Environmental Regulatory Process: Does It Work?: Dredging U.S. Ports

Click HERE for graphic.

TRANSPORTATION RESEARCH CIRCULAR

Number 427, June 1994
ISSN 0097-8515

Environmental Regulatory Process: Does It Work?

Dredging U.S. Ports

Subscriber category
I planning, administration, and environment
VIII freight transportation (multimodal)

Transportation Research Board
National Research Council
2101 Constitution Avenue, N.W.
Washington, D.C. 20418

The Transportation Research Board is a unit of the National Research Council, which serves as an independent advisor to the federal government on scientific and technical questions of national importance, The Research Council, jointly administered by the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine, brings the resources of the entire scientific and technical community to bear on national problems through its volunteer advisory committees.

PREFACE

Terry Huffman

This session summary report had its origin in the Transportation Research Board's 73rd Annual Meeting on January 11, 1994, in Washington, D.C. This particular session, Environmental Regulatory Process: Does It Work? was sponsored by the TRB Ports and Waterways Committee and the TRB Environmental Analysis and Transportation Committee. The session focused on the growing sense of gridlock associated with permitting new development and maintenance dredging projects in the nation's ports and waterways.

Our ports and waterways are in a unique and difficult position where such projects are concerned. Port expansion invariably takes place at or near the !and-water interface and, therefore, requires a decision from the regulatory agencies concerning the wetlands and other waters of the United States' typically affected by such activities. Maintenance dredging projects have similar problems, compounded by the tendency for the sediments in our ports to contain contaminants from sources throughout the watershed, over which the ports have no control.

The format of this session provided a much needed opportunity to bring together the many groups interested in port development and dredging projects whereby they could provide their points of view and discuss their ideas about how to improve and manage the environmental regulator), process. The eight speakers whose papers follow represented viewpoints from the ports, the regulatory agencies, environmental groups, Congress, the White House and Maritime Administration.

The opinions voiced by these speakers were, as their papers attest, diverse, disparate, and sometime discordant. Common ground was evident in a number of remarks about the nature of the problem, and there was general agreement that the process needs to be "managed" in terms of setting definitive timelines for permit reviews. Whether solutions will be forthcoming will depend upon the continued efforts of the various agencies to recognize and work with the ideas, insights, and opportunities for reasoned compromise that come out of informational sessions such as the one reported herein.

TABLE OF CONTENTS

INTRODUCTORY COMMENTS

Arlene Dietz, Chair
TRB Committee on Ports and Waterways
and Session Presiding Officer

This Circular is an edited transcript of TRB Session 99, Environmental Regulatory Process: Does It Work? The TRB Ports and Waterways Committee sponsored this session jointly with the TRB Environmental Analysis and Transportation Committee, chaired by Thomas L. Weck.

This session consisted of eight individuals, the first four of which represented four major seaports and offered the "regulated's" perspective. The next four presentations responded to the seaports by offering the perspectives of the "regulator's" and the environmental community. A question and answer session followed, giving participants the opportunity to query one another. To conclude, Dr. Terry Huffman synthesized the dialogue with a summary of the problems and the potential solutions on this complex issue of perceived "process gridlock."

Our committees planned this session in response to the TR News feature in the September/October 1993 issue which contained a summary of the TRB staff visits to the states and various transportation institutes in order to identify key transportation issues. This article mentioned, "there is a strong belief among the states that the current environmental review processes are: a) too

arbitrary and inflexible; b) have too many reviews and concurrence points; and c) do not really reflect comparative risks and costs." It was further observed that the environmental review process had become the major impediment to the development and basic operation of our nation's ports and waterways. This problem is critical when one realizes that over a billion tons of the nation's overseas trade moves through these ports.

REGULATED'S PERSPECTIVE -- PORT OF OAKLAND

Charles R. Robeas, Executive Director Port of Oakland

The following is a quote from World Dredging Mining & Construction (November 1993):

> Ninety-five percent of U.S. overseas trade moves in and out of U.S. ports. Over 25,000 miles of navigation channels link American communities to each other and foreign ports. Maintenance of a safe, efficient and cost-effective water transportation system is vital to the economic well-being of our nation.

It is vital also to carry out world trade in order to provide jobs in the U.S. that the President is working so hard to provide. Yet, in my opinion, the present regulatory process for permitting dredging--a necessary part of this transportation system--does not work. If there is any particular problem at all with the permit, the system completely falls apart as a result of two major reasons:

- A complete lack of management of the process.
- Permitting agencies have not kept up with the changes in environmental testing and, therefore, do not have procedures to handle contaminated material.

The entire process has taken on the appearance of being unmanageable. I believe that our challenge is to understand the management problems and make the necessary changes in the processes to manage them. I believe that there are three overwhelming problems that need to be addressed to manage dredging. First, we need to establish accountability in the system. Presently, there is no accountability for delays in making decisions, but regulatory agencies are criticized for issuing permits. This leads to an overly cautious approach that undervalues the damage done, both to the economy and to the environment, by delay. This lack of accountability is a serious problem; it took over 18 months for the Corps to issue a public notice for the last routine renewal of the Port's maintenance dredging permit.

Second, there is a serious lack of professional expertise in the regulatory process. The high rate of staff turnover at EPA and the Corps adds to this problem and contributes to the first problem: new staff are extremely cautious in a complicated technical area where they are just learning the ropes.

Finally, the regulatory system lacks a context for dealing with contaminated sediments, and lacks a mission to try to improve the present situation. The most contaminated sediments in our nation's waters are found usually far from navigational channels, and are associated often with the manufacture of chemicals that have been outlawed. If those sediments are potential problems at trace levels that they are found in dredged material, they are a much more serious problem near the source. Yet the regulatory

efforts seem to be directed toward the symptom--dredging--rather than at the source of the problem, the original discharge. This misdirection of efforts does not benefit the environment, although it does hurt the economy.

What should we do about these problems? First, 1 think there needs to be a clear mandate in the Clean Water Act to complete regulatory actions within an established time, and a penalty if the Corps fails to comply. Second, we need to attract and maintain qualified staff, and management in the Corps and EPA needs to oversee the work of their staff and see that they get the necessary professional and on-the-job training. Those managers need to be held accountable for the timing and quality of their staffs work. Finally, both the Corps and EPA need to redirect their regulatory concerns to preventing sediment problems by source control and by remediation of hot spots, as directed in the Water Resources Development Act of 1992.

How should we determine if the manager is doing the job? In most cases, the manager works for a commission, a board, a State, or a Federal agency. These organizations depend upon their staff and they are very much influenced by the political situation. The objective way is to bring balanced, political pressure to assure that the existing laws and regulations are carried out. The ports would ask that we all take the time to see what is happening inside our regulatory organizations and to make an effort to try to bring about fair management.

The problem of regulatory agencies keeping up with the state-of-the-art environmental testing and developing procedures to make determinations based on this information is difficult, complicated, and certainly may involve some subjective determinations.

However, the lack of any such procedures has placed the whole permit system in gridlock. One such situation

8

is the Corps of Engineers' present determination that if dredged material in a Federal channel cannot be placed in its historical disposal site, then they are not going to dredge it. That certainly is not carrying out the Corps' mission of maintaining authorized federal channels. The Corps should recognize that under the new testing protocol they are going to have to arrange for new types of disposal for dredged material. The excuse that the local sponsor has to supply upland sites is not solving the problem. The Corps has over $300 million in the dredge maintenance fund to maintain the channels, so money is not the problem. The problem is the need to develop new procedures that protect our environment and get the dredging job done.

I guess I can sum up by saying that the real problem is the lack of determination on the part of the regulatory agencies to solve the problem. Until such a determination is developed, the permit system is going to stay in gridlock. We need to support our economy by increasing our trading, which should not be "hamstrung" by the constant silting up of our vital port channels. Somebody at a high level has got to say "Get on with it" in relation to developing an environmentally sound and predictable permit system.

9

REGULATED'S PERSPECTIVE -- THE PORT AUTHORITY OF NEW YORK & NEW

JERSEY

Lillian C Liburdi, Director, Port Department
The Port Authority of New York & New Jersey

Abstract

This paper outlines the experience of The Port Authority of New York and New Jersey as a result of its application for a federal dredging and ocean disposal of dredged materials permit between 1990 and 1993. This case clearly illustrates that the federal environmental regulatory process--as it relates to dredging permit reviews--is characterized by a lack of policy direction which can lead to delays, confusion, contradictory pronouncements from two or more federal agencies, and ultimately a loss of business for ports. The Port Authority's case also raises several important issues about the nature of dredged materials disposal and environmental regulation, including the need to assess the risk of disposing material with low-level contaminants in the ocean vs. the loss of harbor infrastructure which is critical to both deep-sea maritime commerce and military ocean traffic. Above all, the case testifies to the need for a national policy on dredging and dredged materials disposal.

Introduction

The Port Authority of New York and New Jersey is a hi-state authority of the states of New York and New Jersey. It is a financially serf-supporting agency which has responsibility for operating and maintaining a wide range of transportation and trade infrastructure in the New York/New Jersey metropolitan region. This includes several major port facilities throughout New York Harbor, the largest of which is the Port Newark and Elizabeth-Port Authority Marine Terminal complex located on the shores of Newark Bay in New Jersey.

As a public agency, our responsibility is not only to develop, maintain, and promote the maritime commerce of the entire harbor in the interest of the New York/New Jersey region, but also to do so in a way that is environmentally responsible. A port, by its very definition, operates in the environmentally sensitive region where land and sea meet. Accordingly, we advocate an environmental policy that seeks to integrate the protection of valuable resources, recognizing that in some cases they are used to enhance the economic vitality of the region (commercial fishing, tourism, recreation, and deep-water maritime commerce) and the protection of the economic activity which sustains and enhances human society.

In 1990, The Port Authority applied for permission to maintenance dredge our berths at Port Newark/Elizabeth to 40 feet for a three-year permit period. Although the material contained trace materials of a contaminant, dioxin, it did not contain levels that were toxic or hazardous under federal Environmental Protection Agency (EPA) criteria. Ocean disposal of this material--the only federally approved disposal option open to the Port Authority--was requested and appeared to be clearly allowable given the federal and international guidelines in force at the time. The Port Authority met the conditions and performed all the tests as required by the regulatory process.

However, upon reading the attachment to this case (detailing the chronology of the permit) one can see that the process was unrealistically drawn out by the regulatory gatekeepers, who were operating without the requisite policy guidance to allow them to make decisions on a permit that involved the disposal of sediments that contained dioxin (for which at the time of its detection there were no ocean disposal criteria)--however small the concentration.

Our experience with this permit application clearly indicates that, despite good intentions, the federal regulatory process does not work well, from either the applicants' or opponents' viewpoint. The review of this permit application was characterized by a lack of timely decision making, a tendency for regulators to deal with issues one at a time rather than as a whole, insufficient coordination between overlapping jurisdictions, changing or additional requirements imposed regardless of the process status of the application, poor communication, and a fear of negative press.

These problems stem from several structural factors that are built into the process:

- Federal and state agencies have differing statutory responsibilities.
- Each of the governmental agencies involved in the process has a different perspective on the government's responsibility. For example, National

Marine Fisheries, Fish and Wildlife, the Environmental Protection Agency and the states approach the permit from the perspective of protecting natural resources. The Army Corps of Engineers' perspective involves both regulation and protection of commercial public works.

- There is little or no advocacy, however, for business interests in the environmental regulatory process--as a result, economic considerations of regulatory impacts are given less weight than they deserve.
- There are not requirements to achieve resolution - no process in place which seeks to join all parties to accomplish a solution in a viable, "win-win" fashion, either through consensus building or conflict resolution.
- The technical ability to detect problems has increased (essentially thwarting the applicants' ability to proceed) without a corresponding imperative or availability of appropriate, scientifically approved technical solutions to these problems.

In fact, conduct of the process demonstrates a basic lack of several essential characteristics that would make it work more efficiently, including:

- Consistency and coordination among the various agencies;
- Executive (administrative or legal) underpinnings properly in place;
- Forthrightness in data sharing or responsiveness and timeliness; and
- Sensitivity to the financial implications of both their delays in decision making and the additional requirements that they impose on the applicant.

In our case, the cost of the permit application was escalated not only by the unreasonable length of the process itself, but also by the multiple testing requirements imposed during the process. The cost of the actual dredging project was further escalated, from $1 million to perhaps as high as $17 million, by the additional operational requirements imposed on the project in conjunction with the issuance of the permit. (The additional requirements included capping the dredged material -- characterized as Category 1 -- with

clean sand to eliminate any possible negative effect on marine life.)

Our case also demonstrated a tendency by regulators to seek to use the process as a test lab by asking us to try out unproven solutions, even though neither the regulators nor the applicant fully understood the consequences (Examples: no barge overflow; methods of capping).

The prolonged decision making that characterized the federal review of this permit application played into the hands of some environmental advocacy groups who wished to stop all ocean disposal of dredged material. For many of these groups delays in permit approval equated with victory in a zero sum game.

Ultimately, this seeming indecision led to litigation which resulted in court-management of the process--which is costly and time consuming.

The most significant impact of this process was the loss of port business. A port is a significant economic generator for any city or region. In ours, the inability to ensure ocean access to the Port of New York and New Jersey led to some ship diversion before the dredging project was completed. This was borne out in a loss in labor hours at the port reported by the International Longshoremen's Association--a loss of 100,000 labor hours between the last three months of 1992 and the first three months of 1993.

Background

The Port of New York and New Jersey is located in the Hudson/Raritan Estuary. Without dredging, the controlling depth of the harbor would be approximately 19 feet--clearly insufficient for the modern deep-draft vessels that call at the port which require up to 40 feet of water. Regular maintenance dredging of federal channels and the marine terminal berths is performed in order to protect the maritime commerce which plays such a significant role in the regional economy and the international trade which helps sustain the living standards of the people of New York and New Jersey.

The Port Newark/Elizabeth complex is situated on 2,100 acres along the western shore of Newark Bay. From the north, the Hackensack and Passaic rivers feed into the bay. The bay empties into the Kill van Kull and the Arthur Kill at the south. Tidal changes within the harbor range approximately 5.5 feet. Sediments move both up and down the estuary system and deposit in shoaling areas.

As a result, maintenance dredging of the berths at Port Newark/Elizabeth is a operational necessity. Prior to 1990, the Port Authority dredged berths at a volume of approximately 200,000 cubic yards per year. Selected berths were dredged, at least once and sometimes twice per year, on an as needed basis. The material was disposed at the Mud Dump, a federally monitored and regulated ocean disposal site approximately six miles east of Sandy Hook, N.J.

In the late 1980s, it was suspected that dioxin was present in the harbor although the concentrations in the berths were unknown. Until 1990, the Port Authority had performed maintenance dredging at Port Newark/ Elizabeth under permits that had not required testing for dioxin. The Port Authority's permit for ocean disposal

of dredged materials for the Port Newark/Elizabeth berths expired in May 1990. Based on the published guidelines for the review of a permit application and the experience of past applications, the Port Authority initiated discussions with the Army Corps of Engineers in early 1990 for the filing of a new permit. The expectation was that a new permit would be issued in a timely manner (within six months to a year) and there would be Little or no disruption of shipping activity.

Sampling that was performed as part of the permitting process in 1990 revealed that the sediments at the Port Newark/Elizabeth berths contained trace levels of dioxin. This was the first time that the Army Corps had required dioxin tests for the sediments at Port Newark/Elizabeth.

It is important to point out that this contamination was the result of non-point source pollution elsewhere in the estuary. There may have been several sources of dioxin in the harbor, but the primary dioxin source for Port Newark/Elizabeth was most likely the now defunct Diamond Alkalai plant on the Passaic River in the Ironbound section of Newark, which produced Agent Orange for several years during the 1970s.

This discovery of trace levels of dioxin in the sediments changed everything. Because there was no policy guiding decision making on sediments containing dioxin or assessment of acceptable risks of ocean disposal of this material, the Port Authority's permit application became something of a test case in the federal regulatory process. Regulators, both unsure of the ground on which they stood and pressed by environmental advocacy groups, often chose delay over decision. Instead of due process, the Port Authority faced a process in which the policies and rules changed from one minute to the next.

Port Newark/Elizabeth Permit Review

The Army Corps of Engineers New York District Harbor Corps regulates dredging and ocean disposal of dredged materials for the Port of New York and New Jersey under Section 10 of the Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act and Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972. In evaluating a permit application, the Corps must apply criteria developed by the EPA. Additionally, the applicant must submit to the Corps a State Water Quality Certification and a Coastal Zone Consistency determination prior to the issuance of a federal permit.

Under the Corps of Engineers' formal procedures for review of a permit like the Port Authority's, the review process should have taken a approximately six months--about three months for sampling of the sediments and marine organisms, three weeks for Corps/EPA review and publication of a public notice on the permit, one month for public comment, and one month for findings and a decision. The Port Authority formally applied for a permit on April 11, 1990. The permit was issued on Jan. 6, 1993--almost three years later--and was suspended by the Corps eight days later. After further review and testing, the Corps reissued the permit on May 26, 1993, more than 37 months after the original application was filed. (See Attachment A -Chronology of Permit Process)

In April 1990, the Port Authority received a sampling plan and test protocols from the Corps which included the requirement for dioxin testing. The Port Authority proceeded with the testing and, as expected, low levels of dioxin were found. The Port Authority proceeded to undertake a 28-day bioaccumulation test as required by the EPA/Corps. Throughout the three-year process, we were asked to perform a total of four such tests, when in the past only one was sufficient. It became clear that despite the ability to detect such small amounts of dioxin in the sediment, there was and is no

federal standard upon which to assess the impact of dioxin in the food chain and eventually on humans at these levels.

The Port Authority independently undertook such a study. Retaining a world renowned expert, Dr. Richard Peddicord of EA Engineering, Science & Technology, the Port Authority commissioned a risk assessment-the only one that has been ever performed--.of the ocean placement of dredged material containing trace-level dioxin. The findings concluded that the material we were seeking to dispose in the ocean could safely be done so. The study showed that the material would have almost no perceptible impact either on the food chain or, eventually, on humans. These results were obtained for material disposed in the ocean "uncapped." The study further showed that capping-covering the disposed material with a layer of clean sand--further reduced the risk. When the Port Authority ultimately was granted a permit, it was required to cap the dredged material with three feet of clean material--the cost of which exceeded the dredging itself.

Of course, if there were a viable alternative to ocean disposal of this material, the Port Authority would have

sought to use it. However, there are no approved alternatives, even after a federal Long Term Management Strategy program sought to explore alternative solutions. The project took more than 10 years and cost more than $20 million. This LTMS report was issued in 1989 and so far the only federal follow-up has been the issuance of a draft Environmental Impact Statement on one option, the use of borrow pits--holes in the ocean floor, created by sand mining, in which certain contaminated dredged materials could be placed and capped with clean material.

So, the Port Authority faced a situation in which it must dispose of dredged materials in the ocean or not dredge at all.

This dilemma points out another problem with the regulatory process. Dating back to 1986, federal legislation has directed the EPA report to Congress with an evaluation of the dioxin contamination in the Passaic River and the designation of alternatives to the Mud Dump. To the best of our knowledge, this has not been done.

In the meantime, the Port Authority actively worked to deal with some of the root causes of the dredging crisis in the harbor. It funded the Institute of Marine and Coastal Science at Rutgers University to assess remediation technology. The Port Authority also funded a program, sponsored by the Marine Sciences Consortium, to discuss strategies to deal with non-point source pollution. The authority participated in a federal long-term management strategy program that discusses a range of dredged material disposal options.

The Port Authority's permit application went to public hearing in February 1992. As a matter of policy, any application for disposal of dredged material that does not meet federal criteria, would never reach the public notice phase of the process. The Port Authority's application did.

After the public hearing, given the volume of comments, the public comment period was extended, resulting a further delay. This was compounded by the time the Authority needed to reply to each of the comments.

Nevertheless, during the first week of January 1993, the Corps issued the permit. Within days, the EPA, after having written letters of concurrence with criteria and permit conditions, reversed its position and withdrew its concurrence with the permit.

The EPA cited concerns about the nature and volume of the material that had silted into the berths during the protracted permit approval process. This compelled the Corps to suspend the permit.

Additionally, after the permit was suspended, the National Marine Fisheries Service decided to re-examine Endangered Species Act issues some of which had been raised at the public hearing nearly a year earlier.

At this point, the Port Authority's need to dredge some of the Port Newark/Elizabeth berths had reached a critical stage. It was becoming clear that the Port was losing business as a result of the lack of adequate depth at some berths. Shipping lines were diverting cargo to other ports and ships were changing their sailing schedules to avoid calling at the port fully laden.

Against the backdrop of this growing urgency, at the 11th hour, several different regulatory agencies had either reversed their position or raised totally new concerns. These agencies--the Corps, EPA, NMFS, and the Fish and Wildlife Service rely on a set of complex memoranda of agreement to address their concerns. In this process, they tend to address issues one at a time. This linear form of decision making further drew out the process at this critical juncture in the late winter and spring of 1993.

The permit was ultimately reissued, but with stringent conditions which significantly raised the operational costs of the project -- including a requirement to dredge all the berths, not just those that needed dredging, and the capping requirement. Dredging commenced in June 1993, was completed in July, and the majority of the capping was finished in September with fill in capping completed in December after two separate reviews.

Issues

Our experience offers many lessons for all of us concerned with the environment and with the viability of maritime commerce and raises several issues which we must address as a society:

1. How Clean Is Clean? As we develop the capability to test lower and lower concentrations of a substance, we have to have an ability to evaluate the meaning of the results. The existence of dioxin in the Port Newark/Elizabeth sediments at trace levels signifies little to any of us unless we can evaluate its impact on the environment. We have to determine what level of a particular substance constitutes an environmental threat and assess the relative impacts of the threat at various concentrations. The Port Authority Assessment of the ocean disposal of sediments indicated that the disposal of trace level sediments posed no significant environmental threat.

2. Need to Define Acceptable Risk. If we do not establish reasonable risk levels for environmental

protection, economic development can no longer occur. Quite simply, if the federal government adopts a zero risk posture in relation to the ocean disposal of dredged material, then port activity will be severely diminished and, overall, the United States will be at a competitive disadvantage in the world of international trade. The alternative is for policy makers to set reasonable and supportable risk levels for dioxin and other substances that can be found in harbor sediments and to manage ocean disposal under clear policy

guidelines.

3. Weaving Environmental and Economic Needs into a Responsible Solution. Too often, environmental issues have been addressed in an "all or nothing" framework. This has been evident over the years on both sides of the environment vs. commerce debate. Clearly, a new understanding must be developed. If we insist on the supremacy of commerce over the environment on all issues, we know that we can do irreparable harm to the earth and its resources. Similarly, if we insist on environmental supremacy on these issues, we can destroy industries, kill jobs, and lower living standards. Our public policies on these matters should seek balance/integration.

4. Non-Port Source Pollution and Remediation. Ports and harbors throughout the nation and throughout the world are likely to experience more low-level contamination of their sediments. We need to find ways to stop the upstream pollution that is precipitating the dredging crisis and develop resources for the clean-up of harbor sediments.

5. The Need to Develop a National Dredging Policy. A clear federal policy is needed now to enable dredging and material management to be conducted without sacrificing the safeguards that are designed into our environmental laws. This means that the regulatory agencies should be given time frames in which to act and standards against which to evaluate an application. We need clarification, through legislation, of the roles and responsibilities of the agencies in the process (including litigation).

6. The Need to Weigh Business Concerns in the Approval Process. We need assurance that the viewpoints of all the parties to the process -- including the business and infrastructure interests -- are heard and that their needs are factored into the decision making.

7. Recognition of the Government's Dual Role. This policy should also reflect the reality that the federal government has a dual responsibility: to enforce environmental laws by regulating dredging and dredged materials disposal; and to protect the commerce of the United States and our nation's competitiveness in the international economy.

The regulatory process should be characterized by due process. Applicants and the public need to know the rules of the game so that judgements are rendered in a timely manner and are based on scientific and legal justifications. The Port Authority's experience was not satisfactory in this regard during our three-year effort to secure maintenance dredging permits for Port Newark/Elizabeth.

The infrastructure of our nation's ports is key to the United State's participation in international trade. The port industry is committed to a responsible environmental policy that balances these infrastructure imperatives with the need to protect the earth for future generations.

14

ATTACHMENT A

Chronology of Port Newark/Elizabeth Dredging Permit

- Meeting w/Corps on PN/PE February 15,1990
- Sampling Plan meeting w/Corps March 9, 1990
- Sampling Plan obtained from Corps April 5, 1990

- PA submits Formal Application to Corps April 11, 1990
- Original Corps Permit expires May 6, 1990
- Meet w/NJDEPE to confirm Testing Protocol June 2.5, 1990
- Letter, Corps to ENSECO Lab, requesting QA data prior to initiation of 28 day test June 19, 1990
- First Bulk Sediment Test Results available for Corps (Reaches B & D) June 26, 1990
- PA submits Bulk Sediment Data to NJDEPE July 11, 1990
- PA inspects labs (S. Solomon) July 12, 1990
- Bulk Sediment Analyses formally submitted to Corps; PA requests go-ahead to start 28 day test July 3, 1990
- PA submits additional information (boring logs) which Corps requested as a result of the 7/3/90 submission July 23, 1990
- PA compiles data summary sheets of data supplied on 7/23/90, which Corps had requested August 17, 1990
- Corps provides PA with approved sampling schemes concurrence to start-up 28 day testing September 6,1990
- PA requests EPA's concurrence w/Corps' 28 day sampling plan; PA meets w/PA, gets verbal ok September 7, 1990
- EPA forwards written concurrence September 11, 1990
- Port/Eng. Dept, gives Materials Div. formal authorization to proceed w/28 day testing September 20, 1990
- PA submits concurrence (EPA/Corps) to NJDEPE September 20, 1990
- PA staff meet at ENSECO facility to discuss discrepancies in the report October 1, 1990
- PA notifies ENSECO to repeat 28 day test November 21, 1990
- PA submits Bioassay data (except for 28 day tests) to the Corps January 4, 1991
- Corps sends comments to PA regarding 1/4/91 submittal February 15, 1991
- Results of 28 day re-test (see 11/21/90) verbally reported to PA by ENSECO March 14, 1991
- PA submits response to Corps comments of 2/15/90 and submits 28 day data March 19, 1991
- PA submits formal application with all test results to NJDEPE March 27, 1991
- NJDEPE Permit expires April 4, 1991
- Corps requests additional information (to PA 3/19/91 submittal on the data April 29, 1991
- PA responds to 4/29/91 comments May 9, 1991
- Corps requests additional "clarification of data" May 22, 1991
- Corps requests additional "clarification of the data" May 30, 1991
- PA responds to Corps 5/22 and 5/30 comments June 13, 1991
- PA submits draft Risk Assessment (EA) report to Corps June 19, 1991
- NJDEPE issues permit with no barge overflow July 1, 1991
- PA responds to NJDEPE barge overflow restrictions July 25, 1991
- Corps WES provides comments on EA Report August 6, 1991
- Interagency Dioxin Steering Committee meets September 11, 1991
- Corps provides.new sampling plan for re-testing of Reach A November 15, 1991
- Corps issues 30 day public notice for Reaches B, C, and D states that Interim Guidelines for Dioxin have been established (25 pptr. capping) November 25, 1991
- Corps issues public notice announcing a public hearing (to be closed 3/6/92) January 24, 1992
- Corps issues public notice which extends comment period to 3/16/92 February 21, 1992
- Public hearing held February 24, 1992
- End of comment period March 16, 1992
- Corps/EPA agree on interim guidelines for dioxin disposal March 11, 1992.
- PA responds to EDF June 1992 critique of EA Report and EDF 3/16/92. comments on Public Notice June 24, 1992
- PA responds to Public Notice/Hearing comments June 18-26, 1992

- Letter, EPA to PA, stating further criticism of Risk Assessment July 13, 1992
- Letter, EDP to Corps/EPA, questioning interim criteria, need for EIS (dioxin), baseline data at Mud Dump, more public noticing July 29, 1992
- Letter, EDP to PA still questioning interim criteria and Risk assessment August 10, 1992
- Memo, PA,.indicating Corps wants a dioxin pre-tested material or sand cap September 11, 1992
- Letter, EPA to PA requesting further coordination on Risk Assessment information September 25, 1992
- Letter, PA to Corps formally requesting modification of PNJPE application to use Ambrose as second source cap October 6, 1992
- Letter, NJDEPE to PA, modifying NJDEP Permit to include overflow monitoring October 8, 1992
- Letter, PA to NJDEPE, accepting the 10/8/92
- NJDEPE permit modification October 9, 1992
- PA submits Reach A re-test data to Corps October 14, 1992
- Corps issues Supplemental Public Notice for Ambrose cap October 19, 1992
- EDF letter to Corps/EPA/NJDEPE/DEC/PA requesting EIS related to dioxin, PCBs and cumulative effect of sand mining November 4, 1992
- F&WS letter, to Corps requesting extension of comment period on cap to 12/9/92 November 18, 1992
- Memo, PA, announcing meeting to be held between PA/Corps/ EPA/NJDEPE/EDF November 20, 1992
- Letter, Corps to PA transmitting comment letters from cap supplemental Public Notice November 24, 1992
- PA submits formal application for Reach A November 19, 1992
- Letter, EPA to Corps approving Management Monitoring Plan at Mud Dump December 4, 1992
- Letter, USF&WS to Corps stating objections to permit and referring to elevation procedures in event of Corps' issuance of the permit December 6, 1992
- PA responds to cap Public Notice comments (other than 12/9/92 USF US letter) December 9, 1992
- Letter, EPA to Corps, reneging on the 25 pptr criteria December 31, 1992
- Letter, EDF to Corps/EPA mimicking EPA letter of 12/31/92 January 4, 1993
- Corps issues permit for 500,000 cubic yards January 6, 1993
- Letter, EDP to Corps/EPA/DEP, raising volume/testing issue January 11, 1993
- Letter, EPA to Corps, mimicking DEF letter of 1/11/93 and reneging on ocean disposal January 13, 1993
- Letter, PA to EPA, defending volume-testing issue January 13, 1993
- Letter, Corps to PA, suspending permit January 14, 1993
- Letter, EDF to Corps, objecting to volume of material and seeking re-testing of dredged material January 13, 1993
- Letter, PA to Corps, requesting meeting on 1/19/93 to discuss permit issues January 15, 1993
- Letter, Corps to PA, notifying PA that Corps and EPA are available to meet on 1/27/93 January 15, 1993
- Letter, PA to EPA, affirming volumes to be dredged January 26, 1993
- PA meets with Corps/EPA January 27, 1993
- EPA two-day conference on Dredging and Disposal of NY/NJ Harbor Sediments January 27, 28, 1993
- Letter, EDF to EPA, raises bio-accumulation issue throughout harbor and criticizes criteria level of 10 ppt January 29, 1993

- Letter, NMFS to EPA, raises Endangered Species Act issue February 2, 1993
- Corps and Port Authority meeting to clarify outstanding issues raised during suspension and 1/27/93 meeting February 4, 1993
- Congressional Forum on dredging February 5, 1993
- Letter, PA to Coast Guard requesting review of safe berth depth for facility February 9, 1993
- Letter, EPA to Corps, specifies conditions that have to be met for re-issuance of permit.for Reaches B and C, while Reach D is acceptable without further testing February 12, 1993

16

- Letter, EDF to Corps, requesting a meeting and opposing EPA's decision not requiring additional testing for Reach D February 17, 1993
- Letter, Corps to PA, requiring all Reaches to be tested for dioxin using same methods as in 1990. February 18, 1993
- Letter, PA to EPA, seeking clarification and sign-off on sampling and testing protocols. February 24, 1993
- Letter, Corps to NMFS, answering Endangered Species Act issue. March 5, 1993
- Letter, PA to Corps (copy EPA) transmitting dioxin re-test results. March 12, 1993
- Letter, EPA to Corps, approving material for ocean disposal based on the dioxin re-test results. -However, EPA likewise directed the Corps to resolve concerns of the National Marine Fisheries Service regarding endangered species at the Mud Dump site. March 29, 1993
- NMFS issues biological opinion on Endangered Species Act resulting in special conditions to be incorporated into the upcoming reissued permit. May 6, 1993
- Reinstatement of permit by the Corps. May 26, 1993
- Suit filed by Clean Ocean Action against the Corps. June 1, 1993
- Commencement of Dredging.June 2, 1993
- Issuance of order by Judge Debovoise regarding further testing, regulations and Green Book procedures. July 6, 1993
- Completion of dredging. July 7, 1993
- Commencement of capping. July 12, 1993
- Commencement of surveys.Sept. 12, 1993
- Commencement of final capping. Sept. 17, 1993
- Completion of capping.October 13, 1993
- Commencement of surveys by Corps. October 18, 1993
- Filing of briefs with Court. October 29, 1993

17

REGULATED'S PERSPECTIVE -- PORT OF HOUSTON AUTHORITY

H. Thomas Kornegay
Port of Houston Authority

Thank you for permitting us to focus attention on a national crisis--the dredging of U.S. navigable waters. I am the Executive Director of the Port of Houston Authority and I welcome the opportunity to discuss the particular problems of dredging the Houston Ship Channel (HSC) and on a brooder scale, the problems involved in the lengthy approval process for such projects.

It is no exaggeration to say that the Houston Ship Channel is one of the most important economic lifelines between our nation and the world. Houston's favorable geographic location provides easy access to the entire world business community through key ocean, land and air routes. Nearly 100 shipping lines connect Houston with more than 250 world ports. Four major railroads provide cargo distribution throughout the United States and more than 160 trucking lines service the rest of the nation via the Texas and Interstate Highway System.

These factors have made the Port of Houston a preferred gathering and distribution point for shippers transporting goods to and from the Midwestern and Western United States.

We are proud to report that last year a total of 5,280 ships flying the flags of 77 different nations called on the Port of Houston. In addition, approximately 40,000 barges navigated the waterway. The combined cargo of these vessels exceeded 125 million tons.

All of this has made the Port of Houston the number one U.S. port in foreign tonnage and the third busiest port in total tonnage. It is the eighth busiest port in the world and generates nearly $3 billion a year in revenues. An estimated 29,000 people work in jobs that are directly related to Port of Houston activity and another 110,000 jobs are indirectly related to the port's activity. There is no doubt that the port has become a vital force in the commerce of the United States and the world.

I want to focus on two particular cases in our channel. One has been a long term battle that is still not resolved. The other, though now has reached a satisfactory conclusion, took much too long to accomplish at great costs to those involved.

Background - HSC Project

1994 marks the 26th year since we began efforts to improve the Houston Ship Channel. While Houston is one of our nation's busiest ports, we are also one of the narrowest deep draft channels. The channel was last improved in 1966 when it was deepened to 40 feet and widened to 400 feet.

As you can imagine, ships and shipping patterns have dramatically changed to meet the demands of world trade over the last 30 years. Likewise, for reasons of safety, environment, and economics, we believe that the Houston Ship Channel is long overdue to be improved.

As the local sponsor of the Houston Ship Channel, the Port of Houston Authority requested in 1967 that Congress authorize improvements to the ship channel. At that time the House Public Works Committee requested a review of previous reports on Galveston Bay navigation projects to determine if such improvements were advisable. On February 17, 1969, at a Corps of Engineers public hearing, the Port Authority requested modifications to the Houston Ship Channel and presented appropriate data to supplement the request. In 1970, the Corps began engineering and economic feasibility studies of the requested improvements. From 1970 to 1974 different stretches of the channel were added to the Corps report. On October 8, 1974, the Port Authority submitted a Houston Ship Channel Traffic Survey to the Corps which included data from the industry on the economic benefits of the Houston Ship Channel. In July 1976, the Port Authority presented to the Corps a study entitled "A Fifty-Year Program for the Disposal of Dredged Materials from Certain Inland Reaches of the Houston Ship Channel". In October of the same year, the Port Authority and members of private industry met with the Corps to further discuss the needs and justification for the channel improvements. In March of the following year, the Port Authority delivered additional information concerning the proposed 50-year dredged material disposal program.

Two years later, Gulf South Research Institute, a consultant for the Corps, completed a comprehensive environmental inventory of Galveston Bay and the Houston Ship Channel. In July 1984, as a consultant to the Corps, Espey, Houston and Associates, Inc. completed a draft of the first stage of a two year study entitled "Galveston Bay Area Navigation Study, Texas" covering an economic analysis of several

alternative modifications of the Houston Ship Channel and its tributaries.

Two years later, in March 1986, PHA representatives met with Corps representatives to discuss Corps staff's evaluation of the Espey, Houston study. In May of the same year, a public meeting was held to obtain information from the public on the upcoming draft report. In August 1986, the Draft Feasibility Report and Environmental Impact Statement were circulated for public review and comment. In November 1987, the Southwestern Division Engineer submitted the final report and Environmental Impact Statement (EIS) for Washington level review and public release, recommending a 50' x 600' project. This E!IS was what the Port Authority hoped would be preparation for 1990 authorization. However, the issue of dredged material disposal prompted objections from state and federal resource agencies and environmental groups. An agreement was reached between the Corps, the Port and state and federal resource agencies to orchestrate a two-phase project. The first phase would construct a 45' x 530' channel, the second phase a 50' x 600' channel. Additionally, an Interagency Coordination Team (ICT) was established to oversee additional studies to address a wide range of environmental issues with particular focus on the problem of dredged material disposal. These studies would be the basis for a supplemental EIS with the intended completion of the studies in time for 1994 submission to Congress for authorization. The Port's role would include active participation and direct financial support of this environmental initiative.

The Interagency Coordination Team represents a board and diverse range of environmental interests including: Environmental Protection Agency (EPA); U.S. Fish and Wildlife Service (USFWS); National Marine and Fisheries Service (NMFS); Texas Parks and Wildlife Department (TPWD);Texas Water Commission (TWC); Texas General Land Office (GLO); Galveston Bay National Estuary Program; Texas Water Development Board; U.S. Corps of Engineers (USACE); U.S. Coast Guard; Soil Conservation Service; PHA; and Port of Galveston.

One of the prime concerns of the Interagency Coordination Team focused on the proposed dredged material disposal plan, which essentially called for confined upland disposal in the inland reaches of the channel and continuation of open bay unconfined disposal for the Galveston Bay reach. The willingness of the Port Authority to bear up to $37 million in additional cost for development of beneficial uses of dredged material further reinforced the Interagency Coordination Team's ability to consider reducing adverse environmental impacts.

The Beneficial Uses Group (BUG)

The Beneficial Uses Group was created as a subcommittee of the Interagency Coordination Team. Included as part of the Beneficial Uses Group are: U.S. Army Corps of Engineers; U.S. Fish and

Wildlife Service; Environmental Protection Agency; National Marine and Fisheries Service; U.S. Soil Conservation Service (SCS); Texas Parks and Wildlife Department; Texas General Land Office; and Port of Houston Authority (Chair of the Beneficial Uses Group).

The formally adopted purpose of the Beneficial Uses Group was "to develop a disposal plan that utilizes dredged material in an environmentally sound and economically acceptable manner that incorporates, to the extent possible, other public benefits into its design." Most important was the committed objective that the final plan would have a net positive environmental effect over the life of the project.

Approach

The approach utilized by the Beneficial Uses Group for Galveston Bay makes this effort unique and precedent setting. What was being attempted had never been done before.

The Beneficial Uses Group's efforts are unique in that:

1. The Beneficial Uses Group is an interagency group developing a preferred disposal plan--rather than reviewing a proposal in a regulatory setting.
2. The Beneficial Uses Group addressed one of the largest navigation projects in recent years (approximately 120 Million Cubic Yards (MCY) of new work material and an estimated 190 MCY of maintenance material over the next 50 years.
3. The Beneficial Uses Group committed to the objective that the final plan would have a net positive environmental effect over the 50 year life of the project.
4. The Beneficial Uses Group actively solicited beneficial use suggestions from environmental interests and user groups such as boating clubs, fishing associations, chambers of commerce, city council and others whose collective ideas were given full consideration during the development of the recommended plan.

Results

In October 1992, the Interagency Coordination Team overwhelmingly approved the beneficial use plan for disposal of dredged material from the Houston Ship Channel project. The approval of the plan represents a

significant step forward for this important project and a commendation of the diligent work performed by the Beneficial Uses Group that developed the plan. Ultimately, the beneficial use plan approved by the Interagency Coordination Team will provide for the creation of almost 6,000 acres of marsh, together with bird islands, boater destination islands and shoreline erosion protection.

The efforts of the BUG have been guided from the outset by three basic principles:

1. Dredged material is a potentially valuable resource and should be considered and treated as such;
2. Development of an environmentally acceptable plan is intrinsic to the eventual approval of this project; and,
3. Any disposal plan adopted must have long-term environmental

benefits for the Galveston Bay system.

These principles are reflected in the disposal plan adopted by the Interagency Coordination Team. In addition, the approach utilized by the BUG in developing the plan is particularly noteworthy on four accounts:

1. Public involvement in the identification of uses of dredged material: in point of fact, the community identified more beneficial uses than the material expected over the 50 year life of the project.
2. Utilization of sound scientific methods were used to examine alternative beneficial use plans, including:
   a. hydrodynamic and salinity models;
   b. analysis of physical data;
   c. sediment containment studies; and
   d. National Marine and Fisheries Service productivity studies to determine the most environmentally appropriate locations for marshes.
3. Additionally, the Port Authority itself has funded several studies, including:
   a. Probes of the bay bottom to assess the best bottom conditions for citing beneficial uses (relative to other environmental constraints);
   b. Construction of a 250 acre demonstration marsh (in process) to determine how to achieve the desired result out of the typical new work and maintenance material using typical dredge equipment;
   c. Funding of National Marine and Fisheries Service to assist the Beneficial Uses Group in the development of design criteria and parameters for constructing ecological functioning marshes; and Construction of a five acre oyster reef with Houston Lighting and Power under an Environmental Protection Agency grant in order to determine large-scale feasibility using non-native material for clutch.
4. The plan addresses on the priority concerns identified by the Galveston Bay National Estuary Program--loss of wetland habitat.

It is most noteworthy that the Interagency Coordination Team has determined that its disposal plan, if properly implemented and managed, can actually achieve a net positive environmental effect for Galveston Bay.

The Beneficial Uses Group plan will have to undergo formal public and agency scrutiny through the NEPA process. In its current form, however, the Beneficial Uses Group's recommended plan has taken into consideration all of the public's ideas for beneficial uses in a unique and unprecedented approach. Though the ICT has completed this important two year task, not all the needed studies were completed in time to submit the required supplemental EIS to Congress for 1994 authorization. The Port was notified mid year 1993 of this additional delay. The project for widening and deepening of the Houston Ship Channel is now set to meet the 1996 window for authorization by Congress. While all parties agree that no further delays are evident, the Port Authority has been holding its breath on this project for 25 years. To say that this process is lengthy is a vast understatement. The Houston Ship Channel is a vital resource for commerce and must be improved for safety and to facilitate its continued success in augmenting the economy of this nation. To examine the numerous delays in accomplishing this improvement can only lead one to the conclusion that something must be done to streamline the process.

Maintenance Dredging: Background on Bayport

The problems with dredging issues are not confined to improvement projects such as the widening and deepening of the Houston Ship Channel. We have experienced lengthy delays in maintenance dredging that have been extremely costly to our customers. In the 1986 Water Resources Development Act Congress mandated that the Corps assume maintenance responsibility for dredging three stretches of the Houston Ship Channel--Barbours Cut, Greens Bayou and Bayport. The Fentress Bracewell Barbours Cut Container Terminal is the site of the containerized cargo load center in the Gulf of Mexico. The Barbours Cut

20

Channel was an authorized federal project that PHA modified to accommodate container ships. The PHA has spent over $6 million to modify the channel and has invested over $200 million in the most modern container terminal in the Gulf at this site.

The Greens Bayou Ship Channel is the site of the Port of Houston Authority's Bulk Materials Handling Plant. When the Houston Ship Channel was dredged to a depth of 40 feet, the Port Authority, at its expense, deepened the Greens Bayou Channel from 36' to 40' correspondingly and maintained that depth while seeking Congressional Authority for the Corps of Engineers to assume this maintenance responsibility. The Port Authority has invested over $17 million in this terminal to provide a facility that accommodates dry bulk cargo for our regional market.

The Bayport Ship Channel was also constructed with local funds of over $22.3 million in the early 1970s. It serves a major industrial complex comprised of over fifty companies who have invested more than $2.2 billion in their facilities. As a major bulk-liquids terminal, Bayport has been a primary gateway for the increasing exports of petro-chemicals produced in the Houston area.

These three connecting channels are significant parts of the Houston Ship Channel navigation system. Congress recognized their importance by authorizing the Corps to assume responsibility for maintenance in PL99-662. These three channels were constructed or modified with non-federal funds to meet the needs of commerce. When Congress mandated in 1986 that the Corps assume maintenance responsibility, the problem of dredged material disposal once again reared its head and caused undue delay. Before the Corps can assume responsibility, a local cooperative agreement (LCA) must be executed between the local sponsor and the Corps. By 1990, this LCA had not been executed and we faced an emergency situation at Bayport with considerable shoaling creating severe draft restrictions. The Port Authority and the users of Bayport shared the cost to dredge the channel. Numerous meetings, drafts and redrafts of an LCA were non-conclusive and by 1992 we faced another dredging crisis at Bayport. Once again, the users of Bayport suffered from shortly curtailed channel depth and in some cases had to turn away business because of the lack of proper depth. Two of these companies reported loses of over $500,000 each and one company a loss of over one and one-half million dollars in loss of revenues from transfer fees due to low draft.

The LCA for Bayport was executed in 1993, seven years after Congress mandated federal assumption of maintenance responsibility. To this date, the LCA's for Barbours Cut and Greens Bayou are still in progress.

Conclusion

These case studies would rapidly age any Port Director. As a matter of fact, the Houston Ship Channel Improvement project has spanned the leadership of 5 port directors at Houston. The Port of Houston Authority recognizes and funds its environmental responsibilities. However, the public port industry is in a crisis situation when critical dredging projects experience such tedious delays. As Transportation Secretary Federico Pe¤a has said, this is a national "dredging crisis." According to Secretary Pe¤a: "Dredging is submerged in conflicting missions and mandates and among a number of federal agencies and a pyramid of federal rules and regulations, plus state and government laws, which make it a miracle every time a port dredging project is brought to fruition." We cannot continue to depend on miracles. The deep draft ports of our country handle over 95 percent of the nation's international trade, employ over 1.5 million Americans, and contribute over $70 billion to the gross domestic product from cargo alone. In addition, our ports are vital to the national security. During the Gulf war, the Port of Houston's Barbours Cut Container Terminal was identified as a strategic site for national defense considerations. It was a primary port of embarkation for equipment and supplies for the United States war effort in the Persian Gulf.

Economic and national security benefits are curtailed when port access is limited by inadequate channel depths or projects are delayed because of regulatory gridlock. We believe that our experience with each of these projects provides valuable lessons for us locally and can offer some guidance to the larger issue of a National Dredge Policy.

The existing approach for permitting dredge projects involves working through the jungle of laws, rules, regulations, and agencies. The experience is one of redundant review and delay. All of this costs precious time and resources -- in our cases more than 25 years of effort and millions of dollars.

There is hope. In Houston we are meeting this challenge through the coordinated efforts of the ICY and the BUG. We believe that the inter-agency approach can work, but it requires the involvement of all affected entities and mutual acceptance of each other's stake and equity in addressing the issues and finding solutions to the problem. In addition, we recognize that the local sponsor must assert leadership and be prepared to commit the staff and economic resources necessary to get the job done.

We further believe that the Houston experience has implications for the broader national policy issue. If

dredging and port access issues are viewed and treated as a national priority, the Houston experience can be duplicated all over the country. Even as a national priority, effective implementation will require a "top-down" commitment to addressing the issues. Conversely, a "bottom-up" approach (at the local or regional level) is necessary to resolve concrete problems.

Dredged material disposal is a serious concern for public ports whose task it is to create jobs and facilitate international trade and thus augment the economy, while remaining environmentally sensitive. In fact, dredging and dredge material disposal has gained the attention of the American Association of Port Authorities who is actively seeking a National Dredging Policy. In short, the proposed policy urges the Administration to streamline permitting procedures by amending the Clean Water Act to expedite

consideration of dredge disposal permits consistent with provisions of the Ocean Dumping Act; and, by amending the Water Resources Development Act to require a lead federal responsibility to pay for the beneficial use of dredged material, to pay for and assure availability of dredged material disposal, to provide additional funding for the beneficial use of dredged material that will facilitate the implementation of port dredging projects, and to increase the role of the local port sponsor at every stage of a dredging project.

The public port industry needs the help and understanding of Congress and entities such as the Transportation Research Board to establish a National Dredging Policy, which would aid U.S. public ports in keeping our federal waters open to navigation and competing in the world market.

22

REGULATED'S PERSPECTIVE --ALABAMA STATE DOCKS

John P. Carey, General Manager Alabama State Docks

This morning you have or will hear a number of speakers as to whether or not the federal regulatory process works. Each of the speakers will talk with great intensity and a high level of emotion on their perception of the success of the process.

We are in a time of environmental activism. All too frequently commercial, or even personal, activities which are perceived to have any negative impact on the environment are automatically bad. As a result laws, rules, and regulations are passed to prevent Those activities. The Corps of Engineers has identified over sixty that may come into play on projects for which they have regulatory responsibility.

Councils, committees, and advisory groups are formed to challenge and/or prevent the perceived abuses to the environment. In the two coastal counties of Alabama, there are eight federal and 27 state and local government agencies who have the potential of becoming involved in a water resource-based project. It is impossible to place a number on the private organizations who may surface on any given issue.

Our industry is all too frequently the victim of the challenges of clean air, clean water, endangered species, hazardous material, storm water runoff, and wetlands permitting laws. All impact on daily port operations. If port managers violate these laws, we are subject to severe personal financial liability and incarceration for our indiscretions. No provisions exist for accountability of those who abuse the same laws to the detriment of the economy.

If I were to give you my summary statement at this point, it would be: If the objective of the regulatory process is to stifle the economy by closing down the transportation of domestic and international goods via the waters of the United States, it is a great success. If the objective of the process is to achieve environmentally sustainable development, then the process is an abject failure. Each of my co-panelists could give you dozens of examples off the top of their heads of abuses by the implementors of the process which would support the above summary.

With such a summary, you are probably thinking if that is not an overstatement, I have never heard one. With the limited time available, I will address four examples. Great detail is available for each of these areas if you desire.

In addition to being the state agency that operates the Port

of Mobile, the Alabama State Docks manages ten inland dock facilities on the commercially active navigation waterways throughout the State of Alabama.

On the eastern border of the State of Alabama is the Appalachicola/Chattahoochee/Flint System. It, for a variety of reasons, operates by navigation windows. These windows may be as little as a few days or up to several weeks in length. This past year, without consultation with the navigation industry or operating industries on this system, federal and state regulatory agencies in Georgia and Alabama developed and implemented a draw down plan of the water levels in this system designed to eradicate an undesirable fish population. The result of this plan was that industries on this system effectively were left high and dry for several months. In that this plan did not require a permit, the agencies involved felt there was no need to seek input or to accommodate the purpose of the system, i.e., navigation. When a high-ranking official in one of the regulatory agencies was confronted on the lack of coordination, his response was: "What do you expect me to do, go out and contact everybody who uses this waterway to determine the impact of the plan?" This response can only be characterized as one of bureaucratic arrogance and an unwillingness to be accountable for the actions perpetrated upon the economy of the region.

The next example deals with the Tennessee River System. It crosses the entire northern width of the State of Alabama. Approximately two years ago, three applications were filed seeking permits to construct barge loading facilities on the Tennessee River. As a result of controversy, an Environmental Impact Study (EIS) was conducted. The study acknowledged that the Tennessee Valley Authority had no authority to regulate chip mills constructed on private property. Yet, the EIS that was conducted focused on the impact of Wood chip mills on the Tennessee River watershed. Two of the three barge facilities were to handle chips produced through chip mills located on private property. The results of the study were predicated on an assessment of the cumulative impacts of harvesting of wood in the vicinity of these barge loading facilities. The TVA elected to deny all permits.

Subsequently, there have been numerous applications for construction of facilities on the Tennessee river to handle wood logs. These permit applications have been approved. My assessment in this case is that the regulatory process is being utilized, not to manage the waterway transportation system, but to control and stifle a crop grown for profit on private lands because of its final form when presented for transportation. What is the difference between harvesting and transporting logs versus harvesting and transporting chips?

It is also very interesting that the Port of Beaumont has just announced the opening of a facility to do the exact same thing as addressed in this EIS. Wood harvested from the states of Louisiana and Texas will be chipped and exported from the Port of Beaumont. Where is the consistency of the process? Who is accountable for denying economic benefit to private timber growers in Southern Tennessee and Northern Alabama?

The third area I wish to address is an on-going action on the part of the Fish & Wildlife Service as it attempts to list a supposed unique species of fish, the Alabama sturgeon. The Fish & Wildlife Service has proposed this fish be designated as endangered. The Service has identified a critical habitat for this

supposed unique species. It has identified actions which must be taken to enable this fish to recover.

The industries in Alabama are greatly concerned over this action. Why? There are a multitude of reasons. It would take hours to go through them. Let me highlight a few.

The Service has elected to ignore testimony by nationally recognized ichthyologists (Ph.D.s) challenging the scientific work upon which this listing is based.

The Service has elected to designate as critical habitat an area which the Service acknowledges has no history of the presence of the fish.

The Service has elected to ignore strong statements on the part of the Corps of Engineers and the U.S. Coast Guard that the listing proposal would result in the shoaling of the system to such a degree that navigation would not be possible.

The Service has and continues to attempt to prevent open, public input in the review of this proposed listing through manipulative scheduling of administrative reviews and public hearings.

The Service conducted an evaluation of public comments and developed an advisory report in an illegally closed session consisting of hand picked panel members in violation of the Federal Meetings Act. This was confirmed in Federal Court last week.

Why is Alabama industry scared? The habitat designated for this fish includes the confluence of the Alabama and Tombigbee Rivers. If you are not familiar with the area, it is the terminus of the Tennessee--Tombigbee River System and all inland waterways of Alabama, save the Appalachicola System mentioned previously. It is the geographical point by which all commercial waterborne traffic must transit going to and from the Port of Mobile. This listing has a high potential of preventing the movement of any waterborne commodities between the Port of Mobile and the inland waterway system.

Finally, the Port of Mobile has experienced the same frustrations, delays and cost that the previous speakers addressed. We were lucky; however, in that our project was approved through the Water Resource Development Act of 1986. Lucky only from the aspect that our project was approved. Last minute legislative language changes to the Act required the disposal of all dredged material in the Gulf of Mexico. The project immediately experienced a seven fold increase in the cost of new construction dredging. In addition, the Federal Government continues to experience a five fold increase in the cost of maintenance dredging. The Corps of Engineers is constantly demanding that the Local Sponsor, the Alabama State Docks, find a way to reduce the cost of dredging.

The cost increase for the new construction dredging drove the project to a phased construction procedure. The first phase of the project is an engineering design of marginal capacity. The economic benefits projected for the first phase of this project have been achieved. Initiation of Phase II of the project is imminent. Given the experiences of other ports around the country, we anticipate unless major changes are made in the execution of the regulatory process, it will be years before there is any hope of achieving a usable Phase II of the already authorized project.

I appreciate your time and I hope you now have a little better understanding of why the port community considers the regulatory process a total failure. It is rapidly placing America's waterborne reliant industries at a high level of risk in being able to compete in the global market place.

REGULATOR'S PERSPECTIVE -- U.S. ARMY CORPS OF ENGINEERS

John Studt, Chief, Regulatory Branch of Headquarters U.S. Army Corps of Engineers

I want to first say that we appreciate hearing the ports views. We appreciate hearing them in this context and when they give them to us in private meetings and we take the ports comments very seriously. There were a few comments that I disagree with, but the vast majority of what the Ports have presented to you, I generally agree with. There are problems which the Corps is trying to address, because we do think there are things that need to be fixed within the program.

Let me briefly discuss the history of the Corps Regulatory program. The Corps has been regulating since the early 1900s, so we have been doing this a long time. The Program has gotten very environmental since the 1960s. The Corps issues about 100,000 permits a year. Of those 100,000 permits, just to give you an idea of the wetland impacts, we have estimated that about 11,600 acres of wetlands were impacted by those permits in 1993. So, even though we issue a lot of permits, there are not a lot of wetland impacts. 11,000 acres is not much impact. [n 1993, we required mitigation that resulted in 15,200 acres of restoration, creation, or enhancement. Based on these statistics, we believe that we are operating at or about, or better than, no net loss, as far as wetlands go. We intend to try to keep that record going.

Let me now talk about some of the things we want to do to try to manage the program better and try to make some other improvements. First of all, we do believe our evaluation process is slower than we would like. Certainly, some cases take a long time. Many of the cases you have heard about this morning, virtually all of them, should not have taken as long as they did. Since 1991, we have increased the staff in the regulatory program by 20%. We are still maintaining a solid training program. We have increased budget by 20%. The President's Wetland Plan identifies the Corps as needing to have further increases in both staff and budget. We will be working within the administration and with the Congress to try to get some reasonable increases in staff. So we are very serious about trying to put more people in the Corps of Engineers focused on this important program. As I mentioned, we have thousands of applications and we do need to have a solid work force. We also agree with a point that was make by Charlie Roberts, that we have got to attract and retain good people. We are just about finished with an initiative that will increase our ability to compensate our regulators to the level we think they should be compensated. In many offices we are going to provide a better compensation package and we hope that will help retain good people.

The Corps is also concerned about problems with dredge material management. In the Corps Civil Work Program and the Regulatory Program, we are very interested in looking at ports dredging in a total view and try to manage the dredged material. It is going to take some time to get there. We are working with other agencies, EPA, Fish and Wildlife Service and NOAA at the federal level and state agencies, but we are very interested in better managing the dredge material in the ports.

Finally, let me make a comment that relates to the concern about science and testing. We would agree that some of the methods that we currently use have been passed by. We are working very actively with EPA on a new revised testing material that we hope will correct some of those problems. We would expect and hope to get that out later this calendar year. That is the current desire. We wish that we would solve them quicker than we have and hope that we can move ahead on them. We take these comments very seriously, and want to try to improve the program.

Let me address some of the issues which are more inland, and speak to those of you in the transportation community other than ports operators; DOTs and other members of the transportation community. We have issued, as part of the President's plan, in August of 1993, guidance with EPA on flexibility in our program and on mitigation banking (Regulatory Guidance Letter 93-2). The guidance is intended to make sure that all of our field offices are aware of the flexibility that does exist in the program. We can, and do, consider cost as we evaluate any permit application. The cost is involved in a determination under the 404(b)(1) Guidelines that we call the practability test. Under practicability, the bottom line is that in order to issue a permit the Corps has to determine that a project is the alternative that is the least environmentally damaging practicable alternative. The least environmentally determination includes consideration of all of the environment. So if an alternative damages uplands that are important and the wetlands are low value, then the upland alternative

would not be less environmentally damaging. It also takes into consideration the concept of cost in terms of practicability. The test is, and I would argue should remain, a somewhat subjective test. The reason for that is if we put specific numerical tests in something like practicability, we run into more problems than we have now. Basically, the test is that if an alternative is unreasonably expensive to an applicant, or the type of project, then the alternative is not practicable. You have to keep in mind that most of the folks in this room are involved with rather large developments, whether it is Ports, or DOT initiatives, or other types of infrastructure developments. For this type of applicant, a higher cost for mitigation or avoidance is going to be practicable than the level of cost for private owner of a home who has a house and wants to build a small addition on some wetlands. Practicability to an individual who wants to build a house is different than it is to a major industry. Again, that is why we believe that test has to remain subjective. This Guidance does lay out the flexibility that is in the Guidelines and a lot of the flexibility is involved in the practicability determination. I encourage any of you who have not seen it to read it.

The second thing I will mention is mitigation banking. Of course, the Ports have led mitigation banking for the last five, or so, years. Mitigation banking is very important to our overall program. Mitigation banking which I will not be able to explain in detail due to time constraints, is basically a method of compensatory mitigation where you develop some mitigation and you use it for several different projects. Simply put, you develop the mitigation, at least to the extent that construction is completed to establish wetland hydrology, before you start drawing credits from it. Mitigation banking is very important to our program and I would encourage the ports to continue using that concept for their wetland type fills.

There are several other elements of the President's Plan that we believe are going to help the process. One is an appeal process. We are finalizing a proposed rule right now. It should be published in a couple of months. Regarding the appeal process, in the event someone is denied a permit, or gets a permit that they simply cannot accept because of the restriction placed on the permit, there will be an administrative appeal. In other words, that is the least the applicant can go through the Corps of Engineers and

appeal it to a higher level.

REGULATOR'S PERSPECTIVE -- ENVIRONMENTAL PROTECTION AGENCY

David G. Davis,
Office of Wetlands, Oceans, and Watershed
Environmental Protection Agency

Introduction

The US Environmental Protection Agency (USEPA) and the US Army Corps of Engineers (USACE) share responsibility for ensuring that dredged material disposal into the aquatic environment is occurring in an environmentally acceptable manner. The USAGE and other dredgers excavate over 350 million cubic yards of sediment each year to maintain and improve the nation's more than 25,000 miles of navigable waterways. These waterways serve over 150 commercial ports and more than 400 small boat harbors, which are valuable for commercial, defense, and recreational purposes. Of all the sediment dredged annually, about 250 million cubic yards are disposed into waters of the US; 60 million cubic yards into the ocean; and 40 million on land. This paper describes EPA's role in the regulation and management of dredged material and a number of recently completed and ongoing activities to improve consistency, predictability, and equity of dredged material management.

Legislative Authorities

The disposal of dredged material into the aquatic environment is regulated principally under either the Federal Water Pollution Control Act Amendments of 1972, also called the Clean Water Act (CWA), or the Marine Protection, Research, and Sanctuaries Act (MPRSA) depending on the location of the disposal site. An important feature common to both statutes is that the USEPA and USACE are directed to share responsibility for managing dredged material disposal. The pertinent aspects of these and other statutes (e.g., NEPA, CZMA, ESA, RCRA, CERCLA) affecting dredged material management are discussed below.

The Clean Water Act. The CWA regulates the discharge of dredged or fill material into the waters of the United States. Section 404 of the CWA requires the USEPA, in conjunction with the USACE, to promulgate Guidelines to be used in the evaluation of proposed dredged material discharges. The purpose of the Guidelines is to ensure that the proposed discharge will not result in unacceptable adverse environmental impacts to the waters of the United States. The USACE is assigned the responsibility for applying the Guidelines to each proposed discharge and, if in compliance with the Guidelines and other factors (e.g., the public interest, other applicable statutes, etc.), for permitting such discharge. The USEPA and USACE also have authority to identify sites in advance that are either suitable or unsuitable for the discharge of dredged or fill material. In addition to reviewing project proposals, USEPA has the authority under Section 404(c) to veto proposed discharges which would result in unacceptable adverse effects to certain aquatic resources. The USEPA Guidelines are contained in 40 Code of Federal Regulations (CFR) Part 230.

The Marine Protection, Research and Sanctuaries Act. The MPRSA regulates the dumping of all matter, including dredged material, into the ocean. Section 102 of the MPRSA requires that USEPA, in

consultation with USACE, develop Criteria that must be complied with before any proposed ocean dumping activity is allowed to proceed. Section 103 of the MPRSA assigns to the USACE the responsibility for issuing permits for the ocean dumping of dredged material. In evaluating proposed ocean dumping activities, the USACE is required to determine whether such proposals comply with the Criteria. The Act requires that EPA independently review the proposed ocean dumping activity for compliance with the Criteria; if USEPA determines the Criteria are not met, dumping may not occur without a waiver of the Criteria by the USEPA Administrator. In addition, the USEPA is to designate sites where the dumping of dredged material would not violate the Criteria. The USACE is required to use such sites when available and feasible; when use of such a site is not feasible, the USACE is authorized to select a site, provided it complies with the Criteria and USEPA concurs. The USEPA Criteria are contained in 40 CFR 220-229.

Figure 1 illustrates the geographical jurisdiction of the CWA and the MPRSA. As shown in this figure, there is an overlap of jurisdiction within the territorial sea. Dredged material proposed for disposal in the territorial sea is regulated under MPRSA. Dredged material discharged as fill (e.g., beach nourishment,

Click HERE for graphic.

island creation, or underwater structures) in the territorial sea is regulated under the CWA.

Other Statutes. A number of additional Federal statutes may affect the management of dredged material. The National Environmental Policy Act (NEPA) requires that Federal officials consider the environmental consequences of major Federal actions (e.g., proposals, permits, and legislation), that alternative approaches including no action be considered, and that the public be allowed to review and comment on analyses of alternatives and environmental consequences. USEPA is directed to review and comment on other agencies analysis of environmental consequences and to determine if such analysis is satisfactory. The consideration of alternatives conducted under NEPA is similar to requirements under the MPRSA and CWA to demonstrate a need for the disposal; a single, comprehensive needs/alternatives analysis can satisfy these statutes.

Dredged material projects and USEPA regulations and site designations require review by, and possibly more thorough consultation with, other Federal agencies under several conservation-related laws, including the Fish and Wildlife Coordination Act (FWCA), the Endangered Species Act (ESA), and the National Historic Preservation Act (NHPA). These acts as well as the Coastal Zone Management Act (CZMA) and section 401 of the CWA provide states with authorities to play a role in dredged material management. It is also possible for certain projects that solid-waste and hazardous-waste laws could affect dredged material management. Such laws could include the Toxic Substances Control Act (TSCA; affecting dredged material contaminated with PCBs greater than 50 parts per million), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Resource Conservation and Recovery Act (RCRA), the Clean Vessel Act (CVA), and the Shore Protection Act (SPA).

28

Regulation and Guidance Development

As part of their dredged material management program responsibilities, the USEPA and USACE develop regulations and guidance to assist each agency's field offices in implementing the program. This section describes a number of existing program guidance documents and several regulation revisions and additional guidance currently under development.

Existing Guidance

Framework for Evaluating Dredged Material Management Alternatives. In November 1992, the USEPA and USACE jointly issued the guidance document entitled, "Evaluating the Environmental Effects of Dredged Material Management Alternatives A Technical Framework," also known as the Framework Document (USEPA/USACE, 1992). This document describes a consistent technical framework for evaluating dredged material management alternatives under the CWA, MPRSA, and NEPA. The Framework Document addresses a broad range of dredged material, both clean and contaminated, and the broad array of management alternatives: confined (diked intertidal and upland) disposal, open-water (aquatic) disposal, and beneficial-use applications. Application of the Framework Document will allow for consistency in decision-making across statutory boundaries and consideration of the full continuum of dredged material management options.

Dredged Material Testing Materials. The evaluation of potential environmental effects of dredged material disposal into the aquatic environment relies heavily on biological effects-based testing. In the ocean dumping program, guidance on performing biological and other necessary tests is contained in the Ocean Dumping Testing Manual, also known as the Green Book (USEPA/USACE, 1991). This manual was last revised in 1991 and will be updated as the state-of-the-science advances. Testing guidance for disposal into CWA jurisdiction is being developed. A joint USEPA/USACE work group has completed a draft manual, which has been submitted to USEPA's Science Advisory Board for review. After the SAB's comments are addressed, the guidance will become available for public review, sometime in the spring of 1994. The USEPA and USACE are also developing detailed guidance on performing quality assurance/quality control procedures during dredged material testing.

Ocean Dump Site Designation Guidance. The "Ocean Dumping Site Designation Delegation Handbook for Dredged Material" (USEPA, 1986) compiles and summarizes existing literature, documents and agency policies pertinent to site designation and management. This guidance is built on a joint USEPA/USACE document published in 1984 (USEPA/USACE, 1984).

Under Development

Ocean Dumping Regulation Revision. With the passage of the Ocean Dumping Ban Act and the end of sewage sludge and industrial waste dumping, activities to revise the ocean dumping regulations will focus on dredged material. The revisions will clarify and update the regulations to reflect scientific and program experience and statutory changes, including enactment of the Water Resources Development Act of 1992 (WRDA 1992). WRDA 1992 amended the MPRSA to

require the development of ocean disposal site management plan, written EPA concurrence on dredged material ocean dumping permits, and limited permit durations. The revisions are being prepared by an Agency workgroup and a proposal in the Federal Register is expected in late 1994.

Clean Water Act Regulation Revision. The USEPA is developing a regulation revision to the 404(b)(1) Guidelines to change the point of comparison for dredged material evaluations from the disposal site to an off-site reference sediment. This technical change is intended to make the CWA dredged material program more consistent with the MPRSA program.

Ocean Dump Site Management Guidance. The USEPA is developing guidance for designating, managing and monitoring ocean disposal sites. This guidance will discuss policies, procedures and responsibilities for the management of ocean dredged material disposal sites. After producing a draft document, the USEPA will work with the USACE to transform it into joint-agency guidance.

EPA's Dioxin Reassessment. In April 1991, USEPA began a scientific reassessment of the risk of 2,3,7,8-tetrachlorodibenzo-p-dioxin ("Dioxin"), and similar chemicals, to human health and the environment. During this reassessment, USEPA continues to make decisions regarding the risk of dioxin to human health based on policies developed prior to initiating the reassessment. Because there were very few previous studies about ecological risks of dioxin, emerging information will be used in programs as it is published by the Agency. In March 1993, an interim report on the risk of dioxins to aquatic life and associated wildlife was released (USEPA, 1993). The review of the human-health risks of dioxin is being conducted in a highly open, peer-

reviewed process. A draft human-health reassessment will be available for public review in the Spring of 1994.

Dioxin in Dredged Material Guidance. Pending the overall USEPA dioxin reassessment, the USEPA and USACE dredged material program offices agreed to develop dredged material decision-making guidance using the best available analytical techniques and interpretive guidance. The guidance will address:
how to evaluate ecological and human-health effects of multiple-congener contamination; how to identify appropriate detection limits for sediment, water and tissue; how to conduct site-specific exposure assessments; how to manage disposal (including monitoring) to minimize environmental impacts within the limits of applicable regulations; and how to communicate testing requirements and results to fully inform the public and avoid unnecessary permitting delays. A draft of this guidance is expected to be available for public review in the Spring of 1994.

Contaminated Sediment Management Strategy. The USEPA is completing work on a strategy for managing contaminated sediments. This strategy is intended to enhance coordination and consistency among Agency programs when dealing with contaminated sediment. Program areas addressed in the strategy include assessment, prevention, remediation, and dredged material management. Activities the Agency will conduct as part of strategy implementation include conducting a survey of contaminated sediment sites and developing consistent sediment assessment techniques. The strategy is expected to be published in the Federal Register for public review and comment in the Spring of 1994.

Sediment Quality Criteria. USEPA is developing Sediment Quality Criteria (SQC) based on the Equilibrium Partitioning Approach (Eq-P) for non-ionic organic chemicals. On January 18, 1994, the first five chemicals were published in the Federal

Register for public review. These chemicals are: endrin, dieldrin, acenapthene, fluoranthene, and phenanthrene. The Agency expects to issue approximately three additional SQC per year. Research is continuing on developing SQC of metals and polar-organic chemicals. The use of SQC has not been finalized for the dredged material management program; however, the preamble to the proposed ocean dumping regulation revisions will discuss potential options for the use of sediment quality criteria in the ocean dumping program and seek public comment on this issue.

Contaminated Sediment Treatment. There are two programs in USEPA developing innovative methods to decontaminate sediments: the Superfund Innovative Technology Evaluation (SITE) demonstration program; and, the Assessment and Remediation of Contaminated Sediments (ARCS) program in the Great Lakes. Both programs have increased substantially the state-of-knowledge of decontamination technology and its utility in remediation programs. The WRDA 1992 directed the USEPA and USACE to conduct a demonstration project for remediating dioxin contaminated dredged material from New York Harbor; promising technologies from the SITE and ARCS programs will be reviewed and used, as appropriate.

Contaminated Sediment Capping Guidance. In 1994, the USEPA and USACE will begin to develop technical guidance on designing capping projects. Capping is the engineered placement of contaminated dredged material at an open-water disposal site, followed by a covering or cap of clean isolating material. The document will include guidance on selecting a site, designing a cap, and operational and monitoring requirements.

Beneficial uses of Dredged Material Guidance. The USEPA is planning to develop a manual describing implementation strategies for beneficially using dredged material. The manual will discuss recent statutory changes that will allow greater opportunities for beneficial-use projects. A key aspect of the guidance will relate to developing public/private partnerships.

Research and Development Activities. The USEPA, in coordination with the USACE, continues to conduct research and development activities in assessing the effects of contaminated sediment. Ongoing activities include developing chronic bioassay and interpretive guidance for bioaccumulation testing.

Coordination

Because the governing statutes have established shared responsibility between the USEPA and USACE, the success of the dredged material management program is directly contingent on the effective coordination and cooperation between these two agencies. The USEPA and the USACE have developed a number of means for agency coordination including, as described above, the preparation of joint guidance documents. Joint training and a joint Ocean Dumping Coordinating Committee are other mechanisms the two agencies use to assure that the program is consistently administered around the country.

To say that the realm of coordination is solely between the USEPA and the USACE would be incomplete. Within the USEPA, there is substantial coordination between the CWA and MPRSA programs. Likewise, considerable coordination takes place between USEPA headquarters and Regional field offices. All of this is done to ensure that dredged material aquatic

disposal sites are managed in a consistent manner whether they are in the deep ocean, an estuary, or a river, or used by one project or many. While this section discusses coordination within, and between, the USEPA and the USACE, it must be understood that other agencies and the public have important roles in decision-making.

Closing Thoughts

The USEPA and USACE have worked hard over the last few years to ensure that dredged material disposal is environmentally acceptable and to make the dredged material management program more consistent and predictable for the regulated community and the public. Ongoing and planned activities of the two agencies will continue progress towards these important objectives. The challenge ahead for the USEPA and the entire dredged material management community is to incorporate the program into the emerging watershed protection and ecosystem management approaches and to harmonize what we do in these programs with the larger goals and principles of sustainable development.

References

USEPA, 1986. "Ocean Dumping Site Designation Delegation Handbook for Dredged Material," September 1986, US Environmental Protection Agency, Washington DC 20460.
USEPA/USACE, 1991. "Evaluation of Dredged Material Proposed for Ocean Disposal - Testing Manual," US Environmental Protection Agency and US Army Corps of Engineers, Washington, DC.
USEPA/USACE, 1992. "Evaluating Environmental Effects of Dredged Material Management Alternatives A Technical Framework," November 1992, EPA842-B-92-008, US Environmental Protection Agency and US Army Corps of Engineers, Washington, DC.
USEPA, 1992. "Interim Report on Data and Methods for Assessment of 2,3,7,8-Tetrachlorodibenzo-p-dioxin Risk to Aquatic life and Associated Wildlife," March 1993, EPA/600/R-93/055, Office of Research and Development, US Environmental Protection Agency, Washington, DC 20460.

REGULATOR'S PERSPECTIVE -- U.S. FISH AND WILDLIFE SERVICE

Michael Spear, Assistant Director of Ecological Services
U.S. Fish and Wildlife Service

Fish and Wildlife Service's name has been mentioned a couple of times this morning. These sorts of critical references, I believe, are, in the long run, positive to bring concerns out into the open and promote the kind of spirited discussion we will have here this morning.

To get started, my staff asked me to remind you all very clearly that Fish and Wildlife Service is not a regulator. I am not sure that will work. Technically, they are right. I guess to a lot of you, it probably does not make any difference. The impact and input Fish and Wildlife has into the 404 process through the Fish and Wildlife Coordination Act, while they are not officially a regulator, is through our comments that are being seriously considered by the Corps of Engineers. Therefore, we have some impact on the ultimate decision. The resources for which we serve as trust overseers of the United States are migratory birds and

certain species of fishes, etc. In the Endangered Species Act arena, we are technically not a regulator either, because we provide opinions to other federal agencies. Yet again, because of the stringency of the act, those opinions are almost always taken and considered very thoroughly. I think compliance with those opinions is very high and therefore, for your purposes, we become a regulator. So ! have to, I think, admit to that role.

What I would like to do this morning is just quickly review how we impact on the navigation processes. I have some familiarity with some of the issues brought up earlier, particularly the Port of Houston, since I was the Regional Director in Albuquerque throughout most of the 1980s. When those controversies arose in the mid-eighties I also played a minor role towards some of the solutions that are being looked at now.

Fish and Wildlife operates through some 60 field stations throughout the country. Many of those are concentrated in Port Areas. We have delegated those field station supervisors great authority and responsibility to comment on permit type applications dealing with Ports, or project development of the Corps. Also, they may write biological opinions with the exception that jeopardy opinions, where a species may be jeopardized, must be signed by the regional director. Other than that, there is very strong reliance on our field offices. They have the responsibility to not only produce reports, but also to work cooperatively with local authorities: local, state, and federal levels. I have to admit that it is difficult for them to do this with the number of permits they review. Basically, every permit the Corps issues, or a great majority of them, get reviewed, to some extent, by our people. Therefore, the work load can be very hectic in some of those offices.

In the Port review process, we have to say that we certainly agree that the process is not perfect. We also have to say that we do not necessarily think that there is anything inherently in the process that means that it could not work. I like the term used earlier by one of the speakers that it clearly needed to be managed. I think the process, in terms of timeliness, in terms of bringing people together, could benefit from management strategies.

So, I am going to step through some suggestions for the Fish and Wildlife Service as it has room for improvement. These are what I would call the standard ones, in the sense that we are trying to improve the training of our staff, both in terms of their understanding of their responsibilities and authorities. Also, these are what I call people skills, that are so critical to problem solving these days. That is the ability to form teams at the local levels, work through problems and to arrive at solutions in timely ways.

The central dilemmas, that I think, are ones that have to be addressed right up front. You have two classes of issues: 1) New port development and frequently that may mean deepening existing channels; 2) There is the separate issue of maintenance dredging.

Speaking of the first issue, the deeper channel issues, is clearly the driving force behind the problems in Houston. One of the fundamental questions that I think that we, as a nation, have not asked or dealt with in the restrained budgetary climate we are in now, is the fact that the federal government is paying a big hunk of these costs. Allocating public dollars should relate to some national view of how many deep channel ports we want and where. We certainly faced that issue in Texas. As you look down there and decided that a very central problem right up front was, "Does everybody that wants a deeper channel get one?" Of course, from the Ports point of view, this is not an issue your community is anxious to deal with. But from the federal government budget perspective, I hope that as we study this issue, we insure that there is some examination of financial benefits. There may be a decision not to bring it up, but

it ought to be looked at clearly. If for no other reason than from the budgetary perspective. Every time you make a decision to deepen, then you have to make the ancillary decisions of where to put the extra materials.

Look at all the other decisions that flow from that. An obvious benefit is the increased traffic. But there are also the obvious regulatory aspects. I think one value to that kind of scrutiny, and some national decision making on the nature of our national port systems is that, when you get it all done, you have good national policy. It is a lot easier for federal regulators to dive into a problem and try to solve it once they know that some of the base issues have been addressed. There is a real national need to evaluate all of the proposals for improvement.

After that is settled, our first suggestion quickly goes to what the Port of Houston is doing now. We believe it should be done at the very early stages and that is sitting down with the constituencies. And that means all the constituencies. Recognizing that the kinds of decisions and environmental problems that are caused from new ports affects a great deal of the environmental resources that the Fish and Wildlife Service is responsible for. Get the interested people to the table early on and sit down and find out: what are the issues, what are the problems. Form the teams to begin working on them. I hope that is the long run impacts of things like national estuary plans, which we are a participant in Galveston, will mean that effective alliances will be formed early and can be relied upon to assist in the things like port improvements and maintenance. When a port authority comes to the table with a solution they have worked on for years, and just present it, then it makes it very difficult to appear to want input at late stages of project development. Some of the intransigence is already built in, and to some extent, on both sides. Perceptions of ritual intransigencies makes it more difficult to work cooperatively toward problem solutions.

The various approval process should be coordinated, with states as well as the federal sectors. We should, without a doubt, remove as much of the sequential decision making and make things run concurrently. And then, to a great extent, we ought to look at the advanced identification aspects, whether it is under the EPA's authorities or under 4404B1 guidelines and find advanced sites for dredge material disposal.

Disposing of dredged material is clearly the root of the problem. We do need sites for disposal. Just as we need to work together to look at the overall project developments, we must be working together early on to designate the sites well in advance and to identify appropriate disposal methods, and disposal sites with sufficient long-run capacity. Fish and Wildlife Service would very much like to deal with some of these disposal site issues as few times as possible. When somebody comes to us with a project, we suspect that they are not the only people going to be using the local disposal site. If they are allowed to fill it themselves over a period of time, then we frequently are in the position of asking the question, "Why don't we find the sites that everybody can use, wants, instead of everybody coming and trying to find their own sites." A lot more coordination is needed there.

Regarding contaminated dredge materials, there is no reason to expect that these problems or issues are going to go away quickly. The more we learn, as a society, not just Fish and Wildlife Service, about the long-term chronic impacts from contaminants, the

more reason there is for concern. While zero tolerances may be a trifle low, I think what we are learning is that the tolerances for some of these contaminants are going to continue to be low. We might as well expect that. We are going to have to find the methods to deal with them.

To conclude my remarks, two things I will stress again. The first is early planning, early sitting down with a community, the community at large. I commend the Port of Houston for the sort of work that is going on down there. Second, which is the key, focusing on the disposal site issues. We must find sites and develop methods that will allow them to be used for a long period of time.

REGULATOR'S PERSPECTIVE -- NATIONAL MARINE FISHERIES SERVICE

Nancy M. Foster, Deputy Assistant Administrator National Marine Fisheries Service

I am pleased to be able to share the views of the National Marine Fisheries Service (NMFS) on issues related to the regulatory process for maintaining the nation's ports and waterways. Most of you are probably familiar with NMFS and know that it is part of the Department of Commerce's National Oceanic and Atmospheric Administration (NOAA). As the nation's lead agency for the conservation and management of fishery resources in the U. S. Exclusive Economic Zone, NMFS must seek to balance the importance of economically viable fishing industry with the need to use the marine environment for a number of equally important, but at times conflicting, or threatening, uses. We also have responsibilities for protecting marine mammals, certain endangered species, and habitats for all living marine resources. From our standpoint, an effective regulatory process is critical to the long-term health of living marine resources, their associated habitats and other NOAA trust resources. Today I want to briefly outline MFS' regulatory responsibilities, describe some actions we are taking, and offer a few recommendations for improvements to the existing system.

Over the last two decades NMFS has changed its focus from almost exclusively one of assessment and optimum utilization of fishery stocks to that of steward for living marine resources and their habitats. As the human population in general, and coastal populations in particular, continues to expand, the effects of human activities on coastal and oceanic resources have escalated dramatically. For example, landings in a number of key species have fallen to such an extent that those fisheries are no longer economically viable, coastal wetlands losses continue to mount, marine mammal populations are declining, nearshore pollution has become a chronic problem in many areas, and more and more marine, coastal and anadromous fish species are being considered for listing as endangered or threatened.

Dredging and dredged material disposal are not the only uses of the marine environment that affect NMFS trust resources, and they certainly cannot be identified as the sole cause of the serious declines in many living marine resource. populations we have seen, and expect to continue. Yet increasingly greater attention is being focused on dredging projects by NMFS and other federal, state and local governmental agencies. In part, this is because of their highly visible nature, which can engender a great amount of controversy. Even more so it is because of the increasingly more rigorous levels of regulatory oversight and management required, as thresholds used for determining sediment

contamination change due to improvements in analytical methods and a better understanding of environmental effects on marine species and habitats.

The regulatory process can provide for increased environmental protection, but often it seems to many in the debate that it results only in further polarization, lengthy delays, and increased costs for individual projects. NMFS recognizes the importance of functioning, well-maintained, modern ports both for national economic security as well as for the benefit of the fishing industry itself. We believe that the environmental regulatory process can be improved considerably, for both those regulated and for the environment. Improvements in a number of areas would result in more predictable, environmentally-sound decision-making and would allow NMFS to contribute more effectively and efficiently.

Statutory Responsibilities

NOAA operates under several consultative and regulatory legislative authorities to address human activities that may affect its trust resources. These laws are not specific to port and waterway dredging and associated dredged material disposal. They allow NMFS to review numerous individual proposals, including dredge and fill permits, hydroelectric projects, offshore oil, gas and mineral development, ocean dumping, water diversion and impoundments, energy facility siting, effluent discharges, and alteration of wetlands to name a few. The authorities that allow NMFS involvement in the review of dredging or disposal projects are described below.

NMFS is most often recognized for its fisheries mission, which is the largest element of all our living marine resource programs. The United States commercial fishing industry provides well over 100,000 jobs and in 1992 produced a record 9.6 billion pounds of commercial landings at U. S. ports, a harvest valued at $3.7 billion. The commercial marine fishery industry

contributed $18.5 billion in value added to the gross national product. In addition, 17 million anglers enjoy saltwater fishing each year. The economic activity, including multiplier impacts, associated with marine recreational fishing in 1985 was estimated at $13.5 billion. Understandably, the effects of dredging and disposal activities on the long-term preservation of fishery resources is of great concern to us.

The Magnuson Fishery Conservation and Management Act, in addition to the development and implementation of fishery management regulations, provides for the involvement of regional fishery management councils in habitat matters. These councils are becoming more concerned about conserving fishery habitats to help ensure the optimum sustained use of these resources. While under the present Magnuson Act each council can comment on and make recommendations concerning activities affecting habitats of fishery resources under its jurisdiction, this reactive capability is seldom used. A more forward-looking approach is needed. We are working with the councils and others to augment the habitat protection provisions of the Magnuson Act during its reauthorization in this Congress. In testimony before the Senate Committee on Commerce, Science and Transportation, NOAA proposed that the regional fishery management councils formally identify marine and estuarine fish habitats that are essential to obtaining optimum fishery yields. This would allow other Federal agencies to

consider these important areas in permitting and Federal water resource project decisions. The strengthening of existing fishery habitat protection provisions are also being proposed by industry and environmental groups involved in the reauthorization process.

NMFS also has specific regulatory authority to protect living marine resources and habitats under the Endangered Species Act (ESA) and the Marine Mammal Protection Act. Both of these statutes recognize the importance of maintaining healthy ecosystems for these resources. The latter states that marine mammals are resources of great international significance, aesthetically, recreationally, as well as economically, and should be protected and encouraged to develop to the greatest extent feasible commensurate with sound policies of resource management, and that the primary objective of their management should be to maintain the health and stability of the marine ecosystem.

The ESA provides protection to species that are listed under it as threatened or endangered. As part of this protection, ESA §7 requires federal agencies to use their authorities in furtherance of its purposes by carrying out programs for the conservation of listed species. This section also requires federal agencies to consult with NMFS on activities they permit, fund or conduct that may affect marine species listed as threatened or endangered. For major projects, the action agency submits a biological assessment that describes the activity and discusses all potential effects to endangered and threatened species and their habitats. NMFS reviews the biological assessment and the best available scientific and commercial data and prepares a biological opinion on the effects of the proposed activity. Biological opinions represent our position regarding whether proposed actions are likely to jeopardize the continued existence of listed species. The opinion usually includes conservation recommendations reduce the impacts of the action agency's activities and promote the recovery of listed species as guided by recovery plans when available. The §7 consultation process is open-ended and can be reinitiated if new information becomes available on the project or listed species that changes the basis for the original consultation.

Unfortunately, the ESA has become the final line of defense in the preservation of more and more species in both the terrestrial and aquatic environments. I say this is unfortunate because species receive its protection only after all other conservation and management efforts have failed to protect individual species and their habitats. In NMFS, and we are not unique, the requirements of more endangered species actions demands that fixed resources be reallocated, usually at the expense of longer-ranged, and ultimately less disruptive, protective methods. With the establishment of the NMFS Office of Habitat Protection in 1992, we have placed even greater emphasis on broader protection efforts to avoid relegating species and habitat to the "last chance" of ESA.

NMFS primary habitat protection authorities are derived from the Fish and Wildlife Coordination Act and the National Environmental Policy Act. These laws charge NMFS with protecting the habitats of all living marine resources and provide a formal advisory role to assist Federal agencies in decisions regarding licenses, permits and other actions involving dredging, including those made under §404 of the Clean Water Act and §10 of the Rivers and Harbors Act. While permitting and federal water resource prect constructing agencies are not required to adopt NMFS recommendations, I believe we have achieved a measure of success through our involvement in the regulatory process. By working with potential applicants and federal constructing agencies early in the federal process, NMFS staff have been able to have key habitat concerns identified and addressed sooner, thereby saving the applicant or federal constructing agency time and expense, Our ability to

provide high-quality scientific advice for habitat conservation has led to an increased awareness of living marine resources within state and federal permitting and water resource constructing agencies, as well as other stakeholders in the regulatory process.

These species and habitat protection authorities are exercised primarily through the five NMFS regional offices. Under the habitat protection authority there are provisions for elevating specific permits or proposed Federal water resource projects to headquarters in cases where NMFS recommendations are not accepted at the field level, but the preferred avenue is to have our recommendations incorporated into the federal decision-making process at the field level.

In addition to the authorities specific to NMFS, NOAA has other statutory responsibilities that may affect dredging and dredged material disposal activities. Under the Coastal Zone Management Act, NOAA reviews and approves state coastal management plans. The twenty-nine states with federally-approved plans have the authority to determine whether a proposed federal activity is consistent with its coastal plan. Title III of the Marine Protection, Research and Sanctuaries Act authorizes NOAA to designated manage marine sanctuaries for the long-term protection of nationally significant marine areas. In recent years both the number and the size of individual sanctuaries has grown considerably, in recognition of that program's potential to protect marine areas on an ecosystem basis. Finally, under the Comprehensive Environmental Response, Compensation, and Liability Act, NOAA is authorized to provide scientific support for the response to and assessment of injuries from discharges of hazardous materials to the marine environment. NOAA can also seek damages for these injuries to its trust resources and use recovered funds for restoration purposes.

General Dredging Recommendations

I believe improvements to the current environmental regulatory process alone will not eliminate the friction identified with dredging and dredged material disposal activities. A more comprehensive examination of all the issues associated with these activities must be undertaken. The following recommendations encompass broad areas that look at issues beyond the purview of NMFS, or the other regulatory and resource agencies represented here today. In addition to addressing dredging and disposal activity, some would also benefit our involvement in other activities affecting the marine environment.

- We must bring the assessment and management of dredging and dredged material disposal activities into the nineties and take advantage of the thinking that has been done to address other environmental issues. Concepts such as the "ecosystem approach" and "advanced planning," articulated in the Administration's recent wetlands policy, need to be used in the development of new dredging programs and the evaluation of existing projects.
- We must ensure that there is adequate information on which to base decisions. Appropriate studies should be undertaken where there is insufficient scientific information.
- We must consider the development of stricter regional and national criteria for the economic analysis of the necessity

for port and waterway dredging to differentiate between real and perceived needs. This is an area where I believe the ongoing interagency effort Maritime Administration (MARAD) is conducting should play a major role.

- We must place greater emphasis on prevention of sedimentation and contamination at their sources.
- We must develop mechanisms to improve coordination, particularly in the early stages of a proposed project, between governmental and non-governmental parties involved in dredging. Again, I see the MARAD interagency effort as important here.
- We must support the additional research needed to increase knowledge of the function of undisturbed ecosystems and habitats, the response of living marine resources to dredging and disposal activities, and the refinement of models to predict short- and long-term outcomes of habitat alterations and other effects of dredging operations.
- We must accelerate the development and adoption of standard testing guidelines and recognize that agreement on criteria for defining sediment contamination is essential to provide predictability in the permitting process. This must be a priority in any efforts to improve the regulatory process. The work of the joint EPA/COE task group on management of dioxin contaminated dredged material should contribute significantly in this regard.
- We must ensure that analysis of disposal alternatives look beyond the short-term economic considerations of project costs and include less environmentally-damaging and even beneficial options, such as restoration. Changes to the existing cost sharing or funding policies should be examined to encourage these options. Demonstration projects to determine the feasibility of emerging technologies for dredged material treatment and disposal should be considered for incorporation into new dredging permits.

36

- We must see that resources to meet the requirements of the regulatory process are commensurate with the expectations of the regulated industries, as well as other parties affected by dredging operations. Since this is even more unrealistic today than in previous budgetary times, the common goal of all these recommendations should be to reduce the demands on the regulatory process and avoid the time required to carry it out.

In closing, I would like to emphasize that the overriding NMFS mission to provide for the long-term, sustainable use of our nation's living marine resources requires that we must continually look for new approaches to deal with the increasing pressures human activities are placing on these resources. I believe this session is a good example of how groups representing different interests can come together to address common needs. Thank you for the opportunity to present our views.

37

ENVIRONMENTAL COMMUNITY RESPONSE

Sally Ann Lentz, Co-Executive Director and General Counsel Ocean Advocates

Introduction

My comments today will focus on whether the current environmental regulatory process works for permitting dredging operations and disposal of dredged material. From an environmental perspective the issue is whether the regulatory process adequately protects the marine and coastal environment. The simple answer to that question is that the process does not provide adequate protection.

The Problem of Contaminated Sediments

The problem from an environmental perspective is one of contaminated sediments and what to do about them. In 1989 the National Research Council found that contaminated sediments are widespread in U.S. coastal waters and are documented in 63 waterways. The International Joint Commission has identified sediments as a major problem in 42 Great Lakes ports. EPA has concluded that it is likely that every major water body in the nation has moderate to severe sediments contamination.

The environmental community recognizes the nation's economic need to keep American ports competitive in the world market by maintaining navigation channels. However, of equal concern, is the fact that dredging and disposal of contaminated sediments poses serious environmental and human health problems.

It is well recognized by the scientific community that even low-level exposure to some sediments and persistent toxic chemicals like PCBs, Dioxin and mercury:

- Threaten newborn children with premature birth, low birth weights, and impaired learning loss of up to 5 IQ points;
- Cause thousands of cancers in both fishing and non-fishing populations in the Great Lakes Basin;
- Cause birth defects, sterility and population decline in fish and wildlife, including bald eagle, lake trout, cormorants and mink;
- May cause breast cancer in American women and prostate cancer which is on the rise in American men;
- Make lake trout, salmon, and other species unsafe to eat in all of the Great Lakes because they can cause health problems and increase cancer risks;
- Concentrate in the microlayer or "surface skin" of the marine environment, exposing species at the base of the food web to toxic levels orders of magnitude greater than what is measured in other parts of the water column; and
- Persist in marine, coastal and Great Lakes ecosystems, concentrating in and damaging humans and wildlife for decades.

Exposure of marine organisms to contaminated sediments occurs on a continual basis in our harbors and ports. That accounts for the prevalence of "dead zones" in these areas. Such exposure is increased and expanded by dredging operations themselves. Current dredging practices "stir up" sediments so as to increase turbidity. Increased levels of contaminants dissolve in the water where the sediments are stirred up, and predators such as fish and birds feed on contaminated infaunal organisms in suspension in the water column. Similar exposure to contaminants at ocean dumpsites occurs during disposal of the dredged material, as well as in its aftermath.

Clearly, environmental regulation has not worked to prevent contamination of sediments. Nor has it worked to properly manage

those sediments once they are created. Too often the regulatory process associated with dredging activities has ignored legitimate public input and necessary environmental protection, resulting in an unacceptable risk to the marine, coastal and Great Lakes environments, and to the wildlife and humans who depend upon them.

Ultimately what is needed is a comprehensive national program to decontaminate toxic sediments in our ports and on our coastlines, and to prevent re-contamination of those areas by ending upstream sources of pollution.

Environmental Safeguards Under the Current Regulatory Regime

The procedure as it currently stands, while admittedly flawed, is intended to ensure that all relevant statutory

mandates are accounted for. Issuance of a dredging permit typically requires issuance of a permit under Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (MPRSA) or Section 404 of the Clean Water Act (CWA). Section 103 of MPRSA regulates the disposal of dredged material into ocean waters. An ocean disposal permit may be issued under the statute only if the disposal will not unreasonably degrade or endanger human health, welfare, or amenities, or the marine environment, ecological systems, or economic potentialities. Section 404 of the CWA regulates the discharge of dredged or fill material into navigable waters of the United States. A 404 permit may be issued only if such discharge will not have an unacceptable adverse impact on the aquatic environment. Any changes to the regulatory process must not compromise, but rather strengthen these basic principles.

The determinations of environmental acceptability under the CWA and MPRSA require analyses which necessarily take time to complete. Analyses of environmental effects under MPRSA have been somewhat strengthened over the past few years with the introduction of the so-called "Green Book." Recent implementation of Green Book standards has resulted in the rejection of large volumes of dredged material for ocean dumping. We believe the recent dramatic increase of concern about regulatory gridlock in this context is driven, in part, by those who are unhappy with implementation of the Green Book criteria and who wish to institute a procedure which will effectively circumvent the limitations of the Green Book.

Flaws in the Green Book Methodology and Its Application

Indeed, the Green Book methodology--although an improvement on past procedure--provides a weak substitute for a scientifically valid analysis of environmental impact, and, in practice, is routinely distorted or ignored to reach a desired result--i.e., issuance of a dredging and disposal permit.

The Purpose of the Green Book

The revised Green Book (or Testing Manual for the Evaluation of Dredged Material Proposed for Ocean Disposal) was developed by the Army Corps of Engineers (COE) and the Environmental Protection Agency (EPA) to provide guidance in determining whether dredged sediments proposed for ocean disposal should be granted a permit under MPRSA. The manual is meant to implement assessments required by the regulations in CFR 220-228, which set the criteria for ocean disposal of dredged materials. The Green Book does not set criteria

nor does it lead to permission or rejection of the tested sediments for ocean disposal. It does provide a system of analysis which is meant to provide information that can then be used in the determination of whether a dumping permit should be granted.

While the 1991 revision does represent an improvement over the old Green Book, it falls short of providing testing procedures that will resolve all the critical questions about the likely impacts of the sediments upon the marine environment. The COE and EPA claim that it includes state-of-the-art assessments and that it is not at this time possible to do assessments that will answer all of those questions. In other words, when the procedure outlined in the Green Book has been followed, we will invariably be left with much scientific uncertainty about some of the important potential impacts of dumping the subject sediments.

It is this scientific uncertainty that invariably results in disagreements and confrontations between those who wish the dredging to be done (and done expeditiously) and those who are concerned that the proposed dredging and disposal of sediments will cause additional environmental harm (beyond that already done by contaminated sediments where they lie).

Prior to the revision of the Green Book in 1991, virtually all proposed dredging and disposal projects were granted permits on the grounds that the sediments were determined to be "clean" under the guidance of the old Green Book. Despite the clean bills of health, evidence mounted that contaminated sediments at many sites of dredging and at the disposal sites for the dredged spoils were severely degrading the environment and causing serious damage to the living marine communities in those areas. Fisheries in many of these areas have been threatened by a number of factors including, pollution from land, pollution from dumping, resulting degraded food chains, and overfishing. Even where fish populations may still offer viable fisheries, the contamination levels in the fish tissue threaten to close the fisheries.

As it has become more and more apparent that contaminated sediments were both a symptom and a cause of environmental degradation, there has been a call by national and grassroots citizens organizations for more reliable assessments of contamination in sediments so that better decisions can be made about whether to allow dredging and disposal of the sediments in the marine environment and whether clean up efforts should be implemented. The revision of the Green Book is one

step the government has taken to try to improve the assessments, and the current revision of the regulations is another important step.

Strengths and Weaknesses of the Green Book

The revised Green Book methodology is touted by its authors as being a great improvement over prior methodology because:

1. It incorporates the "tiered approach" so beloved by governmental agencies involved in assessing environmental impacts because of its money-saving attributes;
2. The specifications for the "reference sample" have been changed so that the biological tests must compare the impacts of the test sediments to the impact of clean natural sediments instead of to the dump-site sediments (which may be quite contaminated)

used in the preceding manual;

3. More sensitive toxicity bioassays (in particular those using the amphipod species) have been developed and may be (but do not have to be) selected among the bioassays required by the regulations;

4. The bioavailability of contaminants in the sediments is considered;

5. The potential for bioaccumulatlon is determined by bioassays run for a longer period of time than in the past; and

6. Wherever assumptions are made, the authors feel they have made the most conservative assumptions.

We agree that some of these changes represent improvements to the ability to assess the potential impacts of contaminated sediments upon the environment where they are to be dumped. However, there are still serious deficiencies in the assessments that are made, and there is important information that is not collected in the process. Each of these changes deserves discussion.

Use of the Tiered Approach

The tiered approach is not a problem if those who are making the decision as to whether to approve a dumping permit are indeed motivated to have the most complete information possible to guide a decision which is based upon impact to the environment. However, without that motivation, the tiered approach allows certain data to be ignored or "adjusted," or steps to be skipped entirely, and arbitrary judgements to be made on the basis of inconclusive information. The direction of error in those judgements may be politically or economically motivated, which is not the intent of the MPRSA.

EXAMPLE 1: In the case of the permit request for disposal of dredged materials from two Navy facilities in Oakland at a dump site 50 miles offshore of San Francisco Bay, an arbitrary decision was made to ignore existing laboratory evidence that contaminants from dredged materials will concentrate at high levels in the microlayer and not to assess the potential for such concentrations to exceed Water Quality Criteria in the case of the dredged materials in question.

EXAMPLE 2: In the case of a permit request for disposal of dredged material from Newark Harbor at the Mud Dump Site, 6 miles offshore of New York, the applicable dioxin standards were arbitrarily changed several times. Eventually it was decided that dioxin from the sediments would not exceed the standards, and a permit was granted.

Reference Samples

The new requirements for the "reference sample" are certainly an improvement over using a reference sample from a potentially highly contaminated dump site. However, there are difficulties with using the prescribed reference sample as the sole reference. While the old method assessed only the difference between the impact of on-site sediments to the impact of the sediments to be dumped (a difference which might be minimal if both sediments are badly contaminated), the new method allows only the assessment of the impact of the dredged sediments upon a pristine and healthy environment. This is certainly one piece of the needed information, but it neglects the need to assess the additive effects that might be expected from adding the dredged sediments to an already degraded ecosystem. Furthermore, the reference sample may affect

the growth of test organisms in inexplicable ways, especially if the test organisms are characteristic of a different kind of environment than that in which the reference sample sediments lie. The result may be depression of test organism growth by both the reference sample and the dredged sediments but for entirely different reasons (see Example). This difficulty highlights the deficiencies in using laboratory bioassays on a few species to determine the likely effects of a material upon a whole community of different species in the field.

EXAMPLE: in the Oakland example cited above, the amphipod toxicity bioassay demonstrated a reduction

in amphipod survival in test sediments of 11 to 44% below the control (a majority were depressed by 20% or more), while the survival in the reference sample was depressed by nearly 30%. For those tests, the difference between reference and test sediments was considered significant only if greater than 20% (even though the Green Book specifies 10%), so all but one sampling site was determined to be safe to marine life as represented by the amphipod. Since acute toxicity (i.e. instant death) is a very extreme reaction, a death rate of 30-40% of the population should be cause for concern. It appears that the Green Book guidelines were distorted until the outcome could be said to be trivial so as to achieve the goal of permit approval, rather than to protect the environment. In this way the Green Book guidance to ensure environmental protection became ineffective.

Toxicity Tests

The increased sensitivity of some of the toxicity tests is perhaps the most significant change in the revised Green Book. Application of the amphipod test is causing significant obstacles for ports with contaminated sediments. For the first time, many dredged sediments are failing the tests to determine their acceptability for ocean dumping. While some of the larval tests are also indicating that contamination has reached unacceptable levels, it is the amphipod test that is most often yielding unacceptable results.

Instead of accepting the negative results, applicants are undertaking additional testing and retesting of sediments until favorable results are achieved (while all the unfavorable results are rejected without sound scientific explanation). This extensive testing is expensive and time consuming, so naturally the permit applicants are annoyed. Even the Corps, who developed the more sensitive tests, appears to be opposing use of the amphipod tests in many cases. Yet, in our view, the new toxicity tests only reveal the obvious, i.e., the environments where the sediments lie (the port areas) are often dead zones or highly modified ecosystems because of the contaminated sediments, so why should we call them "clean" when we dump them into a new location?

The bioassays that were used prior to the Green Book (and still are extensively used) employ the most insensitive species-those that can survive the rigors of laboratory life and those that can survive most toxicity tests. At last the Corps has found an organism that can survive the lab conditions but is still sensitive to toxins. Perhaps the new bioassays give a glimmer of what happens when these contaminated sediments are introduced into a new environment.

Bioavailability

The determination of bioavailability is based upon equilibrium partitioning in a static environment. While it gives some idea of the behavior of contaminants in the presence of sediments, it does not simulate the energetic conditions of the natural marine environment where nothing comes to equilibrium. Consequently, the estimates of bioavailability are likely to be significantly low.

Bioaccumulation Tests

The assessment of bioaccumulation prescribed in the Green Book is inadequate. The bioassays, if run at all, are too short to be realistic. Presumably a calculation is made to estimate the maximum "steady-state" bioaccumulation that is expected based on the highest rate of accumulation measured during the test. However, sometimes the 28-day levels are interpreted to be the end-point of bioaccumulation (as in the Newark Port application cited above). Even more important, however, bioaccumulation is only estimated on the basis of external exposure to the sediments or water. The potential for bioaccumulation through the food chain and by direct ingestion of sediments is ignored.

The Green Book suggests that an alternative estimate of bioaccumulation potential can be made from animals living in the sediments at the disposal site, if the sediments proposed for dumping are of the same origin as the sediments that had previously been dumped at the site. While field evidence is far more dependable than lab tests, this situation is so restrictive as to be of marginal use.

It might be more useful to measure contaminants in organisms at the site of dredging. Such an approach at least would be based on reality and should give far more reliable results than the laboratory tests. It can hardly be argued that the animals at the dredging site are not representative because conditions are different at the dump site, since the difference between lab and dump site are even greater. In some cases, it would be difficult or impossible to find the same species at the dredging and reference sites, so a different kind of reference site might have to be prescribed (e.g. a clean site similar to the dredging site). For some reason, however, the Green Book does not recommend this option.

Assumptions

Contrary to claims that all the assumptions made in the test manual are conservative, several critical assumptions do not reflect a conservative approach. First, the assumption that elements of a marine ecosystem are in a state of equilibrium is naive and scientifically invalid. It leads to a gross underestimate of the extent to which organisms will be exposed to and take in contaminants associated with sediments.

Second, the assumption that four hours of mixing should be allowed in the calculation of any concentrations to which organisms at the disposal site will be exposed is invalid. The organisms at the site do not go into suspended animation while the dumping is occurring, nor do they wait for thorough mixing to occur before they "breathe" or absorb water or eat. Furthermore, the resulting

concentrations of contaminants in the water column are calculated on the basis of dumping a single bargeload at the disposal site; whereas, in reality 2, 4 or more bargeloads may be dumped within a 24 hour period and may result in additive concentrations.

Third, and even more important, the subtle assumption that as long as the concentration is kept at a certain level, adding more and more toxin to the environment has no effect is invalid. That dilution-is-the-solution-to-pollution myth was discarded long ago.

Fourth, the initial assumption that the true risk to the environment can be estimated from a handful of sediment assays, laboratory tests, and calculations is far from conservative. It is actually quite foolish and has little scientific validity.

In short, a testing manual such as this is necessarily a dangerous oversimplification of the complex interactions among the myriad of chemical contaminants in the sediments and their combined effects upon a highly complex and poorly understood ecosystem. While it may be an improvement over the former manual, it is not the definitive answer to estimating the risk to the environment. In fact, it serves to emphasize the need for an entirely fresh look at the regulations and the need for incorporating a sensible precautionary approach instead of the impossible risk-assessment approach.

Effectiveness and Efficiency of the Green Book Methodology

Now that the new testing procedures are being followed in the permitting process for ocean dumping of dredged materials, many more dumping permits are being denied or delayed until special dumping procedures can be designed--or until the parties interested in dredging (e.g. ports) are able to demonstrate through further testing that the sediments are not contaminated after all. It is this situation that has prompted the ports to cry out that the regulatory process is hampering the timely granting of permits to allow for upkeep and for deepening of ports nationwide.

It is important to be aware that much of the delay in the granting of permits is a result of the applicants repeating analyses and tests several times until they get one set of results that, while disregarding all other negative results, will allow them to claim that the sediments will not cause significant harm. Instead of accepting that these are contaminated sediments and trying to find other ways of dealing with them that are more protective of the environment, they persist in challenging the assessments and demanding that ocean disposal be allowed.

Despite their obvious interest in ending the problem of contaminated sediments, which threaten the viability of their activities, they have been unwilling to enter into serious efforts to prevent further contamination of sediments--because they are not the ones at fault. They persistently reject the notion that requirements for source reduction should be part of the permitting process so that in the future dredging and dumping permit applications do not have to contend with the same unacceptable levels of contamination.

If greater effectiveness and efficiency is desired the clear route is to put a rapid end to the pollution of river basins. One of the most important justifications for this is the need to keep ports open. Instead of trying to weaken the criteria for dredging and dumping sediments, federal agencies should be focusing on phasing-out discharge of the most serious environmental contaminants. As long as we continue to rely on regulations and testing manuals based upon acceptable levels of pollution, there will be an argument over what those levels should be. It is difficult to claim and impossible to scientifically support that the levels in most port sediments have not exceeded environmental acceptability when those port areas have severely degraded benthic

communities. In many cases, the Green Book procedure has become an exercise in fooling ourselves.

The Need to Develop and Institute Alternatives

In addition to tests to determine ecological effects (whether or not the sediments meet the environmental criteria for ocean disposal), the regulatory process mandates use of environmentally responsible land-based

disposal options. Both MPRSA[1] and the London Convention[2] require a determination of need as a criteria for allowing dumping activity. MPRSA directs EPA to take into consideration nine factors when it establishes criteria for permits. The Act lists need for the proposed dumping" as the very first factor upon which EPA's criteria must be based (33 U.S.C. Section 1411(a)). Existing regulations under the Act interpret the needs determination as requiring a comprehensive evaluation of potential reduction, treatment, and disposal options for the waste proposed for dumping (227.14-227.16). Currently, a permit for ocean dumping in the U. S. will be issued only upon demonstration under 40 CFR 227.16(a) (1) and (2) that

> There are no practicable improvements which can be made in process technology or in overall waste treatment to reduce the adverse impacts of the waste on the total environment.. ? and "It]here are no practicable alternative locations and methods of disposal or recycling available, including without limitation, storage until treatment facilities are completed, which have less adverse environmental impact or potential risk to other parts of the environment than ocean dumping..." (Emphasis added)

The ocean dumping regulations reflect the spirit in which the MPRSA was enacted. The intent is to ensure that the use of ocean dumping will not impede the development of better solutions to hazardous waste management. This goal is achieved by strictly limiting the use of ocean dumping when environmentally acceptable methods for reduction, treatment, and disposal are available on land.[3]

This same spirit is reflected in the needs determination required under the LC, which states that before any permit for ocean dumping may be issued, the permitting authority must consider "[t]he practical availability of alternative land-based methods of treatment disposal or elimination, or of treatment to render the matter less harmful for dumping at sea." LDC Annex III(c)(4). Thus, like the existing domestic ocean dumping regulations, the LC maintains a presumption against ocean dumping in favor of practicable alternatives.

Serious efforts to determine the availability of land-based options for individual applications are lacking. Ocean dumping is perceived as the most expedient and least costly option and, on that basis, alternatives are not aggressively pursued, and, when identified, are eagerly rejected by regulators and applicants alike.

However, the current regulation under MPRSA (40 CFR 227.16(b)) clearly states that cost is not to be the deciding factor in choosing between land- and ocean-based alternatives:

> [W]aste treatment or improvements in processes and alternative methods of disposal are practicable when they are available at reasonable incremental cost and energy expenditures, which need not be competitive with the costs of ocean dumping... (Emphasis added)

The standard to be applied, therefore, is whether the alternative entails a "reasonable incremental cost."

Amendments to the Water Resources Development Act of 1992 (WRDA) promote the treatment of dredge material to render it less harmful to the environment by providing a program and funding for identifying existing and developing decontamination technologies for use on dredge material and contaminated sediments generally. Given the high level of funding ($5 million), we expected an aggressive effort to get the program underway. Unfortunately, EPA and the Corps have made little progress in putting the allocated funds to work, and over the past seven months, have done little more than shift the funds to the Department of Energy to supplement its decontamination research. The WRDA funding offers an exceptional opportunity to find a solution to what the agencies perceive as a major obstacle to carrying out their respective mandates, yet they appear to have relinquished that opportunity.

Several successful programs to address the problem of contaminated sediments in the Great Lakes provide a precedent for improved management of sediments, as well as viable decontamination technologies. The Assessment and Remediation of Contaminated Sediments Program (ARCS) and the Great Lakes Critical Programs Act have established key demonstration programs and deadlines to test technologies and complete the Remedial Action Plans. Decontamination alternatives have also been identified under the Superfund Innovative Technologies (SITES) Program. While EPA has bench tested at least five technologies in the Great Lakes, full-scale tests are needed to determine cost and effectiveness before recommendations can be made for large-scale decontamination. The Corps and EPA should use their respective authorities under the ARCS, SITES, and WRDA programs to expedite and expand development of alternative disposal options and should aggressively seek application of these alternatives to specific dredging permits.

Application of the Precautionary Principle

The need to institute land-based disposal options under the existing regulatory regime reflects the view that disposal of contaminants in the marine environment is unacceptable. Over the past decade, we have witnessed a dramatic reduction in the use of the ocean for waste disposal. No longer do we allow disposal in the sea of sewage sludge, industrial waste, or radioactive waste. There is an increasing shift in thinking, both domestically and internationally, away from the view that pollution can be controlled through "allowable" emissions or discharges (the "assimilative capacity" view) to the view that pollution prevention can be achieved only through zero discharge of contaminants, which is reflected in the so-called "precautionary approach" to marine pollution. The four fundamental elements of the precautionary approach are described as follows.

> 1. Prevention of contaminants entering the marine environment. The principle of precautionary action is based on prevention

and elimination of contaminants at source. As called for by the international community, this may be accomplished, in part, through clean production substitution. Zero input levels for designated substances should be a firm objective. To be truly precautionary, this approach should be applied to all persistent unnatural substances, as well as all naturally occurring substances which are toxic and persistent.

2. Action before damage before conclusive scientific proof.

The principle of precautionary action is universally viewed as requiring preventative action before waiting for conclusive scientific proof regarding the cause-effect relationship between contaminants and resulting ecosystem damage. All too often, such proof (even when attainable) comes after the fact; after the damage has already been done and is irreversible. This requirement for timely action acknowledges the uncertainties that are inevitably associated with scientific predictions.

The existing body of scientific literature makes it clear that even the most sophisticated environmental impact assessment models contain substantial inherent uncertainty due to the overwhelming diversity and complexity of biological species, ecosystems, and chemical compounds entering the marine environment. What were once considered perfectly safe levels of particular inputs into the environment subsequently have been determined to be unsafe. The legacy of environmental degradation attests to this fact.

3. Shift in the burden of proof.

Traditionally, those who engage in (or propose) an activity which risks harm to the environment take the position that others who question the activity must prove that it is harmful. As a general principle, such an approach is inappropriate, because all too often it is the proponent of the activity who is in a position to perform the necessary studies and assessments. Moreover, it is especially inappropriate when the activity at issue involves toxic and persistent substances, where common sense would dictate the prohibition of such activity.

The contemporary approach, in light of the principle of precautionary action and currently available clean production methods, is to shift the burden on to the proponent of the activity to demonstrate that it is highly unlikely to harm the environment or human health.

4. Implementation through clean production methods.

Virtually all international fora which have addressed the implementation of the principle of precautionary action, have appealed for eliminating and minimizing hazardous wastes and products through the application of clean production methods.

Many of these fora recognize that it is essential to require a waste prevention audit of all individual plants and companies in order to, 1) identify substances targeted for phase out programs, and 2) identify the corresponding clean production methods to achieve the phase out. In this context, all stages of production processes are subjected to objective analysis of available clean production methods.

In sum, adoption of a precautionary approach represents:

> "movement away from the principles of assimilative capacity, which assert the capacity of the environment to assimilate wastes and convert them to harmless or ecologically useful products, towards the principle of precaution which calls for action to be taken to reduce environmental inputs even before the onset of damage, if damage is considered likely.."[4]

The United States has embraced the precautionary approach in a number of international agreements, including a resolution adopted under the London Convention, as well as the text agreed by Governments at UNCED under Agenda 21 with regard to the prevention,

reduction and control of sea-based sources of pollution. The UNCED agreement highlights a

precautionary approach as fundamental to the basis for action and objectives of the agreement. It is stated (17.21 of Agenda 21):

> A precautionary and anticipatory rather than a reactive approach is necessary to prevent the degradation of the marine environment. This requires, inter alia, the adoption of precautionary measures, environmental impact assessments, clean production techniques, recycling, waste audits and minimization, construction and/or improvement of sewage treatment facilities, quality management criteria for the proper handling of hazardous substances, and a comprehensive approach to damaging impacts from air, land and water.

States are called upon in 17.22 of Agenda 21 to commit themselves to the following:

> (a) Apply preventive, precautionary and anticipatory approaches so as to avoid degradation of the marine environment, as well as to reduce the risk of long-term or irreversible adverse effects upon it;
> (b) Ensure prior assessment of activities that may have significant adverse impacts upon the marine environment;
> (c) Integrate protection of the marine environment into relevant general environmental, social and economic development policies;
> (d) Develop economic incentives, where appropriate, to apply clean technologies and other means consistent with the internalization of environmental costs, such as the polluter pays principle, so as to avoid degradation of the marine environment; and
> (e) Improve the living standards of coastal populations, particularly in developing countries, so as to contribute to reducing the degradation of the coastal and marine environment.

Application of the precautionary approach to dredged material permits requires a prohibition, under any circumstances, on ocean dumping of contaminated sediments--even absent scientific proof that harm will occur, if such harm is likely. Given the toxicity and persistence of many of the contaminants present in dredged material, damage is at least likely, if not guaranteed.

As the world community moves from a failed assimilative capacity approach to a precautionary approach to pollution prevention, the development and institution of innovative dredging and disposal practices is critical. The precautionary approach should be reflected in any regulatory changes.

It is evident that the Corps and EPA have not yet assimilated the precautionary approach. The EPA/Corps Steering Committee on Management of Dioxin-Contaminated Dredged Material is preparing a "guidance document" for use by permit issuers that will supposedly describe what is now known about dioxin, but will in no way recommend any specific limitations on disposal of dioxin contaminated sediments. It will be up to individual regulators to apply that information as they see fit. Such "guidance" is expected to be available in the Spring. It appears that the guidance document is a misnomer. A more descriptive characterization would

be a "license" document since it will do little more than provide license for regulators to make subjective determinations to issue permits for disposal of dioxin contaminated sediments.

In the meantime, EPA's Dioxin Reassessment continues and its completion is expected in about 12 months from the time the EPA/Corps dioxin guidance is published. It would seem more prudent for EPA and the Corps to await the results of the dioxin reassessment -- which has been ongoing for over a decade--before proceeding with preparation of guidance.

Application of the precautionary approach to management of dioxin contaminated sediments is clear. The marine pollution and public health hazards associated with dioxin contaminated sediments are known. What has not yet been determined is an "acceptable" level of dioxin in sediments. The knowledge that damage is likely, even in the absence of scientific proof of the extent of that damage is sufficient to trigger a prohibition on ocean dumping of dioxin contaminated sediments under the precautionary approach. EPA and the Corps have chosen to ignore this basic principle.

The environmental community will continue to assess all regulatory initiatives in light of the precautionary principle and we encourage the regulators to do the same.

The Economic Consequences of Contaminated Sediments in the Marine Environment

The dredging issue is not simply one of maintaining the economic viability of the ports versus environmental protection. There is another economic concern which is

largely ignored when considering effects of dredging and dumping operations--that is the economic needs of the fishing and coastal communities which depend on a clean environment for their success and welfare. Commercial and recreational fisheries pump 11 billion dollars into this nation's economy each year. Given that significant economic interest, the Atlantic Fisheries Council recently passed a resolution calling for an immediate end to ocean dumping of contaminated dredge material.

In a recent study, entitled Clean Lakes, Clean Jobs, the Sierra Club estimated the jobs and money at risk upon failure to "clean-up" toxic sediments in every Great Lakes harbor. Billions of dollars and thousands of jobs are at risk if toxics are not eliminated.

Great Lakes Jobs at Risk

	Number of Jobs	Cost (Billions of US $)
Health	*	18.47
Fishing	89,000	4.0
Shipping	44,000	3.5
Tourism	2,760,000**	69.0
Total	2,893,000	94.97

*Complete data unavailable
** Assumes $25,000/direct job

While the cost of "clean-up" in the Great Lakes is estimated

at $10 billion, the savings of almost 3 million jobs and 94 billion dollars is well justified. In addition, it has been estimated that clean-up would create an additional 400,000 jobs in the Great Lakes area.

If you extrapolate these risks to the country at large and three other coasts, the potential job risk could be near 10 million and the commerce at risk could be near $400 billion. Such a risk justifies a substantial investment of money and resources to prevent continued pollution and to facilitate an aggressive program of decontamination.

The problem of how to properly manage contaminated sediments is more technical than it is procedural. Under MPRSA, a needs assessment, if properly conducted, would identify available land-based options for disposal and those would be implemented in lieu of ocean dumping. The procedural mechanism exists to make this happen. The obstacle to making this work is the lack of available options and the unwillingness of the regulatory agencies and the applicants to accept the additional costs of the available options. If the technology to manage contaminated sediments were widely available and inexpensive, the regulatory process as it currently exists would more effectively safeguard marine and coastal resources, and, in most instances, would not suffer from delays and obstacles in permitting.

Changes to the regulatory process which simply expedite review, while addressing the economic needs of the port, are likely to compromise the economic viability of fishing and coastal communities and the health and well being of precious marine and coastal resources. The real key to streamlining permitting of dredging and disposal practices is to substitute more environmentally protective dredging practices and disposal options.

Additional changes in the regulatory process which are needed to effectively protect the marine, coastal and Great Lakes environments include the following:

1. Development and implementation of an upstream pollution prevention plan should be a condition for receipt of a permit for disposal of contaminated sediments; and in conjunction with the implementation of such plans, there should be progressively decreasing allowances for contamination in sediments permitted for disposal.

2. EPA should expedite efforts to develop effective numerical sediment quality criteria for major environmental contaminants by setting interim pollution reduction goals, establishing specified intervals for further strengthening of criteria, with the ultimate goal of zero discharge (through implementation of clean production technologies).

3. Revision of dredging and disposal regulations under MPRSA should reflect the new U. S. commitment to the precautionary approach and clean production and should move away from the outmoded risk analyses that are based on assumptions of "assimilative capacity" clouded by so much scientific uncertainty; and in so doing, the regulations should link the disposal of dredged materials to a variety of clean-up and prevention measures.

4. Once sediment quality criteria are established, the Green Book should be revised to become a guide to the application of numerical criteria in clean-up, dredging, and disposal activities and to identifying safe alternatives to the ocean disposal of contaminated sediments and beneficial uses for clean or decontaminated sediments. Absent sediment quality criteria, the guidance of the

current Green Book should be strictly followed, and permitting decisions should be based on all the information generated by the analyses and should reflect the requirements of the MPRSA.

5. Currently permitted ocean dumpsites that "may affect" resources protected by National Marine Sanctuaries should be closed to any further dumping until numerical sediment quality criteria are in place along with guarantees against the disposal of any contaminated material.

6. Currently permitted ocean dumpsites used by species listed as endangered, threatened or protected under the Endangered Species Act or the Marine Mammal Protection Act should be closed to any further dumping of contaminated sediments as defined by numerical criteria, and no new ocean dumpsites used by these species should be designated.5

7. Currently permitted ocean dumpsites used by commercially or recreationally important fish species, including migratory species and those regulated under the Magnuson Fishery Conservation and Management Act and by state marine fisheries agencies, should be closed to any further dumping of contaminated sediments as defined by numerical criteria, and no new ocean dumpsites used by these species should be designated until such time as valid assessments to determine clean sediments have been established.

8. Ocean dumping of contaminated sediments (Class 3 materials in some Corps districts) should not be permitted under any circumstances, including mitigation by capping--a technique that should be reserved only for mitigating the effects of contaminated sediments in situ.

9. In the absence of immediate implementation of source elimination and decontamination programs, an assessment should be made of port siting and development, to evaluate, on a national level, the need for deepwater draft ports, with a view toward maximizing the use of natural deepwater ports and minimizing creation of new deepwater draft ports.

10. The "needs" requirements of MPRSA and the CWA should be strictly applied to require application of existing and emerging decontamination technologies--ff only to a portion of the sediments proposed for dredging--to facilitate technology development.

11. The dredging permit process should place more emphasis on the potential effects of the dredging upon marine life in the area to be dredged and on restricting dredging or implementing alternative technologies that would reduce the disturbance (i.e. the potential impacts of increased turbidity, increased levels of contaminants dissolved in the water where the sediments are stirred up, and the suspension of contaminated infaunal organisms where predators such as fish and birds would feed upon them).

12. Permits to dredge and dispose of dredged material must be subject to adequate public review and comment, including, but not limited to formal and informal public comment periods, public hearings, meetings and other information gathering symposia.

Interagency Working Group on Dredging

As regards the Interagency Working Group on the Dredging Process recently convened by the Maritime Administration, we in the environmental community are deeply concerned about the apparent focus of this effort to "streamline" and "expedite" the dredging permit process. This concern was expressed in a letter of December 14, 1993 to Secretary Pe¤a, prepared by the Coast Alliance and signed by 28 organizations representing thousands of conservationists, fishermen, and citizen leaders across the country. The existing procedure is not optimal to those who wish to dredge because of the lengthy timeframe for obtaining a permit --

nor is it optimal from the environmental perspective, as too often environmental concerns are completely ignored or poorly addressed. Expediting the procedure will address the concerns of dredging applicants. However, a more streamlined process is likely to further undermine environmental protection. There is already too little time and effort expended on seriously addressing the effects of dredging on the marine and coastal environment. An expedited process will further curtail efforts to appropriately address environmental concerns.

Any major changes in procedure will necessarily require substantial revision of existing regulations. Efforts to "streamline" the regulations which will in any way weaken consideration of environmental concerns will be met with strong public opposition.

The environmental community is also concerned about the apparent haste with which the Maritime Administration is pursuing its review and the absence of dialogue in meeting the objectives of the review. The issues have been debated exhaustively in the past without satisfactory resolution. The MARAD "quick fix" approach does not constructively contribute to progress toward resolution, but will only further polarize views of the varied interest groups concerned.

The series of public "listening sessions" scheduled over the next two months, present a superficial and, in our view, wasteful expenditure of everyone's time and resources. These meetings simply provide a forum for

the public to "talk at" agency representatives. What is needed is true dialogue among all the interested parties to come to grips with the competing interests and complex issues associated with dredging activities. Public participation in its true sense is more than simply being heard. We are hopeful that the new Administration is serious about its desire to forge partnerships between government and the public to address serious public policy issues. The procedure established by MARAD to conduct its review of dredging activities falls far short of establishing a partnership and does little more than polarize interests.

Ocean Advocates supports establishment of a true dialogue process that would involve equal participation by all interested parties and which would be facilitated by independent conflict resolution professionals. Such an effort could result in a series of consensus-based recommendations which could be used as a basis for the Interagency Review and recommendations for statutory and regulatory amendments. Establishment of such a dialogue holds greater promise for satisfactorily resolving the difficult issues associated with dredging.

Conclusion

In conclusion, while the process for regulating dredging activities has not adequately protected the marine environment, the problem is not so much the process itself, but rather, the lack of political will to find practical solutions to the problem of contaminated sediments, both in terms of prevention through upstream restriction of discharges, as well as the development and implementation of decontamination technologies. Solving the problem of contaminated sediments will remove fundamental obstacles to the issuance of dredging permits and will, in turn, benefit, shippers, ports,

fishing interests, coastal communities and the public concerned about the protection of our precious marine and coastal resources. We believe the solution to the problem is at hand. We are eager to join with other interested parties in an open dialogue to find constructive solutions that will meet our mutual concerns of economic viability and environmental protection.

---

[1]Marine Protection, Research and Sanctuaries Act of 1972, 33 USC 1402 et seq.

[2]Convention on the Prevention of Pollution by Dumping of Wastes and Other Matter at Sea, 26 U.S.T. 2403, TIAS 8165 (1972).

[3]Section 2 (b) of the Ocean Dumping Act, Public Law 92-532, October 23, 1972, states:

> The Congress declares that it is the policy of the United States to regulate the dumping of all types of materials into ocean waters and to prevent or strictly limit the dumping into ocean waters of any material which would adversely affect human health, welfare, or amenities, or the marine environment, ecological systems, or economic potentialities. (Emphasis added).

[4]Jackson, Dr. Tim and Peter J. Taylor, "The Precautionary Principle and the Prevention of Marine Pollution," 1991, Stockholm Environment Institute, Box 2142, S-103 14 Stockholm; and Centre for Study of Environmental Change, Lancaster University, LA14YF.

[5]By "use" we mean used for breeding, feeding or migratory purposes. While areas used as migratory pathways are not typically accorded protection under these statutes, we believe the precautionary principle mandates protection of species within migratory pathways because the opportunity for significant and damaging exposure exists in these areas.

48

ADMINISTRATIVE INITIATIVES --THE WHITE HOUSE

Keith Laughlin
White House Office on Environmental Policy

Good morning. I appreciate the opportunity to be here with you today. The title of this morning's panel is Environmental Regulatory Process: Does it Work? The short answer to that question is yes and no. In many cases, the environmental regulatory process has resulted in cleaner air, cleaner water, and reduced threats to the public health. In other instances, such regulations have not worked as they were originally intended. My remarks will be brief to allow plenty of time for questions.

Let me begin by highlighting two tenets of the Clinton Administration's environmental policy. First, we reject the notion that a healthy economy and environmental protection are mutually exclusive. On the contrary, we believe that the economy and the environment are inextricably linked. Our economy will not remain healthy over the long-term if we consume renewable resources faster than they can be replaced or if we consume non-renewable resources faster than we can identify safe and economic substitutes.

Second, we are committed to "reinventing" environmental protection to ensure maximum protection of public health and the environment while minimizing economic and social costs. Our goal is to sort out what works from what does not, and--when necessary--to develop new approaches to environmental protection that make more sense.

The central theme that runs through both of these goals is efficiency. My dictionary defines efficiency as "the ability to produce a desired effect or product with a minimum of effort, expense, or waste."

For example, pollution is nothing more than an indication of economic inefficiency. If we can prevent pollution through innovative thinking or technology, we can simultaneously protect the environment and increase business profits.

The Administration is committed to achieving economic savings by encouraging pollution prevention in the manufacturing sector; sustainable agricultural practices in the agricultural sector; and greater efficiency in the way that we use energy in all sectors.

The Administration is also committed to achieving greater efficiency in how federal environmental programs are implemented. A good example is the wetlands policy that was announced last August.

I chair the interagency working group that developed the Administration's wetlands policy. One of the major policy recommendations made by our working group was giving the Soil Conservation Service responsibility for identifying wetlands on agricultural lands.

This change resulted from complaints from farmers who had to deal with two different wetlands regulatory programs under two different federal statutes; the Swampbuster provisions of the Food Security Act and Section 404 program under the Clean Water Act. In addition to inconvenience and confusion, the farmers had to potentially contend with two different answers from the federal government as to the existence or extent of wetlands on their property.

In terms of efficiency, it made no sense to force farmers to deal with two different federal agencies for wetlands determinations on their land. I am pleased to say that last week the Environmental Protection Agency, the Army Corps of Engineers, the Fish and Wildlife Service, and the Soil Conservation Service signed a Memorandum of Agreement giving the Soil Conservation Service the lead responsibility for identifying wetlands on agricultural lands.

This is reinventing government at its best. t believe that this agreement will result in increased protection of valuable wetlands resources while minimizing the regulatory burden on America's farmers.

I am convinced that there are numerous opportunities to make common sense reforms in the regulatory process that will result in more efficient environmental protection. This Administration is committed to identifying such opportunities. I would be happy to take your questions.

ADMINISTRATIVE INITIATIVES -- MARITIME ADMINISTRATION

Joan B. Yim, Deputy Administrator Maritime Administration

I would like to briefly discuss the "Environmental Regulatory Process: Does it Work?," emphasizing the dredging regulatory process. In that context I hope to be able to give you a thumbnail

sketch of the goals and status of the Interagency Working Group on the Dredging Process. As many of you know, I chair the Steering Committee of that Group.

The major objective of this Working Group is to better coordinate interagency actions governing the deep-water ports dredging regulatory process.

Our work has just begun so we will have to wait a while longer for the full story here. In the meantime, however, I can fill you in on the overall approach being used and a few of the major projects being developed by the Group.

Approach

The Interagency Working Group on the Dredging Process (Group) was established on October 28, 1993, by Secretary of Transportation Federico Pe¤a to review the permit process and identify ways of improving application coordination, information gathering, criteria review, and the overall sequencing of approvals. However, at its first meeting, the Group decided to expand its scope by including Federally authorized projects (which do not necessarily require permits) and the dredge disposal process, a major focus of concern.

The Department of Transportation's role is to ensure the integrity of the nation's transportation system for economic and national security purposes. Waterborne commerce is a crucial element in the network and, therefore, the Department and the Maritime Administration have a natural role in facilitating a process to address these problems. While promoting a strong American merchant marine, the Maritime Administration under President Bill Clinton, will also emphasize the need to do so in an environmentally sensitive way.

This Administration, and in particular Secretary Pe¤a, is firmly in support of strict adherence to environmental standards as part of a vigorous endorsement of the concept of sustainable growth.

To carry out its mission the Group has formed a two-tier structure. The policy steering committee is comprise of persons, at the appointee level, as designated by the Secretary or Agency head, who determine the committee's overall direction, and will prepare final recommendations. The Group includes the Deputy Assistant Secretary, Planning, Policy and Legislation, Civil Works in the Department of the Army, the Assistant Administrator for Water, Environmental Protection Agency, the Deputy Assistant Secretary for Fish and Wildlife and Parks, U.S. Department of the Interior, the Assistant Administrator for Fisheries, National Marine Fisheries Service, and the Director, Office of Ocean and Coastal Resource Management, National Ocean Service, both in the Department of Commerce's National Oceanic and Atmospheric Administration.

The White House Office of Environmental Policy and the Coast Guard are the liaisons to the Group.

The Steering Committee has been looking at the overall structure of the process and has focused on developing a charter which they recently approved. The Charter calls for a nine month timeframe in which the Steering Committee will identify which recommendations of the Working Committee to forward to the Secretary Pe¤a and other involved Cabinet members and Agency heads.

A Working Committee comprises of senior career officials from these agencies is the second tier at which most of the substantive review and analysis will be done. The Working Committee plans to continue to meet every two weeks until April and will hold their fourth meeting tomorrow.

They are developing a Workplan and concentrating on review of the current process for authorizing dredging and disposal, for identifying, planning for and selecting dredged material disposal alternatives, and for determining appropriate mitigation measures.

To accomplish these objectives, a five-step approach is being followed: (1) taking inventory, (2) performing analysis, (3) determining preliminary recommendations and strategies, (5) finalizing recommendations and strategies in an action plan, and implementing the action plan.

50

As part of the inventory stage the working committee is cataloging agency mandates, formulating schemata for each agency's review process, preparing a draft statement of principles, compiling a list of issues, and amassing other information to pursue the outreach program.

This effort is part of a larger program that lay the ground work for addressing some extremely important issues including the remediation and decontamination of contaminated sediment.

Many of these issues are currently being addressed by Federal and private concerns, as well as numerous regional and local efforts. These forums will assistant in developing priorities for the perplexing issues and possible solutions involved in the process.

Outreach

The Working Group also has established an outreach program to receive information from interested parties. The steering committee has scheduled national listening sessions in ten cities in January and February. This will provide an opportunity for concerned and interested citizens to provide input on problems and solutions in their areas.

After the listening sessions are concluded and the comments assimilated, follow-up sessions will be held in March and April to seek comment on the Group's proposed options and recommendations. I believe we will see something akin to President Clinton's summit format used as we revisit each of the ten cities.

The Group anticipates that deliberations will be completed within nine months and recommendations will be submitted to the steering committee, but benchmark products are expected to be released to address immediate concerns.

But Does It Work?

There are several approaches to responding to the question "Does the environmental regulatory process work?"

Does it work for the purpose for which its individual elements were intended? For example, the original Federal Water Pollution Control Act was the result of a significant effort by a number of interests in 1972 who intended to get a handle on cleaning up our public water systems. This year, during the reauthorization process for the Clean Water Act, there will be discussion and debate over its scope and application to today's environment and in today's communities. We will not get into this debate in the Working Groups.

Our Interagency Working Group has established a "ground rule" that its efforts are not intended to abrogate any legal requirements that each Federal agency was mandated to enforce. We have agreed that we will not interfere with an individual Federal agency's mission and/or legal mandate and regulations.

Secondly, one may ask: "For whom does the process work?" In

addition to the historical and public purpose of the regulatory laws, who or what benefits and who or what does something in the process is of a "values determination" by legislative bodies, administrative decisionmakers, and regulatory bodies. The Working Group will not get into questioning the values of those who have set the parameters for a particular law and its application. Another ground rule we have established is that each Federal agency's mandate should be respected, acknowledging that each has its constituencies.

Rather, the Group will be addressing the question of whether the environmental regulatory process works as a system. It is precisely because there are some conflicting mandates, possibly because laws were passed at different points in history and there are inconsistent interpretations and application of the laws because those doing the interpretation reflect varying values, that we need to stand back and look at the system of laws, information requirements, technological specifications, and decisionmaking process to determine how better to coordinate agency action.

Dealing with events as they come along and taking 20 years to get a dredging project approved is simply no longer acceptable.

In this regard, the Working Group's "ground rules" provide that:

- The Group will look for solutions to the process which are focussed, doable and practical.
- The Group will emphasize prevention to avoid the need to pay the cost of the cure.
- Long term strategies will be considered as well.
- It is important to separate fact from opinion.
- The Group will stress a one-team approach which the Administration is fostering by asking everyone to take a fresh look at the dredging process and consider innovative changes.

The Working Group intends to review the system and address many issues, including but not limited to, the complex and lengthy process for obtaining all required federal and state approvals for these activities, the lack of practicable disposal alternatives, the lack of

long-term coordinated disposal strategies, and the absence of any formal mechanism for developing coordinated strategies.

It is our hope that the Working Group's findings will complement other Administration efforts, such as the White House's Interagency Working Group on Federal Wetlands Policy and the White House's San Francisco Dredging Task Force, the Joint Environmental Protection Agency and Corps of Engineers Task Group on Management of Dioxin-Contaminated Dredged Material, and the Corps of Engineers Long Term Management System, among others.

We also believe that our findings will complement the work of the National Research Council Marine Board's Committee on Contaminated Sediment. In fact, MARAD staff is currently working with the Marine Board on its remediation project.

We are hoping to shed light, not just heat on the subject. At the same time it must be understood that the Working Group is neither the forum for the legislative process nor is it the sounding board for any Administration legislative efforts.

I hope that I have addressed any questions or concerns you may have on this very important topic. The Working Group is looking forward to your assistance and participation in this effort. I am

confident that together we can make the dredging process work better for all of us.

CONGRESSIONAL OPTIONS

Robert Irvin, Sr., Counsel for Fish and Wildlife
Senate Environmental and Public Works Committee

"Environmental Regulatory Process: Does It Work?" Well, much like Keith Laughlin said, the answer is, depends." It depends on what subject of environmental regulation you are addressing and it depends on one's perspective. I will focus a little bit this morning on an issues that 1 think is of concern to you, and certainly is occupying an enormous amount of the attention of the Environment and Public Works Committee, for which work. That is the subject of wetlands.

The 404 Program of the Clean Water Act is our nation's principal defense against the loss of wetlands. In this country its our primary regulatory program for protecting wetlands. Yet, by virtually all accounts and certainly by the accounts that we have heard this morning, it is a program that is in desperate need of repair. It is a program that is too often confusing to the regulated community. Implemented by as many as 5 different agencies on any particular project; often working with different rules, different procedures; a source of enormous confusion and frustration. In addition, the regulated community has been frustrated by needless delays. You have heard stories of those this morning, in obtaining permits. I would like to point out that it is not just the regulated community that has experienced this frustration. Before going to work for the committee, I was a lawyer for the National Wildlife Federation. One of the cases that I worked on was actually a case that Terry Huffman and I worked on together involving Katie Prairie Area outside of Houston, Texas. Where we spent nearly three years trying to get Corps to agree that an area that you could walk out on and actually stand in water on and literally see wall-to-wall snow geese and other water fowl, was a wetland. It took 3 years to do that. That does not seem like a situation that ought to prevail. The frustration from these delays, and just getting an answer, is something that has been experienced across the board.

Section 404 has been difficult to comply with, particularly for small land owners: farmers, ranchers who have found themselves confused and frustrated. The agencies implementing this program have often had the difficult time deciding what is a wetland; what are the proper ways to determine whether wetlands exist; let alone land owners who are faced with that question, who may lack both the technical expertise and the financial resources to answer that very basic question. In addition, states have had very little incentive to get more involved, more actively involved, in wetland protection efforts. Even though the Clean Water Act has provided for assumption by states of 404 program, only 2 states have done that: Michigan, and just in the last couple of weeks, New Jersey has also assumed the 404 Program. That is because there's nothing really in it for the state, by and large. There has been no great incentive for states to take on this regulatory program.

And finally, and perhaps most importantly, 404 has not been as effective as it could be in stemming the hemorrhage of wetlands in this country. Estimates are that we may be continuing to lose as many as 300,000 acres of wetlands a year. Wetlands that are

enormously important to the life of this nation, both environmentally and economically. Wetlands provide flood control benefits, filter pollutants from our streams, recharge ground water and provide enormously valuable for fish and wildlife. They are truly a national resource that we should be working very hard to conserve. We need a program that will effectively do that.

So, by all of these measures, I think it is relatively easy to conclude that the 404 regulatory process is in need of repair. There are a number of areas that need fixing. I do not want to point out that there is at least one are where I think that 404 has been enormously effective. That, 1 guess, in the public education area. Before 1972, and certainly before 1977, when it became clear that wetlands were regulated under the Clean Water Act, most people thought of wetlands as swamps, breeding grounds for malaria, mosquitoes, mud, you name it. Not something deserving of protection. And yet, since we have had the 404 program, and because of the associated pubic education that has gone on with that program, by and large, I think you will find people in this country recognize that wetlands are worth protecting. They may disagree on what is a wetland and which wetlands are most deserving of protection, but, by and large, I think people recognize now that we do need to protect wetlands. They are a benefit to the nation and future generations.

So what we have, then, with the 404 program, is a program that is filled with enormous promise, promise that is yet to be fulfilled. That is where Congress and the

White House have come into this issue. The Clean Water Act is up for reauthorization and so the Congress, and most immediately, the Environmental and Public Works Committee in the Senate, and the House of Public Works Committee and the House Merchant Marine and Fisheries Committee, in the House of Representatives, are struggling with this issue of how do we fulfill that promise. How do we avoid throwing out the baby with the bath water?

My boss, Senator Max Baucus, Chairman of the Environment and Public Works Committee, has introduced a bill, along with Senator John Chafee of Rhode Island, who is the ranking Republican on the committee, to try to fulfill that promise. The bill, Senate Bill 1304, seeks to make wetlands protection more effective and to make wetlands regulation more efficient, consistent and fair; and to provide incentives for the states to get involved. A few of the things that the Baucus-Chafee Bill will do is, first of all, it will establish, very clearly, the protection of wetlands as a function of the Clean Water Act and that there is a national goal of no net loss of wetlands. Does that mean that you will never be able to develop in wetlands? Absolutely not. What it means is that we are going to work to conserve and restore wetlands so that we, in the long run, increase the quantity and quality of wetlands. That will involve trade-offs in different places. In some areas wetlands will be absolutely preserved. In others there will be trade-offs through mitigation banking and some of the techniques that have been mentioned earlier today.

The Baucus-Chafee Bill was also put into the statute something that the Corps and EPA have done themselves very recently, which is to regulate drainage of wetlands. An enormous amount of the wetlands lost that the country experiences comes from drainage wetlands, primarily for agriculture. The Baucus-Chafee Bill will bring that into the 404 permitting process. Does that mean that you will never be able to drain a wetland? Again, absolutely not.

What it means is that you will have to apply for a permit in some instances. In other instances you will be covered by a general permit.

Perhaps the most immediate benefit to the folks in the room is that the Baucus-Chafee Bill, much like the administration's plan, will set some deadlines for processing of permit decisions, in most cases, a 90-day deadline. The Bill will also establish an administrative appeals process, so that parties are not faced with the dilemma of hiring a lawyer and go to court to challenge a permit decision. This process will provide an alternative, hopefully a less expensive and more efficient one, of administratively appealing a permit decision which has not been satisfactory.

The Baucus-Chafee Bill will also encourage greater state involvement in the wetlands program by authorizing state programmatic, and general permits that encourage the states to take on all or a portion of the wetlands program, provided that they demonstrate that their efforts will be at least as protective as the federal program for wetlands.

The Baucus-Chafee Bill will make it easier for small land owners and farmers to comply with the Act. It will do things very much in keeping with the administration's policy of having the agency sing from the same hymnal, use the same definition of wetlands, the same techniques for delineating wetlands, and making sure that people know which agency they need to contact to have their wetlands questions answered. The committee held a hearing on this bill in September. Both from that hearing, and since that time, we have received literally hundreds of comments on the bill. The staff has been working very hard to incorporate comments that we have received into a re-write of the bill. We are working to take the bill to a mark up in the subcommittee chaired by Senator Graham in early February.

Our bottom line is that we want to produce a bill that, several years from now when a panel is held and the question is asked, "Does the environmental regulatory process work?" The answer for wetlands will be, "You bet is does."

54

QUESTIONS AND ANSWERS

Question, Ms. Lentz: My comments concerns Ms. Liburdi's remarks. I agree with a number of the points that you made, but I did want to take issue with a couple of points.

One is that you suggested that the environmental representatives . . . Well, that the regulatory agencies were playing into the hands of environmental representatives who wish to stop all ocean disposal, regardless of the characterization of the sediments. Having been one of those environmental representatives, and being closely associated with the others involved, I can assure you that that is not the case. We're not talking here about you run-of-the-mill dredge materials. We're talking about dredge materials that are contaminated with very high levels of Dioxin. If I recall correctly, the concentrations in the sediments themselves were hundreds of parts per billion. If we were here talking about clean sediments, we wouldn't have been wasting our time sitting around a table for 3 and 4 days at a time discussing what to do about it. I guess I'll just leave it at that.

Response, Ms. Liburdi: Sally, on your specific point, I'm glad you asked the first question because I have some for you as well, or

comments at least.

First of all, not parts per billion in the sediment. It's always parts per trillion that we're measuring, both in the sediment and in the bioaccumulation in the fish, or the marine organisms that we're looking at. While it's true that most of the environmental groups, with whom we had dialogue while we were in the course of the process, ultimately indicated they were not opposed to dredging. They were only opposed to the disposal of the contaminated sediment in the ocean. There were groups, as well, in the process, who told us straightforwardly that they want to stop all ocean disposal, regardless of the material in question. Now we're working through, what in our region is called the EPA forum, with the environmental community groups, the Port interests, industry interests and various state and federal agencies, to see if we can find the areas of common ground between us.

What I thought was interesting, not just in this concern that you've just raised, but also in some comments, is that this is not just a sediment issue. Absolutely right, it isn't. But it is an issue in looking for common ground. The problem has been, all of us, over 20 years have been working on long-term management strategies and we have found common ground. We have not found the ability to use burrow pits, because they have not been authorized. We have not been able to identify sites for containment--island facilities that could have been advanced. The process never got that far because of opposition in the process. Not primarily because the applicants didn't want it. We have not been able to find up land sites. We went through almost 300 site inventory, found 4 sites. The Corps never tool it through a process where a site could be selected. So its not as if we sometimes tend to either over-characterize or over-dramatize. It's not as if we haven't worked as community interests in the past, but we haven't found common ground in the past.

I think the point that was made by one of our last speakers needs to be re-emphasized, and is that we need to understand that there must be the ability of all of us to come to the table and compromise to find solutions that will work.

Question, Joan Yim: This one's for Keith. Under the polluter pays principal, how do you propose to deal with the past, possibly the dead, polluters?

Response, Keith Laughlin: I think that, other than this, I've been involved in the discussion over Superfund that the administration's been involved in over the last 6 months or so. So that's an issue that we've all been struggling with, in terms of how you deal with past liabilities. I think that we really can divide our problems into those of the past and opportunities for the future. What I'm really talking about here, for the most part, is the notion of prevention in how we try to learn the lessons that we have, both from Superfund, from contaminated sites on land and contaminated sediments that we have in many of our waterways. The question is, "What lessons do we learn from that?" How can we apply that so that we can make sure that that doesn't happen again?" That's where 1 was indicating that that is one of the best lessons to learn in terms of how we move ahead with future policy. How we deal with past liability is an issue that the administration has, as I said, been discussing, at length, over Superfund. Current law requires that we have joint and several liability and that we go out and try to find those who are responsible. I think that we're just going to have to see how that concept moves. Whether or not that's retained, as Congress considers the reauthorization of Superfund. I

can not claim to have a great deal of knowledge about how past polluters are dealt with contaminated sediments, specifically. I can't address that. Maybe one of out agency people can. lt's obviously a very difficult question.

Question: Are you suggesting that EPA should be organized to be multi-media?

Response, David Davis: I think EPA has to be organized to be more multi-media than they are right now. When the agency was created, it was created with a statute at a time. The statutes themselves dealt with specific media, looking at air, looking at water, looking at toxics. I think that one thing that Administrator Browner is committed to doing, is re-looking at way the agency itself is structured and for looking for ways that you can do a cross-cutting activity across those various single media offices to try to deal with issues on a multi-media basis. For instance, at EPA right now, they are very much looking into the notion of trying to do permitting for a facility, on a facility basis rather than a media basis. Where the EPA would go in and, at the same time, work on air permit, water permit, and any other permit the facility would need. All in one context, to make sure that you're not shifting topics from one media to another and, at the same time, it makes it a lot easier for the industry to deal with one group of people, of regulators, coming in, rather than dealing with a long chain of people coming in who probably are not communicating that well with each other. So 1 think there are pilot programs and some experiments under way to move in that direction. 1 think that's a direction that we definitely want to move in, but it's going to be something that's going to take some time.

Question: This is for John Carey and Mike Spear. What do you believe will happen to the Alabama River dredging if the Alabama sturgeon is declared an endangered species?

Response, Mike Spear: I don't know who wants to go first. Our field people have said that the issue of the Alabama sturgeon listing, that the area that is going to be the most impacted are those areas where, basically, the fish are not living. Those areas where there is traditional dredging going on, are the areas where the fish tend not to use. So, therefore, where the fish are now, there generally is no dredging. It's been the stated view of the people in the local area, and I'm far from an expert on this, but I've heard the comments, that they expect impacts to be small on dredging. Let's see if the local representative feels the same way.

Response, John Carey: lt's always interesting to see what is getting to this level. This has been one of the issues that we have been attempting to get clarification on, because in the proposed listing it basically that the area where fish spawns is also the areas where shoaling occurs and dredging, maintenance dredging of those channels occur. We, the local coalition, who are trying to get this aired more fully so we do understand what's happening, have held the position just as was stated. That is that, no, that's not where the fish is and therefore dredging should not impact the species. As we've gone through the informal discovery process, what we have found out is that the Service doesn't even know when the spawning of the fish occurs. But basically, the information that has been presented and evaluated by the district Corps of Engineers office, their understanding is that dredging would have to cease in those periods of time where shoaling. With the dredging would have to cease in those periods of time where shoaling. With the dredging

to cease, they anticipate, or project, that it could take as little as one year for the shoaling to be of such a nature that the normal navigation of the channel would not be possible. This is what the Coast Guard has come in and said, the if normal navigation is not possible, we will close down the channels. 1 simply don't have a good answer, and that's the source of our frustration in Alabama. We just don't hear a consistent answer and we can not get a good answer against which evaluation can be made.

Response, Mike Spear: First of all, I think the answer is developing. 1 think our information if relatively scarce on this species. I know there's been off delayed meeting in the local area that they're trying to hold and try to get to the bottom of this and provide clear opinion. I think it's quite inappropriate of the Corps of Engineers, and I'd be surprised that they are actually that, to begin to speculate on what they think the biology of the Alabama Sturgeon is. That is quite inappropriate. The species is not even listed yet for them to be guessing in advance of what a biological opinion would say, is inappropriate at this stage. That comes at a time later when we work together to find out how to solve problems and not try to indicate in advance what we're sure the problems are going to be. If we don't for sure yet, I'm sure the Corps doesn't know.

Response, John Carey: if I have left the impression that the Corps is talking about biology of the fish, they are not. The Corps is not talking about the biology of the fish, the Corps talking about the Engineering of the water system. The biology of the fish is being challenged by, as I indicated, nationally recognized ichthyologists

who say that the scientific work that was conducted was incomplete and contradictory to what exists in the academic community in that particular area.

The other optimistic note I wish to offer is that Secretary of the Interior, Bruce Babbitt, has indicated that navigation will not cease in these river systems. We think that's great. We like to hear that. Unfortunately, as we all too frequently find, at the federal level, the Secretary has no control over that. That what controls it is that person that sits out there with a 29 cent stamp who is going to file suit against whatever agency doesn't do what they want them to do.

SESSION SUMMARY: INSTITUTIONAL GRIDLOCK FOR DREDGING U.S. HARBORS

Terry Huffman,
Huffman & Associates, Inc.

Commercial port directors across the country have been encouraged by the present Administration's philosophical notion these days that the environment and economic goals are not mutually exclusive aspirations but inseparable and equally desirable pursuits. Although not publicly well-known, virtually all of the import and

export products entering or leaving the United States do so through the nation's ports. However, anyone who has ever witnessed efforts by a major port to obtain permission to maintain shipping or expand shipping, transit and docking capacity, may still be skeptical of how rapidly this philosophical change is influencing the implementation of regulatory changes.

While dredging harbors and shipping lanes is relatively simple from an engineering standpoint, the sediment that must be dredged from the nation's ports is often contaminated with industrial/agricultural materials contributed upstream and fated by Newton's natural law (of gravity) to settle out in the harbors and shipping lanes of the port. At the Transportation Research Board's 1994 Annual Meeting, a remarkable concordance of views of some the country's major port staffs, various regulatory administrators, and representatives of the environmental community suggested that the goals of ensuring the integrity of the nation's transportation process and its commercial activity are very clearly at what is referred to as "gridlock" with the protection goals of the regulatory process; the situation is caused by a complex maze of local, state and federal regulations with varying implementation policies focused at the local or watershed level, often without a comprehensive environmental goal, for a given proposed dredging project.

The permit approval process for a dredging project requires the project sponsor to develop an environmentally acceptable dredging and disposal plan formulated through studies which determine the feasibility of various dredging plan alternatives and mitigation plans designed to offset a variety of environmental impacts. The various plan alternatives, which must be technically, logistically, and economically feasible, are evaluated by federal, state and local agencies, and public comments are solicited and weighed relative to public interest issues during the of official comment period. Plans may then be further modified and, if found acceptable by the permitting agencies, permits for the project are issued.

Present program emphases include realizing both environmental and economic benefits through the regulatory process by protecting the nation's water resources, which include wetlands, implementing strong safeguards to protect our nation's water quality and associated values, and preventing significant threats to human health which can occur from contaminants. However, critics of the existing process are concerned that the efforts to "permit" a project, or monitor to ensure agencies, both during the permitting process and permit compliance phase, "follow the rules" in an objective and technically correct manner, are still impediments to a realistic process. Strong arguments against spending so much money on making sure the rules which are followed are fair and reasonable, and for better attainment, if not over-reaching attainment of environmental and transportation goals, were made during this discussion. This is in sharp contrast to the attainment of minimum or below minimum goals which many authorities presently perceive as the typical regulatory outcome. Regardless of one's affiliation, whether business, interest group, individual, or even government agency, one cannot overlook the fact that adequate cash flow to ensure participation in the regulatory process and project design and construction is the crux of success or failure of each port authority's desired goals.

Critical issues which must be faced in order to revamp and potentially expedite the permitting process are focused in two areas. First, minute levels of contaminants can be detected with today's capabilities, however, detection capabilities are much more advanced technologically than available methods of decontaminating sediments. As a result, order of magnitude increases in the cost of dredging projects result as ports which need to dredge accumulated sediments are required to adhere to ever more limited regulatory

criteria.

Initiatives are underway to respond to some of the criticisms concerning scientific and technological strategies being employed by agencies to evaluate dredging projects. These include clearer guidance in

dealing with dioxin, a new manual for testing dredge sediments, and a national inventory of contaminated sites, according to David Davis, Environmental Protection Agency representative. Contaminated sediments have been identified as the primary constraint in the permitting process, and emphasis on a national program to clean up contaminated sediments and prevent new contaminants from entering hydrologic systems is imperative. Recent White House comments indicate pollution prevention in manufacturing and the development of sustainable agriculture have been targeted as key elements in reducing the contaminant sources that are afflicting ports presently.

Secondarily, overwhelming concern regarding the arduous permitting process has been expressed at all levels of government. For example, Charles Roberts, Port of Oakland, identified a number of problems that, from his perspective, originate with the regulatory agencies. These problems include: a lack of staff accountability, lack of professional expertise due to rapid staff turnover, and an absence of management systems to keep the permitting process on track and moving at a timely pace. The number of involved or interested agencies with different statutory mandates and the lack of a formal mechanism for building consensus among these various parties has also been identified as a focal area of concern.

Another key problem is that present environmental laws and regulations were written before the concept of "sustainable development" became established! There are, therefore, limits on how far the existing regulatory process can be modified in order to encompass this new paradigm. If we, societally, are going to successfully inject this new concept into the existing regulatory process, it is going to have to arrive through a consensus by all stakeholders that we are working under a new set of principles for identifying project need, design and approval.

What changes need to be made? More focused leadership by the regulatory agencies who are involved with the process presently, particularly the Corps of Engineers, is a starting point. The Corps, as the final decision maker, should control the process with fair but firm deadlines, followed by a timely decision based upon the facts and consistent application of laws and regulations. To further improve the process, the Corps should focus on watershed/ecosystem area wide permitting programs in geographic areas where permit requests are high. In addition, a parallel review process needs to evolve at the state and local level where those entities have independent permit or certification authorities. Sequential decision making slows the permit decision process when one level of government waits for the other to rule before moving on to the next step. Another required element is that the process include all stakeholders in a good faith discussion and exploration of each others' concerns, constraints and ideas. For their part, the regulatory/reviewing agencies generally agree there are problems with the permit process, but they do not believe them to be systemic, i.e., they are not inclined to redesign the system from scratch and prefer to look for ways to make it more responsive and, in appropriate cases, faster. The Corps, which processes over

100,000 permits each year under the Clean Water Act, recently received a 20% increase in its regulatory staff and regulatory budget, according to John Studt. This, along with a new initiative to increase the compensation for Corps regulatory staff, will hopefully, result in more timely processing of permits and decreased staff turnover.

The Fish and Wildlife Service is in the process of confronting similar issues, particularly with regard to closer management of the process, increasing staff skills, and building a consensus mechanism that includes all constituencies. Charles Camella, National Marine Fishery Service, indicated (in the referenced session) that NMFS has staff problems also, with insufficient staff to give each project the attention it deserves. Finding an appropriate solution is crucial since it was recently stated by John Carey, Port of Mobile, that at least 8 federal and 27 state or local agencies are involved with one port project he administers, not to mention the number of private individuals and groups which may be involved in the permit process and its complexities.

An interagency working group on dredging is presently attempting to develop long-term management strategies for addressing dredging and disposal needs at the national and local levels. Proposed revisions to federal wetlands law, as suggested in Senate Bill 1304 (the Baucus-Chafee Bill) also include a number of features of interest to those who have found the permit process too slow in the past. Among them are a 90-day deadline within which agencies must act, and an administrative appeal process for permit applicants who are dissatisfied with the final decision of the permitting agency. The bill will also encourage greater state involvement by authorizing state programmatic permits, a device which could eliminate, or at least reduce, the perceived duplication of effort by federal and state permitting agencies.

Many of the features we may wish to have have already been articulated by the interagency working group on wetlands policy, including:

- expanded partnerships with state/local entities;
- watershed/ecosystem approaches;

- wetland mitigation banking; and
- policies based on best scientific information

The interagency working group for harbors and port dredging projects will, undoubtedly, come up with additional suggestions.

Guidance for the program, however, must be clearly established, and it is at the local level where the most crucial tests of its satisfactory implementation will be administered. So, despite the best intentions and expertise in Washington, it is important for the ports, state and local government, and local environmental interests to become involved in shaping the coming debate on the resulting regulatory process. Local assumption of regulatory authority within watershed-based geographic limits with minimal federal oversight for attainment of agreed upon environmental standards is a likely new direction. However, participants in the local-federal regulatory partnership must be prepared for the reality that the energy required to go beyond the current polarized viewpoints and achieve a satisfactory resolution of the current regulatory problems at the local level far outreaches the amount of effort which federal government has and will be able to expend on this issue.

APPENDIX

Transportation Research Board 73rd Annual Meeting
January 11, 1994

Session Summary Report
Environmental Regulatory Process: Does It Work?

By Terry Huffman, Ph.D.
Wetland Regulatory Scientist
Huffman & Associates, Inc.

Session Moderator:

Arlene Dietz, Chairperson
Ports and Waterways Committee, A1B08 c/o U. S. Army Corps of Engineers Navigation Data Center
Casey Building
Ft. Belvoir, VA 22060
Tel: 703-355-2017, Fax: 703-355-0047

Session Participants:

Regulated's Perspectives

Charles Roberts
Executive Director, Port of Oakland
P.O. Box 2064
530 Water Street
Oakland, CA 94604
Tel: 510-272-1501, Fax: 510-839-5104

Lillian Liburdi
Director, Port Department
Port Authority of New York & New Jersey
One World Trade Center, Suite 34S
New York, NY 10048
Tel: 212-435-6001, Fax: 212-435-6030

H. Thomas Kornegay
Executive Director
Port of Houston Authority
P.O. Box 2562
Houston, TX 77252-2562
Tel: 713-670-2480, Fax: 713-670-2429

John P. Carey
General Manager for Administration
Alabama State Docks
P.O. Box 1588
Mobile, AL 36633
Tel: 205-441-7120, Fax: 205-441-7110

Regulator's Perspectives

John Studt for Michael Davis
Assistant Secretary of the Army for Civil Works
108 Army Pentagon
Washington, D.C. 20310
Tel: 703-695-1376, Fax: 703-697-3366

Dave Davis for Robert Wayland III
Director, Office of Wetlands, Oceans, and Watershed
Environmental Protection Agency
401 M Street
Washington, D.C. 20460
Tel: 202-260-7166, Fax: 202-260-6294

Michael J. Spear
Assistant Director for Ecological Services
Fish & Wildlife Service
MS-3024
1849 C Street, N. W.
Washington, D.C. 20240
Tel: 202-208-4646, Fax: 202-208-6916

Charles Carnell for Nancy Foster
Acting Assistant Administrator
National Marine Fisheries Service
National Oceanic and Atmospheric Administration
1335 East-West Highway
Silver Spring, MD 20910
Tel: 301-713-2239, Fax: 301-713-2258

Environmental Community's Perspective

Sally Ann Lentz of Ocean Advocates for Robert Adler
Natural Resources Defense Council
Chair of Steering Committee for Clean Water Act Coalition
1350 New York Avenue, N. W., Suite 300
Washington, D.C. 20005
Tel: 202-783-7800, Fax: 202-783-5917

Administration Initiatives

Keith Laughlin
Associate Director for Sustainable Development
White House Office on Environmental Policy
360 Old Executive Office Building
Washington, D.C. 20501
Tel: 202-456-6541, Fax: 202-456-2710

62

Joan B. Yim
Deputy Maritime Administrator
U. S. Department of Transportation
400 7th Street, S. W.
Washington, D.C. 20540
Tel: 202-366-1719, Fax: 202-366-3890

Congressional Options

Robert Irvin, Sr.
Counsel for Fish and Wildlife
Environmental and Public Works Committee
415 Hart SOB
Washington, D.C. 20510
Tel: 202-224-0748. Fax: 202-224-2322

(DUP.html)

JUMP TO TOP