

THE NEW YORK/NEW JERSEY HARBOR DREDGING CONFLICT

A Final Report of the Tibor T. Polgar Fellowship Program

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ABSTRACT

Dredging projects can become stalled for several reasons, including interagency conflicts, inadequate dredged material management, insufficient information, and inconsistent funding. New York/New Jersey Harbor recently experienced stalled dredging projects. As New York/New Jersey Harbor's original depth, before dredging, was 18 feet, dredging is a necessity since today's tankers have a draft of 40-45 feet. In 1996, dredged material volume projections for the port were approximately five million cubic yards. Until the 1972 Marine Protection, Research, and Sanctuaries Act, the Army Corps of Engineers (COE) dumped most of the port's dredged material into the open ocean. After passage of this Act, the COE began to use an area called the Mud Dump, located about six miles east of the New Jersey Shore. Environmental regulations required any material destined for the Mud Dump to pass a toxicity test. In 1992, the EPA revised the test and found that instead of a five percent failure rate, they now had a sixty-six percent failure rate. Since material that failed the test could not be placed at the Mud Dump, new disposal options were needed for huge quantities of material. The new more sensitive test and the increased volume of contaminated material that had to be disposed of led to a conflict that resulted in a deadlock. It is my opinion that the main reasons for the dredging conflict were public misperception of the issue, fear of litigation on the part of policy makers, and failure to plan. Most important to preventing a recurrence are finding acceptable alternatives for disposal, decreasing sediment decontamination, and decreasing sediment loading.

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INTRODUCTION

This paper presents the results of a research project about the public policy aspects of the dredging conflict that occurred in the Port of New York and New Jersey between 1992 and 1996. The conflict came to a head in 1992, when it was proposed that the Mud Dump, located approximately six miles east of the New Jersey shore, should be closed and the Environmental Protection Agency (EPA) changed its testing standards for dredged material and the majority of dredged sediments were prohibited from being ocean dumped (Table 1). Suddenly, there was no place to dispose of dredged material and siltation buildup began in the port.

Ports play an essential role in the U.S. economy, defense, and environment. About ninety-five percent of imports and exports coming into the country have to pass through U.S. ports. In 1992, U.S. ports handled approximately 2.9 billion metric tons of cargo and supported over 15 million jobs (IWGDP 1994). Locally, the maritime industry of the New York/New Jersey (NY/NJ) region is a vital part of the economy, providing twenty billion dollars in annual revenue and supporting almost 170,000 jobs (New York Times 1996). Foreign trade makes up an important percentage of the Gross Domestic Product and is expected to grow in the future. Ports are important to defense for military navigation. Ports are strongly related to the environment in that they often are located in or near important wetlands, estuaries and fisheries (IWGDP 1994).

Until 1824, any port projects were carried out and paid for by state and local governments. In 1824, the General Survey Act passed and allowed Congress to make the first appropriations for port projects. Proposals and requests for funding had to be

submitted by the Army Corps of Engineers (COE) to Congress, who approved each project individually and granted funding on a year to year basis. The use of year to year funding meant that even if a project got approved, the funding could dry up before the project was completed. Therefore, the success of a project could depend on how skilled the local Congressman was at getting appropriations for his district. (Marine Board 1985).

Starting in the early 1970s, Congress had trouble getting port projects approved for several reasons including: public concern with environmental consequences of construction projects, the increasing budget deficit, and changes in public attitudes toward federal public works projects. As environmental concerns became stronger, the COE assumed responsibility for assessing the environmental consequences of port projects. Citizens groups and state and federal agencies with environmental regulatory responsibilities also became involved in the decision making process, making it more complicated, time consuming, and expensive to get a project approved. The concern with reducing the budget deficit caused trade-offs to be made over which federal projects received funding. The public demand for decreases in big government also decreased opportunities for federal projects to be approved. Thus, these three issues, the case by case Congressional approval for projects, the annual funding appropriations, and the lack of national policy for port projects created a situation where there was no framework for prioritizing projects. (Marine Board 1985).

There are two types of dredging projects, federal and local. Federal projects are paid for by Congressional appropriations and carried out by the COE. Federal projects

generally involve construction and maintenance of major access channels. Local projects do not receive federal funding. They generally involve berths, minor channels, and landfill projects. Local projects are subject to regulatory review by the COE and the states (Marine Board 1985). Every year the COE dredges and disposes of approximately 300 million cubic yards of dredge material nationwide. An additional 100 million cubic yards is dredged by local permit holders. Though the COE issues the permits for local projects, the Environmental Protection Agency (EPA) develops the environmental criteria used by the COE to evaluate the permit applicants. (IWGDP 1994).

The Problem

As stated earlier, dredging projects can become stalled for several reasons. Interagency conflicts, inadequate dredged material management, insufficient information, and inconsistent funding are some of the additional causes for stalled projects. (IWGDP 1994). New York/New Jersey Harbor recently had a problem with stalled dredging projects. In its natural state, NY/NJ Harbor is 18 feet deep. Thus, dredging of channels and berths is a necessity because today's ships need drafts of at least 40 feet, and 45 feet will be the norm in the future. In 1996, dredged material volume projections for the Port of New York and New Jersey were approximately five million cubic yards (United States Army Corps of Engineers 1996).

Until the 1972 Ocean Dumping Act, the COE dumped most of NY Harbor's dredged material into the open ocean. After the Ocean Dumping Act, the COE started putting the dredged material in an area called the Mud Dump, located about six miles east

of the New Jersey shore. Environmental regulations enacted in 1977 required any material destined for the Mud Dump to pass a toxicity test, referred to as the 'hard shell clam test.'

This test involved placing some hard shell clams in a sample of dredged material for a specific amount of time and if they lived, the dredged material passed the test. If the clams died, it meant the dredged material was contaminated and had to be specially processed or dumped elsewhere. Using the 'hard shell clam test', about five percent of dredged material was deemed contaminated. In 1992, the EPA revised the test, and began requiring the use of more sensitive bottom dwelling organisms. Sixty-six percent of the dredged material failed the new, more sensitive test. More specifically, fourteen percent of dredged material was Category I, meaning it could be placed in the open ocean or on sandy beaches, twenty percent was Category II, meaning it could be dumped in the ocean if covered with clean material, and sixty-six percent was Category III, meaning it had to be placed in a confined area or treated (Munson 1996).

The new, more sensitive test and the increased volume of contaminated material to be disposed of, led to a conflict that resulted in a dredging deadlock in the NY/NJ Harbor. The White House attempted to resolve this deadlock in the summer of 1996, when it released a plan that allowed for continued use of the Mud Dump until September of 1997.

However, this plan was rejected by Governors Pataki and Whitman, who were not consulted during any stage of the planning process (Munson 1996).

In October of 1996, the two Governors released their own plan, which called for the dredging of five million cubic yards of dredged material and is partly based on the White House plan with input from environmental groups (Office of Governor News

Release, October 7, 1996). The plan that Governors Whitman and Pataki have agreed to is essential to breaking up the three year dredging deadlock (Revkin 1996). The agreement, which is a partnership between New York, New Jersey, New York City, the federal government, and the Port Authority of New York and New Jersey (PANY/NJ) builds on a federal plan which clarified environmental testing procedures, streamlined the federal dredging permit issue process, and set a deadline of September 1, 1997 for ending the dumping of contaminated materials at the traditional dumping area near Sandy Hook, New Jersey (the Mud Dump; Table 1).

The Goal of the Project

The goal of this project was to analyze why the three year dredging deadlock occurred, the policy makers' solution to the deadlock, and steps taken to prevent a reoccurrence of the situation, from a public policy perspective. In order to reach this goal, several research questions were formulated. First, what are the underlying reasons for conflict in this issue? What is lacking institutionally that allowed the situation to get to the point that it did without resolution? Second, what is the current plan for the harbor? Is it being fully implemented? Is it moving quickly enough? What are the barriers and constraints to full implementation? What are the strengths and weaknesses of the plan? Third, will future problems and deadlocks be prevented, and if so, how? What will prevent a similar type of situation from occurring in the future? Finally, what lessons have been learned that are applicable to similar types of conflicts?

Possible causes for the dredging deadlock include a lack of regulatory framework, interagency and intergovernmental conflict, involvement of environmental groups, and lack of economically and technologically feasible disposal alternatives.

Table 1: Summary of activities leading to dredging deadlock and release of NY/NJ Bistate Agreement.

Year	Activity
Prior to 1977	Most dredged material dumped in the open ocean
1972	Passage of Ocean Dumping Act leads to use of Mud Dump
1977	EPA promulgates Ocean Dumping Act regulations and criteria
1992	Revised toxicity test for dredged material, closure of mud dump
1992 - 1996	No dredging, port loses business
Summer 1996	White House releases plan to break dredging deadlock, plan is not supported by Governors of NY and NJ
October 1996	Governors Pataki and Whitman release a bistate dredge plan, Mud Dump will remain in use for 1 year

METHODS

To carry out this research, interviews were conducted with representatives from the following organizations: New York Shipping Association, NYC Economic Development Corporation (EDC), Empire State Development Corporation (ESDC), New Jersey Department of Commerce and Economic Development, New Jersey Department of Environmental Protection (DEP), Environmental Protection Agency (EPA), Army Corps of Engineers (COE), Port Authority of New York/New Jersey, Coalition for the Bight, American Littoral Society, and Clean Ocean Action. The Hudson River Foundation provided essential background material.

Primary documents were analyzed, including the Hudson River Estuary Management Action Plan, the Joint Dredging Plan for the Port of New York and New Jersey (NY/NJ Bistate Agreement), and the Dredged Material Management Plan for the Port of New York and New Jersey Interim Report.

RESULTS

Tables 2 through 6 present the abbreviated responses to the interview questions asked of the representatives of the organizations listed in the Methods section. The interviewees have been divided into four groups: maritime companies (shippers) and economic interests, regulators, the Port Authority and environmentalists. The New York Shipping Association, EDC, ESDC, and the New Jersey Department of Commerce and Economic Development form the first group. The second group is composed of the

NJDEP, EPA, and COE. The third group is composed of representatives from the Port Authority. The fourth group includes Coalition for the Bight, American Littoral Society, and Clean Ocean Action. The numbers in parenthesis after the headings in the tables represent how many people answered the question. The interview questions are located in the Appendix.

Table 2 presents the responses to the interview question 'How would you describe the state of the New York/New Jersey Harbor dredging issue currently?' Answers range from stalemated to chaos to progress. Each person has a different perspective, which may reflect their agencies' goals or the wishes of their different constituencies.

Reasons for the conflict include the port's lack of visibility, the public misperception of the dangers of dredged material on land, a failure to plan for the consequences of closing the Mud Dump, an assumption that ocean dumping would always be available, and lack of political will (Table 3).

Table 4 asks the question 'Why did a solution take so long to develop?' Fear of litigation is one answer that was also mentioned as a reason for the conflict (Table 3). Other answers included bulkiness of the government process, lack of communication, lack of a clear leader, and lack of political will.

Table 5 presents the combined results of interview questions 6 and 9. In order to ensure necessary dredging in the future, it is essential to decrease sediment loading and decrease sediment contamination. Three out of four groups (Shippers, Regulators, and Environmentalists) stated long term pollution prevention as a necessity.

Table 2. How would you describe the state of the NY/NJ Harbor dredging issue currently?

SHIPPERS/ECONOMIC(4)	REGULATORS (4)
Significant dredging is occurring for the first time in four years	Chaos, politicized to the point where decisions aren't being made on a scientific basis, its hard for the port to be competitive
There has been progress in the last year, but we still have a long way to go	Back on track, controversy and conflicts are on a path to being resolved; political will is lacking, along with money and disposal options
The situation cannot get any worse	Chaotic, no overall coordination or direction; politics are a factor, its hard to get a decision made
In good shape; has come a long way but still need regional consensus	We are making a lot of progress, we have the plan and are taking steps forward
PORT AUTHORITY (2) Best since 1994	ENVIRONMENTALISTS (3) We are at a stalemate, the White House closed the Mud Dump too quickly
There are several issues that must be resolved and the port authority must take the lead	Extraordinary progress has been made; the approach being taken is very integrated
	Up in the air

Table 3: What are the reasons for conflicts in this issue?

SHIPPERE/ECONOMIC(4)	REGULATORS (4)
Public perception; lack of visibility of the port; single issue groups; shutting down the Mud Dump without a replacement	Political gridlock; environmental advocates working outside the system
Each group tries to get optimal results for itself, which results in suboptimal results for society; there is no frame-work for resolution; any action can be stopped by going to court	Strong support for the beaches and environment in New Jersey; no political will to make a decision about where to place dredge
Imbalance of concern resulting from a vulnerability to the legal system	Its a NIMBY issue; public misperception
Failure to plan, everything was ad hoc until the crisis; people expect government to do everything for the them all the time; no one aspect of the port community took charge	The issue has grown very quickly and as environmental regulations became stricter the issue came to a head
PORT AUTHORITY (2)	ENVIRONMENTALISTS (3)
Confrontational attitudes; litigation instead of consensus building	Political problems; fear of litigation; personal agendas coming before the good of the port
Shippers versus fisherman; badly put together regulatory system; political issues; lack of coordination between agencies	Assumption that there would always be ocean dumping Dumping was a cheap, easy solution and rules changed without preparation

Table 4: Why did a solution take so long to develop?

SHIPPERE/ECONOMIC (4)	REGULATORS (3)
The rules keep changing; there is no solution	Fear of litigation; there is no one solution, in the long term, there will have to be a group of solutions
Bulkiness of the government process; single issue groups; the permit process	There is no one solution
The issues keep changing and at the same time, science is also changing; its a complex market; there are many political levels to deal with	Same as reasons for the conflict-lack of awareness of the issue
Lack of communication between agencies	
PORT AUTHORITY (2)	ENVIRONMENTALISTS (3)
People don't know how to work together; people used to not having to worry about the dredging situation	Lack of political will Not easy to find alternatives because of the volume of material and the population density of the area
No one took the lead	Resistance to change; reliance on ocean dumping in the past

Table 5: What will it take to ensure necessary dredging in the future/is the current solution likely to "stick"?

SHIPPERS/ECONOMIC (4)	REGULATORS (4)
Quicker action is needed	Decreased sediment loading and contamination; take care of Superfund sites; decreased non point source pollution
Consensus; an action program that is binding and credible, need to be able to take action without fear of litigation; all groups have to make concessions	An alternative to disposal, proper funding; assurances for shippers
Clean up the pollution; use of confined ocean disposal	Funding; alternatives with enough volume
All agencies have to agree on a direction for the future	The proper balance of options
PORT AUTHORITY (2)	ENVIRONMENTALISTS (3)
It needs to become a self sustaining process; a decision about the desired utility of the port has to be made; the value of the port will drive a vision for the port and allow a long term solution	Need pollution clean up and sediment decontamination Long term pollution prevention
Need feasible disposal capacity; people have to decide the port is in the region's best interest	Reduce volume of dredged material; expedite implementation of existing decontamination technology; implement pollution prevention; clean up Superfund sites

Table 6 shows the biggest remaining problems include: public education, finding acceptable alternatives, implementation, and lack of time for the future of the port to be decided, as the shipper's leases are coming up for renewal.

Table 6: What are the biggest remaining problems?

SHIPPERS/ECONOMIC (4)	REGULATORS (4)
Making sure dredging needs are met	Public education; more scientific basis for the regulatory decisions that are made
Education; achievement of bipartisan support to remove the issue from its politicized existence	Finding alternatives; getting communities to accept a facility
Costly alternatives	Getting the framework worked out for making decisions; getting accurate information to the public; basing decisions on accurate scientific information
Agencies reaching consensus; public perception; keeping everyone talking	Implementing the chosen alternatives; getting the long term alternatives into place
PORT AUTHORITY (2)	ENVIRONMENTALISTS (3)
Time, because the shipper's leases are due soon	Consensus on the future of the port; willingness to compromise; public misperception
Dredge disposal capacity; making the decision about the future of the port	Getting regulatory agencies to use better science
	Reducing pollution

While there is no single solution to the dredging conflict, we can look to the *Joint Dredging Plan for the Port of New York and New Jersey (Bistate Agreement)* as a

foundation or starting point towards resolution. The fundamental principles for dredged material management as stated in the *Bistate Agreement* are to utilize the most economically and ecologically efficient management and disposal options. The specific objectives of the *Bistate Agreement* are to strengthen the economic vitality of the port, to take a coordinated approach to dredged material management in the region, to identify short and long term disposal requirements and options, to eliminate contaminants at the source, and to remediate contaminated material. In order to facilitate the dredging process, permit advance teams have been created to conduct preapplication meetings with applicants. The purpose of the meetings is to identify disposal options and testing requirements in order to increase efficiency and cost effectiveness for the permit applicants. The teams are composed of representatives from the EPA, COE, NJ DEP and NY Department of Environmental Conservation.

In the *Bistate Agreement*, the states commit to several short term initiatives (Table 7). Long term initiatives committed to by the states are shown in Table 8.

Table 7: Short term initiatives agreed to by New York and New Jersey (*Bistate Agreement*).

Construction of nearshore and upland demonstration projects
Development of confined disposal facilities
Investigation of new technology to contain material in confined disposal sites
Development of beneficial use projects
Development of transportation projects using dredge material
Use of decontamination technology
Development of consistent regulatory policies between the states
Working with Congress to insure appropriate federal actions are taken

Table 8: Long term initiatives agreed to by New York and New Jersey (*Bistate Agreement*).

Funding the recommendations in the Comprehensive Conservation and Management Plan
Implementation and enforcement of combined sewer overflow abatement controls
Additional studies of highly contaminated sediment
Pursuit of recovery of damages
Development of a large, long term capacity containment facility
Sponsorship of the Hub Port Study
Studies to increase knowledge of characterization of sediments, in order to make valid scientific and regulatory decisions

DISCUSSION

The diversity of answers in Table 2 shows that although a group of people serve on the same committees and have access to the same information, they can have vastly different perceptions of a situation. As stated by Cicin-Sain (1992), when different agencies are involved with an issue, conflicts can occur because the agencies carry out different missions, have different modes of action, and respond to different constituencies. This can explain why one person thinks the current state of the harbor is in chaos and another thinks it is in good shape.

Based on the responses from the interviewees, the main reasons for the dredging conflict appear to be public perception of dredge disposal, fear of litigation and failure to plan (Table 3). Complicating the disposal of dredged material is the lack of understanding of the issue by the general public. This lack of understanding impacts negatively on community acceptance of disposal alternatives. Those who are aware of the issue often confuse dredged material disposal with disposal of garbage, sewage sludge, and medical waste (Birgeles 1993). The COE has proposed many alternatives for dredged material disposal which are met with fear, suspicion and hostility by the public (Revkin 1997a). As evidenced in Table 6, public education is sorely needed to counter this problem. It has been stated that one of the reasons why the deadlock occurred was because regulators were slow to act out of fear of litigation by environmental groups. In fact, a lawsuit was filed by local environmental groups and fishermen to stop dredging under a permit issued for Port Elizabeth/Newark (Wahrman 1996). The threat that a lawsuit can be filed every time a permit is issued can pose a large deterrent to taking

action. Closing the Mud Dump without an alternative way to dispose of the dredged material also had ramifications. To keep from repeating past mistakes, and in an effort to reassure shipping companies that New York and New Jersey are committed to keeping the port open, the Port Authority has budgeted \$1.2 million for a plan to revitalize wharves in Brooklyn and Bayonne (Revkin 1997c). The goal of the plan is to determine how the states can maximize economic benefit from investments in new wharf space, cargo handling equipment, and road and rail lines (Revkin 1997c).

In an important step toward cleaning up pollution, which is necessary to ensure dredging projects run smoothly in the future and the current solution holds (Table 5), New York State has joined a federal effort to determine the costs of environmental damage to the Hudson River from toxic chemicals (Revkin 1997b). Under the federal Superfund law, compensation could be sought for damages to the river. New York state's participation in the investigation is important because when the individual state joins the federal effort, a broader array of environmental damages can be assessed under the law (Revkin 1997b).

As shown in Table 6, finding acceptable alternatives for disposal is essential. In the continuing effort to find a place to dispose dredged material, New York, New Jersey, and Pennsylvania have recently agreed to use mud dredged from the port to seal abandoned coal mines in Pennsylvania (Revkin 1997d). A pilot project is underway, testing 500,000 tons of mud. If the pilot project is successful, it could lead to a win-win situation for the three states, as there are more than 9,000 abandoned mine areas in Pennsylvania.

By comparing the *Bistate Agreement* and other efforts toward solving the dredging conflict to the *Report to the Secretary of Transportation, the Dredging Process in the*

United States: An Action Plan for Improvement (The Interagency Working Group on the Dredging Process 1994) an evaluation of attempts to resolve the port conflict can be made. The *Report to the Secretary of Transportation* (IWGDP 1994) states several problems that can occur during the dredging process and then goes on to make recommendations to resolve those problems.

The Port of NY/NJ was affected by several problems that also occur nationwide, which involve the planning process (IWGDP 1994). These problem were: inadequate early planning at all levels, as the port functioned in an ad hoc manner; inadequate communication and coordination; planning decisions based on incomplete analysis of the effects of the plan; long term planning not linked with broader watershed management; and port dredging and dredged material management not linked with landside transportation system planning.

To resolve these problems, four recommendations were suggested in the *Report to the Secretary of Transportation* (IWGDP 1994). The recommendations were: ensure that the planning process reflects the mix of environmental, political, and economic circumstances of the region; make planning strategies flexible to integrate new science and technology; have regional and local planning interests develop direct mechanisms for early coordination and advanced planning for dredging activities; and broaden public participation to ensure widespread understanding of the issues including, the role of the port, the availability of options, and the risks of those options.

Applying these recommendations to the Port of NY/NJ, there has been a great effort to reflect the mix of environmental, political, and economic circumstances in the

planning process, for example, the Dredged Material Management Interagency Working Group (DMMIWG) has broad representation, strategies are flexible, and the *Bistate Agreement* deals with decontamination technology (Tables 7 and 8). The lack of early coordination and advanced planning is part of the cause of the conflict and efforts are being made now to avoid a repeat in the future (Tables 7 and 8). There is every opportunity for public participation, but understanding of the issues is lacking and needs improvement (Table 6).

The Port of NY/NJ was also affected by two other problems listed in the *Report to the Secretary of Transportation* (IWGDP 1994). One problem was that for many projects, the dredging approval process takes too long and is unpredictable. The permit process was a factor in the dredging conflict (Table 4). To resolve this problem, the recommendation suggested in the *Report to the Secretary of Transportation* (IWGDP 1994) was to improve and coordinate dredging policies and planning and expand information sharing. The *Bistate Agreement* did create permit advance teams for this purpose.

The last problem discussed in the *Report to the Secretary of Transportation* (IWGDP 1994) that affected the Port of NY/NJ was dredging results in large quantities of material that has to be disposed of in an environmentally sound manner. Four recommendations were offered: minimize uncertainties to make better management decisions; improve guidance used to evaluate bioaccumulation of contaminants from dredged materials; identify barriers to managing contaminated material and ways to overcome the barriers; and identify ways to reduce the volume of material that has to be

