APPENDIX Q

COMMENTS RECEIVED FROM PUBLIC REVIEW OF THE DRAFT EIS AND DISTRICT RESPONSES TO THOSE COMMENTS

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TABLE OF CONTENTS

TABLE OF CONTENTS (CONTINUED)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

JAN 20 1995

Savannah District, Corps of Engineers
P.O. Box 889
Savannah, GA 31402-0889

ATTN: Dr. Willian Bailey
Planning Division

Subject: Draft Environmental Impact Statement (EIS) for Long-term Management Strategy (LTMS) for the Savannah Harbor Navigation Project Chatham County, Georgia and Jasper County, South Carolina

Dear Sir:

Pursuant to Section 309 of the Clean Air Act and Section 102 (2)(C) of the National Environmental Policy Act, EPA, Region 4 has reviewed the subject document which describes the measures and methods being implemented to make the harbor operation more efficient and presumably less damaging environmentally. While not characterized as an upgrade, the management measures effectively yield this result by increasing the total capabilities of the Savannah facility. Seven action management strategies were eventually developed and serve as a basis to compare and contrast with the current operational procedures.

The tentatively selected option, Alternative 8, is essentially a composite of the individual numbered management strategies. Nearly all of the proposed modifications to the present operational procedures are very comprehensive in scope; nonetheless, the former are uniformly forecasted to have nominal adverse environmental ramifications. Notwithstanding this depiction, we have a degree of concern about how all the elements of this very involved plan will actually function. The details of these concerns are expressed in the attached comments.

While the future can not be known with precision, certain broad principles form the basis for this proposal. Foremost among these tenets is the proposition that shipping volumes will increase and the trade will be plied with ever larger, deep-draft vessels. Hence, the need for increasing navigation and berthing depths along with more disposal sites and the management thereof to accommodate the material excavated to secure the enlarged bottom profiles. We have no reason to doubt this premise, but observe that there is an immediate correlation between these

facility upgrades and the attendant environmental costs necessary for their implementation.

While there are a multitude of future scenarios as to how the federal and local sponsor partnership will proceed in the future, there is the distinct and increasing probability that the local sponsor will have to assume a larger role. This would be particularly true in terms of funding capital improvements as well as the administrative costs of administering the management plan. Given this potential, it is important that all the elements of Alternative 8 have independent utility in the event the local sponsor elects not to fund its increased share of the plan and a smaller or modified plan becomes necessary. From our perspective this potentiality requires that the mitigation elements of the plan occur before or concurrently with any of the construction necessary for the proposed structural measures. It has been our experience that this sequence makes it more likely that proposed mitigation would not be substantively modified/deferred by funding constraints.

Adding to the difficulties in this regard is the fact that there are a number of studies which will be factored into the operation of the subject long-term plan. For example, the effect of weir discharges into the Wright River and specialized measures to insure dike stability are not available for immediate evaluation. Hence, there are some important data gaps associated with this proposal which add to our uncertainty about the plan's environmental costs and the mitigation necessary to compensate for the losses.

On the basis of our review a rating of EC-2 has been assigned. That is, we have some reservations regarding the long-term consequences of how all of the proposed elements of the management plan will mesh and subsequently function. Further, additional information necessary to more precisely define the uncertainties associated with proposed management/operational changes needs to be acquired. To the extent practicable these unknowns should be assessed in the final document.

Thank you for the opportunity to comment. If we can be of further assistance in the meanwhile, Dr. Gerald Miller (404-347-3776) will serve as initial staff contact.

Sincerely,

Heinz J. Mueller, Chief
Environmental Policy Section
Federal Activities Branch

SPECIFIC COMMENTS

Alternative disposal ("beneficial") uses, viz., construction of feeder berms and beach renourishment, are proposed for material excavated from the bar channel and other source areas. We generally have no pronounced objections to these activities, if biologically sensitive resources are not adversely affected in either a direct or indirect fashion. However, you will recall that a recent episode of beach renourishment on Tybee Island resulted in large amounts of fines being placed on the shore rather than good quality sand as had been portrayed in the environmental documentation.

While this material has subsequently dispersed, its fate and consequences remain unknown. Construction of feeder berms should be undertaken with even more caution since the quality of the sediments involved would be less apparent than the material used for beach nourishment. Use of sediments from the inner harbor near Jones/Oysterbed Islands could also be problematic from a contaminant standpoint. While no hard bottom communities are known to exist within the berm construction site, care must be taken during the side scan sonar investigation to insure that this is in fact the case.

There should be a formalized procedure to address unexpected incidents such as the Tybee Island beach nourishment situation. To this end a mechanism needs to be implemented that will more precisely obtain and characterize pertinent data, e.g., sediment classes, and allow cessation of construction activities without delay when unanticipated events which could have significant adverse environmental consequences occur. This issue needs to be discussed and resolved in the final document.

In a related matter "Bird Island" will not be stabilized; hence, in the absence of renourishment its longevity will be relatively short. This and other elements of the long-term plan will potentially result in a great deal of sediment movement in the system. The text does not project any adverse long-term repercussions from these measures. However, because of the magnitude of this construction, we suggest that some modelling be accomplished prior to plan implementation and a carefully developed monitoring plan started afterward to ascertain if indeed there were only minor consequences.

The present method of maintaining operational depths in many of the berthing areas through the use of agitation has been a matter of contention for a number of reasons, e.g,, water quality degradation. The results of several recent studies examining this excavation technique stated that its effects were minor and short-lived. However, since dredging must occur so routinely, we

remain unconvinced that agitation dredging is so benign. Hence, the proposal to replace agitation with hydraulic dredging appears to have merit. While the latter technique might appear to immediately increase the volume of material (ca. 800,000 cy) added to the confined disposal cells, this addition is actually just material which must be moved (dredged) twice under current procedures. Nonetheless, we agree that the berth sediments should be analyzed on an annual basis especially during the initial excavation when the overall depths will be maximized.

The wetland and upland habitats which will be sacrificed to dike disposal area 14A exceed 800 acres. While some variability was noted in the functional value(s) of the different habitats which comprise this total, this loss will still have some important localized effects. We have no quarrel with the major mitigation element, viz., 2-year rotational use of disposal areas with management options/modifications to benefit birds (composite strategy 3). It appears to be a satisfactory approach to benefit targeted avian populations.

Staff is not as familiar with the relationship of the subject mitigation sites to adjacent habitat as other agency representatives, but it appears that the nesting areas which are within the disposal cells (Figure 1, Appendix G) could be at risk from ground predators unless care is taken to maintain a water barrier between the dike wall and island. Unfortunately, all the nesting areas may be the targets of vandalism and/or trespass unless there is some means to enforce relative isolation during critical nesting phases.

This value of enhancing nesting success notwithstanding, we believe that some in-kind mitigation should be included in the long-term plan for the wetlands lost to dike and road construction. In concept, we favor restoration of previously degraded wetlands to compensate for functional values lost from fill activities. Unfortunately, for a number of reasons this tact does not have an outstanding degree of long-term success. Alternatively while some existing wetlands and fringe uplands remain in the estuary system and can be purchased at a reasonable price, they should be bought and preserved. The accelerating developmental pressures in this immediate area and, in fact, the entire coastal plain is devastating to the natural environment. Hence, there is an urgency to acquiring these habitat types before they are converted to residential/commercial/industrial sites. We would like to see this issue assessed in the final EIS.

There are two unconfined upland disposal areas (1S on Onslow Island and 14A on Elba Island) with at least the potential for use. Regardless of whether or not dikes could be constructed at these locations, we believe that their habitat value is such that their future use should be precluded. The preservation of these two features could be made part of the in-kind mitigation efforts for the habitat lost in the upgrade of disposal sites and

associated access features.

The use of underdrains to facilitate dewatering of the maintenance material is an important part of the management strategy. The effluent from the underdrains will be directed to either the Savannah or Back River. While these water bodies have a large dilution capacity compared to Wright River, we are concerned about localized water quality degradation. The potential for problems is an obvious function of the composition of the material being drained. However, a determination of the potential for water quality degradation and how contaminant problems could be addressed is not so apparent, but needs to be discussed in the final EIS.

In a related matter effluent data (Appendix C, page 9) collected from the CDFs reveal that outflow suspended solid levels are between 2 and 10 times background levels of the Savannah River. However, it was indicated that water quality standards could readily be met with a minimal mixing zone. The basis for this statement and why turbidity does not adversely affect local water use designation should be given in the final EIS.

While we have no interest in economics, per se, economic justifications are used as the basis for proposals of this nature. Therefore, we wondered why if the hinterlands served by containerized cargo are much more extensive due to the effects of intermodal containerized rail rates, how can there be an economic justification for deepening ports such as Jacksonville, Savannah, and Charleston which are so proximate to one another from a shipping (origin distance) perspective? The idea of bulk cargo being captive to Savannah as opposed to nearby ports is also perplexing unless it were demonstrated that this material is essentially consumed within the Savannah economic area.

As a result of interagency coordination, a number of measures (cessation of tide gate operation and closure of New Cut) were recently implemented to improve water quality and fisheries with the harbor environs. It is important that the proposed structural/operational measures in this strategic plan do not lessen the long-term benefits of these improvement efforts. This plan should have sufficient flexibility such that if an element proves problematic to another priority interest, the former can be deleted or modified. For example, deepening of the berthing areas, turning basins, etc. to serve as storage for sediment has an obvious appeal, but should be monitored to determine whether there will be unintended consequences.

Section 2.25 (Page 17) as regards the Savannah River Basin Watershed Project would be more accurately characterized as follows: EPA is currently facilitating a study of the Savannah River basin watershed (from the headwaters in North Carolina and Georgia to the Atlantic Ocean). It will examine environmental impacts to the river and its tributaries as well as develop an

interagency action plan to address significant impacts. Participants in the project include a broad spectrum of federal, state, and local agencies and interest groups. With state assistance EPA is developing and will implement a monitoring plan for the basin that will assess the condition of basin resources with a known statistical confidence. A geographical information system is also being developed with project participants to serve as a basin-wide data management tool. A baseline assessment of six basin resource areas is being developed by project participants which will serve as the basis of a Watershed Assessment and Prioritization Plan (WAPP). The WAPP will identify and prioritize watershed impairments and recommend appropriate solutions. The total study is in its initial stages; however, the WAPP is expected to be complete by mid-1995.

Comments on the Section 103 evaluation of ocean disposal as well as the site management monitoring plan will be sent directly from our Coastal Regulatory Unit. Mr. Doug Johnson (404-347-1740) will serve as initial staff contact.

RESPONSE -- Environmental Protection Agency;
Environmental Policy Section,
Federal Activities Branch,
January 20, 1995.

FUTURE WITHOUT PROJECT CONDITIONS. The Without Project Condition in the Savannah Harbor LTMS Study is based on a continuation of existing navigation, dredging, and disposal practices. The analyses are not based on future increases in vessel size or channel/berth dimensions. The study makes no assumptions on "facility upgrades and the attendant environmental costs necessary for their implementation."

TIMING OF MITIGATION ACTIONS. Mitigation actions would be performed before or concurrently with any of the construction necessary for the proposed measures. The project/construction feature requiring mitigation would not be placed in operation until the mitigation was completed, or underway if long-term operational procedures were used as mitigation.

BENEFICIAL DISPOSAL USES IN NEARSHORE AREA. The proposed nearshore disposal alternatives are not expected to have a significant adverse impact on biological resources. The material removed from the Bar Channel is believed to be similar to that which moves along the ocean floor in that area. Therefore, exposure of nearshore biota to those sediments is not expected to be markedly different from what they experience on a daily or periodic basis. Investigations will be performed prior to construction to ensure that no highly sensitive hard bottom communities exist within the impact area. The District typically has an inspector on-site on a continuous or daily basis to observe, among other things, the results of the contractor's actions. The inspector is aware of conditions, including environmental limitations, that the construction must meet to be acceptable. That inspector provides the District with an observer who continuously monitors on-site conditions. The District believes that such observation, combined with the coordination it performs and good working relationships it maintains with resource agencies is adequate to address unexpected incidents. Prior to deposition in the nearshore area, the sediments will be sampled to ensure they are predominantly sands or shell. Contracts for removal of sediments which are predominantly fine-grained materials would not allow deposition in nearshore areas.

NEARSHORE BIRD ISLAND. The Bird Island will be maintained when its size has been reduced by 50 percent. Use of the alternate sites proposed for placement of sediments in the nearshore area is expected to result in the retention of more sediments in the nearshore area, rather than their present deposition further from

the coastline at the Savannah ODMDS. The District does not believe that modelling would add significant information required to assess the impacts of nearshore placement. Since there are no known hard bottom communities within the immediate vicinity of the proposed nearshore dredged material placement sites, the District does not believe that post-construction monitoring is necessary to document the minor level of impacts which are expected.

AGITATION DREDGING. Placement of berth sediments directly into the confined disposal facilities would not substantially increase the total volume deposited in those sites since berth sediments already comprise a portion of the sediments removed from the navigation channel.

LOSS OF HABITATS AT DISPOSAL AREA 14A. We concur that the loss of 305 acres of wetland habitat and 510 acres of upland habitats which would be lost as a result of diking and use of this site would have some localized effects. The proposed Mitigation Plan was designed to compensate within the immediate vicinity for the functional values which would be lost.

INTERIOR NESTING MOUNDS. Care would be taken to maintain a flooded area around the mounds while they are in use to maintain a water barrier between the dike wall and the nesting site. The water barrier would also provide protection from vandalism and/or trespass during the critical nesting phases.

IN-KIND MITIGATION. Mitigation for wetland impacts in Georgia will be accomplished by restoration of degraded wetlands or creation of new salt marsh. The Mitigation Plan for losses of South Carolina wetlands consists of several features. The final Mitigation Plan does include in-kind mitigation for 25 acres of saltwater wetlands through an agreement with the SC DHEC-OCRM. That agency will administer an escrow account established by Chatham County -- or the GA DOT as its designee -- to fund wetland restoration, creation, or protection projects in South Carolina.

UNCONFINED DISPOSAL SITES. The District's development of mitigation actions is complicated by the states' position that impacts occurring in their state must be compensated for through actions implemented in their state. Since mitigation for wetland impacts in Georgia will be accomplished by restoration of degraded wetlands or creation of new salt marsh in Georgia, protection of Disposal Area 1S -- located in Georgia -- is not warranted at this time. The remaining unconfined upland disposal area -- Disposal Area 14A -- is proposed for diking and use for the Navigation Project in the LTMS Management Plan and EIS.

UNDERDRAIN DISCHARGES. The potential for water quality degradation from underdrains was addressed in the draft EIS in Sections 7.31 through 7.35 and Appendix E, RESULTS OF WRIGHT RIVER WEIR AND SEDIMENT TESTING. The potential for contaminant problems after underdrain installation was addressed in the draft EIS in Section 7.34. The SC DHEC has provided water quality certification for the proposed project -- including releases from the underdrains. The Draft EIS stated that monitoring of the underdrain effluent would be performed every 5 years to ensure that water quality standards are being met. The interval between chemical evaluations of underdrain effluents has been revised to every 3 years in the Final EIS.

OVERFLOW WEIR DISCHARGES. Suspended solids in overflow weir effluents was addressed in the draft EIS in Sections 7.21 through 7.26. As stated in Section 7.26, research indicates that water with suspended solids levels of 500 mg/l or less would not produce impacts to estuarine-dependent and anadromous fish. The District will use a 500 mg/l threshold at the weir as its measure of acceptability of suspended solids in its weir overflows. Mixing zones are commonly accepted for discharges from confined dredged material disposal areas (reference June 1994 draft EPA/Corps Inland Testing Manual). At the edge of a reasonable mixing zone, the suspended solids level would be lower -- with less potential aquatic impacts -- than that discharged at the weir.

CARGO MOVEMENT. The LTMS does not propose any improvements to the navigation channel which are dependent on additional cargos moving through the port. The EIS only assumes that funds will be available when needed to both maintain the Navigation Project and operate and improve the confined disposal facilities. The concepts of port competition and captive cargos are beyond the scope of this EIS. Improvements to the Navigation Project, both landside and channel maintenance-related, which are proposed in the LTMS are designed to improve the operational or economic efficiency of actions which have already been authorized by Congress.

FLEXIBILITY OF NEW MEASURES. The sediment control measures and nearshore disposal options proposed in the Management Plan and EIS would be implemented where economically justified and environmentally acceptable. After further studies indicate a specific measure would be effective in a certain location, the measure would be implemented at that location, then the actual effectiveness and resulting impacts would be evaluated by the District to ensure continued maintenance of that application would be both economically warranted and environmentally acceptable.

SECTION 2.25 (Page 17) - SAVANNAH RIVER BASIN WATERSHED PROJECT. Concur. Suggested changes to better describe this study have been incorporated in the Final EIS.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IV
345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

MAR 2 3 1995

4WM-WOW

Mr. Richard A. Hill
Acting Chief, Planning Division
Department of the Army
Savannah District, Corps of Engineers
P.O. Box 889
Savannah, GA 31402-0889

Dear Mr. Hill:

We have completed our review of the Draft EIS for the Savannah Harbor Long Term Management Strategy (LTMS) Study, dated November 1994. We are providing comments on the 103 Evaluation, the Site Management and Monitoring Plan, and the Sediment Quality Evaluation.

We agree with your determination that maintenance material to be excavated from the Savannah Harbor Bar Channel is suitable for ocean disposal. We are granting a three-year concurrence from the date of this letter for the placement of dredged maintenance material from the Savannah Harbor Bar Channel in the Savannah Ocean Dredged Material Disposal Site (ODMDS).

Appendix D Comments

Please note that on Page 2 of Appendix D, "Section 103 Evaluation of Ocean Disposal for the Savannah Harbor Navigation Project," the update of 103 Evaluation will be for three (3) years only, not five (5) years.

Paragraph D.4.01, Appendix I (not H). We consider this management and monitoring plan to be a draft document, open to future discussions and development. A likely approach would be to develop an Implementation manual that will be flexible and open to modification as necessary.

Appendix F Comments

Paragraph F.2.01, line 5, What is "(EPA, 1992)" referencing?

Paragraph F.2.05-F.2.08, the "Evaluation of the Region 4 Coastal Sediment Quality Inventory" was prepared under contract by SAIC for EPA. It represents the contractor's evaluation of the data according to their interpretation of the work assignment. This document has not undergone a rigorous review or critique by the Agency and, therefore, does not reflect the

opinions or conclusions of the EPA. The document should not have been released without such a disclaimer, and all copies dated December 3, 1992 should be considered as a "DRAFT" document. Conclusions drawn from this evaluation are to be considered preliminary and subject to revision. In its present form the document has limitations on its use as a predictive tool, particularly in assessing areas as "clean." The major limitation is a lack of synoptic data. This document, therefore, cannot be used to establish a "lack of concern."

Appendix I Comments

WRDA requires that the Site Management and Monitoring Plan (SMMP) be reviewed and revised not less frequently than every ten (10) years. We agree that five (5) years is a more prudent time frame, but would like the SMMP to be open to revisions and modifications as deemed appropriate by the Site Management and Monitoring Team (SMMT).

We would like to schedule a meeting to review and discuss this Site Management and Monitoring Plan before it is finalized, since we have not previously seen this document. WRDA establishes the EPA, in consultation with the ACOE, as the responsible Agency for the development and implementation of Site Management and Monitoring Plans for ODMDSs. Our main concern is to develop SMMPs for all ODMDSs that are consistent in content and approach, meet the requirements of WRDA, reflect the details of EPA's "Managing Ocean Disposal of Dredged Material - Ocean Dredged Material Disposal Site Designation, Management, and Monitoring Manual," and are effective in protecting our coastal environment.

Should you have any questions concerning this letter, please contact Douglas K. Johnson of my staff at (404) 347-1740, extension 4297.

Sincerely,

E. Stallings Howell

E. Stallings Howell, Chief
Wetlands, Oceans and Watersheds
Branch

RESPONSE -- Environmental Protection Agency;
Wetlands, Oceans and Watersheds Branch,
March 23, 1995.

SUITABILITY OF BAR CHANNEL MATERIAL FOR OCEAN DISPOSAL. EPA concurs in the suitability of Bar Channel sediments for ocean disposal and extends their approval of ocean disposal for three years from the date of their letter.

APPENDIX D

Section D.3.01. Concur. This section has been revised to show that the Section 103 Evaluation would be reevaluated every three years, rather than every five years.

Section D.4.01. Concur. The Site Management Plan has been revised as a result of further discussions between the Corps and EPA. The final signed Site Management Plan can be modified over time as both parties agree that revisions are appropriate to better manage the site.

APPENDIX F

Section F.2.01. Appendix P REFERENCES includes a reference to "U.S. Environmental Protection Agency, 1992. Draft Evaluation of the Region 4 Coastal Sediment Quality Inventory. Prepared by Science Applications International Corporation for EPA, 3 December 1992."

Sections F.2.05 to F.2.08. This section has been revised to state that the 1992 report was only a draft and that conclusions drawn from the contractor's evaluation are to be considered preliminary and subject to change.

APPENDIX I

Revision/Modification of the SMMP. A section has been added to state that the Site Management Plan may be modified by joint agreement of the signatory parties to the reflect the views of the SMMP team.

Meeting to Discuss the SMMP. A meeting was held between the District and EPA Region IV on July 12, 1995. That meeting resulted in revisions to the SMMP which have been incorporated into the SMMP included in the Final EIS.

United States Department of the Interior

OFFICE OF THE SECRETARY
OFFICE OF ENVIRONMENTAL POLICY AND COMPLIANCE
Richard B. Russell Federal Building
75 Spring Street, S.W.
Atlanta, Georgia 30303

February 23, 1995

ER-95/14

Mr. William Bailey
U.S. Army Engineer District, Savannah
P.O. Box 889, Attn: CESAS-PD-EI
Savannah, Georgia 31402-0889

Dear Mr. Bailey:

The Department of the Interior has completed its review of the Draft Environmental Impact Statement (DEIS) for the Savannah Harbor Long Term Management Study, Chatham County, Georgia and Jasper County, South Carolina. We have the following general and specific comments.

General Comments

The DEIS contains a comprehensive review of the Savannah Harbor operation and a plan for future operation and maintenance of the project. We are pleased that the Corps of Engineers has addressed many of our concerns and interests in the Savannah Harbor study area. However, some of the alternatives discussed below need further study or refinement before being implemented.

The Department is particularly supportive of the plan to use off-channel storage of sediments to reduce the amount of agitation dredging in Savannah Harbor. We believe that this alternative is preferable to the use of agitation dredging for maintaining berthing areas in the harbor. The plan proposed in the DEIS should substantially reduce the amount of agitation dredging and therefore improve fish and wildlife resources in Savannah Harbor.

The Department also supports the concept of managing the dredged material disposal areas for shorebirds and waterfowl. We have had discussions with the Corps over many years exploring this management concept. However, before we can fully support this alternative, the dredged material should be sampled to insure that the birds would not be subject to increased contaminant exposure. While we are hopeful that contaminants in the disposal areas are not a threat, we believe that attraction of additional birds without this precaution would be imprudent. Further, we believe that testing could be completed in a cost effective manner with cooperative support from the Fish and Wildlife Service (Service) and other agencies.

We also support the creation of a new bird nesting island and creation of a nesting area on Tybee National Wildlife Refuge. We recommend that the number one priority for dredged material be for environmental benefits, primarily bird habitat management. This use should take priority over such uses as beach nourishment or berm creation. Also of concern to the Department is the proposal to deepen the Back River sediment basin. The removal of the tide gate from operation and closure of New Cut has improved salinity levels and tidal freshwater marsh. However, recovery of the striped bass population is not evident. Modifications of the Back River due to shoaling upstream of the tide gate and the current deep water sediment basin could be contributing factors hindering striped bass recovery. An on-going striped bass study, to be completed within three years, will provide information to help evaluate the problem. We recommend that a decision on deepening the sediment basin be deferred until the study is completed and an assessment can be made.

The DEIS failed to discuss the feasibility of recovering the heavy mineral and phosphate fractions of the dredged material. The Department has no objection to the proposed project in this regard. However, we suggest that subsequent reports and other documents prepared describing this project discuss all mineral resources and impacts to them.

Specific Comments

Paragraph 2.08. These comments in response to the DEIS do not constitute a Fish and Wildlife Coordination Act report as stated in the document. This response is made under authority of the National Environmental Policy Act (NEPA).

Paragraph 5.08. The mitigation plan for loss of wetlands associated with diking of disposal area 14A is proposed to include increased management of disposal areas for shorebirds and waterfowl and creation of an offshore bird nesting island. Although this is not "in-kind" mitigation, shorebird nesting and feeding habitat is extremely limited and under increasing threat due to coastal development. The disposal areas and nesting island have the potential to provide significant habitat for these species.

The plan should include a long term, binding, management commitment. Management decisions should be made by qualified biologists and be flexible in nature. The Department has no objection to the plan provided that it is further coordinated with the Service to clarify and/or refine details prior to implementation.

Paragraph 5.36 and 5.40. The Department is concerned with the direct placement of maintenance material on Tybee Beach and Daufuskie Island. It is our understanding that during harbor deepening, several extensive pockets of fine sediments were dredged, resulting in high turbidity levels and unsuitable material

on Tybee beach. Placement of such incompatible material on the beach has the potential to impact fishery resources. These concerns need to be addressed in the DEIS. A monitoring plan to document the level of impact would also be appropriate.

Paragraph 5.42. The Department strongly supports coordinating dredging of the berthing areas with the navigation channel to reduce the amount of agitation dredging.

Paragraph 5.46. The Department supports the need to test berthing areas for contaminants before dredging.

Paragraph 5.48. Recovery of the striped bass population after removal of the tide gate from operation has not been documented. Configuration changes in the Back River such as the tide gate structure, shoaling upstream of the gate, and shoaling in the sediment basin may be impacting striped bass recovery. We recommend that a decision on deepening of the sediment basin be deferred until current striped bass studies are completed.

Paragraph 5.69 (Table 5). The proposed management techniques should be modified and stated as general guidelines. There needs to be flexibility of management depending on weather conditions and status of bird populations. For example, in some winters the shorebird population is high and the waterfowl population is low. Under these conditions it would be best to draw down the disposal area for shorebirds. Therefore, the techniques for January 1 - March 15 and November 15 - December 31 should be changed to: "Optimum water level will be determined by qualified biologists and coordinated with the Service. At a minimum, a water depth of one (1) inch will be maintained in the area."

Paragraph 6.31. Studies by the State of South Carolina have documented low dissolved oxygen levels in the Back River sediment basin during the summer. These studies and the implications for harbor management should be discussed.

Paragraph 6.40. There is only one active eagle nest on Savannah National Wildlife Refuge. Another active nest is located on private land near the refuge in South Carolina.

Paragraph 6.59. The Tybee National Wildlife Refuge is about 400 acres in size rather than 100 acres as stated in the document.

Paragraph 6.157. The Tybee National Wildlife Refuge is about 400 acres in size.

Paragraph 7.34. The Department concurs with relocation of the underdrains to the Back River, provided that the discharge is adequately monitored. We believe that discharges should be monitored every three (3) years rather than every five (5) years.

We understand that you are proposing a 10-foot mixing zone, not a 100-foot mixing zone.

Paragraph 7.57. The striped bass in the Savannah system spawned primarily in the Back River prior to tide gate construction. However, recent studies found very few eggs in the Back River with most eggs being collected in the Front River. The present status of striped bass recovery and habitat use in the lower Savannah are unclear.

Paragraph 7.146. An offshore bird nesting island would also require adequate posting and law enforcement to prevent disturbance of nesting birds by people and/or their pets. An agreement with the South Carolina Department of Natural Resources or the Service may be appropriate to accomplish this protection.

Paragraph 7.151. We believe that the proposed nesting island and 26-acre nesting area on Tybee National Wildlife Refuge have the potential to provide valuable habitat for nesting shorebirds. However, we are concerned that the proposed 2-acre crown on the nesting island will be too small. We recommend at least a 5-acre crown to provide sufficient habitat and protection from erosion. Provision also needs to be made for periodic sand nourishment to control vegetation succession and replace habitat lost to erosion. Use of dredged material to create and maintain bird nesting areas should be a higher priority than beach nourishment or berm creation.

Summary Comments

The Corps of Engineers is to be commended for preparing a comprehensive statement that attempts to address the major environmental problems associated with operation and maintenance of Savannah Harbor. The Department does not fully concur with the selected alternative, but would support the selected alternative if modified in accordance with the following changes.

(1) The mitigation plan will be further coordinated with the Service to clarify details such as disposal area water depth and draw down rates.

(2) In cooperation with the Service, a contaminant survey of disposal materials to be managed for birds will be accomplished.

(3) The crown area of the offshore bird nesting area will be increased to five (5) acres and provisions for periodic renourishment will be added.

(4) The plan to deepen the sediment basin will be deferred until current striped bass studies are complete in two years.

(5) The underdrain discharge will be monitored every three years rather than every five years.

If you have any questions pertaining to Fish and Wildlife aspects of this project, please contact Jon Andrew, Fish and Wildlife Service, at (404) 679-7123, or Mr. Ed Eudaly at (803) 727-4707. Please feel free to contact Mr. Robert Wood of the Bureau of Mines if you have any questions concerning mineral resources. Mr. Wood can be reached at (303) 236-0428, ext. 294.

Thank you for the opportunity to comment.

Sincerely,

James H. Lee

James H. Lee
Regional Environmental Officer

RESPONSE -- US Department of Interior,
Office of Environmental Policy And Compliance,
February 23, 1995.

AGITATION DREDGING. The District concurs that the proposed use of off-channel storage of sediments should reduce the amount of agitation dredging in Savannah Harbor, thereby improving fish and wildlife resources.

TESTING OF DISPOSAL AREA SEDIMENTS. The District has agreed to test sediments in the confined disposal areas which will be used in the rotational program to ensure that increased use of the sites by migratory birds would not result in adverse impacts to those species.

BENEFICIAL USE OF DREDGED MATERIAL. An evaluation is made prior to each dredging contract to determine the best location for disposal of the sediments. Three steps are generally followed in this evaluation:

(1) Identify a need for dredged sediments,
(2) Evaluate the suitability of the specific sediments to be dredged for that need,
(3) Identify sources and obtain funding for incremental costs.

The District does not anticipate conflicts to commonly occur when multiple uses for sediments obtained during a particular contract would successfully complete each of the steps listed above.

SEDIMENT BASIN DEEPENING. The District had initially concurred that construction of an advance maintenance deepening section at the Sediment Basin would not be performed until an ongoing striped bass egg and larval study was completed. However, the 3-year study which the District was conducting has been concluded. Since preliminary results from that study were inconclusive, the District recently funded an additional 1-year of effort on that study.

Using data obtained during the 3-year study as well as other available information on the species, the environmental impacts of deepening the Sediment Basin are adequately identified and evaluated in this FEIS, and delaying the decision on the acceptability of those impacts is unwarranted. The 1-year extension to the striped bass egg and larval study may provide new information on the status of striped bass in the estuary, but the evaluation contained in the FEIS of potential impacts of deepening the Sediment Basin assumes that striped bass are present in the estuary and using Back River to spawn. This is a conservative position from which to assess potential project impacts to striped bass. If adverse impacts to that species were to result from deepening the Sediment Basin, they would occur primarily from increases in salinity in Back River. The Tidegate

structure which crosses Back River acts as a sill, limiting the movement of salinity upstream of that location. Since the proposed action is the creation of a localized hole downstream of the Tidegate, the hydraulic impacts of such construction are not expected to extend upstream of that structure or increase salinity upstream of that location. Based on those physical restrictions, the proposed advance maintenance deepening of the Sediment Basin is not expected to adversely affect striped bass using Back River. Therefore, the District believes that an evaluation of potential environmental impacts of the proposed Sediment Basin deepening would not be substantively altered by waiting for the results of the extended striped bass study. The data obtained during the 1-year extension of that study could be as inconclusive as that obtained during the foundational 3 years of the study.

Although the FEIS obtains environmental clearances for the proposed advance maintenance at the Sediment Basin, authorization from higher headquarters for such construction has not yet been sought by the District. This project feature could not be implemented until such authorization has been received.

RECOVERY OF CONSTITUENTS FROM DEPOSITED SEDIMENTS. There are presently no proposals to recovery any constituents from deposited sediments. Current proposals include beneficial use of sediments through alternate placement strategies and use of bulk sediment to make construction aggregate. The EIS contains and evaluation of those proposals, as much as possible given the design information available at the time. Should proposals be made to recover specific fractions of the sediments, future environmental documents would include evaluations of those proposals when the decision being made could be affected.

Paragraph 2.08. Concur. This paragraph has been revised to state that the FWS comments are made under authority of the National Environmental Policy Act (NEPA).

Paragraph 5.08. - MITIGATION PLAN. Concur. The Mitigation Plan would be a long term, binding, management commitment. Specific water level management decisions would generally follow Table 6, but could be adjusted on a case-by-case basis if the District's biologist believed a variation would be more beneficial and concurrence was obtained from the US FWS prior to implementation. The Mitigation Plan has been revised and coordinated with the Service to clarify and/or refine specific details.

Paragraph 5.36 and 5.40. DIRECT PLACEMENT ON BEACHES. A mixture of sediments are typically encountered in all dredging contracts. The environmental evaluations conducted as part of this EIS consider a dredging contract as a whole. There would be times during a contract when more fines are encountered than the average, and times when fewer fines would be experienced. To define the sediment characteristics of small segments of a

dredging area with the goal of placing different material types in different disposal areas would not be efficient or cost effective. The time required to shift to an alternate disposal area would sometimes equal the time to dredge the volume of sediment of specific concern. This would increase the dredging unit cost to unacceptable levels. Monitoring would be performed to document the volume of sediments dredged and the volume retained on the beach. This would be compared with the physical characteristics of the dredged sediments (percent fines) to allow a better prediction of the impacts and success of future beach placement activities.

Paragraph 5.42. Concur.

Paragraph 5.46. Concur.

Paragraph 5.48. Deepening of the Sediment Basin was deferred until the foundational 3-years of the Corps striped bass studies were completed. Based on physical restrictions at the site, as well as other available information on the species, the proposed advance maintenance deepening of the Sediment Basin is not expected to adversely affect striped bass using Back River. Therefore, the District believes that an evaluation of potential environmental impacts of the proposed Sediment Basin deepening would not be substantively altered by waiting for the results of the extended striped bass study and that delaying until ongoing or yet-to-be-initiated studies concerning the disposition of the Tidegate structure are completed is not warranted.

Paragraph 5.69 (Table 5). As suggested, the proposed management techniques have been revised to add flexibility. The following sentence has been added to the Mitigation Plan: "If District biologists believe it would be beneficial to use a management technique which is different than that prescribed in Table 6, approval from the US FWS would be required prior to implementation."

Paragraph 6.31. Another paragraph has been added to include this information.

Paragraph 6.40. This paragraph has been revised as suggested.

Paragraph 6.59. This paragraph has been revised as suggested.

Paragraph 6.157. This paragraph has been revised as suggested.

Paragraph 7.34. The District agrees to perform a chemical evaluation of underdrain effluents every three years rather than every five years. The District will use the mixing zone distance specified by the SC DHEC in their Water Quality Certification.

Paragraph 7.57. This paragraph has been revised as suggested.

Paragraph 7.146. NEARSHORE NESTING ISLAND. Concur. The District expects the state of South Carolina to be the owner of the created nearshore island, since such land is claimed by the state. Restrictions to limit human access and disturbance would support the purposes for which the island would be created and maintained.

Paragraph 7.151. NEARSHORE NESTING ISLAND. The proposed nearshore island would have a 2-acre crown at EL 14 MLW. Due to the sloping sides, 11 acres are expected to be present at EL 8 MLW, the elevation above which nesting should successfully occur. The proposed Mitigation Plan also includes maintenance of both the nearshore island and upland nesting area through periodic sand nourishment and/or scraping to remove vegetation. The use of suitable dredged material for beneficial purposes will be made based on the physical site needs at the time and availability of needed funding.

SUMMARY COMMENTS. The Corps has performed, or agrees to perform the following actions:

(1) A revised Mitigation Plan has been coordinated with the FWS.

(2) Sediment testing would be performed of surface material at the confined disposal areas to be managed for birds.

(3) While the island crown at the proposed nearshore bird island would be two acres, the area above high water available for nesting would be eleven acres. Periodic maintenance through placement of additional dredged material and/or scraping of vegetation are included.

(4) The striped bass study which the Corps was conducting has been extended and the evaluation contained in the FEIS of potential impacts of deepening the Sediment Basin identified no substantive adverse impact on that species. Therefore, the Corps believes that delaying a decision on the acceptability of such deepening until the extended Corps striped bass study is complete is not warranted.

(5) Underdrain discharges would be chemically evaluated every three years.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
P.O. Box 12559
217 Fort Johnson Road
Charleston, South Carolina 29422-2559

November 29, 1995

Colonel Grant M. Smith
District Engineer
U.S. Army Corps of Engineers
Post Office Box 889
Savannah, Georgia 31402-0889

Dear Colonel Smith:

Please reference the revised draft Mitigation Plan for Diking and Use of Disposal Area 14A provided to our office from Mr. Bill Bailey of your staff. The mitigation plan was revised by the Corps based on concerns and recommendations provided by various resource agencies. The revised mitigation plan will become part of the Long Term Management strategy Study for Savannah Harbor, Chatham County, Georgia and Jasper County South Carolina. The Fish and Wildlife Service (Service) has reviewed the revised mitigation plan and offers the following comments.

The revised mitigation plan is generally acceptable to the Fish and Wildlife Service. However, we have some specific comments and concerns on the revised plan. The following comments are referenced to paragraph designations used in the revised mitigation plan.

Paragraph G.2.26. We are pleased that the Corps has agreed to perform contaminant sampling in the disposal areas and agree that most sampling should be performed on soil material within one foot of the surface. We recommend that a limited number of water samples also be tested. Some shorebirds use water carried by the breast feathers to cool eggs during incubation and this is a potential source of fetal bird contamination.

Paragraph G.3.07 b. If the nesting mounds are located near the dikes they need to be surrounded by water or mud during the nesting season. We recommend that you determine the location of the mounds in consultation with the Fish and Wildlife Service.

Paragraph G.3.07 d. We concur with the plan to have the South Carolina Office of Coastal Resource Management (OCRM) implement restoration or creation of a minimum of 25 acres of tidal wetlands in South Carolina. We recommend that OCRM coordinate the restoration or

creation plans with interested resource agencies (Service, National Marine Fisheries Service, South Carolina Department of Natural Resources) as the plans become available.

Paragraph G.3.07e. We concur with the plan to add a water control structure on the 228 acre impoundment at Savannah National Wildlife Refuge. The structure will improve water circulation through the impoundment and enhance fish habitat.

Paragraph G.4.01. Part of this section discusses the creation of the near shore bird nesting island and states that benthic surveys will be conducted on the site prior to construction. Part or all of the proposed bird nesting island site may be located within unit SC-10P of the Coastal Barrier Resources System. Therefore, a determination is needed from the Service that the project is consistent with purposes of the Coastal Barrier Improvement Act (CBIA). Our preliminary determination is that the project, as a conservation measure for the enhancement of wildlife habitat, would be an exception to the act, and would be consistent with purposes of the CBIA. When benthic surveys are completed and the project design is finalized the Corps should consult with the Service for our final determination.

Paragraph G.4.05. The revised plan states that, because beneficial migratory bird impacts of the plan will outweigh any negative impacts on these birds, that the plan would be in compliance with the Migratory Bird Treaty Act (MBTA) and that no further clearances would be necessary to implement the actions described in the plan. We concur that the mitigation plan, as proposed, is in compliance with the MBTA. However, this concurrence does not extend to specific management or disposal actions that may be implemented in accordance with the plan. Issuance of blanket permission to take birds, nests or eggs under the MBTA would not be appropriate. If a potential take situation develops during use of the disposal areas, the Service will work closely with the Corps to obtain any needed permits under the MBTA. We recommend that you coordinate, on a continuing basis, management of the disposal areas with the Service to avoid any unnecessary delays.

Based on the biological assessment of threatened and endangered species (BATES) provided by the Savannah District in February 1994, we will concur with your determination that the project is not likely to adversely affect the species listed in your BATES which are under our jurisdiction. In view of this, we believe that the requirements of Section 7 of the Endangered Species Act have been satisfied with regard to these species. However, obligations under Section 7 of the Act must be reconsidered if (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered, (2) this action is subsequently modified in a manner which was not considered in this assessment, or (3) a new species is listed or critical habitat determined that may be affected by the identified action. Further consultation under the Endangered Species Act may be necessary if significant levels of contaminants are found in the disposal areas. We will review the planned contaminant test data, when available, and advise you as to any potential impacts to threatened or endangered species.

We appreciate the cooperation of your staff during planning efforts for the Long Term Management Strategy Study. We request that you continue close coordination with the Service throughout development of detailed construction and management plans, contracting and construction.

Sincerely yours,

Roger Banks

Roger L. Banks
Field Supervisor

RLB/EE/km

cc:
Savannah Coastal Refuge, Savannah, GA (John Robinette)
NMFS, Charleston, SC (David Rackley)
SCDNR, Charleston, SC (Ed Duncan)
OCRM, Charleston, SC (Rob Mikell)

RESPONSE -- US Department of Interior,
Ecological Services Office,
November 29, 1995.

ACCEPTABILITY OF REVISED MITIGATION PLAN. Concur.

Paragraph G.2.26. CONTAMINANT TESTING. Concur.

Paragraph G.3.07b. NESTING MOUNDS. Concur.

Paragraph G.3.07d. SC DHEC-OCRM IMPLEMENTATION OF WETLAND RESTORATION. Concur.

Paragraph G.3.07e. WATER CONTROL STRUCTURE. Concur.

Paragraph G.4.01. NEARSHORE BIRD ISLAND. Coordination between the District and the FWS after this letter has resulted in clarification that the proposed location of the nearshore bird island is not under the oversight of the FWS under the Coastal Barrier Improvement Act. Instead, control of that area rests with the State of South Carolina as it is (1) adjacent to a state wildlife management area, and (2) in subtidal coastal waters within the three-mile state jurisdiction line.

Paragraph G.4.05. COMPLIANCE WITH THE MIGRATORY BIRD TREATY ACT. The District concurs that the Mitigation Plan is in compliance with the Migratory Bird Treaty Act (MBTA). Subsequent to this letter, the District has written to the FWS Regional Office in Atlanta which administers permitting for incidental takes of migratory birds to further discuss this issue. The District continues to believe that the large-scale valuable benefits for migratory birds which biologists uniformly expect to be produced through implementation of the Mitigation Plan should outweigh the take of a limited number of individuals which may occur as a result of scheduled disposal operations.

IMPACT TO THREATENED AND ENDANGERED SPECIES. The District concurs that the project is not likely to adversely impact these species.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
9721 Executive Center Drive N.
St. Petersburg, Florida 33702

January 13, 1995

Colonel Wayne W. Boy
District Engineer, Savannah District
Department of the Army, Corps of Engineers
P.O. Box 889
Savannah, Georgia 31402-0889

Dear Colonel Boy:

The National Marine Fisheries Service (NMFS) has reviewed the Draft Environmental Impact Statement (DEIS) for the Savannah Harbor Long Term Management Strategy (LTMS) Study. The DEIS was conveyed by cover letter dated November 20, 1994, from Mr. M.J. Yuschishin of your staff and is advertised by a November 30, 1994, unnumbered Public Notice.

Overall, we find that the document is well written and parts of the proposed mitigation are good. Unfortunately, several significant deficiencies exist in the analysis and data presented as well as parts of the mitigation package. Key components of the project for which the environmental consequences are insufficiently documented and remediation is insufficient include the conversion and elimination of shallow water habitat for building the "bird island" and creating nearshore berms near the entrance channel. The NMFS also believes that the planned mitigation for eliminating 260 acres of estuarine habitat is inadequate because it does not address the loss of living marine resource habitat and functions that will result from enclosing Disposal Site 14A.

The shallow depth and relatively protected nature of submerged bottoms near the proposed "bird island" are characteristic of areas suitable for colonization by invertebrates and demersal fish that are of ecological, recreational, and commercial importance. Because of this, confirmation is needed on the status of the benthos and whether the area can be filled without harm to important living marine resources. Confirmation is possible through analysis of recent sample data from the site, if available, or through a specific sampling effort. Creation of the nearshore berms is also of concern. Recent investigations in other areas of the South Atlantic show that bottom configuration and currents in the immediate seaward zone of ocean inlets are major determinants for ingress, into estuarine waters, of planktonic fish and invertebrates that are spawned offshore. Consequently, the modification of nearshore currents through berm creation could affect finfish and shellfish abundance.

The elimination of agitation dredging, as proposed in conjunction with the selected alternative, could have a substantial net benefit with regard to protection of living marine resources. The study results presented in the DEIS pertaining to the environmental consequences of agitation dredging, are inconclusive in that they examined only a fraction of the total amount of agitation dredging occurring in Savannah Harbor. For example, the EMC study cited in the DEIS examined the effects of resuspending less than 14,000 cubic yards of material, yet annual dispersion of over one million cubic yards of material was authorized for work proposed by the Georgia Ports Authority and other dock operators. The NMFS has consistently maintained that the cumulative effect of annually resuspending and redepositing in excess of one million cubic yards of bottom sediments has not been determined and could be adverse. Accordingly, we conclude that the benefits related to this aspect of the project may be understated in the DEIS.

In the absence of full disclosure of impacts associated with filling submerged bottoms and constructing offshore berms; and in the absence of suitable mitigation for eliminating 260 acres of estuarine emergent, scrub, and submerged bottoms resulting from diking Disposal Site 14A, the DEIS is seriously inadequate. More importantly, the undescribed impacts are potentially significant in their effect on the long-term health and survival of living marine resources that utilize the project area. The NMFS believes strongly that these deficiencies warrant remedy through preparation of a supplemental DEIS. Absent suitable disclosure of impacts associated with these aspects of the project, construction should not be implemented.

Specific Comments:

1.00 Areas of Controversy

Page 9, para. 1.27. This section should be modified to note that the mitigation plan provides no replacement for wetland functions that are of benefit to living marine resources.

2.00 Need for and Objectives of Action

Page 12, Section 2.08. This section should be modified to include the National Marine Fisheries Service and the heads of the state fish and wildlife agencies for South Carolina and Georgia as contact points for coordination required under the Fish and Wildlife Coordination Act.

Page 17, Section 2.23. As noted in the preceding general comments, studies on the effects of agitation dredging were extremely limited in scope and did not examine the effects of the large-scale maintenance dredging that actually occurs in Savannah Harbor. This section should be modified to state that the studies were extremely limited when compared to the total amount of agitation dredging that actually occurs and that the effect of this dredging is undetermined and potentially significant and adverse.

5.00 Alternatives

Page 56, Section 5.08. This section should be modified to note that the mitigation plan provides no replacement for wetland functions that benefit living marine resources. The planned mitigation should be highly beneficial to birds and possibly sea turtles if the proposed "bird island" is relatively stable and suitable for use as a nesting site for sea turtles.

Pages 56 and 57, Section 5.09. The NMFS should be contacted with regard to development of a mitigation plan for wetland losses in Disposal Area 2A. A plan to offset wetland losses using a 2:1 (minimum) replacement to loss rate and in-kind replacement should be evaluated.

Page 71, Section 5.27. Evidence of the determination that variation in bottom contours will increase the habitat value of the site is needed. It is also possible that modification of bottom contours could affect local currents that affect ingress of sub-adult fish through the inlet and into estuarine waters. In this regard, hydrographic studies are needed to determine probable effects of the proposed berms.

Pages 90 and 91, Section 5.69. This section should be modified to include mitigation for lost wetland functions beneficial to living marine resources. The determination that such mitigation is too costly to allow remediation is unacceptable. At a minimum, off-site but in-kind habitat replacement should be provided. The NMFS should be added to the list of agencies to be consulted regarding wetland mitigation for "other wetland impacts."

7.00 Environmental Consequences

Page 169, Section 7.56; Page 171, Section 7.59. The determination that the numbers of fish entrained through dredges "has no measurable impact on population levels" needs documentation and further explanation with regard to the meaning of "population." No measurable impact on certain populations could represent a significant number of organisms. This also fails to address the affect of such take on endangered species such as the shortnose sturgeon.

Pages 175 and 176, Section 7.73. The absence of suitable mitigation sites in the immediate vicinity of Disposal Site 14A does not preclude responsibility for offsetting the loss of fishery resource functions and benefits provided by the 280 acres of wetlands to be filled. Creation or restoration of estuarine emergent wetlands at other locations is acceptable and should be implemented.

Page 178, Section 7.81. Although creation of an island for use by colonial nesting waterbirds and other avian species could be environmentally innocuous, the shallow water and protected nature of the site are indicative of locations that support diverse and highly productive benthic communities. Consequently, a survey of the existing benthic community is needed before it can be concluded that this aspect of the project can be undertaken without causing further environmental damage. Eliminating or converting one habitat to create another is usually unacceptable except in situations where the functional value of the affected site for desirable flora and fauna is exceptionally low.

Page 198, Section 7.106. This section should be modified to state that wetland functions c significant benefit to living marine resources will be lost if Disposal Site 14A is diked and filled; especially if a similar quality and amount of in-kind habitat is not created or restored.

Page 210, Section 7.138. Significant differences may exist in the substrate and depth of submerged bottoms that would be filled versus those created along the edges of the bird island. Consequently, the newly established benthos may differ from that presently found on site. While this change would be insignificant if the existing benthos is ecologically unimportant, the status of the existing benthos must be determined before the environmental effects are known. Accordingly, and as previously stated, a survey is needed of the benthos inhabiting submerged bottoms to be filled.

Page 217, Section 7.153. The disposal of dredged material in the nearshore zone could have a substantial effect on larval fish and invertebrates. This area is an important staging site for larval organisms that must traverse the inlet to reach estuarine waters where development and maturation takes place. This section should be modified to acknowledge the importance of nearshore areas in the vicinity of ocean inlets as locations where subadult fish and invertebrates congregate. It should also be noted that activities causing significant elevation of turbidity levels and modification of local currents could adversely affect recruitment of aquatic organisms into estuarine waters.

Pages 217 and 218, Section 7.154. Plans to conduct side-scan sonar surveys to confirm the presence or absence of hard bottoms is highly desirable and should be implemented. As note previously, the status of soft bottom infauna and epifauna should also be determined in the vicinity of the proposed bird island. We question the determination that the proposed berms will stabilize the ocean shoreline enough to increase the stability of benthic communities occupying this zone. Documentation is needed.

Page 218, Section 7.156. The assertion that the berms will increase fishery habitat values should be documented.

8.00 Public Involvement

Page 239, Section 8.01. Delete "U.S." from in front of National Marine Fisheries Service.

Appendix C

Page 10, Section C.2.44. The decision to deposit dredged materials in the nearshore environment in early winter is based on the fact that overall biological activity is relatively low during this period. As noted previously, waters near ocean inlets are important staging sites for estuarine-dependent organisms that are spawned offshore. Since spawning of many of these species occurs in early winter, the assumption that disposal during this time of year is desirable may not be valid. To address this, we recommend that the Savannah District examine relevant

literature or data regarding larval migration into Georgia estuaries. In the absence of this information, investigations (sampling) should be performed to determine the occurrence and abundance of sub-adult fish and invertebrates during disposal operations.

Page 11, Section C.2.46. The assessment provided is essentially a "best case" scenario. Since the composition of the benthos is unknown, it cannot be assumed that lasting changes in the benthic community will not occur. Considering the size of the disposal area and volume of material to be deposited, we also question the determination that burrowing organisms "should survive." As noted previously, a benthic survey is needed before the effects of filling the area are known.

Pages 13 and 14, Sections C.2.56 and C.2.57. All previous comments pertaining to effects on plankton (sub-adult fish and invertebrates) and benthos apply. As presented, the analysis is flawed since the determination that the work will not significantly and adversely affect those resources is unsubstantiated.

Pages 14, Section C.2.60. This section states that separate mitigation ("restoration and creation of saltwater wetlands") would be performed in the Savannah Harbor area to offset wetland losses other than those associated with diking and filling Disposal Site 14A. Assuming that "saltwater wetlands" are estuarine intertidal emergent wetlands, we support this concept and encourage similar action for wetland losses associated with Disposal Site 14A. As previously noted, we acknowledge the limited availability of wetland creation and restoration sites in the vicinity of Disposal Site 14A. This, however, does not preclude the use of other locations. The detailed mitigation plan to be submitted in for this aspect of the project also should be coordinated with the NMFS.

Appendix G.

Page 3, Section G.2.08. Explanation should be given for the apparent discrepancy or differences with respect to the effect of filling shallow water habitat for creation of bird habitat and marsh. Specifically, how was it determined that filling submerged estuarine bottom for marsh creation is unacceptable, yet filling to create bird habitat is acceptable.

Pages 3 and 4, Sections G.2.09 and G.2.10. The NMFS was not consulted regarding determination of functional values associated with Disposal Site 14A. We do not support the apparent determination that the site is unimportant and essentially valueless with regard to fishery resource functions. We also question the determination that the 260 acres of wetlands found on the site are unimportant as sites for floodwater storage since this area is subject to inundation by flood waters. As previously noted, consideration of mitigation options such as offsite marsh creation is needed. Another possible mitigation alternative is creation of oyster reefs in locations that are void of important benthic communities.

Finally, in accordance with the Endangered Species Act of 1973, as amended, it is the responsibility of the appropriate federal regulatory agency to review its activities and programs and to identify any activity or programs that may affect endangered or threatened species or their habitat. If it is determined that these activities may adversely affect any species listed as endangered or threatened, formal consultation with our Protected Species Management Branch must be initiated. The appropriate contact person for matters pertaining to protected species is Mr. Charles Oravetz who may be contacted at the letterhead address or at (813) 570-5312. Mr. David Rackley of our Charleston Branch Office should be contacted regarding technical aspects of the comments we have provided. He is also prepared to assist the Savannah District in efforts to develop a mitigation plan for lost fishery functions and values associated with the project.

We appreciate the opportunity to provide these comments.

Sincerely,

Andreas Mager, Jr.
Assistant Regional Director
Habitat Conservation Division

RESPONSE -- NOAA, National Marine Fisheries Service,
Southeast Regional Office,
Habitat Conservation Division,
January 13, 1995.

GENERAL COMMENTS:

1. A revised Mitigation Plan was prepared and provided to the NMFS for review. The District met with the NMFS and other resource agencies on July 11, 1995 to discuss the revised Plan. At that meeting, the NMFS stated they felt some form of mitigation specifically for fishery resources was required. The Final Mitigation Plan includes two actions which enhance fishery habitat at 228 acres. The District believes this adequately compensates for the wetland functional values related to fishery resources which would be lost as a result of project implementation.

2. A side scan sonar investigation and benthic survey will be performed at all new nearshore areas prior to initial placement of dredged material to ensure that significant impact will not occur to important living marine resources.

3. Savannah District recognizes the possibility of adversely modifying nearshore currents through berm or island creation. That possibility formed the basis of the location and design criteria for those proposed nearshore structures. The bird island was sited in shallow water between two deeper channels which allow tidal exchange to marshes north and south of Turtle Island. The footprint of the island would not extend into the channels, so we do not expect the island to interfere with flows through those creeks. The underwater berms would be oriented at a sharp angle to the channel, rather than parallel, to minimize changes to flood tides approaching the channel. The 2,000-foot spacing between berms was specified to further reduce impacts to tidal currents. The District believes these design criteria ensure that finfish and shellfish abundance would not be adversely impacted by changes in nearshore currents resulting from the proposed actions.

4. Agitation dredging is not proposed for elimination in the Management Plan or this EIS. The EIS does recognize that the double handling of sediments caused by the initial agitation dredging at a berth and the subsequent hydraulic dredging from the channel results in more environmental impacts than does direct placement of berth sediments into a confined disposal facility.

5. This Final EIS contains a revised Mitigation Plan which was substantially provided to the NMFS in July 1995 for review. The NMFS provided verbal comments on that revision related to adding some component to mitigate specifically for fishery resources. The District subsequently included actions in the Mitigation Plan to more clearly compensate for impacts to fishery resources. With the final Mitigation Plan and other minor changes and clarifications made to the EIS, Savannah District believes that the Final EIS adequately documents the impacts associated with the proposed actions and that preparation of a supplemental Draft EIS is not warranted.

SPECIFIC COMMENTS:

1.00 Areas of Controversy

Page 9. para. 1.27. The revised Mitigation Plan has a component -- restoration/creation/protection of 25 acres of tidal marsh in South Carolina -- which would ensure the continued protection of an acreage of Spartina marsh, thereby benefiting living marine resources. Mitigation for adverse impacts to Georgia wetlands would be provided through restoration/creation of wetlands in the harbor area at a 2:1 ratio.

2.00 Need for and Objectives of Action

Page 12, Section 2.08. This section has been modified to include the state fish and wildlife agencies for South Carolina and Georgia as contact points for coordination required under the Fish and Wildlife Coordination Act.

Page 17, Section 2.23. Savannah District believes that the studies of agitation dredging adequately examined the impacts of those dredging events.

5.00 Alternatives

Page 56, Section 5.08. The revised Mitigation Plan has a component -- the restoration/creation/protection of 25 acres of tidal marsh in South Carolina -- which would ensure the continued protection of an acreage of Spartina marsh, thereby benefiting living marine resources. Another component of the Mitigation Plan -- the water control structure at the Savannah National Wildlife Refuge -- was included to provide benefits to fishery resources. The proposed "bird island" is expected to be relatively stable and suitable for use as a nesting site for sea turtles.

Pages 56 and 57, Section 5.09. The Mitigation Plan for wetland losses in Georgia will use a 2:1 (minimum) replacement ratio and in-kind replacement (marsh creation/restoration). The Mitigation Plan will be coordinated with the NMFS.

Page 71, Section 5.27. Data recently gathered in Mobile Harbor on submerged berms constructed by the Corps revealed higher densities of fish around the berms than at adjacent ocean sites. The structures proposed for the nearshore environment are designed to minimize effects on tidal currents and, thereby, effects on the ingress of sub-adult fish through the inlet and into estuarine waters. The District believes that hydrographic studies would not provide additional information on the likely effects of the proposed berms.

Pages 90 and 91, Section 5.69. Resource agencies, including the NMFS, were reconsulted to identify sites within the project area which could be used for wetland restoration/creation purposes. As before, no sites of sufficient size could be identified at this time. Funds will be placed in escrow for the SC OCRM to restore/create protect 25 acres of tidal wetlands as in-kind mitigation.

7.00 Environmental Consequences

Page 169, Section 7.56: Page 171, Section 7.59. The statement that fish entrainment through dredges has no measurable impact on population levels was taken from information contained in Technical Report D-91-1 published in July 1991 by the Waterways Experiment Station titled "A Framework For Assessing The Need For Seasonal Restrictions On Dredging And Disposal Operations." The District has not previously observed, nor do we anticipate future dredging will produce a measurable impact on either fish populations or significant numbers of individual fish. The District is aware of no known documented adverse impact of dredging in Savannah Harbor on Shortnose sturgeon. Impacts to endangered species are described in more detail in Appendix B BIOLOGICAL ASSESSMENT OF THREATENED AND ENDANGERED SPECIES (BATES).

Pages 175 and 176, Section 7.73. The revised Mitigation Plan includes two components -- the 25 acres of in-kind mitigation administered by the SC OCRM and the water control structure for the 228-acre impoundment at the Savannah National Wildlife Refuge -- which would benefit fishery and other living marine resources.

Page 178, Section 7.81. A side scan sonar investigation and a benthic survey would be conducted at all new nearshore areas prior to placement of dredged material to ensure that hard-bottom communities or other highly productive and ecologically valuable benthic communities are not eliminated.

Page 198, Section 7.106. The EIS has been revised as suggested.

Page 210, Section 7.138. A side scan sonar investigation and a benthic survey would be conducted at all new nearshore areas prior to initial placement of dredged material to ensure that hard-bottom communities or other highly productive and ecologically valuable benthic communities are not eliminated.

Page 217, Section 7.153. Concur.

Pages 217 and 218, Section 7.154. Concur, a benthic survey would be conducted at all new nearshore areas prior to initial placement of dredged material to ensure that highly productive and ecologically valuable benthic communities are not eliminated. Any decrease in the wave climate at the ocean shoreline would stabilize the benthic communities residing at the shorelines to some degree.

Page 218, Section 7.156. Data recently gathered in Mobile Harbor on submerged berms constructed by the Corps revealed higher densities of fish around the berms than at adjacent ocean sites. The berms provided a variation in bottom contours that was not present in the immediate vicinity. Such should be the case with the proposed berms in the nearshore area off Tybee Island.

8.00 Public Involvement

Page 239, Section 8.01. Concur.

Appendix C

Page 10, Section C.2.44. Sediments are presently dredged from the Bar Channel during the winter and deposited at the Savannah ODMDS. The District believes that deposition in shallower nearshore waters, which are naturally turbid, would not create conditions which would cause significant impacts to the movement of estuarine-dependent organisms that are spawned offshore. Therefore, the District believes that investigations (sampling) to document the occurrence and abundance of sub-adult fish and invertebrates during disposal operations is not warranted.

Page 11. Section C.2.46. Neither the Corps nor resource agencies are aware of any hard-bottom communities existing in the nearshore areas proposed for deposition. However, a side-scan sonar investigation and a benthic survey would be conducted at all new nearshore areas prior to initial placement of dredged material to ensure that highly productive and ecologically valuable benthic communities are not eliminated.

Pages 13 and 14, Sections C.2.56 and C.2.57. The District continues to believe that the proposed work will not significantly and adversely affect benthic resources. That determination is based on a "reason to believe" rather than being "proven" through documentation and evaluation of previous actions at the same location. The District is aware of no information which indicates either (1) that unique or sensitive benthic resources are present in the potential impact area, or (2) that impacts likely to occur from open-water placement would significantly affect those resources beyond the local and temporary levels. Neither the Corps nor Georgia Department of Natural Resources is aware of any hard-bottom communities existing in the nearshore areas proposed for deposition. However, a side-scan sonar investigation and a benthic survey would be conducted at all new nearshore areas prior to initial placement of dredged material to ensure that highly productive and ecologically valuable benthic communities are not eliminated.

Pages 14, Section C.2.60. Resource agencies, including the NMFS, were reconsulted to identify sites within the project area which could be used for wetland restoration/creation purposes. As before, no sites of sufficient size could be identified in the project vicinity. The SC OCRM will restore/create/protect 25 acres of tidal wetlands as in-kind mitigation.

Appendix G

Page 3. Section G.2.08. Creation of an isolated island in the nearshore area would establish a habitat that is very rare in the project vicinity. Such habitat would be valuable for migratory birds, threatened and endangered species (piping plover and loggerhead sea turtles, and resident shorebirds. The US FWS and State resource agencies agreed that filling submerged estuarine bottom to create such habitat was desirable.

Pages 3 and 4. Sections G.2.09 and G.2.10. The NMFS was informed by the Corps and the US FWS of the plans the District was developing to mitigate for losses which would occur when Disposal Area 14A is used. The revised Mitigation Plan has two components -- the 25 acres of restoration/creation/protection of tidal wetlands to be administered by the SC OCRM and the water control structure for the 228-acre impoundment at the Savannah National Wildlife Refuge -- which would benefit fishery and other living marine resources.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
9721 Executive Center Drive N.
St. Petersburg, Florida 33702

October 18, 1995

Colonel Grant M. Smith
District Engineer, Savannah District
Department of the Army, Corps of Engineers
P.O. Box 889
Savannah, Georgia 31402-0889

Dear Colonel Smith:

The National Marine Fisheries Service (NMFS) has reviewed the revised draft Mitigation Plan for Diking and Use of Disposal Area 14A (Plan). The Plan was provided to our Charleston Branch Office via facsimile dated September 25, 1995, from Mr. Bill Bailey of your staff. When finalized, it will become a component of the Savannah District's Long Term Maintenance Strategy Study for Lower Savannah Harbor, Chatham County, Georgia and Jasper County, South Carolina.

The Plan adequately addresses issues raised by the NMFS for mitigating adverse impacts to living marine resources. If implemented, fishery-related provisions would result in restoration of periodic (daily) tidal flow within a 228-acre impoundment located on the Savannah National Wildlife Refuge. The impoundment is presently managed so that periodic hydrologic connections with adjacent tidal waters are largely non-existent. Water management is limited to operation of a single control structure and management includes occasional flooding of impounded wetlands, extended water retention, and limited or complete drawdown prior to reflooding. Under the proposed plan of action, a second water control structure would be added and this structure would be operated to allow daily tidal exchange.

As discussed with Mr. Bailey, the Plan has considerable merit and its suitability for mitigation purposes will depend on the design and operation of the new water control structure. Accordingly, we are in general agreement with the proposed action. However, agreement regarding its technical and operational components are needed for conclusive determination that adverse impacts involving our trust resources will be sufficiently offset. In this regard, and in consideration of the fast track for completion of the Final Environmental Impact Statement for the project, I encourage prompt agreement on these key issues. To attain this, I request that the Savannah District initiate timely dialogue with my Charleston Branch Office, the U.S. Fish and Wildlife Service, and representatives from the South Carolina and Georgia natural resource agencies. With satisfactory progress, we can support the Savannah District's positive assessment regarding project related-fishery impacts.

With regard to other fishery-related components of the Plan, we are withholding judgement concerning proposed establishment of an escrow account to be used for tidal wetland restoration in South Carolina. Based on a cursory discussion with South Carolina Department of Health and Environmental Control personnel, it appears that general agreement regarding this matter has been reached and we look forward to reviewing the details of this agreement. We also maintain our desire to coordinate with Georgia State Ports Authority (GASPA) concerning possible fishery enhancement efforts in conjunction with shoreline stabilization work in the vicinity of existing disposal sites. This matter was discussed in considerable detail at a recent project meeting which included the GASPA and State and Federal agency representatives.

We appreciate the excellent work by your by your staff in addressing matters pertaining to fishery resource conservation. Please direct related questions or comments to the attention of David Rackley at our Charleston Branch Office. He may be reached at (803) 762-8574.

Sincerely,

Andreas Mager, Jr.
Assistant Regional Director
Habitat Conservation Division

RESPONSE -- NOAA, National Marine Fisheries Service,
Southeast Regional Office,
Habitat Conservation Division,
October 18, 1995.

ACCEPTABILITY OF REVISED MITIGATION PLAN. The District concurs that the revised Plan adequately addresses adverse impacts to marine resources.

ESCROW ACCOUNT FOR TIDAL WETLAND RESTORATION. The District will provide the NMFS with a copy of the agreement with the SC DHEC-OCRM for review when it is available.

SHORELINE STABILIZATION WORK. The District will coordinate with the NMFS when designs have been prepared for proposed shoreline stabilization work along the dike on Jones/Oysterbed Island.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
9721 Executive Center Drive
St. Petersburg, FL 33702

AUG 23 1995 F/SEO13:JEB

Mr. William Bailey
Savannah District
U.S. Army Corps of Engineers
P. O. Box 889, Attn: CESAS-PD-EI
Savannah, GA 31402-0889

Dear Mr. Bailey:

This responds to your request for comments on the November 1994 draft environmental impact statement (DEIS) for the Savannah Harbor Long Term Management Study. You also requested that the National Marine Fisheries Service concur with your determination that the long term management plan would not adversely affect threatened or endangered species under our jurisdiction. A biological assessment (BA), in the form of the DEIS was submitted pursuant to Section 7 of the Endangered Species Act of 1993 (ESA).

We have reviewed the BA and the information on pipeline dredge suction field strength supplied in your July 26, 1995 facsimile transmission. We concur with your determination that populations of threatened or endangered species under our purview would not be adversely affected by the proposed action. This concurrence assumes that the Corps of Engineers will carry out activities in accordance with the existing biological opinion addressing dredging activities along the southeast coast of the United States and any other applicable biological opinions that may be issued in the future.

This concludes consultation responsibilities under Section 7 of the ESA. However, consultation should be reinitiated if new information reveals impacts of the identified activity that may affect listed species or their critical habitat, a new species is listed, the identified activity is subsequently modified, or critical habitat is determined that may be affected by the proposed activity.

If you have any questions please contact Jeffrey Brown, Fishery Biologist, at (813) 570-5312.

Sincerely,

Andrew J. Kemmerer
Regional Director

cc: F/PR8
F/SEO2

RESPONSE -- NOAA, National Marine Fisheries Service,
Southeast Regional Office,
Protected Species Management Branch,
August 23, 1995.

No response necessary to NMFS concurrence with Savannah District's determination that the proposed LTMS actions would not adversely affect threatened or endangered species under the jurisdiction of the NMFS.

South Carolina
DHEC
Department of Health and Environmental Control
4130 Faber Place, Suite 300
Charleston, SC 29405

Office of Ocean and Coastal Resource Management
H. Wayne Beam, Ph.D., Deputy Commissioner
Christopher L. Brooks, Assistant Deputy Commissioner

(803) 744-5838

(803) 744-5847

January 20, 1995

Mr. Myron J. Yuschishin
Chief, Planning Division
U. S. Army Corps of Engineers
Savannah District
Post Office Box 889
Savannah, Georgia 31402-0889

Dear Mr. Yuschishin:

This letter is written in response to your request for consistency determination regarding the proposed Savannah Harbor Long Term Maintenance Strategy (LTMS). Under the Authority of 15:CFR 930.39, the staff of the Office of Ocean and Coastal Resource Management (OCRM) has received the document and determined that it is not consistent with the South Carolina Coastal Zone Management Program. The strategy does make several improvements which are needed; and while the OCRM applauds the District's efforts to resolve these issues, we continue to have problems with several of the plan's recommendations. We approve of the comprehensive planning methods that have been used to prepare the study and think that the plan well documents the problems and proposes some good solutions for the management of the harbor. There are specifically several individual elements which are not consistent with our management program. These could be made consistent with the provision of additional information or revising the management considerations listed in the study. These items are:

A) The mitigation plan submitted for the diking of area 14A is inadequate, as proposed. In 1982 the S.C. Coastal Council designated a line where the dike could be placed. However, the final construction design and permitting issues were not resolved at that time. The LTMS does not adequately address the wetland habitat resources and functional values that will be lost by this diking. While the Council has approved an alignment, this mitigation issue must be addressed. The report fully describes a wetland creation mitigation package for area 2A but fails to recognize or replace wetlands lost in the constructing and the diking of area 14A . Instead, the plan proposes as mitigation a wildlife management scheme for all of the dike disposal areas. Partial mitigation credit for wildlife management activities can be awarded; however, the acreage of wetlands lost by the dike must be replaced by a form of mitigation approved by the OCRM. In 1993 the OCRM (formerly the S. C. Coastal Council) amended the Coastal Zone Management

Program to specify acceptable forms of mitigation and the procedures for constructing these mitigation efforts. The mitigation plan does not meet these requirements. (A copy of these regulations is provided.)

B) The creation of an offshore bird island as a mitigation measure is at this time inconsistent with the Coastal Zone Management Program. The OCRM might be able to approve creation of this type of habitat if a need is documented by the U. S. Fish and Wildlife Service and the S.C. Department of Natural Resources based upon the thorough and complete evaluation. This finding of need must be fully documented and the island sized to accommodate the affected wildlife population, and only large enough to accommodate that population. Replacement of one type of habitat (uplands) for another (open water bottoms) must be thoroughly considered and evaluated when a project is designed. The S. C. Coastal Zone Management Program policies concerning dredged material disposal presently discourage the use of open water spoil disposal. Those policies are listed below:

"VIII. Dredging

B. Dredged Material Disposal

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

a) Upland disposal of dredged material should always be sought in preference to disposal in wetlands. Where upland disposal is not possible, areas of relatively low productivity above mean high water mark should be utilized. Highly productive wetland areas or bottoms situated below the mean high water mark should not be utilized for disposal of dredged materials when other alternatives exist;

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;

c) Toxic and highly organic materials should be disposed of in highland areas behind impervious dikes;

d) Dikes surrounding disposal areas should be shaped and vegetated immediately to minimize erosion, with outfalls positioned to empty into non-wetland areas;

e) Future disposal sites shall be reviewed on a case-by-case basis;

f) Existing disposal areas should be utilized to the fullest extent possible; this utilization would include raising the height of the embankment to increase the holding capacity of the disposal area;

g) In evaluating potential sites for dredged material disposal, attention must be given to possible adverse impacts on public health

and welfare as well as on critical fish and wildlife areas such as endangered species habitats, waterfowl wintering areas, and shellfish harvesting areas." [R. 30-12(l)]

The Council also recommends that the following policies be considered in planning for dredged material disposal:

a) Consideration for future maintenance of the spoil area, for example, development of spoil islands which have been found to be beneficial for terrestrial habitat and migratory waterfowl.

b) Abandoned sand or gravel pits in proximity to a dredge site, where spoil can be more adequately contained, should be used for disposal areas."

(S.C. Coastal Management Program, p. III-57)

C) With regard to the relocation of the underdrains to the Savannah/Back River side of the disposal areas, the OCRM supports this action. However, the report states that a mixing zone will be used to dilute levels of arsenic which do not meet South Carolina water quality standards. While South Carolina standards allow mixing zones, there must be a demonstration of no adverse effects on existing water uses. Because, in this situation, arsenic violates the human health standard which is based on the consumption of aquatic organisms, we recommend that the level of arsenic be reduced inside of the disposal site before release.

D) The report also notes that dissolved oxygen (D. O.) levels can be a problem, particularly in small creeks. As noted in the report many of the outfalls from the spoil areas do discharge into small creeks. The report proposes monitoring and management measures as a solution to this problem. We feel management measures are a solution but feel that the use of monitoring should be used to determine if a release should be allowed rather than use a weekly monitoring report to determine if the discharge should be allowed to continue. A release should not be allowed to begin if D. O. readings are below state water quality standards. The plan should be amended to reflect this management procedure.

E) The OCRM supports the efforts by the District to reduce the agitation dredging from the waters adjacent to private piers. However, we feel that with the provision of hydraulic dredging and disposal in the dike-contained areas, the practice of allowing agitation dredging should be completely prohibited. Several previous studies cited in the LTMS have documented D. O., turbidity and other problems with agitation dredging. It has long been our stated opinion that this practice should be prohibited. The LTMS seems to support this position but fails to address the problem. Agitation should be stopped rather than allowed to continue under a litany of unenforceable permit conditions.

F) The report indicates that one option for dredged material disposal would be to renourish Daufuskie Island beaches. We support this concept provided that all material

is of beach compatible grain size and the disposal is based upon a sound engineering plan to renourish the beach face rather than to simply remove the spoil material. However, please be aware that in order to use state funds for beachfront activities the entire beach receiving renourishment must be accessible to the public. Only a section of Daufuskie presently meets this definition (approximately 1/2 mile). The state participation in any funding arrangement for this project may be limited by this restriction.

The OCRM appreciates being able to provide these comments. In this letter I have tried to be specific as to what steps can be taken to make the LTMS consistent with our management program. We have enjoyed our working relationship with the District staff in the past and feel that these issues can be resolved with cooperation by all parties. Pursuant to **15 C.F.R. 930.110**, secretarial mediation through the Secretary of Commerce may be utilized to resolve conflicting issues. If you desire to pursue mediation please contact me so that we may coordinate. We will be glad to pursue a resolution through either formal or informal mediation.

Sincerely,

Robert D. Mikell

Robert D. Mikell
Director of Planning
and Federal Certification

RDM:uscomit2:g:jk

cc: Dr. H. Wayne Beam
Mr. Christopher L. Brooks
Mr. H. Stephen Snyder
Ms. Sally Knowles
Ms. Jane Settle
Ms. Joelle Gore

RESPONSE -- SC Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management, January 20, 1995.

MITIGATION PLAN FOR DISPOSAL AREA 14A. A revised Mitigation Plan was prepared and provided to the SC OCRM in July 1995. After a meeting with SC DHEC-OCRM staff in September 1995, the Plan was revised to include 25 acres of wetland restoration or creation as in-kind mitigation to address their concerns. As a result of the recent coordination, the District believes the Mitigation Plan contained in the Final EIS satisfies all mitigation concerns of the SC DHEC-OCRM.

NEARSHORE BIRD ISLAND. As in the Draft EIS, the Final EIS contains a nearshore bird island as a mitigation feature. The need for such habitat was documented in the EIS and is supported by the US FWS and the SC DNR. Isolated islands along the coast have become increasingly rare as development has occurred. As the SC DHEC-OCRM policies acknowledge, such islands have been found to be beneficial to shorebirds and migratory waterfowl. The island's size was selected based on a combination of the mitigation need and the technical aspects of the value of such habitats when constructed at other locations. The District will perform a benthic survey of the site where the island would be constructed to ensure highly productive hard bottom communities are not present. Recent coordination with SC DHEC-OCRM staff indicates that SC DHEC-OCRM now approves of this mitigation feature.

UNDERDRAINS. Savannah District met with the South Carolina DHEC and discussed this issue. The District will abide by the mixing zone and/or design parameters specified for the underdrains in the Water Quality Certification provided by the South Carolina DHEC.

DISSOLVED OXYGEN IN WEIR DISCHARGES. The District met with the South Carolina DHEC and discussed this issue. Data previously taken by Savannah District was provided to SC DHEC which documented that previous discharges which were below state water quality standards did not adversely affect the use of Wright River, the major receiving water. Savannah District will abide by the Water Quality Certification provided by the South Carolina DHEC.

AGITATION DREDGING. Implementation of the rotational use of the CDFs will result in a disposal area being available within a reasonable distance for use by berth owners. This will increase the economic feasibility of deposition of berth sediments in confined disposal areas. The deepening of berth areas to create off-channel sediment storage would reduce the need for agitation

dredging since adequate depths would be available at the berths for longer durations. Due to the high shoaling rate at the berths, circumstances may still arise where a hydraulic dredge cannot be used -- such as the March to June striped bass window -- when removal of sediments is necessary. Agitation dredging may serve as a viable option for those instances.

DIRECT PLACEMENT ON DAUFUSKIE ISLAND. Savannah District will consider direct placement of channel sediments on Daufuskie Island if (1) the material is determined suitable, and (2) an organization paid the additional incremental cost for such placement. The District will continue to work with the SC DHEC-OCRM to identify when such placement may be appropriate.

South Carolina
DHEC
Department of Health and Environmental Control
4130 Faber Place, Suite 300
Charleston, SC 29405

Office of Ocean and Coastal Resource Management
H. Wayne Beam, Ph.D., Deputy Commissioner *Christopher L. Brooks, Assistant Deputy Commissioner*

(803) 744-5838 ***(803) 744-5847 (fax)***

January 8, 1996

Mr. M. J. Yuschishin
Chief, Planning Division
U. S. Department of the Army
Savannah District, Corps of Engineers
Post Office Box 889
Savannah, Georgia 31402-0889

Re: Savannah Harbor Long Term
Management Strategy (LTMS)
Final Certification

Dear Mr. Yuschishin:

As you are aware, we have been working with your staff on the consistency determination for this document for several years. As a result of the revisions and clarifications made to the final draft document, our remaining concerns have been addressed. DHEC OCRM is now prepared to find this project consistent with the policies of the South Carolina Coastal Zone Management Program.

Should you have any questions on this matter please contact me.

Sincerely,

Robert D. Mikell
Director of Planning
and Federal Certification

cc: Dr. H. Wayne Beam
Mr. Christopher L. Brooks
Mr. H. Stephen Snyder
Mr. Tom Bolin
Ms. Rheta Geddings

RESPONSE -- SC Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management, January 8, 1996.

CONSISTENCY DETERMINATION. The District is pleased that the proposed project was found fully consistent with the policies of the SC Coastal Zone Management Program.

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201

January 4, 1995

Department of the Army
Savannah District, Corps of Engineers
Attn: Richard A. Hill, Acting Chief
Planning Division
P.O. Box 889
Savannah, GA 31402-0889

Dear Mr. Hill:

I am writing in response to your letter dated November 30, 1994, in which you requested comments regarding the Long Term Management Strategy (LTMS) Study for the Savannah Harbor Navigation Project, Chatham County Georgia, and Jasper County, South Carolina. You requested that our review of the enclosed Draft Environmental Impact Statement for this project include compliance of the tentatively selected plan with Section 401 of the Clean Water Act.

The Bureau of Water Pollution Control is currently evaluating the above referenced project as part of the technical review process for Water Quality Certification in accordance with Section 401 of the Clean Water Act, as amended. We will provide all comments to you in the Water Quality Certification and not comment separately on the Draft Environmental Impact Statement.

The Water Quality Certification process is governed by State Regulation 61-101. This process requires preparation of a written staff assessment evaluating potential effects of the proposed work on water quality. Written comments by interested parties will be considered in the review. This project will be certified if it is determined that there is a reasonable assurance that the proposed project will be conducted in a manner consistent with the Certification requirements, and is consistent with applicable provisions of Section 303 of the Federal Clean Water Act, as amended. It must also be determined that there are no applicable effluent limitations under Sections 301(b) and 302, and that there are no applicable standards under Sections 306 and 307.

Since the public comment period for this project has passed, we will complete our staff assessment as soon as possible. After the project review is complete, a Notice of Proposed Decision will be issued, including any proposed conditions. All aggrieved parties shall have rights to appeal the proposed decision by submitting a written request for an adjudicatory hearing before the Department within 15 days of notification of proposed certification.

If you have any questions please feel free to call Mark Giffin at (803)-734-5302.

Sincerely,

Sally C. Knowles

Sally C. Knowles, Director
Water Quality Division

RESPONSE -- SC Department of Natural Resources,
Bureau of Water Pollution Control,
Water Quality Division,
January 4, 1995.

No response necessary.

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201-1708

May 10, 1996

Department of the Army, Savannah District, Corps of Engineers
Attn: Mr. William G. Bailey
P.O. Box 889
Savannah, GA 31402-0889

Re: Certification in Accordance with Section 401 of the
Clean Water Act, as amended.

Department of the Army, Savannah District, Corps of Engineers
Savannah Harbor Long Term Management Strategy
Savannah River, Back River, and Wright River
Jasper County
DHEC-94-C-SAV

Dear Mr. Bailey:

The Department issued a Notice Of Proposed Decision to issue a 401 Water Quality Certification for the project on October 27, 1995. James F. Missroon appealed this decision on November 7, 1995. The Department received an Order of Dismissal from Alison Renee Lee, Administrative Law Judge, on May 6, 1996, stating that Mr. Missroon has withdrawn his request for a hearing.

We have reviewed plans for this project and determined there is a reasonable assurance that the proposed project will be conducted in a manner consistent with the Certification requirements of Section 401 of the Federal Clean Water Act, as amended. In accordance with the provisions of Section 401, we certify that this project, subject to the indicated conditions, is consistent with applicable provisions of Section 303 of the Federal Clean Water Act, as amended. We also hereby certify that there are no applicable effluent limitations under Sections 301(b) and 302, and that there are no applicable standards under Sections 306 and 307.

This certification is subject to the following conditions:

1. To insure water quality standards are maintained, the Division of Water Quality and Shellfish Sanitation must be notified and any alternate disposal site must be reviewed and approved prior to its use if the proposed disposal areas can not be utilized by the COE or the GDOT.

2. The applicant must implement a water quality monitoring plan to insure that the effluent is in compliance with state water quality standards and to coordinate with the Department if any discharge is violating any state water quality criteria, as proposed. The applicant must conduct monitoring in accordance with an approved sampling plan specifying the location of sampling stations, parameters sampled, when samples will be collected, and how the sampling data will be reported.

Appropriate ambient data from the Wright River must also be submitted.

3. The applicant must install flap gates at underdrain discharge points so that so that no effluent is discharged during low flow periods in receiving waters.

4. The applicant must monitor water quality 100 feet downstream of underdrain discharges to test for water quality standards compliance, as proposed. In addition, the applicant must conduct monitoring in accordance with an approved sampling plan specifying the location of sampling stations, parameters sampled, when samples will be collected, and how the sampling data will be reported.

5. The applicant must adhere/comply with recommendations of the SCDNR regarding the timing of placing dredged material for beach nourishment to insure continued protection of various species of sea turtles.

6. The applicant must provide compensatory mitigation for wetlands impacts associated with the proposed work. All wetlands impacts must be compensated for on at least a 1:1 basis. If the mitigation includes creation, restoration, or enhancement, the plan must include monitoring. This mitigation plan must be submitted to the Water Quality Division for review and approval within 6 months of 404 permit issuance.

The S. C. Department of Health and Environmental Control reserves the right to impose additional conditions on this Certification to respond to unforeseen, specific problems that might arise and to take any enforcement action necessary to ensure compliance with State water quality standards.

Sincerely,

Sally C. Knowles

Sally C. Knowles, Director
Division of Water Quality
and Shellfish Sanitation
Bureau of Water Pollution Control

SCK:MAG
cc: Army Corps of Engineers,
Charleston District
Low Country District Office

RESPONSE -- SC Department of Natural Resources,
Bureau of Water Pollution Control,
Water Quality Division,
May 10, 1996.

WATER QUALITY CERTIFICATION.

This letter provides Water Quality Certification from the State of South Carolina for the Savannah Harbor LTMS. Savannah District intends to fully comply with all conditions contained in this certification. Condition 2 requires a water quality monitoring plan be submitted to the SC DHEC for approval within 6 months. The District believes it can reach agreement with the SC DHEC on an appropriate monitoring plan. Condition 6 requires a mitigation plan be submitted to the SC DHEC for approval within 6 months. The District intends to resumbit the Mitigation Plan contained in this EIS to the SC DHEC. The SC DHEC-OCRM, which is responsible for management of all South Carolina coastal resources, has approved the Mitigation Plan.

South Carolina Department of
Natural Resources

James A. Timmerman, Jr., Ph.D.
Director

January 20, 1995

Mr. William Bailey
U.S. Army Engineer District, Savannah
P.O. Box 889, ATTN: CESAS-PD-EI
Savannah, GA 31402-0889

RE: Draft Environmental Impact Statement (EIS), Savannah Harbor Long Term Maintenance Strategy (LTMS)

Dear Mr. Bailey:

Personnel of the S.C. Department of Natural Resources have reviewed the above referenced EIS and offer the following comments.

In general, it appears that the Long Term Maintenance Strategy (LTMS) has been thoroughly researched and addresses some of the problems which have been identified in the past in the Savannah Harbor system. Aspects of the strategy such as the removal of underdrains from the Wright River, the diking of Area 14A, and the proposals for better management of the Confined Disposal Facilities (CDF's) to enhance various aspects of bird use represent very positive considerations for the S.C. Department of Natural Resources (SCDNR). There are, however, some concerns which remain. These are addressed below in the order in which they appear in the Draft EIS.

Paragraph 2.05 (p. 13) identifies the natural resources of the Savannah Harbor. In our opinion, the listing presented is quite limited. Other natural resources which should be included are birds, threatened species, estuarine species of commercial and recreational importance.

Paragraph 3.10 (p.22) - The last statement regarding the increased cost of maintaining adequate depths in the Harbor as a result of the closure of New Cut and the removal of the Tide Gate from operation should have some documentation.

In paragraph 3.34 (p. 36), the "environmental documents which have already been prepared" to which the local sponsor will be required to adhere should be specified.

Paragraph 3.38 (p. 38) - The Wright River study summary is located in Appendix E, not Appendix N.

Paragraph 4.31 (p. 50) - Both of the assumptions included herein regarding threatened or endangered species may be appropriate. However, it is neither a foregone conclusion that no additional species will be listed as threatened or endangered or that no additional protective restrictive would be placed on actions which may impact species which are presently listed and, therefore, are already receiving protection. Additional information on the status of stocks of a given species is always a condition under which Section 7 consultations and negotiations can be reopened and would be the case here as well. This must be recognized.

Paragraphs 5.27 and 5.35 (pp. 71 and 73) - While side-scan sonar is an appropriate technology to determine the likelihood of the presence of hard-bottom communities, additional confirmation by underwater television provides a much more accurate portrayal of the bottom conditions. This technology should be incorporated as well, if possible, for these efforts.

Paragraph 5.48 (p. 78) - While the proposed deepening of the Sediment Basin is desirable from the standpoint of increasing its sediment detention capacity, it is of some concern to us given the data which has been generated regarding dissolved oxygen (DO) conditions at and near the bottom of it in its current configuration. A primary species of concern here is the striped bass (Morone saxitilis). Input from the U.S. Fish and Wildlife Service (FWS) and the Georgia Department of Natural Resources (GADNR) should be utilized in the determining the appropriateness of this aspect of the LTMS.

Paragraph 5.69 (p. 90) and other locations - Mitigation actions. Personnel of our Wildlife Diversity Division (formerly the Nongame and Endangered Species Division) were consulted in the development of the avian aspects of the mitigation plan for input. While the overall plan certainly represents a great enhancement of habitat for bird use in the Savannah Harbor area, there are several concerns which must be resolved. Of primary importance is an issue which has been discussed previously, that of contaminant levels in these confined disposal facilities (CDF's) and their potential impacts on avian life. Our review of Appendix F - Sediment Quality Evaluation does indicate that the likelihood of impacts to biota is limited. However, the proposed management techniques of enhancing avian feeding in these CDF's or the construction of bird islands in them, modified mowing of dike slopes, etc., to enhance the nesting of several species in and adjacent to them does raise the concern what is actually occurring or may occur at a particular location. Some bioassay work with avian species already utilizing these areas would better enable these uncertainties to be resolved. We would like to discuss this further to determine the details of what is needed to address this concern. Also, a monitoring program to evaluate various aspects of the success of this management technique should accompany this part of the proposed mitigation.

Paragraph 6.23 (p. 110) - Mitigation Areas and paragraph 7.73 (p. 175). The first assumption in paragraph 6.23 and the discussion in paragraph 7.73 relates to the unavailability of sites which could be used for wetland mitigation, i.e., in-kind mitigation for lost wetland habitat values from dike placement, warrants further documentation. While this is likely to be the case, if there are any areas available which could be used for even partial mitigation for wetland losses, they should be considered. Even though the need exists for the enhancement of avian feeding and nesting habitat, it is our policy to seek in-kind replacement of habitat whenever possible. The values lost by the filling of wetlands are not replaced by the enhancement of bird use of these CDF's. We do agree that the filling of shallow subtidal areas to create intertidal wetlands is not an option which should be considered.

Paragraph 6.27 (p. 111) - Hazardous and Toxic Wastes. The Amazon Venture oil spill occurred on December 4, 1986.

Paragraph 6.28 (p. 111) - Water Quality. The information regarding South Carolina's classification of the Savannah River is incomplete. While that portion from Fort Pulaski to the Atlantic Ocean is classified as Class SA, the portion from the Seaboard Coastline RR to Fort Pulaski is classified as Class SB, and that portion from the headwaters of Lake Russell to the Seaboard Coastline RR is Class FW. The classification system was modified in 1991 and 1992 and this information is included in the manual published by SCDHEC entitled Water Classifications and Standards, Regulation 61-68 (includes all amendments through April 24, 1992).

Paragraph 7.05 (p. 153) - The statement that "Since the precautions to be observed in each of the detailed alternatives would result in construction occurring which does not harm either individual protected animals, fish etc., or their habitat, no plan would produce unacceptable adverse environmental impacts to threatened or endangered species," is not necessarily completely correct. As one example, it is entirely possible that a shortnose sturgeon (Acipenser brevirostris) could be harmed by dredging activities in turning basins as radio-tagged individuals have been documented to utilize these areas. Also, given this, the habitat which these individuals used would certainly be at least temporarily modified by dredging operations. While we understand that all possible precautions to avoid and/or minimize such impacts will be taken, it must be considered that some may occur.

Paragraph 7.30 (p. 161) - The DO problems in weir effluents which have been documented in the past should not be allowed to continue. We do not feel that the management measures which are proposed are adequate to address this issue. DO monitoring which is sufficient to prevent a release which would contravene either South Carolina or Georgia Water Quality Standards should be incorporated into the LTMS rather that management measures to determine whether a release should be allowed to continue.

Paragraph 7.34 (p. 163) - The proposal to incorporate a 100-foot mixing zone at each of the underdrains from CDF's to enable arsenic levels to come into compliance with Water Quality Standards is unacceptable. Given that acute toxicity to estuarine organisms from these discharges has been demonstrated, other means of reducing this toxicity must be developed.

Paragraph 7.76 (p. 176) - Creating Nesting Islands. If the contaminants issues are satisfactorily resolved, these islands should be sized to provide 3 acres of area suitable for nesting to increase their likelihood of success.

Paragraph 7.79 (p. 177) - Slow Release of Ponded Water. This proposed management technique is dependent on rainfall and is, therefore, not a "sure thing". Limited credit for habitat enhancement can be given here.

Paragraph 7.81 (p. 178) - Construction of an Offshore Bird Island. It is our understanding that the need for this aspect of the proposed LTMS is based upon loss of similar habitat for shorebird nesting when the diking of Jones/Oysterbed Island enable predator access to a former shorebird nesting area, which was thus eliminated (Tom Murphy, personal communication). This needs to be documented better in the LTMS. Also, if this management technique is implemented, there is some concern regarding the high percentage of fine-grained sediments (50%) which is assumed to be lost during the construction process. This is not consistent with the higher percentages of sands indicated elsewhere in the LTMS to comprise the proposed source areas for this work.

Paragraph 7.150 (p.214) - The last portion of this paragraph addresses the means by which success of the proposed offshore nesting island would be measured. While we agree that predictions of the number of birds expected to nest on the island in different years would be speculative, this is, nonetheless, one of the measures of success. Additionally, with information regarding size, vegetation type, etc., it can be done with a greater degree of certainty than is indicated here. This should be done and included in the document.

Paragraph 7.152 (p. 215) through 7.166 (p.220) - berms and direct beach placement of sediments. While the specific locations of the proposed berms are in coastal Georgia waters, the quality of coastal South Carolina waters could be affected by this proposed activity. Related to both berm placement and direct beach placement is the aspect of turbidity. Only the locations with the highest percentages of coarse sediments should be used as sources for these proposed activities. Also, timing restrictions should be included for the protection of the various species of sea turtles known to inhabit the coastal waters of Georgia and South Carolina during the months of May through October.

It was not possible for us to adequately evaluate and provide input regarding the scoring process for the various alternatives which was used in the LTMS. No criteria were indicated on which the scores were based. Without these, the scheme seems to be very subjective and one which would result in very different scores for the same alternative when evaluated by different individuals. Therefore, its use is questionable.

Appendix E. Results of Wright River Weir Effluent and Sediment Testing. It would be helpful to the reviewer to have a map of sampling locations included.

We appreciate the opportunity to provide input into this planning process. We look forward to discussing our concerns and working toward their resolution. Please contact the SCDNR Project Manager for this project, Jane Settle (803-762-5068) for further information.

Sincerely,

Robert E. Duncan
Environmental Programs Director

cc: Jane Settle, SCDNR
Tom Murphy, SCDNR
Rob Mikell, OCRM
Sally Knowles, SCDHEC
Ed EuDaly, USFWS

RESPONSE -- SC Department of Natural Resources, January 20, 1995.

Paragraph 2.05 (p. 13). Concur.

Paragraph 3.10 (p. 22). Savannah District has published no formal report on the increased cost of maintaining adequate depths in the Harbor as a result of the closure of New Cut and the removal of the Tidegate from operation. The documentation consists of internal District documents and information used for budget defense. However, the Operations & Maintenance budget now has a separate line item titled "Additional Dredging Cost Due To Keeping The Tidegate Open."

Paragraph 3.34 (p. 36). The Federal "environmental documents which have already been prepared" were listed in Section 2.15 and 2.19. Other documents would consist of those prepared as part of the permit process for non-federal construction actions.

Paragraph 3.38 (p. 38). Concur.

Paragraph 4.31 (p. 50). Concur.

Paragraphs 5.27 and 5.35 (pp. 71 and 73). Savannah District believes that underwater television would not be a useful technique to document the bottom conditions in this project area due to the highly turbid water which restrict visual observations to just a few feet. The District will conduct benthic sampling to document benthic communities in the affected areas.

Paragraph 5.48 (p. 78). The views of the US FWS and the Georgia Department of Natural Resources will be used in the determining the appropriateness of the proposed advance maintenance of the Sediment Basin.

Paragraph 5.69 (p. 90) and other locations - Mitigation actions. Chemical testing will be performed of sediments within the CDFs to confirm that contaminants do not exist at levels which would produce adverse impacts on wildlife using the sites. Monitoring of the District's compliance with its commitments and applicable laws is a normal part of daily operations. Since the basis of the proposed Mitigation Plan is the provision of certain types and amounts of various habitats, rather than development of certain types and amounts of various fish and wildlife usage, the success of the proposed Plan will be determined by the successful construction and subsequent maintenance of the habitats specified in the Plan.

Paragraph 6.23 (p. 110) - Mitigation Areas and paragraph 7.73 (p. 175). Resource agencies were reconsulted for identification of sites which could be used for wetland mitigation, i.e., in-kind mitigation. No agency suggested any potential sites of suitable size within the project area. The revised Mitigation Plan includes in-kind mitigation through the restoration/creation/ protection of 25 acres of tidal wetlands, through an escrow account administered by the SC DHEC-OCRM.

Paragraph 6.27 (p. 111) - Hazardous and Toxic Wastes. Concur.

Paragraph 6.28 (p. 111) - Water Quality. Concur. This section of the EIS was revised.

Paragraph 7.05 (p. 153). Concur. The Biological Assessment of Threatened and Endangered Species (BATES) evaluates the effects of the proposed actions on protected species and their habitat. This section was revised to incorporate the SC DNR comment.

Paragraph 7.30 (p. 161). - Dissolved Oxygen Levels In Weir Discharges. The District met with the South Carolina DHEC and discussed this issue. Data previously taken by Savannah District was provided to SC DHEC which documented that previous discharges which were below state water quality standards did not adversely affect the use of Wright River, the major receiving water. Savannah District will abide by the Water Quality Certification provided by the South Carolina DHEC.

Paragraph 7.34 (p. 163) - Mixing Zone. Savannah District met with the South Carolina DHEC and discussed this issue. The District will abide by the mixing zone or design parameters specified for the underdrains in the Water Quality Certification provided by the South Carolina DHEC.

Paragraph 7.76 (p. 176) - Creating Nesting Islands. Nesting can be successful on small tracts of suitable land. The District does not believe that increasing the size of the proposed islands to 3 acres would significantly improve the quality of the nesting habitat produced, i.e increase the nesting success ratio.

Paragraph 7.79 (p. 177) - Slow Release of Ponded Water. The CDFs have historically held water for extended periods when discharges were not allowed through the overflow weirs. The District believes that natural rainfall will be adequate to counter evaporative losses.

Paragraph 7.81 (p. 178) - Construction of an Offshore Bird Island. The need for isolated nesting shorebird habitat in the region is the primarily the result of increased development of barrier island beaches by man. The proposed bird island is not intended to compensate for the loss of any particular previous

nesting area. The percentage of fine-grained sediments (50 percent) which is assumed to be lost during construction is a design parameter. The percentage of fines in the sediments is lower (13 percent) and use of the higher value was (1) based on previous experience with retention of deposited dredged material on ocean beaches, and (2) intended to be a conservative feature in the analysis of dredged material needs, construction costs, and turbidity impacts.

Paragraph 7.150 (p.214) - Success of Nearshore Bird Island. The proposed Mitigation Plan is based on production of certain habitats. While the basis for producing an offshore bird nesting habitat is ultimately for use by birds, the District believes that the variables inherent in predicting the amount of bird use for such a unique area would indeed render a calculation of such use not much more than a speculation. The District believes that high use of the proposed island by nesting birds would likely make it an environmental success, but we believe the number and range of the variables are too great to predict with any confidence the number of birds which may nest there.

Paragraph 7.152 through 7.166 (p. 215 - 220) - Berms and direct beach placement of sediments. The Bar Channel sediments have been shown to be predominantly coarse-grained. Some fines are included and would be deposited with the coarser materials, as they are now at the Savannah ODMDS. The District recognizes the desirability of placing very high quality materials on public beaches and would try to reach that goal. However, use of only specific or intermittent locations could significantly increase the cost of dredging and could make these placement options economically impractical. Measures are incorporated in all dredging projects to protect threatened and endangered sea turtles.

The scoring process was intended to provide only a general method of comparison. Different evaluators may well produce different scores for specific impacts. However, the general ranking between the alternatives when all the impact types are included are expected to be similar. Therefore, the District believes the scoring process was adequate for the general evaluation purpose for which it was intended.

Appendix E. Results of Wright River Weir Effluent and Sediment Testing. The EIS does contain maps showing the location of the CDFs whose effluent was sampled. Maps of sampling locations are contained in the full report on this study and may be obtained from Savannah District. We believe that including maps of sampling locations in the Appendix would not provide information necessary to interpret the study results.

OFFICE OF PLANNING AND BUDGET

ZELL MILLER
GOVERNOR

HENRY M. HUCKABY
DIRECTOR

GEORGIA STATE CLEARINGHOUSE MEMORANDUM

TO: Mr. Nicholas Ogden, Chief
Regulatory Branch
Savannah District, Corps of Engineers
P.O. Box 889
Savannah, Georgia 31402

FROM: Charles H. Badger, Administrator
Georgia State Clearinghouse
Office of Planning and Budget

DATE: January 5, 1995

SUBJECT: RESULTS OF STATE LEVEL REVIEW

APPLICANT: Cops of Engineers

PROJECT: DEIS/Savannah Harbor LTM

STATE APPLICATION IDENTIFIER: GA 94 12 05-004

PUBLIC NOTICE REFERENCE NUMBER:

The State level review of the above referenced Public Notice/Permit Request has been completed. As a result of that review process, the issuance of this permit is approved with the following recommendation(s) for improving the proposed activity.

The Corps of Engineers is advised of the comments in the enclosure to this memorandum especially those clarifications from the State of Georgia DOT and Georgia Ports Authority.

TR/blm

ENCL: DOT/Public Highways, December 8, 1994
DNR/Flood Plain Management, December 16, 1994
DOT/Office of Intermodal Programs, December 19, 1994
Georgia Ports Authority, December 27, 1994

GEORGIA STATE CLEARINGHOUSE MEMORANDUM

TO: State Clearinghouse
Office of Planning and Budget
254 Washington St., S.W.
Atlanta, Georgia 30334

FROM: BOB BOWLING
DEPT OF TRANSPORTATION, PUBLIC HIGHWAYS

SUBJECT: RESULTS OF REVIEW

STATE APPLICATION IDENTIFIER: GA 94 12 05-004

DATE: 12-8-94

This notice is considered to be consistent with those State ~~(goals), (policies), (objectives)~~, (plans), ~~(programs), and (fiscal resources)~~ with which this organization is concerned. (Line through inappropriate word or words). X

This notice is recommended for further development with the following recommendations for strengthening the project (additional pages may be used for outlining the recommendations). _____

This notice is not recommended for further development (accompanied by detail comments which explains the organization's rationale for this decision). _____

This notice does not impact upon the activities of this organization. _____

Form SC-3
March 1987

GEORGIA STATE CLEARINGHOUSE MEMORANDUM

TO: State Clearinghouse
Office of Planning and Budget
254 Washington St., S.W.
Atlanta, Georgia 30334

FROM: ALEXIS HARRIS
DEPT OF NATURAL RESOURCES, EPD, FLOOD PLAIN MANAGEMENT

SUBJECT: RESULTS OF REVIEW

STATE APPLICATION IDENTIFIER: GA 94 12 05-004

DATE: 12-16-94

This notice is considered to be consistent with those State (goals), (policies), (objectives), (plans), (programs), and (fiscal resources) with which this organization is concerned. (Line through inappropriate word or words). AH

This notice is recommended for further development with the following recommendations for strengthening the project (additional pages may be used for outlining the recommendations).

This notice is not recommended for further development (accompanied by detail comments which explains the organization's rationale for this decision).

This notice does not impact upon the activities of this organization.

Form SC-3
March 1987

GEORGIA STATE CLEARINGHOUSE MEMORANDUM

TO: State Clearinghouse
Office of Planning and Budget
254 Washington St., S.W.
Atlanta, Georgia 30334

FROM: LUKE COUSINS, ADMINISTRATOR
DEPT OF TRANSPORTATION, OFFICE OF INTERMODAL PROGRAMS

SUBJECT: RESULTS OF REVIEW

STATE APPLICATION IDENTIFIER: GA 94 12 05-004

DATE:

This notice is considered to be consistent with those State (goals), (policies), (objectives), (plans), (programs), and (fiscal resources) with which this organization is concerned. (Line through inappropriate word or words). √ (See attached)

This notice is recommended for further development with the following recommendations for strengthening the project (additional pages may be used for outlining the recommendations). _____

This notice is not recommended for further development (accompanied by detail comments which explains the organization's rationale for this decision). _____

This notice does not impact upon the activities of this organization. _____

Form SC-3
March 1987

Comments attached

WAYNE SHACKELFORD
COMMISSIONER

FRANK DANCHETZ
CHIEF ENGINEER

Department of Transportation
State of Georgia
#2 Capitol Square, S.W.
Atlanta, Georgia 30334-1002

G. CHARLES LI
DEPUTY COMMISSIONER

ARTHUR A. VAUGHN
TREASURER

December 19, 1994

Mr. William Bailey
U.S. Army Corps of Engineers
P. O. Box 889
Savannah, GA 31402

Dear Mr. Bailey:

My office has reviewed the Draft Environmental Impact Statement for the Savannah Harbor Long Term Management Strategy Study. The document appears to follow the outline the Corps initiated 2 years ago which we were allowed to participate in.

The management strategy recommended in the report should improve the long term environmental impact of harbor activities due to the potentially extended useful life of the disposal areas and reduced frequency of maintenance dredging. We support this strategy and the projects associated with it.

Our review of the document resulted in the following comments:

1. Page 16; Section 2.22. Ga. DOT owns approximately 60% of the acres in the disposal areas. DOT is not the sole "owner/operator of confined . ..".

2. Page 29; Section 3.20. A berthing area is defined as "the area between a dock and the navigation channel". This can be a large area if the docks are distant from the navigation channel. Is the definition accurate?

3. Page 79; Section 5.49. It is stated that the throat to the sediment basin would not be modified. It is our understanding that a clean deep throat is a main criteria to an efficient sediment trap. To deepen the basin and not the throat would not be as beneficial as deepening both. Also a more efficient basin reduces dredging in the main channel and berths therefore reducing agitation dredging frequency.

4. Page 97; Table 6.
   a) Should the 233,000 for 2A* be 244,000?
   b) The total of the volumes (accounting for use of one area in each pair or group) is 8,666,000. This exceeds the 7.2 million referenced in section 4.14 as the volume to be used throughout the 20 year period of analysis.
   c) Area 2A may not be available for the annual 233,000 cubic yards due to the inability to separate the sand shoals from the silt shoals during dredging.

5. Page 98; Section 5.72. There needs to be a continued effort of partnership between the sponsor and the Corps. The harbor is dynamic and can be unpredictable at times; emergencies can happen. Some flexibility needs to be incorporated so neither the Corps nor the Sponsor has to suffer needlessly.

   There should be an annual meeting where the Corps and sponsor discuss the upcoming needs and discuss the dredging plans, dike raising plans and bird use plans.

6. Page 187; Section 7.95 A. The sponsor may choose to reclear the 26 acre site as opposed to pay incremental dredging costs, depending on which is cheapest to maintain the site.

7. Page 193; Table 14. It appears there may be some minor arithmatical errors. Are these due to rounding?

8. Page 206; Section 7.127. The sponsor will need adequate time to obtain funds for maintenance of the island.

9. Appendix A; page 9; Section A.5.11. We support speed limits of ships to reduce the erosive effects of their wakes on the dikes.

10. Appendix A; page 13; Section A.5.24 and page 15; Section A.5.35. DOT does not allow any persons on DOT property unless they are government employees or contractors, on official business associated with harbor dredging/disposal activities. Since DOT owns most of Area 12A and the general public is not allowed to cross DOT property, the fishermen and birdwatchers do not have land access to the disposal areas on the S. C. side.

11. Appendix C; page 6; Section C.2.19; and page 14; Section C.2.59. Both sections indicate there will be dike ramp construction. This does not agree with Section 7.102, page 196 of the main report.

12. Appendix F; Section F.3.08. The underdrains have been closed in 12"B", not 12"A".

Please accept these comments in the spirit of parterning as they are offered to strengthen the document. If you have any questions please call John Phillips at (404) 651-9213.

Sincerely,

Luke Cousins, Administrator
Office of Intermodal Programs

LC:JP:jsd

cc: George Lyons
David Studstill

GEORGIA STATE CLEARINGHOUSE MEMORANDUM

TO: State Clearinghouse
Office of Planning and Budget
254 Washington St., S.W.
Atlanta, Georgia 30334

FROM: MR. C. GRIFFIN
GEORGIA PORTS AUTHORITY

SUBJECT: RESULTS OF REVIEW

STATE APPLICATION IDENTIFIER: GA 94 12 05-004

DATE: 12/27/94

This notice is considered to be consistent with those State (goals), (policies), (objectives), (plans), (programs), and (fiscal resources) with which this organization is concerned. (Line through inappropriate word or words).

This notice is recommended for further development with the following recommendations for strengthening the project (additional pages may be used for outlining the recommendations).

Charles F. Griffin
See Attached Pages

This notice is not recommended for further development (accompanied by detail comments which explains the organization's rationale for this decision).

This notice does not impact upon the activities of this organization.

Form SC-3
March 1987

State Application Identifier: GA 94 12 05-004

- It appears to be unclear as to the applicability of the DEIS. The proposed action relative to this DEIS is, as we understand it, to address specific and defined dredging activities proposed for the Savannah River / Harbor area. However, the DEIS is titled and abstracted to address the LTMS which will be much broader in scope than the dredging program.

- The alternate management strategies (Chapter 5.0) appear to extend in scope beyond specific dredging alternatives into a broader range of management concerns.

- The DEIS is a large document; however, it is unclear as to how much of the appended environmental material is actually applicable to the proposed dredging. Likewise, the text of the DEIS presents a great deal of general environmental material, but is not focused on the environmental issues of the defined, proposed action.

- It appears the DEIS may not be completely accurate and current. For example, on page 111, the portion of the river system regulated by the state of South Carolina is discussed in terms of Class SA (saltwater) / Class B (fresh water) classification. The Class B designation for fresh waters was replaced by the FW (fresh water) designation in the last reauthorization of the State regulations 61-68 and 61-69 in 1993.

- Overall, the DEIS does not focus the environmental analysis of the proposed action of dredging. The DEIS does not appear to be applicable to the LTMS and, consequently, strays into areas and issues outside of its intended scope. While a great deal of material is presented, what would be more appropriate would be a cogent and focused analysis, per NEPA/DEIS protocol, of the proposed action. As such, much of the material may not be germane to the environmental aspects of the properly scoped, proposed action.

- Finally, given the general nature of uncertainty regarding the applicability of this DEIS to the actual proposed action, additional review time from the Agencies for all parties involved would be useful and judicious.

mm\dsl\mem\gpaltms

RESPONSE -- GEORGIA STATE CLEARINGHOUSE MEMORANDUM; December 8, 1994.

No comment necessary.

RESPONSE -- GEORGIA STATE CLEARINGHOUSE MEMORANDUM;
GA Department of Transportation,
Public Highways,
December 8, 1994.

No comment necessary.

RESPONSE -- GEORGIA STATE CLEARINGHOUSE MEMORANDUM;
GA Department of Natural Resources,
Environmental Protection Division,
Flood Plain Management,
December 16, 1994.

No comment necessary.

RESPONSE -- GEORGIA STATE CLEARINGHOUSE MEMORANDUM;
GA Department of Transportation,
Office of Intermodal Programs,
December 1994.

No comment necessary on overall results of review. Specific comments are addressed after the letter provided directly to the District.

RESPONSE -- GEORGIA STATE CLEARINGHOUSE MEMORANDUM;
Georgia Ports Authority,
December 27, 1994.

SCOPE OF EIS. The EIS addresses activities considered in the LTMS Management Plan. This includes both dredging and disposal activities required to maintain the Federal Navigation Project. Also included are the activities required to manage the disposal sites required for deposition of sediments removed from the Project.

SCOPE OF ALTERNATIVES. The alternatives do indeed extend beyond dredging activities to also include disposal and disposal area operation and management actions.

ENVIRONMENTAL SETTING. The EIS does contain information which is not project specific, but provides information on the environmental setting of the project. This background information is intended to provide a framework for evaluations and decisions on an impact's importance in the project vicinity.

STATE WATER USE CLASSIFICATIONS. The EIS has been revised as suggested.

FOCUS OF ENVIRONMENTAL ANALYSIS. The EIS provides information necessary to perform an environmental analysis of the proposed action. That action includes dredging and disposal actions, and the activities required to manage the disposal sites required for deposition of sediments removed from the Project.

REVIEW TIME. An extension was granted to the Georgia Ports Authority, and everyone else who requested it, to provide comments on the draft EIS.

Joe D. Tanner, Commissioner

Georgia Department of Natural Resources

Historic Preservation Division

Mark R. Edwards, Director and State Historic Preservation Officer
205 Butler Street, Suite 1462, Atlanta, Georgia 3(
Telephone (404) 656-2(
Fax (404) 651-8739

Mr. Tripp Reid
Administrator
Georgia State Clearinghouse
Office of Planning and Budget
254 Washington St., SW, Room 534-A
Atlanta GA 30334

RE: DEIS/Savannah Harbor LTMS
Savannah, Chatham County, Georgia
GA941205-004

Dear Mr. Reid:

The Historic Preservation Division (HPD) has received the Draft Environmental Impact Statement for the Savannah Harbor Long Term Management Strategy. Due to the detailed nature of the report, HPD will make its comments directly to the Corps of Engineers, Savannah District, who have asked that HPD respond by January 15, 1995.

If you have any questions or would like a copy of HPD's comments for your files, please contact David Morris, Environmental Review Specialist, at (404)656-2840.

Sincerely,

Larry S. Leake

Larry S. Leake

cc: M.J. Yuschishin, U.S. Corps of Engineers

RESPONSE -- GEORGIA STATE CLEARINGHOUSE MEMORANDUM;
GA Department of Natural Resources,
Historic Preservation Division,
December 1994.

No comment necessary. The Historic Preservation Division commented directly to Savannah District in letters dated January 4 and 19, 1995. Responses to those comments are included after the letters.

Georgia Department of Natural Resources

Joe D. Tanner, Commissioner

Historic Preservation Division

Mark R. Edwards, Director and State Historic Preservation Of
205 Butler Street, Suite 1462, Atlanta, Georgia 303
Telephone (404) 656-2840
Fax (404) 651-8739

January 4, 1995

Mr. M.J. Yuschishin, Chief
Planning Division
Department of the Army
Savannah District, Corps of Engineers
P.O. Box 889
Savannah, Georgia 31402-0889

RE: Memorandums of Agreement--Ft. Jackson, C.S.S. Georgia
Savannah Harbor--Remove Tide Gate and New Cut Closure
Chatham County, Georgia
HP911114-001

Dear Mr. Yuschishin:

The Historic Preservation Division (HPD) has reviewed the draft Memorandums of Agreement (MOAs) outlining procedures for complying with Section 106 requirements concerning the removal of a tide gate and New Cut Closure in Savannah Harbor, Chatham County, Georgia. These MOAs seek to address the effects of this undertaking to Fort Jackson and the C.S.S. Georgia, historic resources located within the project's area of potential effects. Our comments for these draft MOAs are outlined as follows:

For the C.S.S. Georgia MOA:

1. Stipulation Two: A reasonable time frame should be included for the completion of these studies. HPD suggests two to three years; however, the Corps of Engineers may wish to allow for additional consultation time.

2. Stipulation Five: Any consideration of alternatives for minimizing the possible restrictions of the C.S.S. Georgia on harbor navigation should be specifically included in the overall mitigation plan.

3. Stipulation Six: If possible, a draft of the mitigation plan should be submitted to archaeologists with the National Park Service, university anthropology departments, and neighboring state Marine Archaeology programs for peer review. HPD has no in-house expertise for evaluating the specifics of the mitigation plan at this time, and peer review would be very valuable in selecting the most efficient and cost-effective mitigation for this complex resource.

4. Stipulation Eight: Some clarification is needed for this stipulation. If funds are not available within a given year, some contingency plans will be needed.

5. Stipulation Twelve: Our office requests a list of the curation facilities being considered to fulfill this stipulation.

For the Fort Jackson MOA:

1. Stipulation Seven: The review by the Coastal Heritage Society and interested local historic groups is especially important for this project. Additionally, review by managers in other historic sites which may have experienced this problem may be considered.

2. Stipulation Thirteen: A list of potential curation facilities considered for this stipulation is needed.

If we may be of further assistance, please contact Jeffrey L. Durbin, Environmental Review Coordinator, at (404) 656-2840.

Sincerely,

Richard Cloues

Richard Cloues
Deputy State Historic Preservation Officer

RC:drm

cc: Advisory Council on Historic Preservation
Kirk Schlemmer, Coastal Georgia RDC
Scott Smith, Coastal Heritage Society

RESPONSE -- GA Department of Natural Resources,
Historic Preservation Division,
January 4, 1995.

COMMENTS ON THE CSS GEORGIA MOA:

1. TIME FRAME FOR COMPLETION OF STUDIES. Stipulation #3 of the MOA has been revised to state that a draft report documenting the studies conducted under Stipulations #1 and #2, as well as the resulting findings and determinations would be complete within three years of the signature of the last party to the MOA.

2. ALTERNATIVES. Stipulation #5 has been revised to state that the mitigation plan will document the alternatives evaluated to eliminate or minimize restrictions which the CSS Georgia causes on the Savannah Harbor Navigation Project.

3. REVIEW OF THE DRAFT MITIGATION PLAN: Stipulation #7 has been revised to state that peer review of the draft mitigation plan will be pursued.

4. AVAILABILITY OF FUNDS: Stipulation #8 has been revised to state that should it appear that funds would not be available to implement all components of the recommended plan specified for a given year, the District would consult the parties to the MOA to determine what actions the District would need to perform to remain in compliance with Section 106 of the NHPA.

5. POTENTIAL CURATION FACILITIES: Stipulation #12 has been revised to include this information.

COMMENTS ON THE FORT JACKSON MOA:

1. REVIEW BY OTHERS: Stipulation #17 of the MOA has been revised to state that a review by managers of historic sites which have experienced similar problems would be pursued.

2. POTENTIAL CURATION FACILITIES: Stipulation #13 has been revised to include this information.

Joe D. Tanner, Commissioner

Georgia Department of Natural Resource

Historic Preservation Divisic

Mark R. Edwards, Director and State Historic Preservat Offi
205 Butler Street, Suite 1462, Atlanta, Georgia 30
Telephone (404) 656-2
Fax (404) 651-8

January 19, 1995

Richard A. Hill
Acting Chief, Planning Division
Department of the Army
Savannah District, Corps of Engineers
P.O. Box 889
Savannah, Georgia 31402-0889

RE: Savannah Harbor Navigation Project
Long Term Management Strategy
Chatham County, Georgia
GA941205-004

Dear Mr. Hill:

The Historic Preservation Division (HPD) has reviewed the Environmental Impact Statement and Long Term Management Strategy for the Savannah Harbor Navigation Project, Chatham County, Georgia. HPD has been consulting with the Savannah District of the Corps of Engineers throughout the development of this project; therefore, we have no comments concerning the Environmental Impact Statement at this time.

However, we do offer the following minor technical comments regarding the final draft of the Long Term Management Strategy, as follows:

1. A few additions would make the management plan more useful to individuals who are not familiar with the overall project. These suggested additions are:

   a. A map showing the location of the major components of the project, and

   b. A bibliography of the major cultural resource surveys, testing, and data recovery reports generated as part of the consultation process.

If we may be of further assistance, please contact Jeffrey L. Durbin, Environmental Review Coordinator, at (404) 656-2840.

Sincerely,

Richard Cloues

Richard Cloues
Deputy State Historic Preservation Officer

RC:drm

cc: Tripp Reid, State Clearinghouse
Kirk Schlemmer, Coastal Georgia RDC

RESPONSE -- GA Department of Natural Resources,
Historic Preservation Division,
January 19, 1995.

SUGGESTED ADDITIONS TO MANAGEMENT PLAN:

1. MAP. An overall site map has been added.

2. BIBLIOGRAPHY. A bibliography has been added.

Georgia Department of Natural Resources
One Conservation Way, Brunswick, Georgia 31523-8600
Joe D. Tanner, Commissioner
Duane Harris, Director
Coastal Resources Division
912/264-7218
FAX 912/262-3143

January 31, 1995

William Bailey
US Army Engineer District, Savannah
P. O. Box 889, ATTN: CESAS-PD-EI
Savannah, GA 31402-0889

Dear Mr. Bailey:

Coastal Resources Division has reviewed the Savannah Harbor Long Term Management Strategy Study (LTMS). In addition, I asked staff of the Wildlife Resources Division's Non-Game Program to review the LTMS.

We support the conclusion of the LTMS in that alternative 8 is the best solution to long range management of the harbor. This provides the flexibility needed to maximize the use of disposal areas while providing maximum protection of the natural resources. The Division stands ready to assist the Corps with projects to be implemented under this alternative.

Georgia is developing a Coastal Management Plan under authority of the Federal Coastal Zone Management Act. This plan is expected to be adopted by early 1997 and, as you state in the LTMS, will have similar policies to the South Carolina Coastal Management Plan. Any federal activity associated with the Savannah Harbor would be reviewed for consistency with the Georgia plan. Alternative 8 provides the flexibility to meet this consistency test.

If you require further information please contact me. Thank you for the opportunity to review this important study.

Sincerely,

Stuart Stevens

Dr. Stuart A. Stevens, Chief
Ecological Services and
Research Coordinator SINERR

cc: Duane Harris
Mike Harris, Non-Game Program
Tiffany Lutterman, Coastal Zone Management Program

RESPONSE -- GA Department of Natural Resources,
Coastal Resources Division,
January 31, 1995.

No response necessary.

Savannah District hopes that the products of the Savannah Harbor LTMS Study -- the Management Plan and the EIS -- would be reviewed by the Coastal Resources Division and adopted as a Special Area Management Plan if/when the Georgia Coastal Management Program is implemented.

Georgia Department of Natural Resources
One Conservation Way, Brunswick, Georgia 31523-8600
Lonice C. Barrett, Commissioner
Duane Harris, Director
Coastal Resources Division
912/264-7218
FAX 912/262-3143

May 19, 1995

William Bailey
US Army Corps of Engineers
CESAS-PD-EI
P. O. Box 889
Savannah, GA 31402-0889

RE: Savannah Harbor LTMS Study.

Dear Mr. Bailey:

Please note my letter to you dated 31 January 1995 regarding the referenced project. After futher evaluation of the LTMS Study and the potential impacts to the environment and the local socio-econmic system, I recommend the Corps strongly consider placement of any suitable harbor dredged material onto adjacent beaches of Tybee Island. Tybee Island is suffering from beach erosion and suitable material must not be lost from the sand sharing system. Please consider the economic benefits of placement of dredged material onto Tybee's beaches similiar to the recent Savannah Harbor deepening project.

If you have questions please contact me.

Sincerely,

Stuart Stevens

Dr. Stuart A. Stevens, Chief
Ecological Services and
Research Coordinator SINERR

RESPONSE -- GA Department of Natural Resources,
Coastal Resources Division,
May 19, 1995.

ECONOMIC BENEFITS OF BEACH PLACEMENT.

During the 1993/1994 Savannah Harbor Deepening Project, beach placement was a lower cost disposal option than placement of excavated sediments at the ODMDS during the period when use of hopper dredges is excluded. To protect endangered sea turtles, maintenance dredging is performed by hopper dredges only during the winter months (December through March). If maintenance dredging is needed during other periods (April through November), some form of nearshore placement -- which includes direct beach placement -- would likely be the lowest cost disposal option for some of the Bar Channel sediments. The Draft EIS stated in Section 7.164 that "if the savings which would be experienced by the Shore Protection Project were included, the effective cost of placement directly on Tybee Island would be less than the normal cost for placing channel maintenance sediments at the Savannah ODMDS and such placement would, therefore, be a wise investment."

Under current procedures, if beach placement is more expensive than the original disposal location, the incremental cost of beach placement would be cost shared between the Corps and the local sponsor of the Shore Protection Project at the rate specified for the Shore Protection Project. The District could pursue such placement any time the maintenance material is determined to be of sufficient quality, the local sponsor for the Shore Protection Project requests such beneficial placement, and both the sponsor and the Corps can obtain funds to finance the incremental costs.

Georgia Department of Natural Resources

205 Butler Street, S.E., Suite 1152 East Floyd Tower, Atlanta, Georgia 30334

Lonice C. Barrett, Commissioner
Harold F. Reheis, Director
David Word, Assistant Director
Environmental Protection Div
404/656-4

September 5, 1995

Colonel Grant W. Smith
Savannah District, Corps of Engineers
P. O. Box 889
Savannah, Georgia 31402-0889

RE: Water Quality Certification
Public Notice DRAFT EIS
Long Term Management Strategy
Savannah Harbor - Chatham County

Dear Colonel Smith:

Pursuant to Section 401 of the Federal Clean Water Act, the State of Georgia issues this certification to the Savannah District, Corps of Engineers, an applicant for a Federal permit or license to conduct an activity in, on or adjacent to the waters of the State of Georgia.

The State of Georgia certifies that there is no applicable provision of Section 301; no limitation under Section 302; no standard under Section 306; and no standard under Section 307, for the applicant's activity. The State of Georgia certifies that the applicant's activity will comply with all applicable provisions of Section 303.

This certification is contingent upon the following conditions:

1. All work performed during construction will be done in a manner so as not to violate applicable water quality standards.

2. No oils, grease, materials or other pollutants will be discharged from the construction activities which reach public waters.

3. No dredging will be conducted during the striped bass spawning period from March 16 to May 31.

4. Prior to initiation of dredging activity between July 1 and September 30, the applicant must establish the following procedures. Dissolved oxygen levels in the Savannah River will be obtained within 24 hours prior to the initiation of dredging. Three sampling locations will be established in the Savannah River to determine existing conditions. These sampling locations will be placed: 1) 1,000 feet upstream from the site of the dredging activity; 2) 1,000 feet downstream from the site of dredging activity; and 3) adjacent to the proposed dredging activity. All locations will be approximately at the mid-channel centerline. At each sample location, three depths will be sampled during low slack water or high slack water, when possible, as follows: 1) one meter below the surface; 2) one meter above a hard bottom or 2-3 meters above an indeterminate bottom; and, 3) at mid-depth. If dissolved oxygen levels are less than 4.0 mg/l at depths of one meter above a hard bottom or 2-3 meters above a soft or indeterminate bottom at any of the three established monitoring stations, dredging will not be permitted.

Monitoring of the dredging activity will consist of the same sampling regime to be conducted daily within 4 hours of the commencement of dredging, but no earlier than 2 hours after the commencement of dredging. If dissolved oxygen levels fall below 3.0 mg/l at depths of one meter above a hard bottom or 2-3 meters above a soft or indeterminate bottom at any station, dredging will be suspended until dissolved oxygen levels are 4.0 mg/l or greater. Results of this monitoring must be submitted to the Georgia Environmental Protection Division, the Georgia Wildlife Resources Division, and the Georgia Coastal Resources Division within 30 days of the completion of each dredging operation. If the applicant does not maintain a satisfactory record of compliance with these conditions, the Georgia Environmental Protection Division may prohibit all dredging during the period of July 1 to September 30 upon written notice to the applicant.

5. Dredging should be conducted during December through March. These are the times when sea turtles are least abundant in the area of the Savannah Ship Channel. Dredging should not be conducted outside these months without implementation of a conservation plan approved by Georgia Department of Natural Resources. This plan should include trawling to remove turtles from the path of the dredge.

6. During December through March, dredge and support vessel speeds should be limited to less than 5 knots during nighttime operations. A trained whale observer should be on watch during daylight hours. If daily aerial surveys are conducted for right whales, the nighttime vessel speed limitation would only need to be enforced when a whale was spotted within 15 miles of the project area during the previous daily survey.

It is your responsibility to submit this certification to the appropriate Federal agency.

Sincerely,

Harold F. Reheis
Director

HFR:kpr
cc: Mr. Nick Ogden
Dr. Stuart Stevens
Mr. Thomas Welborn
Mr. Mike Gennings

RESPONSE -- GA Department of Natural Resources,
Environmental Protection Division,
September 5, 1995.

WATER QUALITY CERTIFICATION.

This letter provides Water Quality Certification from the State of Georgia for the Savannah Harbor LTMS. Savannah District has requested clarification on conditions 4, 5 and 6.

Georgia Department of Natural Resources

205 Butler Street, S.E., Suite 1152 East Floyd Tower, Atlanta, Georgia 30334
Lonice C. Barrett, Commissioner
Harold F. Reheis, Director
David Word, Assistant Director
Environmental Protection Division
404/656-4713

February 6, 1996

Colonel Grant W. Smith
Savannah District Corps of Engineers
P.O.Box 889
Savannah, Georgia 31402-0889
Attn: Mr. Bill Bailey

Re: Modification - Water Quality Certification
Public Notice DRAFT EIS
Long Term Management Strategy
Savannah Harbor - Chatham County

Dear Colonel Smith:

The Georgia Environmental Protection Division (EPD) issued Water Quality Certification under Section 401 of the Federal Clean Water to the above referenced project on September 5, 1995. The State intends to modify the certification to wit:

Condition 5 shall be struck and replaced to read:

5. Dredging should be conducted December through March. These are the times when sea turtles are least abundant in the area of the Savannah Ship Channel. Dredging outside these months should be coordinated with the Georgia Department of Natural Resources (DNR) Nongame Wildlife Program. Dredging in May will require the implementation of a conservation plan approved by the Georgia DNR. This plan should include trawling to remove turtles from the path of the dredge.

Condition 6 shall be struck and replaced with:

6. During December through March, dredge and support vessels should have a trained whale observer on watch during daylight hours. At night, or when visibility is reduced by fog or sea states greater than Beaufort 3, dredges must slow to 5 knots or less if whales have been spotted within 15 nm of the vessel's path within the previous 48 hours. Normal operational speeds can be resumed after 48 hours if visibility has not improved and no whales have been observed by dredge observers. These procedures are consistent with the "Recommended Safe Operating Procedures for Large Vessels Transiting the Right Whale Calving Area Critical Habitat Off Georgia and Florida During March-December" that have been developed by the Southeastern U.S. Implementation Team for the Recovery of the Northern Right Whale.

These changes update the Water Quality Certification conditions to reflect the best information available on turtles and right whales. It is your responsibility to submit these modifications to the appropriate Federal agencies.

Sincerely,

Keith A. Parsons
Environmental Specialist

KP/

cc: Mr. Thomas Welborn
Dr. Stuart Stevens
Mr. Mike Gennings

RESPONSE -- GA Department of Natural Resources,
Environmental Protection Division,
February 6, 1996.

MODIFICATIONS TO WATER QUALITY CERTIFICATION.

Savannah District agrees to abide by the modifications to conditions 5 and 6 contained in this letter. Subsequent discussions with GA DNR staff reveal that the dredging to which these conditions apply is hopper dredging.

Georgia Department of Natural Resources
205 Butler Street, S.E., Suite 1152 East Floyd Tower, Atlanta, Georgia 30334
Lonice C. Barrett, Commissioner
Harold F. Reheis, Director
David Word, Assistant Director
Environmental Protection Di
404/656-[illegible]

February 28, 1996

Colonel Grant W. Smith
Savannah District Corps of Engineers
P.O. Box 889
Savannah, Georgia 31402-0889

Attn: Mr. Bill Bailey

Re: Modification - Water Quality Certification
Public Notice-DRAFT EIS
Long Term Management Strategy
Savannah Harbor - Chatham County

Dear Colonel Smith:

The Georgia Environmental Protection Division (EPD) issued Water Quality Certification under Section 401 of the Federal Clean Water Act for the above referenced project on September 5, 1995. The EPD intends to modify the certification to wit:

Condition 4 will be struck and replaced to read:

4. Prior to the initiation of dredging activity between July 1 and September 30 the dredge operator must establish the following procedures. Dissolved oxygen levels in the Savannah River contiguous with the immediate dredging activity will be determined at a depth of one meter above a hard bottom or 2-3 meters above a indeterminate bottom. This determination must be made within 24 hours prior to the commencement of dredging activity. If dissolved oxygen levels are less than 3.0 mg/l dredging activity will not be permitted.

   Monitoring of the dredging activity will be conducted within 4 hours of the commencement of dredging, but no earlier than 2 hours after the commencement of dredging. In the event of 24 hour operation (around the clock) of the dredge, dissolved oxygen will be determined daily. The monitoring station will be located at mid-channel, 500 ft. downstream of the ongoing dredging activity. Dissolved oxygen levels will be determined at a depth of one meter above a hard bottom or 2-3 meters above an indeterminate bottom. If dissolved oxygen level fall below 3.0 mg/l dredging will be suspended until dissolved oxygen levels are 3.0 mg/l or greater.

Results of the monitoring must be submitted to the Georgia Environmental Protection Division, the Georgia Wildlife Resource Division, and the Georgia Coastal Resources Division within 30 days of the completion of each dredging operation. Failure to maintain satisfactory compliance with these conditions may result in the prohibition of dredging operations in the Savannah River Harbor during the period of July 1 through September 30 upon written notice to the applicant.

These changes update the Water Quality Certification conditions to reflect the best information available on dissolved oxygen dynamics in the Savannah River Harbor. It is your responsibility to submit these modification to the appropriate Federal agencies.

Sincerely,

Keith A. Parsons
Environmental Specialist

KP/

cc: Mr. Thomas Welborn
Mr. Mike Gennings
Dr. Stuart Stevens

RESPONSE -- GA Department of Natural Resources,
Environmental Protection Division,
February 28, 1996.

MODIFICATIONS TO WATER QUALITY CERTIFICATION.

Savannah District agrees to abide by the modifications to conditions 4 contained in this letter. The District wrote GA DNR requesting further refinement of this condition. The Corps believes that since previous monitoring data revealed that on average, hydraulic cutterhead dredges working in the channel had no discernible adverse impact on dissolved oxygen in the river, weekly monitoring until dissolved oxygen levels reach 3.5 mg/l -- rather than daily -- would be sufficient to protect aquatic resources. The District proposed weekly monitoring as long as river bottom dissolved oxygen levels exceeded 3.5 mg/l. Daily monitoring would be performed when river bottom dissolved oxygen levels dropped below 3.5 mg/l. GA DNR responded by stating that although the historic data does appear to support the Corps' position on minimal impact to riverine dissolved oxygen, that data is based on dredging which occurred in only a single calendar year. Therefore, the GA DNR would continue to require daily monitoring until a more comprehensive historic database was developed.

WAYNE SHACKELFORD
COMMISSIONER

FRANK DANCHETZ
CHIEF ENGINEER

Department of Transportation

State of Georgia
#2 Capitol Square, S.W.
Atlanta, Georgia 30334-1002

G. CHARLES LEWIS
DEPUTY COMMISSIONER

ARTHUR A. VAUGHN
TREASURER

December 19, 1994

Mr. William Bailey
U.S. Army Corps of Engineers
P. O. Box 889
Savannah, GA 31402

Dear Mr. Bailey:

My office has reviewed the Draft Environmental Impact Statement for the Savannah Harbor Long Term Management Strategy Study. The document appears to follow the outline the Corps initiated 2 years ago which we were allowed to participate in.

The management strategy recommended in the report should improve the long term environmental impact of harbor activities due to the potentially extended useful life of the disposal areas and reduced frequency of maintenance dredging. We support this strategy and the projects associated with it.

Our review of the document resulted in the following comments:

1. Page 16; Section 2.22. Ga. DOT owns approximately 60% of the acres in the disposal areas. DOT is not the sole "owner/operator of confined . ..".

2. Page 29; Section 3.20. A berthing area is defined as "the area between a dock and the navigation channel". This can be a large area if the docks are distant from the navigation channel. Is the definition accurate?

3. Page 79; Section 5.49. It is stated that the throat to the sediment basin would not be modified. It is our understanding that a clean deep throat is a main criteria to an efficient sediment trap. To deepen the basin and not the throat would not be as beneficial as deepening both. Also a more efficient basin reduces dredging in the main channel and berths therefore reducing agitation dredging frequency.

4. Page 97; Table 6.
   a) Should the 233,000 for 2A* be 244,000?
   b) The total of the volumes (accounting for use of one area in each pair or group) is 8,666,000. This exceeds the 7.2 million referenced in section 4.14 as the volume to be used throughout the 20 year period of analysis.
   c) Area 2A may not be available for the annual 233,000 cubic yards due to the inability to separate the sand shoals from the silt shoals during dredging.

5. Page 98; Section 5.72. There needs to be a continued effort of partnership between the sponsor and the Corps. The harbor is dynamic and can be unpredictable at times; emergencies can happen. Some flexibility needs to be incorporated so neither the Corps nor the Sponsor has to suffer needlessly.

   There should be an annual meeting where the Corps and sponsor discuss the upcoming needs and discuss the dredging plans, dike raising plans and bird use plans.

6. Page 187; Section 7.95 A. The sponsor may choose to reclear the 26 acre site as opposed to pay incremental dredging costs, depending on which is cheapest to maintain the site.

7. Page 193; Table 14. It appears there may be some minor arithmatical errors. Are these due to rounding?

8. Page 206; Section 7.127. The sponsor will need adequate time to obtain funds for maintenance of the island.

9. Appendix A; page 9; Section A.5.11. We support speed limits of ships to reduce the erosive effects of their wakes on the dikes.

10. Appendix A; page 13; Section A.5.24 and page 15; Section A.5.35. DOT does not allow any persons on DOT property unless they are government employees or contractors, on official business associated with harbor dredging/disposal activities. Since DOT owns most of Area 12A and the general public is not allowed to cross DOT property, the fishermen and birdwatchers do not have land access to the disposal areas on the S. C. side.

11. Appendix C; page 6; Section C.2.19; and page 14; Section C.2.59. Both sections indicate there will be dike ramp construction. This does not agree with Section 7.102, page 196 of the main report.

12. Appendix F; Section F.3.08. The underdrains have been closed in 12"B", not 12"A".

Please accept these comments in the spirit of parterning as they are offered to strengthen the document. If you have any questions please call John Phillips at (404) 651-9213.

Sincerely,

Luke Cousins, Administrator
Office of Intermodal Programs

LC:JP:jsd

cc: George Lyons
David Studstill

RESPONSE -- GA Department of Transportation,
Office of Intermodal Programs,
December 19, 1994.

1. Page 16; Section 2.22. Concur.

2. Page 29; Section 3.20. A berthing area is defined as "the area between a dock and the navigation channel" since the total area is needed to safely berth and moor a vessel at the dock.

3. Page 79; Section 5.49 - Sediment Basin Throat. The proposed design, with the throat shallower than the basin, is not intended to trap additional heavy sediments which are transported along the floor of the channel. The increase in sediment trapping efficiency would result from the basin's improved retention and additional storage of finer-grained particles which are suspended higher in the water column.

4. Page 97; Table 6.
   a) The 233,000 cubic yards is correct. This volume reflects the bulking which would occur during an excavation process.
   b) This volume represents deposition volumes, rather than dredging or in-place volumes. The larger quantity reflects the bulking which would occur during an excavation process.
   c) The engineering calculations are approximate and assume that Disposal Area 2A would receive 233,000 cubic yards on an average annual basis.

5. Page 98; Section 5.72. Continued coordination between the sponsor and the Corps is encouraged as it should increase the effectiveness and efficiency of harbor decision-making and management operations. An annual meeting between these two parties may be appropriate. However, specification of the form or times of coordination are not necessary in an EIS as they would not guarantee any level of environmental impact.

6. Page 187; Section 7.95 A. Maintenance of the upland nesting area may be accomplished by either placement of additional dredged material or removing existing vegetation.

7. Page 193; Table 14. This table has been revised,

8. Page 206; Section 7.127. The sponsor will be periodically made aware of the size of the island so that it can schedule funding for maintenance of the island.

9. Appendix A; page 9; Section A.5.11. Limits on vessel speeds are beyond the authority of the Corps of Engineers to implement.

10. Appendix A; page 13; Section A.5.24 and page 15; Section A.5.35. The actions included in Appendix A are not necessarily proposed for implementation, but were included only for information and background purposes.

11. Appendix C; page 6; Section C.2.19; and page 14; Section C.2.59. Concur. Revisions have been made to include dike ramp construction.

12. Appendix F; Section F.3.08. Concur. Revisions have been made.

Georgia Ports Authority

P.O. Box 2406, Savannah, Georgia 31402
(912)964-3811

February 27, 1995

Mr. William Bailey
Planning Division
Savannah District
U.S. Army Corps of Engineers
P O Box 889
Savannah, GA 31402-0889

Re: Draft Environmental Impact Statement (EIS) for the Savannah Harbor Long Term Management Strategy (LTMS)

Dear Mr. Bailey:

Receipt is acknowledged of the Draft EIS for the LTMS and submit our comments as follows:

As previously advised, the release of this Draft Environmental Impact Statement (EIS) is premature and should be tabled until completion of the Long Term Management Strategy (LTMS). The Draft EIS may be addressing issues and concerns that may not be incorporated into the LTMS.

There is a need for 14A to be an effective disposal area. To expedite this work, the Draft EIS could easily be rewritten to cover the diking and other work necessary to make 14A a suitable disposal area.

The cost and effectiveness of alternating the use of disposal sites is questionable. This could become extremely costly to the private users in their dredging operations; extra pipe, extra pumping, etc. Also, testing requirements are not fully defined for non-federal dredging. There are no actions proposed if material is found not in compliance with specifications.

Adding the dredging of berths to the annual maintenance dredging of the harbor is proposed. Even with the proposed 4' over depth of the berths, annual dredging may be insufficient to maintain adequate depths. The changes in the river associated with the closing of new cut, opening of the tide gates, widening and deepening of the channel have not yet been fully realized. Dragging between annual dredging by the Corps may be inadequate to maintain the depths. However, agitation dredging must continue to be protected. Users of the channel should be assured that non-federal hydraulic dredging is protected. We also question if maintenance of the harbor and private berths can be accomplished within the limited time span now imposed by environmental restrictions and issues. Hydraulic dredging of the berths could be impractical, if not impossible, to accomplish on an annual basis given a limited number of suitable dredges, or a single dredge.

The Draft EIS states that the dredging of the berths would be bid as a separate cost item. This could result in higher costs for the dredging of the berths relative to the per yard cost for channel dredging. You would select a contractor which provided the overall lowest cost for the project, not necessarily the lowest berth dredging cost to the private owners. Some method of allowing private owners to participate in the final contract award decision should be made.

The Draft EIS states that testing will be accomplished by the Corps for berths which are deepened. It is not clear what responsibility for testing private owners have if deepening does not take place at their berth. Further, depths of berths are proposed to be increased to 4' below the adjacent channel depth. This will have to be coordinated with the Corps to maintain the structural stability of the dock. A definitive plan from the Corps should be established and reviewed.

The project sponsor or private dock owners are responsible for dredging between the Corps annual maintenance dredging. Separate permits would be required for this operation. Permitting of hydraulic dredging could become almost impossible due to the rotation of dredge disposal areas and the increased emphasis on maintaining the capacity or the existing disposal areas. A partial solution would be that the Corps dispose of all material practical in off-shore disposals, such as the berms proposed off Tybee and the off-shore disposal area. This would maintain more volume within the upland dredge disposal areas. It is noted that there are no proposals contained in the draft EIS to locate and establish new dredge disposal sites. However a more complete analysis of long term capacity requirements should be accomplished.

Actions are presently in effect to minimize the environmental impact of maintaining the harbor. These actions have proven most effective. However, the draft EIS gives further alternatives such as, further restrictions when dredging can be performed, disallowing the use of hopper dredges, further restrictions on dredge operating speeds, disallowing dredging completely during summer months, reducing speed of vessels, etc. These alternatives need to more comprehensively analyzed before being addressed in an EIS

Regarding the right whale, the Georgia Ports Authority is a member of the implementation team for the recovery of this species. Successful actions as to sightings, avoidance, etc. are in effect. We do wish to point out that Savannah's harbor is not located within the critical habitat of this mammal

To conclude, it is recommended that the LTMS be more completely developed and a final EIS reflect factual information and define strategies for maintaining the Savannah Harbor Project. Further, the LTMS should document environmental resource agency approval of the management strategy with agreements in place to ensure the appropriate dredging permits can be secured by the Corps, Public and Private Terminals.

We would be very happy to discuss these issues further and look forward to hearing from you.

Sincerely,

Charles

Charles F. Griffen, P.E.
Director of Port Planning &
Harbor Development

MH/cv
cc: Mr. Doug Marchand
Mr. B. Richard Field
Mr. Jim Bradshaw

RESPONSE -- Georgia Ports Authority,
February 27, 1995.

TIMING AND CONTENTS OF DRAFT EIS. The Draft EIS was prepared in consort with the LTMS Management Plan. No items were included in the Draft EIS that were not in the Management Plan. The Management Plan includes environmental considerations as an integral component of harbor operations. A delay in releasing the Draft EIS for public and agency comment until after completion of the Management Plan could have seriously compromised the integration of environmental considerations into the other engineering and economic considerations.

REWRITING THE EIS. The LTMS was designed to be a comprehensive review of harbor operations. Separating the diking and use of Disposal Area 14A would have undermined the broad and comprehensive view of harbor operations which the LTMS was intended to provide.

ALTERNATING USE OF CDFS. Although alternating use of confined disposal areas would increase the cost of some individual disposal operations, the total long term cost of disposal operations and disposal area management would be reduced.

SEDIMENT QUALITY. Precise actions cannot be specified at this time for materials which may not comply with sediment criteria. The nature and extent of non-compliance will determine what actions are appropriate for that particular material.

BERTH DREDGING. Excavation of berth sediments by dock owners using hydraulic cutterhead dredges with subsequent placement of excavated sediments in confined disposal facilities is included in the Base Plan (Federal Standard) for the harbor. This means that the environmnetal aspects of such excavation and deposition has been evaluated, received public review and comment, and obtained the acceptance of regulatory agencies. When dock owners desire to implement that feature, Savannah District would be able to conduct an expedited permit application review process as long as the proposal follows the procedures described in the EIS. Since the total annual volume of harbor sediment is relatively constant, placement of berth sediments directly into confined disposal facilities should improve the Corps' ability to maintain authorized depths in the navigation channel. The multiple bidders which have typically responded to proposed maintenance dredging contracts indicates that there is currently no shortage of equipment available to perform this work. The District does not believe that the availability of hydraulic dredges will be a constraint to effective maintenance of the harbor.

COST OF BERTH DREDGING. The Corps cannot allow private dock owners to influence the final contract award decision. The award decision must follow procedures established prior to advertisement to ensure fairness to all parties who bid on the work. Discussions can continue on the evaluation criteria until work is advertised.

TESTING OF BERTH SEDIMENTS. If the berths are not used for off-channel storage for the Federal Navigation Project, the berth owners would have to complete a sediment testing program designed by the Corps prior to excavation and deposition of those sediments in a confined disposal facility under the auspices of this EIS.

DEEPENING OF BERTHS. Individual dock owners who desire to deepen their berths would receive an expedited permit application review if they propose to follow the procedures described in this EIS. That procedure includes the use of hydraulic cutterhead dredges to excavate the sediments, direct deposition of the new work and maintenance sediments in confined disposal areas, and fulfillment of the environmental criteria operative upon the Corps as a result of this EIS. Dock owners which choose to implement that alternative would be responsible for all costs associated from such implementation.

DISPOSAL SITE CAPACITY. With implementation of rotational use of the disposal areas, including the use of Disposal Area 14A, placement of berth sediments into a CDF is expected to become much easier. The District would follow an expedited permit application review procedure on proposals for hydraulic dredging of berths when the sediments are placed in CDFs. The engineering analyses performed during the LTMS determined that sufficient capacity is present at the existing CDFs, when Disposal Area 14A and dike raising are included, to contain all sediments from the inner harbor for the 20-year project life.

ADDITIONAL ALTERNATIVES. Appendix A - RESOURCE MANAGEMENT MEASURES AVAILABLE lists actions which could be taken if certain goals were established for the harbor. Many agencies and individuals have interests in the operation of Savannah Harbor. The goals of those groups are not the same, and in some cases conflict with the goals of others. The actions were included in that Appendix to describe the range of actions available to accomplish different goals and were listed without analysis of impacts which their implementation may have on other goals. The listing of an action was not intended to indicate support for that action by the Corps.

RIGHT WHALE. Appendix B, BIOLOGICAL ASSESSMENT OF THREATENED AND ENDANGERED SPECIES, has been revised to state that Savannah Harbor is not located within the critical habitat for this species.

FINAL EIS. The Final EIS does document environmental resource agency approval of the EIS and its various components.

The Georgia Conservancy

COASTAL OFFICE: 711 Sandtown Road, Savannah, Georgia 31410 • 912-897-6462 • Fax: 912-89[illegible]470

March 3, 1995

Col. Wayne W. Boy
District Commander
U.S. Army Corps of Engineers
P.O. Box 889
Savannah, GA 31402-0889

Dear Col. Boy:

Reference: Draft Environmental Impact Statement (EIS) for the Savannah Harbor Long Term Management Strategy (LTMS) Study

As determined in the above referenced Draft EIS and announced in the Joint Public Notice the Savannah District, U.S. Army Corps of Engineers proposes to discharge fill into navigable waters of the U.S. for diking Disposal Area 14A, construction of an access road, replacing weirs and pipe ramps. The Corps also proposes to continue discharging weir effluent from confined disposal areas into waters of the U.S., and transport dredged material from the bar channel for placement in the ocean during maintenance operations of the Savannah Harbor Navigation Project, located in Chatham County, Georgia, and Jasper County, South Carolina.

The Georgia Conservancy is a nonprofit organization of almost 10,000 people dedicated to the responsible stewardship of Georgia's vital natural resources. We strive to balance the demands of social and economic progress with our commitment to protect the environment. We appreciate the opportunity to provide the following comments.

1. Generally, The Conservancy supports the preferred alternative (Alternative 8). The Draft EIS is thorough and seems to address all pertinent issues that impact the environment. In addition, we believe that the EIS goes beyond the usual scope of work to suggest solutions to some long-standing issues.

2. The Conservancy supports the proposal to annually excavate and deepen berthing areas for off-channel storage of sediments. While the proposed alternative does not completely eliminate the practice of agitation dredging, it will have the beneficial effect of reducing that practice, thus, minimizing the negative impacts on the estuarine environment.

3. The Savannah District is funding a three-year study of striped bass in the Savannah Harbor. Deepening of the Sediment Basin should be delayed until the results of the striped bass study can be evaluated in terms of the role the Back River plays in restoration of that population.

4. We understand the proposed mitigation plan for loss of wetlands in Area 14A to be replacement of wildlife habitat function through manipulation of water levels within the disposal areas for maximum wildlife benefits, construction of a bird nesting island and construction of bird nesting mounds. The Georgia Conservancy supports the mitigation plan. However, alternative plans, such as acquisition and protection of Mulberry Grove Plantation by purchase and transfer to the U.S. Fish & Wildlife Service, should be considered. Protected as part of the Savannah National Wildlife Refuge Mulberry Grove would provide significant value as wildlife habitat to offset the losses in disposal area 14A. We request that this alternative be included in the EIS.

5. If the proposed mitigation plan for wetlands loss in Area 14A proceeds in the direction of managed and created nesting areas, a management strategy must be developed with the U.S. Fish & Wildlife Service in order to provide perpetual protection for the nesting areas.

6. Due to the rapid decline in nesting habitat for shorebirds, priority should be given to the use of dredged material for the creation of nesting areas prior to the use of materials for beach renourishment. This should be clarified in Alternative 8.

7. All sediment materials from the channel, berthing areas or other sediment basins should be tested for contaminants. Particularly those materials that will be utilized in areas where bird nesting will or does occur. This should be clarified in Alternative 8.

8. The Georgia Conservancy also believes that there is still a need to test the existing sediments in the disposal areas for contaminants. The fact that levels of arsenic were detected in underdrain discharges from two disposal sites suggests the potential for other contaminants in those sediments and potential leaching.

Thank you for your consideration of these comments.

Sincerely,

Rebecca R. Shortland
Vice President for Coastal Programs

RESPONSE -- The Georgia Conservancy,
March 3, 1995.

AGITATION DREDGING. Concur. Some of the proposed sediment control features, particularly hydraulic dredging of berths with direct deposition of excavated sediments in confined disposal areas, and deepening of berthing areas should reduce the need for agitation dredging, thereby minimizing negative impacts on the estuarine environment.

DEEPENING OF THE SEDIMENT BASIN. Deepening of the Sediment Basin was deferred until the foundational 3-years of the Corps striped bass studies were completed. Based on physical restrictions at the site, the proposed advance maintenance deepening of the Sediment Basin is not expected to adversely affect striped bass using Back River. Therefore, the District believes that an evaluation of potential environmental impacts of the proposed Sediment Basin deepening would not be substantively altered by waiting for the results of the extended striped bass study and that delaying until ongoing or yet-to-be-initiated studies concerning the disposition of the Tidegate structure are completed is not warranted.

MITIGATION PLAN. The District agrees that Mulberry Grove provides significant value as wildlife habitat. However, when the District initiated efforts to design a mitigation plan based on habitat values, state and Federal resource agencies agreed that there was a critical need for migratory and shorebird habitat in this region and that efforts should center around developing habitats for those species. The Mulberry Grove site does not provide a sufficient amount of such habitat. In addition, the present owner of the Mulberry Grove has long-term development plans for the site and would not voluntarily provide the site for use as a mitigation site.

MANAGEMENT STRATEGY. The Draft EIS contained a management strategy which includes management of water levels within the confined disposal areas and providing certain habitat features. That management strategy remains essentially the same in the Final EIS. The District does not believe that an additional management strategy developed with the FWS is needed.

BENEFICIAL USE OF DREDGED MATERIAL. An evaluation is made prior to each dredging contract to determine the best location for disposal of the sediments. Three steps are generally followed in this evaluation:

(1) Identify a need for dredged sediments,
(2) Evaluate the suitability of the specific sediments to be dredged for that need,
(3) Identify sources and obtain funding for incremental costs.

The District does not anticipate conflicts to commonly occur when multiple uses for sediments obtained during a particular contract would successfully complete each of the steps listed above.

TESTING OF SEDIMENTS. A review of the quality of river sediments was documented in Appendix F SEDIMENT QUALITY EVALUATION. That evaluation concluded that the harbor sediments reflect soils of the region, as no chemical parameters within the average harbor sediments exceed values recorded in naturally-occurring soils in Georgia and the southeastern US. The District agrees that before disposal into the Project's confined disposal facilities occurs from a site that has not undergone a previous sediment evaluation by the District, both new work and maintenance sediments from that site would be evaluated.

TESTING OF DISPOSAL AREA SEDIMENTS. The District has agreed to test sediments in the confined disposal areas which will be used in the rotational program to ensure that increased use of the sites by migratory birds would not result in adverse impacts to those species.

Ogeechee Audubon Society

Ogeechee Audubon Society
4405 Paulsen Street
Savannah, GA 31405

October 25, 1995

Richard A. Hill,
Acting Chief, Planning Division,
Savannah District, Corps of Engineers,
P. O. Box 889,
Savannah, Ga 31402-0889.

Dear Mr. Hill:

Thank you for your letter dated December 2, 1994 enclosing a copy of the Draft Environmental Impact Statement for the LTMS Study for the Savannah Harbor Navigation Project.

Due to this document being mislaid in the Science Museum mail area (despite its size), we did not receive it until October 17 last. Although we appear to have passed the deadline for comments we would appreciate your keeping us informed of future developments which may have environmental impact.

Sincerely,

John R. H. Stafford,
President, Ogeechee Audubon Society

PS. I understand that the Sierra Club had the same experience with their copy.

RESPONSE -- Ogeechee Audubon Society,
October 25, 1995.

No comment necessary.

SAFE BERTH MAINTENANCE, INC.
ENVIRONMENTALLY SOUND SEDIMENT RECOVERY SYSTEMS

January 17, 1995

Mr. M. J. Yuschishin
Chief, Planning Division
Department of the Army
Savannah District, COE
P.O. Box 889
Savannah, Georgia 31402-0889

Dear Mr. Yuschishin:

I appreciated the opportunity to review the draft LTMS for the Savannah Harbor Navigation Project. It contains a great deal of information that is well developed. I commend the preparers for a job well done. This step towards achieving a management plan to secure the long term operational needs for the Savannah Harbor is important for the City of Savannah, the State of Georgia, as well as the Nation as a whole.

I support your conclusion to use Alternate 8 as the best suited plan for achieving both the NED, EQ and LED. However, the proposal to maintain the adequate depths in the berthing areas through annual channel maintenance may not be realistic. First, the current data supplied by the O&M Division clearly illustrates our collective ignorance as to where the shoaling is occurring. Secondly, we do not know what the shoaling rates are. Therefore, the spirit of maintaining the berthing areas through the use of the annual maintenance cycles may mislead both the environmental and terminal operator communities.

Your draft LTMS failed to point out the Terminal Management Corporation Agitation Study was the "preferred" method for agitation dredging (3.22 of Summary Section). This statement was made in review of the two agitation studies by both the State of Georgia DOT and DNR . I suggest this method be preferred as an alternate to perform maintenance dredging in the event the annual upland system fails to maintain the required deep drafts in the berthing areas. This method was proven to be more efficient and less environmentally damaging than the I-beam method in moving sediment away from berths. This will be necessary since not all docks in the Savannah Harbor are capable of allowing the water at the face of their docks to be deepened to the projected over-dredge or project depths. This is due to lack of engineering data to confirm existing dock piling depths. We must also look at the coordination requirements that will be necessary to review the existing soil sediment analysis and berth utilization.

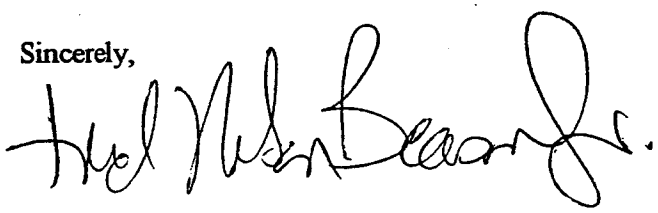
P.O. BOX 2253 * SAVANNAH, GEORGIA 31402 * (912)236-1865 * FAX: (912)238-5524

I would like to focus on Section 3.04 of the Summary and clarify that non-GPA docks also can and do serve any individual or company which has an agreement with the vessel to transport its goods in the Savannah Harbor. The non-GPA docks are responsible for 45 to 50% of the annual income for services for the Savannah Harbor. The non-GPA docks are a significant portion of the active berthing facilities in the Savannah Harbor.

Southern Bulk Industries located at Mile 18 on the Savannah Harbor is one of the few dock owners mentioned in Section 3.23 of the LTMS Summary (page 31) who does have a permitted upland disposal site for dredged material. This site is small (less than 30 acres) and has a finite life as well as restricted availability for other users.

The summary is Section 4 is correct that ocean carriers and railroads compete aggressively and seek the most efficient ports to conduct their business. However, it is not just port authorities but all port users (including port authority, private and public operators) goal to provide better harbor services to accommodate and attract customers.

Sincerely,



Fred N. Beason, Jr.
Vice President

FNBjr:efa

RESPONSE -- Safe Berth Maintenance, Inc.,
January 17, 1995.

DREDGING OF BERTHING AREAS. The use of a hydraulic cutterhead dredge with direct deposition of the excavated sediments in a confined disposal area is an efficient and effective method of removing sediments which have deposited in berths. Use of the Corps' contracted hydraulic dredge would be efficient from a dock owner's perspective. However, temporary release of the Corps-contracted would only be feasible when the berth dredging would not impact the scheduled completion of the Corps' previously contracted work. The District concurs that annual dredging of berths would be insufficient to maintain depths in most berths for the entire year. The Draft EIS stated this position. Coordination with resource agencies reveals they are aware of that situation.

PREFERRED METHOD OF BERTH DREDGING. The EIS states that removal of sediments from berths through the use of a hydraulic dredge, with placement of the dredged sediments in confined disposal facilities, is the preferred method since it would minimize adverse environmental impacts.

SEDIMENT ANALYSIS. There are no specific coordination requirements for either the sediment analysis or berth utilization review which the District would perform.

USE OF PRIVATE DOCKS. Concur. Section 3.04 has been revised.

PORT COMPETITION. Concur. Section 4.03 has been revised.

COLONIAL TERMINALS, INC.

NORTH LATHROP AVENUE
POST OFFICE BOX 576
SAVANNAH, GEORGIA 31402-0576

PHONE 912-236-1331

TELEX 80-4729
FAX 912-235-3873

January 23, 1995

Myron J. Yuschishin, Chief
Planning Division
U.S. Army Corps of Engineers
Savannah District
P. O. Box 889
Savannah, GA 31402-0889

Re: Long-term Management Strategy Study

Dear Mr. Yuschishin:

Thank you for including Colonial Terminals, Inc. in the Long-Term Management Strategy review process. Colonial's three deep water berths have become key contributors to the total intermodal operation of the Port of Savannah. Modifying present harbor management practices will help reduce the maintenance expense of the various terminal operators and improve the economic benefits they provide to the community, the state and the nation.

We agree that the "base plan," alternative 8, offers the best overall possibility for effective, efficient harbor operations. Any implemented plan, however, should afford terminal operators the ability to dredge their berths concurrently with dredging the navigational channel. Material dredged from berth areas would be placed in the disposal areas provided for channel dredging. Terminal operators must also retain the option of "agitation dredging." Documented siltation rates in the harbor are such that annual hydraulic dredging alone may not be sufficient to maintain authorized depths at the various berths. Further attention should be given to the system of fee assessment for dredging based on the redistribution of material that has been moved by agitation dredging.

The origin and ownership of silt material which is deposited at the various berths has been "cussed" and discussed for quite some time. Terminal operators have participated in several testing programs in the past and found that berth sediment is similar in composition to that found in the navigational channel. Test requirements for the various terminal berths mentioned in alternative 6 should, therefore, be no different than the test requirements for sediments of the contiguous navigation channel bottom. The listing of materials handled at the various terminals has traditionally remained proprietary and the reporting of any dredging events is required by 404 permits. Because of the closeness of the various terminals within the harbor, any sediment quality review required should consequently be performed on the harbor as a whole.

Colonial appreciates the effort of the Corps of Engineers team and their recognition of the need for a comprehensive harbor management plan. This strategy allows both the private and the public terminals equal access to the benefits of a well-managed harbor operation. Thank you again for the opportunity to comment.

Sincerely,

Andrew P. Calhoun, Jr.

APC,Jr/rbf

RESPONSE -- Colonial Terminals, Inc.,
January 23, 1995.

BASE PLAN. The Base Plan does include hydraulic dredging of berths with direct deposition of excavated sediments in confined disposal areas. This could include use of the Corps' contracted hydraulic cutterhead dredge with placement of the sediments in the Federal Project's confined disposal facilities. Use of the Corps' contracted dredge would be efficient from a dock owner's perspective. However, temporary release of the Corps-contracted would only be feasible when the berth dredging would not impact the scheduled completion of the Corps' previously contracted work. Approval from the disposal site's fee owner would have to be obtained by the dock owner prior to the deposition occurring. The District would follow an expedited permit application review procedure when dock owners desire to maintain their berths as proposed in the EIS, as long as the conditions described in the EIS are met. Terminal operators retain the option of seeking individual permits to perform agitation dredging.

BERTH SEDIMENTS. Berth sediments are generally finer-grained than that which settles in the navigation channel. Once new work and maintenance sediments from a berth are tested and found to be uncontaminated, subsequent testing would be performed in the same manner and timeframes as that for channel sediments. The Corps disagrees that the close spacing of terminals within the harbor demonstrate that any sediment quality review should be performed on the harbor as a whole. The quality of sediment in one berth is not necessarily indicative of the quality of sediments in other portions of the harbor. Variations in grain size exist between berth and channel sediments. The existence of the salinity wedge also introduces variation in sediment quality along the length of the harbor.

D.A. MISSROON
10 SOUTH LANCASTER ROAD
SAVANNAH, GA 31410

January 16, 1995

Colonel Wayne W. Boy
District Engineer
U.S. Army Engineer District, Savannah
P. O. Box 889
Savannah, GA 31402-0889

Dear Colonel Boy:

I am requesting a public hearing on the "Savannah Long Term Management Strategy (LTMS)", EIS for the following reasons.

Private properties will be contaminated, eroded, and made available for use of private birth owners.

Private industries will be given free use of property owned and maintained by the government without compensation to tax payers.

Sincerely,

David A Missroon

David A. Missroon

RESPONSE -- David A. Missroon,
January 16, 1995.

Savannah District does not believe that additional information, of which it is not already aware, would be gained through the conduct of a public hearing.

Box 372666
Satellite Beach, FL 329:
18 January 1995

Colonel Wayne N. Boy
District Engineer
U.S. Army Corps of Engineers
Savannah District
P.O. Box 889
Savannah, Georgia 31402-0889

Subj: COMMENTS ON ENVIRONMENTAL IMPACT STATEMENT
SAVANNAH HARBOR LONG TERM MANAGEMENT STRATEGY
(LTMS) STUDY

This is to oppose implementation of the referenced management strategy because it violates private property rights in several respects and fails to properly mitigate destruction of wetlands.

Allowing private companies to use the spoil areas without compensation to the underlying property owners is a clearcut violation of private property rights guaranteed by state and federal constitutions. No claims of overall economic benefit to the Port justifies giving to a private entity the use of property that was confiscated from other private individuals.

Moreover, the stated plan to dredge the private berths is a thinly disguised equivalent of the old-time practice of using public road-building equipment to maintain local big-wigs' driveways. The so-called dredging fees don't correct the situation.

The plan provides no protection to the underlying property owners from the arsenic and other pollutants known to be pumped onto their property in the spoil. In fact measures are taken to be sure that the pollutants pumped there stay there and therefore get concentrated year after year. Paragraph C.2.51 CDF Overflow Effluent states: "The normal harbor CDFs retain a very high percentage of heavy metals and other contaminants." The plan prescribes measures calculated to protect fish and birds in the marshes and rivers, but makes a toxic dump of citizens' property on which the Government has only an easement.

The plan proposes to mitigate destruction of wetlands by saying that dry land birds can use the dry disposal areas and water birds can use whatever disposal area happens to be under water from having been recently pumped on. These are the same disposal areas known to "retain a high percentage of heavy metals and other contaminants." What kind of nesting and feeding area is that? And how can the Government mitigate a new destruction with existing areas? Isn't the requirement to CREATE new mitigation areas to compensate for new destructions? Could a citizen meet his mitigation requirements by saying that mitigation land was hard to find and too expensive and the destroyed wetlands were not very good wetlands anyway? And, doesn't the Corps need whatever mitigation there is within the existing dikes to compensate for wetlands and creeks that lie under the spoil they have put there in the last 50 years?

I request that the strategy not be implemented until these deficiencies are corrected or a public hearing is held to discuss them.

Yours very truly,

Carolyn Allmon

RESPONSE -- Carolyn Allmon,
January 18, 1995.

VIOLATION OF PRIVATE PROPERTY RIGHTS. The EIS has been revised to clarify that private individuals or corporations are required to obtain the permission of a confined disposal area's fee owner, Chatham County, and the Corps before depositing sediments excavated from berths.

FEDERAL DREDGING OF BERTHING AREAS. Alternative 6 has been revised in the Final EIS and is now composed of privately contracted and funded dredging of those areas.

SEDIMENT QUALITY. The review of the quality of river sediments was documented in Appendix F SEDIMENT QUALITY EVALUATION. That evaluation concluded that the harbor sediments reflect soils of the region, as no chemical parameters within the average harbor sediments exceed values recorded in naturally-occurring soils in Georgia and the southeastern US.

MITIGATION PLAN. Savannah District will perform sediment testing on materials within the confined disposal areas to ensure that the habitat created in those areas is beneficial to wildlife. Creation of new areas is not a requirement for a beneficial or acceptable mitigation plan. All applicable Federal and state resource agencies have approved the Mitigation Plan contained in the Final EIS. Prior to this EIS, there were no requirements or commitments to operate existing confined disposal areas in a certain manner to compensate for creation of those sites.

PUBLIC HEARING. Savannah District does not believe that the proposed strategy is deficient or that additional information of which it is not already aware would be gained through the conduct of a public hearing.

W.C. SIMPSON, INC.

REAL ESTATE

EIGHTEEN BROAD STREET
CHARLESTON, SOUTH CAROLINA

TELEPHONE (803) 577-5449

MAILING ADDRESS
POST OFFICE BOX 802
CHARLESTON, SOUTH CAROLINA 29402

January 18, 1995

Mr. William G. Bailey
Environmental Resource Branch, Planning Division
Savannah District, Corps of Engineers
PO Box 889
Savannah, GA 31402-0889

Reference: Properties in Jasper County owned by William C. S. Simpson, ETAL numbered TMS 036-00-02-010 and TMS 074-00-00-001

Dear Mr. Bailey:

The owners of reference properties which are partially in disposal area 14B and disposal area 12B, respectively, submit comments as follows on the draft environmental impact statement for the Savannah Harbor Long Term Management Strategy dated November 1994.

CONTAMINATION: Should liability for the quality of deposited material rest with the owner of the site where the material is deposited (par. 5.46), then the site should be:

a) Diked along the owner's property line.

b) Tested for contaminated disposal material within the site periodically as well as prior to and during dredging of material for disposal in the site.

EASEMENTS: The purpose for which easements were obtained from private property owners, dredged material disposal (H.2.12), is exceeded by such usage of private sites as: removal of dredged materials (A.6.02); disposal of materials dredged from privately owned berths (5.46); creation of wildlife nesting areas and resting ponds (G.4.01); establishment of production plants for construction of bricks (A.6.04) - to name a few. Further consideration or implementation of such excesses should be terminated without delay.

DISPOSAL AREA 14B (N.2.03): South Carolina lands placed under easement to provide for deposit of spoil excavated from the Savannah River did not include 480 acres along Fields Cut. This acreage, included in reference tract TMS 036-00-02-010 and partially included in Disposal Area 14B, was placed under easement as a spoil disposal area for the Intracoastal Waterway only. Hence, there is no authority for deposit of dredged material from Savannah Harbor Navigation Project on this 480 acre tract and the

practice should be terminated without delay.

DIKING OF DISPOSAL AREA 14A (M.4.19): Specifications for design of the new Disposal Area 14A dike as well all dikes in Jasper County should include the maximum height desired to assure compliance with county zoning code's now and in the future. Any raising of dike elevations should be subject to Jasper County review.

CULTURAL RESOURCES (APPD. J): Consideration has not been given to safeguarding or preserving the ferry wharf site on South Carolina's banks of the Savannah River. Nor has the old Union/Screven Ferry Road been considered. These historic landmarks were the pillars of transportation between Georgia and South Carolina from late 18th Century through the early 20th Century.

In review of the above, it is respectfully requested that the District Engineer schedule a public hearing on this project.

Sincerely,

William C.S. Simpson

cc: Mr. Henry Moss, Administrator Jasper County
Mr. Rob Mikell, OCRM, SCDHEC
Ms. Nancy Brock, SCSHPO

RESPONSE -- William C.S. Simpson,
January 18, 1995.

CONTAMINATION (PARA. 5.46): This paragraph has been revised to clarify that the liability for the quality of sediments at a berth is with the owner of the berth. That paragraph and the next one address the evaluations that must be performed to demonstrate that the material is safe for dredging and placement in the Project's confined disposal areas.

EASEMENTS: The District is reviewing its existing easements to ensure it has sufficient interests in the disposal area properties to conduct the proposed activities. Removal of deposited sediments as part of an operation to produce bricks or aggregate may require additional real estate interests to be acquired, depending on the wording of existing easements. Should additional interests be determined to be necessary, the local sponsor will be responsible for obtaining those interests. Consideration of new beneficial uses of harbor sediments will continue, as both the District and the local sponsor seek to maximize the useful life of the existing disposal areas.

DISPOSAL AREA 14B (N.2.03): Savannah District is reviewing its existing easements to ensure it has sufficient interests in the disposal area properties to conduct the proposed activities. Should additional interests be determined to be necessary, the local sponsor will be responsible for obtaining those interests.

DIKING OF DISPOSAL AREA 14A (M.4.19): Dikes would be constructed in compliance with all applicable laws and ordinances. Jasper County was provided a copy of the Draft EIS for review.

CULTURAL RESOURCES (APPD. J): The historic ferry wharf on South Carolina's banks of the Savannah River no longer exists. The upland portion of the site has been cleared and is now used as an access ramp to Back River for construction equipment. Dikes have been constructed over the location of the Union/Screven Ferry Road. The elevation of the dikes have been raised several times since the 1960's, effectively burying the old road bed under many feet of dredged material. The Final EIS has been revised to include these historic landmarks.

REQUEST FOR PUBLIC HEARING. Savannah District does not believe that additional information, of which it is not already aware, would be gained through the conduct of a public hearing.

W.C. SIMPSON, INC.

REAL ESTATE

EIGHTEEN BROAD STREET
CHARLESTON, SOUTH CAROLINA

TELEPHONE (803) 577-5449

MAILING ADDRESS
POST OFFICE BOX 802
CHARLESTON, SOUTH CAROLINA 29402

April 3, 1995

Colonel Wayne W. Boy
Savannah District Engineer
U.S. Army Corps of Engineers
P.O. Box 889
Savannah, Georgia 31402-0889

Re: Draft Enviromental Impact Statement (EIS) for the Savannah Harbor Long Term Management Strategy (LTMS) Study dated November 1994.

Dear Colonel Boy:

Pursuant to Public Notice dated 30 November 1994 concerning reference study, I submitted comments to your office by letter dated 18 January 1995 (copy enclosed). As of this date, I have received no information from your office pertaining to my comments, scheduling of a public hearing or the status of the study.

Hence, I would appreciate hearing from you regarding the above at your earliest convenience.

With every best wish.

Sincerely,

William C.S. Simpson
Colonel, U.S. Army, Retired

Encl. a/s

RESPONSE -- William C.S. Simpson,
April 3, 1995.

Responses to all comments received on the Draft EIS, including Mr. Simpson's letters, are included in this Final EIS. Savannah District did respond directly to Mr. Simpson on May 12, 1995 to inform him that we did not plan to conduct a public hearing on this proposal.

JAMES F. MISSROON
2861 PLAYERS DRIVE
LAKE SPIVEY COUNTRY CLUB
JONESBORO, GEORGIA 30236

Subject: Request for a public hearing on Savannah Harbor Long Range Management Strategy (LTMS) and Draft Environmental Impact Study (EIS)

THIS LETTER WILL PROVE:

(1) DISTRICT ENGINEER COLONEL WAYNE W. BOY LIED IN ANSWER TO INQUIRES CONCERNING FOIA VIOLATIONS. (5c, Page 9)

(2) ALTERNATIVES 6, 7, & 8 OF THE EIS ARE NOT ACHIEVABLE AS PROPOSED. (1d, page 6)

(3) THE DISTRICT HAS A LONG HISTORY OF PUBLISHING AND THEN BREAKING GLOWING ENVIRONMENTAL PROMISES. (Sect 5, pgs. 8-10)

January 19, 1995

Colonel Wayne W. Boy, District Engineer
U.S. Army Corps of Engineers
P.O. Box 889
Savannah, Georgia 30236

Dear Colonel Boy:

This is in request of a public hearing on the Savannah Harbor LTMS. My objections to the LTMS include the following list:

1. CONSIDERATIONS OF PROPERTY OWNERSHIP

Although listed in the Public Notice as an "evaluation factor", the EIS presents no analysis of property ownership considerations in regard to the confined disposal areas (CDFs).

Large tracts of the CDFs are privately owned property under perpetual easements imposed by the Corps. The owners hold fee simple title and continue to pay property taxes, already in excess of any compensation received for the imposed perpetual easements. All use of the CDF property has been completely taken by the Corps for the benefit and direct use of the Savannah shipping industry.

The CDFs are being contaminated, eroded and robbed of sand, which is then replaced by silt. The LTMS implies only two general alternatives for the owners: (1) Continue to pay property taxes while the Corps and the shipping industry maintain total and perpetual use of the land, or (2) continue to pay property taxes

until some time after the 20 year life of the LTMS, at which time the Corps may walk away from any responsibility for the contaminated and eroded CDFs. (EIS 5.46: "...liability for the quality of deposited material rests with the owner of the site where the material is deposited,...")

The EIS is not in compliance with the Federal Register unless considerations of property ownership are analyzed with specific regard to (1a) contamination, (1b) erosion, (1c) sand ownership and (1d) unauthorized disposal of spoil from non-federal berths.

1(a). Contamination of private CDF tracts.
The CDFs are diked settling ponds, carefully designed to contain any contaminants in the dredge spoil. Adjustable flood gates allow only the upper water level to overflow as the sediments settle out. This method of containment would tend to accumulate and concentrate any contaminants into the silt which is continuously being dredged from the upper surface of the river bottom. There is ample evidence of the likelihood of contamination of the soil and shallow groundwater of the CDFs.

The LTMS should insure against the almost certain contamination of the CDFs for property ownership considerations and for long term environmental reasons. The Corps has a responsibility to look beyond the useful spoil containment life of the CDFs. The only sure protection is to test the sediments within the dikes. There has never been any testing within the dikes.

- The 1994 Wright River Weir Effluent Study found elevated levels of arsenic and manganese and high marine life mortality in runoff waters from the CDFs. South Carolina banned further discharges of the runoff water into the Wright River. Again, Contaminants are generally trapped within the dikes and would not appear in runoff water.
- Sediments from the private berths in the Harbor have not been tested (EIS 5.47). For years, the corps has allowed the untested private berths to be dredged by agitation into the channel for re-dredging into the CDFs.
- The last Harbor-wide testing of sediments was in 1982. Those tests showed arsenic, cadmium, lead, mercury and silver well above the levels listed as toxic in the Federal Code of Regulations.
- The EIS relies heavily on two recent environmental studies paid for by agitation dredgers: "The Skidaway Study" and "The EMC Engineering Services, Inc. Study". U.S. Fish and Wildlife Services (FWS) and National Marine Fisheries Service (NMFS) interpreted the studies as verifying harbor contaminants at levels detrimental to marine life and as generally inadequate and inconclusive. Both agencies and USEPA have notified the Corps of the need for further testing, site specific testing, and testing in particular for dioxins and furans.

- From EIS 6.05: "Introduction of water into the upper Floridian Aquifer would require contact with a fissure, fault, or ancient stream channel which would lead to this strata. This is possible, but not likely." Tests should be conducted within the dikes to preclude all possibility of metals, dioxins or other contaminants leaking into the aquifer.

  EIS 6.06 further outlines the likelihood of water migration through soil layers above the aquifer and the resulting contamination of shallow ground water. Contamination of even shallow groundwater would be a violation of property rights of CDF landowners. Again, environmental concerns and considerations of property rights mandate testing within the dikes.

1(b) Erosion of Private CDFs

Shoreline erosion is listed in the Public Notice as an Evaluation Factor. The Corps recently demolished erosion protection in the form of a training wall, increased the lateral slope of the channel, and moved the channel 200 feet closer to CDF 13A. Shoreline erosion from ship wakes is now uprooting trees, washing out old dikes, and washing sediment and contaminated ooze back into the river. (See photos, next two pages, #s 4 & 5).

The CDF owners pay taxes while the Corps claims total perpetual use of the property. District Engineer Colonel Boy has arrogantly suggested that the owners also put up protection against the erosion of Corps projects. His letter to Senator Strom Thurmond, August 16, 1993: "The Government's easement does not prevent Mr. Missroon from protecting his property from erosion using methods such as rip-rap." The CDF river banks are littered with remains of the Corps' old failed rip-rap plans. The EIS should set up corrective steps.

1(c) Ownership of Sand in the Privately-owned CDFs

The LTMS proposes moving sand from one CDF tract to another for dike construction (EIS Appendix H.2.12). Sand deposited onto a private CDF, either as dredge spoil or for road or dike construction, becomes part of the property or a mineral component of the property. The easement grants to the Corps only the right to use the property for dredge spoil disposal and for other harbor maintenance activities (dike and road construction) on the property. The easement does not grant a mineral lease or the right to remove part of the property for use on another property.

The Georgia Department of Transportation (GDOT) has become a dealer in sediment sand for various local construction projects. Ownership of the sand is conferred through mineral leases from GDOT. GDOT has no mineral lease or other claim to sand on privately-owned CDFs for any type of construction, dikes or otherwise.

EROSION OF S.C. SHORELINE

The Corps removed the "training wall" erosion protection, increased the lateral slope and moved the channel 200 feet closer to this shoreline of CDF 13A.

The erosion seen here is clearly from ship wake surges with forces perpendicular to the channel. Natural erosion forces are generally parallel to the stream and do not create washouts deep into the creeks and low soft areas of the bank.

Erosion is now washing into the old contaminated dikes from the 50's and 60's. A few years ago, the marsh in the upper part of the bottom photo extended downward in a straight, marshy bank across what is now shallow water in the photo.

This not the same area where a dump truck fell into the erosion, as described in EIS Appendix H.3.25.

CONTAMINATED EROSION

These photos from the S.C. shoreline near CDF 12B/13A show deep orange liquid seeping into the river from old eroded dikes from the 50's and 60's.

GDOT determined in the 1989 "Waterways Dredged Material Containment Areas Study", page 40, that sand could not be moved across property line of the private CDFs: "Obtaining ownership in these lands will insure absolute dedication of them for disposal areas and eliminate access rights to them for hunting and other recreational activities. .... Additionally, GDOT ownership would improve security for the county's and contractor's equipment and remove doubt as to ownership of dredged material placed on these lands, which would, as an example, make material in 13A available for use in Area 14B."

1(d) Unauthorized Use of CDFs By Private Berth Owners.
The LTMS proposes dredging private berths into the CDFs along with scheduled channel dredging. This proposal is achievable only upon negotiations with the CDF landowners. The CDFs were condemned to easements for disposal of spoil from the Federal channel only, exclusive of any use by non-federal parties without the consent of the landowner. Constitutional law prohibits condemnation of private property for private use. The Corps has repeatedly cited the exclusion of private dredge spoil from CDFs without the owner's permission:

- EIS 3.23: "Dock owners do obtain separate approvals from both the owner of the disposal site and the Corps prior to the disposal operation."
- District Engineer Colonel D.R. Holzwarth's letter to me, June 23, 1993: "The Corps of Engineers does not have the authority to authorize the dredging of private berths onto private tracts in a disposal area without proof that the private applicant has obtained the right to do so from the disposal area landowner." ; "If a private berth owner wishes to dispose into one of these disposal areas, the private berth owner must first obtain the right to do so from the landowner." ; and " The Corps of Engineers cannot grant third party use of a Federal easement area, as this could only be given by the fee simple owner with the concurrence of the local assurer."
- District Engineer Colonel Wayne W. Boy's letter to Senator Strom Thurmond, August 16, 1993: "When a permittee proposes to undertake dredge disposal activities onto privately owned lands, the permittee is legally required to acquire rights or permission from the underlying fee owner."
- Mr. Thomas W. Yourk, Chief, Permits Section, letter to South Carolina Coastal Council, May 4, 1993: "Our Real Estate Division, from which our lease transactions have been formulated, advised us that unless Mr. Missroon grants approval to Chevron, or any other private user, this disposal area cannot be used for private use."

The Corps clearly recognizes a legal requirement for the landowner's approval prior to any private use of a CDF. The EIS should address the use of CDFs for both, (i) hydraulic dredging

and (ii) agitation dredging, in order to comply with the Federal Register requirement to evaluate considerations of property ownership.

(i) Hydraulic Dredging of Private Berths into the CDFs. Alternatives 6, 7, & 8 (EIS 5.00) for dredging private berths into the CDFs are clearly illegal and unattainable without the consent of the landowners. A major portion of the LTMS is not achievable as proposed.

(ii) Agitation Dredging of Private Berths, Re-dredging into CDFs.

Agitation dredging is a two-step dredging process (EIS 3.21) designed to illegally move sediment from private berths into the CDFs without the landowner's approval. The private berth owners agitate sediment from their berths into the channel and then pay private hydraulic dredgers, through the Corps, to re-dredge the sediment into the CDFs. Agitation dredging in the Savannah Harbor moves about 1/4 of the volume of material that is removed from the harbor by hydraulic dredging (EIS 7.16). Agitation dredging violates the requirement for landowner approval prior to private use of the CDFs. The EIS should address agitation dredging in consideration of the property ownership of the CDFs.

2. ILLEGAL FREE USE OF PUBLIC FACILITIES BY PRIVATE INDUSTRY

The LTMS proposes dredging the private berths into the CDFs. The only proposed fee would go to the private dredge operators. No fee is proposed for use of the CDFs. The Corps cannot legally give selected private industries the use of CDFs without reimbursement of the public cost of owning, leasing, and maintaining the CDFs.

3. SITE SPECIFIC TESTING OF PRIVATE BERTHS

EIS 5.46: "...some of the material deposited in the berths has never been tested for chemical contamination...". Site specific sediment testing of any ship berth should be required prior to any dredging regardless of disposal site (public or private) and regardless of dredging method (hydraulic, agitation or otherwise).

4. ENVIRONMENTAL OBJECTIONS TO AGITATION DREDGING

Agitation dredging is performed by towing an underwater device through private ship berths to mix thousands of cubic yards of untested sediment into the outgoing tide. The process is environmentally and operationally inefficient.

Environmentally, the process puts silt and known contaminants into tidal suspension. The resulting turbidity and reduced

dissolved oxygen levels are a major obstacle to recovery of the striped bass population.

Operationally, the same sediments must be successively re-agitated from each upstream berth to the next downstream berth before final hydraulic re-dredging into the CDFs. Agitation dredging goes on as a disgrace to Savannah and the Corps long after being banned in other U.S. ports for environmental reasons.

5. PRIOR MANAGEMENT STRATEGIES - A HISTORY OF DECEIT

The Savannah District has a history of formulating unsound management strategies in sole response to shipping industry needs and in total disregard to input from environmental organizations and the general public. The policies are then published with glowing environmental assurances and protective regulations. The published regulations are soon ignored and the District then lies to conceal the violations. I will give examples of disastrous policies, violations of published environmental regulations and lies to conceal the violations. The current LTMS promises more of the same.

(5a) The tidegate. When the District errs in favor of the shipping industry the costs to the tax payers and to the environment are usually severe. In 1977 the District installed a tidegate in Back River, dug a canal, and put in an extensive freshwater control system, primarily to alleviate natural sedimentation in shipping berths (EIS 3.10). Thirteen years later, the predictably unacceptable system had to be dismantled.

The taxpayers suffered the construction and removal of the Tidegate, digging and filling of the canal, cost of the freshwater control system, and continuing studies in hopes of reversing the damages. The environment suffered a 95 percent reduction in striped bass, a loss of 4,000 acres of freshwater tidal wetlands (EIS 7.184) and salinity increases in the Savannah National Wildlife Refuge.

(5b) Agitation dredging. Agitation dredging is another example of an environmentally damaging concession to the shipping industry. When federal environmental agencies opposed renewal of expiring agitation dredging permits several years ago, the District simply extended the old permits for three years in direct violation of a Federal Register regulation that maintenance dredging permits cannot be extended.

During the illegal three year extension, the agitation dredgers paid for two studies of agitation dredging. Three federal environmental agencies (USEPA, FWS and NMFS) rejected the studies and recommended denial of new permits. The District granted the permits, at the same time denying numerous requests for a public hearing, in violation of Federal Register guidelines for public

hearings. The District Engineer also failed to send out his written reasons for ignoring the request of each requester as required by the Federal Register.

The District announced the renewal of agitation dredging in late 1993, again, with glowing environmental assurances and protective regulations. Many of those same regulations are repeated in the current EIS-LTMS. I will show below that the District is aware of gross violations of the published regulations and is actively at work as a cover up agency for the shipping industry.

(5c) Sediment Testing in General

The EIS is vague concerning planned sediment testing during the 20-year LTMS. The EIS also fails to respond to recent criticism by three federal environmental agencies in regard to sediment testing by the Corps. USEPA, U. S. Fish and Wildlife (FWS), and National Marine Fisheries Service (NMFS) have all found sediment testing to be unsatisfactory.

The District has violated the Freedom of Information Act (FOIA) as a means of concealing from the public the inadequacy of Harbor sediment testing. I will show positively that District Engineer Colonel Wayne W. Boy lied in response to inquiries concerning FOIA violations by his staff.

Both FWS and USEPA have notified the District as recently as April 28, 1994 of the need to test Harbor sediments for dioxins and furans. On October 13, 1993 I asked Mr. William Bailey, prepare of the EIS-LTMS, whether there had ever been any dioxin tests of the river bottom or the CDFs. In early November, Mr. Bailey told me that he had written a response to my request. When his answer had not been received by late November, I submitted a FOIA for Mr. Bailey's response. I then received a response letter from Colonel Boy and a FOIA notification that Colonel Boy had destroyed Mr. Bailey's "draft" letter. Colonel Boy did not address dioxin testing.

I then sent the dioxin question to Washington. Later, the Office of Counsel in Atlanta advised that I must first agree to pay for a 3-day file search for the District to determine whether there had ever been a dioxin test in the Harbor. Soon afterward, Mr. Charles Samz of the Sierra Club of Georgia submitted a FOIA for results of all Savannah Harbor dioxin tests. His FOIA response was free, with search and production costs below the $15.00 minimum.

The following paragraph is copied directly from Colonel Boy's letter to me December 9, 1994:

- You asked why it would take three days to give a yes or no answer concerning dioxin tests for the Savannah Harbor. A search would have to be conducted of every test to determine if a test was run for dioxins. You stated that Mr. Samz received the information for less than $15.00 while you were informed that it

Colonel Boy's letter continued:

would take approximately three days to answer a yes or no question. In Mr. Samz' request letter of September 7, 1994, he asked for any and all studies or tests the Corps may have on record in regard to dioxin or furan levels in the Savannah Harbor as related to agitation dredging. Operations Division provided Mr. Samz with a copy of the test for agitation dredging. In your letter of May 4, 1994, to Colonel Boy, you asked "DOES THE CORPS HAVE ANY RECORD OF THE SAVANNAH HARBOR BOTTOM SEDIMENTS EVER BEING TESTED FOR DIOXINS?" Your request did not limit the search to agitation dredging; therefore, in order to provide you with the information that you were seeking, a search would have to be conducted of every project (past and present).

Colonel Boy lied to cover up FOIA violations. Mr. Samz's request was not limited to agitation dredging. The following is copied directly from his FOIA request:

Please send the following information on any and all studies or tests the Corps may have on record in regard to dioxin or furan levels in the Savannah Harbor.

1. A title page showing date, area tested, client, and testing facility.
2. A summary of the measured levels of contaminants listed by contaminant and test locations.
3. A list of conclusions, not to exceed 2 pages per report, if included in the test report.

The FOIA response to Mr. Samz reported only three soil samples taken July 28, 1992 by EMC Engineering under contract to agitation dredging permittees. All three of the reviewing agencies have found the EMC studies to be unsatisfactory. The following two sample pages (#s 11 & 12) are from seventeen pages rejecting the studies, opposing agitation dredging, and urging valid sediment testing.

(5d) Sediment Tests of Private Berths Prior to Dredging into CDFs
EIS 5.46 promises chemical testing of the private berths. That is an old promise from the Regulatory Branch (see "Guidelines", page 13). The Guidelines were only a public relations ploy to mislead the public. No private berths have ever been tested under the guidelines.

The 404 (b)(1) Guidelines, Part 230.11 state that "The permitting authority shall determine in writing the potential short-term or long-term effects of a proposed discharge of dredged or fill material on the physical, chemical, and biological components of the aquatic environment ..." . The Agency requests that the agitation dredging proposal submit site specific analytical data including sediment analysis and bioassay/bioaccumulation studies as required in Part 230.11 (a) through (h). Dioxins and furans should be included in the analytical studies.

In summary, we continue to be opposed to the agitation dredging projects. We approve of the provisions of the Georgia Water Quality Certification which limits the time of year when the dredging operations can occur. However, we feel that although these provisions should lessen the impacts on aquatic life, there will still be significant adverse impacts. The Agency is also concerned with the cumulative impacts from the numerous ongoing agitation dredging projects. We recommend that the Corps coordinate these operations so that they are not proceeding concurrently.

We ask that the Corps fully consider the points raised above when evaluating this application and that the permit not be granted until these conditions are addressed. We also request that the applicant be required to comprehensively investigate innovative dredging alternatives so that we will not be facing these same issues in five years.

Previous discussions and correspondence with the Corps have not resolved the agitation dredging issue. We are not exercising our authority under Section 404(q) of the Clean Water Act, Memorandum of Agreement between EPA and the Department of the Army (8-11-92), Part III.2 to elevate this as a policy issue at this time. However, the Agency is planning to further research this issue and we are seriously considering initiating a policy elevation regarding the permitting of agitation dredging at a later date.

If there are questions regarding these comments, please contact Becky Fox of my Wetlands Regulatory North Unit staff at (404) 347-4015.

Sincerely,

Thomas C. Welborn, Chief
Wetlands Protection Section

cc: List enclosed

Dredging during the spawning season would likely disrupt spawning and destroy eggs and larvae carried downstream to the project area by tidal action. The adverse impact on striped bass reproduction would reduce population levels and affect recreational fishing.

In addition, dredging may impact other fishery resources as well as striped bass by reducing dissolved oxygen to concentrations that cause stress or mortality ($\leq$ 3.0 mg/l), particularly during July, August, and September when dissolved oxygen levels are naturally low.

In addition to high turbidity and low dissolved oxygen, data from the Skidaway Institute of Oceanography study (1993)[1] (Skidaway) indicates that contaminants are also a problem in the Savannah Harbor. Even though the berths in the Skidaway study (East Coast Terminals and Southern Bulk Industries) are not likely to receive significant contaminant inputs from onsite activities which involve only the onloading and offloading of cargo, the reported levels for metals were at a concentration known to cause adverse effects on aquatic organisms. The Skidaway study also found DDT and its metabolites in the slips at East Coast Terminals and Southern Bulk Industries at levels known to exhibit deleterious biological effects on aquatic organisms. Polyaromatic hydrocarbons were found in levels above "Effects-Range Low"[2] in the slips which are not likely to receive significant input of this contaminant from onsite activities. It is therefore likely that the petroleum based companies in this public notice, which produce and/or transport these chemicals, will have significantly higher levels of polyaromatic hydrocarbons in their slips. Skidaway did not test for all organics known to occur in the general vicinity (eg. dioxins and furans); therefore we don't know at what levels these contaminants, which are included on EPA's list of priority pollutants, occur in the Harbor.

The EMC Engineering Services, Inc. study (1993)[3] (EMC) also reported levels of metals known to have adverse effects on aquatic organisms. Their data on organics, however, are unusable because the detection limits cited for their laboratory procedures are several magnitudes above levels known to cause adverse effects to organisms.

In conclusion, at a minimum, both the Skidaway and EMC studies have indicated that contaminant levels in Savannah Harbor sediments are high enough to cause detrimental effects to organisms if resuspended by agitation dredging. Data on some contaminants is insufficient to allow us to fully understand potential impacts to aquatic resources. Neither study addressed the cumulative effects on aquatic organisms downstream.

Note: The Regulatory Branch mailed these Guidelines with an announced renewal of an agitation and hydraulic dredging permit. No testing has been done under the Guidelines.

GUIDELINES FOR PRIVATE DREDGING WITH DREDGED MATERIAL PLACEMENT IN GOVERNMENT CONTAINMENT AREAS

The special conditions to be added to special conditions of all future applicable permits are:

a. At least 30 calendar days before private dredging is to begin, the following information should be furnished to the U.S. Army Corps of Engineers, Project Operations Branch, with a request to conduct the dredging:

(1) A copy of the Local Assurer-Private Concern agreement allowing use of specified containment area(s). The Private Concern should be required to comply with all applicable Federal, State, County, and Municipal laws, regulations, and any special conditions in the Department of the Army Permit.

(2) Results of priority pollutant sediment tests - EPA 301 including petroleum hydrocarbons. Sampling and testing should be required to be conducted by an independent laboratory. Sampling should be done within 90 days prior to scheduled dredging. The private concern should provide evidence that his actions have not caused pollution at the proposed dredging area during the time between sampling and dredging. Sample locations should be provided on a sketch. One test set per 500 feet of berth should be required. Results of all tests shall be provided to the Government and Local Assurer. The Savannah District Engineer will consider requests to modify the test scheme when presented with factual data indicating a modified test scheme would be more appropriate.

(3) A plan for placement of the pipeline outfall head section and monitoring of dredge, weirs, and dikes including repair of any dike or weir failures occurring during the time the dredge is released to dredge for private concerns. There should not be a required format for the plan. A simple statement of actions to be taken is adequate. Any property damaged or destroyed by the private concern, including dikes and weirs incident to the exercise of the privileges granted, should be required to be promptly repaired by the Private Concern to the satisfaction of the Local Assurer in concurrence with the Savannah District Engineer.

(4) A rough estimate of quantity of material to be dredged.

(5) A plan for conducting water quality tests (salinity, conductivity, turbidity, dissolved oxygen, ph, total suspended solids) at the containment area weirs if the dredging for the Private Concern is to take more than five calendar days. One set of water quality tests should be required for every five calendar days of dredging at a private concern.

The Corps issued Georgia Ports Authority (GPA) permits for dredging its berths into CDF 2a in 1994. GPA did so without testing. Colonel Boy responded that the EIS for the Deepening Project exempted GPA from the required testing. The EIS did not meet the sediment testing requirements of the Guidelines. The District simply wrote the test requirement out of the Deepening EIS in a continuing policy to excuse the shipping industry from all testing requirements.

The LTMS EIS states that the private berths have not been tested and should be tested prior to dredging into the CDFs. In contrast, the District has for years allowed agitation dredging of untested private berths with final disposal into the CDFs.

(5e) Dredging during the striped bass spawning period.
EIS 6.54 reads, in part: "Therefore, to remain in compliance with the Georgia Quality Certification and avoid possible impacts to the striped bass population of the Savannah River, dredging continues to be restricted to the lower harbor and the Bar Channel during the period from March 15 to May 31 of each year." There is no reference to exceptions.

That is another old broken promise from the Regulatory Branch. The Branch will grant any dredge permittee an exception for "urgent" dredging. The records for 1992 - 1994 show no denials. The only requirement is a little paperwork. The records show seven separate approvals, usually for one week each, during the 1992 spawning period. Five similar approvals were granted in 1994. Many more requests for exceptions can be expected with the deepened channel.

(5f) Dredging During Months of Low Dissolved Oxygen.
EIS 7.37 outlines procedures for the monitoring and restriction of agitation dredging during summer months when dissolved oxygen (DO) levels are reduced. That is another old broken promise from the Regulatory Branch.

The next page, #15, was distributed by the Regulatory Branch to assure the public that the Branch would monitor DO testing during summer months. The Branch also distributed the following "special condition" promising to "avoid" dredging during summer months.

7. That dredging will be avoided from June 1 through September 30. If justification for dredging during this period is adequate, the permittee will determine oxygen levels in the project area immediately before dredging. No dredging will be allowed if dissolved oxygen levels are 3.0 mg/l or less. If dissolved oxygen is less than 4.0 mg/l, the permittee will monitor dissolved oxygen during dredging and ceased when the dissolved oxygen drops to 3.0 mg/l or less. The permittee will provide the U. S. Army Corps of Engineers with all monitoring data.

July 11, 1989

DISSOLVED OXYGEN TESTING PROCEDURES IN CONJUNCTION WITH SPECIAL CONDITIONS FOR AGITATION DREDGING PERMITS

The following water quality procedures will be implemented as a procedural requirement of the special conditions as contained in all permits for agitation dredging as issued by the Savannah District.

The determination of existing DO levels prior to dredging is the first decision point to allow dredging during the time period 1 July - 30 September. Dissolved Oxygen levels in the Savannah River will be obtained no later than 3 days prior to initiation of dredging. Three sample locations will be established in the Savannah River to determine existing conditions. These three sample locations will be placed: 1) 1,000 ft. upstream from permittee's slip, 2) 1,000 ft. downstream from permittee's slip and 3) adjacent to permittee's slip, all approximately at or on a mid river center line. At each sample location, three depths will be sampled during low water slack or high water slack, when possible, as follows: 1) one meter below the surface, 2) one meter above a hard bottom or 2-3 meters above a soft or indeterminate bottom, and 3) at mid depth. If greater than 50% (5 of 9) of the readings are below the 3mgO /liter standard, dredging will not be permitted. A retest can be repeated in two weeks.

If 5 of 9 samples are above the standard, dredging will be permitted to commence within three days of existing condition sampling. Monitoring will consist of the same sampling regime to be conducted every second day of consecutive dredging. Should any 5 of 9 readings fall below the 3mgO /liter standards, dredging will be suspended for two weeks at which time existing condition sampling can be repeated. All test results for all locations and depths will be reported to the Chief, Regulatory Branch of the Savannah District within one week after the completion of dredging. The Savannah District reserves the right to conduct additional sampling for DO in the Savannah River and on the basis of this information may require the suspension of dredging activities. A Dissolved Oxygen meter or other methods as approved by EPA for the measurement of Dissolved Oxygen in Estuarine or fresh waters is required. A location map, date of sampling, tide condition (flood or ebb) depth in meters and DO will be reported. Instruments (manufacturer's make and model) and/or methods used for DO measurment along with calibration technique and results should be reported as well.

To the contrary, DO testing by the permittees is not monitored and agitation dredging is not avoided during summer. The level of agitation dredging is highest during summer months.

Open Records requests and FOIA requests confirm that none of the permittees sent DO test results to the Corps or to any state environmental agency for 1993 or 1994. No inquiries were made for 1992. The Corps is aware that DO testing is not being monitored and has taken no action.

A summary of agitation dredging activity for FY '91 to Fy '93:

Quarter	Average per quarter hrs.	cubic yds. (@ 2,100 CY/hr., EIS 7.18)	
Jan, Feb, Mar	205	430,530	(spawning Mar 15 - Mar 31)
Apr, May, Jun	183	384,300	(spawning Apr 1 - May 31)
Jul, Aug, Sep	260	546,000	(Low dissolved oxygen)
Oct, Nov, Dec	156	327,600	

Once again, the regulations in regard to the spawning season, DO test monitoring, and dredging restrictions during low DO months were all published to mislead the public without restricting the environmentally damaging activities of the shipping industry.

(5g) Violations of Corps' Policy for Disposal onto Private CDFs
Consider the published policy on third party use of the CDFs. EIS 3.23 reads: "Dock owners do obtain separate approvals from both the owner of the disposal site and the Corps prior to the disposal operation." District Engineer Colonel D.R. Holzwarth's letter to me, June 23, 1993: " The Corps of Engineers cannot grant third party use of a Federal easement area, as this could only be given by the fee simple owner with the concurrence of the local assurer."

To the contrary, the next page (#17) is from a Corps permit granting GPA permission to dredge onto CDF 2a. Under this permit, GPA dredged untested sediment onto property owned by Fish and Wildlife in CDF 2a without FWS approval and without concurrence of the local assurer. The GPA berths were also dredged without the tests as required by the "Guidelines" on page 13.

DEPARTMENT OF THE ARMY PERMIT

Permittee: Georgia Ports Authority
Permit Number: 199200090

ISSUING OFFICE:

Savannah District
U. S. Army Corps of Engineers
Post Office Box 889
Savannah, GA 31402-0889

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the U. S. Army Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

PROJECT DESCRIPTION: To excavate by dredging at two areas.
a. Berth - An area approximately 5,075' long, 100' wide from the face of the fenders to the channel line to a depth of -42' mean low water (mlw). Excavation at this site will require initial removal of approximately 35,000 cubic yards of accumulated sand, silt, clay and debris material and periodic maintenance dredging of approximately 80,000 cubic yards annually.

b. Slip - An area approximately 1,100' long, 300' wide, between the face of the fenders to a depth of -40' mean low water (mlw). Excavation at this site will require initial removal of approximately 80,000 cubic yards of accumulated sand, silt, clay and debris material and periodic maintenance dredging of approximately 80,000 cubic yards of material annually.

The permittee, in conjunction with the proposed hydraulic dredging, will place a temporary submerged pipeline from the sites across the river to dispose of the dredged material in the diked area of Disposal Area 2 A on Hutchinson Island. Dredging is necessary to provide adequate depth for deeper draft vessels using the facilities.

The site is currently authorized by Department of the Army Permit to perform agitation maintenance dredging. The Savannah River is a Federal Project maintained by the Savannah District, U. S. Army Corps of Engineers.

PROJECT LOCATION: The site is located in Savannah River, at the Ocean Terminal berths, Savannah Harbor River Mile 14.7 to 15.6 (Sta. 77+500 to 82+500), Lat. 32°07'00"N, Long. 81°07'00"W, Savannah, Chatham County, Georgia.

6. PLEASE PROCESS THIS LETTER IN ACCORDANCE TO EIS 8.05 AND THE FEDERAL REGISTER.

(6a) EIS 8.05
Please address each of my comments, listed below, in the comment/response section of the final EIS as specified in the Draft EIS 8.05

- considerations of property ownership (privately owned CDFs)
  - contamination
  - erosion
  - ownership of sand, in terms of laws and regulations, rather than vague rationalizations (EIS H.2.12)
  - unauthorized disposal for private hydraulic dredging
  - unauthorized disposal for agitation dredging
- Free private access to publicly owned and maintained CDFs.
  -for proposed hydraulic dredging
  -for agitation dredging.
- Site specific testing of private berths prior to dredging
  -for hydraulic and agitation dredging
  -with disposal onto government and privately owned areas

(6b) Please schedule a public hearing in accordance to the Federal Register, Part 327.4(b)

(6b) If no public hearing is scheduled please communicate to me the reasons why you have determined the issues I have raised are insubstantial, as required in Part 327.4(b).

Sincerely,

James F. Missroon

James F. Missroon

cc: Senator Sam Nunn
Senator Paul Coverdale
Lieutenant General Arthur E. Williams, Chief of Engineers
Mr. John Hankinson, USEPA
Dr. Gregory Madison, U.S. Fish and Wildlife Service
Mr. Andreas Mager, Jr., National Marine Fisheries Service
Mr. Charles Samz, Sierra Club of Georgia
Mr. Harold F. Reheis, Ga. DNR
Mr. Thomas E. McCutchen, Columbia, S.C.
Mr. William C. Simpson, Charleston S.C.
Ms. Becky Shortland, Georgia Conservancy
Mr. L. J. Thomas, Hardeeville, S.C.
Students for Environmental Awareness, University of Georgia
Mr. Rich Whitt, Atlanta Journal- Constitution
Mr. Brad Swope, Savannah News Press

RESPONSE -- James F. Missroon,
January 19, 1995.

REQUEST FOR PUBLIC HEARING. Savannah District does not believe that additional information, of which it is not already aware, would be gained through the conduct of a public hearing.

CONSIDERATIONS OF PROPERTY OWNERSHIP.

A. Contamination.

A review of the quality of river sediments was documented in Appendix F SEDIMENT QUALITY EVALUATION. That evaluation concluded that the harbor sediments reflect soils of the region, as no chemical parameters within the average harbor sediments exceed values recorded in naturally-occurring soils in Georgia and the southeastern US.

Paragraph 5.46 in the Draft EIS has been revised to clarify that the liability for the quality of sediments while deposited at a berth rests with the owner of the berth. That paragraph and the next one address the evaluations that must be performed to demonstrate that the material is safe for dredging and placement in the Project's confined disposal areas.

The District has agreed to test sediments in the confined disposal areas which will be used in the rotation program to ensure that increased use of the sites by migratory birds would not result in adverse impacts to those species.

If/when the Federal government decides that it no longer needs an easement for the Navigation Project, it would release its easement ownership. Under current procedures a Preliminary Assessment Screening would be performed to determine the condition of the property, including an evaluation of the potential for chemical contamination, prior to release of the easement. If the Preliminary Assessment Screening determines the site contains unacceptable levels of some chemicals, liability for that condition would be determined in accordance with the laws and regulations in effect at the time of the release. Under present laws, the landowner -- because of his ownership status -- would be considered a potentially responsible party. However, a party or combination of parties involved in the Navigation Project may choose to assume responsibility if they had maintained sole restrictive use of the site since the project easement was obtained. If contamination was discovered and a party or combination of parties involved in the Navigation Project chose to assume responsibility, under present clean-up standards the site would be cleaned prior to release of the

easement to the point where the chemicals would no longer be present at levels which constitute a health or safety hazard. It should be noted that this current site clean-up standard may not represent the standard or laws in effect at the time of the easement release.

B. Erosion.

Training walls placed in a river are intended to shift underwater river currents, not protect a shoreline from eroding. The training walls placed in Savannah Harbor were not intended to reduce erosion, but to concentrate the river low so that (1) the channel alignment would be more stable and (2) a deeper channel depth would be maintained by river currents.

As mentioned in Section H.3.25 of the Draft EIS, erosion of the outside slope of the front dikes along the Savannah River is a problem. The apparent major cause of the erosion is the wakes and propwash produced by the large container ships. Erosion from such sources is not the responsibility of the Corps, but the vessel owner/operator.

Chatham County, acting as the local sponsor, or the GA Department of Transportation (GA DOT), acting in behalf of the County, have received approvals to place shore protection measures along portions of the Savannah River shoreline of the dikes. A portion of the approved project, approximately 800 to 1,000 feet, would be placed to protect Mr. Missroon's property. GA DOT intends to place the shore protection measures along highly eroded portions of the riverbank to protect the dikes which extend along the shore. GA DOT will place the majority of the shore protection on property which it owns in fee, an action which any landowner has the option of pursuing. The Final EIS includes an evaluation of placing additional shore protection measures along portions of the Jones/Oysterbed Island shoreline. That shoreline is also eroding severely and GA DOT intends to protect both its property and the adjacent dike through that action.

C. Ownership of Deposited Sediments. The State of Georgia claims ownership of all lands within the state up to the Mean High Water elevation. Materials resting on the river bottoms are included. Excavation of sediments from Georgia river bottoms require approval from the state for the disposition of those state properties. Sometimes the state charges a fee for excavation and private use of those state resources. The state has given the Corps approval to excavate river sediments and place them in the confined disposal facilities. State approval has been provided contingent upon use of the sediments for the purposes of the Federal Navigation Project. The Georgia GA DOT currently administers the use of the state bottoms in Savannah Harbor. Should GA DOT decide that it needs some of the deposited

sediments for uses other than harbor purposes, such use is within its authority for materials deposited on land it owns. If/when the Federal government decides that it no longer needs to use a disposal area for the Navigation Project, the Government would release its interest in the property.

D. Disposal for Private Hydraulic Dredging.

When private individuals or firms perform dredging in the harbor, that individual or firm is responsible for obtaining a site to deposit the excavated sediments. If those individuals are dredging under authority obtained through a Section 404 permit administered by the Corps, a condition of the permit is typically that they must obtain permission from the underlying fee owner of the CDF.

Such a condition would also be in effect if/when a dock owner wishes to use a hydraulic dredge to excavate berth sediments and place them directly in a Project CDF. In that case, approval from the site's underlying fee owner, Chatham County, and the Corps would be required.

The EIS for the LTMS Study evaluated the excavation of berth sediments and their deposition in the CDFs used for the Navigation Project. Environmental clearance for the specific dredging and disposal techniques approved in the EIS would be obtained through this EIS for such actions, whether Savannah District or its designee implemented the action. When a dock owner desires to implement the berth dredging features proposed in the EIS, the District would follow an an expedited review of the permit application since the environmental impacts of that action have already been evaluated in this EIS, received public review and comment, and received approval from other regulatory agencies. Approval would be required from the disposal sites's underlying fee owner before the deposition could occur.

E. Disposal for Private Agitation Dredging. When berth owners perform agitation dredging, the sediments are distributed by river currents to other portions of the harbor. Savannah District believes that a majority of those sediments resettle in the Federal Navigation Project. Some redeposit just downstream of the berth being dredged, while finer-grained materials are likely to move further from the dredging area. A precise identification cannot be made of the locations where all the berth sediments redeposit. The Corps presently removes all sediments which settled in the Navigation Project and deposits those materials in its approved dredged material disposal areas. Removal of harbor sediments which had once been located in a berth, but have since been relocated into the Navigation Project as a result of either agitation dredging or normal tidal or river currents, becomes a responsibility of Corps under the terms of the cost sharing agreement for the Savannah Harbor Navigation Project.

FREE PRIVATE ACCESS TO FEDERAL PROJECT CDFS.

A. Hydraulic Dredging.

Berthing areas are important to the Federal Navigation Project as they provide areas for vessels to dock outside the navigation channel while loading/unloading cargo. Adequate depths are required in the berths, as well as the navigation channel, before ships can move their goods through the port. Before sediments excavated from berths by private interests could be placed in an upland confined disposal site, the dock owner must obtain approval from the disposal site's underlying fee owner.

The provision and maintenance of suitable CDFs for the Federal Navigation Project is the responsibility of the local sponsor, Chatham County. The County is responsible for developing and providing to the Corps sufficient storage capacity at the CDFs for use by the Federal Navigation Project. The sponsor can allow use of the CDFs which it owns in fee simple for placement of materials from sources other than the Navigation Project. A decision to charge private individuals for using storage capacity of the site is a decision of the County.

B. Agitation Dredging. In agitation dredging, sediments are lifted from the floor of the berth by physical agitation and subsequently moved off-site by river currents. The District estimates that eighty percent of the sediments removed from the berths redeposits in the Navigation Project. The Corps presently removes all sediments which have settled in the Navigation Project and deposits those materials in its approved dredged material disposal areas. Removal of harbor sediments which had once been located in a berth but have since been relocated through agitation dredging into the Navigation Project becomes a responsibility of Corps under the terms of the cost sharing agreement for the Savannah Harbor Navigation Project.

TESTING OF SEDIMENTS AT BERTHS.

A. For Hydraulic and Agitation Dredging.

A sediment evaluation is required to complete the Section 404(b)(1) Evaluation for any dredging and disposal activity. Appendix F SEDIMENT QUALITY EVALUATION contained a review of the quality of river sediments. That evaluation concluded that the harbor sediments reflect soils of the region, as no chemical parameters within the average harbor sediments exceed values recorded in naturally-occurring soils in Georgia and the southeastern US.

Sediment tests were performed in 1993 as part of the permit review process for agitation dredging permits issued for 15 berth owners. The District used information from those tests to determine that the dredging and open water disposal of maintenance sediments from those berths would be environmentally acceptable. Those permits allowed both hydraulic and agitation dredging to remove maintenance sediments from those berths.

A sediment evaluation must be performed on sediments from berths where new work dredging is proposed. If there is a "reason to believe" that the sediments may be contaminated, Savannah District requires sediment tests to be performed. Where new dredging is proposed in the LTMS Study (berth deepening, turning basin deepening, and advance maintenance areas), sediment testing would be performed to confirm that the materials can be excavated in an environmentally acceptable manner.

B. Disposal on Project CDFs.

Where new dredging is proposed in the LTMS Study (turning basin deepening and advance maintenance areas), sediment testing would be performed to confirm that the materials can be deposited in the Navigation Project's CDFs in an environmentally acceptable manner. Where the Corps seeks to perform this new dredging, it would be responsible for performing the sediment tests. Where private interests seek to perform the new dredging, they would be responsible for performing the sediment tests. The sediment tests would follow the normal protocols developed for testing of Savannah Harbor sediments.

A sediment evaluation would be performed by the District on sediments from berths where placement of maintenance materials are to be placed in the Navigation Project CDFs. If existing sediment test data are insufficient to conclude that the materials can be deposited in the CDFs in an environmentally acceptable manner, additional sediment tests would be performed. Berth owners would be responsible for providing the required sediment test information. Savannah District would make the determination of sediment acceptability for deposition on lands used by the Corps. If a berth owner is proposing the deposition into Project CDFs, that owner would be responsible for performing any required sediment tests.

JAMES F. MISSROON
2861 PLAYERS DRIVE
LAKE SPIVEY COUNTRY CLUB
JONESBORO, GEORGIA 30236

Subject: Request for a public hearing on Savannah Harbor Long Range Management Strategy (LTMS) and Draft Environmental Impact Study (EIS)

January 27, 1995

Colonel Wayne W. Boy, District Engineer
U.S. Army Corps of Engineers
P.O. Box 889
Savannah, Georgia 31402-0889

Dear Colonel Boy:

I am requesting that you add the comments below to my request, dated January 19, 1995, for a public hearing on the Draft EIS-LTMS. I am aware that the response period ended January 23, 1995. However, I have just learned that the District has no easement which would allow the proposed disposal of Savannah Harbor dredge spoil onto CDF 14B. The Savannah FOIA Office is directly responsible for the delay in obtaining the information necessary for completion of my request. A chronology of that delay will follow my comments.

COMMENTS

1. The Corps has no easement for disposal of Savannah Harbor dredge spoil onto the Simpson tract in 14B.
2. The Corps has no authority to allow third party or private use of any privately owned tract in the CDFs as established on page 6, section 1d of my January 29 comments. There are private tracts in CDFs 12A, 12B, 13A, 13B, and 14B.

Private ownership prohibits annualized dredging of private berths into the CDFs as proposed in Alternatives 6, 7, and 8.

The rotational plan as proposed in Alternative 3 is not achievable without the availability of 14B.

The diking of 14A as proposed in Alternative 2 will do little more than offset the loss of 14B.

The wetlands mitigation plan is a bureaucratic joke and is not achievable without a revised rotational plan.

CHRONOLOGY OF DELAYED FOIA RESPONSE

December 28, 1994: I submitted a FOIA request - for any easements which would allow disposal of Harbor spoil onto CDF 14B. I related the request to EIS-LTMS public response.

January 6, 1995: The Corps responded: "Please be advised that our project Management Division does not have any records that fulfill your request because the Corps does not have the environmental clearance to use CDF 14B." I called back and asked specifically for any easement allowing disposal of Harbor spoil onto the Simpson tract in 14B.

January 13,1995 The Corps mailed a cancellation of the earlier response and two easements for disposal onto two tracts owned by GDOT, one in 13B and one in 14B. I called back and again specified the Simpson tract, CDF 14B and Savannah Harbor dredge disposal.

January 25, 1995: The Corps Fedex'ed an easement allowing only for disposal of dredge spoil from the Inland Waterway onto the simpson tract. I called again and was informed by Mr. Warren G. Swartz that the Corps has no other easement on the Simpson tract, i.e. no easement for disposal of Harbor dredge spoil.

Please advise me as to whether these comments will be considered with my earlier comments..

Sincerely,

James F. Missroon

cc: Senator Sam Nunn
Senator Paul Coverdell
Lieutenant General Arthur E. Williams, Chief of Engineers
Mr. John Hankinson, USEPA
Dr. Gregory Madison, U.S. Fish and Wildlife Service
Mr. Andreas Mager, Jr., National Marine Fisheries Service
Mr. Mark Musaus, U.S. Fish and Wildlife Service
Mr. Charles Samz, Sierra Club of Georgia
Mr. Harold F. Reheis, Ga. DNR
Mr. Thomas E. McCutchen, Columbia, S.C.
Mr. William C. Simpson, Charleston S.C.
Ms. Carolyn Boyd Hatcher, CEO, Georgia Conservancy
Ms. Becky Shortland, Georgia Conservancy
Mr. L. J. Thomas, Hardeeville, S.C.
Students for Environmental Awareness, University of Georgia
Ms. Debra Hasan, Citizens for Environmental Justice
Mr. Rob Mikell, OCRM, SCDHEC
Mr. Henry Moss, Administrator, Jasper County
Mr. Rich Whitt, Atlanta Journal- Constitution
Mr. Brad Swope, Savannah News Press

RESPONSE -- James F. Missroon,
January 27, 1995.

REQUEST FOR PUBLIC HEARING. Savannah District does not believe that additional information, of which it is not already aware, would be gained through the conduct of a public hearing.

DEPOSITION OF DREDGED MATERIAL ONTO DISPOSAL AREA 14B. Savannah District is reviewing its existing easements to ensure it has sufficient interests in the disposal area properties to conduct the proposed activities. Should additional interests be determined to be necessary, the local sponsor will be responsible for obtaining those interests.

DEPOSITION OF BERTHING AREA SEDIMENTS ONTO PRIVATELY-OWNED LANDS. Berthing areas are important to the Federal Navigation Project as they provide areas for vessels to dock outside the navigation channel while loading/unloading cargo. Adequate depths are required in the berths, as well as the navigation channel, before ships can move their goods through the port. As stated in the EIS, before sediments excavated from berths by private interests could be placed in an upland confined disposal site, the dock owner must obtain approval from the disposal site's underlying fee owner.

MITIGATION PLAN. The additional wildlife habitat described in the Mitigation Plan is based on a 2-year rotational use of the disposal areas. Disposal Areas 12A, 12B, 13A, 13B, 14A, 14B, and Jones/Oysterbed Island are included in the rotation plan.

Rt. 2, Box 324
Hardeeville, SC 29927

February 21, 1995

Colonel Wayne W. Boy
District Engineer
U.S. Army Corps of Engineers
P.O. Box 889
Savannah, GA 31402-0889

Dear Colonel Boy:

I am a long time resident of Jasper County, South Carolina, and own land in the Savannah River spoilage site area.

In the mid 50's, the Corps of Engineers (COE) imposed, much to our dissatisfaction, a perpetual easement on our land for the purpose of dredging silt from the Savannah River harbor. The government paid my husband (who passed away in 1964) approximately $22,000 for the easement. The COE has pumped spoilage on my land since that date. At the time of the comdemnation we were verbally led to believe that we should expect to have our land returned in less than 30 years. In the 40 years that the COE has now been pumping on my land, it has cost me more than $25,000 in annual property taxes.

During these 40 years I have never complained about the above actions, nor objected when me or my family were not allowed access to this property. It could be said that I have been the model landowner as far as your purposes were concerned. However, it has came to my attention on February 13 of this year the COE held a public hearing in January concerning pumping on my land for another 20 years. I have since received a document concerning this public hearing and an environmental study that accompanied it.

I notice several things in this document entitled the Savannah Harbor Long Term Management Strategy (SHLTMS) published by the COE. First, it appears that your agency went to a lot of trouble to notify many people and agencies about this study. I am disturbed that you could not place my name and a 29 cent stamp on one of the notices since it is my land you are studying and using.

Second, and of more importance is that the document reflects a study by the S.C. Coastal Council, S.C. Department of Health, and S.C. Marine Resources noting high/elevated levels of arsenic coming from the runoff of the spoilage area into the adjacent S.C. rivers. Furthermore, the arsenic and other chemicals, which are killing marine life in those rivers, were of such concern to those S.C. agencies that they ordered your agency to reroute the runoff where it cannot enter S.C. waters. It is my understanding you you have agreed to route this contaminated runoff into the Savannah River at the city of Savannah by January of 1995.

Since I have been inquiring into this problem, I have also been advised of other studies that have been conducted regarding my land by other agencies. I have requested and received copies of studies from the COE, and the NOAA-Marine Fisheries Laboratory at Charleston, S.C. I have been informed of and requested other studies that have been completed by the U.S. Fish & Wildlife Service the University of Georgia. I have further been advised of other studies of which I have requested. Of all the studies conducted, each seem to reveal a high level of dangerous chemicals which have been and are currently being pumped onto my land.

To add insult to injury, I have been advised that your agency holds the opinion that I am liable for any chemicals which exist on my property. Since that is your opinion, I am demanding that you stop dredging on my property as I am not able to accept that liability.

I realize that the government had the authority in the 1950's to condemn this land for an spoilage easement, but I do not think the government can place toxic chemicals on this or any other personal property. The pristine quality of my property has been destroyed and you expect me to assume the liability.

I am disgusted that your agency has destroyed my property as well as that of adjacent landowners, but am grateful that the state of South Carolina responded and stopped your agency from contaminating our rivers. However, I am concerned that you continue pumping this poisonous waste into the Savannah River.

Many people in the low country of Jasper and Beaufort counties as well as those of the city of Savannah and Chatham County enjoy boating and fishing in the Savannah River, you should not be allowed to expose them to increased levels of dangerous chemicals caused by dredging operations. Additionally, numerous fish and wildlife have suffered detrimental effects from this contamination.

What effects will these chemical findings now have on the Olympics that are scheduled to come to Savannah for water sports in and around the Savannah harbor? The people of the Olympics certainly need to be made aware of all the chemicals now being stirred up and pumped into the Savannah River due to the dredging operation.

I understand that the Georgia Ports Authority needs deep channels to run ships. However, other ports have faced this problem and have chosen to take their spoilage out to sea. Since we have this option, it should be exercised to reduce the polution in this area.

I guess I should not place all the responsibility for this problem on your agency as your study reflects that Chatham County, Georgia is responsible for maintaining the spoilage area facilities in Jasper County, South Carolina. Additionaly, the Georgia Department of Transportation (GA DOT) serves as the owner/operator of the spoilage area. Just because they have been using this land improperly for 40 years, gives them no right to call themselves the owner.

Approximately 5 years ago the GA DOT offered me $300 per acre for my land in the spoilage area on the Savannah River, which I refused. At the same time, they did purchase several hundred acres adjacent to me for approximately $900 per acre. At the time I did not understand the difference in the price, but now I firmly believe they knew they had already contaminated my land through the COE dredging operation.

The environmental impact on Jasper County and the city of Savannah is criminal. Many residents of Jasper, Beaufort and Chatham Counties either work in the fishing industry or simply enjoy the waterways. With the documented findings of the above mentioned studies, we now know that marine life cannot survive in the contaminated waters adjacent to the spoilage area; and we also know by these studies that the contamination will get worse before it gets better.

We host the largest waterfowl area (at the spoilage site) of any location near this area. We have ducks by the thousands on my property. It is sad to know the quality of water in which they feed and swim. I would like to go out and put up a sign stating POLLUTED WATER, DO NOT NEST, DRINK OR FEED IN THIS AREA, but it will not be that easy to save our dying duck populations. I wonder how long they can live after being exposed to high levels of ARSENIC, CADMIUM, COPPER, LEAD, MERCURY, NICKEL, SILVER, ZINC and MANGANESE as well as POLYCYCLIC AROMATIC HYDROCARBONS. Additionally, what is the effect on humans who consume fish, shellfish and wildlife from these contaminated areas.

A study should now be done on the amount of pollutants in the air in the city of Savannah less than a mile south of the spoilage area when a north wind blows across the dry, loose polluted sand. There is very little vegetation in the spoilage area and this could cause a threat to the entire city of Savannah. My belief is based on the findings in the strategy study of the COE and the study conducted by NOAA at the Charleston, S.C. laboratory.

Three years ago I leased an old abandoned service station site to the U.S. Postal Service in Hardeeville, S.C. During the excavation of the land, the S.C. Health Department discovered an old underground gas tank. I had to pay $20,000 to have the old tank and nearby dirt removed and burned in Charleston, S.C., in order to comply with EPA regulations.

I must question if your agency would be responsible for removing the contaminated dirt from the spoilage area to have it properly disposed. I welcome EPA involvement to enforce their regulations in having your agency return this land to the pristine condition that existed prior to dredging.

I have several reports from federal and state studies that document the contamination you have pumped on my property. I demand you stop the pumping of contaminated spoilage onto my property in Jasper County, South Carolina.

Please reply to me within 10 days, as I believe that would be sufficient time. I request all replies be sent to my daughter and son-in-law, Bonnie and Duane Swygert who live next door on our farm. Their home number is 803-784-2699 and work is 803-784-2844. The mailing address is P.O. Box 486, Hardeeville, SC 29927.

Sincerely,

Louise M. Thomas

Louise M. Thomas

RESPONSE -- Louise M. Thomas,
February 21, 1995.

Savannah District provided a response to Ms. Thomas in a letter dated March 19, 1995. The environmental issues raised in her letter are addressed individually in the following paragraphs:

PUBLIC HEARING. No public hearing was held in January for the Savannah Harbor LTMS Study.

WEIR EFFLUENT STUDY/UNDERDRAINS. As a result of information which became available through the weir effluent study conducted by Savannah District, the District volunteered to close underdrains which discharge to the small tidal creeks in South Carolina. Those small creeks had insufficient flow capacity to accept those discharges without impacts which the District determined to be unacceptable to the aquatic resources in those creeks. One component of the LTMS was an evaluation of the installation and operation of new underdrains which would drain the other direction from that previously in use so that they would discharge to the Savannah River or Back River.

SEDIMENT QUALITY. The review of the quality of river sediments was documented in Appendix F SEDIMENT QUALITY EVALUATION. That evaluation concluded that the harbor sediments reflect soils of the region, as no chemical parameters within the average harbor sediments exceed values recorded in naturally-occurring soils in Georgia and the southeastern US. The concentration of chemicals found in the sediments were below levels which would cause adverse impacts to humans who consume fish, shellfish or wildlife that may use the disposal areas or the receiving waters. The District is aware of no information which supports Ms. Thomas's statement concerning the quality of materials being deposited on her property. Therefore, the District disagrees with Ms. Thomas's statement concerning the quality of the deposited sediments.

LIABILITY. The paragraph in the EIS mentioning this issue (Section 5.46 in the Draft EIS) has been revised to clarify that the liability for the quality of sediments while at a berth rests with the owner of the berth. That paragraph and the next one address the evaluations that must be performed to demonstrate that the material is safe for dredging and placement in the Project's confined disposal areas. If/when the Federal government decides that it no longer needs to use an easement for the Navigation Project, it would release the disposal easement. Under current procedures a Preliminary Assessment Screening would be performed to determine the condition of the property, including an evaluation of the potential for chemical

contamination, prior to release of the easement. If the Preliminary Assessment Screening determines the site contains unacceptable levels of some chemicals, liability for that condition would be determined in accordance with the laws and regulations in effect at that time of the release. Although under present laws the landowner, because of his ownership status, is considered a potentially responsible party, a party or combination of parties involved in the Navigation Project may choose to assume responsibility if they had maintained sole restrictive use of the site since the easement was obtained. If contamination were discovered and a party or parties involved in the Navigation Project chose to assume responsibility, under present clean-up standards, prior to release of the easement the site would be cleaned to the point where the chemicals would no longer be present at levels which constitute a health or safety hazard. It should be noted that this is the site clean-up standard at the present time and does not represent the standard or laws, if any, in effect at the time of a future easement release.

CONTAMINATION OF OFF-SITE RESOURCES. The District disagrees that weir discharges from the confined disposal facilities are contaminating off-site aquatic resources. Impacts of weir discharges on the receiving waters were evaluated in the EIS and found to be acceptable. Appendix E of the EIS, titled WRIGHT RIVER WEIR EFFLUENT STUDY RESULTS, contained a summary of the study performed of weir effluent and sediments near the South Carolina discharges. The study found that discharges from the overflow weirs did not result in acute effects to aquatic life. Based on the study findings, the District determined that relocation of the overflow weirs was not warranted. The South Carolina Department of Health and Environmental Control (DHEC) Office of Oceans and Coastal Resource Management (OCRM) concurred.

OCEAN DISPOSAL. Sediments deposited in the Bar Channel (entrance channel) are presently deposited at the Savannah Ocean Dredged Material Disposal Site (ODMDS). Such disposal is the lowest cost, environmentally acceptable procedure for sediments excavated from that portion of the navigation channel. Due to the large distance from the inner harbor to the ODMDS, a high transportation cost would be incurred should inner harbor sediments be placed at that site. However, should upland sites become unavailable for inner harbor sediments, placement at the ODMDS would be evaluated.

IMPACTS TO ON-SITE WILDLIFE RESOURCES. The review of the quality of materials placed in the confined disposal facilities was documented in Appendix F SEDIMENT QUALITY EVALUATION. That evaluation concluded that the harbor sediments reflect soils of the region, as no chemical parameters within the average harbor sediments exceed values recorded in naturally-occurring soils in Georgia and the southeastern US. No chemicals are found in the river sediments at levels which would be harmful to ducks using the disposal areas.

AIR-BORNE POLLUTION. Although air is a potential pathway for the movement of materials off the confined disposal facilities (CDFs), the District does not believe there is a reasonable likelihood of adverse impacts to adjacent areas from dust leaving the CDFs.