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**FINAL SUPPLEMENT**

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**NORFOLK HARBOR AND  
CHANNELS, VIRGINIA**

**LONG-TERM DREDGED  
MATERIAL MANAGEMENT  
(INNER HARBOR)**



**US Army Corps  
Of Engineers**

Norfolk District  
May 1992

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## INTRODUCTION

In order to continue vital dredging, maintaining appropriate navigable depths, and preserving the economic health of the Port of Hampton Roads, the Norfolk District, in response to a 1986 request from the Commonwealth of Virginia, initiated a study of alternatives for replacing the Craney Island Dredged Material Management Area (CIDMMA) when its filling is complete in the late 1990's. A draft report of this study and an Executive Summary were submitted to the Virginia Port Authority in June 1990. They were circulated for review by the Virginia Port Authority and comments were received from Federal, state, local, and private interests.

In 1991, the General Assembly of Virginia passed a bill precluding any further expansion of CIDMMA. The Governor signed the bill into law in April 1991. As a result of the state's actions a new strategy is warranted to finalize this report and resolve the need for long-term dredged material placement in Hampton Roads. Accordingly, this supplement has been prepared to define the outstanding issues that must now be resolved for the placement of material dredged by Federal, state, and private interests from the inner harbor of Hampton Roads.

## PURPOSE

The purpose of the supplement is to complete the long-term dredged material management report for the inner harbor and to identify the impacts on the Port of Hampton Roads as a result of the action by the Commonwealth of Virginia and the comments received on the report from Federal, state, local, and private interests. It will suggest the direction that the Commonwealth may wish to consider for the long-term management and placement of material dredged from Federal, state, and private channels from the inner harbor of Hampton Roads. This would include (a) the future action required for placement of material in the ocean, (b) exploration and studies of beneficial uses, (c) the need to promptly restrict Craney Island Dredged Material Management Area for the deposition of only unsuitable material, (d) the consideration to further raise

the height to which dredged material can be placed in the CIDMMA, and finally (e) education of all concerned on the above important matters.

## BACKGROUND

### REVIEW OF PAST EVENTS

The following is a brief review of past events pertinent to authorization and preparation of the long-term dredged material management study and report.

In its review of the district and division recommendations for deepening the harbor to 55 feet, the Board of Engineers for Rivers and Harbors in its report dated 21 January 1981 concluded that while it appeared that ocean placement was more expensive, the Board believed that it was the environmental approach to take (for deepening the harbor channels to 55 feet). Furthermore, the existing Craney Island Dredged Material Management Area was to be utilized for dredged material from the deepening project which is not suitable for ocean placement.

The Board further concluded that post authorization planning studies should be conducted concurrently with the deepening project to identify an acceptable, economical and environmentally feasible solution for long-term placement of dredged material. In accordance with the Board's recommendation and pursuant to the authorization of the Norfolk Harbor and Channels Deepening Project by the Water Resources Development Act of 1986 (WRDA 86), a long-term placement study of dredged material from the inner harbor was conducted and a report and Executive Summary prepared.

Since dredged material placement is a non-Federal responsibility, the study resulted in an information report to assist the Commonwealth of Virginia, as local sponsor of the Norfolk Harbor Deepening Project, make a decision concerning long-term dredged material management. The report disclosed two plans that appeared to be practical and feasible: an expansion of Craney Island, and ocean placement. Whether expansion of Craney Island would have ultimately been determined to be environmentally acceptable and permissible would have depended on the outcome of the procedural requirement of the

National Environmental Policy Act (NEPA) and the Clean Water Act (in the case of an expansion of Craney Island).

#### STATE BILL TO PRECLUDE EXPANSION OF CRANEY ISLAND

The following is a copy of House Bill No. 1478 as passed by the 1991 session of the Virginia General Assembly and signed by the Governor. The bill precludes any state agency from expanding Craney Island.

"1. That the Code of Virginia is amended by adding a section numbered 62.1-132.20 as follows:

§ 62.1-132.20. Craney Island Disposal Area -

A. No agency of the Commonwealth, including the Virginia Port Authority, shall have the authority to expand the Craney Island Disposal Area northward or westward or beyond its present capacity or to cause activities which will result in such expansion of the Craney Island Disposal Area. In addition, no state funds shall be expended for any activities which will result in the expansion of Craney Island northward or westward or beyond its present capacity as a disposal area for material dredged from any site, including the Hampton Roads Harbor.

B. The Virginia Port Authority is hereby directed, in coordination with other state and federal agencies, including the United States Army Corps of Engineers, to locate, establish, and use ocean disposal areas for ocean-suitable dredge materials from Hampton Roads Harbor, or some other suitable site, and to use the existing Craney Island Disposal Area for dredge material suitable or unsuitable for alternate disposal, including ocean disposal, with priority given to materials dredged from the Southern Branch of the Elizabeth River.

C. Prior to the disposal of any dredged material either at an ocean area or on the Craney Island Disposal Area, after the Craney Island Disposal Area has attained its capacity limit, the appropriate state agencies shall investigate and consider the availability of beneficial uses of the dredged material. The appropriate state agencies shall consult with state and federal agencies to ensure the environmental acceptability of any beneficial use. When such environmentally

acceptable beneficial use is available, the appropriate state agencies shall pursue such use.

For purposes of this section "Craney Island Disposal Area" means that parcel of land lying and being in the body of water known as Hampton Roads Harbor, within the City of Portsmouth and adjacent to the City of Suffolk."

#### SUMMARY OF REVIEW COMMENTS

The following interests provided comments on the long-term dredged material management report. Correspondence containing the comments is included as attachment 1. It is not considered necessary or warranted to address individual comments as a part of this supplement. Those comments concerned with the expansion of Craney Island have been precluded by the Commonwealth's action to restrict an expansion by state law. Those comments concerned with the existing Craney Island, ocean placement, beneficial uses of dredged material, and other related matters will be considered as part of the overall effort to develop a future dredged material management strategy for Hampton Roads.

- U.S. Navy
- U.S. Fish and Wildlife Service
- Virginia Council on the Environment
- Virginia Department of Conservation and Recreation
- Office of the Attorney General
- Virginia State Water Control Board
- College of William and Mary, Virginia Institute of Marine Science,  
School of Marine Science
- College of William and Mary, Virginia Institute of Marine Science,  
Wetlands Program
- Virginia Port Authority
- City of Norfolk
- City of Portsmouth
- Governor Wilder
- Chairman, Craney Island Study Commission

- Executive Committee, River Shore Civic League
- President, Hampton Roads Maritime Association
- Chesapeake Bay Foundation
- Chesapeake Bay Local Assistance Department.
- Hampton Roads Planning District Commission

Most of the comments did not recommend further expansion of Craney Island due to concerns relative to loss of habitat, wetlands impact, reduction in the cross-section area of James River, possible changes in current flow and water circulation, effect on James River oyster beds, and the impact on adjacent real estate values. Action by the Virginia General Assembly and local residents of Portsmouth and Suffolk clearly indicates that expansion of Craney Island is not socially acceptable. Instead, opponents favor ocean placement of suitable material and use of the existing Craney Island for unsuitable material. Proponents of an expansion of Craney Island were generally concerned with the efficiency of dredging operations and the potential negative impacts on the viability of the port's economy resulting from higher dredging costs. In addition, there is support for beneficial use of dredged material when determined to be feasible and practical.

## REMAINING ISSUES

As a result of recent action by the Commonwealth, there is a need to develop an overall strategy for managing dredged material in Hampton Roads consistent with the Corps national dredging program and recommendations contained in EPA's "Evaluation of Dredged Material Proposed for Ocean Disposal -- Testing Manual" (Green Book). The following paragraphs describe the issues remaining to be resolved in the placement of dredged material from Federal channels and from access channels from state, city, and private interests. These include the potential for (a) raising Craney Island dikes, (b) need to explore beneficial uses for dredged material, and finally, (c) deposition into the Atlantic Ocean.

## NEED TO CONTINUE INTENSIVE MANAGEMENT OF CRANEY ISLAND

At present, the Craney Island dikes are at, or near their maximum design height. The question arises as to whether the useful life of Craney Island can be extended by raising the elevation of the containment area. In this connection, studies are underway to evaluate the latest technical methods for dewatering the site in order to shrink (lower) the existing fill height and allow further raising of levees in the future at Craney Island.

Although studies have indicated that removal of material from Craney Island is not an economically feasible option, a review of its feasibility may be warranted depending on changing conditions, technological advances and amount of suitable and/or unsuitable material to be placed into Craney Island and to be removed therefrom.

## NEED TO EXPLORE BENEFICIAL USES

As indicated in the information report, there is a need to treat dredged material as a resource and where possible, use it for beneficial purposes. This is a theme that is being emphasized nationwide throughout the Corps of Engineers. Secondly, there is opportunity to reduce overall dredging costs by implementing various cost effective alternatives which may also have beneficial impacts. Commonwealth of Virginia, through the Virginia Port Authority, has expressed its strong desire to be an active cost-sharing partner with the Corps in a study of these needs and opportunities. In keeping with the Commonwealth's request, the Corps has initiated a study to use dredged material as a resource. In keeping with the initiatives of the Chesapeake Bay Agreement, emphasis will be placed on the following:

- a. Where needed and feasible, improving sediment substrate for benthic organisms using dredged material (habitat enhancement for commercial shellfish and benthos which serve as food for higher organisms),
- b. Using suitable dredged material for wetland enhancement, for shoreline erosion control, and for habitat for living resources,

c. Investigating sites where dredged material islands/underwater berms could be created in the lower bay to provide habitat diversity/development for fish and wildlife resources, and

d. Develop possible mitigation banking alternatives for section 404 permit activities.

Beneficial uses can be very effective in supplementing any long-term dredged material management strategy for Hampton Roads.

#### NEED TO DESIGNATE NORFOLK DREDGED MATERIAL MANAGEMENT AREA

The area described as the Norfolk Dredged Material Management Area (formerly the "Norfolk Disposal Site") is a dredged material placement site delineated by a circle with a radius of 4 nautical miles in the coastal waters off the mouth of Chesapeake Bay. The site is located about 17 nautical miles due east of the Chesapeake Bay mouth and about 45 miles from Craney Island as shown on attachment 3. It is approximately 50 square nautical miles in area. EPA is in the process of designating the Norfolk Site.

#### NEED FOR MANAGEMENT OF OCEAN PLACEMENT AND RESTRICTION OF CRANEY ISLAND

The following are issues which must be resolved in connection with the placement of dredged material from Hampton Roads Harbor.

- a. Development of an ocean placement management policy.
- b. Restricting Craney Island for only unsuitable material.
- c. Establishment of a public education and/or awareness program.

The following is a brief summary of specific items that must be addressed for each issue in connection with the implementation of ocean placement and restriction of Craney Island.

Development of an ocean placement management policy.

- In 1977, the Environmental Protection Agency (EPA) and the Corps of Engineers published the testing manual titled "Ecological Evaluation of Proposed Discharge of Dredged Material Into Ocean Waters" (commonly referred to as the "Green Book" or "testing manual"). This national manual is used to determine the suitability of dredged materials for ocean placement based upon the biological testing requirements of the 1977 Ocean Dumping Regulations (40 CFR 220-228). In 1990, a revised testing manual was developed and distributed for comment. EPA and the Corps used the comments on the 1990 draft manual to develop a 1991 revised national testing manual entitled "Evaluation of Dredged Material Proposed for Ocean Disposal - Testing Manual." This 1991 manual, dated February 1991, will be gradually phased in to replace the 1977 manual in its entirety. During this time, EPA Regions and Corps Districts will jointly develop and agree upon local implementation agreements/manuals. According to EPA, EPA Region III and Corps Districts, Norfolk and Baltimore, must work together to prepare a regional implementation manual. When the regional implementation manual goes into effect, some of the material within Norfolk Harbor and Channels may have to be retested to comply with new testing procedures.

- A permit process incorporating an extensive testing procedure to insure that only suitable material is placed in the ocean must be established. In this connection, detailed testing of dredged material would be required in order to determine where the material should be placed. There would also have to be some form of certification for testing laboratories to assure that there is accuracy and consistency in testing procedures.

- A monitoring plan will have to be developed for ocean placement of dredged material. The plan would insure proper placement of material to assure material is actually placed inside the ocean site and not "short dumped" in Chesapeake Bay to save time and money. It would also provide for the evaluation of any ecologic and hydrologic effects at the ocean site.

- Cost-sharing policy for Federal Projects for both new work and maintenance must be determined. Cost sharing is normally based on the least costly and environmentally acceptable dredged material placement alternative, and the specific provisions outlined in the Water Resources Development Act of 1986 (Public Law 99-662).

#### Restricting Craney Island for only unsuitable material.

- Since it is essential that a long-term placement area for unsuitable material be established because the existing management plan for Craney Island which provides for the placement of all material, both clean and unsuitable, has a relatively short life, it should be modified to incorporate only unsuitable material. This would incorporate ongoing investigations such as the study by the Waterways Experiment Station to develop a management plan for only unsuitable material being placed in Craney Island.

- A methodology for setting tolls for Craney Island must be considered. If authority is obtained to adjust tolls to reflect equitability between placement of suitable and unsuitable material, it will be necessary to establish a procedure for calculating the appropriate values. The procedure will have to reflect changing variables and conditions and be revised periodically.

#### Establishment of a public education and/or awareness program.

- The establishment of an advisory committee consisting of Federal, state, regional, local, and private interests to insure adequate input for any actions that may be implemented.

- The establishment of a public education program to insure that all future actions contemplated for the placement of dredged material are understood.

## CURRENT DISTRICT EFFORTS

Recognizing the need for a long-term dredged material management strategy, the Norfolk District is already moving forward toward the accomplishment of several actions. These are briefly summarized as follows:

- Norfolk Dredged Material Management Area. The district continues to support EPA in the designation process. It is anticipated that this site will receive final designation during 1992.
- Beneficial Uses of Dredged Material. The district in cooperation with the Virginia Port Authority is conducting a study to evaluate the potential for using dredged material in a beneficial manner. Emphasis is being given to enhancing the environment of the lower Chesapeake Bay and reducing overall dredging costs.
- Raising the levees at Craney Island. The district is currently conducting studies to evaluate the the latest technical methods for dewatering the site in order to shrink (lower) the existing fill height and ultimately allow further raising of the levees at Craney Island with a view toward extending its useful life.
- Management Plan for Restricting Craney Island to Unsuitable Material. The district with assistance from the Waterways Experiment Station is currently developing a management plan for Craney Island to allow for the possibility of restricting its use to only material that is unsuitable for ocean placement.
- Norfolk Harbor Advisory Committee. The Norfolk District Engineer has established a Norfolk Harbor Advisory Committee made up of key personnel from the functional elements within the district. The purpose of this committee is to identify and address all issues and concerns in connection with the various facets of the Norfolk Harbor and Channels project and to formulate strategies for resolving these concerns. Dredged material management is a key topic under consideration by this committee.

## COORDINATION

This supplement has been coordinated with the agencies and interest groups that had previously reviewed the draft information report on Norfolk Harbor and Channels, Virginia, Long-Term Dredged Material Management (Inner Harbor), dated June 1990. Comments received were generally comparable to those previously made on the draft information report. Copies of correspondence specifically in response to this supplement are contained in attachment 2.

The review comments focused on the following:

- a. Environmental concerns associated with restriction of Craney Island for only unsuitable material;
- b. The need to consider beneficial uses of dredged material (including removal of material from Craney Island);
- c. Cost sharing associated with the ocean placement option;
- d. Need to intensively manage Craney Island in order to extend its useful life;
- e. General environmental concerns with ocean placement of dredged material; and
- f. The possible severe financial impact on the Commonwealth of Virginia as well as private maritime interests resulting from ocean placement of dredged material (due to the long distance to the ocean sites).

The Virginia Port Authority, as local cost sharing sponsor, generally concurs with the conclusions and recommendations included in the supplement

and agrees that the supplement should be approved as the final document to formally close out the Inner Harbor Long-Term Dredged Material Management Study. The port authority recognizes that dredged material management is a complex issue and that additional work will be necessary in order to solve the remaining issues and questions and to implement a long-term strategy for the Port of Hampton Roads. A copy of the correspondence from the Virginia Port Authority is also contained in attachment 2.

## CONCLUSION

Based on the results of the long-term dredged material management study for the inner harbor of Hampton Roads and subsequent action by the Virginia General Assembly and Governor Wilder, it is believed that ocean placement of suitable material, restriction of Craney Island for unsuitable material and beneficial uses of dredged material should be pursued as an acceptable long-term dredged material management strategy. In this regard, there is a need for the Corps in cooperation with the Virginia Port Authority to promptly address all issues and questions surrounding the ocean placement option and develop an appropriate policy and procedure for implementing this strategy. Recognizing the significance of these issues and their importance to the Commonwealth, the district has established an advisory committee, as previously discussed, to assist in this endeavor.

## RECOMMENDATION

It is recommended that this supplement be approved as the final document which formally closes out the Draft Information Report, dated June 1990, entitled Norfolk Harbor and Channels, Virginia, Long-Term Dredged Material Management (Inner Harbor).

There is no doubt that additional work will be necessary in order to implement a long-term dredged material management strategy for the Port of Hampton Roads. Solving the remaining issues will require the close attention and commitment of both the Commonwealth of Virginia and the Federal

Government until a clear and acceptable plan is agreed upon. The information report has served the purpose of isolating plans that the Commonwealth does not wish to pursue as well as identifying an approach that is worthy of further consideration. Therefore, it is also recommended that the Corps continue to work closely with the Virginia Port Authority to develop an overall long-term dredged material management strategy and resolve related issues under an appropriate study cost sharing policy.



R. C. Johns  
Colonel, Corps of Engineers  
District Engineer

# ATTACHMENT 1

COMMENTS FROM FEDERAL,  
STATE, LOCAL, AND PRIVATE  
INTERESTS ON  
DRAFT  
INFORMATION REPORT

COMMENTS FROM FEDERAL, STATE, LOCAL,  
AND PRIVATE INTERESTS  
ON DRAFT INFORMATION REPORT

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COMMONWEALTH OF VIRGINIA

BOARD OF COMMISSIONERS

Virginia Port Authority  
600 World Trade Center  
Norfolk, Virginia 23510  
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Telephone (804) 683-8000  
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April 9, 1991

Colonel Richard C. Johns  
District Engineer  
Norfolk District  
U.S. Army Corps of Engineers  
Fort Norfolk  
803 Front Street  
Norfolk, Virginia 23510-1096

RE: Draft Norfolk Harbor and Channels Long-Term Disposal Report

Dear Colonel Johns:

As you know, a copy of the above referenced report was furnished to Federal, state and local interests for review and comment.

Please find enclosed the comments received to date. They are from the following organizations:

Federal

- \* Department of the Navy, Atlantic Division, Naval Facilities Engineering Command

State

- \* Council on the Environment (included Council's staff assessment and comments received from State Water Control Board, Chesapeake Bay Local Assistance Department and Virginia Institute of Marine Science)
- \* Department of Conservation and Recreation
- \* Office of the Attorney General
- \* State Water Control Board (separate response)
- \* Virginia Institute of Marine Science (separate response)
- \* Virginia Port Authority

Attachment 1

Colonel Richard C. Johns  
April 9, 1991  
Page 2

Local

- \* City of Norfolk
- \* City of Portsmouth
- \* City of Suffolk
- \* City of Virginia Beach
- \* Craney Island Study Commission
- \* Hampton Roads Maritime Association

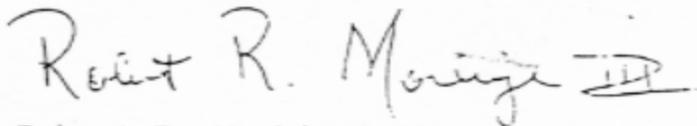
The U.S. Fish and Wildlife Service and the River Shore Civic League responded directly to the Norfolk District.

If further responses are received, they will of course be sent to you.

While the study appears to have been overtaken by events, please be assured that the VPA very much appreciates the tremendous and painstaking effort put into the study's preparation by personnel of the Norfolk District. We look forward to continuing the excellent professional relationship that has always existed between the Corps and VPA.

With best regards, I am

Very truly yours,



Robert R. Merhige, III  
General Counsel

cc: J. Robert Bray

Enclosures

T.OP\CR-91\JOH-91.A09:RRM\prh

Attachment 1



DEPARTMENT OF THE NAVY  
ATLANTIC DIVISION  
NAVAL FACILITIES ENGINEERING COMMAND  
NORFOLK VIRGINIA 23511-6287

TELEPHONE NO

445-2313

11010<sup>10</sup> REPLY REFER TO

2022

29 FEB 1991

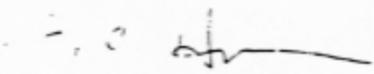
Virginia Port Authority  
Attn: Mr. Robert R. Merhige, III  
600 World Trade Center  
Norfolk, VA 23510

Dear Mr. Merhige:

We wish to thank you for the opportunity to comment on the U. S. Army Corps of Engineers' Draft Norfolk Harbor and Channels Long-Term Disposal Report. You will find our general comments attached. Our comments are general in nature rather than a technical review in response to the complete document.

We wish to continue to participate in the process and I would ask you to notify us of future scoping meetings, public hearings or document reviews. In representing local Navy Commands in Hampton Roads with planning and engineering support, we are and will continue to be concerned with the impacts of dredge disposal due to its environmental impacts, costs, and budget impacts on existing and future Navy operations and projects.

Sincerely,

  
THOMAS D. WARREN, P.E.  
Naval Facilities Engineering Command  
Norfolk, Virginia 23511-6287  
Commanding Officer

Encl:  
(1) Comments

NAVY COMMENTS ON DRAFT INFORMATION REPORT  
NORFOLK HARBOR AND CHANNELS, VIRGINIA  
LONG-TERM DISPOSAL (INNER HARBOR)

1. Page 4 of the Draft Executive Summary states that "THE COSTS OF MANAGING DREDGED MATERIAL WILL INCREASE SUBSTANTIALLY OVER WHAT THEY HAVE BEEN WITH THE EXISTING CRANEY ISLAND SITE." As the second major user of the Crane Island Disposal Area (CIDA) from 1978 to 1987, as indicated in Appendix C, page 18, the Navy will be greatly impacted by the decision on which disposal method will be used in the future. Additionally, since a large quantity of our dredge material is currently pumped to Crane Island, the differential cost of ocean disposal would have a greater impact on the Navy than other users. Because of this significant financial impact to future Navy dredging projects, we request you continue to keep us informed of the status of the decision on long-term disposal methods.
2. The Navy concurs with the statement in paragraph 3 on page 5 of the Draft Executive Summary which states that "Federal policy has always been to use the least costly environmentally acceptable alternative. If the required NEPA documentation finds that the Crane Island expansion is environmentally acceptable, this option would be the preferred alternative."
3. Page 5 of the Draft Executive Summary states that if the State decides to proceed with use of the Dam Neck Ocean Disposal Site (DNODS) and/or the Norfolk Disposal Site (NDS), then "the State may need to assume the added cost for maintaining authorized channels..." Would the State also be required to bear the differential costs for Navy and other private dredging projects?
4. Based on information on Page 6 of the Draft Executive Summary, it appears as if the State could proceed with selecting use of the DNODS and/or NDS without any further public review since no NEPA documentation is required. How would impacted parties be informed of this decision?
5. Should use of the DNODS and/or NDS be the selected alternative, increased testing of dredged material will be required to determine its appropriateness for ocean disposal. We would need guidance on exactly what type of testing would be required, and the level of testing. The creation of generalized zones as discussed on page 264 of the Main Report would be beneficial.
6. In Table 3 on page 28, reference to the Naval Weapons Center should be changed to the Naval Weapons Station.
7. The Navy concurs with the elimination of the Willoughby Bay location from further consideration.
8. The Navy, as an adjacent property owner, would like to be kept informed of any plans for turning over a portion of the east levee area of the CIDA to the State for possible development.
9. The DNODS is situated within the gunnery and rifle range for the Fleet Combat Training Center. Use of this site must be coordinated with the FCTC Weapons Officer at 433-6677.



# COMMONWEALTH of VIRGINIA

## *Council on the Environment*

January 31, 1991

Mr. Robert R. Merhige, III  
General Counsel  
Virginia Port Authority  
500 World Trade Center  
Norfolk, Virginia 23510

RE: Norfolk Harbor and Channels Long-Term Disposal

Dear Mr. Merhige:

This letter responds to your January 4 letter requesting the Council's comments on the accuracy and methodology used in the study concerning the long-term disposal options for Norfolk Inner Harbor dredged materials as reflected in the Draft Information Report recently published by the Army Corps of Engineers.

The Council did not coordinate a review of the report based on our earlier understanding from the Port Authority and the Corps of Engineers that the report was for informational purposes only. Accordingly, our response is based on the Council's staff assessment of the report and comments received from the State Water Control Board, the Chesapeake Bay Local Assistance Department, and the Virginia Institute of Marine Science.

The Report identified two viable disposal options which require further consideration. The first plan involves disposal of clean material at an ocean dumping site, and the second plan involves the expansion of the existing Craney Island Disposal Area. Ocean disposal has already been determined to be an environmentally acceptable method for disposal of clean dredged material provided approved sites such as the Dam Neck Ocean Disposal Site are used. As indicated in the Report, studies have shown that most of the dredged material from the Norfolk Harbor channels meets ocean disposal criteria, with the exception of material from the main stem of the Elizabeth River and its Southern Branch. If ocean dumping is selected, contaminated dredged material would be disposed of in the existing Craney Island Disposal Area. As stated on page 188 of the Main Report, the available remaining storage in Craney Island could be used for this purpose for the next fifty years.

Plan B, one of six plans considered in the Report for Craney Island expansion, was identified as the most viable option. This plan contemplates westward enlargement of the Craney Island diked open water disposal site and would result in the irrevocable conversion of about 2,500 acres of estuarine bottomland to a disposal area. This loss would amount to almost 8 percent of the remaining aquatic habitat in the Hampton Roads area. This benthic habitat serves as foraging and nursery areas for a number of commercially and ecologically important finfish.

As you are aware, if Plan B is selected for the long-term disposal of dredged material from the Norfolk Inner Harbor, then an Environmental Impact Statement (EIS) must be prepared pursuant to the requirements of the National Environmental Policy Act (NEPA). As conceded in the Report, westward expansion of Craney Island will be permitted only if it is determined, within that review process, to be environmentally acceptable. In the case of ocean disposal options, NEPA requirements have already been fulfilled for the Dam Neck Ocean Disposal Site and are presently being fulfilled for the Norfolk Management (Disposal) Site.

The designation of Plan B (westward expansion of Craney Island) by the Corps as the National Economic Development Plan (least cost) is premature since it is impossible to perform cost analysis without fully analyzing the impacts of expansion on natural resources. Also, the cost for mitigation of natural resources and habitat losses will necessarily increase the cost of Craney Island expansion and must be included in the cost analysis. In arriving at the cost for compensatory mitigation, the Corps assumed that the mitigation proposal discussed in Appendix E of the Report is acceptable. This mitigation plan is based on out-of-kind habitat replacement and involving off-site restoration of tidally influenced waters. This type of mitigation (compensatory) has the lowest ranking in the sequencing for mitigation set out in the Section 404(b)(1) guidelines of the Clean Water Act and is only allowed in instances where there are no other viable alternatives available. In keeping with federal policy, the Corps is obliged to use the least costly, environmentally acceptable alternative. At this point the expansion of Craney Island has not been determined to be an environmentally acceptable alternative.

The Virginia Institute of Marine Science has expressed reservations about the Lower James River Circulation Study conducted by the Corps. The Corps, in endeavoring to analyze the effect of Craney Island enlargement upon circulation patterns, conducted two-dimensional studies which did not include salinity changes. Salinity controls the distribution of two important oyster pathogens (Perkinsus marinus (Dermo) and Haplosporidium nelsoni (MSX) and should, therefore, be included in models designed to evaluate the impacts of circulation changes on marine resources. In addition, the transport of oyster larvae, upon which the James River seedbeds are dependent, is driven by cir-

ulation and salinity distribution. Thus the models used in the Corps' study cannot fully address the issues. We recommend that the Corps coordinate with the Virginia Institute of Marine Science concerning the results of the lower James River studies which were undertaken by VIMS to evaluate the potential impacts of the New Port Island development on marine resources. These studies utilize a three-dimensional model which includes local salinity distribution. The results of the VIMS studies should be incorporated in the EIS for Craney Island expansion.

We remind you of the Commonwealth's policy to use suitable dredged material for beneficial purposes. Consequently, at the time of dredging, the beneficial use (beach nourishment, shoreline stabilization) of suitable dredged material should be given top priority regardless of the plan that is selected for the long-term disposal. The life of the existing Craney Island Disposal Area could be extended by removing and using the clean material there for beneficial purposes. These issues should be further addressed in the plan.

The alternative that is eventually selected must not undermine the Commonwealth's efforts to restore the vitality of the Chesapeake Bay. Hampton Roads, as part of the Bay, comes under the state policy protection afforded pursuant to the Chesapeake Bay Agreement of 1987. The federal government is one of the parties signatory to this agreement. The loss of habitat which would result from westward expansion of Craney Island is a critical issue which must be addressed in light of the policies enunciated in that Agreement. The Corps is cognizant of this as stated on page 2 of Appendix E, "Environmentally, the loss of shallow water habitat may appear to hinder the accomplishment of the 1987 Chesapeake Bay agreement to enhance, protect, and restore the resources of the Bay."

Thank you for the opportunity to comment on this Report.

Sincerely,



Keith J. Buttleman

cc. The Honorable Elizabeth H. Haskell  
E. Duke Whedbee, CBLAD  
C. E. Easlick, SWCB  
Thomas A. Barnard, Jr., VIMS  
Tony Watkinson, VMRC  
Tom Yancey, ACOE



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF CONSERVATION AND RECREATION

203 Governor Street, Suite 302

TDD (804) 786-2121

Richmond, Virginia 23219 (804) 786-6124

FAX: (804) 786-6141

January 25, 1991

Robert R. Merhige, III  
General Counsel  
Virginia Port Authority  
600 World Trade Center  
Norfolk, VA 23510

re: Norfolk Harbor and Channels Long-Term Disposal

Dear Mr. Merhige:

The Department of Conservation and Recreation has reviewed the draft report on the subject project and offers the following comments.

The Draft Executive Summary, on page 6, states that the "Fish and Wildlife Service and the Corps recommend a compensation for the loss of fish and wildlife habitat if an expansion to Craney Island is constructed." The proposed mitigation, however, does not address recreation of the lost habitat but addresses improvement of existing areas or problems. A formula using suggested property values based on the present CIDA provides funds for mitigation. However, are the funds sufficient to improve other habitats to compensate for the loss of 2,500 acres of subaqueous bottom? It would appear that accurate costs of mitigation are not available, which minimizes the true cost of expansion.

If Craney Island is expanded, the following restrictions on use should be implemented:

- 1) The use of the Craney disposal area should be limited to materials resulting from federal and state navigation projects and contaminated sediments from private and/or commercial projects.
- 2) Sediments suitable for beach nourishment must be placed on the local beaches, if the local governing body is in favor of placement.
- 3) Sediments not contaminated or not accepted for beach nourishment must be used for other approved beneficial uses or taken to ocean disposal sites.

Robert R. Merhige  
January 25, 1991  
Page Two

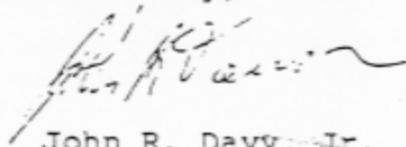
- 4) The user fees should be set to cover the costs associated with planning, construction, and maintenance of the Craney facility.

If Craney Island is not available for future dredge material disposal, because another site is selected or by management strategy, disposal costs should not be based on the assumption that Craney Island is the least cost alternative.

Finally, we note that the existing Craney Island disposal site has been used as a nesting area for several rare bird species, including least terns (Sterna antillarum, G4/S2, listed federally endangered) and piping plovers (Charadrius melodus, G2/S2, listed federally threatened). Plans to expand Craney Island to accept more dredge spoil should include management of habitat for the rare birds known to nest there. For further recommendations concerning recovery and management of these species, the Virginia Department of Game and Inland Fisheries as well as Ruth Beck of the College of William and Mary's Department of Biology may be contacted.

Thank you for the opportunity to comment.

Sincerely,



John R. Davy, Jr.  
Planning Bureau Manager

JRD:mre

cc: Charlie Ellis  
Kenn Clark  
Lee Hill



COMMONWEALTH of VIRGINIA  
Office of the Attorney General

Mary Sue Terry  
- Lane Kneedler  
Deborah Love-Bryant

K. Marshall Cole  
R. Dale Guthrie  
Gar Eugene Marshall  
Stephen E. Rosenthal

January 11, 1991

Mr. Robert R. Merhige, III,  
Port Director - Legal & Police Affairs  
Port Authority of Virginia  
600 World Trade Center  
Norfolk, Virginia 23510

Dear Bob:

This is in response to your January 4, 1991 letter to Claire Guthrie concerning the Draft Norfolk Harbor and Channels Long-term Disposal Report. I thank you for returning my phone call while you were in San Diego; even though I did not get to talk to you, you obviously anticipated what my question was. This will confirm that the Office does not possess the technical expertise needed to provide the Port Authority with any technical comments. I trust you will receive those types of comments from the other officials and agencies that received copies of the draft report.

Very truly yours,

Patrick A. O'Hare  
Senior Assistant Attorney General  
Chief, Natural Resources Section

6:12-570/341E  
cc: R. Claire Guthrie



COMMONWEALTH of VIRGINIA

STATE WATER CONTROL BOARD

Richard N. Burton  
Executive Director

Post Office Box 11143  
Richmond, Virginia 23230-1143  
(804) 367-0056

~~2111 Hamilton Street~~  
Please reply to:  
Tidewater Regional Office  
287 Pembroke Office Park  
Pembroke Two - Suite 310  
Virginia Beach, VA 23462  
(804) 552-1840

January 11, 1991

Mr. Robert R. Merhige, III  
General Counsel  
Virginia Port Authority  
600 World Trade Center  
Norfolk, Virginia 23510

Re: Report - Corps Long-Term Dredged Material Management -  
Norfolk Harbor Channels

Dear Mr. Merhige:

Thank you for your January 4, 1991 letter requesting technical comments on the draft Long-Term Disposal Report. I have attached a copy of the September 7, 1990 comments provided through our Agency EIS Coordinator, Mr. C. E. Easlick. If there are further technical comments from the Water Control Board, they will be provided through Mr. Easlick. He may be reached at 804-367-0076.

Sincerely,

L. S. McBride  
Regional Director

cc: C. E. Easlick, OWRM

vpal0111



# COMMONWEALTH of VIRGINIA

## STATE WATER CONTROL BOARD

2111 N. Hamilton Street

### BOARD MEMBERS

William T. Gerner  
Henry O. Holliman  
Ronald M. Plott  
Velma M. Smith  
Patrick L. Standing  
W. Biggood Wall  
Robert C. Winger



Richard M. Bunon  
Executive Director

Post Office Box 11143  
Richmond, Virginia 23250-1143  
5041 367-0056  
TDD 5041 367-9753

September 7, 1990

Mr. Robert R. Merhige, III  
General Counsel  
Virginia Port Authority  
600 World Trade Center  
Norfolk, Virginia 23510

RE: Report - Corps Long-Term Dredged Material Management -  
Norfolk Harbor Channels

Dear Mr. Merhige:

Although not solicited, we have these comments from our review of the referenced material:

- 1) The State Water Control Board recognizes the need for maintaining navigable depths through the Norfolk Harbor and Channels and believes that the work can be done without compromising water quality. From our review of the various alternative plans for disposal, we believe that the following plans are the more viable with respect to protection of water quality:
  - a) Top priority for clean dredged material should be given to beneficial uses, such as beach nourishment and shoreline stabilization. This prioritizing allows deposition of material in an area where it is needed, thus satisfying two (or more) needs.
  - b) Clean material which is unsuitable for beneficial uses -- or that which is surplus to that needed -- must be placed in a suitable disposal area. From a water quality perspective, open ocean disposal is preferred since this would preclude impacts to territorial waters (including wetlands). Sites should be chosen to avoid or minimize impacts to the marine and benthic environments. We recommend use of the Norfolk site (provided it receives EPA clearance) for its estimated long life.

- c) Confined disposal (preferably on land) is, at present, the only acceptable means of disposal of contaminated sediments. Use of the existing Craney Island Disposal Area (CIDA) is recommended rather than the creation of a new disposal area. The useful life of Craney Island, for receiving contaminated material, may be extended by removal of clean material from CIDA (in applications of beneficial use or open ocean site disposal). Further extension of CIDA is not recommended due to loss of habitat, wetlands impacts, changes in current flow, and increased potential for release of leachate.

We appreciate the provisioning of the full report for this important undertaking.

Sincerely,



C. E. Easlick  
Environmental Programs Analyst  
Office of Water Resources Management

ed223/sph

cc: Council on the Environment  
OWRM - C. Bigelow  
TRO - P. Minkin



# COMMONWEALTH of VIRGINIA

## CHESAPEAKE BAY LOCAL ASSISTANCE DEPARTMENT

805 East Broad Street, Suite 701  
Richmond, Virginia 23219

(864) 771-1240  
1-800-243-7224 (TDD)

September 6, 1990

### MEMORANDUM

TO: Ms. Ellie Irons  
Council on the Environment

FROM: E. Duke Whedbee *EDW*  
Environmental Engineer

RE: Norfolk Harbor and Channels Long-term Disposal Report  
prepared by U.S. Army corps of Engineers

At your request we have reviewed the Draft Information Report presenting the long-term proposals for the enhancement or replacement of Craney Island as the major disposal site for Dredging operations in the Inner Harbor of Hampton Roads.

Although the regulations adopted by the Chesapeake Local Assistance Board are not presently a part of the Coastal Resources Management Program, the applicant may be interested the consistency of the proposed activities with those regulations.

The EIR indicates that the Expansion of Craney Island (Plan B) and the alternative utilizing Ocean Dumping with the existing Craney Island Disposal Area are the two most viable options. The Plan B Expansion has been designated the National Economic Development Plan because it provides the most attractive economic scenario.

This choice, however, does impact the greatest area of environmentally sensitive habitats, including 1 acre of estuarine marsh, 42 acres of intertidal flats, 356 acres of shallow water habitat, and 2048 acres of deep water (>2 feet). This loss was estimated at 8 per cent of existing aquatic habitat in Hampton Roads, representing a significant impact on the water quality of Hampton Roads. In addition, indirect impacts to the Resource Protection Area wetlands associated with Hoffler Creek are not addressed. Plan B will involve changes in wind fetch and tidal flow that could lead to changes in these communities. Cost estimates should allow for the potential loss of these additional wetlands due to the closure or constriction of the Hoffler Creek channel.

Current mitigation plans involve indirect or secondary compensations and while the enhancement of oyster beds and anadromous fish passages are commendable, they do not compensate for the direct or indirect impacts on water quality due to the habitat losses outlined above. What direct mitigation measures will compensate for these losses?

Therefore, we support the Ocean Dumping alternative as outlined in the Draft Information Report. This alternative involves little impact to the water quality of Hampton Roads and the Chesapeake Bay and no long term impacts are expected from the utilization of the ocean dumping sites. We suggest that studies designed to offset predicted high costs by improving dredging technology be an integral part of this alternative.

c: Mr. Charles H. Ellis, III, Council on the Environment  
Mr. C. Scott Crafton



Virginia Institute of Marine Science  
School of Marine Science

P. O. Box 1346  
Gloucester Point, Virginia 23062  
804 642-7000, Fax 804 642-7097, Scans 842-7000

January 30, 1991

Mr. Robert R. Merhige, III  
General Counsel  
Virginia Port Authority  
600 World Trade Center  
Norfolk, Virginia 23510

SUBJECT: Comments on U.S. Army Corps of Engineers' Draft  
Norfolk Harbor and Channels Long-Term Disposal Report

Dear Mr. Merhige:

Thank you for your letter of 4 January soliciting technical comments on the subject report. We offered comments earlier to the Virginia Council on the Environment (attached letter to Ms. Ellie Irons), and we have no further comments at this time. We presume the final report will address the issues raised.

Sincerely yours,

Robert J. Byrne  
Associate Director for Research

RJB:cl

Attachment

cc: Mr. Thomas Barnard, VIMS/SMS  
Ms. Ellie Irons, COE



Wetlands Program

Virginia Institute of Marine Science  
School of Marine Science  
P.O. Box 1346  
Gloucester Point, Virginia 23062  
804/642-7380 Fax 804/642-7097

November 15, 1990

Ms. Ellie Irons  
Council on the Environment  
903 Ninth Street Office Building  
Richmond, Virginia 23219

RE: Draft Informational Report: Long Term Dredged Material Management,  
Norfolk Harbor and Channels

Dear Ms. Irons:

Our review of the environmental aspects of the subject report has disclosed several areas of concern where the document should be clarified or supplemented with additional information prior to its achieving suitability as a decision-making tool. Most of the concerns and questions which we have at this point pertain to the expansion option (Plan B). The following comments describe our primary concerns with the proposal and questions which came to mind during our reading of the informational report.

The Craney island expansion proposed (Plan B, north and western expansion) involves two potentially significant geometrical reconfigurations in Hampton Roads. The Craney Island expansion involves closure of an area of 2,500 acres which will accentuate the curvature (in plan) between the lower James River estuary and Hampton Roads and reduce the cross-sectional area between Newport News Point and the northwest corner of Craney Island. The second potentially significant reconfiguration is deepening Newport News Channel to seventy (70) feet.

The distribution of two important oyster pathogens, Perkinsus marinus (Dermo) and Haplosporidium nelsoni (MSX), is controlled by salinity. The transport of oyster larvae (and other planktonic forms) is driven by the non-tidal circulation which is driven by salinity distribution. In particular, VIMS has noted the potential importance to larval transport of a frontal zone in the vicinity of Newport News Point driven by flow phasing and salinity differences.

The time varying distribution of salinity is central to important biological processes, and the transport processes are intrinsically three dimensional. The studies by the Corps of Engineers utilize two-dimensional

(that is, depth averaged flow) models without salinity. Thus the models used cannot, and the Corps so recognized, fully address the issues. Toward this end VIMS has undertaken studies utilizing a high resolution three-dimensional model with salinity. The results of these studies are not yet available.

We have significant concerns with regard to the loss of 2500 acres of estuarine wetlands, and feeding, spawning and nursery habitat. This loss must be considered in the context of not only the historical cumulative losses, but also the long term and short term adverse impacts of the construction activities.

What is the resource value of the subject 2500 acres? To what degree do secondary consumers depend on this area? To what areas will motile organisms go to feed, shed, spawn, etc. which are not already being used to full capacity? Upon what evidence was the conclusion that this area is not critical to the Hampton Roads estuary based?

We have considerable concerns regarding the impacts of turbidity and sedimentation created by the project in both temporal and spacial terms. The studies cited in the report indicating relatively minor impacts of turbidity during dredging generally did not involve uncontained overboard disposal, but only turbidity created by the cutterhead. How long will the entire dike construction activity take? What will be the turbidity and sedimentation footprint for the uncontained dike construction operation?

Several borrow areas are proposed in the report, but their resource values are not discussed. What evidence is there that these areas will return to their former productivity after they have been dredged? Several of the borrow areas appear never to have been dredged before. These represent additional cumulative adverse impacts beyond the expansion itself.

The mitigation section in the report is basically incomplete. The discussion of sequencing is unclear. Of the most importance, however, is the fact that the 2500 acres cannot be compensated and that the various mitigation schemes proposed accomplish virtually nothing in offsetting the adverse effects of the proposed expansion. This basically means that the Hampton Roads estuary will lose 5 to 8 percent of its bottom habitat and experience years of dredging disturbance with little accomplished in the way of countering these losses.

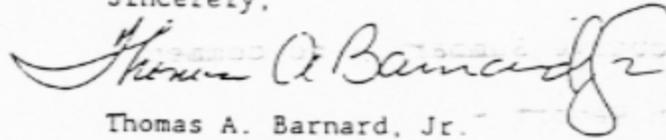
The comments presented above are relatively general due to the short review time available to us. We will be happy to provide more detailed comments should they be needed. Please contact me if I may answer any questions.

Ellie Irons

3

November 15, 1990

Sincerely,



Thomas A. Barnard, Jr.  
Marine Scientist

TAB/jh

C: Mr. Robert Grabb, VMRC  
Dr. Robert Byrne, VIMS

COMMENTS OF VIRGINIA PORT AUTHORITY

NORFOLK HARBOR AND CHANNELS, VIRGINIA LONG-TERM DISPOSAL  
(INNER HARBOR) DRAFT INFORMATION REPORT, JUNE 1990

Executive Summary - no comment

Main Report -

- P.2 Delete the following sentence: "In addition, studies are planned to investigate disposal alternatives in the lower Chesapeake Bay Region."

Add the following:

In September, 1990, the Commonwealth of Virginia through the Virginia Port Authority expressed its strong desire for the Norfolk District to evaluate management plans for the lower Chesapeake Bay with a view toward treating dredged material as a resource and utilizing it in a beneficial manner as well as reducing overall dredging costs. In keeping with the initiatives of the Chesapeake Bay Agreement, emphasis should be placed on the following:

- a. Where needed and feasible, improving sediment substrate for benthic organisms using dredged material (habitat enhancement for commercial shellfish and benthos which serve as food for higher organisms);
- b. Using suitable dredged material for wetland enhancement, for shoreline erosion control, and for habitat for living resources;
- c. Investigating sites where dredged material islands/underwater berms could be created in the lower bay to provide habitat diversity/development for fish and wildlife resources; and
- d. Develop possible mitigation banking alternatives for section 404 permit activities.

These studies will cost about \$1.5 million over a three-year period.

- P.7 The Norfolk Disposal Site (NDS) is scheduled for final designation by EPA in 1991. This process must be completed and final designation granted by 1991 or sooner.
- P.39 Drop the word "and" in Norfolk Southern Corporation.  
Drop Norfolk, Franklin and Danville Railroad Company.
- P.56 Add a reference to the September 1990 Commonwealth of Virginia desire for the Norfolk District to evaluate management plans for the lower Chesapeake Bay with a view toward treating dredged material as a resource and utilizing it in a beneficial manner as well as reducing overall dredging costs.

P.73 Table 17 indicates that in order to provide for the disposal of dredged material resulting from new work and/or maintenance of Federal and/or non-Federal improvements, a disposal area and/or areas with a capacity of about 250 million cubic yards will be required for the next 50 years.

All future deepening projects will be done in a phased manner. Through the implementation of a phased dredging program, the volume of material dredged will be reduced and the 50-year planning requirement can be scaled back. A 50-year plan to accommodate 250,000,000 cubic yards of dredged material is not an implementable approach at this time.

P.78 Table 18 shows the material in the Elizabeth River and Southern Branch channels unsuitable for ocean disposal.

As noted on page 17, preparation of a General Design Memorandum for the Elizabeth River and Southern Branch projects has been stopped pending resolution of the location of a disposal area for the dredged material both for new work and maintenance.

By not placing this material into the Craney Island Disposal Area, the capacity of the disposal area is extended for approximately 2 to 3 years until 1997.

This is discussed further on pages 82-84, Long-Term Disposal Problem.

P.80 Table 20 shows the volume of material to be handled over a 50-year time frame. As previously noted, the 50-year time frame needs to be shortened.

P.82/  
84 Long-Term Disposal Problem. The dredging scenarios indicate the Craney Island Disposal Area will be filled in 1997 through maintaining existing inner harbor projects (including 50-foot deepening).

This table clearly indicates the critical problem facing the port.

P.92/  
93 Add the information to be included on page 2 to evaluate management plans for the lower Chesapeake Bay (September 1990).

P.103 In the Summary of Beneficial Uses of Dredged Material add the information to evaluate management plans for the lower Chesapeake Bay (September 1990).

- P.106/  
110 A reference is made to the formulation and evaluation criteria that a disposal area should have a useful lifespan of about 50 years.

Consideration must be given to reducing the number of years (50) required to meet the formulation and evaluation criteria.

- P.113 The possibility of reducing the required dredging by effecting some reduction in the rate at which the channels shoal is discussed.

Methods of preventing sediment from entering the estuary needs further study and implementation.

- P.114 At the bottom of the page, add the information to evaluate management plans for the lower Chesapeake Bay (September 1990).

- P.115 At the bottom of the page, add the information to evaluate management plans for the lower Chesapeake Bay (September 1990).

- P.117 The assumption that a disposal area may have a useful life of less than 50 years is so stated:

"Although a useful life of 50 years was chosen, in the final analysis, it will be up to the Commonwealth to decide whether it deems a shorter or longer life than 50 years for a disposal area for Federal, state, and private interests is appropriate."

- P.121/  
122 Under Alternative Plans considered add the information to evaluate management plans for the lower Chesapeake Bay (September 1990).

- P.133 The statement is made: "If a westward expansion of Craney Island is determined to be the least environmentally damaging practicable alternative, compensatory mitigation will be required to offset these losses."

The Virginia Port Authority, as local sponsor for the project, is of the opinion that compensatory mitigation is not required.

- P.134/  
135 Aesthetics and social impacts of a westward expansion of the Craney Island Disposal Area are discussed.

A fourth cell expansion would result in usable waterfront property through the construction of access channels for pleasure boats.

P.181 The capping of dredged material which meet ocean dumping for restricted ocean disposal should be included in the information to evaluate management plans for the lower Chesapeake Bay (September 1990).

P.198 If a 50 year plan to accommodate dredged material cannot be scaled back, the following statement is a sound approach to handling the long-term solution to dredged material disposal:

"In view of the difficulties associated with the implementation of several short-lived structural plans, consideration should be given to including ocean disposal as a plan element for the remaining years required to provide a 50-year useful life. For plans with useful lives approaching 50 years, the addition of ocean disposal as an element of a plan to provide a 50-year life (for purposes of comparison with other plans) is both a logical and reasonable strategy."

P.202 Table 29 add the information to evaluate management plans for the lower Chesapeake Bay (September 1990).

P.206 Add a third option: Information to evaluate management plans for the lower Chesapeake Bay (September 1990).

P.215 Final array of Plans:

Add the information to evaluate management plans for the lower Chesapeake Bay (September 1990).

P.270 A list of alternatives contained in the U. S. Fish and Wildlife Report to be considered in connection with mitigating the effect of constructing a westward expansion to Craney Island is presented.

As the majority of dredged material going into an expansion of the Craney Island Disposal Area is generated by maintaining authorized Federal projects, the Virginia Port Authority is opposed to any mitigation requirements imposed by the Federal Government for the project.

P.282 Under d. add the information to evaluate management plans for the lower Chesapeake Bay (September 1990).

**APPENDIX A: ENGINEERING DESIGN AND COST ESTIMATES**

No comment

**APPENDIX B: GEOTECHNICAL INVESTIGATIONS**

No comment

**APPENDIX C: ECONOMIC STUDIES**

No comment

**APPENDIX D: REAL ESTATE STUDIES**

P.D3 **TABLE D-1 PROPERTY VALUE REDUCTION**

<u>PLAN</u>	<u>PROPERTY VALUE REDUCTION</u>
A	\$ 386,000
B	2,003,000
C	0
D	386,000
E	2,003,000
F	431,000

Quoted from page D-5:

"The question of the effect of a 'less than maximum' expansion becomes much more complex. From an economic standpoint, the properties' access to the water for recreational purposes is relatively unaffected. On the other hand, the view from and the privacy of the waterfront properties will be adversely affected. This could translate into a reduced market value for the property. The question of whether this loss is compensable cannot be absolutely answered."

A fourth cell of a "less than maximum" expansion would result in usable waterfront property through the construction of access channels for pleasure craft. The property values could remain unchanged or increase in value. Further study in today's real estate market is needed to assess its impact.

**APPENDIX E: ENVIRONMENTAL INFORMATION REPORT**

P.121-

131 Discusses mitigation options and cost. Expansion Plan B (2500 acres) has a total mitigation cost of \$14,586,000. As stated previously, the Virginia Port Authority, as local sponsor for the project, is of the opinion that compensatory mitigation is not required or justified. The majority of dredged material to be placed in an expansion of the Craney Island Disposal Area is generated by maintaining authorized Federal projects. The local sponsor must bear the cost of constructing a new disposal site. Any losses sustained by the environment due to an expansion of the Craney Island Disposal Area will have an equal or greater gain to the economy of the Commonwealth and the nation through the maintenance of a viable navigable waterway. A lesser expansion of the Craney Island Disposal Area would in turn have a smaller mitigation mandate. The September 1990 agreement to evaluate management plans for the lower Chesapeake Bay could satisfy the Virginia Port Authority requirements for mitigation in a lesser expansion of the Craney Island Disposal Area.

**APPENDIX F: PUBLIC INVOLVEMENT**

No comment



City of  
**Norfolk**

Office of the City Manager

January 31, 1991

Mr. Robert R. Merhige, III  
General Counsel  
Virginia Port Authority  
600 World Trade Center  
Norfolk, VA 23510

Dear Mr. Merhige:

The City of Norfolk appreciates the opportunity to provide comments on the U. S. Army Corps of Engineers' Draft Norfolk Harbor and Channels Long-Term Disposal Report. As noted in your correspondence dated January 4th, comments were to be focused solely on the technical elements of the report with other opportunities to be provided later on during the review process for non-technical issues.

From a technical standpoint, our review indicates that the Corps should be commended for providing an excellent planning document. The methodology is sound with what appears to be great care taken to present opportunities and problems in a clear and understandable fashion. Facts relating to the City of Norfolk appear accurate.

The City is concerned however that rigorous attention be given to the methodologies which determine environmental and economic costs. The report clearly states that the Corps based the environmental impact of Craney Island (CI) expansion (Plan B) at \$17,500,000 based on an assessment of CI land values and following consultations with federal resource agencies. However, the premise that upland land value is equatable with environmental value should be given additional scrutiny. Differing assumptions and value assignments may significantly increase the CI expansion costs and, conversely, narrow the differential between expansion and ocean disposal.

Further, the report appears to limit economic impacts to those properties immediately adjacent to the proposed CI expansion area. The rationale for utilizing this approach should be more thoroughly

Mr. Robert R. Merhige, III  
January 31, 1991  
Page 2

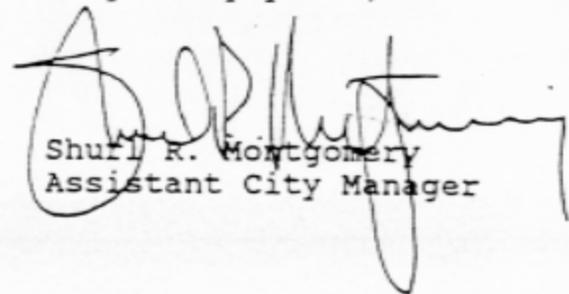
documented and supported. Clearly, the change in use is significant and would tend to support a more expansive impact area.

Finally, the report tends to present the ocean disposal option as relatively benign from an environmental impact. Obviously, impact assessment is an evolving science and the potential exists for new evidence to refute this assumption.

The report should more thoroughly elaborate on the ocean disposal option should circumstances dictate elimination of this option, whether temporarily or permanently. If circumstances were to preclude ocean disposal during specific periods of time, what impact would this have on the capacity of the existing Craney Island to receive this additional material? The report should address this issue. Further, some discussion on the process whereby ocean disposal permits might be revoked would be beneficial.

The City of Norfolk is pleased to participate in the process of determining a long term disposal option for dredge material from our harbor and waterways. If there are any questions, please advise.

Very truly yours,



Shurl R. Montgomery  
Assistant City Manager



# City of Portsmouth

Virginia 23705



Established 1752

Office of the  
City Manager

January 28, 1991

P. O. Box 820  
804 393-8641

Mr. Robert R. Merhige, III  
General Counsel  
Virginia Port Authority  
600 World Trade Center  
Norfolk, Virginia 23510

Dear Mr. Merhige:

I appreciate the opportunity to provide technical comments on behalf of the City of Portsmouth to the Virginia Port Authority concerning the U. S. Army Corps of Engineers draft report, Norfolk Harbor and Channels, Virginia: Long-Term Disposal (Inner Harbor). As you know, the City has consistently expressed its concerns with the proposed expansion of Craney Island, and I would like to provide several comments of a technical nature which will help explain our position.

The City believes that the Corps report failed to adequately take into account the economic effect this project would have on both Portsmouth and the City of Suffolk. The report indicates combined economic impact for the two Cities would be about \$2 million. Attached for your information is a report prepared by the City Assessor of Portsmouth which estimates that the impact on Portsmouth alone would be in the \$70 to \$100 million range. Although Suffolk can not estimate the economic impact on planned development in the area adjacent to the proposed expansion, it is safe to assume it would be of the same order of magnitude.

The City also is concerned that potential environmental repercussions have not received the full consideration that they deserve. For example, the expansion would appear to destroy approximately 2,500 acres of wetlands and subaqueous land. It would be nearly impossible to produce adequate mitigation for such a loss. A letter from Mr. John P. Wolflin of the Fish and Wildlife Service to Colonel Johns of the Corps of Engineers dated November 2, 1990 states that there are major environmental impacts associated with the expansion of Craney Island, and that detailed studies would be required to determine the extent of

Mr. Merhige  
Letter  
1/28/91

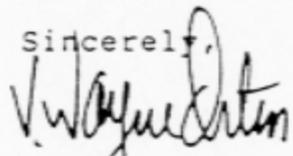
-2-

the impacts. The letter goes on to say that the Service does not support further expansion of Craney Island due to the significance of these impacts, and that the Service hopes ocean disposal would be selected as the preferred means of dealing with dredged material from Hampton Roads. The Port Authority has previously received a copy of this letter.

The City of Portsmouth certainly supports the deepening of the Norfolk Harbor, and in no way desires to threaten that project. However, the citizens of Suffolk and Portsmouth are being asked to sacrifice and to subsidize a project which would benefit the rest of the State and the Nation by providing an artificially inexpensive disposal alternative for dredged material. If complete costs, including social, economic, and environmental impacts are included in the analysis, it may well be that the low cost alternative will not be the expansion of Craney Island, but ocean disposal.

Again, thank you for the opportunity to provide our comments. I would be glad to discuss this matter with you in more depth at your convenience.

Sincerely,



V. Wayne Orton  
City Manager

VWO/ces

Enclosure

cc: City Council  
Two City Craney Island Committee

INTEROFFICE MEMORANDUM

Date: 23-Aug-1990 10:10am GMT  
From: William E. Froehlich  
ASSESSOR  
Dept: City Assessor  
Tel No:

TO: Robert P. Creecy ( CREECYRP )

Subject: Westward Expansion of Craney Island Disposal Area

Document is attached to this message

I have reviewed the Corps and Burton Reports with attention focused primarily in the area of real estate concerns. My initial observation was the absence of detailed support in the Corps report for estimates of property value reductions. Considering the importance and extremely sensitive nature of this issue, more data would be expected. The Burton report was, in part, subjective, but certainly credible. I am comfortable with the Burton approach to this problem and the analyses presented. My conclusions generally parallel their findings, in addition to taking what I feel are the necessary steps of projecting compounded losses which will ultimately affect the City's tax base. No consideration has been given to loss of value to existing improvements although I strongly suspect that some loss attributable to the expansion will eventually take place.

Since the most apparent loss in value will occur to the waterfront properties along Rivershore Road, this area will be addressed first. There are currently 35 lots fronting this shoreline. Of these, only two are undeveloped. Current assessments on these properties have a median value of \$170,000. Land assessments alone reflect a median value of \$65,000. This is considered conservative based on recent, although limited, sales of waterfront sites. Due to market demands placed on the few remaining waterfront sites in the city, values in the range of \$75,000 to \$100,000 are more realistic.

The Burton Report makes a case for a 50 percent reduction in land value due to the loss of the waterfront amenity. Based on an analysis of waterfront and non-waterfront sales, I concur with this reduction factor. Consideration must also be given to the degree which property appreciation (return on investment) will be effected. Historically, waterfront lots have increased in value at rates greater than those not on water. Because of their attraction, they are also affected to a lesser degree by the negative economic forces suffered by other real estate. Annual rates of appreciation for waterfront land has typically been in the range of 11% to 15% while non-waterfront land increased 8% to 10% annually.

Based on these figures, waterfront land could be reduced in value from \$37,500 to \$50,000 per lot, for a total of \$1,312,500 to \$1,750,000 for all 35 lots. When viewed as a long term loss--which the City must consider, at stated appreciation rates, the loss becomes extremely significant. The long term effects can be conservatively calculated as follows.

Given: Current Market Value @	\$75,000 (Land)
Reduced " " @	37,500 (Land)
Annual Appreciation @	11% (as W/F)
" " @	8% (as non-W/F)
Projected Period @	30 yrs.

Future Values

W/F Lot - \$75,000 @ 11%	= \$ 1,716,922
Non W/F Lot - \$37,500 @ 8%	= \$ 377,350
Value Difference =	\$ 1,339,572
35 Lots x	<u>35</u>

Total Value Loss = \$(46,885,041)

Value Loss \$100,000 Lot = \$(62,513,400)

I similarly agree with the Burton Report regarding the value loss for non-waterfront lots on Rivershore Road. While this estimate becomes more subjective, I feel that due to their close proximity to the water, they will also be negatively affected. The reduction factor of 25 percent may even be conservative. Median assessments for these 34 lots are \$33,000. The median including dwellings is \$125,000. Here again, available sites would likely bring higher prices. Values in the \$40,000 to \$50,000 range are considered well within reason.

Based on a reduction factor of 25%, values would decline from \$10,000 to \$12,500 per lot, exclusive of dwellings. The total reduction for all 34 lots would amount to \$340,000 to \$425,000. Projecting this over the 30 year period would produce a total loss in excess of \$3,400,000.

The other areas for consideration would be the impact of the land fill expansion on nearby subdivisions and developable land. Obviously, assessing this value loss and determining where the harmful effects would be dissipated, becomes even more subjective. The Burton Report's research resulted in an arbitrary line being drawn along the northern boundary of Edgefield. I tend to agree with their findings, also feeling that at some point removed from Rivershores, the harmful effects become immeasurable.

Following conventional wisdom which sets forth that the quality of new development is greatly influenced by existing development, one can see the potential ripple effect of destroying this waterfront. For this reason it is believed that the development potential of the VDOT borrow pit for lake front home sites and the Ballard tract will suffer adverse effects. Further, it can be expected that the adjoining subdivisions of Southampton and Windy Pines will suffer losses as well.

Due to the uncertainty of final development plans for the Ballard and VDOT tracts, the original unit plans used in the Burton Report were relied upon for development projections. Also, because of the unknowns at this point, a range of value loss has been calculated.

<u>Type of Unit</u>	<u>No. of Units Planned</u>	<u>Current Mkt. Value</u>
Townhouse	271	\$18,970,000
Apartments	240	7,200,000
Single Family	29	3,625,000
Condominiums	<u>204</u>	<u>14,280,000</u>
TOTALS	744	\$44,075,000

The Burton Report assumed a 10 to 20 percent loss of value in the total development as contemplated. While feeling more comfortable with a loss at the 10 percent level, the total developed value for the Ballard property could double if a major shift in the direction of single family construction were to occur. Considering the present over-supply of townhouses and

condominium units, this is quite possible. Based on the above plans, a value loss between \$4,400,000 and \$8,800,000 (as single family) could be anticipated. Projected over 30 years at a historical annual appreciation rate of 4%, for improved properties, would yield a long term loss between \$14,270,000 and \$28,540,000.

The value loss projections for the existing Southampton and Windy Pines subdivisions were arrived at using a reduction factor of 10 percent on current lot values. In view of their immediate proximity to Rivershores, this was felt appropriate and well within reason. No projection of loss to improvement value is estimated, although it can be expected. There are currently some 230 dwelling units located in these subdivisions with lots valued at approximately \$25,000 each. This projects to an initial loss of \$575,000 and \$5,786,000 over 30 years.

## Conclusions

As noted, a position was taken to not only evaluate current property value losses but also to project these losses over time. This must be considered, as it is a critical part of Portsmouth's future economic well being. Given the City's limited tax base (55% non-tax), aging building inventory and limited available land for development, Portsmouth can not afford the economic risks associated with the land fill expansion—let alone the environmental issues which must be addressed.

An argument could be presented that at some future date a reversionary value would exist for the disposal area, thereby offsetting any loss to the City. This must be considered as unlikely, based on the legal, environmental and economic issues presented in the Corps Report.

Further, any possible recovery would occur well into the next century. The adverse economic and social impacts of the expansion would, in my view, be something from which the City of Portsmouth would never recover.

Therefore, it is concluded that the value loss due to the westward expansion of the Craney Island Disposal Area would range from a minimum of over seventy million dollars (\$70,341,041) to a maximum in excess of one hundred million dollars (\$100,239,400).



# CITY OF SUFFOLK

P. O. BOX 1858, SUFFOLK, VIRGINIA 23434. PHONE 934-3111

CITY MANAGER

August 6, 1990

Mr. Robert R. Merhige, III  
General Counsel  
Virginia Port Authority  
600 World Trade Center  
Norfolk, Virginia 23510

Dear Mr. Merhige:

I am in receipt of your letter of July 25, 1990, pertaining to the U.S. Army Corps of Engineers report entitled, "Norfolk Harbor and Channels, Virginia - Long-Term Dredge Material Management (Inner Harbor)". You stated in your letter that the Governor's office, through the Secretary of Economic Development, will be working with the Corps of Engineers, the Port Authority, other interested governmental agencies, and citizen groups to arrive at a recommended solution. In this regard, the City of Suffolk desires to be a part of that decision making process for this is a most important issue for Suffolk.

It would be appreciated if you would advise this office as to when the decision making process will begin so that the City can participate in the same.

Sincerely yours,

John L. Rowe, Jr.  
City Manager

JLRJr/kbg

cc: The Honorable J. Samuel Glasscock  
The Honorable Mark L. Earley  
The Honorable Johnny S. Joannou



# COMMONWEALTH of VIRGINIA

Office of the Governor  
Richmond 23219

Lawrence Douglas Wilder  
Governor

December 14, 1990

Mr. John L. Rowe, Jr.  
City Manager  
City of Suffolk  
Post Office Box 1858  
Suffolk, Virginia 23434

Dear Mr. Rowe:

Thank you for your letter of October 22, which reaffirms the City of Suffolk's continuing opposition to any possible expansion of the Craney Island Disposal Facility.

As you indicated, the U.S. Army Corps of Engineers has, for well over a year, been engaged in a study of potential disposal sites for material dredged from the Hampton Roads Channels. It is my understanding that the possible westward expansion of Craney Island is one of several options which are currently under active consideration.

I am sure that you agree that the maintenance of the navigation channels in Hampton Roads is absolutely essential if the Commonwealth is to maintain the economic health and competitive posture of our port facilities. Certainly the economic implications of the various alternatives, as well as the potential impacts they might pose to the tax bases of both Suffolk and Portsmouth, will be thoroughly considered before any decision is reached.

The Virginia Port Authority, through Lawrence H. Framme, III, my Secretary of Economic Development, will be the agency that ultimately recommends a course of action to both my administration and the General Assembly. Because of the very significant environmental issues involved, I have directed my Secretary of Natural Resources, Elizabeth H. Haskell, to participate in the review. Please be assured that the city's position on this matter will be given the utmost consideration during the review process.

With best wishes, I am

Very truly yours,

Lawrence Douglas Wilder

LDW/tas

cc: The Honorable Lawrence H. Framme, III  
The Honorable Elizabeth H. Haskell

✓ Robert Bray



# City of Virginia Beach

OFFICE OF THE CITY MANAGER  
(804) 427-4242  
FAX (804) 427-4125

March 13, 1991

MUNICIPAL CENTER  
VIRGINIA BEACH VIRGINIA 23456-9001

Mr. J. Robert Bray  
Executive Director  
Virginia Port Authority  
600 World Trade Center  
Norfolk, Virginia 23510

RE: Draft Report - Norfolk Harbor and Channels  
Long Term Disposal

Dear Mr. Bray:

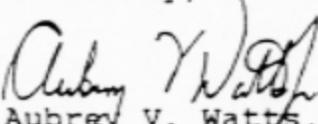
The referenced report has been reviewed by my staff as requested by Mr. Merhige's letter of January 4, 1991. The City of Virginia Beach continues to desire the evaluation and formulation of a plan utilizing the feeder berm/stable berm concept off the shores of Sandbridge Beach.

In this regard, the ocean disposal discussions and evaluations in the report should be revised to determine the merits of this proposal prior to the commonwealth's selection of a long term disposal plan. A southerly expansion of the Dam Neck Ocean Disposal Site should be evaluated as a means to reduce the anticipated costs of ocean disposal and to introduce the beneficial use of dredged material as a feeder berm/stable berm.

It is my understanding that recent state legislation prohibits expansion of the Craney Island Disposal Area for state projects and mandates that projects incorporating beneficial uses of dredged material be given priority. I feel a southerly Dam Neck Ocean Disposal Site expansion may satisfy both of these conditions.

I commend the efforts of the Norfolk District in preparing this draft report.

Sincerely,

  
Aubrey V. Watts, Jr.  
City Manager

AVWjr/PJR/nfe

4731 River Shore Road  
Portsmouth, Virginia 23703  
January 28, 1991

Mr. Robert R. Merhige, III, General Counsel  
Virginia Port Authority  
600 World Trade Center  
Norfolk, Virginia 23510

Dear Mr. Merhige:

I am writing in response to your request that I furnish the VPA with my comments regarding the U.S. Army Corps of Engineers' Draft Norfolk Harbor and Channels Long-Term Disposal Report.

For the time being my comments will be restricted only to the estimate of property value reduction that would be caused by the expansion of the Craney Island Disposal Area and the salvage value of the Craney Island Disposal Area's interior portion.

The cursory comments in the report stated that the westward expansion of Craney Island would cause a reduction in property values of \$2,000,000. The report did not indicate what methodology was used nor did it identify the field investigators or contributors to the report who are "familiar with the real estate market in the area".

All of those who believe that the adverse economic impact would be much greater are identifiable. The Mayor of Portsmouth has stated that a study by the assessor's office shows the adverse impact on Portsmouth would be at least 70 million dollars. The Mayor of Suffolk has said that his city stood to lose millions more. The Corps' report stated that a westward expansion of Craney Island would cause a reduction in value to waterfront property alone. In contrast a detailed study (29 pages) sponsored by the Virginia Division of State Planning and Community Affairs contends that the adverse impact on property values would extend approximately 1-1/2 miles from the waterfront through the Merrifields section of Portsmouth.

The cities of Portsmouth and Suffolk collect real estate taxes from the area in question, therefore they have a better understanding of the property values than the sources cited in the Corps' report.

The report overstates the salvage value of the CIDA by \$7,254,000. In Appendix D on page 15, the report estimates the value of 2418 interior acres to be \$3,000 per acre, however, the report also states (appendix D, page 7) "that hydraulically deposited material creates a number of adverse conditions for construction...". The report further states that "The production of useable land has not been one of the goals in the management of the CIDA." The report also points out (appendix D, page 7)

Mr. Robert R. Merhige, III  
Virginia Port Authority

-2-

January 28, 1991

that a number of obstacles exist to the development of CIDA for industrial and shipping purposes.

I appreciate the opportunity given me to respond.

Sincerely,

*John V. Tuttle*

John V. Tuttle, Chairman  
Craney Island Study Commission



## Hampton Roads Maritime Association

INCORPORATED

228-236 E. PLUME STREET

P. O. BOX 3487

NORFOLK, VIRGINIA 23514-3487  
(804) 622-2639



President's E Award for  
Export Service

January 29, 1991

Mr. Robert R. Mermige, III, General Counsel  
Virginia Port Authority  
600 World Trade Center  
Norfolk, VA 23510

Dear Bob,

We wish to reply to your January 4, 1991 letter of request for technical comments on the U.S. Army Corps of Engineers' draft Norfolk Harbor and Channels Long-Term Disposal Report.

Although we are not organized to respond to such a request, our membership does include talented individuals who are knowledgeable in various aspects of The Engineers' draft.

As an interim measure to extend the projected end date, 1997, for the practical use of Craney Island, we encourage a plan for increased height of fill by new dikes with set backs and landscape design plan for the disposal area. We believe this latter move will have some positive effects on the public perception; the Baltimore Engineer District used this technique with success for the Hart-Miller disposal area.

We will be pleased to respond further to your other request for input as the study process proceeds. Thank you for this opportunity and we await your additional inquiry.

Sincerely,

BRADEN VANDEVENTER  
President

## MAIN REPORT

The Willoughby Bay site was excluded from further consideration. Page 139 of the Main Report states that "The chief objections to this site center on aesthetics, anticipated decreases in property values, and loss of a resource for water-oriented recreation. The residents of the area, especially those whose property fronts Willoughby Bay, would lose their view of the water, which would be substituted by a view of a disposal area and ultimately whatever development was allowed there. Such a view would be seen as far less desirable than the existing one of the bay. The elimination of a relatively secluded area for water-based recreation would reduce an already limited resource, intensifying the use of other bodies of water nearby, most of which are already heavily used. All of these negative effects would undoubtedly lead to some decrease in property values for those structures located adjacent to Willoughby Bay." These concerns appear to be identical to impacts related to CIDA westward expansion. It is requested that you clarify why you excluded Willoughby Bay from additional study based on this "chief objection" and yet retained CIDA westward expansion for further consideration.

4647 River Shore Road  
Portsmouth, VA 23703  
January 28, 1991

Colonel Richard C. Johns  
District Engineer  
Norfolk District Corps of Engineers  
803 Front Street  
Norfolk, VA 23510-1096

Dear Colonel Johns:

I am writing on behalf of the River Shore Civic League to advise you of our findings of a review of your draft report "Norfolk Harbor and Channels, Virginia, Long-Term Disposal (Inner Harbor)" dated June 1990. Our review disclosed the report and appendices to be rife with errors, omissions and contradictions. Examples of these discrepancies are detailed in the attached summaries. It should be noted that these are representative comments and should not be considered to be all inclusive.

It is requested that you advise us of any rebuttal you might offer in response to our findings.

Sincerely,

*Elder L. Lash*

Elder L. Lash  
Executive Committee  
River Shore Civic League

Attachments

cc: Mr. J Robert Bray  
The Honorable Lawrence H. Framme, III  
The Honorable James F. Hope, Sr.  
The Honorable Johnny S. Joannou  
The Honorable Kenneth R. Melvin  
The Honorable William S. Moore  
The Honorable Norman Sisisky  
The Honorable Gloria O. Webb  
The Honorable L. Douglas Wilder

A CRITICAL REVIEW OF APPENDIX A  
ENGINEERING DESIGN AND COST ESTIMATES -  
LONG TERM DISPOSAL (INNER HARBOR)

1. TOTAL INITIAL COST OF CRANEY ISLAND EXPANSION PLAN "B"  
(PER PAGE 39, APPENDIX A). \$72,761,000.

\* INCLUDES REAL ESTATE COST OF \$2,637,000.00

2. ADD FOR REALISTIC REAL ESTATE VALUE  
FOR PLAN "B" 85,000,000.

ESTIMATED TOTAL INITIAL COST OF PLAN "B"  
EXPANSION. \$157,761,000.

(A) DOES NOT INCLUDE \$1,092,000.00 ADDITION TO INITIAL COST  
FOR LANDSIDE RIP-RAP WEST OF HOFFLER CREEK. (NOT  
INCLUDED IN C.O.E. ESTIMATE OR THIS STUDY)

(B) DOES NOT INCLUDE ANNUAL OPERATING AND MAINTENANCE COST  
OF \$2,085,000.00. SHOULD BE INCLUDED IN TOLL CHARGE.

3. TOTAL STORAGE VOLUME FOR PLAN "B" IS 45,050,000.00 CU.  
YDS.

4. TOTAL QUANTITY OF DREDGED MATERIAL TO BE DEPOSITED IN  
DISPOSAL AREA OR OTHER LOCATION BASED ON PROPER MANAGE-  
MENT. = 224,000,000 CU. YDS.

5. ASSUMING THAT THE CONSTRUCTION COST, INCLUDING INTEREST  
WILL BE AMORTIZED OVER THE FILLING PERIOD. PAYMENTS TO  
BE MADE BY THE USE OF USER TOLLS (SEE 2B).

\* FOR CALCULATING PURPOSES, 9% INTEREST AND 56 YEARS  
LIFE WERE SELECTED. REASONING: APPROXIMATELY 4,000,000  
CU. YDS/YEAR REMOVED ANNUALLY.  $\frac{224,000,000}{4,000,000} = 56$  YEARS  
EXPECTED LIFE.

6. AMORTIZATION PAYMENT FOR INITIAL COST FOR 56 YEARS AT  
9% =\$14,313,627.01 PER YEAR

\* OPERATION AND MAINTENANCE COST = \$2,085,000. YEARLY

TABLE A-14, APP. "A" PAGE 44 TOTAL \$16,398,627.01 YEARLY

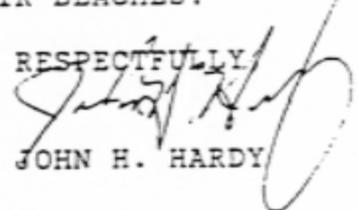
UNIT TOLL =  $\frac{\$16,398,627.01}{4,000,000 \text{ CU. YDS/}}$   
YEAR = 4.10 PER CU. YD.

THIS AMOUNT MUST BE ADDED TO THE DREDGING UNIT COST FOR  
ALL COST ESTIMATES FOR CRANEY ISLAND DISPOSAL, I.E.,  
 $\$4.10 + \$3.88 = \underline{\$7.98}$  TOTAL FOR CRANEY ISLAND DISPOSAL  
VICE \$6.05 FOR OCEAN DISPOSAL.

\* OCEAN/DAM NECK WOULD NOT REQUIRE TOLL CHARGE.

7. BASED ON THE ABOVE CALCULATIONS AND REVIEW OF THE COST ANALYSIS PROVIDED IN THE DRAFT REPORT, IT APPEARS THAT THE DRAFT REPORT COST ESTIMATE SHOULD BE REVISITED. SPECIFICALLY, THE DRAFT REPORT DID NOT INCLUDE A TOLL CHARGE ADDITION TO MATERIALS DEPOSITED INTO CRANEY, ISLAND. THE TOLL WOULD INCLUDE AMORTIZATION COSTS FOR THE INITIAL COST OF CONSTRUCTION AND YEARLY OPERATION AND MAINTENANCE COST FOR THE EXPANSION.
8. THE TOLL CHARGE WILL BE HEAVILY AFFECTED BY REAL ESTATE COSTS WHICH WERE UNREALISTICALLY SET AT \$2,637,000.00 IN THE DRAFT REPORT COST ESTIMATES, WHEREAS, THE WRITER ADDED A MORE REALISTIC \$85,000,000.00 FOR THESE CALCULATIONS. THIS IS IN THE MEDIAN RANGE BETWEEN 70-100 MILLION AS REPORTED IN THE TIMES HERALD ARTICLE OF OCTOBER 15, 1990.
9. RECOMMEND THE FOLLOWING:
  - (A) DETERMINE A FAIR VALUE FOR REAL ESTATE LOSS TO INDIVIDUALS AND CITIES.
  - (B) DETERMINE INTEREST RATE FOR AMORTIZING INITIAL COST OF EXPANSION.
  - (C) CORRECT INITIAL COST FOR PLAN "B" EXPANSION TO INCLUDE NEW REAL ESTATE COST AND ADDITIONAL COST FOR LANDSIDE RIP-RAP WEST OF HOFFLER CREEK.
  - (D) DETERMINE AND PUBLISH ESTIMATED TOLL CHARGE, TO INCLUDE INITIAL COST AND INTEREST PAYOUT, WHEN FILLED, AND YEARLY OPERATING AND MAINTENANCE COST (\$2,085,000.00).
  - (E) ADD TOLL CHARGE TO UNIT DREDGING COSTS AS LISTED ON TABLE 5 OF ATTACHMENT 4 OF APPENDIX A. TOLL CHARGES SHOULD NOT BE ADDED TO OCEAN AND/OR DAM NECK DISPOSAL COSTS FOR COST COMPARISON.
  - (F) CONSIDER PROBABLE BEACH REPLENISHMENT USE AND SUBSEQUENT VALUE FOR "NEW WORK" DREDGING SAND WHEN DEEPENING CHANNELS. VIRGINIA BEACH PAYS \$4.00 (PLUS) A CU. YD. TO TRUCK SAND TO THEIR BEACHES.

RESPECTFULLY,

  
JOHN H. HARDY

APPENDIX "B" - GEOTECHNICAL INVESTIGATIONS

SECTION 1 OF THE 1987 REPORT WAS THE PERIMETER DIKE STABILITY ANALYSES OF THE PRESENT CRANEY ISLAND (CAN IT BE RAISED TO INCREASE CAPACITY). IT CONCLUDED THAT AT PRESENT, THE CRANEY ISLAND DIKES ARE AT OR NEAR THEIR MAXIMUM DESIGN HEIGHT. CAPACITY CALCULATIONS FOR THE ISLAND AND ANY PROPOSAL LATERAL EXTENSION SHOULD BE BASED ON A DREDGED MATERIAL ELEVATION OF -30. THIS IS A SAFE, CONSERVATIVE ELEVATION CONTROLLED BY THE STABILITY OF THE WEST DIKE. NEW TECHNOLOGIES WILL PROVIDE OPPORTUNITIES TO IMPROVE ITS CAPACITY, BUT SUCH IMPROVEMENTS WILL BE INSUFFICIENT FOR A 10 YEAR DISPOSAL PLAN. HOWEVER, ITS LIMITATIONS SHOULD NOT PRECLUDE IT AS AN OPTION. SOMETIME IN THE FUTURE, CRANEY ISLAND COULD SERVE AS SUPPLEMENTAL DISPOSAL CAPACITY, EASING THE DEMAND ON OTHER SELECTED ALTERNATIVES.

SECTION 2 WAS SOIL TESTING OUTSIDE THE PEREMETERS OF THE PRESENT CRANEY ISLAND PROFILING SAND AND CLAY CONTENT. I COULD FIND NO CONCLUSION IN UNDERSTANDING WHAT WAS REALLY GAINED FROM THIS STUDY.

SECTION 3 - THE PURPOSE OF THIS STUDY WAS TO DETERMINE THE LOCATION OF MINEABLE QUANTITIES OF SUITABLE COARSE GRAINED MATERIAL OF SUFFICIENT QUANTITY FOR DIKE CONSTRUCTION FOR A POSSIBLE EXPANSION OF CRANEY ISLAND.

\* APPENDIX "B" - 3-1 NOTED THE EFFECT FROM AN ENVIRONMENTAL STANDPOINT WAS NOT CONSIDERED IN THIS GEOTECHNICAL INVESTIGATION.

15 SITES STUDIED (FOR BORROW PITS)

3 WILL NOT BE CONSIDERED

1 (NORFOLK HARBOR ENTRANCE CHANNEL COULD BE CONSIDERED IF DEEPENING TO 55 FEET).

IN ORDER - IN RANKING - BASED ON QUALITY AND QUANTITY OF MATERIAL AVAILABLE - DISTANCE OF SITES FROM EXPANSION AND SECONDARY BENEFITS FROM THE DREDGING OPERATIONS.

1. CRANEY ISLAND EXPANSION AREA
2. INSIDE PRESENT CRANEY ISLAND
3. NEWPORT NEWS CHANNEL
4. PIG POINT - ALONG SOUTHERN PERIMETER OF THE ENTRANCE TO THE NANSEMOND RIVER.
5. NIT TERMINALS
6. NAVY PIER 13
7. NEWPORT NEWS MIDDLE GROUND  
SOUTH OF NEWPORT NEWS CHANNEL - NEAR NORTHERN DIKE (PROPOSED)

8. NEWPORT NEWS BAR - NORTH OF NEWPORT NEWS CHANNEL.  
EAST HAMPTON FLATS - NORTHERN PERIMETER OF THE INNER HARBOR.
9. BARREL POINT - WEST SIDE OF THE MOUTH OF THE NANSEMOND RIVER.  
HAMPTON BAR - NORTH EAST PORTION OF THE INNER HARBOR.

APPENDIX "B" - 3-13 NOTE AGAIN - THE ENVIRONMENTAL EFFECTS OF EACH AREA ARE NOT CONSIDERED HERE.

LAST PORTION - BENEFICIAL USES OF DREDGED MATERIAL.

THE MAINTENANCE MATERIAL WILL BE COMPOSED ALMOST ENTIRELY OF CLAY AND SILT UNSUITABLE FOR BENEFICIAL USE. THUS, THE SMALL AMOUNT OF SUITABLE MATERIAL FROM MAINTENANCE DREDGING WILL HAVE NO IMPACT ON THE LONG-TERM DISPOSAL PLAN.

THE ONLY POSSIBILITY OF OBTAINING SUBSTANTIAL AMOUNTS OF SUITABLE MATERIAL IN THE INNER HARBOR IS FROM NEW WORK DREDGING FROM AREAS PREVIOUSLY UNDREDGED OR FROM LOCATIONS BEING DREDGED TO GREATER DEPTHS. THE NORFOLK HARBOR DEEPENING PROJECT WILL RESULT IN SUITABLE MATERIAL FROM PORTIONS OF THE NEWPORT NEWS CHANNELS, THE NORFOLK CHANNEL AND 40-50 FEET PROJECTS ON THE SOUTHERN BRANCH OF THE ELIZABETH RIVER.

WHILE BENEFICIAL USAGE OF DREDGED MATERIAL SHOULD BE INCORPORATED AS PART OF ANY DISPOSAL STRATEGY, THE DIVERSION OF THIS MATERIAL FROM A DESIGNATED DISPOSAL SITE WILL NOT ALTER THE SUBSTANTIAL NEED FOR A COMPREHENSIVE LONG-TERM DISPOSAL PLAN.

- \* THIS WAS THE MAIN POINT TO KEEP IN MIND. BORROW PITS - ENVIRONMENTAL PITS - YET NOT CONSIDERED!!

Appendix E, Environmental Information Report

Norfolk District, U.S. Army Corps of Engineers (COE), Draft Information Report, "Norfolk Harbor and Channels, Virginia. Long-term disposal (in harbor)"

In comparing this appendix to the executive summary, it is remarkable how the environmental concerns are completely ignored in the executive summary.

The COE obviously plans to extend the Craney Island Disposal Area (CIDA) to the north and west of the present CIDA impounding another 2500 acres of river bottom. This will essentially double the size of the CIDA, which is already the world's largest.

The COE offers cost analyses in most of the appendices to show that they have made the most economical choice. However, using the data from the full draft information report, the cost figures offered in the COE executive summary cannot be substantiated. In a study of the economics of Craney Island, Nickerson reported:

1. That the toll cost per cubic yard, which must be paid by law, would exceed \$4.00 per cubic yard for material dumped in the expanded CIDA.
2. That dumping dredged material in the ocean will cost less than dumping it in the expanded CIDA.
3. That a 1985 ODU study shows that the present CIDA could be excavated and reused indefinitely.
4. That the millions of dollars spent expanding the CIDA would be unnecessarily wasted and would create an ecological and environmental disaster of enormous proportions.

The area discussed in this summary is from the west side of the present CIDA westward, almost to the I-664 bridge.

The water in this area is shallow and the bottom is nearly flat, sloping to about 10 feet deep in 2 miles. Along the south shore of this bay are two shallow creeks. Hoffer and Streeter Creeks are surrounded by several hundred acres of wetlands and wetland forest wildlife habitat. Sport and commercial fish species use the creeks for egg laying. The fish hatchlings remain in shallow water to avoid deeper water predators. That is why the shallow water areas are called nursery areas and are so important to sport and commercial fisheries. The abundance of fish hatchlings has brought ospreys, pelicans, gulls and terns in great variety, including the rare Least Tern.

The bay west of the CIDA is apparently on a major flyway for ducks, geese and swans during the fall, winter and spring. Various water and wading birds nest along the shores and in the wetlands, including the endangered Peregrine Falcon and the Piping Plover.

In the same area there are commercial fishing, oystering and crabbing operations. There is some sport fishing and a lot of boating and water skiing in the summer. Much of the value of this area cannot be measured in dollars and

cents. It is one of the most beautiful stretches of open water in Hampton Roads.

During colonial times, the Craney Island Flats, now buried under the present CIDA, was legendary for the abundance of Chesapeake Bay blue-point oysters. The remnants of this oyster bed extends to the north and westward of the present CIDA to the Nansemond River.

Boesch (1971) reported benthic populations of between 150 and 8,865 organisms per square meter ( $m^2$ ) in the area north and west of the CIDA. Benthos are the animals that live in and on the river bottom sand and mud, i.e., worms, slugs, snails, mussels, oysters, etc. There was a mean of 3045 organisms per  $m^2$  in the sand and 1939 in the mud substrates.

The benthos animals are near the bottom of the food chain. The crabs and fish feed on the benthos animals and we eventually eat the crabs and fish. The benthos community is an important reason why the sport and commercial fish return to this part of Hampton Roads each year to lay their eggs.

The 1987 Chesapeake Bay Agreement, between the states around the Chesapeake Bay, is to revive and clean up the Bay. One of the goals is to:

"Provide for the restoration and protection of the living resources, their habitats, and ecological relationships."

Two objectives are:

"Protect, enhance, and restore wetlands, coastal sand dunes, forest buffers and other shoreline and riverine systems, important to water quality and habitat.

Restore, enhance and protect waterfowl and wildlife."

"The U.S. Fish and Wildlife Service finds the filling of 2500 acres of aquatic habitat at Craney Island inconsistent with the agreement." In recent letters to the COE, the F&WS stated that no expansion of the CIDA would be acceptable because of "major environmental impacts." One of these impacts, in addition to the loss of 2500 acres of the benthos community, is that river current changes caused by the expanded CIDA may drastically alter or wipe out the oyster spawning in the lower James River.

If the present CIDA can be excavated and used indefinitely (ODU, 1985), and it costs less to barge the dredged material to the ocean than dump it in an expanded CIDA, and if expanding the CIDA may initiate environmental forces that might adversely affect fishing, oystering and crabbing in all of Hampton Roads--why does the COE want to expand the CIDA?

APPENDIX "F" - PUBLIC INVOLVEMENT

Colonel J. J. Thomas stated during the 16 August 1987 Public Hearing "that whatever decision is made it must be acceptable to the Commonwealth and must be environmentally, economically, and socially acceptable." (Appendix F, Page 1-11)

The study objective as stated in Exhibit 19 of Appendix F was to "Develop an environmentally and socially acceptable, technically feasible, and economical long-term disposal plan." In view of this commitment to develop a socially acceptable plan, it appears to be an overwhelming objection to CIDA westward expansion as highlighted from hundreds of statements of public sentiment contained in Appendix F. These were not only from private citizens, but from municipal resolutions from the cities of Portsmouth (Appendix F, Exhibit 44) and Suffolk (Appendix F, Exhibit 39) in addition to a resolution (Appendix F, Exhibit 36) passed by the State of Virginia Legislature. In view of this consensus objection, how can the Corps possibly consider the CIDA westward expansion to satisfy their commitment to social acceptance.



# Chesapeake Bay Foundation

Environmental Defense - Environmental Education - Land Conservation

Suite 315, Heritage Building • 1001 E. Main Street • Richmond, Virginia 23219  
(804) 780-1392

January 16, 1991

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Mr. J. Robert Bray  
 Executive Director  
 Virginia Port Authority  
 600 World Trade Center  
 Norfolk, Virginia 23510

Dear Mr. Bray:

The Chesapeake Bay Foundation (CBF) is a private, non-profit organization concerned with the sound environmental management of the Bay and its living resources. CBF is very concerned about the pending decision regarding the disposal of material dredged from the Hampton Roads area. The results of this decision could have significant, long-term impacts on the local ecology and water quality of Chesapeake Bay.

CBF has serious reservations concerning the option involving the expansion of Craney Island. This option would result in the loss of 1,500 to 2,500 acres of Bay bottomland which serves as critical habitat for many living resources. The expansion could also adversely impact the threatened piping plover and the endangered peregrine falcon. Additionally, CBF is not aware of any studies that adequately address the impact that this option would have on the James River oyster beds and water circulation in the Hampton Roads area.

Open ocean disposal of suitable dredged material is the more environmentally sound option. CBF's preliminary review indicates that the Norfolk Disposal is preferable to the Dam Neck site. The Dam Neck site is near the mouth of the Bay and is in shallower water. Many questions still remain unanswered concerning the environmental effects of placing material at the Dam Neck site. These questions concern the potential impacts on blue crab spawning and development, finfish migration, water quality and sediment and water movement. Occurring farther

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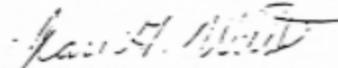
J. Robert Bray  
Page two  
January 16, 1991

out, the Norfolk Disposal site poses less of a risk to important living resources and water quality.

Additionally, CBF urges the continued monitoring of Craney Island to determine if the sediment-associated contaminants are being contained. If not, disposal in confined upland sites would be necessary.

Please feel free to contact me if you have any questions concerning our position. Thank you for your consideration.

Sincerely,



Jean G. Watts  
Staff Scientist



United States Department of the Interior

FISH AND WILDLIFE SERVICE  
DIVISION OF ECOLOGICAL SERVICES  
1825 VIRGINIA STREET  
ANNAPOLIS, MARYLAND 21401

NOV 02 1990

Colonel Richard C. Johns  
District Engineer  
Norfolk District, Corps of Engineers  
Fort Norfolk, 803 Front Street  
Norfolk, VA 23510-1096

Attn: Tom Yancey, Planning Division

Re: Norfolk Harbor and Channels  
Long-Term Disposal Study

Dear Colonel Johns:

On July 25, 1990 the U.S. Fish and Wildlife Service (Service) received a letter from the Virginia Port Authority enclosing the U.S. Army Corps of Engineers (Corps) "Draft Information Report on the Norfolk Harbor and Channels, Virginia Long Term Disposal (Inner Harbor)," dated June 1990. The letter from the Port Authority did not specify a review period, nor has the Corps indicated that the report is undergoing any type of official review period. While the Service has not completed its review of the entire document, our initial review of the report has indicated a need to clarify certain issues pertaining to Federal laws under the authority of the Fish and Wildlife Service.

Appendix E of the Corps' document is the "Environmental Information Report" that contains an evaluation of the environmental impacts of the alternatives for the long-term disposal of dredged material from the Port of Hampton Roads, as well as the Service's Planning Aid Report on the study, dated October, 1989. Table 1 of the Environmental Information Report contains two errors regarding compliance with Federal laws. The table is incorrect in its statement that the expansion of the Craney Island Disposal Area would not require formal consultation pursuant to Section 7 of the Endangered Species Act. In our cover letter with the Planning Aid Report, dated January 12, 1990, the Service stated:

"... our report indicates that if Craney Island expansion is chosen as the preferred alternative, consultation with the Service pursuant to Section 7 of the Endangered Species Act will be necessary due to

potential impacts on the endangered peregrine falcon (Falco peregrinus) and the threatened piping plover (Charadrius melodus)."

Table 1 also indicates that the Corps' proposed recommendations are in compliance with the Fish and Wildlife Coordination Act. This statement is only partially correct. The Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.) requires Federal agencies to obtain the recommendations of the Fish and Wildlife Service, the National Marine Fisheries Service, and the relevant state wildlife agency regarding the impacts of proposed water development projects or Federally permitted activities to fish and wildlife resources and to give full consideration to all recommendations by these agencies regarding measures needed to fully evaluate and mitigate such impacts. The Fish and Wildlife Service's Planning Aid Report was provided as an information report that outlines project impacts and indicates the additional studies necessary to fully evaluate the impacts of the proposed alternatives on fish and wildlife resources. Until the recommended studies are completed and the Service provides its final report to the Corps pursuant to Section 2(b) of the Fish and Wildlife Coordination Act, the Corps should not consider itself or this project in full compliance with the requirements of this law.

Based upon our initial review of the Corps' report, we believe the report may have given the project sponsor, the Virginia Port Authority, the incorrect impression that the expansion of the Craney Island Disposal Area would not result in significant environmental impacts and that there are no major unresolved environmental issues. While we assume this was not the intent of the report, the subtle wording used to describe the environmental aspects of the expansion of Craney Island could easily lead a reader to this conclusion. The Service would like to clarify that we believe that there are major environmental impacts associated with the expansion of Craney Island and that certain potential impacts on estuarine circulation and the James River oyster beds would require additional detailed studies before the Service can fully evaluate the impacts of the expansion, as required by the Fish and Wildlife Coordination Act. The position of the Service as expressed in our October 1989 Planning Aid Report points to the need to initiate such studies in a timely manner, and to initiate early, detailed coordination between the Federal and State natural resource management agencies to identify an environmentally acceptable solution to the long-term needs of the Port for dredged material disposal.

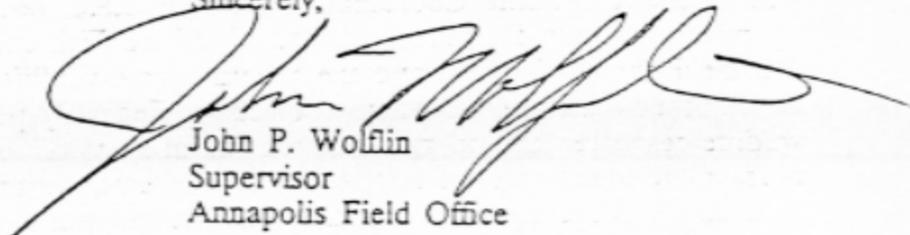
The Service wants to reiterate that we are in full support of environmentally sound efforts to maintain and improve the Federal, State, and private facilities and projects that comprise the vital maritime facilities of the Port of Hampton Roads. However, we do not support the further expansion of the Craney Island facility due to the significance of the environmental impacts associated with such an undertaking. We are hopeful that the Corps and the Commonwealth of Virginia will select ocean

Colonel Richard C. Johns.

Page 3

disposal as the preferred means of disposing of dredged material from the Port. The relatively small increase in project costs for ocean disposal is, we believe, justified to prevent the losses of the Port's equally important natural resources.

Sincerely,

A handwritten signature in black ink, appearing to read "John P. Wolfen", written in a cursive style. The signature is positioned above the typed name and title.

John P. Wolfen  
Supervisor  
Annapolis Field Office

cc: Robert Bray, Virginia Port Authority  
Elizabeth Haskell, Virginia Department of Natural Resources



April 19, 1991

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Col. Richard C. Johns  
Norfolk District Corps of Engineer  
803 Front Street  
Norfolk, Virginia 23510

Re: Craney Island Disposal  
Area (WAW:12)

Dear Col Johns:

The Hampton Roads Planning District Commission has reviewed the report, Norfolk Harbor and Channels, Virginia: Long-Term Dredged Material Management (Inner Harbor), prepared by the U.S. Army Corps of Engineers for the Virginia Port Authority.

At its Quarterly Meeting on April 17, 1991, the Hampton Roads Planning District Commission endorsed the enclosed "Position Statement of the HRPDC on Norfolk Harbor and Channels, Virginia: Long-Term Dredged Material Management (Inner Harbor)." This Position Statement represents a consensus of the region's fourteen member local governments. While not directly related to legislation enacted by the Virginia General Assembly during its 1991 Session, the Position Statement is generally supportive of that legislation. It also recommends that the Corps of Engineers and various agencies of Virginia state government take several actions to further enhance management of dredged material from the Port of Hampton Roads.

The Commission requests your consideration of and support for its position in this matter.

Sincerely,

Arthur L. Collins  
Executive Director/Secretary

JMC:ALC:fh

Enclosure

Attachment 1

55

POSITION STATEMENT OF THE  
HAMPTON ROADS PLANNING DISTRICT COMMISSION ON  
NORFOLK HARBOR AND CHANNELS, VIRGINIA:  
LONG-TERM DREDGED MATERIAL MANAGEMENT (INNER HARBOR)

Chesapeake, Virginia  
April 1991

The Hampton Roads Planning District Commission and its predecessor, the Southeastern Virginia Planning District Commission, have been actively involved, on behalf of their member local governments, in the review and evaluation of issues associated with the Norfolk Harbor Channel Deepening and Dredge Disposal Project(s) for nearly two decades. Major concerns raised during this long project history include:

- The need to provide for long-term viable uses of the existing Craney Island Disposal Area.
- The need to address the Deepening and Disposal Issues in a comprehensive and coordinated fashion.
- The need to consider fully the possibility of ocean disposal as a viable long-term alternative.
- The need to consider reuse of suitable material to promote a variety of environmental and economic activities.
- Site-specific environmental and economic impacts of alternatives ranging from upland site impacts on groundwater resources to the biological and circulation impacts of in-water sites.
- The fact that the National Economic Development (NED) Plan must consider and incorporate the Regional Development and Environmental Quality Plans.

The Commission is pleased that, over the several years of study and evaluation of this important project, a number of these concerns have been addressed. The Harbor Deepening and Disposal activities have been combined into and evaluated as a comprehensive project. Ocean disposal is now considered to be an environmentally sound approach to satisfying much of the disposal needs of the Port of Hampton Roads. Upland sites have been eliminated from further consideration. Reuse of material, when suitable, is now an integral, although not entirely quantified, component of all project alternatives. Several recent beach nourishment and erosion protection projects have used material dredged from various harbor channels.

Unfortunately, other issues remain outstanding. Long-term use of the Craney Island Disposal Area continues to be an item for further consideration. The National Economic Development Plan, identified by the Corps of Engineers, still contains a number of components which have significant negative impacts on the Environmental Quality and Regional Development Plans for this project.

In 1990, the U.S. Army Corps of Engineers (COE), on behalf of the Virginia Port Authority, released the latest in the growing series of studies of the deepening and dredge disposal issue in Norfolk Harbor. This study, Norfolk Harbor and Channels, Virginia: Long-Term Dredged Material Management (Inner Harbor), is to serve as a prime input to a future decision by the Commonwealth of Virginia selecting a long-term dredge material disposal option for Hampton Roads. This option will replace the Craney Island Disposal Area, following its filling to design capacity in approximately 1997. The 1990 COE study documents an analysis of seventeen (17) alternative disposal strategies and alternative configurations of several of them. All options include beneficial reuse of suitable material as a component. The National Economic Development Plan, designated by the COE, involves the northward and westward expansion of the existing Craney Island Disposal Area. The EQ Plan involves ocean disposal of suitable material with the existing Craney Island Disposal Area reserved for material that is unsuitable for ocean disposal.

The HRPDC now understands that an additional alternative has surfaced. That alternative, similar to one being evaluated for Baltimore Harbor, involves use of dredged material for construction/reconstruction of undersea islands and shoreline stabilization of existing islands in Chesapeake Bay. Additional engineering and scientific investigation of this alternative is required. No decision on this option can be reached pending completion of these investigations, which is expected some three years from now. We also understand that these studies may delay a decision on one or more future disposal sites.

The HRPDC and its member jurisdictions have reviewed the 1990 Corps of Engineers' study. This review has been conducted in the context of the Commission's historic positions on the Norfolk Harbor Deepening and related dredge disposal projects. Several principals have guided this review. They are:

- Dredging (both the deepening and routine maintenance) of Norfolk Harbor and Channels is important to the long-term economic health of the communities of Hampton Roads and to National Defense needs. A corollary to that is that dredging of a number of smaller channels is necessary to the quality of life in Hampton Roads. This encompasses recreational and commercial activities as well as aesthetic factors.
- Long-term dredging (new work as well as maintenance) requires development of cost-effective, environmentally sound disposal options, including beneficial reuse of suitable material.

- The National Economic Development Plan, mandated by federal water resource planning and development guidelines, must reflect Regional Development and Environmental Quality issues. It is the Commission's view that a Plan which has significant negative impacts on the region's economy or natural environment, even if it is the low cost option, cannot be the national economic development plan.

Based on this review and evaluation, the Hampton Roads Planning District Commission has the following comments on the proposed plan.

1. The 1990 COE study has not adequately addressed the environmental impacts associated with the expansion of the Craney Island Disposal Area. The inadequacy of this evaluation is highlighted in the U.S. Fish and Wildlife Service's comments of November 2, 1990 noting the need for additional studies on benthic and wetlands impacts as well as circulation impacts and the need for mitigation. The FWS letter also supports ocean disposal as the preferred disposal alternative in light of environmental concerns.

In this regard, although page 196 of the study notes that only 1 acre of wetlands would be impacted by the project, it appears that to be consistent with the position of federal agencies on other public and private projects in the region, a minimum of 1:1 mitigation should be required. Based on the FWS comments, it appears that the entire 2,500 acre expansion would/should be considered wetlands and subaqueous lands for purposes of developing a mitigation plan.

2. The 1990 COE study does not include a full evaluation of the economic impacts of the CIDA expansion. Wetlands mitigation costs are not considered to the degree that the FWS comments seem to require.

Studies conducted for the City of Portsmouth indicate that the adverse economic impacts of the proposed expansion on the City may be in the order of \$70-100 Million. Impacts on the City of Suffolk would appear to be of the same order of magnitude. Fiscal impacts to the two Cities would be approximately \$4 Million. It is not known at this time what the economic impacts on the City of Chesapeake might be, although they can be expected to be substantial.

In this context, it appears that the environmental impacts may be significant enough to ensure that the Craney Island Disposal Area expansion can not be the Environmental Quality Plan. Concurrently, the economic impact evaluation does not consider all implementation costs and may understate the economic impacts of the project on the local cities. When unquantified environmental effects are considered, the spread, in terms of unit disposal costs, between the Craney Island Disposal Area expansion and ocean disposal may be further reduced. This could, in fact, make ocean disposal the least cost alternative and, thus, the National Economic

Development Plan. Alternatively, the cost differential between the two plans may be so small that the National Economic Development Plan set-aside could be considered so that local interests are not obligated to pay the cost differential between the two alternatives.

In 1989, the Southeastern Virginia Planning District Commission, predecessor to the HRPDC, completed the Elizabeth River Basin Environmental Management Program. That study recommended that efforts be undertaken by all levels of government to reduce the input of toxic substances to the Elizabeth River through stringent enforcement of both point and nonpoint source pollution controls. It was noted that this could assist in reducing the amount of maintenance dredging that was required while also minimizing over time the issue of disposal of contaminated dredged spoil. The HRPDC believes that efforts by the COE and the Commonwealth of Virginia to assist local governments in such a program are integral to an environmentally sound approach to dredged material management.

In its review of the COE study of long-term dredge material management in Hampton Roads, the HRPDC found that many small dredging projects have historically depended on small upland sites, adjacent to the dredging site, for disposal of dredge material. Recent state and federal environmental initiatives, including the Chesapeake Bay Preservation Act, and Nontidal Wetlands Regulations, preclude the use of many such sites for dredge material disposal. Options need to be developed to provide adequate and environmentally sound disposal of material from these smaller projects.

After careful review of the 1990 COE study, Norfolk Harbor and Channels: Long-Term Dredged Material Management (Inner Harbor), the Hampton Roads Planning District Commission recommends that:

1. The Corps of Engineers and the Commonwealth of Virginia designate the Norfolk and Dam Neck Ocean Disposal Sites as the long-term dredged material disposal sites for the Port of Hampton Roads.
2. The existing Craney Island Disposal Area should be used for the disposal only of that material, giving priority to materials from the Southern Branch of the Elizabeth River, which is unsuitable for ocean disposal in accordance with EPA guidelines. Disposal of this unsuitable material should be strictly managed to prevent adverse environmental impacts.
3. Efforts to reduce the introduction of toxic substances to the Elizabeth River should also be incorporated into the dredged material management plan.
4. Beneficial reuse of suitable dredged material should be an integral component of this project.

5. The Corps of Engineers and the Commonwealth of Virginia work with local governments in the Hampton Roads area to develop environmentally sound and cost-effective dredge material disposal alternatives for small dredging projects.
6. Because of its positive environmental quality and regional development aspects, this comprehensive approach to dredged material disposal and management should be designated as the National Economic Development Plan as well as the Environmental Quality Plan.

**ATTACHMENT 2**

**COMMENTS FROM FEDERAL  
STATE, LOCAL, AND PRIVATE  
INTERESTS ON  
DRAFT SUPPLEMENT**

COMMENTS FROM FEDERAL, STATE, LOCAL,  
AND PRIVATE INTERESTS  
ON DRAFT SUPPLEMENT

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J. Robert Bray  
*Executive Director*

December 11, 1991

Colonel Richard C. Johns  
District Engineer  
Norfolk District, Corps of Engineers  
803 Front Street  
Norfolk, Virginia 23510-1096

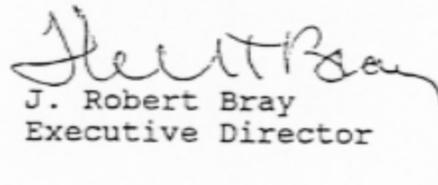
Dear Colonel Johns:

Please refer to Mr. Merhige's letter of October 7, 1991, forwarding review comments on the Norfolk Harbor and Channels, Virginia, Long-Term Dredged Material Management (Inner Harbor) draft supplement. Since no further comments are expected, the draft supplement should now be finalized.

The Virginia Port Authority generally concurs with the conclusions and recommendations included in the draft supplement and agrees that the supplement should be approved as the final document to formally close out the Inner Harbor Long-Term Dredged Material Management Study. It is recognized that dredged material management is a complex issue and that additional work will be necessary in order to solve the remaining issues and questions and to implement a long-term strategy for the Port of Hampton Roads.

I can assure you that the Commonwealth of Virginia is dedicated to continuing its cooperative effort with the Corps in this important endeavor.

Yours truly,

  
J. Robert Bray  
Executive Director

jla

cc: Robert R. Merhige, III

Attachment 2



COMMONWEALTH of VIRGINIA

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 TWX 710 8811231

J. Robert Bray  
 Executive Director for Operations

October 7, 1991

Colonel Richard C. Johns  
 District Engineer, Norfolk District  
 Corps of Engineers  
 803 Front Street  
 Norfolk, Virginia 23510-1096

Dear Colonel Johns:

The draft information report on Norfolk Harbor and Channels, Virginia, Long-Term Dredged Material Management (Inner Harbor) was forwarded to federal, state and local interests for review and comment. The responses received to date are enclosed.

We look forward to continuing the effort with the Norfolk District to implement a long-term dredged material management strategy for the Port of Hampton Roads.

Very truly yours,

Robert R. Merhige, III  
 General Counsel and Deputy  
 Executive Director for Operations

Enclosure

cc: J. Robert Bray  
 R. Todd Coyle, Director of Planning

RRM/rtc

Attachment 2



REC'D

COMMONWEALTH of VIRGINIA  
CHESAPEAKE BAY LOCAL ASSISTANCE DEPARTMENT

R. Keith Bull  
Executive Director

805 East Broad Street, Suite 701  
Richmond, Virginia 23219

State 224-1220  
1-800-244-7229 (Virginia 1111)

September 9, 1991

Mr. Robert R. Merhige, III  
General Counsel and Deputy Executive Director for Operations  
Virginia Port Authority  
600 World Trade Center  
Norfolk, Virginia 23510

Dear Mr. Merhige:

Thank you for the opportunity to comment on this project. The Chesapeake Bay Local Assistance Department is primarily concerned with protecting and enhancing the water quality of the Chesapeake Bay. but, indirectly, we are interested in any activity that will affect the flora and fauna of that area.

We are concerned with the possible impact on megalopal and juvenile growth stages of the american blue crab (*Callinectes sapidus*). These larval stages of blue crab development spend a considerable portion of their lives in and around the Norfolk Ocean Disposal Site during a period beginning in August and lasting through September. Two other species which spawn in the area and contribute significantly to the commercial catch within the Chesapeake Bay are the atlantic croaker (*Micropogon undulatus*, August-December) and the spot (*Leiostomus xanthurus*, October-March).

We would support a time of year restriction on dumping at this location that would run from August 15 to March 31. This period would provide protection for the three species cited above during the crucial early stages of their life cycles.

If need any clarification on these comments please call me at 804-371-6222.

Sincerely,

E. Duke Whedbee  
Environmental Scientist

c: C. Scott Crafton  
Darryl M. Glover

Attachment 2



ADMINISTRATION  
NATURAL HERITAGE  
PLANNING AND RECREATION RESOURCES  
SOIL AND WATER CONSERVATION  
STATE PARKS

# COMMONWEALTH of VIRGINIA

DEPARTMENT OF CONSERVATION AND RECREATION

205 Governor Street

1101-801-766-2121

Richmond, Virginia 23219-1804 766-2121

FAX 1101-766-0111

September 4, 1991



Robert R. Merhige, III  
General Council and Deputy  
Executive Director for Operations  
Virginia Port Authority  
600 World Trade Center  
Norfolk, Virginia 23510

re: Norfolk Harbor and Channels Long-Term Disposal

Dear Mr. Merhige:

The Department of Conservation and Recreation (DCR) previously reviewed the subject project in January, 1991. The comments submitted at that time remain applicable to the project.

In addition, DCR offers the following comments.

The Craney Island Management Area has developed into a significant breeding, wintering, and migratory stopover resource for many species of rare birds. DCR's Biological and Conservation Datasystem contains breeding records for Sterna hirundo (common tern, G5/S3/NF/NS), Sterna antillarum (least tern, G4/S2/NF/NS), Charadrius melodus (piping plover, G2/S2/LT/LT), and Recurvirostra americana (American avocet, G5/S1/NF/NS) from the management area. Craney Island also supports large wintering populations of several waterfowl species, and is a valuable winter foraging area for Asio flammeus (short-eared owl, G5/S1/NF/NS) and Falco peregrinus (peregrine falcon, G3/S1/LE/LE). Finally, Craney Island's mudflats and ponds provide valuable food resources that revitalize large numbers of many species of shorebirds and waterfowl on migration. An explanation of species rarity ranks and legal status abbreviations is enclosed for your reference.

Due to the high biodiversity at Craney Island, and the presence of two federally listed species, we are greatly concerned with the proposition that the Craney Island Management Area be reserved for the disposal of materials "unsuitable" for ocean

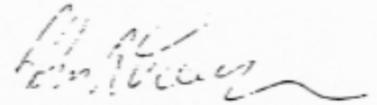
Page 2  
Norfolk Harbor and Channels  
September 4, 1991

disposal. Specifically, what is the composition and toxicity level of the unsuitable material? If the contaminants in the dredged material are likely to leach out of the spoil, the consequences could be grave for the birds that depend on Craney's feeding and nesting resources.

Considering the potential for undesirable impacts on the birds of Craney Island as a result of this project, we recommend consultation with the United States Fish and Wildlife Service and the Virginia Department of Game and Inland Fisheries to assure the preservation of nesting and feeding habitat for the rare birds that utilize the Craney Island Management Area.

Thank you for the opportunity to comment on this project.

Sincerely,



John R. Davy, Jr.  
Planning Bureau Manager

JRD:ikr

Enclosure

cc: Cindy Schultz, USFWS  
Becky Wajda, VDGIF  
Lee Hill  
Tim O'Connell

Definition of Abbreviations Used on Natural Heritage Resource Lists  
of the  
Virginia Department of Conservation and Recreation

Natural Heritage Ranks

The following ranks are used by the Virginia Department of Conservation and Recreation to set protection priorities for natural heritage resources. Natural Heritage Resources, or "NHR's," are rare plant and animal species, rare and exemplary natural communities, and significant geologic features. The primary criterion for ranking NHR's is the number of populations or occurrences, i.e. the number of known distinct localities. Also of great importance is the number of individuals in existence at each locality or, if a highly mobile organism (e.g., sea turtles, many birds, and butterflies), the total number of individuals. Other considerations may include the quality of the occurrences, the number of protected occurrences, and threats. However, the emphasis remains on the number of populations or occurrences such that ranks will be an index of known biological rarity.

- S1 Extremely rare; usually 5 or fewer populations or occurrences in the state; or may be a few remaining individuals; often especially vulnerable to extirpation.
- S2 Very rare; usually between 5 and 20 populations or occurrences; or with many individuals in fewer occurrences; often susceptible to becoming extirpated.
- S3 Rare to uncommon; usually between 20 and 100 populations or occurrences; may have fewer occurrences, but with a large number of individuals in some populations; may be susceptible to large-scale disturbances.
- S4 Common; usually >100 populations or occurrences, but may be fewer with many large populations; may be restricted to only a portion of the state; usually not susceptible to immediate threats.
- S5 Very common; demonstrably secure under present conditions.
- SA Accidental in the state.
- SH Historically known from the state, but not verified for an extended period, usually >15 years; this rank is used primarily when inventory has been attempted recently.
- SW Regularly occurring migrants; transients; seasonal, nonbreeding residents. Usually no specific site can be identified with its range in the state. (Note that congregation and staging areas are monitored separately).
- SU Status uncertain, often because of low search effort or cryptic nature of the element.
- SX Apparently extirpated from the state.

Global ranks are similar, but refer to a species' rarity throughout its total range. Global ranks are denoted with a "G" followed by a character. Note that GA and GH are not used and GX means apparently extinct. A "Q" in a rank indicates that a taxonomic question concerning that species exists. Ranks for subspecies are denoted with a "T". The global and state ranks combined (e.g. G2/S1) give an instant grasp of a species' known rarity.

These ranks should not be interpreted as legal designations.

Federal Legal Status

The Virginia Natural Heritage Program uses the standard abbreviations for Federal endangerment developed by the U.S. Fish and Wildlife Service, Division of Endangered Species and Habitat Conservation.

- |                            |   |
|----------------------------|---|
| LE - Listed Endangered     | 3A - Former candidate - presumed extinct  |
| LT - Listed Threatened     | 3B - Former candidate - not a valid species under current taxonomic understanding |
| PE - Proposed Endangered   | 3C - Former candidate - common or well protected                                  |
| PT - Proposed Threatened   | NF - no federal legal status  |
| C1 - Candidate, category 1 |   |
| C2 - Candidate, category 2 |   |

State Legal Status

The Virginia Natural Heritage Program uses similar abbreviations for State endangerment.

- |                        |                            |
|------------------------|----------------------------|
| LE - Listed Endangered | PE - Proposed Endangered   |
| LT - Listed Threatened | PT - Proposed Threatened   |
| C - Candidate          | NS - no state legal status |

The following status recommendations reflect the findings of the 1989 Virginia Endangered Species Symposium. THESE ARE NOT LEGAL DESIGNATIONS, NOR HAVE THE SPECIES YET BEEN FORMALLY PROPOSED.

- |                             |                                   |
|-----------------------------|-----------------------------------|
| RE - Recommended Endangered | RSC - Recommended Special Concern |
| RT - Recommended Threatened |                                   |

For information on the laws pertaining to threatened or endangered species, contact:

U.S. Fish and Wildlife Service for all FEDERALLY listed species  
Department of Agriculture and Consumer Services Plant Protection Bureau for STATE listed plants and insects  
Department of Game and Inland Fisheries for all other STATE listed animals



DEPARTMENT OF THE NAVY  
 ATLANTIC DIVISION  
 NAVAL FACILITIES ENGINEERING COMMAND  
 NORFOLK, VIRGINIA 23511-6287

TELEPHONE NO  
 445-2308

IN REPLY REFER TO  
 2032JD  
 14 AUG 91

Robert R. Merhige, III  
 Virginia Port Authority  
 600 World Trade Center  
 Norfolk, Virginia 23510

Dear Mr. Merhige:

We appreciate the opportunity for continued involvement with the U.S. Army Corps of Engineers' Norfolk Harbor and Channels Long-Term Dredged Material Management Study. The Draft Supplement of this study, forwarded to us by your 24 July 1991 letter, has been reviewed and the following comments apply:

- The Navy agrees that the Craney Island Management Area should be intensively managed to extend its useful life.
- Without the formal NEPA process as a determination of the future expansion of Craney Island, the cost sharing issue for Navy projects is still outstanding and of major concern.

All of our previous comments in our 28 February 1991 letter apply. We request you continue to keep us informed of the status of the decision on long-term disposal methods.

Sincerely,

THOMAS C. HORSCH, P.E.  
 Head, Facilities Planning &  
 Real Estate Department  
 By direction of the Commander





# Hampton Roads Maritime Association

INCORPORATED

228-236 E. PLUME STREET

P O BOX 3487

NORFOLK, VIRGINIA 23514-3487

PHONE (804) 622-2639

FAX (804) 622-6302



President's E Award for  
Export Service

August 9, 1991

Mr. Robert R. Merhige, III  
General Counsel and Deputy Executive Director for Operations  
Virginia Port Authority  
600 World Trade Center  
Norfolk, Virginia 23510

Dear Mr. Merhige:

Our Harbor-Anchorage-Dredging Committee met recently to consider the Draft Supplement on NORFOLK HARBOR AND CHANNELS, VIRGINIA, LONG-TERM DREDGED MATERIAL MANAGEMENT (INNER HARBOR) and offers several concerns.

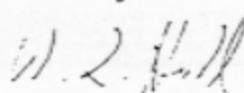
- House Bill 1478 precludes any further expansion of Craney Island and may have a severe financial impact on the State of Virginia with regard to incremental costs of ocean placement of dredged material.
- Ocean dumping of dredged material may not be the long-term solution for such material. While certain environmental issues are known today, the long-term effect or concerns may well be redefined and, therefore, could limit ocean disposal. Further, international treaties may also restrict the future use of ocean dumping of dredged material.
- The future use of Craney Island for dredged material is restricted to only "unsuitable" material of which the substantial volume is unknown at this time. Also, as new environmental concerns are addressed, additional restrictions may cause an increase in unsuitable material to the Craney Island facility, therefore, accelerating the already known short life of that disposal area.
- The beneficial uses of dredged material should be considered in an expedited fashion.

Mr. Robert R. Merhige, III  
August 9, 1991  
Page two

As you know, the Hampton Roads Maritime Association opposed House Bill 1478 during the last session of the General Assembly for the reasons cited above. We would hope that this legislation be reconsidered in view of the unknown increased fiscal demands it will place on the State of Virginia.

We appreciate the opportunity to offer our comments on this Draft Supplement.

Sincerely,



W. S. HULL  
Chairman, Harbor-Anchorage  
Dredging Committee

WSH/dwp

cc: Mr. J. Robert Bray  
Mr. R. Todd Coyle  
Mr. Braden Vandeventer



COMMONWEALTH of VIRGINIA  
CHESAPEAKE BAY LOCAL ASSISTANCE DEPARTMENT

R. Keith Bull  
Executive Director

805 East Broad Street, Suite 701  
Richmond, Virginia 23219

August 9, 1991

Robert R. Merhige, III  
Virginia Port Authority  
600 World Trade Center  
Norfolk, Virginia 23510

Dear Mr. Merhige:

Thank you for the opportunity to comment on the finalization of the Draft Information Report on *Norfolk Harbor and Channels, Virginia, Long-term Dredged Material Management (Inner Harbor)*.

The Department agrees with the conclusions outlined within the supplement would like to commend the U.S. Army Corps of Engineers and The Virginia Port Authority for the way they have handled this difficult and complex task. If there is anyway we can be of assistance with this project, please do not hesitate to call.

Sincerely,

E. Duke Whedbee, Jr.  
Environmental Scientist

c: Ellie Irons, Council on the Environment  
C. Scott Crafton, Chief Engineer  
Darryl M. Glover



# COMMONWEALTH of VIRGINIA

*Council on the Environment*

KEITH J BUTTLEMAN  
ADMINISTRATOR

202 NORTH NINTH STREET  
SUITE 900  
RICHMOND 23219  
804-786-4500  
TDD 804-371-7604

August 9, 1991



Mr. Robert R. Merhige, III  
General Counsel  
Virginia Port Authority  
600 World Trade Center  
Norfolk, Virginia 23510

RE: Norfolk Harbor and Channels Long-Term Dredged Material  
Management (Inner Harbor)- Draft Supplement

Dear Mr. Merhige:

The Council staff reviewed the above referenced document and in general concurred with the recommendations. However, as stated in our January 31 letter, we believe that the life of the existing Craney Island Disposal Area could be extended by removing and using the clean material there for beneficial purposes or transferring suitable material to an approved ocean management site such as the Dam Neck Management site and Norfolk Management site (once it has been approved by the Environmental Protection Agency). These issues should be further addressed in the plan.

We commend the Port Authority for sharing in the cost of the proposed studies to investigate the potential for beneficial uses of dredged materials in the lower Chesapeake Bay. This approach is in keeping with the Commonwealth's policy, which is to promote the use of suitable dredged materials for beach nourishment and shoreline restoration and erosion control. Localities and planning district commissions could be instrumental in identifying areas which could benefit from erosion control, beach creation and other recreational areas such as parks with sand dunes. Initially, those localities which are close to major dredging projects should be targeted.

The Council supports the new emphasis by the Corps on treating dredged materials as a resource and expanding the beneficial use of this resource beyond the traditional uses. The concept of using dredged materials for fisheries habitat restoration and creation, and wetlands enhancement is a good one and worth further investigation. We will continue to participate in this study effort.

Attachment 2

In addition to the studies contemplated, we believe that the use of suitable dredged materials for construction purposes (roadways, building blocks, and tiles) should be promoted and potential users investigated. The U.S. Department of Transportation (Federal Highway Administration) and Virginia Department of Transportation should be invited to participate in this aspect of the study.

Thank you for the opportunity to comment on this Report.

Sincerely,



Keith J. Buttleman

cc. The Honorable Elizabeth H. Haskell  
E. Duke Whedbee, CBLAD  
C. E. Easlick, SWCB  
Thomas A. Barnard, Jr., VIMS  
Tony Watkinson, VMRC  
Tom Yancey, ACOE



August 6, 1991

**CHESAPEAKE**

Robert G. Bagley, City Commissioner  
Dr. Ann F. Hinesmith, City Councilmember  
James W. Kern, City Manager

**FRANKLIN**

Robert E. Hanks, City Commissioner  
John J. Lusk, City Manager

**HAMPTON**

Thomas J. Blanton, City Manager  
William J. Farris, City Councilmember  
Richard L. Gresham, Jr., City Manager

**ISLE OF WIGHT COUNTY**

Mark E. Frazier, County Administrator  
Richard L. Turner, County Supervisor

**JAMES CITY COUNTY**

Paul W. Carr, Board of Supervisors  
David R. Thomas, County Administrator

**NEWPORT NEWS**

John H. Hester, City Commissioner  
Dr. William J. Adams, City Councilmember  
Edgar F. Manning, City Manager

**NORFOLK**

Marvin D. Anderson, City Commissioner  
Paul J. Farris, City Councilmember  
Harold A. Wash, Mayor  
William B. D. Smith, Jr., City Manager  
P. J. Hays, Jr., City Councilmember

**POQUOSON**

J. David B. Hester, City Manager  
Richard H. Hester, City Manager

**PORTSMOUTH**

William J. Blanton, City Councilmember  
John J. Lusk, City Manager  
John J. Lusk, City Manager

**SOUTHAMPTON COUNTY**

William J. Blanton, County Administrator  
David R. Thomas, County Supervisor

**SUFFOLK**

Thomas G. Lusk, City Manager  
Thomas G. Lusk, City Manager

**VIRGINIA BEACH**

John A. Baskin, City Commissioner  
Robert E. Fennelly, Vice Mayor  
Mark D. Hester, City Councilmember  
Walter S. Mather, City Councilmember  
Rick E. McQuarrie, City Councilmember  
Michael E. O'Connell, Mayor  
Arthur L. Collins, Jr., City Manager

**WILLIAMSBURG**

John Hester, Mayor  
Jackson C. Tuttle, Jr., City Manager

**YORK COUNTY**

Sandra M. Lutzers, Chairman  
Board of Supervisors  
Dane M. Stout, County Administrator

Mr. Robert R. Merhige, III  
General Counsel and Deputy Executive  
Director for Operations  
Virginia Port Authority  
600 World Trade Center  
Norfolk, Virginia 23510

Re: Craney Island Disposal  
Area (WAW:12)

Dear Mr. Merhige:

Pursuant to your request of July 24, 1991, the staff of the Hampton Roads Planning District Commission has reviewed the report, entitled Norfolk Harbor and Channels, Virginia: Long-Term Dredged Material Management (Inner Harbor) - Draft Supplement, prepared by the Norfolk District, Corps of Engineers. Based on this review, the HRPDC staff finds the report and its recommendations to be generally consistent with the "Position Statement of the Hampton Roads Planning District Commission on Norfolk Harbor and Channels, Virginia: Long-Term Dredged Material Management (Inner Harbor)", adopted by the Commission at its meeting on April 17, 1991.

The staff of the HRPDC is concerned about the implications for long-term dredged material management inherent in the discussion of the two options for determining cost-share policy (page 8). The second option appears to eliminate ocean disposal with Craney Island reserved for unsuitable material as the National Economic Development Plan. The HRPDC staff believes that this option is untenable in light of comments on the Information Report from the various state and federal environmental agencies, which indicated that the Craney Island expansion plan would have potentially significant adverse environmental impacts. Also, the conclusions and recommendations of the Board of Engineers for Rivers and Harbors on the authorization study for the channel deepening appear to conflict with Option 2.

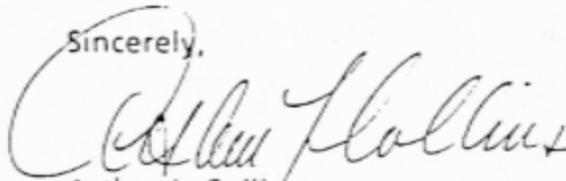
Attachment 2

August 6, 1991

Option 1 is supportive of the conclusions reached by the Board of Engineers for Rivers and Harbors. The HRPDC staff continues to believe that the comprehensive approach to dredged material management outlined in the Commission's April 1991 Position Statement should be considered as both the National Economic Development and Environmental Quality Plans for this project. Option 1 is consistent with that approach. Also, designation of that approach as the NED Plan would eliminate the need for the Commonwealth to pay the apparent cost differential.

The staff of the HRPDC encourages you to move expeditiously to finalize and implement this vital project. If we can be of any assistance in moving the project forward, please do not hesitate to call.

Sincerely,



Arthur L. Collins

Executive Director/Secretary

JMC:dfs

cc: Col. R.C. Johns, COE



COMMONWEALTH of VIRGINIA  
STATE WATER CONTROL BOARD

Richard N. Burton  
Executive Director

Post Office Box 11143  
Richmond Virginia 23230-1143  
(804) 527-5000  
TDD (804) 527-4261

August 6, 1991

Mr. Robert R. Merhige, III  
General Counsel and Deputy  
Executive Director for Operations  
Virginia Port Authority  
600 World Trade Center  
Norfolk, Virginia 23510

Dear Mr. Merhige:

We have reviewed the Draft Supplement to the information report entitled Norfolk Harbor and Channels, Virginia, Long-Term Dredged Material Management (Inner Harbor), and we have no disagreement with the Conclusion and Recommendation as declared in that document.

We look forward to participating in ensuing efforts to develop an overall long-term dredged material management strategy.

Sincerely,

C. E. Easlick  
Environmental Program Analyst  
Office of Water Resources Management

cc: C. Bigelow  
M. Ferguson  
401 File

Attachment 2

15



Virginia Institute of Marine Science  
School of Marine Science

P. O. Box 1346  
Gloucester Point, Virginia 23062  
804 642-7000, Fax 804 642-7097, Seals 842-7000



August 5, 1991

Mr. Robert R. Merhige, III  
General Counsel & Deputy Executive  
Director for Operations  
Virginia Port Authority  
600 World Trade Center  
Norfolk, Virginia 23510

RE: Norfolk Harbor and Channels, Virginia  
Long Term Dredged Material Management (Inner  
Harbor) Draft Information Report Supplement

Dear Mr. Merhige:

We have reviewed the subject document from a marine environmental perspective and concur generally with the recommendations as presented in the supplement. We do not feel, however, that this document is complete without consideration of beneficial uses for material already in Craney Island, as well as the transfer of material from Craney Island to the Norfolk Site. Both of these actions would contribute to reducing the need to raise the levees at Craney Island and the concomitant adverse environmental impacts of that activity.

We look forward to contributing to the ongoing efforts to solve our environmental and dredged material management problems in Hampton Roads Harbor. If I may answer any questions or be of further service, please do not hesitate to contact me.

Sincerely yours,

Robert J. Byrne, Ph.D.  
Acting Dean/Director

RJB/jh

CC: Mr. Bob Grabb, VMRC  
Mr. Chet Bigelow, SWCB  
Ms. Ellie Irons, COE

Attachment 2

16



# City of Portsmouth, Virginia

Office of the City Manager

P. O. Box 820

Portsmouth, Virginia 23705-0820

Established 1752

(804) 393-8611

August 2, 1991

Mr. Robert R. Merhige, III  
General Counsel and Deputy  
Executive Director for Operations  
Virginia Port Authority  
600 World Trade Center  
Norfolk, Virginia 23510

Dear Mr. Merhige:

Thank you for the opportunity to comment on the supplement of the report, Norfolk Harbor and Channels, Virginia, Long-Term Dredged Material Management (Inner Harbor). On page 8 of the supplement, there is discussion of cost sharing policy. The first option recognizes that the expansion of Craney Island is socially and environmentally unacceptable, and therefore is not a viable National Economic Development Plan. The City of Portsmouth supports that option.

The second option is that the State, by its actions, precluded the process by which expansion could be shown to be unacceptable, and therefore the State would pay the incremental costs for ocean placement. The City believes that the unacceptability of expansion of Craney Island has been demonstrated, and therefore the incremental costs should not be a responsibility of the State of Virginia.

We support the conclusion of the supplement, which indicates that ocean placement of suitable dredged material should be pursued, and that use of Craney Island should be restricted to unsuitable material. Furthermore, beneficial uses of dredged material should be pursued as an acceptable long term dredged material management strategy.

Attachment 2

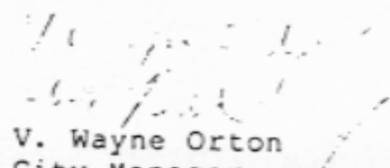
17

Mr. Merhige  
Letter  
8/2/91

-2-

Again, thank you for the opportunity to comment on this matter.

Sincerely,

  
V. Wayne Orton  
City Manager

VWO/ces

cc: City Council  
Don Comer



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
Habitat and Protected  
Resources Division  
Oxford Laboratory  
Oxford Maryland 21654

August 2, 1991

Robert R. Merhige, III  
General Counsel and Deputy  
Executive Director for Operations  
Virginia Port Authority  
600 World Trade Center  
Norfolk, Virginia 23510

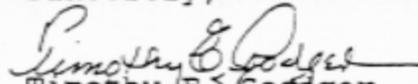


Dear Mr. Merhige:

We have reviewed the draft supplement to Norfolk Harbor and Channels, Virginia; Long-Term Dredged Material Management (Inner Harbor) and we agree with the document. We particularly agree with the need to continue intensive management of Craney Island, the need to explore beneficial uses, the need to designate Norfolk management site, and the need for management of ocean placement and restriction of Craney Island. Intensive studies have shown the advantages of using the Norfolk site for disposal of suitable spoil material, thereby saving critical shallow water areas within the estuaries from destruction. Similarly it only makes good sense to save what capacity remains in Craney Island for sequestering material that does not meet the standards for disposal at the Norfolk site.

Thank you for the opportunity to comment on this project. You may contact Bob Rubelmann at (301) 226-5771 if you have any questions.

Sincerely,

  
Timothy E. Goodger  
Asst. Coordinator

cc:  
EPA-phila  
FWS-White Marsh  
VCOE  
VDGIF  
VIMS  
VMRC  
VWCB

Attachment 2

19





City Manager

August 1, 1991



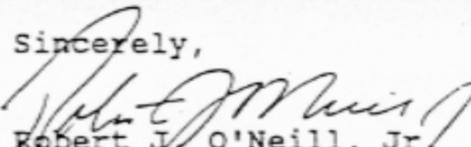
Mr. Robert R. Merhige, III  
Virginia Port Authority  
600 World Trade Center  
Norfolk, Virginia 23510

RE: Norfolk Harbor and Channels, Virginia, Long-Term  
Dredged Material Management (Inner Harbor), Draft  
Supplement

Dear Mr. Merhige:

The City of Hampton endorses the comments of the Hampton Roads Planning District Commission concerning long-term disposal of dredge material from the inner harbor area of Hampton Roads. We particularly endorse the need to use the existing Craney Island site for materials which are unsuitable for other disposal methods, the need to reuse dredged materials for beneficial purposes such as shallow water habitats and shoreline stabilization, and the need to develop environmentally sound and cost-effective dredge material disposal alternatives for small dredging projects.

We appreciate the opportunity to comment on the draft supplement.

Sincerely,  
  
Robert J. O'Neill, Jr.  
City Manager

RJO/NWK/hm

Attachment 2

20



COMMONWEALTH of VIRGINIA  
*Department of Economic Development*

July 31, 1991

Mr. Robert R. Merhige, III  
General Counsel and Deputy  
Executive Director for Operations  
Virginia Port Authority  
600 World Trade Center  
Norfolk, VA 23510

Dear Mr. Merhige:

Thank you for the copy of the Draft Supplement to the report on Norfolk Harbor and Channels, Virginia, Long-Term Dredged Material Management (Inner Harbor).

The Department of Economic Development has no comments.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Mark R. Kilduff'.

Mark R. Kilduff  
Director of Industrial Development

Attachment 2

21



COMMONWEALTH of VIRGINIA  
STATE WATER CONTROL BOARD  
2111 Hamilton Street

Richard N. Burton  
Executive Director

Post Office Box 11143  
Richmond, Virginia 23230 1143  
(804) 367-0056  
TDD (804) 367-9763

Please reply to: Tidewater Regional Office  
287 Pembroke Office Park  
Suite 310 Pembroke No. 2  
Virginia Beach, Virginia 23462-2955  
(804) 552-1840

July 29, 1991

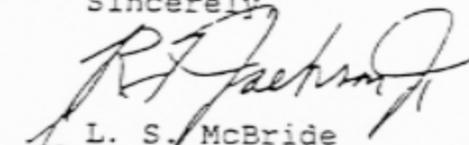
Mr. Robert R. Merhige, III  
General Counsel and Deputy Executive Director for Operations  
Virginia Port Authority  
600 World Trade Center  
Norfolk, Virginia 23510

Re: Draft Supplement, Norfolk Harbor and Channels, Virginia,  
Long-Term Dredged Material Management (Inner Harbor)

Dear Mr. Merhige:

Thank you for your July 24, 1991 letter requesting comments on the Draft Supplement. Our Agency EIS Coordinator, Mr. C. E. Easlick, will be providing comments. If you have any questions, he may be reached at 804-527-5067.

Sincerely,



L. S. McBride  
Regional Director

cc: C. E. Easlick, OWRM

vpal0729

Attachment 2



# COMMONWEALTH of VIRGINIA

## BOARD OF COMMISSIONERS

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W. Wright Harrison, *Vice Chairman*  
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Virginia Port Authority  
600 World Trade Center  
Norfolk, Virginia 23510  
Cable Address Vastports  
Telephone (804) 683-8000  
Telecopier (804) 683-8500  
TWX 710 8811231

J. Robert Bray  
*Executive Director*

## MEMORANDUM

TO: File

FROM: Director of Planning

SUBJECT: Norfolk Harbor and Channels, Virginia, Long-  
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Term Dredged Material Management (Inner Harbor)  
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[Draft Supplement] July 1991.  
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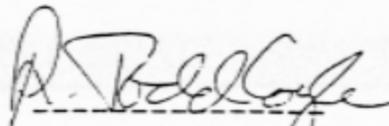
DATE: July 18, 1991

The report highlights the Norfolk District Engineers efforts in formulating a long-term dredged material management strategy. Norfolk District ongoing programs are:

- \* Norfolk Management Site. EPA designation process is anticipated to be completed by the end of 1991.
- \* Beneficial uses of dredged material. Norfolk District in cooperation with VPA is conducting a study to evaluate the potential for using dredged material in a beneficial manner.
- \* Raising the levees at Craney Island. Norfolk District is currently planning studies to evaluate methods for dewatering the site to lower the existing fill height and allow further raising of the levees with a view toward extending its useful life.
- \* Management plan for restricting Craney Island to unsuitable material.

The Norfolk District is of the opinion that ocean placement of suitable material, restriction of Craney Island for unsuitable material and beneficial uses of dredged material should be pursued as an acceptable long-term dredged material strategy. The Norfolk District recommends that the Corps continue to work closely with the Virginia Port Authority to develop an overall long-term dredged material management strategy and resolve related issues under an appropriate study cost sharing policy.

This is the appropriate course of action to take in continuing the effort toward the implementation of a workable solution to accommodate dredged material from the inner harbor of the Port of Hampton Roads.

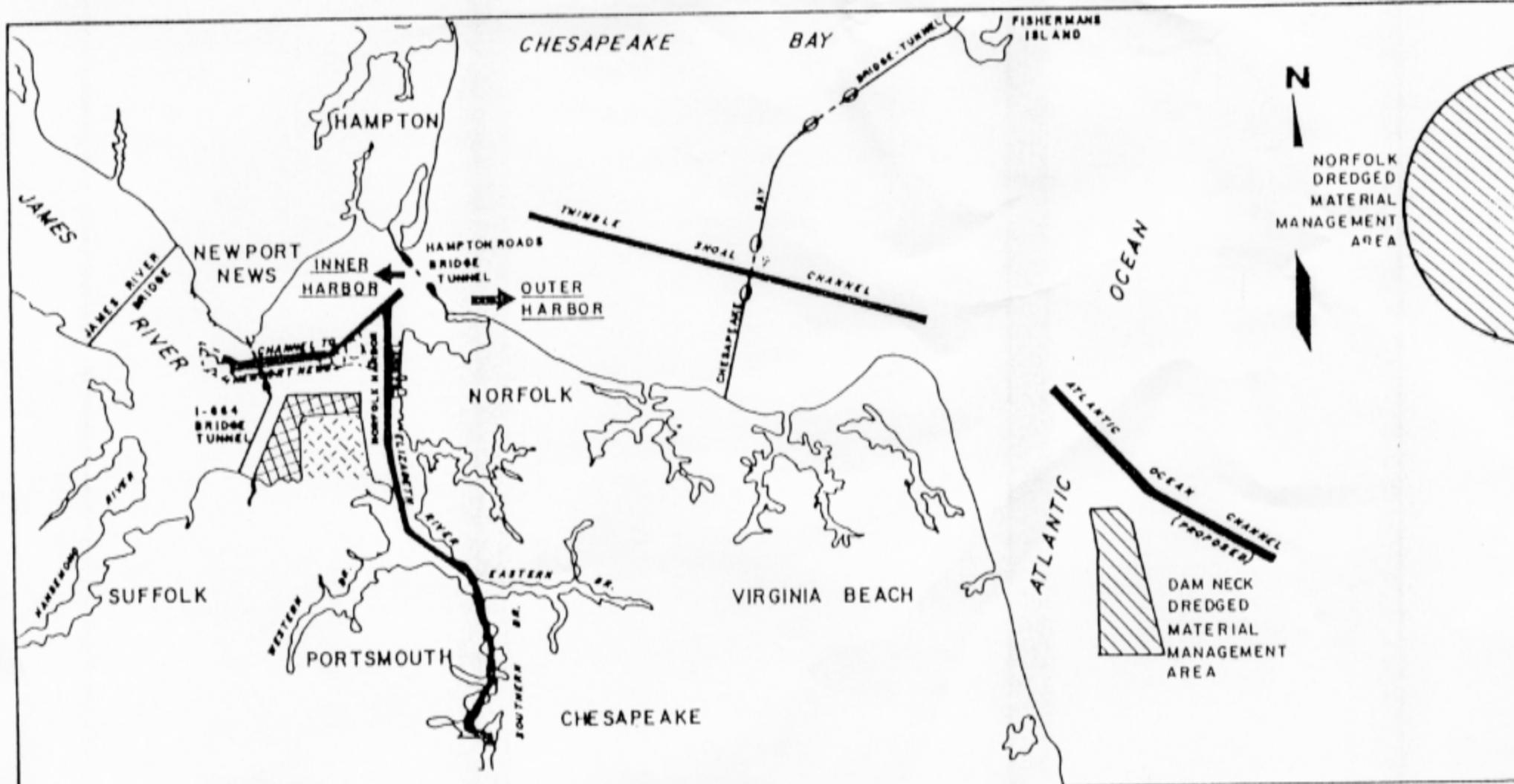


R. Todd Coyle

rtc

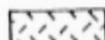
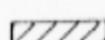
**ATTACHMENT 3**

**MAP - CONSIDERED PLANS**



N  
 NORFOLK DREDGED MATERIAL MANAGEMENT AREA

**LEGEND**

-  FEDERAL CHANNELS
-  EXISTING CRANEY ISLAND DREDGED MATERIAL MANAGEMENT AREA
-  CONSIDERED EXPANSION OF CRANEY ISLAND (COMMONWEALTH PASSED LEGISLATION PRECLUDING THIS OPTION)
-  OCEAN DREDGED MATERIAL MANAGEMENT AREAS

SCALE IN MILES  
 0 1 2 3

NORFOLK HARBOR AND CHANNELS, VIRGINIA  
 LONG - TERM DREDGED MATERIAL MANAGEMENT  
 (INNER HARBOR)

**CONSIDERED PLANS**

NORFOLK DISTRICT, CORPS OF ENGINEERS  
 JANUARY 1992