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U.S. Army Corps of Engineers Public Interest Review: An Evaluation of Implementation Effectiveness

Sharon Kelberg
University of Rhode Island

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U.S. ARMY CORPS OF ENGINEERS PUBLIC INTEREST REVIEW:
AN EVALUATION OF IMPLEMENTATION EFFECTIVENESS

BY

SHARON KELBERG

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS

IN

MARINE AFFAIRS

UNIVERSITY OF RHODE ISLAND

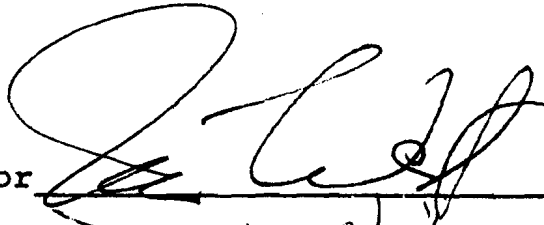
1981

MASTERS OF ARTS THESIS
OF
SHARON KELBERG

Approved:

Thesis Committee

Major Professor



Samuel Wilson

Edward Kipper

R. A. Michel

Dean of the Graduate School

ABSTRACT

The U.S. Army Corps of Engineers is authorized to permit or deny dredge and fill activities in the nation's coastal and wetland regions. Originally, responsible only for the maintenance of navigation, the Corps considered only navigational requirements in decisions to grant or deny permits. Now, however, the Corps must demonstrate that the "public interest" is served as well. This study examines the scope of the public interest and attempts to evaluate the effectiveness of the program in a particularly controversial project. The initial phase provides evaluation criteria necessary to analyze the application of the public interest review. The second phase determines the effectiveness of the review in the Hampton Roads refinery proposal. The results of this analysis suggest that the Corps complied with all procedural requirements within the broad public interest mandate. Factors, however, many of which are outside of the Corps' jurisdiction, exist which impact the decision making process.

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CHAPTER I.

INTRODUCTION

Overview of Army Corps of Engineers Public Interest Review Program

Historically, the Army Corps of Engineers has had a major role in the regulation of coastal activities. Its role was originally limited to maintaining navigable waters unobstructed for the free flow of commerce. Increasing public concern expressed over the destruction of coastal natural resources encouraged the legislative and judicial branches of the Federal government to expand the Corps' role to include consideration of factors far removed from the navigational mandate. Such factors include the effects a proposed project would have on wetlands, fish and wildlife values, water quality, recreation, and the public interest (emphasis added).¹

The public interest review has become a particularly important component in determining whether or not to grant permits for coastal alteration activities. Before the Corps can grant a permit, it must determine that the proposed activity is in the best public interest. However, there is no clear consensus on a definition for public interest. Consequently, public interest decision making can become quite difficult.

The Corps' regulations do not attempt to define the public interest. Instead, they list factors from the categories of economic development, energy needs, environmental protection and the general public welfare which constitute the public interest. The Corps is then required to carefully weigh all factors relevant to each particular case. As a result, the Corps must receive on a case by case basis, all proposals for waterfront development; to evaluate the economic, environmental and social consequences of each; and then to permit, deny or modify the proposal based on the public interest review.² During this individual review process, the Corps is supposed to balance the benefits which may accrue from the proposal with the potential detriments. The decision to authorize a permit is therefore part of this general balancing process.³ Such evaluation procedures have transformed the role of the Corps from a navigational mission oriented agency into a public interest advocate. Or as Senator Muskie observed: "We have put the fox in the chicken coop and it has become a chicken."⁴

The following study will attempt to determine the effectiveness of the Corps public interest review program. To achieve this goal, first, the intent and scope of the interest review will be revealed through a historical analysis of legislative and judicial events. Second, the Hampton Roads refinery proposal will serve as a case study to examine the Corps decision making process as related to

the implementation of the public interest provision. Third, the Hampton Roads decision will be evaluated in light of the public interest objectives. Furthermore, it is hoped that the problems identified and suggestions offered can be used to improve the public interest review process.

Overview of the Hampton Roads Refinery Project

The Hampton Roads Energy Company (HREC) in March, 1975 applied to the Army Corps of Engineers for permits to construct a refinery and marine terminal in Portsmouth, Virginia along the west bank of the Elizabeth River. The refinery, initially designed to process 175,000 barrels of Middle Eastern crude oil per day would eventually be expanded to process 250,000 barrels of crude per day into low sulfur petroleum products.⁵

The refinery would be equipped with an oil spill containment system and a wastewater treatment system which would remove much of the oil products and chemicals before direct discharge into the Elizabeth River, a tributary of the Chesapeake Bay.⁶ See figures 1 and 2 for illustrations of the Bay and refinery location.

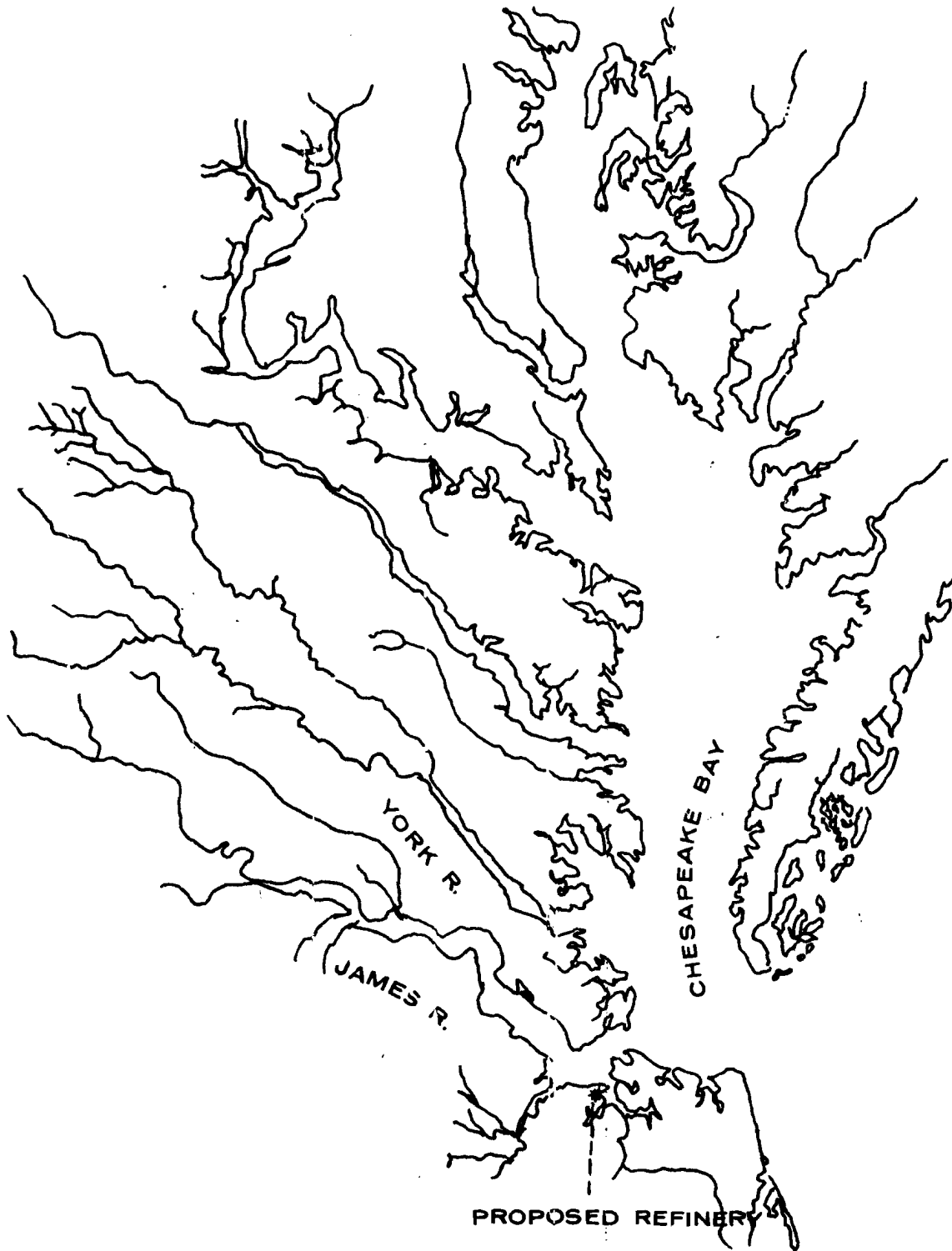


Fig. 1 Geographical Configuration of the Chesapeake Bay

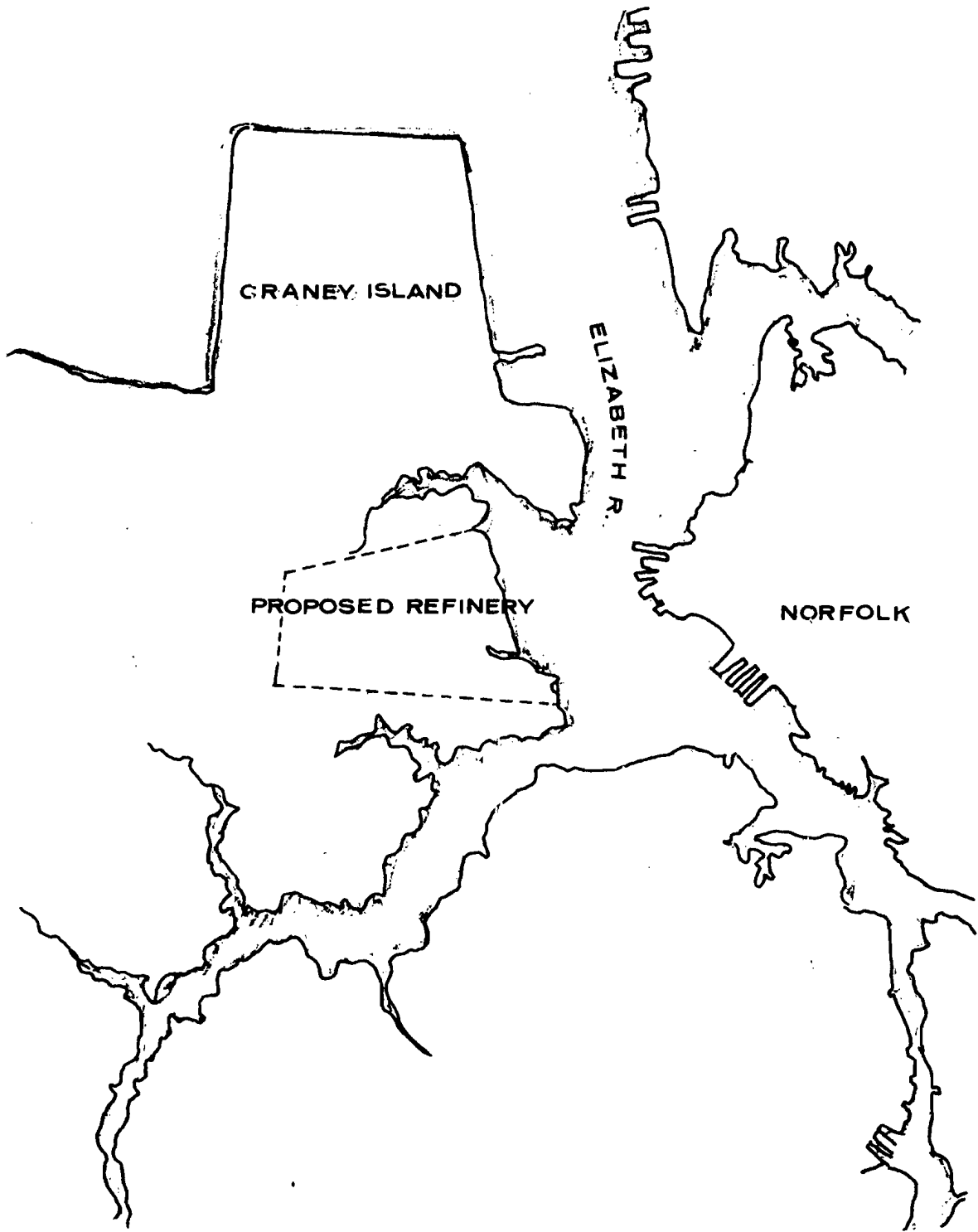


Fig. 2. Proposed Refinery Location

SOURCE: U.S. Army Corps of Engineers, Final Environmental Impact Statement; Hampton Roads Energy Company's Portsmouth Refinery and Terminal, Portsmouth, Virginia, August 1977, p.A-19

The lower Bay, near the Hampton Roads Harbor is the site of many commercially important fisheries and recreational opportunities. See Figure 3 for locations of these fishery resources.

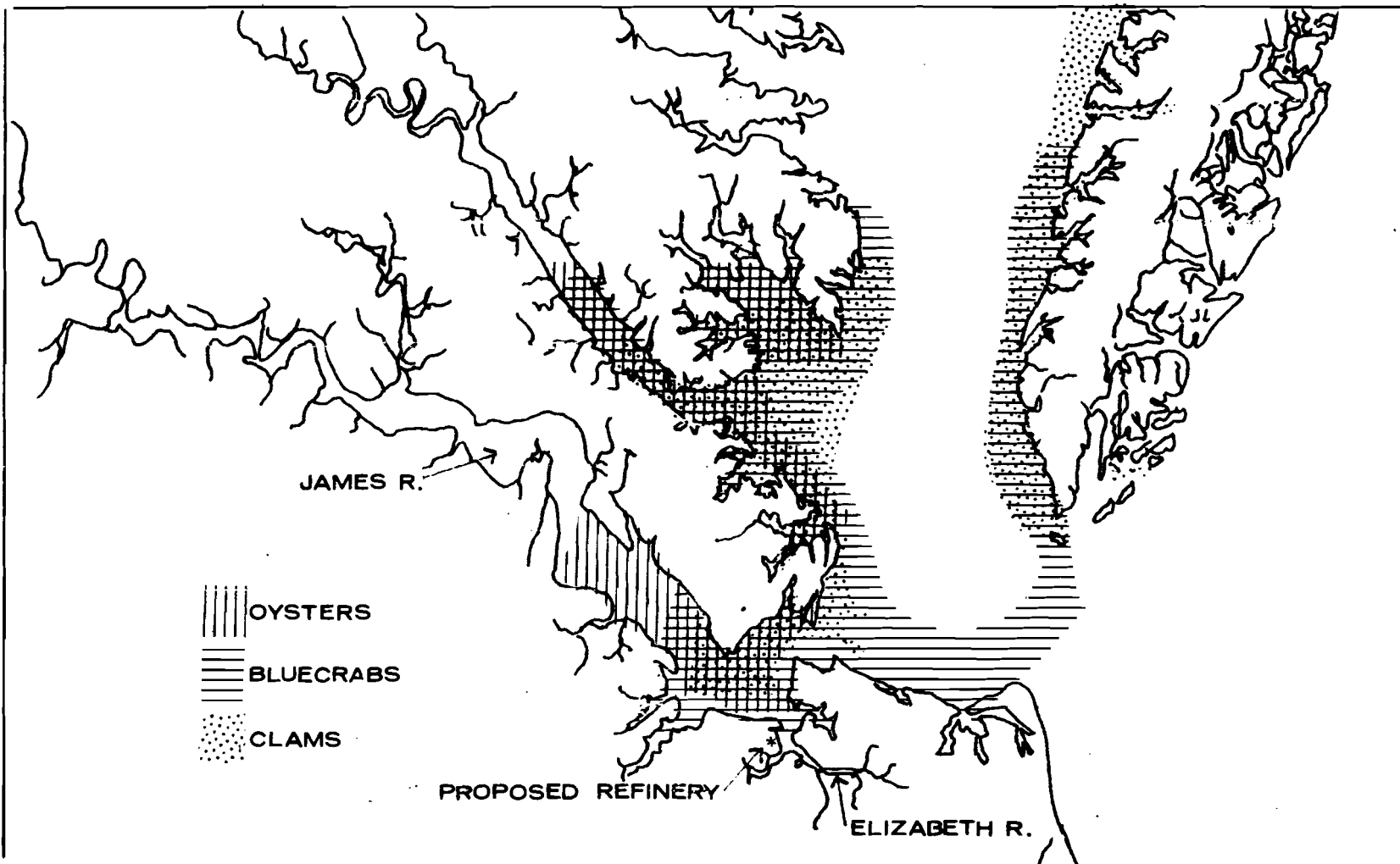


Fig. 3. Lower Chesapeake Bay Fishery Resources

SOURCE: U.S. Coast Guard, Local Oil Contingency Plan for MSO Hampton Roads, (Norfolk, Virginia), 1 March 1979.

This portion of the Bay is becoming increasingly stressed from a wide variety of organic and inorganic pollutants. Many fear that a new refinery will increase the oil spill probability to unacceptable levels and could herald the long-term demise of the \$78 million oyster and blue crab fisheries.

The qualitative permitting process had persistent problems at every level. The Environmental Protection Agency (EPA), National Oceanographic and Atmospheric Administration (NOAA) and the Department of Interior (DOI) recommended denial of the permits while the Departments of Defense, Treasury and Energy (DOE) consistently supported the project.⁷ At the local level, the City of Portsmouth along with business and industrial organizations have enthusiastically encouraged the refinery complex. Organized opposition has come from CARE (Citizens Against the Refinery's Effects) along with special interest groups. Objection to the refinery has predominantly been linked to potential impacts on marine resources, air quality and economic dislocation of Bay dependent industries.

In October of 1979, Clifford Alexander, Secretary of the Army, granted the construction permits necessary for HREC to proceed with the project. The decision, which culminated after four years of controversy, rested on what the Secretary deemed to be the best public interest. In reaching his decision, the Secretary had to balance two very critical public interest review factors, the national need

for energy -- specifically refined petroleum products, and the value of the unique resources of the Chesapeake ecosystem.

CHAPTER II

METHODS

This study is divided into three sections. The first section addresses the scope and intent of the public interest review. The second section examines how the public interest review was implemented in the decision making process for the Hampton Roads refinery. The final section evaluates the adequacy with which the Corps implemented the public interest review in the case example. The specific method of program evaluation utilized in this study was developed by Englander, Feldman, and Hershman⁸ and is referred to as organizational process evaluation.

Organizational process evaluation provides information about organizational capacity by examining the decision making procedures of a regulatory agency. The objective of process evaluation is to identify the adequacy with which the regulatory agency implements its program and to identify process problems which limit its effectiveness.

In the present study, process evaluation was performed in the following manner:

1. The objectives of the Corps public interest review were addressed through a historical analysis of:
 - a. applicable legislation and the corresponding legislative history;

- b. judicial interpretation;
 - c. program objectives expressed in current regulation.
2. Brief examples were discussed to determine in actuality how the public review criteria were implemented. Information was gathered from:
- a. law review journal articles;
 - b. interagency correspondence;
 - c. interviews with Corps personnel.
3. The Hampton Roads refinery example was analyzed to determine how the public interest was implemented in the decision making process. First, the public interest review factors specific to Hampton Roads were examined. Then the role of these factors in the decision making process was scrutinized. Information for both steps was found in:
- a. the environmental impact statement and consultant reports;
 - b. interagency correspondence;
 - c. Corps decision making papers;
 - d. interviews with involved Federal and State agencies.
4. The findings were evaluated in light of the expressed public interest goals to determine if the objectives were achieved.
5. Based on the results of the preceding sections, suggestions to improve the process were made.

One disclaimer should be noted. As previously mentioned, process evaluation involves analysis of a

decision making process. Unfortunately, the criteria for such an evaluation tend to be difficult to ascertain. Public interest objectives, as expressed in regulation are exceedingly broad and frequently conflicting. Also, much of the information used by regulatory agencies is qualitative thereby making evaluation subjective. Moreover, procedures for implementation of the review factors appear to be ad hoc. Consequently, process evaluation is not a precise procedure and is not used in this study as such.

CHAPTER III

CORPS ACTIVITY IN THE COASTAL ZONE

Historical Evaluation

The concept of the public interest review was born from extensive legislative and judicial review. Accordingly, understanding of the need and purposes of the public interest review cannot be presented without examining the history of the Corps' activity in the coastal zone and the evolution of this activity through the years. This section documents the role the Corps plays in coastal development and determines the historical factors which provided impetus for enlargement of its duties. This examination will reveal the scope and intent of the public interest review.

Rivers and Harbors Act

Congress created the Army Corps of Engineers in 1802. Until 1812 it was responsible for frontier defense construction.⁹ Beginning with the War of 1812, its authority was expanded to inspection of coastal fortifications at important east coast ports and harbors. Throughout the nineteenth century, Congress continued to authorize the Corps to make improvements in rivers and harbors, but the purpose of such improvements changed from fortification to the promotion of navigation. These projects included deepening of channels and restoration of harbors. After

the Civil War, Congress began to annually appropriate funds for the improvement of rivers and harbors.¹⁰

In 1877, the Chief of the Engineers initiated a proposal which would ensure that harbor areas were protected from congestion caused by random development of wharves and piers. The legislation, known as the "Dolph Bill", met little success in Congress until an important Supreme Court ruling rekindled interest. In 1888, the U.S. Supreme Court held, in Williamette Iron Bridge Co. v. Hatch that in the absence of a statutory enactment by Congress, state legislatures could authorize or prohibit the construction of bridges, dams, etc. in or over waters within the state regardless of whether such structures obstructed navigation.¹¹ The implication of such a ruling was far reaching. Without federal legislation stating otherwise, the maintenance of free, unobstructed navigation would be left to the individual states. States could authorize projects which would hinder the flow of commerce through navigable waters.^{12,13}

In response to the Supreme Court ruling, Congress passed the Dolph Bill in 1890. The new legislation, known as the Rivers and Harbors Act, not only required the approval of the Secretary of War for construction of all bridges in navigable waters, but for all construction activities in navigable waters (emphasis added). The Act also forbade the deposition of refuse into navigable waters without the permission of the Secretary of War.¹⁴

In 1896, at the request of Congress, the Chief of the Corps of Engineers compiled all general laws relating to navigational waters and proposed revisions and enlargements advantageous to the public interest. The changes were incorporated in a draft bill which became the River and Harbors Act of 1899 (RHA).¹⁵ It is interesting to note that this is the first time the term "public interest" is mentioned in any act dealing with water resources.

Three sections of the 1899 Act remain in effect today; two of which eventually helped to shape the present public interest review. These sections will be discussed in their modern context later, but for now it is sufficient to state the purposes of both. Section 10 prohibits obstruction or alteration of any navigable waters unless recommended by the Chief of the Engineers.¹⁶ Section 13, better known as the Refuse Act, made it illegal to discharge refuse into navigable waters or to place it in areas where it could easily wash into such waters. Sewage, however, was excluded from Section 13 requirements.¹⁷

Although court rulings eventually expanded the jurisdictional requirements of the RHA considerably, the Corps initially accepted a limited interpretation of the Act. First, the Corps concluded that its role was restricted to harbors only and accordingly, excluded all activities outside of well defined harbor regions from section 10 permit requirements. Second, the Corps drew lines within harbor

areas where landfills or construction activities were permitted without section 10 authorization. Section 13 was rarely used and only then to impose civil or criminal responsibility on those who discharged waste matter that directly impeded navigation.

Initially, the courts upheld the Corps' narrow interpretation of its responsibility. As late as 1936, in Miami Beach Jockey Club v. Dern,¹⁸ the court held that the applicant for a permit under section 10 was entitled to a decision based "exclusively on evidence determining whether or not the project would obstruct the navigational capacity of the waterway and hence hinder commerce."¹⁹

Shortly after this decision, however, the courts began to interpret wider meaning into the RHA. In U.S. v. Appalachian Electric Power Co.²⁰ the respondent claimed that its proposed hydroelectric project was exempt from regulatory jurisdiction of the RHA because the project would be located in non-navigable waters. The power company used physical stream characteristics such as water depth as evidence of non-navigability. The Supreme Court, however, held that federal power over navigable waters was not limited to control for the purposes of navigation only, but was as broad as the needs of commerce. Water power development from dams was, from the public's standpoint, a by product of the general use of the rivers, for commerce. Furthermore, the court concluded that flood protection, watershed development, as well as hydroelectric power and

other concerns in U.S. waters were within the proper scope of the commerce power.²¹

The Appalachian Power case significantly redefined navigability to include all waters, regardless of their physical characteristics, so long as development in the water body was within the scope of the commerce power. While this case dramatically increased the Corps' physical jurisdiction, U.S. v. Republic Steel²² expanded the concept of obstruction in navigable waters thereby expanding the breadth of the RHA permit requirements. In the latter case, the court held that industrial pollution discharged through the sewers was rightfully classified as refuse and, therefore, violated section 13 of the RHA.

Republic Steel pumped water for industrial use and returned it to the river through the sewer systems. The waste water was heavily laden with particulate matter which flocculated into larger units and sank to the bottom of the river. In time, the depth of the channel was reduced by several feet. The Court held that the industrial solids created an obstruction to the navigable capacity and its discharge was, therefore, a violation of section 10 of the RHA.²³

The court's decision was based on an interpretation of the seemingly antiquated 1899 Act. The Act specifically excluded sewage from the Corps' regulatory jurisdiction. The Court, however, held that use of sewers to discharge

wastes other than sewage violated the section 13 prohibition against refuse. The court focused on the type of discharge rather than the manner of disposal.

These two cases, Appalachian Power and Republic Steel demonstrate the courts' ability to expand and interpret jurisdiction under the RHA and exemplify the capacity of the legal and political processes to respond to changing needs. Together, they demonstrate that the federal constitutional system permits the enlargement of federal power to fill voids even without Congressional action. The judiciary and administrative agencies are able to achieve this expansion of power through the elaboration and interpretation of ambiguous terms of statutes. In addition to proving that old laws can be interpreted to meet new problems, these cases initiated the era of public interest where future legislative and judicial review continued to increase the Corps' responsibility.

Fish and Wildlife Coordination Act, 1958 Amendments²⁴

The Fish and Wildlife Coordination Act, as amended, provides that fish and wildlife conservation will receive equal consideration with other features of water resource development programs. The amendments were necessary to remedy the earlier Act's failure to achieve this goal and to address problems posed by a rapidly expanding society. Unlike the amendments, the original Act did not pertain to dredge and fill projects by private interests or other

non federal entities in navigable waters. This caused particular concern among commercial fishermen who were well aware of the negative impacts dredge and fill operations have on many important species.

The amended Act affects the Corps' dredge and fill permit responsibilities. Section 2(a) requires the Corps to consult with the U.S. Fish and Wildlife Service (FWS) before undertaking projects which entail deepening, impoundments, diversions, or any modification of a stream or other body of water.

During consultation, FWS recommends practices which will mitigate fish and wildlife damage during the construction and operation stages of the projects.²⁵ The Corps is obligated to give full consideration to the FWS recommendations. Hence, for the first time, the Corps is required to consider additional values besides those embodied in its original navigation mandate when granting permits for coastal projects.

Memorandum of Understanding, 1967

The FWCA did not satisfactorily facilitate coordination between the FWS and the Corps. To remedy the situation, the Secretary of the Army entered into a Memorandum of Understanding (MOU) with the Secretary of Interior. The following 2 policies were adopted:

1. At the earliest practicable time the District Engineer shall coordinate with the Regional Directors of the Secretary of the Interior on Fish and Wildlife, recreation and pollution

problems associated with dredging, filling and excavation operations to be conducted under permits issued under the 1899 Act in the Navigable waters of the U.S....

2. If the Secretary of Interior advises that proposed operations will reasonably impair natural resources or the related environment including the fish and wildlife and recreational values thereof, or will reduce the quality of such waters in violation of applicable water standards, the Secretary of the Army...will either deny the permit or include such conditions in the permit as he determines to be in the public interest (emphasis added)....²⁶

The MOU represents a pivotal point in the expansion of the Corps responsibilities. While it recognizes that the Secretary of the Army retains ultimate responsibility for decisions on permit applications, the MOU is an official reminder to the Corps' of its responsibility under the Fish and Wildlife Coordination Act to obtain advice from Interior, regarding impacts from proposed dredge and fill projects. The MOU, therefore, laid the groundwork for direct negotiation between the two departments. In addition, the MOU requires the Army to deny or modify RHA permit applications not in the best public interest. This requirement has been relied upon time and again in subsequent court decisions which have drastically altered the Corps' regulatory jurisdiction.

In response to its commitments in the Fish and Wildlife Coordination Act and the recent MOU, the Corps promulgated new regulations governing permits in navigable waters. The new review criteria ensured that:

The decision as to whether a permit will be issued must rest on an evaluation of all relevant factors,

including the effect of the proposed work on navigation, fish and wildlife, conservation, pollution, aesthetics, ecology and the general public interest.²⁷

Zabel v. Tabb²⁸

Soon after the promulgation of the Corps' first public interest regulations, their validity was tested in court. In Zabel v. Tabb, the court upheld the Corps' decision to deny RHA permits on public interest grounds even though the proposed construction would not hinder navigation. Examination of this landmark case helps to reveal what the public interest includes in an actual decision making process.

Zabel and Russel owned land riparian to and underlying, Boca Ciega Bay, Florida, a navigable water of the U.S. They applied to the Corps for a permit pursuant to section 10 of the 1899 Act to dredge and fill eleven acres of their tideland property for use as a commercial trailer park. Approximately 700 citizens filed comments in opposition to the project. They were joined by several state agencies and the U.S. Fish and Wildlife Service which opposed the permit because the proposed dredge and fill activities would harm the fish and wildlife resources of Boca Ciego Bay.

The District Engineer at Jacksonville, Florida, Colonel Tabb recommended that the permit be denied although the proposed work would have no material affect on navigation.

Careful consideration has been given to the general public interest in this case. The virtual unanimous

opposition to the proposed work...has convinced me that approval of the application would not be in the best public interest. The continued opposition of the U.S. Fish and Wildlife Service...leads me to the conclusion that approval of the work would not be consistent with the intent of Congress expressed in the Fish and Wildlife Coordination Act, as amended, 12 August 1958. Further the opposition of the State of Florida and of county authorities...gives additional support to my conclusion that the work should not be authorized.²⁹ (emphasis added)

Consequently on 28 February 1967, the Secretary of the Army denied the permit for the following reasons: It

1. would result in a distinctly harmful effect on the fish and wildlife resources in Boca Ciego Bay;
2. would be inconsistent with the purposes of the Fish and Wildlife Coordination Act of 1958, as amended (16 U.S.C. 662);
3. is opposed by the Florida Board of Conservation on behalf of the State of Florida, and by the county Health Board of Pinellas County and the Board of County Commissioners of Pinellas County; and
4. would be contrary to public interest (emphasis added).³⁰

The developers then sued for an injunction to compel the District Engineer to issue the permit. At trial, the Corps contended that section 10 of the 1899 Act should be understood in conjunction with the Fish and Wildlife Coordination Act, thereby giving the Corps discretionary authority to deny an application for a dredge and fill permit despite no impact to navigation. The Federal District Court disagreed and ordered the Corps to grant the permit.³¹

The United States Court of Appeals for the Fifth Circuit reversed, holding that the Secretary of Army could refuse to authorize dredge and fill projects in navigable

waters for factually substantial ecological reasons even though the project would not interfere with navigation, flood control or the production of power. First, the court cited the RHA in determining that factors other than navigation could be considered.

The Act itself does not put any restrictions on denial of a permit or the reasons why the Secretary may refuse to grant a permit to one seeking to build structures on or dredge and fill his own property. Although the Act has always been read as tempering the outright prohibition by the rule of reason against arbitrary action, the Act does flatly forbid the obstruction. The administrator may grant permission on conditions and conversely deny permission when the situation does not allow for those conditions.

But the statute does not prescribe either generally or specifically what those conditions may be. The question for us is whether under the Act the Secretary may include conservation considerations as conditions to be met to make the proposed project acceptable. Until now there has been no absolute answer to this question. In fact, in most cases under the Rivers and Harbors Act the Courts have been faced only with navigational problems.³²

The court emphasized that the Corps no longer has to "wear navigational blinders" when it considers a permit request.

Second, the court cited the commerce clause, Fish and Wildlife Coordination Act and the National Environmental Policy Act to buttress its position. The court further held that Congress has the power to protect wildlife in navigable waters and accordingly regulate the use of private property for this reason. Congress, however, must be reasonably sure that the activity regulated has a substantial effect on interstate commerce.³³ The court concluded that destruction of fish and wildlife in estuarine waters has a

substantial, even devastating, effect on interstate commerce. Judge Brown used the legislative history of the Fish and Wildlife Coordination Act to illustrate its applicability. He concluded that the Coordination Act requires the Corps to take Fish and Wildlife resources into account in the decision making process. Furthermore, the court cited the retroactive application of NEPA holding that NEPA requires every federal agency to consider ecological factors when reviewing activities which have an impact on the human environment. Thus, the court agreed with the Corps, holding that consideration of the natural resource factors of the public interest was part of the Corps' responsibility in determining whether or not to grant permits.³⁴ The 1968 public interest regulations promulgated by the Corps were instrumental in this decision.

National Environmental Policy Act³⁵

The National Environmental Policy Act (NEPA) was the Congressional response to increasing pollution problems and the resulting environmental degradation. Through the Act, Congress attempted to incorporate environmental considerations into federal agency decision making processes. By requiring Environmental Impact Statements (EIS) for all major actions significantly affecting the environment, NEPA forces federal agencies to take a hard look at impacts resulting from their projects.

The Act declares a national policy,

...which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will eliminate damage to the environment and biosphere and to stimulate the health and welfare of man....³⁶

To ensure adherence to this goal, NEPA directs, to the fullest extent possible, the federal government to interpret other policies, regulations and public laws in accordance with those policies set forth in the Act. Hence, the Corps must adhere to NEPA when considering whether or not to grant permits for coastal alteration constituting a major federal action.

Federal Water Pollution Control Act³⁷

The objective of the Federal Water Pollution Control Act (FWPCA) is to restore and maintain the natural chemical, physical, and biological integrity of the nation's waters. The Act requires the discharge of pollutants to be eliminated by 1985. The principal mechanism established for achieving this goal is the National Pollution Discharge Elimination System (NPDES) which requires the Environmental Protection Agency (EPA) to regulate the discharge of pollutants into navigable waters.

The inclusion of dredged material within the definition of pollutants created a potential overlap between the new NPDES and Corps' traditional jurisdiction under the RHA. Congress, however, avoided this overlap by including section 404. The new section authorized the Secretary of the Army, acting through the Corps of Engineers, to regulate discharges

of dredged or fill material into U.S. waters.³⁸

Although section 404 prevented EPA from taking over the Corps' permit authorities, ultimately the Agency had great impact on the program. EPA contended that the federal jurisdiction under the 1972 amendments extended to all waters capable of affecting commerce regardless of whether navigability could be established under traditional legal tests. To support its position, EPA reminded the Chief of the Corps of the jurisdictional milestone established in U.S. v. Holland,³⁹ In this case, the U.S. sought to enjoin land filling operations in mangrove swamps and mosquito canals. The court restricted its consideration to the FWPCA and to whether Congress intended the Act to cover pollution in non-navigable mosquito canals and wetlands.

The Court reviewed the legislative history of the FWPCA and determined that Congress had intended to control the discharge of pollutants at the source. In the Holland case, the source of pollution was the land-filling operations in non-navigable mosquito canals. The Court concluded that in order to control this pollution and implement Congressional intent, the old navigability restriction had to be removed. Consequently, it interpreted the FWPCA to include "all bodies including mainstreams and their tributaries."⁴⁰ Corps jurisdiction would no longer be restricted to navigable waters pursuant to the power under the commerce clause, but would be increased to encompass all waters.

While the Corps willingly agreed that the FWPCA

required it to regulate the filling of wetlands, it was adamantly opposed to the extension of its licensing authority beyond the boundaries of navigable waters defined by the commerce power. The Corps explained in a press release its extreme reluctance to expand its jurisdiction.

Under some of the proposed regulations, federal permits may be required by the rancher who wants to enlarge his stock pond, or the farmer who wants to deepen an irrigation ditch, or the mountaineer who wants to protect his land against stream erosion.⁴¹

Furthermore, the Corps interpreted legislative history and insisted that EPA had regulatory responsibility for dredge and fill projects outside of traditional navigable waters. In accordance with its position, the Corps' 1974 revised regulations maintained the preexisting jurisdictional limitations.⁴² This resistance was successfully challenged in NRDC, Inc. v. Calloway⁴³ when the federal court for the District of Columbia ordered the Corps to amend its jurisdiction under section 404 of the FWPCA to include all waters of the U.S., not merely navigational waters.

The Holland and Calloway decisions represent an extrapolation of Congressional intent. The legislative history of section 404 indicates that Congress was primarily concerned with the disposal of polluted dredge spoils. Destruction of wetlands by these activities was not specifically addressed.⁴⁴ In both cases, however, the courts relied upon the purpose of the FWPCA to justify a literal reading of section 404.

...subsection (c) provides for careful consideration of whether or not such discharges will have 'unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning

and breeding areas), wildlife or recreational areas.

These three sections do not by themselves prove conclusively that Congress sought to assume jurisdiction over activities taking place in wetlands above the mean high water line. What these sections do reveal is a sensitivity to the value of coastal breeding ground...

...the FWPCA embodies the realization that pollution of these areas may be ecologically fatal.

In an attempt to combat these threats to the coastal environment, the Congress broadened its jurisdiction to encompass 'all waters of the United States. In doing so Congress deemed it essential that the discharge of pollutants be controlled at the source.' Legislative History Vol. 2, p. 1495.... One of the sources of pollution...(is) the discharge of sand, dirt and dredged spoil on land, although above the mean high water line (is) periodically inundated.⁴⁵

The Holland and Calloway decisions effectively designated the Corps as "guardian of the nation's wetlands".⁴⁶

While the previous discussion does not have direct bearing on the evolution of public review criteria, it is, nevertheless, important to note for two reasons:

First, it represents another instance where the Corps' jurisdiction was greatly expanded; this time to include regulation of dredge and fill activities in all wetlands. The Court decisions and jurisdictional alterations clearly demonstrate a judicial desire to conserve valuable wetlands and to reflect these concerns in the decision making process. Second, in response to court interpretations, the Corps promulgated regulations to include wetlands, along with public interest review criteria, in its general policies for evaluating permit applications.

1977 Clean Water Act⁴⁷

In adopting the 1977 amendments to the FWPCA, Congress made a number of major changes in the dredge and fill program. Most importantly, Congress retained the broad jurisdictional approach advocated by both EPA and the courts in regulating the discharges of dredge and fill material.⁴⁸ However, Congress allowed states, with federally approved dredge and fill permit programs, to take over permit responsibility for waters within state jurisdiction (those waters, traditionally non-navigable and above the mean high water mark) thereby releasing the Corps from its unwanted responsibility outside of navigable waters pursuant to the power under the commerce clause.⁴⁹

The 1977 amendments did little to affect the public interest review, therefore, no further discussion will be devoted to the Act as amended. Table 1 provides a summary of significant events in the Corps' coastal regulatory program.

TABLE 1

Significant Events in the Corps' Coastal Regulatory Program

Year	Legislation	Regulation	Court Case
1802	Congressional Act creating the Corps		
1877	Dolph Bill proposed to protect harbors from random development		
1888			<u>Williamette Iron Bridge Co. v. Hatch</u> provides impetus to enact the Dolph Bill
1890	First Rivers and Harbors Act		
1896	Proposed revisions to the Rivers and Harbors Act		
1899	Rivers and Harbors Act requires Corps to maintain navigation free from obstruction		
1940			<u>U.S. v. Appalachian Electric Power Co.</u> expands the navigability definition to be as broad as the needs of commerce

TABLE 1 -- continued

Year	Legislation	Regulation	Court Case
1958	Fish and Wildlife Coordination Act requires the Corps to consult with FWS		
1960			<u>U.S. v. Republic Steel Corp.</u> expands the term refuse to include industrial pollution
1968		First public interest regulations promulgated	
1969	National Environmental Policy Act requires the Corps to file environmental impact statements for coastal alteration constituting a major federal action		
1970			<u>Zabel v. Tabb</u> allows Corps to deny permits for factually substantial ecological reasons even though the project would not interfere with navigation
1972	Federal Water Pollution Control Act authorizes the Corps to regulate dredge and fill activities in U.S. waters		

TABLE 1 -- continued

Year	Legislation	Regulation	Court Case
1974			U.S. v. Holland removes the old navigability restriction and interprets FWPCA to include all bodies of water
1975			NRDC, Inc. v. Calloway requires Corps to amend its jurisdiction to include all bodies of water
1976			
1977	Clean Water Act upholds the broad jurisdictional approach		

Permit Process Structure

An examination of the current permit processing structure and the public interest review will conclude the chronological history of the Corps' jurisdictional expansion in the coastal zone.

The Corps is broken down into 36 different district offices each commanded by a colonel. The colonel of each district is responsible to one of the eleven division commanders, usually a brigadier or major general. In turn, the division commanders report to the Chief of the Corps, who is ultimately responsible to the Secretary of the Army.

Applicants wishing to dredge or fill must apply to the appropriate District Engineer having jurisdiction over waters in which the activity is proposed. The contents of the application must include a complete description of the proposed activity including the necessary approvals required by other Federal, state and local agencies.⁵⁰

In addition, the applicant must include a thorough description of the type, composition and quantity of the material to be dredged as well as disposal plan. Additional information deemed necessary by the District Engineer to evaluate the application must also be supplied.⁵¹ The District Engineer then issues a public notice describing the project and stating criteria for evaluation. After considering all the public comments, he determines whether or not an Environmental Impact Statement (EIS) will be

required. An EIS must be prepared if the District Engineer believes that a permit may be warranted but that the proposed activity would significantly affect the quality of the human environment.

As required by NEPA, the EIS must contain the following information:

1. the environmental impact of the proposed activity;
2. any adverse unavoidable effects;
3. alternatives to the proposed action;
4. relationship between the local short term use of man's environment and the maintenance and enhancement of long term productivity;
5. any irreversible and irretrievable commitments of resources.⁵²

The District Engineer makes the initial decision to grant or deny the permit based on the recommendations from his multi-disciplinary staff which includes lawyers, biologists and recreational specialists. Based on the criteria which the Ccrps must evaluate with each application and provided no unresolved substantive objections arise, the District Engineer may grant the permit. Controversial cases, however, are referred to the next hierarchical level. If, at the division level, objections from another federal agency remain unresolved, or when the recommended decision is contrary to the stated position of the governor of the state, the case is forwarded to the Chief of the Engineers.⁵³

Denial of the permit by the Corps is authorized when:

1. the state prohibits certification under Section 401 of the FWPCA;⁵⁴
2. the proposed work will excessively interfere with navigation pursuant to sections 9 and 10 of the RHA;
3. the permit is determined to be contrary to the public interest.⁵⁵

Public Interest Review

Within the Corps' regulations, under the heading "General Policies for Evaluating Permit Applications", the public interest review is the first policy discussed. The policy requires the Corps to base its decisions to grant or deny permits on an "evaluation of the probable impact of the proposed activity and its intended use on the public interest."⁵⁶ In order to accomplish this, the Corps must, first, distinguish the public interest factors specific to each particular proposal. Second, the benefits to the public interest resulting from the proposed activity must be balanced against the reasonable foreseeable detriments to public interest. For example, consider a proposal which calls for alteration of a natural beach to facilitate energy production. The project will obviously have different effects on two factors of the public interest. It will have negative impacts on recreational opportunity while simultaneously

enhancing energy production. The decision to authorize, deny or modify the project will result from the general balancing process required by the regulations.

All factors which may be considered relevant to the proposal must be considered; among those are conservation, economics, aesthetics, general environmental concerns, historic values, fish and wildlife values, flood damage prevention, land use, navigation, recreation, water supply, water quality, energy needs, safe food production, and, in general, the needs and welfare of the people. No permit will be granted unless its issuance is found to be in the public interest.

The following general criteria will be considered in the evaluation of every application:

- (i) the relative extent of the public and private need for the proposed structure or work;
- (ii) the desirability of using appropriate alternative locations and methods to accomplish the objective of the proposed structure or work;
- (iii) the extent and permanence of the beneficial and/or detrimental effects which the proposed structure or work may have on the public and private uses to which an area is suited; and
- (iv) the probably impact of each proposal in relation to the cumulative effect created by other existing and anticipated structures or work in the general area.⁵⁸

Discussion

A simple examination of the public interest regulations reveals their broad focus and leaves the evaluation with many substantive procedural questions. How is the review applied in actual cases? How does the Corps strike a balance between opposing factors of public interest? How comprehensive are the regulations and what is the extent of their scope? While it is impossible to thoroughly discuss all questions raised within the bounds of this study,

those most relevant to the study's purpose will be addressed. First, however, the following examples will be presented in order to delineate both the meaning and applicability of the public interest review.

Two Implementation Examples

Marco Island

The Marco Island project helps to illustrate the Corp's definition of public interest. It also helps to discern the relationship between the process involved in determining whether or not to grant permits and the factors of public interest.

In 1973, the Deltona Corporation applied to the Corps for section 10 RHA and section 404 FWPCA permits to dredge 18.2 million cubic yards from navigable waters around Marco Island and to deposit the material in approximately 2100 acres of mangrove wetlands. The permits would enable Deltona to complete the final phase of its Marco Island master plan by providing single family housing for 35,000 individuals. Phase 1 of the plan began in 1964 after the Corps issued the necessary permits. In 1967, when construction of the first phase was nearly complete, Deltona applied for permits to begin phase 2 of the development scheme. The FWS, however, objected to the second phase permits. Although a two year delay ensued, the permits were ultimately granted.⁵⁹ By the time Deltona was ready to begin the final 3 phases of construction (1973) and applied for sections 10 and 404

permits, the new regulations and legislation previously discussed were in full effect. The Corps was, therefore, obligated to scrutinize the permits very closely and determine whether or not the best public interest would be served by granting them. The permit applications proved to be quite controversial. In favor of the permits were the Department of Labor and the Board of County Commissioners, Hendry County. Opposition came from 2,300 correspondents, not to mention 31 petitions, the State Game and Fresh Water Fish Commission, National Marine Fisheries Service, FWS, National Park Service, EPA, Town of Longboat Key, City of Sanibel and City of Naples. The controversy was exacerbated by the Deltona Corporation which continued to sell lots despite the fact that the permits had not yet been granted.

The EIS listed the following negative impacts which would result from the issuance of the permits.

1. destruction of approximately 2,200 acres of mangroves;
2. short terms water quality degradation from dredge and fill operations as well as long term impacts resulting from urbanization.
3. commercial sport fishing reductions due to habitat loss of the primary food chain.⁶⁰

In April of 1976, the Chief of the Engineers authorized the Jacksonville district to issue permits for one of the three sections but to deny the other two. The reasons, listed as factors of public interest in the Corps' report, are as

follows:

1. Corps Wetlands Policy - In determining whether a particular alteration is necessary, our regulations require that we determine if the activity is dependent upon wetland resources and whether feasible alternate sites exist.
2. EPA Guidelines - The permits failed the test of the EPA Guidelines, 404(b) which state that destruction of aquatic resources by filling operations in wetlands is considered the most severe environmental impact covered. The Corps responded by pointing out that recreational housing does not require a location in wetlands. While a derived benefit of such housing may be an opportunity to recreate in or near the water resource, the basic purpose of it is still the same: to provide shelter.⁶¹

The Corps thoroughly incorporated the public interest review mandate into the Marco Island decision making process and in so doing, provided insight into how the general criteria are used to evaluate the public interest. The following discussion will briefly reiterate factors in the Corps decision and show how they were evaluated using the public interest review criteria.

1. the relative extent of the public and private need for the proposed structure:

Although the majority of the responses received by the Corps opposed the proposal, those whom Deltona had already sold lots to were strongly in favor. Letters were received from as far away as Wisconsin pleading for the permits to be granted. Most of these individuals had planned to retire on Marco Island and the health of some depended on the warm climate. They felt they represented a legitimate need for the project.

While the Corps recognized these compelling arguments, it determined that benefits which would be received by a small portion of the private sector did not warrant the widespread destruction of wetlands and fish and wildlife resources.

2. desirability of using appropriate alternative locations and methods to accomplish the objective of the proposed work:

Alternative locations for the proposed project were available within the country. Furthermore, housing, recreational or otherwise, serves the same basic function - to provide shelter. The Corps determined that shelter does not require a wetlands location.

3. the extent and permanence of the beneficial and/or detrimental effects which the proposed structure would have on public and private uses to which the area is suited:

Detrimental impacts included the permanent loss of 2100 acres of productive wetlands, probably long-term decline of fish and wildlife resources dependent upon the wetlands, and water quality degradation. Housing for 35,000 constituted the beneficial impacts. The land area, however, was not particularly well suited for this purpose.

4. the probable impact of each proposal in relation to the cumulative impacts:

The proposal would remove .5 percent of Florida's mangrove wetlands. The mangroves in question serve important biological functions (including food chain production, general habitat, spawning, rearing and resting sites for aquatic and land species). In addition, wetlands act as sanctuaries and significantly shield other areas from wave action, erosion or storm damage. Destruction of 2100 acres of these valuable wetlands would constitute an impact with unmeasurable ramifications.

Block "M"

In 1973, the Block "M" Corporation applied for a 404 dredge and fill permit in the Gulf of Mexico near Hudson, Florida. The application requested permission to dredge 170,000 cubic yards and to fill and bulkhead 12 acres for a condominium housing development. Objections raised by NFMFS, FWS and local residents were based on:

1. environmental grounds;
2. the effects of a condominium in a small community;
3. six fold expansion of a sewage treatment plant where there was really no area in which to expand.⁶²

The Director of Civil Works, Major General Morris⁶³ denied the permits stating:

We have reviewed this permit file in conjunction with the Corps policy on the protection of wetlands which was promulgated and published in the Federal Register on 3 April 1974. The policy now requires, as a matter of law, that unless the public interest

requires otherwise, permit applications for activities in valuable wetlands must be denied unless it can be concluded that the benefits of the proposed wetlands alteration will outweigh the damage to the wetlands resource and that the proposed alteration is necessary to realize those benefits....

(T)he applicant has failed to establish that the siting of this proposed housing development at this wetlands location is dependent on this wetlands resource. In addition, the applicant has failed to establish that there are no other feasible alternative sites for multi-family housing of this type in this area. Accordingly, we have been unable to conclude from the record that this proposed activity is a necessary alteration of this wetlands resource. [Emphasis added] 64

The Block "M" Case also demonstrates the importance placed on wetlands as a public interest value. Although the amount of proposed alteration was considerably less than in the Marco Island example, the preservation of 12 acres of wetlands was deemed to be more in the public interest than condominium housing. From both examples, it can be concluded that alteration of highly productive wetlands for housing development is not in the public interest. The justification for wetlands preservation in these cases focused on the direct and indirect impacts to fishery resources, Corps and EPA regulations.

Neither case, however, forced the Corps to confront more difficult public interest issues. Such issues include Corps review of projects which indirectly but substantially impact fisheries without alteration of productive wetlands. For example, a housing development, sewage treatment plant, or oil refinery may require Corps' dredge and fill permits even though no wetlands alteration will occur. These projects may cause real harm to local fisheries from sewage

discharge, refinery effluent or oil spills. Public interest regulations do not provide clearly defined standards which express how much emphasis should be given to more important but secondary impacts in a decision making process. The public interest review also fails to provide mechanisms to balance opposing factors of public interest within a given project. Without the clear guidance of the Corps' wetlands mandate, the public interest review may be much more difficult to apply.

Summary

Discussion thus far has focused on the role of the Corps in coastal alteration decision making processes. Judicial interpretations and current legislation have successively broadened the Corps' permit jurisdiction to reflect public interest values alien to its navigational mandate. Regardless of the applicability of the commerce power, the Corps now has the authority to deny permits which are not deemed to be in the best public interest. The determination of the public interest is also intricately linked with other requirements found in the Fish and Wildlife Coordination Act and with Department of Interior. Hence, in evaluating applications for section 10 and section 404 permits, the Corps must consider an incredible amount of input and public interest factors in order to make a well balanced decision.

The next part of this study will examine how the

Corps implemented its public interest review in the Hampton Roads refinery example.

CHAPTER IV

HAMPTON ROADS REFINERY

Refinery Complex and Chesapeake Bay Resources

Refinery Complex

The Hampton Roads Energy Company (HREC) in March, 1975, applied for Department of Army permits for proposed construction of a refinery and marine terminal. The refinery, initially designed to process 175,000 barrels of crude oil per day would eventually be expanded to produce a combined total of more than seven million gallons of low sulfur gasoline, jet fuel, butane, propane and other related products per day. Typical Middle East crude would be used as a feed stock.

The marine terminal would be capable of handling two 85,000 dead weight tons (DWT) tankers for incoming crude and two small tankers or barges for outgoing products simultaneously. An oil spill containment system is to be permanently installed to completely surround each tanker or barge prior to loadings and unloadings.⁶⁵

The mooring area and access channel will be dredged to accomodate the refinery complex. The 3.4 million cubic yards of dredge material would be deposited in the nearby Craney Island Disposal Area.

The project would employ an extensive wastewater

treatment system which captures rainwater draining from all parts of the site in order to remove petroleum products and other contaminants. The treated wastewater would then be discharged into the Elizabeth River.⁶⁶

Since a portion of the complex work will affect navigable waters, Department of Army permits pursuant to section 10 of the River and Harbors Act and section 404 of the Federal Water Pollution Control Act are required. This work includes: (1) construction of marine terminals, (2) dredging of the tanker and barge mooring areas and access channels, and (3) installation of an oil spill containment system.⁶⁷

In addition to the Department of Army permits, EPA and three state agencies have permitting authority for the construction and operating phases of the complex. The agencies and their authorities are listed in Table 2.

TABLE 2

Non Army Permits

Agency	Permit	Purpose
<p>Environmental Protection Agency, EPA</p> <p>State Air Pollution Control Board, SAPCB</p> <p>State Water Control Board, SWCB</p> <p>Virginia Marine Resources Commission, VMRC</p>	<p>Prevention of Significant Air Quality Deterioration, PSD</p> <p>New industrial source</p> <p>Certificate of Compliance</p> <p>National Pollution Discharge Elimination System, NPDES</p> <p>Dredge and fill</p>	<p>Regulates sulfuroxide and particulate emissions</p> <p>Construction and operation of certain new sources of air pollution emissions. Must comply with EPA National Ambient Air Quality Standards, (NAAQS)</p> <p>Ensures that proposed dredging and construction activities comply with water quality standards and Virginia Water Control laws</p> <p>Regulates discharge of pollutants into water from a point source</p> <p>Regulates construction of piers, docks and other activities in state waters</p>

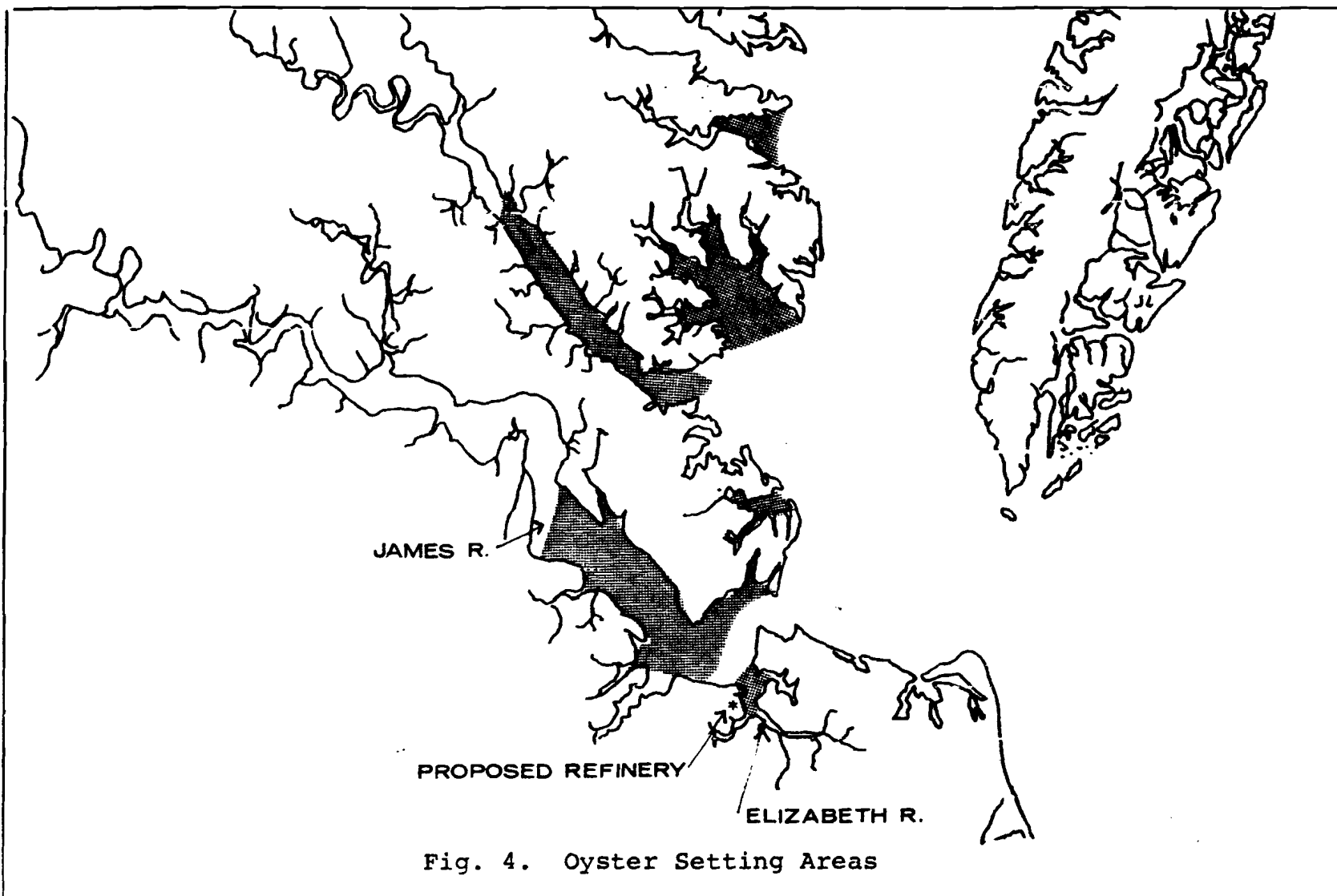
SOURCE: OASA (CW), "Evaluation of the HRECO Permit Case -- A Proposed Refinery and Terminal Complex to be constructed in Portsmouth, Virginia," 1979, p.8.

While the state permit process complicated the Corps' permit review and increased delay, the real source of delay resulted from unresolved objections, particularly from the Department of Interior. Most of these objections arose out of concern for the commercial and recreational fishery resources of the Chesapeake. Accordingly a brief overview of the Chesapeake's resources is warranted.

The Chesapeake Bay - A Unique Resource

The Chesapeake Bay is the largest estuary in the United States and one of the most productive in the world. The lower bay and its associated estuaries provide essential spawning, nursery and feeding grounds for most of the bay's commercial and recreational species. Of primary value are oysters, blue crabs, finfish and waterfowl.⁶⁸

The oyster and bluecrab industries not only contribute to the local economies but have national importance as well. The Bay produces 40 percent of the total U.S. harvest of oysters and at least 50 percent of the nation's harvest of bluecrabs. In 1977, these harvests amounted to 17 and 60 million pounds bringing a retail value of \$48 and \$39 million respectively.⁶⁹ The major populations of both organisms are located within close proximity to either the proposed refinery or navigation channels to the refinery. Figures 4 and 5 diagram the position of the lucrative oyster beds and reveals their proximity to the refinery.



SOURCE: U.S. Coast Guard, Local Oil Contingency Plan for MSO Hampton Roads, (Norfolk, Virginia), March 1979, p.13.

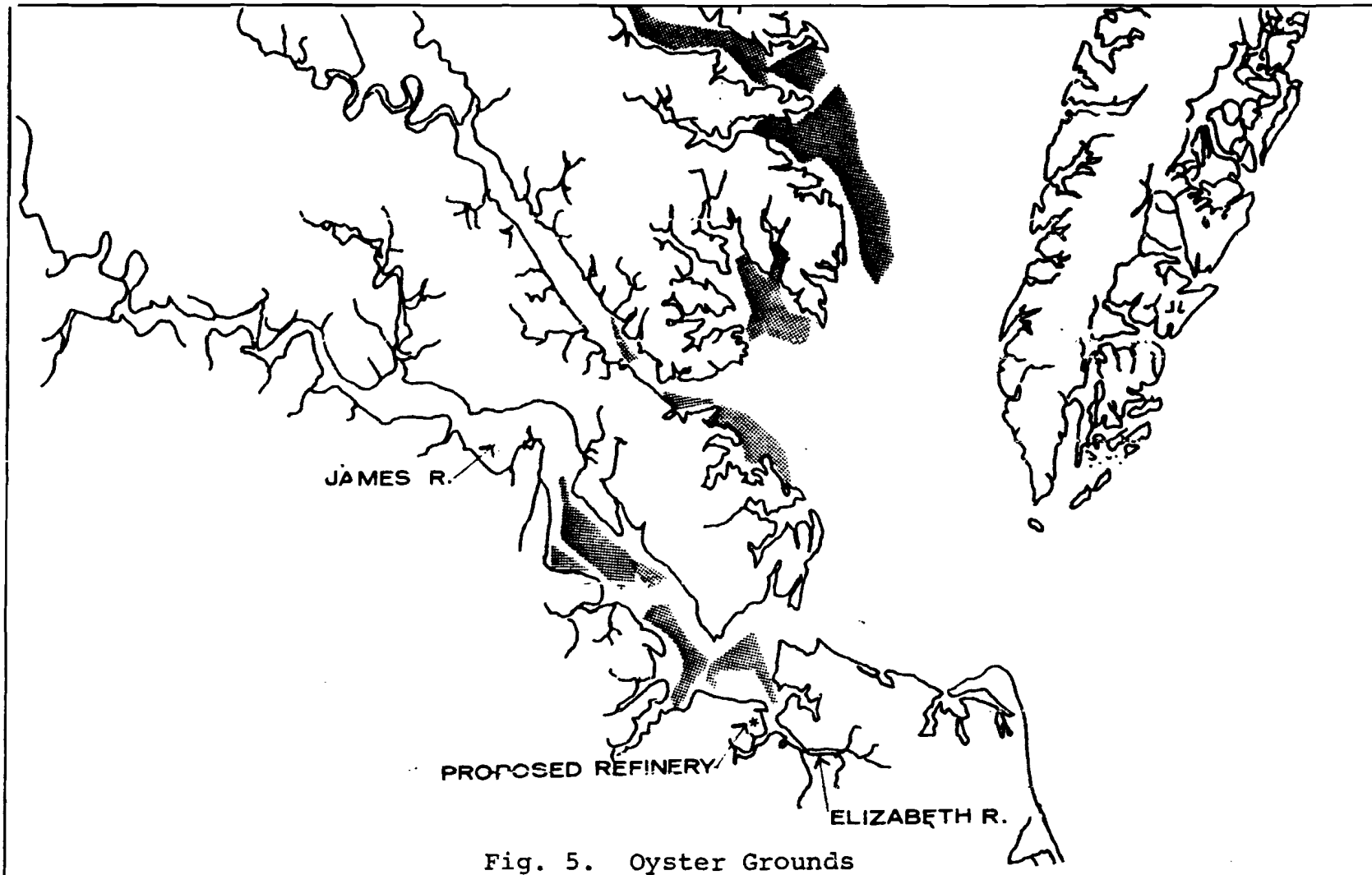


Fig. 5. Oyster Grounds

SOURCE: U.S. Coast Guard, Local Oil Contingency Plan for MSO Hampton Roads, (Norfolk, Virginia), 1 March 1979, p.12.

The beds, which supply at least 75 percent of all seed oysters transplanted to other growing areas in Virginia and neighboring states, are considered by the Virginia Institute of Marine Sciences (VIMS) to be unique and irreplaceable.

Likewise, the bluecrab over wintering grounds near the Hampton Roads Harbor approach channels are also considered to be peerless.⁷⁰ See Figure 6 for the location of the bluecrab spawning areas.

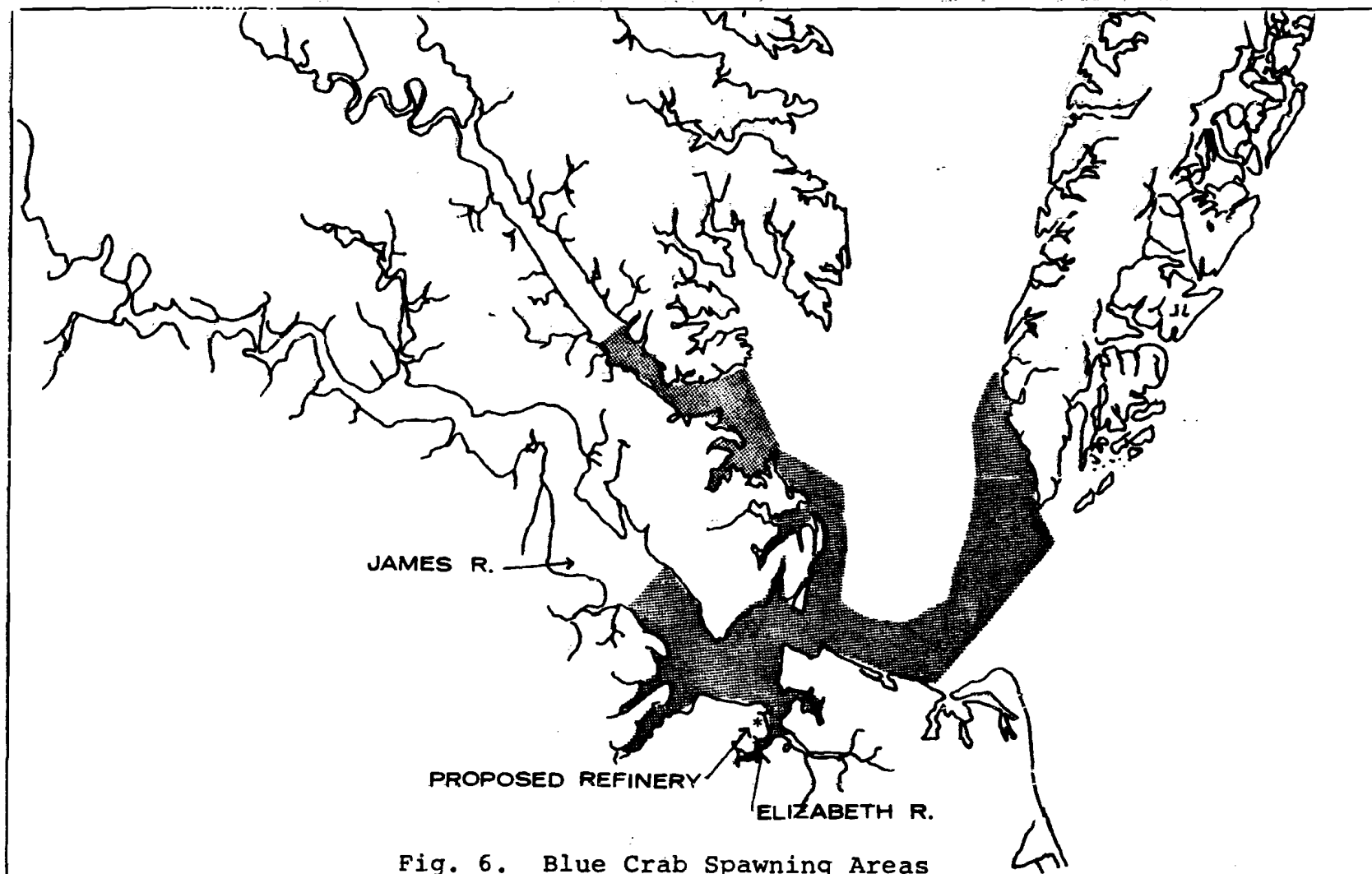


Fig. 6. Blue Crab Spawning Areas

SOURCE: National Oceanographic and Atmospheric Administration, Position Statement on the Siting of an Oil Refinery by the Hampton Roads Energy Company at Portsmouth, Virginia, December, 1978, p.27.

Widespread throughout the Chesapeake Bay are saline, brackish and freshwater wetlands. Such wetlands form the primary basis for the high natural productivity for which the Bay is famous. Oysters and bluecrabs as well as finfish inhabiting the bay depend directly or indirectly on the wetlands for their food source. In addition, wetlands provide habitat for invertebrates, fish, birds and mammals; buffer the effects of storm generated waves by stabilizing the shoreline; and function as natural fillers for the removal of pollutants.^{71,72}

The Bay's value as a recreational resource should not go unnoticed. Recreational use of the lower Chesapeake Bay and Hampton Roads area is intensive. Activities include "beaching", boating and fishing. While no figures are readily available for Virginia, in 1977 the Maryland Department of Natural Resources estimated the economic impact of recreational boating on the state economy as almost \$370 million a year.⁷³ Recreational fishing is a particularly important Bay dependent industry. Its value, well over \$100 million annually is equal to that of the commercial fishery catch.⁷⁴

Concern has been expressed by several federal agencies along with VIMS that oil spills resulting from refinery stimulated tanker and barge traffic could cause harm to the Chesapeake's valuable resources. The extent of this damage, if any, however is unknown. Refinery opponents argued that the risk posed by the refinery to these resources would be too great implying that the industry and fisheries are

mutually exclusive. In addition, they cited other public interest factors which they believed were sufficient to warrant permit denial. However refinery advocates also cited various public interest considerations which supported their position. The following discussion delineates the conflict of interests.

Conflict of Interest⁷⁵

Refinery Proponents

National Need

Proponents of the refinery, notably the Departments of Energy, Treasury and Defense along with the city of Portsmouth and business organizations, cited three public interest benefits which would result from the project.

1. The decrease in outflow of U.S. dollars to foreign oil suppliers would be the principal benefit of domestic refinery to the national economy. A net national saving would be derived from the difference between the high price per barrel of imported products and the comparatively lower price of imported crude.
2. Department of Energy statistics show that 86 percent of all refined products imported to the U.S. come to the East Coast, which at present, has a refinery capacity capable of satisfying only 23 percent of the product demand. Half of the remaining supply needed comes from the Gulf Coast refineries and the remaining 25 percent from imports. The East Coast, therefore,

pays between \$.60 - \$1.00 more per barrel than the costs of similar products on the Gulf.⁷⁶ A major East Coast refinery would help to equalize the cost differential and therefore constitute a savings. Increased refining capacity would also ease excessive hardships to the East Coast in times of supply interruption.

3. The new refinery would enhance the national security by adding storage facilities to the Strategic Petroleum Reserve (SPR). The SPR functions as a supply source for the country during times of supply interruptions or embargoes.

Local Benefits

The Final Environmental Impact Statement (FEIS) emphasized the value of the refinery to the local economy as a secondary benefit. The construction phase would provide employment for 3,030 different workers with estimated earnings of about \$50 million. The refinery and marine terminal would permanently employ approximately 500 individuals totalling an annual payroll of \$7,500,00. An estimated 500 supporting jobs are also expected to result from the project. The refinery will generate approximately \$5 million annually in tax revenues, \$3 million of which will go to the city of Portsmouth.⁷⁷

State-of-the-Art-Technology

Proponents argued that the pollution control tech-

nology utilized by HREC would prevent excessive degradation of air and water quality. They disputed claims that the refinery would cause irreparable harm to the Bay's living resources or fishing industries. Supporters note, in particular, the sophisticated oil spill containment system and waste processing facility. The containment system which surrounds each vessel is also equipped with booms and barriers to corral any oil escaping the primary system. Portable skimmers will be employed to remove spilled oil from the water surface. These pollution control measures prompted the Virginia Institute of Marine Science (VIMS) to conclude that spills occurring within the compounds of the marine terminal would be of minor concern.

Initially, HREC proposed to have its sewage processed in a nearby sewage treatment plant (STP). VIMS, however expressed considerable concern over the proposed use of a municipal STP to process refinery wastes for two reasons. First, STP's are ill-equipped to treat refinery wastes; and second, the resultant effluent would be discharged upstream from the James River oyster beds. In response to criticism, HREC revised its proposal to include on site construction of a processing plant designed specifically for refinery wastes. Effluent monitoring would be conducted by HREC to ensure that effluent stays below acceptable treatment levels.⁷⁹

In addition, the refinery will be engineered to employ the current state-of-the-art air quality equipment in order to minimize emission leaks to the atmosphere.⁸⁰

Refinery Opponents

Despite the benefits cited by the proponents and the pollution control technology employed, there was widespread opposition to the refinery. Federal resistance was led by DOI, NOAA, and EPA, while CARE and the Oyster Packers and Planters Association spearheaded the local resistance. Table 3 provides an overview of the state's political sentiment.

TABLE 3

Political Support

Political Officers	Pro	Con
Representative Daniel	X	
Representative Tribble		X
Representative Whitehurst		X
Senator Byrd	No position	
Senator Warren	No position	
Governor Dalton	X	

SOURCE: OASA(CW), "Evaluation of the HRECo Permit Case -- A Proposed Refinery and Terminal Complex to be Constructed in Portsmouth, Virginia", p.94.

National Need

According to opponents, the national need for increased U.S. refining capacity is speculative. The June 1979 GAO report entitled "The U.S. Refining Capacity in a Changing World Oil Environment," suggests that, due to the insecurity of foreign crude supplies, federal policies affecting oil investments would best be directed to expansion of domestic suppliers rather than construction of new refinery capacity.⁸¹ Since the HREC refinery will be dependent upon the Middle East for its source of crude supply, opponents argue that the refinery will be subject to political supply disruptions.

Moreover, the U.S. refining capacity has decreased

over the years. In 1930, more than 600 refineries were operating in this country while in 1975 only 275 were still producing.⁸² Growth, averaging about 5 percent per year, has been attributed almost entirely to additions in existing refinery capacity. In addition, GAO and other authorities predict a decline in gas consumption by 1985 due to automobile mileage requirements.⁸³ Hence, the chairman of the Old Dominion University Economics Department concluded that reactivation of an old refinery would be wiser than construction of the HREC complex. While concurring with the cost of transportation argument, the chairman contended that harm to the multi-million dollar commercial fishing industry could quickly irradicate those savings.⁸⁴

Local Need

The addition of 500 jobs is a tiny portion of the Portsmouth 40,000 member labor force. Most of the jobs will require advanced levels of skill and technical abilities, much of which will not be available locally. Consequently, the HREC facility will not become a panacea for the city's hardcore unemployment problem. While additional revenue may well indeed boost Portsmouth's financial status, in the long run this may be questionable. Middle to upper class residents, directly affected by deteriorating air and water quality, may move to the suburbs to escape the inconvenience and the loss in property value. The establishment of a petrochemical plant could discourage high income brackets from remaining in or returning to the city.

The negative externalities were not calculated in the cost/benefit analysis nor were the spillover costs to surrounding cities estimated.

Air Quality and Health

The refinery emissions would consist primarily of hydrocarbons, sulfur, and nitrous oxides. Hydrocarbon emissions react synergistically with other elements in the atmosphere to form photochemical oxidants. Photochemical oxidant concentrations in the Hampton Roads area already violate the National Ambient Air quality Standards. Hydrocarbon emissions also pose health hazards. Many local physicians objected to the refinery because of the correlation between petroleum manufacturing industries and the amounts of lung, nasal and skin cancer.

Underestimation of the Likelihood of Spills

Hampton Roads is a major port of entry, as well as a center for one of the world's largest Naval operation. Approximately 79,000 vessels moved through this port annually between 1970 and 1973. (The number of U.S. naval vessel movements are not available for security reasons.) Construction of the proposed refinery would result in a substantial increase in both number of vessel movement and the volume of petroleum transported through the area.

The facility will require an annual average of 798 barges and 123 tankers loadings to deliver refined products within the Bay and along the East Coast. The FEIS estimates an increase of 2.1 to 2.6 percent in total vessel movement

and 22.5 - 33.5 percent increase in oil tanker and barge traffic within the Hampton Roads area.⁸⁵ Most of the finished products will be transported by barges which have a fairly high accident rate in Chesapeake Bay.⁸⁶ NOAA commissioned Engineering Computer Optecnomics, Inc. (ECO) to study the traffic patterns and spill probabilities in the Bay with and without a refinery. The ECO report projected an average oil spill of 1,290 barrels every eight years from barges associated with the facility and an average spill of 7,710 barrels every 9.2 years from tankers. A catastrophic spill is predicted to occur once in 50 years.⁸⁷ ECO found that accident rates of large tankers which will service the refinery, to be greater than 9 times what is presently servicing the Hampton Roads port. Furthermore, worldwide accident rate statistics show a nearly 3 fold increase over the world average in tanker casualties within Hampton Roads.⁸⁸

DOI has advised that the Chesapeake Bay is already stressed by the cumulative effects of nearly 800 petroleum spills per year and that every increasing oil transportation on the Bay is incompatible with the continued health and survival of the unique and irreplaceable fish and wildlife resources.

Tanker and barge movements in and out of this region would create spills of crude oil and of refinery products. Of that we may be certain, for there are no foolproof systems to avoid them. We need not get into a numbers game about probabilities; it is enough to say that there would be damage, and that it would continue, and

that some of it would be cumulative and could not be reversed.⁸⁹

Allegations have been made by NOAA and others that the probability of spills has been severely underestimated. Besides the enhanced risks of spills from increased vessel traffic, concern has been expressed over the ability of the Coast Guard to reduce the occurrence of spills. Already, the Bay region has suffered from too many uncontained spills which continually jeopardize the shellfish industry.⁹⁰ The Maryland Water Resources Board has registered numerous complaints about the Coast Guard's apparent inability or unwillingness to take immediate action to contain and clean up spills.⁹¹ This problem, in part, may be attributed to the scant manpower the Coast Guard could summon to arrest a spill before it got out of hand as well as the primitive state-of-the-art oil spill containment systems.⁹² The remainder of the problem rests with the inability of Coast Guard regulations to alleviate human error, the cause of so many accidents.⁹³

Underestimation of Spill Impacts

National Marine Fisheries Service and Fish and Wildlife Service are highly critical of Army studies estimating the impacts of oil spills. Both insist that Army studies: (1) use cost figures from spills in a less restrictive ecosystem (i.e. the ocean rather than estuarine areas), (2) "substantially underestimated the impact of petroleum on oyster seed beds and other marine life using safe levels of

petroleum contamination considerably higher than literature supports",⁹⁴ and (3) lack recognition of the value of resources in the lower Bay and their vulnerability to predictable refinery related spills.

The two services relief on a body of oil toxicity studies conducted by VIMS on the Chesapeake Bay as well as similar works conducted by Woods Hole and other oceanographic institutions. Their data did not support the Corps' oil impact evaluation. The Corps was criticized for selectively choosing baseline data which at times was extremely outdated (some references pre-date 1930) and geographically irrelevant (Galveston Bay, Texas).⁹⁵ As a result, tremendous discrepancies existed between the conclusions of the Army and those of other agencies.

Economic Impacts

Economic evaluation of the commercial resources and associated industries present yet another area of dispute. Opposition to the refinery continually emphasized the verity of commercial fisheries value against the questionable economic benefits which would be attributable to the refinery.

Approximately 23,200 individuals are employed either full or part-time as commercial fishermen, while perennial employment in the 373 fish processing plants accounts for 7,363 jobs increasing to 10,154 during peak seasons. Dockside value of the shellfish harvested in 1977 is \$78 million.⁹⁶

Oil spill damage to these industries is difficult to

predict because it would depend on the time of year, the volume and type of spill, geographical location, meteorological and oceanic conditions as well as clean up capacity at the time of the spill. The interdependence of the industries, however, along with the large numbers of people affected led NOAA, EPA, and DOI to believe that the cost of a catastrophic spill would exceed the positive economic benefits generated by the refinery.

Much discussion of economic benefit has been based on the advantages of locating a refinery near its market. However, the current demand for petroleum and derivative products, with the exception of crude and residual fuel oil, has not been established within the Hampton Roads area. Hence, analysis of economic return is purely speculative.

Alternative Sites

In May, 1978, the Chief of the Corps, Lt. Gen. John Morris, concluded that refinery alternatives had not been sufficiently studied. The Army, therefore, appointed an inter-agency task force, including representatives from the Departments of Interior, Energy, Transportation, the EPA, NOAA, and COE, to evaluate 69 potential alternative refinery sites from Maine to Florida using environmental, economic and engineering criteria. A series of descriptions were generated which included many of the public interest factors and were used to compare sites. See Table 6 for a list of descriptors.

TABLE 6 -- continued

Categories	General Descriptors	Specific Descriptors
	Socioeconomic -- continued	Energy needs Regional economics Historical/archaeo- logical sites Aesthetics

SOURCE: Office of the Chief of Engineers, Final Supplement to the Final Environmental Impact Statement; HRECo's Portsmouth Refinery and Terminal, Portsmouth, Virginia, December, 1978, Washington D.C. pp. 1-9

Of the 69 sites 19 were selected to be considered in more detail.⁹⁷

The results, as interpreted by NOAA and DOI, indicated that Hampton Roads was the least environmentally acceptable of the 19 sites.

While the conclusions of the task force indicated that Hampton Roads was a poor site from an environmental point of view, there was no agreement on a remedial course of action. HREC insisted no alternative site was feasible and furthermore, that no studies had been conducted to document possible adverse state or local socio-economic considerations that would render these sites infeasible for refinery construction.⁹⁸ The consensus among the opposition, however, was that the task force conclusions should have been the final factor which would persuade the Army to deny the permit on grounds of environmental consideration. A NMFS report best summed up the opinions of the dissenters -- "NMFS recognizes the need for petroleum modernization and expansion but such industrial complexes should not be located within the confines of a productive and fragile estuarine environment."⁹⁹

Summary of the Conflict

While all parties found support for their arguments in the Corps' public interest policies, the conclusions drawn were completely divergent. The proponents of the refinery based their case on national need issues, local economic benefits to the city of Portsmouth and the State, and pollution control technology. The opponents, on the other hand,

questioned the real national need for the complex and the validity of local benefit calculations. Furthermore, they contended that natural resource values, oil spill frequency and toxicity studies were underestimated and therefore, the respective public interest factors could not be adequately represented.

Hence, the Hampton Roads refinery project posed a very difficult permitting case for the Corps. Faced with conflicting public interest factors, the Corps first, had to initiate an intricate weighing process to determine if the benefits of the proposed complex reasonably balanced against the foreseeable detriments; and second, to grant or deny the permits based on the outcome of this balancing process.

Decision Rationale

The major factors of public interest considered by the Corps in the Hampton Roads case are listed below. A brief discussion of the Corps' decision making rationale accompanies each public interest factor.

Public Interest Factors

Wetlands

While the wetlands on the site are considered important by the Army, the revised application submitted by HREC would avoid construction in wetlands along tidal creeks adjacent to the tributaries. Although 8 acres may be

affected by reduction in fresh water flow due to alteration of drainage patterns during construction, the Army determined that this was an acceptable impact.¹⁰⁰

Landuse, Aesthetics, and Recreation

The HREC site is zoned for industrial use. Accordingly, the Army assumed the refinery would be compatible with current land use plans. The FEIS states that occasional flares from the refinery would cause unpleasant odors and moderate discomfort during periods of air inversion, however, rapid dissipation is expected. No significant impairment to recreational boating appears probable.¹⁰¹

Water Supply

Due to the steadily decreasing aquifer, the Virginia State Water Control Board (SWCB) has declared the South Hampton Roads region a "ground water management area". The City of Portsmouth, located in this region, obtains 20 percent of its water supply from ground water sources. Many believe that the new refinery, which will require two million gallons of potable water per day, will only exacerbate the area's chronic water problems. The Portsmouth City manager, however, testified that the City's water system had a sufficient yield to satisfy demand including HREC's through the year 2000. Furthermore, the city offered to use water from surface impoundments in order to meet the refinery's need.¹⁰²

Although the Corps expressed some concern over the adequacy of the water supply, it declined to consider it a factor of public interest. The Corps determined that federal

review was inappropriate since the city of Portsmouth has full jurisdiction over its water supply.

Water Quality

The Virginia SWCB is responsible for ensuring that permit applications are in compliance with applicable effluent limitations, water quality standards, and required management practices. EPA, however, retains authority under the FWPCA to veto permits which are not in compliance with the guidelines and requirements of the Act.

The Board issued to HREC the NPDES permit for the refinery and set limits on the amount of wastewater effluent that the refinery may legally discharge into the Elizabeth River. EPA declined to veto the permit indicating to the Corps that possible degradation of water quality was an acceptable risk.¹⁰³

Dredging

Although dredging would permanently destroy 37 acres of productive shallow water habitat, the impacts to viota from increased turbidity, resuspension of heavy metals and higher biological oxygen demand would be shortlived. Both the SWCP and the Virginia Marine Resources Commission (VMRC) issued the State dredging permits with the provision that the refinery proposal incorporated the following stipulations:

1. installation of an adequate spill containment system commensurate with the best state-of-the-art equipment,

2. prohibition of dredging during months corresponding with spawning and larval development,
3. compliance by the permittee with all water quality standards established by the SWCB and all other laws affecting the project and effluent.¹⁰⁴

The Corps also reviewed the dredging proposal from its traditional area of expertise, navigation. The subsequent evaluation revealed that navigation would not be hindered by construction and operation of the proposed refinery. Since the appropriate state permits had been granted, the Corps concluded that the dredging action itself would not be contrary to the public interest.

Air Quality and Health

Although the Hampton Roads area already exhibits poor air quality, the State Air Pollution Control Board (SAPCB) found that operation of the facility would not violate National Ambient Air Quality Standards (NAAQS) provided that an emission offset was developed. Offsets are part of the Virginia state air quality plan required by the Clean Air Act. The Virginia SAPCB is required to develop and adopt a state implementation plan (SIP) setting forth the necessary control efforts to achieve compliance with the NAAQS.¹⁰⁵ The plan prohibits new major stationary sources or modification of sources in regions of a state which are not in compliance with these national standards. However, offsets -

emission reductions that would not otherwise be required - can be used to allow industrial development in areas of non-compliance.¹⁰⁶ Offsets oblige potential industry to make additional commitments to pollution control so that the net effect from the approval of a new source will not increase pollution.¹⁰⁷

In the case of the Hampton Roads area, the offset entailed reducing hydrocarbon emissions. The tradeoff requires the Virginia Department of Highways and Transportation to change from oil-based asphalt to water-based asphalt in the eastern half of the State.¹⁰⁸

The offset plan was submitted to EPA and eventually received approval indicating to the Corps that health considerations were satisfied at both the Federal and State levels.

Fish and Wildlife

The impacts discussed thus far were found by the Corps to be within the parameters of Federal, state and local requirements. However, determining whether or not the impacts to fish and wildlife resources were within these parameters proved to be much more difficult. In particular, the Corps had difficulty in evaluating impacts from oil spills. Accordingly, the staff examined the issue of oil spill probability and oil toxicity carefully before addressing fish and wildlife impacts.

Oil Spill Analysis

The Corps determined that impacts resulting from

chronic spillage during oil transfer operations would be negligible. This conclusion was based on the expected success of pollution control equipment employed at the refinery. The Corps, however, acknowledged that major spills could cause substantial damage to important commercial and recreational fishing operations and decided to evaluate the probabilities of such a spill. The resultant document did not attempt to generate new probability statistics but instead, consolidated the existing information in this area pertaining to the Hampton Roads refinery.

The document was highly critical of the ECO report and disputed many of the basic assumptions. The Corps found fault with ECO's use of statistical data and failure to account for new pollution prevention legislation, regulations and technology in its probability analysis. In response to the ECO report, the Corps concluded the following:

Major oil spill probabilities ranging from 1 in 50 years to 1 in 335 years are presented. They (ECO) use historical, worldwide, U.S.-wide or localized data bases. The data base will affect the probability. For example, if we use Hampton Roads historical data, then the probability for a major oil spill would be zero. Furthermore, probabilities using historical data bases are not reliable. Probabilities must reflect site specific conditions and future technology, regulation, legislation, etc. However, the methodology does not exist to consider all these factors and to arrive at a reasonable probability. We believe that the probability presented in the ECO report, 1 major spill every 50 years is too high and the probability of 1 in 335 years is too low. We further recognize that no prediction of the probability of a major spill is reliable.

The oil spill probability statistics used by the

Corps and confidence in the Coast Guard's ability to prevent or control pollution incidents influenced the Army's ultimate decision to grant permits. Under the Ports and Waterways Safety Act, the Coast Guard Captain of the Port is given broad authority to establish vessel traffic systems, control vessels in the nation's ports and waters and to otherwise improve the safety of marine transport in order to reduce the possibility of pollution causing incidents.¹¹⁰ To curtail oil spill damage, the Coast Guard has implemented a sophisticated Pollution Information Reporting System capable of providing on request summary and specific information such as cause, size and location of all spills in U.S. Waters. On this basis the Army assumed that the pollution prevention and control techniques carried out by the Coast Guard would reduce the risks of oil spills and their impacts to an acceptable level. Furthermore, based on a worst case situation, a major oil spill in the vicinity of the oyster beds, the Corps data indicated that impacts would not be irreversible.¹¹¹

Oil Spill Impacts

The Corps addressed oil impacts in its Washington level evaluation. While the report acknowledged the potential adverse effects, it disagreed with NMFE, FWS and VIMS data on toxicity levels. In drawing conclusions, the Corps relied heavily on a study presented at a Conference on Prevention and Control of Oil. The conference study indicated that oysters were much more resilient to the effects of oil

compounds than data used by other agencies indicated.¹¹²

The Corps rejected a newly publicized report concerning oil toxicity studies. The report presented evidence that much smaller amounts than previously determined could be lethal to oysters. The study concluded that a relatively minor oil spill, approximately 1,000 barrels could harm Delaware Bay oysters.

The report was submitted to the Secretary of the Army, Clifford Alexander by the Interior Secretary, Cecil Andrus in a final effort to prevent approval of the \$600 million refinery project. The 1967 MOU required Alexander to review the document before finalizing his decision to grant the permits. While Alexander did not dispute the validity of the study, he determined that the findings were not applicable to the Hampton Roads situation. His conclusion was based on the differences between the two environments, the Chesapeake and Delaware Bays and the questionable applicability of the test conditions to the Hampton Roads situation.¹¹³

Furthermore, the Corps did not view the oil refinery as an operation which would automatically curtail the viability of important bay fisheries. While oil spills could cause some damage to fisheries, the extent would range from minor to severe depending on the conditions. This damage, however, is not necessarily irreversible especially in the cases of non catastrophic spills. The Corps also pointed out that the threat of a major spill is not a new hazard. Crude oil and refined products are presently transitting the area.

The Corps therefore decided that the fisheries and refinery were not mutually exclusive.¹¹⁴

National Benefits

Supporters and opponents disagreed over the refinery's potential contribution to national security, the balance of payments and the costs of refined petroleum products for East Coast consumers. The Corps examined both sides of the argument and concluded that while some national benefits could result from the project, there was no absolute national need for the proposed refinery.¹¹⁵

The Corps acknowledged that storage capacity at the refinery could contribute to national security by adding stocks to the Strategic Petroleum Reserve and it would also reduce import of refined product from foreign sources. However, the overall impact to national security, although positive, would be tiny, and denial of the refinery permits would not reduce the current level of national security.¹¹⁶ The Corps warned against discussing the refinery's benefits in terms of balance-of-payments explaining:

Over the long run, with or without the refinery, the nation's international payments will roughly balance.... If the benefits of the refinery to the nation do not exceed its costs, it should not be undertaken simply because it will reduce the flow of dollars into foreign hands.¹¹⁷

Furthermore, the Corps questioned DOE's statements concerning the need for new refineries. While DOE made a persuasive qualitative case for additional East Coast

refinery capacity, the Corps claimed that the Department

by no means established that the United States economy would be crippled in any fundamental sense without additional East Coast refineries; and therefore, it has not demonstrated that there is any absolute need for such capacity.¹¹⁸

Regarding local need, the Corps, recognized that some economic benefits, principally in the form of tax dollars, would result from the refinery. However, the FEIS and its supplement presented no evidence that unemployment in either the construction industry or the Portsmouth area would be reduced by the proposed refinery. There was no basis for the claim, the Corps concluded, that jobs created by the construction and operation of the refinery would constitute a national benefit.¹¹⁹

Recognizing that there was neither an absolute need, nor quantitative evaluation of the potential national benefits and costs, the Department of Army developed National Economic Development (NED) estimates to determine some of the benefits and costs of the proposed refinery. The NED evaluation was designed to provide a limited appraisal of the economic benefits for the refinery from a national perspective. Measured benefits were defined as the difference in total transportation costs for refined petroleum products sold on the East Coast with or without the proposed refinery. Measured costs were defined as the difference in total costs of oil spills in United States waters with or without the proposed refinery. Based on the NED analysis the Corps

concluded that the economic benefits to the nation would outweigh the costs of non catastrophic oil spills. The report, however, pointed out that economic benefits accruing from the refinery would be forgone if a large catastrophic oil spill were to occur in the lower Chesapeake Bay area.¹²⁰

Alternatives

After initially reviewing the case, the Chief of Engineers decided that additional information on alternative site locations was necessary to reach a decision on the permit and to comply with NEPA. While the results of the study indicated that environmentally more acceptable sites exist, NEPA does not mandate that the most environmentally superior site is chosen. Rather NEPA requires that alternatives are sufficiently considered to permit a reasoned choice. Consequently, the purpose of the project was to provide additional information which could be useful in evaluating alternatives to the Portsmouth site. The aim was to provide the Corps with the information necessary to determine whether or not to grant the Hampton Roads permits.

Summary

The controversial Hampton Roads project presented the Corps with an extremely difficult public interest decision. Both sides had public interest factors in their favor to buttress their arguments. Both enjoyed support from vocal and emotional constituencies.

In the final evaluation, the Chief of the Engineers

concluded:

I have examined the entire case and concluded that the issuance of the permit with the attached conditions is in the public interest. I've carefully considered and weighed the factors of the public interest and found that the benefits of the proposal outweigh the adverse impacts. I particularly note that the beneficial results are certain while the adverse environmental are mostly speculative with regard to occurrence and degree of damage. Also, the probability of occurrence of most adverse impacts can be reduced by enforcements of applicable laws and regulations, appropriate permit conditions and application of modern technology.¹²¹

After much deliberation, the Secretary of the Army concurred with this determination. In a summary statement, he cited the following reasons as key determinants for his decision.

1. The refinery and marine terminal construction should meet the highest state-of-the-art standards for safety, efficiency, and environmental safeguards.
2. All State permits for the facility have been issued,...attesting to its compatibility with air and water quality standards.
3. Construction of an oil refinery in Portsmouth, Virginia, would not violate any known national policy or law.
4. The refinery would be consistent with national energy goals, specifically, it will be capable of producing low sulfur fuels and unleaded gasoline from sour crude feedstock.
5. The Virginia State and local governments support construction of the refinery.
6. The proposed location, while not potentially the most environmentally superior site, is not the most environmentally damaging site; and, when viewed in its entirety, is one of the best locations on the east coast for a refinery and terminal complex.
7. The economic benefits to the Nation from the refinery would outweigh the costs of non-catastrophic oil spills that could potentially impact the Hampton Roads area.
8. The potential for oil spills (based on statistical probabilities) would diminish in the upper Chesapeake Bay area with the refinery.

9. We believe that the highly valuable crab and oyster resources would not be totally destroyed, even if a large, uncontained oil spill were to occur.

10. The channel size and bottom characteristics of the port, ...mitigate against the probability of a major pollution-causing accident occurring in the harbor area.

11. The economic benefits which could accrue from the refinery would be foregone if a large catastrophic oil spill were to occur in the lower Chesapeake Bay area. This is the gut issue on which the decision to grant or deny hinges. Is the low probability of risk which could potentially seriously impact a high quality resource worth taking given the otherwise certain and substantial national benefit which would accrue from construction and operation of a refinery in Portsmouth, Virginia?¹²²

Secretary Alexander concluded that the risk was worth taking.

As demonstrated in this chapter, the correct public interest decision in the Hampton Roads case was far from obvious. The lengthy evaluation prior to the final determination supports this conclusion. Although in the last analysis, the Corps determined that the public interest would best be served by granting the permits, the opposition presented very convincing evidence to the contrary. Further information is, therefore, necessary to fully evaluate Corps' decision. The following discussion will focus on the adequacy with which the Corps implemented the public interest program in the Hampton Roads project, problems in the public interest program and suggestions for change.

CHAPTER V

DISCUSSION

Implementation Adequacy

Compliance with Regulation

The Corps complied with all legislative requirements pertaining to the Hampton Roads case. Pursuant to the FWCA and MOU, the Corps consulted with the Department of Interior throughout the history of the project. In fact, the Secretary of the Army delayed his official determination until the Secretary of Interior could register his final comments.

NEPA requirements were fulfilled when the Corps filed an environmental impact statement for the proposal. Although the statement was found to inadequately address alternatives, the Corps remedied this problem by conducting a separate alternative study.

The requirements of the FWPCA and CAA were also upheld. The Corps evaluated the probable impacts resulting from the section 404 dredge and fill permit and determined that little permanent damage would occur. In particular, no wetlands would be destroyed and dredge material disposal posed no problems. Regarding the CAA, the Corps made sure its permit issuance did not hinder the implementation of the Act's provisions. Accordingly, when the Army permits were granted, their

issuance remained contingent upon EPA approval of the Virginia offset program.

Furthermore, the Corps fulfilled all the public interest review requirements. It specifically addressed each factor listed in the regulations and gave special emphasis to those most important in the Hampton Roads project. After applying the four public review criteria, the Corps determined the following:

1. The relative extent of the public and private need for the proposed structure;

As to the demand for refinery output, we know that the East Coast demand for product far exceeds its refinery capacity. Certainly, a source of supply closer to the market is more cost - and energy - effective. As for the future trends in crude receipts and refined product demand, issues concerning the acceptability of reliance on specific foreign sources and for what amounts of oil, are matters to be decided outside the scope of the Army permit process. We know that there is insufficient U.S. refinery capacity to process sour crude feedstock and produce low sulfur fuels and unleaded gasoline.¹²³

2. The desirability of using appropriate alternative locations and methods to accomplish the objective of the proposed structure or work;

NEPA does not require that the least environmentally damaging location be adopted for the proposed project. It requires only that reasonable alternatives are examined and that information gained from the study will help determine whether or not the selected site is suitable for the project. After reviewing the special

alternative site study, the Secretary of the Army concluded;

I am convinced that only four of the alternative sites explored...compare favorably to the Portsmouth site when considering the relevant factors in toto; that none of these four is, however, clearly preferable to the Portsmouth site....124

3. The extent and permanence of the beneficial and/or detrimental effects which the proposed structure or work may have on the public and private user to which the area is suited;

The Corps evaluation indicated that chronic spills associated with routine oil transfer operations or other accidental refinery discharges would not increase in the Bay due to the terminal's pollution control equipment. Catastrophic spills, although considered to be highly improbable could potentially impact the James River oyster grounds but the Corps believed that the overall effect would not destroy the beds. 125

4. The probable impact of each proposal in relation to the cumulative effect created by existing and anticipated structures of work in the area;

In response to this criterion, the Corps offered the following comment:

We believe that oil spills will increase in the Hampton Roads and lower Chesapeake Bay areas because of the increased traffic but will decrease in the Upper Bay area due to the replacement of product tankers with barge

traffic having lower probabilities of spill.¹²⁶

With regard to this last statement, it should be noted that U. S. Coast Guard data overwhelmingly refutes the premise that barges have lower spill probabilities than tankers. In fact, tank barges in general have a much higher accident rate than tankers of similar capacity.¹²⁷

While disagreement with the Corps' public interest determination and evaluation methodologies may be valid, nevertheless, the Corps complied with all legislative and regulatory requirements. Furthermore, its decision making rationale appears to be consistent with past cases and can be supported by them.

Relation to Past Cases

A brief comparison of Zabel v. Tabb, Marco Island and the Block "M" cases to the Hampton Roads refinery project reveal a number of striking similarities. In all cases, protection of natural resource values was a major issue. The public interest regulations along with the Fish and Wildlife Coordination Act, and the Federal Water Pollution Control Act were fundamental in each of the four decision making processes. However, resource values in the first three cases constituted sufficient national public interest to warrant permit denial, while energy development was deemed to be of greater importance in the Hampton Roads case.

The seemingly opposite determinations raise questions

concerning the Corps' consistency in applying the public interest review. A closer comparison of the four cases, however, reveals substantive differences between the former and latter.

Chapter III, The Historical Evaluation of Corps' Activity in the Coastal Zone, revealed that wetlands protection is accorded special public interest consideration. In conformance with this emerging policy, the Corps altered its regulations to state that wetlands are;

...environmentally vital areas. They constitute a productive and valuable public resource, the unnecessary alteration or destruction of which should be discouraged as contrary to the public interest.¹²⁸

Consequently, projects calling for wetlands alteration are closely scrutinized by the Corps.

The Zabel v. Tabb, Marco Island and Block "M" cases required substantial wetlands destruction. The applicants did not successfully demonstrate that their proposals were of greater national importance than the protection of wetlands. Hence, all three conflicted with Corps national public interest policy.

Furthermore, each proposal required wetlands alteration to accommodate some form of waterfront recreational housing. The Corps concluded that such development was not water dependent and therefore did not warrant wetlands alteration. Similar development could be located slightly inland, provide the same function, and afford easy access

to the water without widespread wetlands destruction. Accordingly, the Corps determined that the public interest would best be served by permit denial.

In contrast to the above cases, the Hampton Roads refinery and marine terminal called for no wetlands alteration. Consequently, the project did not come in direct conflict with the specific public interest requirement, wetlands protection. The impacts to national resources were much less certain in the Hampton Roads example. Most of the concern for fisheries and water quality protection was related to the possibility of impacts from increased tanker and barge operations. Not only was the frequency and degree of damage resulting from these operations highly speculative, but such impacts were secondary to the project. Furthermore, the proposal's primary or direct impacts were not considered sufficient enough to warrant denial based on national factors of public interest.

The Hampton Roads refinery also differs from the previous cases with respect to locational requirements and applicable public interest factors. Unlike the housing proposals, a marine terminal is a water dependent facility. The HREC site, which allows easy tanker and barge access, is physically well suited to the terminal's purpose. Furthermore the refinery is in accordance with at least one stated public interest factor, energy development. Due to the shifting political focus of the U.S. since 1973 from conservation and environmental issues to solving the

nation's energy problems, this particular factor of public interest has gained dramatically in importance.

Finally, the HREC refinery has received support from both the state permitting agencies and the Governor of Virginia. While the Corps could deny the permits contrary to the state's position, in the absence of overriding national factors of public interest, the regulations specify that the permits should be issued following the receipt of a favorable state determination.¹³⁰

Table 7 illustrates the aforementioned comparisons.

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Table 7 illustrates the aforementioned comparisons.

TABLE 5

Comparison of Three Cases with the HREC Refinery

Comparison Factors	<u>Zabel v. Tabb</u>	Marco Island	Block "M"	HREC
Action	Dredge and fill	Dredge and fill	Dredge and fill	Dredge and fill
Wetlands loss	11 acres	2100 acres	12 acres	0 acres
Proposal	Trailer Park	Resort housing	Condominium	Oil refinery and marine terminal
Water dependent	No	No	No	Yes
Federal agency positions	FWS recommended denial	FWS, NMFS, EPA recommended denial U.S. Department of Labor recommended approval	NMFS, FWS recommended denial.	NMFS, FWS recommended denial. EPA recommended denial but granted own permits
State agency positions	Florida Game and Freshwater Fish Commission recommended denial	Florida Game and Freshwater Fish Commission recommended denial	Florida Game and Freshwater Fish Commission recommended denial	VMRC, VSWCB, SPCB granted permits

TABLE 7 — continued

Comparison of Three Cases with the HREC Refinery

Comparison Factors	Zabel v. Tabb	Marco Island	Block "M"	HREC
Governor	Recommended denial	Recommended approval	Recommended denial	Recommended approval
Present environment	Undeveloped	Some development	Undeveloped	Highly developed
Corps decision	Deny	Deny with limited approval	Deny	Approve

The preceding discussion indicates that the Hampton Roads decision is not only consistent with past cases but is congruous with the public interest energy policy. The Corps also complied with all mandatory regulations and legislation. Hence, in the case of the Hampton Roads refinery, the Corps appears to have properly implemented the public interest program.

But while the final determination is justifiable in a strict sense, it does not imply that the public interest decision making process is problem free. It is by no means a fail safe mechanism which automatically ensures that good projects are promoted and bad ones squelched. The broad mandate, complex balancing process, along with other evaluation components makes public interest decision making subject to dispute while often procedurally correct. The following discussion will delineate some of the problems specific to the public interest review which were revealed during the course of this study.

Perceived and Real Problems in the Program

Evaluation of the Mandate

An assessment of the Corps' program necessarily begins with an inquiry into the concept of public interest. Political scientist Glendon Schubert divides the contemporary theories of public interest into three groups; idealist, rationalist and realist.

The idealist theory holds that the true public interest rests in the higher, natural law which is separate

from the administrative process. The administrator must resist all political influence and impose on the people what is good for them whether they want the program or not.¹³² Regarding questions of coastal utilization, those adhering to this theory argue that natural law is the law of nature and therefore is higher. Accordingly, most coastal alteration is considered to be in violation of the public interest.

The rationalist theory reflects the idealist notion that the public interest is something separate from and independent of private interests. Instead, rationalists contend that there exists a common good that reflects the presumed existence of various common interests. The decision maker is therefore charged with faithfully implementing that popular will.¹³³ However, often there is no clearly defined "common good" or "popular will" that the Corps can follow. In many cases, "public interest groups" such as environmental, civil rights and energy development may be odds with each other. Hence, the Corps is not faced with a popular will to execute, but with an intense conflict of interests among its various "publics" with regard to how the coast should be used.¹³⁴

Realist theorists reject the postulations of both the idealist and rationalist adherents. Instead, they lower expectations regarding what the Corps' procedures are expected to accomplish. Although they, like the rationalist, recognize that the public interest is a collection of special or selfish interests they reject the notion that the administrative process has the capacity to calculate the best, so-

cially preferred or most efficient use of resources. Decision makers therefore function as conflict mediators respecting the use of resources.¹³⁵ Rather than calculating or attempting to represent the public interest, the decision maker simply becomes the mediator.

As this discussion indicates the public interest review, with its broad, all encompassing mandate, is impossible to define. In fact, the very concept of public interest varies from case to case, depending upon the socio-economic parameters at the state, local and national levels. While such a mandate enables the Corps to be sensitive to the needs of a changing society, neither the Corps nor the populace are able to arrive at a public interest consensus, much less determine the appropriate direction the public interest review should take.

The lack of program direction has led "public interest" groups to define the Corps' program to be congruous with their particular ideology. Those supporting environmental initiatives have viewed the public interest provisions to be synonymous with conservation and preservation directives. According to regulations, however, the public interest covers the entire gamut of issues. It is not intended that the Corps should advocate any one particular factor.

Besides presenting definitional problems, the broad mandate leads to other difficulties as well. The mandate directs the Corps to consider and balance all factors relevant to a given proposal. Provided that the Corps

examines each factor and complies with other regulatory requirements nearly any decision the Agency makes will be legally justifiable. Consequently, execution of the public interest mandate could be reduced to a procedural exercise merely providing a mechanism for the justification of both good and bad decisions.

Evaluation of the Decision Making Process

The troubles inherent in the Corps' public interest mandate also impact the decision making process. Because the broad directive requires the Corps to evaluate and balance a plethora of factors unique to each case, specific implementation guidelines are unable to provide the organization with the flexibility necessary to carry out its ambitious program. The Corps, therefore, has no implementation framework.

Critics have suggested that quantitative analysis would enhance the program's reliability by providing an implementation framework. They contend that traditional cost/benefit studies, employed in the Corp's civil works programs should become the guidelines for the public interest review. However, upon close examination, cost/benefit analysis is not invulnerable to outside criticism or to differing calculations. Disagreement among experts is common. Much depends upon who does the calculations and which factors are considered as benefits and which as costs.¹³⁶ Cost/benefit analysis is also unsuitable for public interest review because

it neglects or underestimates many factors including environmental intangibles such as aesthetics. Consequently, a decision based solely on cost/benefit studies will often be an inadequate indicator of the public interest. For these reasons, the Corps has only utilized cost/benefit analysis for public interest decision making on a limited basis.¹³⁷

Lacking implementation guidance, the Corps executes the program in the fashion advocated by proponents of the realist theory. The Corps functions as a mediator or clearinghouse for public and agency comment. The actual review procedure supports this observation.

Corps' regulations direct the District Engineers to consider and weigh conservation, economics, aesthetics, history, navigation, water quality and environmental values. Because of the inherent difficulties in attempting to reflect these values within a single organization, the Corps circulates permit applications among various other concerned federal, state and local agencies as well as interest groups. Various reviewers examine the permit request from different perspectives and accordingly, different emphases: local governments - land use; state natural resource agencies - water quality and wetlands protection; state economic development agencies - port development; U.S. FWS - fish and wildlife values; the EPA - environmental protection; and citizen groups - special interests.¹³⁸

This procedure has been criticized as ad hoc or haphazard and in any event, unable to reflect the public

interest factors. However, by injecting a healthy eclecticism into the review process, the above procedure is a major strength in a regulatory program which lacks formal implementation guidelines.

The concessions arrived at in the Hampton Roads example demonstrate the program's strength. These concessions took the form of a state-of-the-art oil spill containment system, dredging requirements to mitigate impacts to natural resources, and the sewage treatment plan previously discussed. Each was incorporated into the proposal as a result of the public interest review indicating that the oppositions concerns did not go unheeded. Instead, the decision making process resulted in a compromise, which pursuant to the public interest review and pertinent legislation discussed, would mitigate fish and wildlife impacts and simultaneously allow for energy development.

Evaluation of Factors Outside the Jurisdiction of the Corps

The adequacy of public interest determinations may be affected when permits for a project are also required from state, local or other federal agencies. Theoretically, these agencies have regulatory requirements which ensure that impacts within their purview will be properly evaluated. However, in some instances, the parameters directing the regulatory programs of these agencies may be too restrictive preventing them from executing decisions in accordance with their mandate. In this case, agencies may rely on the Corps

public interest review to rectify the inadequacies of their own permit programs.

EPA encountered this dilemma in the Hampton Roads refinery proposal. In this example, HREC complied with all the regulatory requirements within the limits of EPA's jurisdiction. Consequently, against its own best interests, EPA granted the appropriate permits (see pp. 73-4). Unable to halt the project at its level of review, EPA sought to prevent the proposal through the Corps' public interest review and therefore urged the Corps to deny the dredge and fill permits.

Furthermore, state, local and federal agencies vulnerable to political pressure may purposefully shun their permit responsibilities. Well aware of the second level of review conducted by the Corps, these agencies may perform inadequate permit analysis and depend upon the Corps to remedy their poor, politically motivated decisions.

Unfortunately, the Corps can not use its public interest review to evaluate the decision making processes of other agencies. Consideration of such factors are beyond the jurisdiction of the Corps. Instead, the Corps must rely on the integrity of the state, local or federal agency decision making and assume that permits granted by these agencies indicate the acceptability of potential impacts. If, however, other permit agencies are unable or unwilling to take the consequences of unpopular decisions, the effectiveness of the public interest review will be reduced.

The role of scientific information in decision making processes can also have an effect on the public interest review. This is particularly true when the information is used to evaluate secondary and cumulative impacts.

The Corps received extensive comments concerning its evaluation of secondary and cumulative impacts to shellfish in the Hampton Roads, water related recreational opportunity in the lower Chesapeake Bay and in general the quality of human life in the region. NOAA, DOI, local shellfishermen alliances, and public interest groups accused the Corps of significantly underestimating these impacts as well as the probability of impact occurrence. Accordingly, they concluded that the public interest determination was biased. Comparative oil spill incidents were cited by these organizations substantiating their claims. Additionally, VIMS and other reputable scientific institutions produced reports which indicate that impacts may be greater than the Corps anticipated.

However, accident rate probabilities do not provide a sound basis from which to estimate secondary and cumulative impacts. Present technology does not allow forecasting probable future effects with total certainty. Hence the analyst or decision maker must rely not only on current professional techniques but reasonable judgement. The data used by the Corps and its own staff evaluations indicates that impacts and probabilities would be less substantial than was

expressed by the opposition.

In light of scientific discrepancies, one can question the adequacy with which the Corps evaluated potential impacts to the resources of the Bay and the quality of human life. However, no discussion can unambiguously address this issue for a number of reasons.

Science is much less impartial than public opinion seems willing to admit. Whether the issue is oil impacts or wetlands productivity, there are several factors at work in the translation of scientific information into natural resource policy which prevents total objectivity.¹³⁹

First, the best contemporary scientific understanding of natural phenomena may turn out, in the light of later research, to have been in error. Consequently, decisions may be made based in whole or in part on scientific opinion whose validity may not stand up over time.

Second, whenever the subject matter is a topic of political debate, science becomes politicized to some extent despite the myth that science is apolitical. The mixing of political values and scientific data may come about within the discipline or through the translation of scientific into public information. The scientist who enters into the public controversy himself often fails to realize the way in which scientific perceptions color his perspective toward the issues involved.

Indeed, science assumed a controversial role in the

Hampton Roads decision making process. The best contemporary scientific understanding of oil spill impacts, at the time of the decision, demonstrated no concurrence regarding degree and longevity of effect. Instead two conflicting perspectives concerning impacts and impact probability were supported by various individuals and organizations within the political realm. Inevitably the scientific information which formed the basis for the Corps' decision was not value free. Given that decisions are not value free, the problem of determining at which point subjectivity becomes detrimental still exists.

In summary, the following potential problems exist in the public interest review program:

1. The broad mandate makes it impossible to define the public interest. This in turn, can confuse the public's perception of the program's purpose. It also encourages a procedural rather than substantive approach.
2. The decision making process lacks implementation guidelines which therefore leaves final determinations subject to the political environment.
3. Agencies with permit responsibilities in conjunction with the Corps may not be willing or able to make sound decisions.
4. Scientific information is not value free and consequently does not demonstrate agreement concerning the extent of secondary and cumulative impacts.

Suggestions for Change

Some concerned that environmental values were underestimated in the Hampton Roads decision making process have suggested that EPA or state environmental agencies should administer the public interest program. The Corps would therefore be relieved of its public interest responsibilities and could refocus its attention to navigational and civil works programs.

However, program transferral may prove to be an unsound proposal. EPA, at present, lacks the expertise and capacity to take over the enormous task of regulating coastal and wetlands alterations. Conversely, the Corps has had years of experience in this constantly evolving field. Immediate transferral of this expertise and experience to EPA would be impossible. Furthermore, it is questionable whether or not an environmental advocacy agency should regulate all development activities in the coastal zone. Since the public interest mandate encompasses more than environmental values, proper recognition must be given to these factors or the program's mandate will be violated. Metamorphosis of the general public interest review into an environmental program could diminish popular and congressional support.

State control of the expanded sections 10 and 404 permit programs would be disastrous at this time. States lack the finances necessary to implement these programs and unless the federal government is forthcoming with such funds, it is highly unlikely that states would assume administrative

responsibility. Few, if any states have developed the infrastructure necessary to administer a program as ambitious as the public interest review. Finally, states, particularly those without an approved coastal zone management plan often lack mechanisms to incorporate national factors of public interest into their decision making process. Without such mechanisms, state agencies will have difficulty extracting themselves from local and state pressures in order to make public interest determinations.

In summary, no single agency has either the expertise or procedures necessary to consider the diffuse and sometimes conflicting interests as effectively as does the Corps.¹⁴⁰ Given that the Corps is the most appropriate agency to administer the permit/public interest program, the remainder of the discussion will offer suggestions which could improve the present process.

Define the Public Interest

Thus far, this study has revealed that the public interest is a vague, ill defined concept. While agreement concerning those factors which contribute to the public interest may exist, there is no consensus regarding the program's ultimate purpose. Without a specific sense of purpose, the program's effectiveness is diminished.

A system which ranks public interest factors could alleviate many of the problems relating to the broad mandate and decision making process. First, it provides the Corps

with a baseline from which to initiate consistent decision making. Second, it clarifies the program's purpose enabling the decision maker to become more responsive to the substantive rather than procedural requirements.

Corps' regulations already specifically afford wetlands protection high priority. A ranking system need not unnecessarily reduce the flexibility needed in public interest making. The ranking would still be based on current legislation, court cases and executive orders. However, it would reduce the potential for excessive politization. This policy provided the Corps with guidelines in the Zabel v. Tabb, Marco Island and Block "M" decisions. Such guidelines increase the predictability of determinations which can prove advantageous to developers and environmentalists alike. By extrapolation, a system of relative values for important factors of public interest would strengthen the entire program.

Implementation of State Major Facility

Siting Programs

In most states, energy facility sites are chosen according to private sector economic feasibility studies. After the initial decision to locate has been made, the applicant announces his plans and initiates the permit process. If the proposal involves coastal alteration, then the Corps is responsible for administering its public interest review program and holds a public hearing. At this point, opposition to the proposal begins to coalesce and prepares

for the upcoming battle. The result is a reactive as opposed to planned atmosphere for decision making.

The implementation of state major facility siting programs could help alleviate many of the problems inherent in reactive decision making. Certain states, such as Maryland have already devised and implemented a program. The Maryland Major Facility Siting Plan combines the requirements of two of the State's existing programs; the Coastal Zone Management Plan and the Power Plant Siting Act.

The plan includes a regional screening process which examines pertinent data in a particular study region in order to identify areas most likely to contain suitable sites for the development of specific major facilities. The suggestions are based on predetermined economic, engineering, sociological and environmental criteria. After candidate areas are located, the program is equipped with a process for resolving major facility generated conflicts and handbooks for use in assessing fiscal, social and environmental effects of construction, operation and maintenance.¹⁴¹

Advance facility locational studies would be particularly advantageous to coastal states where conflicts between various uses are great. Not only would it ensure that sites chosen best reflect the needs and policies of the state but it would allow opposition to express concern over particular locations before the private sector has invested in the site. This would enable the private sector to choose a site, which at best, has public support and, at worst, public

indifference. Consequently, regulatory costs and delays would be minimized while simultaneously serving the public interest.

Furthermore, by designating regions which are optional for major facility locations, state and local government can plan for expected impacts and streamline permit procedures to accomodate future development.

Finally, major facility siting programs which include state-local conflict resolution mechanisms, would aid the Corps in making public interest determinations by resolving state and local conflicts prior to the federal permit review. The Corps would therefore be relieved of the difficult task of overseeing the state's internal conflicts in addition to its national interest public mandate.

Virginia, which has no coastal zone management plan or other broad management mechanism to resolve natural resource conflicts and stave off future disputes, would benefit from a major facility siting program. Theoretically, such a plan would have determined whether or not the area was suitable for an oil refinery and resolved any public disputes before HREC chose to locate. Consequently, if the site was found to be suitable and conflict resolution was successful, the Corps' public interest review would be significantly simplified.

In summary, a major facility siting plan presents a framework for decision making which saves time and money, allows for the optimal siting of major facilities while min-

imizing degradation of economically important natural resources and serving the public interest.

Streamline Permit Procedures

The public interest review program's effectiveness could be substantially increased by reducing delay and inefficiency. All parties involved considered the requirements governing the permit process needlessly time consuming and dissent producing. However each differed in naming the cause for complaint. Some accused the Corps of not exercising its prerogative to render the decision expeditiously. Instead, the Corps afforded the opportunity for all interested agencies to participate in the process which resulted in significant delays. But under the provisions of NEPA, FWCA and the MOU with DOI, the Corps is required to solicit comments from various agencies with different expertise. Furthermore, a full review process provides the greatest assurance that the public is not only well informed but also that its interest is best served.

Rather than reducing the Corps public review process, much delay could be avoided through better federal and state coordination efforts. Since the Corps' mandate encompasses the entire gamut of public interest factors, federal and state agencies with permit jurisdiction should streamline their review programs to not only avoid overlap but also to expedite the review time frame. Specific suggestions for

improvement would involve an in depth analysis of state and other federal agency permit procedures and are therefore beyond the scope of this study.

CHAPTER VI

CONCLUSION

In the past, a broad consensus supported the Corps in its pursuit of one narrow objective, the promotion of navigation. Congress and the courts, however, have expanded the Corps' jurisdiction to receive, one by one, proposals for waterfront development; to evaluate the environmental, economic and social ramifications of each, and then to authorize, reject, or modify each proposal depending upon whether it is in the public interest. Because of the all-inclusiveness of the public interest review, execution by the Corps of its statutory mandates, once fairly simple has become extremely difficult.¹⁴²

Analysis of the Hampton Roads refinery proposal reveals the difficulties inherent in the Corps' decision making process whenever factors of public interest conflict. In this case, the Corps had to balance several conflicting factors of public interest, primarily the fish and wildlife resources of the Chesapeake and the national need for energy development. Relying upon extensive comments and reports from federal and state agencies as well as citizen groups and staff evaluations, the Corps balanced these factors within the loose framework of the regulations.

The ultimate decision to grant the permits did not dismiss the possibility of secondary and cumulative impacts to natural resources of the Chesapeake and the effects of these impacts on the long term health of Bay dependent economies. The Corps, through its decision making process, initiated compromises which, from its perspective, would allow the coexistence of energy development and natural resources. Weighed against a strong mandate to fulfill energy needs, the Corps deemed the probabilities of impact were not sufficient to warrant permit denial.

Within the wide parameters of its mandate, the Corps appears to have properly executed the public interest review. The Corps' decision therefore cannot be criticized as being procedurally or legislatively incorrect. But a justifiable determination does not necessarily translate into the best decision. It does not preclude severe longterm natural resource and economic impacts. Because the public interest regulations are unable to ensure the best decision, they have been subject to criticism. In particular, the lack of implementation guidelines appears to provide a mechanism through which compliance with procedural requirements takes the place of substantive review. However, other factors extraneous to the Corps' jurisdiction can have negative impacts on the public interest review.

The public interest program could be improved by better defining the purpose perhaps through the prioritization

of factors. Additionally, early state planning could reduce decision making problems. In the Hampton Roads example, a state major facility siting plan could have avoided much of the controversy and resolved the intense conflict of interests which encompassed the project. This would result in an environment much more conducive to responsible decision making at the federal level. Furthermore, state and federal initiatives to streamline permit procedures would allow the Corps to expedite the public interest review and conduct its own analysis of changes necessary to revise applicable state and federal permitting structures are beyond the scope of this study.

In conclusion, the broad public interest review is a device that allows the Corps to weigh all relevant factors in permit decisions. Although the review is subject to both definitional and implementational problems, it is an enormous step in the right direction. The Hampton Roads refinery project provides an excellent example to examine the adequacy with which the Corps implements its program when factors of public interest directly conflict. This analysis has shown that the Corps has procedurally adhered to its regulatory mandate. However, it is difficult to determine whether or not the decision can be considered good without a better defined public interest purpose. It should be noted that implementation problems can be attributed more to the broad mandate and permitting requirements outside the

Corps' jurisdiction than to the Agency's execution of the program.

APPENDIX I

CHRONOLOGY OF EVENTS

- 10/74 - HREC announces it will build the refinery on 600 acres in the West Norfolk section of Portsmouth.
- 3/75 - HREC files permit application with Corps of Engineers for dredging and construction.
- 09/75 - HREC files permit applications with state air and water quality control boards.
- 10/75 - Virginia Marine Resources Commission issues state dredge and fill permit.
 - State grants air pollution control permit. EPA objects to permit as illegal in a nonattainment area.
- 11/75 - Corps publishes draft EIS.
- 01/76 - The SWPCB issues permit for company to build a pier and marine terminal in Elizabeth River.
- 02/76 - CARE organizes and becomes a major force against the refinery.
 - EPA publishes draft proposal for offset procedure, designed to permit industrial expansion in a nonattainment area.
- 05/76 - At public hearing on dredging permit, EPA states refinery is environmentally unacceptable.

05/76 to

- 09/76 - HREC considers revision to the project plans, these include: point source discharge into Elizabeth River and, water intake supply from the city of Portsmouth.
- 06/76 - HREC applies for PSD in accordance with pre- 1977 Clean Air Act provisions.
- 09/76 - Environmental information requested from applicant as a result of questions raised by the general public, Federal and state agencies and Corps.
 - The DOI's Fish and Wildlife Service (FWS) publicly opposes the refinery.
- 02/77 - SWPCB approves wastewater discharge plan for refinery but attaches a condition that the company must devise a way to contain and clean up oil spills.
 - State submits incomplete offset proposal. EPA requests data on projected ozone reduction.
- 04/77 - Environmental information received from applicants consultant, NUS Corporation.
- 07/77 - EPA issues PSD permit, to expire January, 1979.
 - CARE and Virginia Oyster Packers and Planters Association sue SWCB and HREC in an effort to block the refinery.
- 10/77 - Final EIS released to public for review and comment.
 - SAPCB extends construction permit (and extends again in 1978).

- 12/77 - Corps' district engineer recommends denial of dredging permit, applies to Governor for consent, Governor objects and appears to favor the project.
- 02/78 - State submits to EPA amended PSD permit proposal.
- 03/78 - Division Engineer overrules District decision. Departments of Interior, Commerce and EPA challenge decision. Matter is referred to Chief of Engineers.
- 03/78 - Refinery proponents including Portsmouth Mayor Richard Davis, meet with White House officials seeking support for the project.
- 05/78 - Chief of the Corps Lt. General John Morris calls for study to review alternatives to the Portsmouth site. Initiates Interagency Task Force.
- 09/78 - Corps issues supplemental EIS. Evaluation of alternative East Coast sites rates Portsmouth second worst of 19 sites in terms of environmental impact. DOE representative dissents, calls it the best.
- 10/78 - Refinery proponents meet second time with White House officials.
- Offset requirements finalized and published.
- 11/78 - Chief of Engineers' preliminary decision to issue dredging permit with stipulation that Congress must deauthorize the Federal anchorage in Elizabeth River before construction. Letters to DOE and other Federal agencies.
- 12/78 to
- 01/79 - DOI urges Army to deny permit. Army and Interior

officials meet to resolve dispute over Portsmouth refinery.

- 01/79 - 2nd District Rep. G. William Whitehurst urges Army Secretary Clifford L. Alexander to deny dredging permit.
- 02/79 - HREC requests extension of PSD permit on grounds that construction could not "commence" within approval time period since permit was conditioned on EPA's approval of offset proposal embodied in SIP revision, still pending.
- 4th District Rep. Robert W. Daniel Jr. introduces legislation to de-authorize anchorage.
- 03/79 - Dredging permit decision goes to Army Secretary because of irresolvable disputes between the Corps and DOI.
- 05/79 - EPA completes review of revised PSD proposal, finds non-compliance with modeling requirements. Asks for correction.
- Eight federal agencies meet with Army officials to discuss refinery.
- 08/79 - Whitehurst urges Alexander to consider federal reports saying that the country's existing refineries need to expand before new ones are built.
- 10/79 - VAPCB extends HREC's state air emissions permit until October 1981.

- Alexander announces that he will not approve the dredging permit unless he receives overriding "new elements of opposition".

ENDNOTES

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⁵OASA(CW), "Evaluation of the HRECo Permit Case -- A Proposed Refinery and Terminal Complex to be Constructed in Portsmouth, Virginia," 1979, p.1 (hereafter cited as OASA(CW), "Evaluation").

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⁷J.W. Morris, HRECo Permit Application Decision Paper, 28 November 1978, p.11. (hereafter cited as Morris, HRECo Permit).

⁸Ernie J. Englander, James Feldman, and Marc Hershman, "Coastal Zone Problems: Basis for Evaluation," Coastal Zone Management Journal 3 (1977): 217-236.

⁹Act of March 16, 1802, Ch. 9, §26, 2 Stat. 132, 137.

¹⁰Power, "The Fox," p. 506.

¹¹Williamette Iron Bridge Co. v. Hatch 125 U.S. 1, 8-13 (1888).

¹²The Commerce Clause of the U.S. Constitution (Article 1, Section 8) states "...the Congress shall have the power to regulate commerce with foreign nations, and among the several States, and with Indian Tribes." The scope of the term "commerce" has been held to include every kind of traffic, trade, and transportation - whether for commercial purposes or not - by land, water, or air, and those individual incidences and interferences with interstate commerce.

¹³"The common right of the public to use navigable waters for navigation is superior to other rights in the water and is not confined to the main channel, but extends over the entire surface of the water, from shore to shore, subject only to natural obstructions and lawful artificial obstruction." 65 C.J.S. §120.

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¹⁶Ibid., §403.

¹⁷Ibid., §407.

¹⁸Miami Beach Jockey Club v. Dern, 68 F. 2d 135 (D.C. Cir. 1936).

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²⁰U.S. v. Appalachian Electric Power Co., 311 U.S. 377 (1940).

²¹Ibid., P.426.

²²U.S. v. Republic Steel, 362 U.S. 482 (1960).

²³Ibid., pp. 436-9.

²⁴Fish and Wildlife Coordination Act, 16 U.S.C. §661 et seq., as amended (1976).

²⁵Ibid., §662.

²⁶33 C.F.R. §35.11 Appendix B (1968).

²⁷33 C.F.R. §209.120 (d) (1968).

²⁸Zabel v. Tabb 430 F.2d. 199 (5th Cir. 1970); cert. denied 401 U.S. 910 (1972).

²⁹Ibid., p.202.

³⁰Ibid.

³¹Zabel v. Tabb 295 F. Supp. 764 (M.D. Fla. 1969)

³²Zabel v. Tabb 430 F. 2d at 207-8.

- ³³ *Ibid.*, p.203.
- ³⁴ Wood, "Wetlands Protection," p.379.
- ³⁵ National Environmental Policy Act of 1969, 42 U.S.C. §4321 et seq., (1976).
- ³⁶ *Ibid.*, §4321.
- ³⁷ Federal Water Pollution Control Act of 1972, 33 U.S.C. §1251 et seq. (1972).
- ³⁸ *Ibid.*, §1344.
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- ⁴⁷ Clean Water Act of 1977, 33 U.S.C. §1251 et seq. (1979).
- ⁴⁸ *Ibid.*, §1344.
- ⁴⁹ *Ibid.*, §1344.
- ⁵⁰ 33 C.F.R. 325.1 (c) (1) (1979).
- ⁵¹ 33 C.F.R. 325.1 (c) (2) (d) (1979).
- ⁵² 33 C.F.R. 324.4 (b) (3) (1979).

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⁵⁵33 C.F.R. 320.4 (a) (1979).

⁵⁶33 C.F.R. 320.4 (a) (1) (1979).

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⁷⁰Ibid., pp.6-7.

⁷¹Ibid., p.14.

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¹⁴²Power, "The Fox," p.547.

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