach while protecting the sand sharing system is an important component of the Program.

#### Consistency

The proposed project includes construction within the sand-sharing system, so its activities fall under the jurisdiction of the Shore Protection Act. The District determined that the proposed harbor deepening would not adversely affect shorelines adjacent to the channel. The evaluation considered shores within 10 miles of the proposed excavation. Documentation for that evaluation is included in the Section 4.9 of the *DEIS*. Placement of dredged sediments in both (1) the nearshore feeder berm oceanward of Tybee Island, and (2) the submerged berms located at intervals on the south side of and along the length of the Bar Channel would result in the placement or retention of sediments in the nearshore sand-sharing system off Tybee Island. These placements would be beneficial to the nearshore sand-sharing system. The proposed project is consistent with this policy.

## SOLID WASTE MANAGEMENT

### Policy Statement

Georgia Comprehensive Solid Waste Management Act (O.C.G.A. 12-8-21, et seq.)

12-8-21. Declaration of policy; legislative intent.

- (a) It is declared to be the policy of the State of Georgia, in furtherance of its responsibility to protect the public health, safety, and well-being of its citizens and to protect and enhance the quality of its environment, to institute and maintain a comprehensive state-wide program for solid waste management which will assure that solid waste facilities, whether publicly or privately operated, do not adversely affect the health, safety, and well-being of the public and do not degrade the quality of the environment by reason of their location, design, method of operation, or other means and which, to the extent feasible and practical, makes maximum utilization of the resources contained in solid waste.
- (b) It is further declared to be the policy of the State of Georgia to educate and encourage generators and handlers of solid waste to reduce and minimize to the greatest extent possible the amount of solid waste which requires collection, treatment, or disposal through source reduction, reuse, composting, recycling, and other methods and to promote markets for and engage in the purchase of goods made from recovered materials and goods which are recyclable. (Code 1981, SS 12-8-21, enacted by Ga.L. 1990, p. 412, SS 1; Ga.L. 1992, p. 3259, SS 1; Ga.L. 1993, p. 399, SSSS 1, 2.)

### General Description

The Georgia Comprehensive Solid Waste Management Act defines the rules regarding solid waste disposal in the State. Solid waste handling facilities must be permitted by the State unless an individual is disposing of waste from his own residence onto land or facilities owned by him and disposal of such waste does not adversely affect human health (O.C.G.A. 12-8-30.10). State law mandates that a county, municipality, or group of counties beginning a process to select a site for municipal waste disposal must first call at least one public meeting.

In addition to the above-named jurisdictions, a regional solid waste management authority must hold at least one meeting within the jurisdiction of each participating authority. Meetings held to make siting decisions for any publicly or privately owned municipal solid waste disposal facility must be publicized before the meeting is held (O.C.G.A. 12-8-26). Each city and county is required to develop a comprehensive solid waste management plan that, at a minimum, provides for the assurance of adequate solid waste handling capability and capacity for at least ten years. This plan must identify those sites that are not suitable for solid waste facilities based upon environmental and land use factors (O.C.G.A. 12-8-3 1. 1); these factors may include historic and archeological sites. Solid waste facilities within 5,708 yards of a national historic site are not permitted (O.C.G.A. 12-8-25. 1). Solid waste facilities on property owned exclusively by a private solid waste generator are generally exempt from these provisions. Local governments have the authority to zone areas of environmental, historic, or cultural sensitivity and to protect those sites from becoming waste disposal areas regardless of whether they are public or privately owned.

### Consistency

The dredged sediments do not meet the definition of a solid waste and, therefore, do not require to be treated as such. The proposed project is fully consistent with this policy.

## SURFACE MINING

### Policy Statement

#### Georgia Surface Mining Act (O.C.G.A. 12-4-70, et seq.)

12-4-71. Legislative purpose; duty of Environmental Protection Division to administer part.

(c) The purposes of this part are:

- (1) To assist in achieving and maintaining an efficient and productive mining industry and to assist in increasing economic and other benefits attributable to mining;
- (2) To advance the protection of fish and wildlife and the protection and restoration of land, water, and other resources affected by mining;
- (3) To assist in the reduction, elimination, or counteracting of pollution or deterioration of land, water, and air attributable to mining;
- (4) To encourage programs which will achieve comparable results in protecting, conserving, and improving the usefulness of natural resources to the end that the most desirable conduct of mining and related operations may be universally facilitated;
- (5) To assist in efforts to facilitate the use of land and other resources affected by mining so that such use may be consistent with sound land use, public health, and public safety, and to this end to study and recommend, wherever desirable, techniques for the improvement, restoration, or protection of such land and other resources.

(d) The Environmental Protection Division of the department shall administer this part consistent with the above-stated purposes. (Ga.L. 1968, p. 9, SS 2.)

### General Description

Georgia's Surface Mining Act regulates all surface mining in Georgia, including the coastal zone. Dredging or ocean mining of materials are not directly regulated by State authority, except that sand and gravel operations are subject to the Shore Protection Act.

### Consistency

Dredging is not an activity covered by this policy. The deposition of excavated sediments in the nearshore feeder berm oceanward of Tybee Island and in submerged berms along the length of the Bar Channel would be a wise reuse of that natural resource. The proposed project is fully consistent with this policy.

## UNDERGROUND STORAGE TANKS

### Policy Statement

Georgia Underground Storage Tank Act (O.C.G.A. 12-3-1. et seq.)

12-13-2. Public policy.

- (a) It is declared to be the public policy of the State of Georgia, in furtherance of its responsibility to protect the public health, safety, and well-being of its citizens and to protect and enhance the quality of its environments, to institute and maintain a comprehensive state-wide program for the management of regulated substances stored in underground tanks.
- (b) It is the intent of the General Assembly that the Environmental Protection Division of the Department of Natural Resources shall be designated as the state agency to administer the provisions of this chapter. The director of the Environmental Protection Division of the Department of Natural Resources shall be the official charged with the primary responsibility for the enforcement of this chapter. In exercising any authority or power granted by this chapter and in fulfilling duties under this chapter, the director shall conform to and implement the policies outlined in this chapter.
- (c) It is the intent of the General Assembly to create an environmental assurance fund which, in addition to those purposes set forth in subsections (f) and (g) of Code Section 1 2-1 3-9, may also be used by owners and operators as an alternate to insurance purchased from insurance companies for purposes of evidencing financial responsibility for taking corrective action and compensation of third parties for bodily injury and property damage caused by sudden and non-sudden accidental releases arising from operating underground storage tanks. (Code 1981, SS 12-13-2, enacted by Ga.L. 1988, p. 2072, SS 1; Ga.L. 1989, p. 14, SS 12.)

### General Description

The Underground Storage Tank Law provides the authority for the Environmental Protection Division to define the State criteria for operating, detecting releases, corrective actions, and enforcement of the utilization of underground storage tanks (USTs). The rules, found at Chapter 391-3-15 of the Rules and Regulations of the State of Georgia, establish minimum standards and procedures to protect human health and safety and to protect and maintain the quality of groundwater and surface water resources from environmental contamination that could result from any releases of harmful substances stored in such tanks. These requirements reflect the federal law regulating underground storage tanks as well as the applicable State rules. All facilities with underground storage tanks are subject to these requirements. The Memorandum of Agreement between the Coastal Resources Division and the Environmental Protection Division ensures cooperation and coordination in the implementation of UST standards within the coastal area.

### Consistency

Based on a limited assessment of the property required for this project, there is no indication that project lands contain USTs. No installation of USTs is proposed in this project. The proposed project is fully consistent with this policy.

## WATER QUALITY

### Policy Statement

#### Georgia Water Quality Control Act (O.C.G.A. 12-5-20)

12-5-21. Declaration of policy, legislative intent.

- (a) The people of the State of Georgia are dependent upon the rivers, streams, lakes, and subsurface waters of the state for public and private water supply and for agricultural, industrial, and recreational uses. It is therefore declared to be the policy of the State of Georgia that the water resources of the state shall be utilized prudently for the maximum benefit of the people, in order to restore and maintain a reasonable degree of purity in the waters of the state and an adequate supply of such waters, and to require where necessary reasonable usage of the waters of the state and reasonable treatment of sewage, industrial wastes, and other wastes prior to their discharge into such waters. To achieve this end, the government of the state shall assume responsibility for the quality and quantity of such water resources and the establishment and maintenance of a water quality and water quantity control program adequate for present needs and designed to care for the future needs of the state, provided that nothing contained in this article shall be construed to waive the immunity of the state for any purpose.
- (b) The achievement of the purposes described in subsection (a) of this Code section requires that the Environmental Protection Division of the Department of Natural Resources be charged with the duty described in that subsection, and that it have the authority to regulate the withdrawal, diversion, or impoundment of the surface waters of the state, and to require the use of reasonable methods after having considered the technical means available for the reduction of pollution and economic factors involved to prevent and control the pollution of the waters of the state.
- (c) Further, it is the intent of this article to establish within the executive branch of the government administrative facilities and procedures for determining improper usage of the surface waters of the state and pollution of the waters of the state, and to confer discretionary administrative authority upon the Environmental Protection Division to take these and related circumstances into consideration in its decisions and actions in determining, under the conditions and specific cases, those procedures which will best protect the public interest. (Ga.L. 1957, p. 629, SS 2; Ga.L. 1964, p. 416, SS 2; Ga.L. 1977, p. 368, SS 1.)

### General Description

The Georgia Water Quality Control Act grants the Environmental Protection Division authority to ensure that water uses in the State of Georgia are used prudently, are maintained or restored to a reasonable degree of purity, and are maintained in adequate supply. In the administration of this law, the Environmental Protection Division can revise rules and regulations pertaining to water quality and quantity, set permit conditions and effluent limitations, and set permissible limits of surface water usage for both consumptive and non-consumptive uses through the Board of Natural Resources. Through a Memorandum of Agreement between the Environmental Protection Division and the Coastal Resources Division, the rules and permits of the Environmental Protection Division are administered in a manner consistent with the enforceable policies of the Coastal Management Program.

The authority to regulate the rivers, streams, lakes, and subsurface waters throughout the State for public and private water supply and agricultural, industrial, and recreational uses is provided to the

Environmental Protection Division. The Act makes it unlawful for any person to dispose of sewage, industrial wastes, or other wastes, or to withdraw, divert, or impound any surface waters of the State without a permit. Tourism and recreational entities, manufacturing and transportation facilities, and other activities found in the coastal zone covered under the policies of the Georgia Coastal Management Program are responsible for compliance with the regulations implementing the Georgia Water Quality Control Act.

#### Consistency

The environmental effects of dredged material management alternatives analysis did not reveal any potentially unacceptable adverse effects from the excavation, transportation, discharge, deposition, and management of the material proposed for excavation to create the various Harbor deepening alternatives provided that Inner Harbor sediments are placed in existing Federal Navigation Project CDFs. Additionally, the Nearshore BC O&M material should be excavated together with the underlying NW material to ensure that PAH and Butyltin compounds are not available to benthic organisms at concentrations that may create adverse effects. Additionally, surficial sediments from the vicinity of the destroyed Savannah RACON/Light should be removed and disposed of by approved methods by the shipping line responsible for the contaminating spill before construction of the proposed deepening project. These sediments are contaminated with Cadmium above the probable effects level and with low levels of LMW PAH compounds. If those sediments are excavated as part of this project, they would be excavated early in the construction process so that subsequent material would be deposited on top of these Cadmium- and PAH-contaminated sediments.

## WATER WELLS

### Policy Statement

Water Wells Standards Act (O.C.G.A. 12-5-120, et seq.)

12-5-121. Legislative intent.

It is the intent of the General Assembly to provide in this part for the application of standards for the siting, construction, operation, maintenance, and abandonment of wells and boreholes so as to protect the public health and the water resources of this state. (Ga.L. 1976, p. 974, SS 2; Ga.L. 1985, p. 1192, SS 1.)

### General Description

The Water Wells Standards Act of 1985 provides standards for siting, constructing, operating, maintaining, and abandoning wells and boreholes. The Act requires that individual and non-public wells must be located as far removed from known or potential sources of pollutants as possible. Licensing requirements for drilling contractors are established by the Act, as well a State Water Well Standards Advisory Council. The Council is authorized to adopt and amend rules and regulations that are reasonable to govern the licensing of well contractors. Compliance with the Water Wells Standards Act is required for all activities that use well water. The provisions of the Act are enforceable under Georgia law. The Council may file a petition for an injunction in the appropriate superior court against any person that has violated any provisions of the Act.

### Consistency

No drilling operation is proposed which is likely to penetrate through a geologic stratum that contains a fresh water aquifer used for drinking purposes. Borings that will be performed prior to the construction will comply with the state standards for casing, capping and plugging. Based on this, the proposed project is fully consistent with this policy.

## WILDFLOWER PRESERVATION

### Policy Statement

The Wildflower Preservation Act (O.C.G.A. 12-6-170, et seq.)

12-6-172. Powers and duties of Department and Board of natural Resources as to wildflower preservation.

- (a) The Department of Natural Resources shall from time to time designate as a protected species and species of plant life within this state which it may determine to be rare, unusual, or in danger of extinction, and upon such designation such species will become subject to the protection of this article. (Ga.L. 1973, p. 333, SS 3; Ga.L. 1982, p. 3, SS 12.)

### General Description

The Wildflower Preservation Act provides for designation of and protection of plant species that are rare, unusual, or in danger of extinction. Additional species may be added by the Board of Natural Resources at any time. The protection offered to these species is limited to those that are found on public lands of the State. It is a misdemeanor to transport, carry, convey, sell, cut, pull up, dig up, or remove protected species listed by this Act.

### Consistency

Lands to be used for the project contain no wildflowers that are considered rare, unusual, or in danger of extinction. The proposed project is fully consistent with this policy.

## 6.2 Other Management Authorities

The paragraphs in this section describe management authorities which provide the Coastal Resources Division with additional tools and mechanisms to accomplish the goals of the Georgia Coastal Management Program. Although these authorities are not listed as policies of the Program, they are laws of the State. Most of the statutes referenced here are primarily procedural. These laws and programs are not considered enforceable policies of the Georgia Coastal Management Program and thus are not used in preparing or reviewing Federal Consistency Determinations and certifications.

Coordinated and Comprehensive Planning by Counties and Municipalities (Informally known as the Georgia Planning Act). The Georgia Planning Act (O.C.G.A. 45-12-200, et seq.) requires each local government to develop a comprehensive plan to guide growth and development as a condition to receive State funding assistance. Under the Georgia Planning Act, minimum planning standards were developed for the preparation, adoption, and implementation of local comprehensive plans. The planning standards constitute a three-step planning process: inventory and assessment; needs and goals; and implementation and strategy.

The Act establishes Regional Development Centers (RDCs) throughout Georgia. Three of these Centers have jurisdiction within the coastal zone: the Southeast Georgia RDC includes Brantley and Charlton counties; the Heart of Georgia RDC includes Wayne County; and the Coastal Georgia RDC includes the remaining eight counties (Bryan, Camden, Chatham, Effingham, Glynn, Liberty, Long, and McIntosh). The role of the RDCs is to work with local and county governments individually and on a regional basis to improve services and programs, consistent with local comprehensive plans, to benefit residents of the region. The Coastal Management Program works closely with the RDCs to implement the policies of the Program. Many of the goals, objectives and policies of the Georgia Coastal Management Program can be achieved by local comprehensive planning processes and implemented through local land-use controls and the public infrastructure.

The Coastal Georgia RDC has jurisdiction for projects located within Chatham County. The District consulted with the RDC concerning their long term planning goals for the project vicinity. The proposed improvements to the Savannah Harbor Navigation Project do not conflict with any aspect of an existing long-term comprehensive land use plan.

Georgia Administrative Procedures Act. The Georgia Administrative Procedures Act (O.C.G.A. 50-13-4, et seq.) establishes the procedural requirements for adoption, amendment, or repeal of rules and regulations, among other things. New rules require at least 30 days notice of intended action. Similar public comment requirements are required for federal regulatory actions. Public comment and input is important for any regulatory action, both to provide an opportunity for presentation of citizens' ideas and concerns and to provide time for implementation by those entities that may be potentially impacted.

A scoping workshop was held in Savannah in 1997 to inform the public of the proposed harbor deepening study and solicit issues that should be addressed during the feasibility study. The 30-day public comment period for the draft *EIS* -- which is a component of the Federal NEPA process -- provides a formal avenue for the public to provide input on the proposed project. The District believes the harbor deepening study has fully complied with the spirit of the Georgia Administrative Procedures Act. Georgia Litter Control Law. The Georgia Litter Control Law (O.C.G.A. 16-7-40, et seq.) makes it unlawful for any person or persons, "...to dump, deposit, throw, or leave or to cause or permit the dumping, placing, throwing, or leaving of litter on any public or private property in this state or any waters in this state" unless the situation meets one of three conditions. Litter may be disposed at a site if (1) the property is designated as a litter disposal site, (2) litter is placed in a proper receptacle, and/or (3) litter is disposed of by permission of the property owner in a manner consistent with the public welfare.

The Project's construction contracts will contain provisions that require the contractors to remove all construction equipment from the Project sites as part of their demobilization activities. The District believes that implementation of that contract provision will ensure that the Project complies with the Georgia Litter Control Law.

Georgia Uniform Conservation Easement Act. The Georgia Uniform Conservation Easement Act (O.C.G.A. 44-10-1, et seq.) defines "conservation easement" to mean a non-possessory interest in real property, with limitations or affirmative obligations, the purposes of which include retaining or protecting natural property; assuring its availability for agricultural, forest, recreational, or open space use; protecting natural resources; maintaining or enhancing air or water quality; or preserving the historical,

archeological, or cultural aspects of real property. A landholder may be a government agency or a charitable organization.

The only Project lands which could be appropriate for this program would be the CDFs. Since (1) those sites are primarily used for deposition of dredged sediments rather than as wildlife habitat, (2) the property is not owned in fee by the Corps, and (3) the owners of that property do not desire to place additional restrictions on their future use of the sites, the sites are not proposed for inclusion in this program.

### 6.3 State Programs

The following State programs contribute towards effective management of Georgia's coastal resources. As non-regulatory programs, they do not constitute enforceable policies of the Program and are not used in Federal CZM consistency reviews. The District has included a discussion of these programs in this Consistency Determination because of the potential for the Project to support these programs.

Acres for Wildlife Program. The Acres for Wildlife Program is administered by the Nongame and Endangered Wildlife Program of the Georgia Department of Natural Resources to provide technical assistance to private landowners for resource and habitat management. The Program helps to identify wildlife habitat and provides advice to help the landowner manage the property for the welfare of the wildlife.

The CDFs will provide extensive wildlife habitat. Sandy areas at the site are regularly used as nesting habitat for shorebirds. Disposal operations commonly flood the site during the fall and winter months, providing resting habitat for migratory waterfowl. As part of wetland mitigation requirements for a previous construction project (diking of Disposal Area 14A), the Corps will soon begin active management of those sites to maximize wildlife habitat values. That management will begin concurrently with operation of the middle and lower harbor CDFs on a rotational basis. This will occur before Disposal Area 14A is placed in service.

Certified Burner Program. The Certified Burner Program is administered by the Georgia Forestry Commission to educate the citizens of Georgia about safe burning techniques. The Georgia General Assembly declared that prescribed burning is a resource protection and land management tool that benefits the safety of the public, Georgia's forest resources, the environment and the economy of the State (O.C.G.A. 12-6-146).

No prescribed burning is proposed for lands used by the Savannah Harbor Navigation Project.

Community Wildlife Project. The Community Wildlife Project is the only wildlife habitat certification program directed to the community as a whole. It is designed to encourage and improve management of wildlife habitats found in urban, suburban, and semi-rural areas. The program is administered by local garden clubs affiliated with the Garden Clubs of Georgia in concert with the Nongame and Endangered Wildlife Program of the Georgia Department of Natural Resources. The Community Wildlife Project establishes minimum criteria for community-based habitat management projects.

The only Project lands that could be appropriate for this program would be the CDFs. Since (1) those sites are primarily used for deposition of dredged sediments, rather than specifically as wildlife habitat; (2) the property is not owned in fee by the Corps; and (3) liability concerns exist about unrestricted public access to the sites, the sites are not proposed for inclusion in this program.

Forest Stewardship Program. The Forest Stewardship Program is administered by the Georgia Forestry Commission in cooperation with the Nongame and Endangered Wildlife Division of the Department of Natural Resources. The Program is designed to provide technical assistance to private landowners for management of forest lands. A concomitant Stewardship Incentive Program provides State funding on a cost-sharing basis to implement certain aspects of the program.

No Project lands possess sufficient forest cover to be eligible for this program.

Heritage 2000. Heritage 2000 is a public-private partnership program designed by Governor Miller to acquire historic property and resources throughout Georgia. The initiative is modeled after Preservation 2000.

No Project lands possess sufficient historic value that they should be acquired as part of this program.

Nongame Wildlife Conservation and Habitat Acquisition Fund. Georgia's Nongame Wildlife Conservation and Habitat Fund (O.C.G.A. 12-3-600, et seq.) provides the Department of Natural Resources a mechanism to establish nongame wildlife conservation and habitat acquisition, as well as education programs to enhance the protection of nongame flora and fauna. The Department of Natural Resources may solicit voluntary contributions through an income tax return contribution mechanism, by offers to match contributions, or by fund raising or other promotional techniques. Any funds collected are placed into a "Nongame Wildlife Conservation and Wildlife Habitat Acquisition Fund."

The only Project lands that could be appropriate for this program would be the CDFs. Since (1) those sites are primarily used for deposition of dredged sediments rather than primarily as wildlife habitat, and (2) the property is not owned in fee by the Corps, the sites are not proposed for inclusion in this program.

Preservation 2000. Preservation 2000 is a three-year program implemented by Governor Miller in 1994 to acquire approximately 100,000 acres for the State of Georgia to preserve natural areas, historic sites, parks, wildlife management areas and similar sites. It is funded by a \$65 million bond fund, approximately \$1.45 million in gifts, and small amounts of Federal funds. Since its inception, over 84,000 acres have been acquired and approximately 33,000 acres are under negotiation during the summer of 1997. There were over 450 nominations of various parcels throughout the State. Currently, there are four natural areas and two wildlife management areas designated within the coastal area as a result of Preservation 2000. Some of the 33,000 acres under negotiation lies within the coastal area. The areas acquired provide such uses as protection for bald eagles and other endangered species, hunting, fishing, boating, nature observation, primitive camping, scientific study and protection of water quality for shellfish. A concomitant part of the Preservation 2000 program is the Georgia Greenways Council, a coalition of trail organizations and local, State and Federal agencies involved with trail development. The coalition promotes the protection of linear corridors and coordinates trail development throughout the State. A proposed Coastal Water Trail, the aquatic equivalent of the Appalachian Trail, would run along Georgia's coast from the Savannah River to the St. Mary's River. This trail would

provide routing for sea kayaks and other small craft, and include access trails, boat launching sites and camping areas.

Since the CDFs are not owned in fee by the Corps or managed primarily to maximize wildlife habitat values, its inclusion in the Preservation 2000 Program would not be appropriate.

River Care 2000. River Care 2000 is a public-private partnership program designed by Governor Miller to acquire natural areas and historic property along Georgia's riverbanks. The initiative is modeled after Preservation 2000. River Care 2000 is intended to provide recreation and park land, and to allow better flood management.

No project lands would be appropriate for inclusion in this program.

## 6.4 Local Land Use Plans

District staff discussed the proposed harbor improvement project with planning/land use/zoning staff of the City of Savannah, Chatham County and the Coastal Georgia RDC. Although no buildings are proposed for construction in the proposed project, construction on CDFs would occur with continued use and improvement of the existing CDFs. Based on those discussions, it appears that the proposed project is consistent with present local land use plans.

## 7. CONSISTENCY EVALUATION--SOUTH CAROLINA

Savannah District performed an evaluation of the proposal's consistency with the South Carolina Coastal Management Program (SCCMP). This section addresses each major policy issue outlined in the manual titled *South Carolina Coastal Council Guidelines and Policies of the South Carolina Coastal Management Program* which applies to this project - each of which is cited in the paragraphs listed as "Policy Statement." A paragraph titled "Consistency" follows each policy statement to explain Savannah District's position on the extent to which the proposed project is consistent with that enforceable provision.

### 7.1 General Guidelines

#### **Policy Statement**

#### GENERAL GUIDELINES FOR EVALUATION OF ALL PROJECTS

(Permitting and Certification of Other Permits) (Chapter III.D.3 pg. III-14)

- I. In review and certification of permit applications in the Coastal zone, the Coastal Council will be guided by the following general considerations (apply to erosion control and energy facility projects, as well as activities covered under Activities Subject to Management):
  - (1) The extent to which the project will further the Policies of the South Carolina General Assembly which are mandated for the Coastal Council in implementation of its management program, these being:
    - (a) To promote the economic and social improvement of the citizens of this State and to encourage development of coastal resources in order to achieve such improvement with due consideration for the environment and within the framework of coastal planning program that is designed to protect the sensitive and fragile areas from inappropriate development and provide adequate environmental safeguards with respect to the construction of facilities in the critical areas of the coastal zone.

#### **Consistency**

As stated in Section 1 of the *EIS, Purpose and Need for the Action*, container traffic at the Port of Savannah during 1991-1995 increased by 20 percent. This greatly exceeded projections. The proposed harbor deepening will enable the port to accommodate the larger ships of the future and allow continued growth in the volume of commodities shipped through the port, with its beneficial effects on commercial

deep-draft navigation and the National economy. Industries located in the region and workers residing in the immediate area would have the most direct economic benefit. Since much of the project is located on the State boundary, industries and/or persons located close to the port, but residing in either state can equally benefit from the harbor, even though most of the shipping currently crosses docks located in Georgia. Therefore, the port does provide economic opportunities for residents of the State of South Carolina.

Environmental safeguards are incorporated into all phases of harbor operations. Use of the CDFs includes provisions to ensure that applicable state water quality standards are met by discharges from those facilities. Dike raising actions would be performed using Best Management Practices to maximize erosion control during the construction process. An Erosion and Sedimentation Control Plan for the dike raising activities was included in Appendix N of the *LTMS*. The proposed project is fully consistent with this policy.

### **Policy Statement**

- (b) To protect and, where possible, to restore or enhance the resources of the State's coastal zone for this and succeeding generations.

### **Consistency**

As expressed in the previous section, many environmental safeguards are incorporated into harbor maintenance activities to protect the coastal resources. These provisions deal with water quality, endangered species, and fisheries, among others.

One component of the proposed project could potentially restore coastal resources. That is the beneficial use of nearshore sediments through the direct placement of dredged sediments onto the beaches of Daufuskie and Tybee Islands to restore eroded shorelines. However, based on existing geotechnical data for the Bar Channel sediments, beach placement of some of these materials may be considered environmentally unacceptable due to the high amount of fine material found in clay beds along the Bar Channel. Additional geotechnical investigations will be conducted during PED. Information obtained from those investigations will be used to reanalyze the percentage of fines expected in the sediments to be removed during this project. If those sediments are found to contain no more than 25 percent fines, and an engineeringly feasible and economically acceptable placement method can be developed, deposition of those sediments in the nearshore area would be pursued.

Management of dredged sediments in CDFs and the ODMDS will result in no unacceptable degradation of water quality. The proposed project would continue the maintenance practices stated in the *LTMS*.

The proposed project is fully consistent with this policy.

### **Policy Statement**

- (2) The extent to which the project will have adverse impacts on the "critical areas" (beaches, primary oceanfront sand dunes, coastal waters, tidelands).

### **Consistency**

An evaluation was conducted of the potential effects of the proposed project on the ocean shoreline within 10 miles of the Federal Navigation Project. That evaluation concluded that the proposed action would not adversely affect these critical areas. Continued operation and maintenance of the Savannah Harbor Navigation Project is not expected to have significant adverse impacts on these factors. Adverse impacts stemming from both continued operation of the project and the proposed improvement would consist of temporary increases in turbidity in the nearshore area and at the ODMDS resulting from dredging and open water disposal operations. The proposed project is fully consistent with this policy.

### **Policy Statement**

- (3) The extent to which the project will protect, maintain, or improve water quality, particularly in coastal aquatic areas of special resource value, for example, spawning areas or productive oyster beds.

### **Consistency**

The District would continue to implement its 500 mg/l standard of acceptability for turbidity in the discharges from the Project CDFs. Implementation of the weir effluent monitoring described in the main *EIS* would adequately protect the water quality of the receiving body. Effluent from underdrains that drain to the Savannah or Back Rivers would meet water quality standards with only small mixing zones. Minimal impacts are anticipated to striped bass spawning areas in Back River and shortnose sturgeon nursery areas. Temporary increases in turbidity in nearshore areas would occur as a result of the beneficial uses of nearshore sediments, but are not expected to have long-term environmental impacts. Moreover, no hard bottom communities or submerged vegetation beds are known to exist in the project impact area. Side scan sonar and benthic surveys would be conducted prior to initial placement at the proposed nearshore sites to ensure significant benthic communities would not be adversely affected. The proposed project is fully consistent with this policy.

### **Policy Statement**

- (4) The extent to which the project will meet existing State and Federal requirements for waste discharges, specifically point sources of air and water discharge, and for protection of inland wetlands.

### **Consistency**

Past studies of weir releases at Savannah (Palermo, 1988) indicate that the CDFs are very effective in removing suspended solids, metals, and other nutrients prior to effluent releases. Effluent from the CDFs is expected to meet state water quality standards. To ensure that unacceptable water quality impacts do not occur from the weir releases, a water quality monitoring plan will be implemented. The Project will abide by the conditions of its State Water Quality Certification.

Wetlands will be protected to the extent practicable. Improvements to existing dikes would be made inside the disposal areas so that no additional wetlands would be impacted. The proposed project is fully consistent with this policy.

**Policy Statement**

- (5) The extent to which the project includes consideration for the maintenance or improvement of the economic stability of coastal communities.

**Consistency**

The proposed deepening of the Savannah Harbor Navigation Project would have no negative impacts to the economy. In fact, enabling newer, larger ships to access the port and increasing the efficiency of harbor operations and vessel transits through the port, encouraging further use of the port facilities. Additional cargo-handling jobs would result from increases in cargo tonnages moved through the harbor. This would increase the economic viability of the communities surrounding the port. The proposed project is fully consistent with this policy.

**Policy Statement**

- (6) The extent to which the project is in compliance with local zoning and/or comprehensive plans.

**Consistency**

District staff discussed the proposed harbor improvements with planning/land use/zoning staff of Jasper County. Although no buildings are proposed for construction in the proposed project, construction on CDFs would occur with continued use and improvement of the existing CDFs. Based on those discussions, it appears that the proposed project is consistent with present local land use plans.

**Policy Statement**

- (7) The possible long-range, cumulative effects of the project, when reviewed in the context of other possible development and general character of the area.

**Consistency**

Development and operation of the harbor has resulted in adverse impacts to the environment. After implementation of environmental laws in the 1970s, those impacts have predominantly been compensated for through some amount of mitigation. The region has a long history tied to shipping, as the original settlement of Savannah was as a seaport. Much of the original economy was dependent upon the export of locally produced goods through the harbor. Cargoes now passing through the harbor originate in the Midwest, as well as the southeastern US. Continued growth of the region's economy is expected to increase the need for movement of goods in an economical manner. As a price of shipping those goods increases or decreases, an inverse effect is felt on the competitiveness of US industries.

Continued operations of the harbor may lead to further development along the harbor as industries seek to minimize transportation costs and increase their access to the export market. However, the environmental impacts of developing sites are dependent on the manner of that development and the specific site in question. Therefore, no precise determinations can directly be made on future cumulative impacts of harbor operation.

The District is aware of no imminent plans to extend the harbor further upstream. The tonnage growth upon which this project's economic justification is based can be adequately handled at the existing berths.

Rotational use of the middle and lower harbor CDFs will maximize the useful life of those existing facilities. This will delay the need for adverse impacts resulting from the need for new dredged material disposal areas. With the proposed project, all disposal areas, except Disposal Area 2A, have a remaining life that extends beyond this study's 50-year period of analysis. The proposed project is fully consistent with this policy.

### **Policy Statement**

- (8) The extent and significance of negative impacts on Geographic Areas of Particular Concern (GAPCs). The determination of negative impacts will be made by the Coastal Council in each case with reference to the priorities of use for the particular GPAC. Applications which would significantly impact a GPAC will not be approved or certified unless there are no feasible alternatives or an overriding public interest can be demonstrated, and any substantial environmental impact is minimized.

### **Consistency**

The proposed project would not significantly impact any Geographic Area of Particular Concern. The proposed project is fully consistent with this policy.

### **Policy Statement**

- (9) The extent and significance of impact on the following aspects of impact on the following aspects of quality or quantity of these valuable coastal resources :
  - (a) Unique natural areas – destruction of endangered wildlife or vegetation or of significant marine species, degradation of existing water quality standards;

### **Consistency**

Both of these issues are addressed in detail in the main *EIS*. Conditions have been placed on harbor maintenance activities to protect threatened or endangered species in the project area. A water quality monitoring plan will be implemented to ensure water quality standards are maintained.

Wetland impacts associated with the proposed harbor deepening project include both direct losses and potential losses through secondary effects. Direct wetland losses will result primarily from the dredging for the actual deepening of the navigation channel. Deepening the channel will result in an increased channel top width at several locations that will encroach into the existing shoreline. This excavation would result in the loss of about 5 acres of saltmarsh along Hutchinson Island. An additional minor direct impact will result from construction of a debris disposal ramp along the dredged material disposal area on Onslow Island (Disposal Area 1N). Other direct losses would result with the proposed closure of Middle River and the bend at Drakies Cut. Restoring flows at the downstream end of Middle River would require the excavation of marshes in the vicinity of New Cut. Each of these sites is located in Georgia. The functional value of the wetlands that would be lost at those sites was determined through application of the interagency SOP that Savannah District uses for its Regulatory Program. Mitigation for those losses would be performed through the creation or restoration of saltmarsh wetlands in the harbor area. The mitigation acreage required would be determined based on the site (which will be selected during PED) and the interagency SOP.

Secondary impacts to wetlands may potentially result from the salinity changes upstream of the deepened channel. Increased salinities upstream may induce changes in the diversity and frequency of salt sensitive vegetation within a restricted area of the SNWR. The extent of these direct and potential secondary wetland impacts is discussed in detail in the *DEIS*, as well as compensatory mitigation proposed to offset these losses.

### **Policy Statement**

- (b) Public recreational lands – conversion of these lands to other uses without adequate replacement or compensation, interruption of existing public access, or degradation of environmental quality in these areas;

### **Consistency**

Potential impacts of the project that could possibly affect public recreation lands would stem from any degradation of water quality associated with the project. Adverse impacts to water quality from the proposed project would be minimal. Closing off the lower end of Middle River and bend at Drakies Cut would decrease the existing access to Middle River and Back River from recreational boaters on the Savannah River. Access to those sites would still be available through McCoys Cut, but would require a longer ride from the boat ramp near the Houlihan Bridge (GA Highway 25). Those impacts are judged to affect only a small number of individuals. The proposed project is consistent with this policy.

### **Policy Statement**

- (c) Historic or archeological resources – irretrievable loss of sites identifies as significant by the S.C. Institute of Archeology and Anthropology or the S.C. Department of Archives and History without reasonable opportunity for professional examination and/or excavation, or preservation.

### **Consistency**

The project's impacts on cultural resources are addressed in the Section 4.14 of the main *EIS*, *Cultural Resources*. Extensive cultural resources investigations have been conducted as part of the *LTMS* and previous harbor deepening projects. These included archival research, land and water surveys. The findings of the previous and current investigations are summarized in the *EIS*. Where appropriate, data recovery efforts were conducted at specific sites after consultation with the State Historic Preservation Officer (SHPO). At nearshore sites that have not been investigated, cultural resource surveys would be conducted prior to construction to ensure no significant resource is located in the impact area. The results of all surveys would be coordinated with the appropriate SHPO before the site is impacted. The Cultural Resource Management Plan developed as part of the *LTMS* would continue to be followed. That Plan describes the procedures that are followed to protect known cultural resources within the management authority of the Corps. That Plan is contained in Appendix J to the *LTMS*. A copy of the draft *EIS* will be provided to both the South Carolina and Georgia SHPO for review and comment. Comments provided by those SHPOs will be incorporated in the *Final EIS*. The proposed project is consistent with this policy.

### **Policy Statement**

- (10) The extent to which the project is in the national interest.

### **Consistency**

Savannah Harbor is important to the National economy and to our Nation's defense. The harbor is used as a port of embarkation for rapid deployment forces of the US Army. Harbor improvements and continued maintenance of the harbor will support these nationally important factors. The economic

benefits have been weighted against the predicted adverse environmental impacts of the project and Savannah District has determined that the proposed deepening of the Savannah Harbor Navigation Project is in the public interest. The proposed project is consistent with this policy.

## 7.2 Wildlife and Fisheries Management

### Policy Statement

Specific South Carolina Management Program Policy Applicable to the review of these documents.

VII. WILDLIFE AND FISHERIES MANAGEMENT (Chapter III, Policy Section III, p. III-51)

#### A. Wildlife and Fisheries Management Policies:

The following policies were developed by the South Carolina Coastal Council in conjunction with the South Carolina Wildlife and Marine Resources Department for inclusion in the S.C. Coastal Program.

(1) In the coastal zone, Council issuance or review and certification of permit applications which would impact wildlife and fisheries resources will be based on the following policies:

(a) Activities deemed, by the South Carolina Coastal Council in consultation with the South Carolina Wildlife and Marine Resources Department, to have a significant negative impact on wildlife and fisheries resources, whether it be on the stocks themselves or their habitat, will not be approved unless overriding socio-economic considerations are involved. In reviewing permit applications relative to wildlife and fisheries resources, social and economic impacts as well as biological impacts will be considered.

(b) Wildlife and fisheries stocks and populations should be maintained in a healthy and viable condition and these resources should be enhanced to the maximum extent possible.

(c) Critical wildlife and fisheries habitat should be protected and enhanced to the extent possible.

### Consistency

A 3-dimensional hydrodynamic model was developed and used to investigate potential project impacts to fish and wildlife resources. One main resource of concern was the striped bass. A major issue with this species is any potential impact to the historic spawning grounds in Middle and Back Rivers. In addition, any project impacts would be important that would decrease the effectiveness of ongoing recovery efforts aimed at increasing spawning rates to pre-Tidegate levels. Hence, the parameters that were examined were those deemed to be critical for spawning and egg survival. These parameters are salinity and dissolved oxygen, especially salinity, which is lethal to eggs at low concentrations.

The *EIS* describes in detail the potential project impacts on striped bass. To avoid potential increases in salinity on the historic spawning grounds, two closures would be constructed to separate more saline waters in Front River from the Middle and Back Rivers. Those closures would be located at the lower end of Middle River and at the bend at Drakies Cut. Those closures would reduce salinity levels in the historic spawning areas. The closures would block two paths of the striped bass to those spawning areas, but access to those areas would still be available through two other locations; up Back River and down through McCoys Cut. Therefore, the closures' beneficial aspects of reducing salinity levels at the spawning and nursery areas is judged to be more valuable than the blocking of some of the water access to those sites.

Potential project impacts on shortnose sturgeon were identified as the result of increases in salinity and decreases in dissolved oxygen at the Kings Island Turning Basin. The turning basin is a location where this species has been found in the recent past. To address these impacts, additional habitat would be constructed by the deepening of the Port Wentworth Turning Basin. That site is located further upriver in a less saline environment, but still within the confines of the harbor. This species has shown a preference for deep holes in the summer, the proposed deepening of the turning basin would provide a similar habitat. A 3-year study would also be performed to identify the location of this species in Savannah Harbor at various times during the year. The first year of the study would be performed prior to any channel deepening to confirm the present existence of this species within the harbor. If the species is not found in the harbor, then the habitat improvement feature would not be constructed. The second and third years of the study would be performed after the deepening is complete to identify any response of the species to the changes in the harbor. Impacts to fish and wildlife resources are addressed in detail in the main *EIS*. With the avoidance and mitigation features included in the proposed project, no significant adverse impacts to fish and wildlife resources are anticipated. The proposed project is consistent with these policies.

## 7.3 Dredging

### Policy Statement

VIII. DREDGING (Chapter III, Policy Section VIII, pg. III-55)

A. Dredging Policies:

(1) In the coastal zone, Council review and certification of permit applications for dredging projects will be based on the following policies:

(b) Suspended sediments must be kept to a minimum. The use of structures such as weirs and silt curtains to minimize water quality degradation is encouraged. Where highly toxic sediments are encountered, dredging will be prohibited unless the activity is consistent with other dredging policies, as well as those for manufacturing or other industrial activities.

### Consistency

Previous studies (Palermo 1988) have shown the Savannah Harbor CDFs be very effective traps of suspended sediments, removing over 99 percent of the solids. The CDFs have weirs to allow regulation of the effluent. The District would continue to employ its standard of 500 mg/l for turbidity in the discharges from the CDFs. A water quality monitoring program is included to ensure the CDFs are functioning properly and performing in accordance with all applicable water quality standards. A review of all existing sediment testing data indicates that harbor sediments contain no toxic substances at hazardous levels. Deposition of sediments in the nearshore area to construct submerged berms along the Bar Channel would only be employed when the sediments meet the District's 75 percent coarse-grain criteria. This would minimize turbidity and suspended sediment effects. The proposed project is consistent with this policy.

### Policy Statement

(c) Dredging should not reduce water circulation, water currents, mixing, flushing or salinity in the immediate area.

## **Consistency**

Normal maintenance of the navigation channel is not expected to impact these factors appreciably, although current velocities would theoretically decrease after a dredging event due to the increase in cross-sectional area of the channel. The proposed nearshore submerged berms along the Bar Channel would be oriented to minimize their impact on both ebb and flood tidal currents. The proposed feeder berm is expected to attenuate high amplitude northeasterly wind-generated waves and protect the adjacent barrier island shoreline of Tybee Island. This berm is not expected to result in significant effects on current patterns or water circulation. Placement of channel sediments on Tybee and/or Daufuskie Islands is not expected to result in significant effects on current patterns or water circulation. Such placement is expected to lessen wave impacts to those beaches.

The 3-D hydrodynamic model was used to evaluate changes in the water surface elevation and the currents throughout the project area. The model was run under both the proposed design depth and the existing design depth. Both designs included applicable advance maintenance and overdredge depths. Comparison of the longitudinal changes to the water surface elevation from offshore of Fort Pulaski up to the I-95 Bridge and along the Middle River and Little Back River, showed no significant change in the water surface elevation at high tide, with a slight (less than 0.03 meter) rise in the low tide elevations. As shoreline inundation impacts are primarily evaluated at high tide, the model indicates no adverse impacts to adjacent shorelines and marshes due to a rise in the water levels. Evaluation of the changes in the velocities within the study area due to the proposed deepening show that throughout the system the deepening will either reduce or not change the tidally-driven velocities.

The proposed closures at the lower end of Middle River and the bends at Drakies Cut would alter water circulation, currents, mixing, flushing, and salinity. The complete effects of those closures are still being investigated through the use of the 3-D hydrodynamic model. However, the main reason for their use is to reduce salinity levels in Middle and Back Rivers, an area that the Savannah National Wildlife Refuge desires to operate as a freshwater wetland area. Reducing salinity levels in those areas would also support the interagency effort – primarily conducted by the USFWS, GADNR, and the USGS Georgia Cooperative Fish and Wildlife Research – now underway to restore a self-sustaining population of striped bass in the Savannah River system. Those evaluations will be complete before the *EIS* is finalized. The closures would not be implemented if they are found to produce unacceptable impacts to the estuary.

The proposed project is consistent with this policy.

## **Policy Statement**

- (1) In critical areas of the coastal zone, it is Council policy that:
  - (c) To the maximum extent feasible, dredging and filling activities should be restricted in nursery areas and shellfish grounds and during periods of migration, spawning and early development of important sport and commercial species;

## **Consistency**

In order to comply with existing state water quality certifications which contain stipulations to avoid potential impacts to the striped bass during their spawning run in the Savannah River, no dredging will be conducted from March 16 to May 31 of each year in the upper harbor (above River Mile 5.0). This policy

could be curtailed when no longer required by state water quality certifications. In addition, deposition of sediments in the nearshore area during the spring would be avoided to the extent practicable to minimize impacts to larval and young finfish and shellfish residing in those shallow areas. The proposed project is consistent with this policy.

**Policy Statement**

(d) Dredging and excavation shall not create stagnant water conditions, lethal fish entrapments, or deposit stumps or otherwise contribute to water quality degradation;

**Consistency**

The proposed project will not create such problems.

**Policy Statement**

(e) Designs for dredging and excavation projects shall, where feasible, include protective measures such as silt curtains, diaphragms and weirs to protect water quality in adjacent areas during construction by preventing the dispersal of silt materials;

(f) Dredged materials shall be deposited and contained in such a manner so as to prevent dispersal into adjacent wetland areas.

**Consistency**

All material excavated from the upper inner harbor will be placed in diked high ground CDFs. The weir releases from the CDFs will be managed to minimize the potential for impact to water quality. A water quality monitoring plan will be implemented to observe the effectiveness of the disposal area operations. That plan is described in detail in Section 4.1 of the main *EIS*.

Materials excavated from the Bar Channel may be deposited in open water disposal areas or used in nearshore beneficial use alternatives. The beneficial use alternatives include submerged berms, feeder berms, and direct beach placement on Daufuskie and/or Tybee Island. Those alternatives would only be implemented during the initial construction when the sediments meet the District's 75 percent coarse-grain criteria. The majority of disposal actions are expected to be to the EPA-approved ODMS. No open water placement would result in permanent adverse impacts to vegetated wetlands. The proposed project is consistent with this policy.

**Policy Statement**

(i) Wetlands shall not be utilized as depositories for waste materials except as discussed in R.30-12(I).

**Consistency**

Sediments dredged from the inner harbor would be placed in upland CDFs. To maximize the useful life of the CDFs, a rotational program will soon be implemented. The effects of the rotational program are described in detail in the main *LTMS*. The proposed project is consistent with this policy.

**Policy Statement**

(j) In all cases, dredging activities shall not be approved until satisfactory disposal sites have been acquired. (R. 30-12(G)).

**Consistency**

No acquisition of new upland disposal sites is required for this proposed project. With implementation of the proposed project, all existing disposal sites, except Disposal Area 2A, would have sufficient capacity for the entire 50-year period of analysis. The proposed project is consistent with this policy.

**Policy Statement**

A. Dredge Material Disposal Policies:

(2) In critical areas of the coastal zone, it is Council policy that:

(a) Upland disposal of dredged material shall always be sought in preference to disposal in wetlands. Vegetated wetlands and mudflats shall not be utilized for disposal of dredged materials unless there are no feasible alternatives. Any other wetlands should not be utilized for disposal of dredged materials when other alternatives exist.

**Consistency**

Upland disposal of dredged material in CDFs will be used for all inner harbor sediments. Sediments would be deposited in wetlands only as part of the construction of the closures at Middle River and the bend at Drakies Cut. The proposed project is consistent with this policy.

**Policy Statement**

(b) Open water and deep water disposal should be considered as an alternative if highland alternatives are not feasible. However, open and deep water disposal sites should be seriously considered only after careful consultation with the Council and other relevant State and Federal agencies.

**Consistency**

Only sediments removed from the Bar Channel and possibly the channel near the Jones/Oysterbed Island Disposal Area are considered for placement in open water. The normal site for placement of sediments removed from the channel near the Jones/Oysterbed Island Disposal Area is the Jones/Oysterbed Island Disposal Area. Those sediments would not be placed in the CDF only if the beneficial use of those sediments in the nearshore area is pursued. Bar Channel sediments from the initial construction would be beneficially deposited in the nearshore area only when they meet the 75 percent coarse-grain criteria. This deposition would allow these sediments to remain within the nearshore sand sharing system. The normal site for routine placement of Bar Channel sediments would be at the EPA-approved ODMDS. Ocean disposal recently received approval from EPA through their concurrence of the Section 103 Evaluation in March 1995. This *EIS* contains an update of that analysis. The proposed project is consistent with this policy.

### **Policy Statement**

(c) Dredged materials containing hazardous levels of toxic material must be disposed of with extraordinary caution. These materials shall never be disposed of in wetland areas and only in highland areas which are lined and diked with impervious materials. These materials will only be disposed in open water ocean dumping sites when maximum safety has been demonstrated after thorough review by the Coastal Council and other appropriate state and Federal agencies.

### **Consistency**

ATM conducted tests of the sediments proposed for excavation during the proposed harbor deepening. The District reviewed that data and all previous sediment testing information that is available to assess the quality of the sediments that may be dredged for this project. The findings of that evaluation are contained in Section 4.1 of the *EIS*. In summary, the dredged materials do not contain unacceptable levels of any toxic material, which would be released in harmful quantities to the environment. Future disposal sites shall be reviewed on a case-by-case basis. With implementation of the proposed project, no additional disposal sites would be needed for the 50-year period of analysis. The proposed project is consistent with this policy.

### **Policy Statement**

(e) Wherever feasible, existing disposal areas shall be utilized to the fullest extent possible; this would include raising the height of embankments to increase the holding capacity of the disposal area.

### **Consistency**

The proposed project includes the use of existing CDFs and the raising of their dikes to increase their holding capacity. Implementation of the existing management plan includes the use of a rotation program that would allow material from inside the CDFs to be used to raise the dikes. Thus, capacity of the sites would be increased in two ways; (1) removal of sediments previously deposited within an area, and (2) raising of the dikes to allow sediments to be deposited higher at that site. The proposed project is consistent with this policy.

### **Policy Statement**

(9) Consideration must be given to the temporal aspects of spoil deposition, for example, impacts on spawning, fish migrations, shellfish harvesting, waterfowl nesting and wintering areas, and mosquito control. Attention must be given to possible adverse impacts of various alternative sites on the public health and welfare as well as on critical fish and wildlife areas.

### **Consistency**

Dredging would have little impact on fish spawning and migration as the effects of a dredge are localized to the immediate vicinity of the dredge, and the river has sufficient width to allow fish to pass without entering an area of elevated turbidity. Open water deposition of new work dredged sediments would occur in the nearshore area only when those sediments meet the District's 75 percent coarse-grain criterion. That criterion reduces turbidity impacts to acceptable levels. Deposition of inner harbor sediments into upland CDFs would have no impact on fish spawning, migration, or shellfish harvesting. Sediments would be deposited in the CDFs in compliance with the Migratory Bird Treaty Act, which ensures impacts to waterfowl nesting and wintering would be minimal. Use of the rotation program in the

middle and lower harbor CDFs would enhance the value of those sites for waterfowl nesting and wintering. The proposed closure of Middle River and the bend at Drakies Cut would decrease salinity levels at the historic striped bass spawning grounds in Middle and Back Rivers. Those closures would restrict migration of fish from Front River to those shallower areas, but the lower end of Back River and McCoys Cut would still provide access to that portion of the estuary. The proposed project is consistent with this policy.

#### **Policy Statement**

(h) In all cases, dredging activities shall not be approved until satisfactory disposal sites have been acquired.

#### **Consistency**

As stated previously, no acquisition of new disposal sites is required for this proposed project. With implementation of the proposed project, existing disposal sites, except Disposal Area 2A, would have sufficient capacity for the entire 50-year period of analysis. The proposed project is consistent with this policy.

#### **Policy Statement**

D. Public Open Space Policies:

The SCDHEC-OCRM will apply the following policies in review and certification of permit applications located in or which would directly affect public open space areas:

(1) Project proposals which would restrict or limit the continued use of a recreational open area or disrupt the character of such a natural area (aesthetically or environmentally) will not be certified where other alternatives exist.

#### **Consistency**

The proposed project would have limited adverse impacts on the Savannah National Wildlife Refuge, as discussed in Section 4, *Environmental Consequences*, of the main *EIS*. The construction and maintenance of submerged berms along the Bar Channel and a feeder berm off Tybee beach could shield the shoreline of that barrier island from erosive storm waves, thereby increasing the stability of that shoreline. Placement of channel sediments on the beaches of Daufuskie and/or Tybee Islands would generally be expected to increase the ease of walking on those beaches and their aesthetic appeal. The creation and maintenance of the submerged berms and feeder berm are not expected to significantly impact recreational use of the area, as the height of those berms would be restricted to -5 feet Mean Low Water, a depth which would not impact recreational boats. The berms are expected to have an overall beneficial impact on the nearshore environment. The proposed project is consistent with this policy.

## **8. CONCLUSION**

In accordance with the CZMA, 16 U.S.C. SS 1456(c), as amended, Savannah District has determined that the proposed Savannah Harbor Deepening Project would be carried out in a manner which is consistent with the enforceable policies of the South Carolina Coastal Management Plan and the Georgia

Coastal Management Plan. This determination applies to the tentatively selected alternative identified in the Environmental Impact Statement prepared for the project, which is an eight-foot deepening of the Federal Navigation Channel (from an authorized depth of 42 feet MLW in the inner harbor to 50 feet MLW, and from a depth of 44 feet MLW across the bar to 52 feet MLW); its associated facilities and the effects of the preferred alternative on the land or water uses or natural resources of the coastal zone, as directed by 15 C.F.R. SS 930.39.