National Oceanic and Atmospheric Administration (NOAA) Port Environmental Management Practices (EMP) Project

February 2004

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1.0 INTRODUCTION

1.1 PROJECT GOAL

The National Oceanic and Atmospheric Administration (NOAA) has partnered with the American Association of Port Authorities (AAPA) and the Coastal States Organization (CSO) to develop environmental management practices (EMPs) for port maintenance, development, and expansion. NOAA is in the process of expanding its role in supporting the Nation's port and marine infrastructure. NOAA, with its unique scientific expertise and regulatory responsibilities, is well suited to play a leadership role in assisting port and coastal communities plan for infrastructure development. NOAA port and marine responsibilities range from providing charting and navigational services to coastal restoration and fish habitat protection. The NOAA/AAPA/CSO partnership initiated a project through which NOAA could demonstrate the coordination of its products and services to better assist its constituency.

The objective of the project was to develop practices to improve the environmental management of port activities. The project was designed to be a learning process for NOAA in determining how to focus its resources in developing EMPs for port development. NOAA solely relied on port communities to identify needs and problems, brainstorm solutions, and assess where NOAA should focus its resources. A lesson learned was that planning frameworks which bring together multiple agencies and communities are an effective planning strategy; as a result, NOAA could consider focusing its resources on supporting these planning frameworks.

Two ports were selected as pilot projects and each had an existing issue that intersected NOAA's mission areas. By focusing on a particular port issue, NOAA was able to elicit concrete recommendations from stakeholders on how to improve its role. The San Francisco pilot project was intended to demonstrate how NOAA could better focus its resources and coordinate its expertise in regards to environmental "fish" windows. The Lake Charles pilot project focused on the issues of beneficial re-use of dredge material and general navigation to develop EMPs. Since transferability was the primary goal for EMP development, the environmental windows, beneficial re-use, and navigation issues were strategically selected to reflect challenges facing ports across the nation.

The overall objective of the Pilot Projects Program was to identify methods that NOAA could use to implement specific environmental and navigational support to the selected Ports. By working with the Pilot ports, systems and techniques could be developed that would allow NOAA to demonstrate how the agency's mandates of environmental stewardship and navigational management can be applied in support of the Port industry's role in the development of the Marine Transportation System.

On a larger scale, this project lays the groundwork for the Department of Commerce's Port Improvement and Economic Revitalization (PIER) Initiative. The initiative was established to address critical Marine Transportation System (MTS) issues, including port infrastructure maintenance and development, dredging and disposal, trade, security, safety, and the environment (*1*).

1.2 IDENTIFICATION OF PILOT PROJECTS

On October 17, 2002, the Management Committee convened for the kick-off meeting to identify the location of two pilot projects that would combine several of NOAA's responsibilities. Fifteen ports were nominated based on size and geographic location. Through a progress meeting on November 8, 2002, the ports were further categorized according to high, medium, and low priority (Appendix A). Candidate Pilot Ports were identified that had potential projects and/or development issues that could be supported by the various NOAA programs. The ports and potential projects were compared against an evaluation matrix (Appendix A) with the following criteria:

- Potential for successful resolution of issues of concern to the port – Would NOAA's direct assistance help resolve an identified environmental developmental project or concern?
- Potential to apply multiple NOAA programs – Would the range of projects at a Port involve several NOAA agencies and departments?
- Ability for NOAA to dedicate resources and participation – Is the Port located in a NOAA region that had the staff available to assist the program?
- Applicability of NOAA programs to the port – Do the identified projects fall into an area of NOAA responsibility?

- Potential to apply diverse partnerships – Are other local stakeholders actively involved in the project?
- Transferability – Would the results of the pilot projects be easily transferable to other regions of the country?
- Port commitment – Would the selected Port be an active participant in the pilot study activities?
- State coastal zone management (CZM) participation – Is the Port located in a State with an active and involved CZM agency?
- Other partners' availability – Would other federal agencies be able to be involved in the program?
- Potential to demonstrate facets of an environmental management practices framework – Would the end result of the Pilot project be recognized as an overall improvement in demonstration of environmental management practice?
- Potential to add value to ongoing local efforts – To what degree would the proposed project be beneficial to the local port/sponsor?

The two ports that best met these criteria were the Port of Oakland, CA (a large port) and the Port of Lake Charles, LA (a mid-sized port). These two pilot studies provided an ideal opportunity for developing EMPs because of the ports' established relationships with planning committees, engaged local communities, and defined issues of concern within NOAA's range of responsibilities. In addition, the ports' receptiveness to partake in the pilot studies encouraged an environment conducive to problem-solving.

2.0 SAN FRANCISCO BAY PILOT PROJECT

2.1 WORKSHOP SUMMARY

On January 28, 2003, an initial workshop was held for the San Francisco/Port of Oakland pilot project (Appendix B). The attendees included a wide range of stakeholders, including representatives from federal and state agencies, ports, environmental organizations, and consultants (Appendix B). The goal of the workshop was to elicit issues of local concern, including local perception, current procedures, what has worked/not worked, and local priorities.

Workshop participants established that NOAA could provide a valuable service to its constituents in the Bay area by creating a framework for identifying and evaluating projects that could adversely affect natural resources in the Bay. The goals are to improve environmental performance, efficiency in environmental review, transparency, and predictability in permit applications, particularly with regard to dredging and disposal projects. The short term focus of this effort will be to address accessibility of data and information needed to reduce uncertainty around environmental "fish" windows. The environmental fish windows topic serves as an ideal issue for NOAA to address through the San Francisco pilot project because other ports are also confronting challenges in regards to fish windows, which provides the potential for transferring the EMPs from this project to other locations.

2.2 KEY ISSUES

The various local stakeholders expressed concern with the existing "fish" windows developed under the Endangered Species Act Biological Opinion for the San Francisco Long-Term Management Strategy (LTMS). The consensus was that there needs to be better supporting science for establishing environmental windows. Below is a list of key issues raised by the stakeholders on how NOAA could assist in improving the planning process of dredge projects:

- document the current planning processes of dredge projects and identify processes that work and do not work;
- streamline consultation process;
- increase transparency of decision process with respect to permit review;
- identify tools and resources available to assist project consultations (e.g., data, procedures, and people/organizational structure);

- collect data and consolidate science to identify data gaps (e.g., effects of dredging technologies, distribution of key species and habitat, biology of key species, and most significant effects pathways);
- establish peer review process for evaluating relevant studies and data;
- reduce the uncertainties over the effects of dredging;
- improve coordination with the Corps on maintenance dredging program (e.g., forecasting, funding); and
- improve the mitigation process.

The issues raised during the workshop were consolidated into specific actions items as discussed under the next section.

2.3 NEXT STEPS

The workshop concluded with a list of specific actions to address the key issues raised by the local stakeholders (Appendix B).

Describe Current Planning Process

> **Specific Action**: Place this pilot project within the framework of the larger LTMS comprehensive planning effort ongoing in the SF Bay/Port of Oakland. Describe what worked well and support, and capitalize on, this effort. Describe usefulness of the framework in enabling NOAA assistance through this pilot project. Describe what has worked in other port areas.

Streamline Consultation Process

> **Specific Action**: Provide streamlining ideas for the consultation process by finalizing and summarizing the document entitled, "An Assessment of Marine Transportation Project Review and Coordination by the NOAA Fisheries" (DRAFT 2003).

Identify Information Sources

Specific Action: Support the LTMS Science Work Group by enlisting support from NOAA experts. Survey and develop a clearinghouse of available literature on topics relevant to fish windows issue in SF Bay.

Deliver a Supporting Geographic Information System

Specific Action: Discuss needs for GIS tools to support port planning and permit review. Discuss available tools, determine missing layers, decide how products should be developed and distributed to the public and internally within NOAA.

Improve Contracting & Scheduling

Specific Action: Discuss contracting and scheduling procedures with USACE – SF District and compare to other districts.

2.4 SUMMARY OF ACTIVITIES

2.4.1 Planning Process

2.4.1.1 San Francisco Planning Process

To determine how NOAA could better assist port authorities and coastal communities in the San Francisco Bay area, it is necessary to understand the current planning process of proposed port activities. The planning process for port related projects in the San Francisco Bay Region has been well established prior to the implementation of the NOAA EMP project and serves as a good basis for understanding how the overall regional process is coordinated between the various federal, state, and local agencies. A description of this existing planning process follows.

Dredging and disposal activities in the Bay area are dictated by the *Long-Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region Management Plan (2001)*. The Long-Term Management Strategy (LTMS) was initiated in 1990 by federal and state agencies with the primary authorities to regulate dredging and disposal activities in the Bay Area. The agencies include:

- U.S. Army Corps of Engineers (USACE)
- U.S. Environmental Protection Agency (USEPA)
- San Francisco Bay Conservation and Development Commission (BCDC)
- San Francisco Bay Regional Water Quality Control Board (SFBRWQCB)
- State Water Resources Control Board (SWRCB)

These agencies coordinate with stakeholders from business, environmental, and scientific communities to develop an approach for managing the Bay area's dredging activities for the next 50 years. The goals of the LTMS include: 1) balancing economic and environmental interests in regards to dredging and disposal activities, 2) maximizing the beneficial use of dredged material, and 3) developing a cooperative permit application review process for dredging and disposal projects. The LTMS goal is to dispose an average of no more than 1.0 million cubic yards (mcy) of dredged material per year at the in-Bay sites, with the remainder of the material going to beneficial reuse sites or the San Francisco Deep Ocean Disposal Site (SF-DODS) (*2*).

LTMS Organizational Structure

The LTMS goals are achieved through the coordinated effort between various agencies, committees, and stakeholders. The overall LTMS program is directed and reviewed by the Executive Committee which is comprised of the executive officers of the original five LTMS agencies: USACE, USEPA, SWRCB, SFBRWQCB, and BCDC. The LTMS Program Management Committee, comprised of the senior technical managers of USACE, USEPA, SFBRWQCB, and BCDC, is responsible for the day-to-day management of the LTMS program, including addressing issues raised by LTMS stakeholders, working with the Dredged Material Management Office (DMMO), conducting public workshops, and reviewing and revising the Management Plan (*2*).

The members of the Program Management Committee, in conjunction with various SF Bay agencies and stakeholders, serve on the Environmental Windows Work Group. The Environmental Windows Work Group is a derivative of the LTMS with the mission to protect species while simultaneously dredging in the Bay. The tasks are distributed among five subgroups, as follows:

- **The Project Planning & Permitting Subgroup** identifies, and seeks to solve, the problems of specific dredging projects scheduled during the current year's environmental working window.
- **The Science and Data Gaps Work Subgroup** focuses on enhancing the science supporting LTMS decisions. The goals of this work group include streamlining the consultation process, providing guidance on monitoring techniques during dredging, identifying data gaps (e.g. effects of dredging technologies, distribution of key species and habitat), and establishing a peer review process for evaluating scientific studies.
- **The Technology and Operations Work Subgroup** manages the improvement of the mitigation process. For example, this group is identifying avenues for transferring information to field staff in agencies, determining the effectiveness of mitigation measures, and developing a database of equipment options.
- **The Confounding Factors Work Subgroup** is identifying ways to improve the LTMS process with respect to planning, permitting, and contracting procedures for dredging projects.
- **The Funding Work Subgroup** is identifying ways to improve the funding procedures for dredging projects.

The Environmental Windows Work Group's planning efforts are coordinated by one of its members, the Bay Planning Coalition (BPC). The entire list of members can be found in Appendix B. The BPC is a non-profit, membership based organization that participates in federal and state planning processes in the Bay area. They organize planning efforts between industry, government, and local stakeholders in the areas of dredging and navigation, transportation, wetlands and wildlife, and water quality and water supply (*3*).

Dredge Material Management Office

The primary state and federal agencies involved in permitting dredge and dredge material disposal projects are the Bay Conservation and Development Commission (BCDC), State Lands Commission (SLC), San Francisco Bay Regional Water Quality Control Board (SFBRWQCB), U.S. Army Corps of Engineers (USACE) San Francisco District, and the U.S. Environmental Projection Agency (USEPA). Together, they created the Dredged Material Management Office (DMMO), hosted by USACE, to serve as a single point-of-entry, or a clearinghouse, for project proponents into the permitting process. Other participating agencies that provide advice and

expertise to the process include the California Department of Fish and Game, the NOAA National Marine Fisheries Service, and the Fish and Wildlife Service. The goal of this interagency group is to increase efficiency and coordination between the member agencies and to foster a comprehensive and consolidated approach to handling dredged material management issues. The DMMO provides applicants with a single permit application, which the agencies then jointly review at bi-weekly meetings before issuing their respective authorizations. The DMMO agencies encourage early coordination between the applicant, the DMMO, and the member agencies to establish project-related working groups as soon as possible.

The DMMO makes consensus based recommendations to the member agencies on the completeness of the permit applications, but it does not issue the permits. The DMMO cooperatively reviews Sampling and Analysis Plans (SAPs) and Tier I requests, analyzes the results of sediment quality sampling, and makes suitability determinations for material proposed for disposal in San Francisco Bay. The DMMO, in conjunction with its member agencies, also establish seasonal work windows in which to conduct dredging and disposal activities without requiring any further consultation under the Endangered Species Act (ESA). For those projects that require work outside of the work windows, further consultation under the ESA is required (*2*). The consultation process is presented in Figure 1. NOAA, as a DMMO participating agency, assists in establishing environmental windows. NOAA also provides consultations to USACE in regards to impacts of coastal development on marine and anadromous fishery resources through the following authorities:

- Fish and Wildlife Coordination Act (FWCA)
- Endangered Species Act (ESA)
- Marine Mammal Protection Act (MMPA)
- Magnuson-Stevens Fishery Conservation Act (MSFCA)
- National Environmental Policy Act (NEPA)

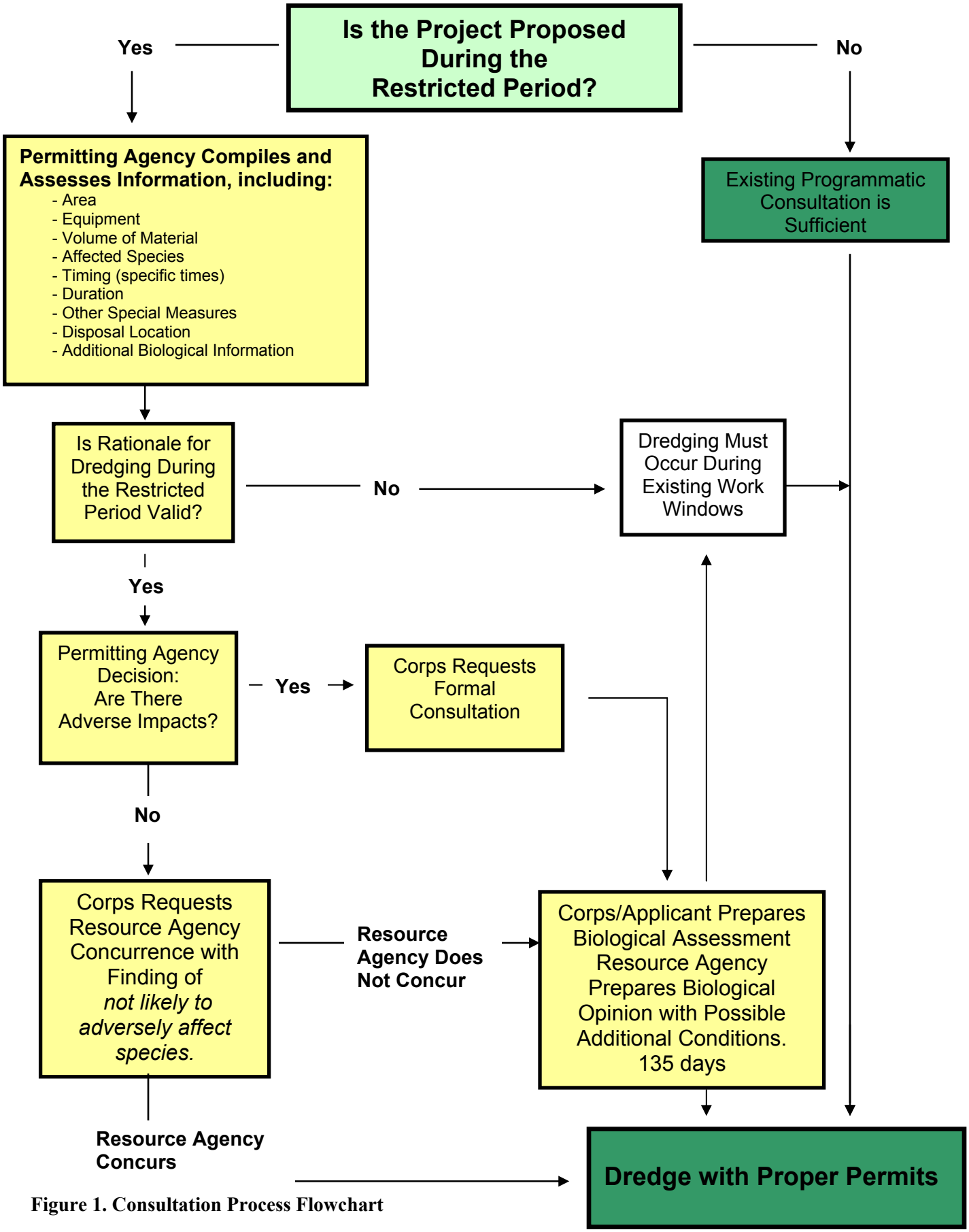

Figure 1. Consultation Process Flowchart

Source: LTMS (2)

2.4.1.2 Other Regional Planning Processes

The planning of dredge and disposal projects across the nation follow a similar planning framework because each USACE District is required to prepare a Dredged Material Management Plan, which dictates dredge and disposal activities (USACE policy EC-1165-2-200). Many districts are in the process of creating this plan, often in conjunction with other agencies, while others are already operating according to such a plan. Some states also have guiding programs that address dredging issues. In this case, the Federal and State level coordinate the planning process to maintain consistency and to prevent overlap. The Federal and State plans are implemented through the coordinated effort of regulatory agencies and interested entities via regional planning committees and work groups. Within this framework, different locations have incorporated innovative, site-specific strategies to ease the permitting process for dredge projects. This section examines the planning process for dredge projects in three different locations as examples – New York, Los Angeles, and Baltimore.

New York

Interviews with staff from the USACE New York District and the Port of New York and New Jersey provided perspective on local dredging procedures. The Dredged Material Management Plan (DMMP), prepared by the Corps, is coordinated with other agencies and public involvement groups through the Dredged Material Management Integration Work Group (DMMIWG) (*4*). DMMIWG operates through the Harbor Estuary Program (HEP), which is a multi-year effort, authorized by the EPA, to develop and implement a plan to conserve the estuary. This plan, the Comprehensive Conservation and Management Plan (CCMP), addresses port activities via the Dredged Material Management Module (*5*).

The DMMIWG provides a forum for reporting on the progress of initiatives as well as for coordination among the disparate groups that are involved in dredging issues. The DMMIWG has been meeting once a month and posts its meeting minutes on their website. Although participation varies, the DMMIWG includes representatives from regulatory agencies, consultants, environmental groups, and interested citizens. It has evolved in the last 8 years; initially, DMMIWG had specific tasks in regards to dredging, but now they serve as an information sharing group for those interested in dredging activities in the NY and NJ area.

The DMMIWG has eased the planning process for dredging projects. The key elements of success include:

- Consistency (low turnover in key people) – the commitment by several key people to stay in the game, knowing who to trust, who to call; knowing how people operate and how to operate with one another, building a communication net, and ongoing relationships.
- Track Record – maintaining a record or history of what has been discussed, what the issues and decisions are, routine availability of printed material for the public.
- Champions – there need to be champions at different levels (policy, managers, and project managers); managers need to be clear about the policy being implemented.

Suggestions for improving the process included identifying other agency personnel who can serve as resources.

Los Angeles

The Port of Los Angeles is located within the San Pedro Bay basin. While there are several residential communities located near the Port, the vicinity is predominantly an industrial harbor. Several industrial marine users are located adjacent to the Port of LA, including the Port of Long Beach and an area previously used by the Long Beach Naval Base. Due to the industrial nature of the harbor around the Port, dredging projects do not routinely involve sensitive issues. The various regulatory agencies that have authority over the Port of Los Angeles appear to factor in the industrial character of the Port area in permitting and approving dredging projects.

Interviews with staff from the Contaminated Sediments Task Force (CSTF) and the Port of Los Angeles provided insight into the local planning process for dredge activities. The multi-agency CSTF was established by the California Coastal Commission and the Los Angeles Regional Water Quality Control Board to address the dredging and disposal of contaminated sediments in the Los Angeles region. The CSTF includes representatives from:

- California Coastal Commission
- U. S. Environmental Protection Agency (Region IX)
- Regional Water Quality Control Board

- U.S. Army Corps of Engineers, Los Angeles District
- Heal the Bay
- Southern California Coastal Waters Research Program
- Santa Monica Bay Restoration Project
- County of Los Angeles
- City of Long Beach
- City of Los Angeles
- Port of Long Beach
- Port of Los Angeles
- California Earth Corps
- U.S. Fish and Wildlife Service
- NOAA National Marine Fisheries Service
- California Department of Fish and Game
- The Office of Congresswoman Jane Harman

The Task Force consists of an Executive Committee, a Management Committee, five Strategy Development Committees, a Technical Advisory Committee, and an Interim Disposal Advisory Committee. The five Strategy Development Committees include the Upland Disposal and Beneficial Re-Use Committee, Aquatic Disposal and Dredge Operations Committee, Watershed Management and Source Reduction Committee, Implementation Committee, and Sediment Screening Threshold Committee. The CSTF Technical Advisory Committee reviews potential dredging projects (*6*).

CSTF is currently in the process of creating the CSTF Strategy Report. This report will contain a long-term management strategy (e.g., BMP, pilot studies) and the strategy will be implemented by a permanent Dredge Material Management Committee (DMMC).

The way the planning process is set up in LA and SF differs because of the differing nature of the projects. The projects in LA usually do not create as much controversy as in SF. This may be because there are fewer ESA listed species of concern. LA's DMMP is currently in the feasibility study stage. The CSTF is usually not involved in the project planning phase unless there is controversy or it is a large project. At that point, an advisory committee is convened.

The CSTF addresses ways to improve the review and approval process for dredging projects through the *Los Angeles Basin Contaminated Sediments Task Force Streamlining Report* (*7*). Specific suggestions for streamlining include:

> The Task Force, whether through the Interim Advisory Committee or a DMMO, could get USFWS and NOAA Fisheries more involved in the review process. Not only would the resource agencies be invited to the meetings, but also alternatives to an individual review process could be investigated (e.g., establishing an area-wide endangered species consultation; developing general guidance to specific issues that come up during dredging projects) (*7*).

According to the California Coastal Commission's perspective, strategies that have improved the planning process have been the creation of the CSTF Advisory Committee in providing reliable strategies and CSTF's consolidated permit application.

To assist with specific port projects, the Port of LA Community Advisory Committee was established as a standing committee of the Port of Los Angeles Board of Harbor Commissioners in 2001. The purposes of the Committee are to:

- assess the impacts of port developments on the harbor area communities and to recommend suitable mitigation measures to the board for such impacts;
- review past, present and future environmental documents in an open public process and to make recommendations to the Board that ensure that impacts of the communities are appropriately mitigated in accordance with Federal and State of California law; and
- provide a public forum and to make recommendations to the Board to assist the Port in taking a leadership role in creating balanced communities so that the quality of life is maintained and enhanced by the presence of the Port (*8*).

As the Committee has only been in existence for two years, it is still in the process of smoothing out its operations. The members include organized labor unions, neighborhood councils, educational institutions, community organizations, political officials, and business and industry groups.

Baltimore

Interviews with staff from the USACE Baltimore District and the Maryland Port Administration were conducted to gain a better understanding of their planning process for dredging projects. The Corps is in the process of creating a Dredged Material Management Plan (DMMP) to develop a long-term strategy for dredging in the Baltimore District. (Philadelphia and Norfolk Districts also exercise authority in Port of Baltimore area). The State, through its Maryland Port Administration (MPA), is also conducting a Dredged Material Management Program (DMMP) for the Port of Baltimore. The State of Maryland's DMMP and Baltimore District's DMMP processes coincide in regards to the goal of identifying appropriate placement sites for dredged material from the Federal, State, and local non-Federal channels over the next 20 years (*9*).

The MPA views the DMMP process as a pre-National Environmental Policy Act (NEPA) process, in that it builds support in the event of future specific NEPA evaluations. The State's DMMP incorporates input from various stakeholders and the process is organized around an Executive Committee, a Management Committee, a Citizens Committee and numerous ad hoc working groups. The planning process has been revised since various stakeholders felt that the MPA was inappropriately taking the lead of the process. As a result, MPA has stepped back and allowed interested parties to be owners of the process. The port was also criticized for being driven primarily by cost concerns, thereby limiting alternatives for dredge and disposal activities. The process has been revised so that proposed projects first go to a science and technical work group (Bay Enhancement Group), so that policy and budget issues do not play a factor until the appropriate science has been determined. The Management Committee, including NOAA Fisheries, focuses on policy issues, timing, and cost effectiveness.

The Citizens Committee, organized by the MPA, ensures an open process by providing an opportunity for the public to get involved in the DMMP process. The website for the Citizens Committee can be found at mpa.safepassage.com, which provides meeting times, agendas, and minutes. In addition, it is a good source of information about the DMMP program structure and process (*9*). According to the MPA perspective, the Citizens Committee has been helpful in creating a more open process and a healthy cross section of representatives. To address the concerns by interested parties about the placement of sediments, a work group was formed to examine the placement of harbor sediments.

MPA attributes the positive shift in how the public views dredging activities to the Chesapeake 2000 Agreement. Chesapeake 2000, a multi-state agreement through the Chesapeake Bay Program, guides Maryland, Pennsylvania, Virginia, the District of Columbia, the Chesapeake Bay Commission and USEPA in their combined efforts to restore and protect the Chesapeake Bay (*10*).

NOAA Fisheries, a partner of the Chesapeake Bay Program, provides services to the Bay region by maintaining web site of fisheries data. The data includes Chesapeake Bay specific summaries of Recreational and Commercial fishery trends, stock assessment information, and commercial and recreational fisheries landings for the bay. The Statistics & Economics Division of National Marine Fisheries Service also maintains a home page which provides a wide range of fisheries-related data. Through these on-line databases, information on commercial fisheries landings, fisheries trade information, recreational fisheries landing, fishery market news, and other fisheries economic information pertaining to the Chesapeake Bay and the rest of the United States, is available (*10*).

2.4.2 Streamline Permit Review Process

To better inform constituents about the role of NOAA National Marine Fisheries Service (NOAA Fisheries) in the assessment of Marine Transportation System (MTS) projects, NOAA Fisheries supported the creation of a document entitled, *An Assessment of Marine Transportation Project Review and Coordination by the NOAA Fisheries* (*11*). The report presents the regulatory procedures, and their associated timetables, applicable to port projects. In addition, it includes a summary of comments obtained from port industry representatives and NOAA Fisheries staff that identifies perceived difficulties associated with regulatory coordination on port projects.

Many of the port representatives contacted appeared less concerned with how long it took NOAA Fisheries to make a decision than with the *way* in which the decision was made. Most of the port industry contacts feel that NOAA Fisheries needs to be more consistent and predictable in its decision-making process and with their products. They also recommended that NOAA Fisheries make a more concerted effort to use the best available science when developing conservation recommendations and reasonable and prudent measures. This effort could be greatly augmented by more information sharing across and within regions and science centers. More research would improve the knowledge base used to develop management recommendations and could reduce the

degree of uncertainty plaguing most impact assessments. Securing funds to carry out such research remains a formidable obstacle. Building better relationships with agency representatives (via interagency working groups, periodic workshops, etc.) would enhance communication and encourage reaching consensus on issues. The report presents six individual issues that were consistently raised during the telephone discussions. The individual issues, and the associated concerns and recommendations for addressing these issues, are detailed in the table below (*11*).

Individual Issue	Comments	Recommendations
Seasonal Windows	Seasonal constraints are arbitrary and not based on scientific data.	• NOAA Fisheries needs to work harder at consolidating and disseminating fishery information used to establish seasonal constraints (greater use of GIS) • More collaboration between NOAA Fisheries Science Centers and the monitoring and research arms of the USACE (Waterways Experiment Station), both regionally with the districts, and with the Engineering Research and Development Center. (Currently, USACE/ERDC is more actively involved in assessing seasonal windows than is the NOAA Fisheries)
Essential Fish Habitat (EFH) Conservation Recommendations	EFH Conservation Recommendations seem arbitrary and not well documented with scientific data.	• Better guidance and stronger scientific justification • NOAA Fisheries should pursue federal funding opportunities and conduct joint studies with the ports
Mitigation Banking	No consistent policy on this issue.	• NOAA Fisheries should embrace a more holistic approach on the issue, need to view mitigation in terms of net benefits to the ecosystem instead of focusing only on losses in a specific area. • Work more closely with other NOAA programs (e.g. National Ocean Service or Coastal Services Center)
Professional Relationships and Staffing Concerns	The relationships between NOAA Fisheries and ports are counterproductive leading to mistrust and miscommunication.	• NOAA Fisheries staff should be available and accessible • The use of Interagency Working Groups or Technical Advisory Committee's proved effective in building working relationships between industry and resources agencies and have helped streamline the permitting process.
Surprise Factor	Surprises hit at the eleventh hour (e.g. NOAA requests for more information which prolongs the process indefinitely)	• NOAA Fisheries needs to avoid surprises and allow the environmental review process to be more transparent. Applicants need to know what measures are being considered in order to plan for restrictions on work, production, or operation schedules.
Lack of Public Outreach	NOAA Fisheries to broaden their public relations and outreach programs. NOAA Fisheries plays a role in the fishing industry AND the maritime transportation industry.	• NOAA Fisheries should acknowledge and educate constituency by attending annual AAPA meetings, etc. to highlight updates about pertinent regulatory changes and hear concerns. • More consistency among websites, most helpful features: 1. a complete list of staff, phone numbers and program affiliations; 2. regional-specific information for key species of concern 3. a library of biological opinions and EFH consultations cataloged by year; 4. a listing of environmental guidelines (BMP's) for applicants to preview (including seasonal windows); 5. a link to a headquarters page that defines all statutes and consultation procedures; and 6. an announcements page that updates constituents about recent NOAA Fisheries regulations and other news.

Table 1. Individual Issues from Assessment Report

The document concludes with a list of strategies for streamlining Essential Fish Habitat (EFH) and Endangered Species Act (ESA) reviews. The recommended strategies include:

Interagency Participation in Early Planning Efforts

The use of interagency coordination teams and pre-application meetings has proven to be an effective means for developing strong working relationships and building consensus on project impacts and conservation recommendations. Creative problem solving is more likely to occur when resource agencies and applicants meet early on in the planning process.

Habitat Conservation Plans

Several NOAA Fisheries biologists advocate using Habitat Conservation Plans (HCPs) to cover port activities. HCPs would cover all port maintenance activities and set up a mitigation banking program for listed species.

Adaptive Management

Many port industry contacts encouraged NOAA Fisheries to use an adaptive management approach to provide more practical and flexible management that accommodates scientific uncertainty. Resource agencies need to recognize the uncertainty inherent in biological systems and seek to manage in a less absolute manner. By incorporating an adaptive management approach, the NOAA Fisheries would generate more information concerning the effects of specific management strategies on reducing impacts.

Programmatic Consultations

Programmatic consultations can be an effective tool for streamlining a burdensome ESA and EFH caseload. Many port projects entail routine, maintenance activities that can be covered under programmatic consultations. The NOAA Fisheries should be more inclusive when developing programmatic consultations to ensure that the consultation actually covers those maintenance activities for which the ports need coverage.

Port Liaison Program

After placing a port liaison within the NOAA Fisheries' Lacey, WA office, the Port of Seattle has found that the timeliness of NOAA Fisheries' responses is no longer a problem. The ports also value knowing that there is always someone at NOAA Fisheries who is available to respond to questions or concerns. Port of Seattle and Port of Tacoma representatives report seeing marked improvements in both the consistency and predictability of NOAA Fisheries responses and Biological Opinions after a liaison was stationed at NOAA Fisheries. The regulatory review process is now more transparent to them.

Cross-Training / Apprenticeship Programs

The NOAA Fisheries should develop more extensive cross-training and apprenticeship programs to provide biologists with greater depth of experience and knowledge about the laws affecting the agencies mandates and how they should be implemented. Periodic teaming opportunities and national retreats would promote national awareness of programs and strategies that foster reasonable and effective resource management (*11*).

2.4.3 Information Sources

To support NOAA's environmental permit reviews, a clearinghouse of information is being created. Because reviews are often conducted over short time frames, quality and efficiency of reviews can be improved by having quick access to information on the potential effects of coastal projects on natural resources and mitigation options. As an effort to develop the clearinghouse, NOAA has created databases with literature related to contaminants and dredging and a compilation of NOAA partner projects conducted in the San Francisco Bay region, which are located in Appendix B.

The following programs, centers, and institutes support and conduct research and maintain publications related to dredging operations.

USACE Library Program

The USACE Library Program provides an online card catalog through their website called the Corps of Engineers Library Information Online (CELIO) (http://lepac1.brodart.com/search/um/). This catalog contains publications and reports conducted by USACE authors in addition to non-USACE

authors. A search for SF District literature in relation to dredging retrieved primarily publications from the 1970s including dredge disposal studies and publications related to the environmental effects of specific dredge equipment. Also available are San Francisco Bay reports related to ecosystem habitat goals, environmental effects of dredging and disposal, assessment of long range effects of regional harbor development, and contaminated marine sediments. Also, each USACE District publishes information specific to their location. The USACE San Francisco District's website contains publications and studies such as Environmental Assessments, Management Plans, Benthic Surveys, and Feasibility Studies.

Point of Contact:
Frank Conway (415-977-8601)
SF District Web Technical Library
San Francisco, CA 94105-2197

Engineer Research and Development Center

Point of Contact:
Vicksburg Library Reference Desk
(601) 634-2355/2543
Library.Research@erdc.usace.army.mil

The U.S. Army Engineer Research and Development Center (ERDC) is an engineering and scientific research organization that conducts research for: Corps civil works and military projects, other federal agencies, and state and municipal authorities (http://www.erdc.usace.army.mil/) (*12*). The ERDC includes seven laboratories that provide technical information and publications:

- Coastal and Hydraulics Laboratory, Vicksburg, MS
- Cold Regions Research and Engineering Laboratory, Hanover, NH
- Construction Engineering Research Laboratory, Champaign, IL
- Environmental Laboratory, Vicksburg, MS
- Geotechnical and Structures Laboratory, Vicksburg, MS
- Information Technology Laboratory, Vicksburg, MS
- Topographic Engineering Center, Alexandria, VA

ERDC publication topics range from Dredging to Ecosystem Management & Restoration to Navigation. A search of the ERDC publications in regards to environmental windows brought up a technical report entitled, *A Framework for Assessing the Need for Seasonal Restrictions on Dredging*

and Disposal Operations, which provides a literature review of environmental impacts to biological resources; however, it is not specific to the San Francisco Bay area (*13*).

Waterways Experiment Station

The Waterways Experiment Station (WES) is headquarters for the ERDC. WES research is carried out in five separate, but closely interrelated laboratories: Coastal and Hydraulics Laboratory, Geotechnical Laboratory, Structures Laboratory, Environmental Laboratory, and Information Technology Laboratory (http://www.wes.army.mil/). Within WES, the Dredging Operations Technical Support (DOTS) Program provides environmental and engineering technical support to USACE Operations & Maintenance dredging mission. DOTS research can be found in the following locations:

- Environmental Effects & Dredging and Disposal (E2D2) is a searchable publications reference database containing reports, journal articles, conference proceedings, and publications.
- Technical Reports through:
    - Dredging Operations and Environmental Research (DOER)
    - Long-Term Effects of Dredging Operations (LEDO)
    - Environmental Effects of Dredging Program
- Information Exchange Bulletin (*Dredging Research*)

Institute for Water Resources

The Institute for Water Resources (IWR) staff produces research reports on various water resources topics and develops software applicable to water resource problems (http://www.iwr.usace.army.mil/). The research centers within IWR are the Hydrologic Engineering Center and the Navigation Data Center. The Hydrologic Engineering Center is a world-renowned research and development, training, and consulting organization in the area of hydrologic engineering and hydrologic models. The Navigation Data Center is the Corps data collection organization for waterborne commerce, vessel characteristics, port facilities, dredging information, and information on navigation locks (*12*).

2.4.4 Geographic Information Systems

As the evaluation of environmental issues can be significantly improved by combining scientific data and watershed characteristics into a GIS project, the National Ocean Service and NOAA Fisheries have developed the Watershed Database and mapping projects, which are decision-support tools for San Francisco and other watersheds around the country. The Watershed Database and Mapping Project CD provides a tool to compare data from various studies and can be used to simplify data analysis and presentation, as well as improve understanding of this dynamic ecosystem. The project supports a number of NOAA concerns such as protection of trust resources, restoration planning, hazardous waste site clean up, dredging/beneficial re-use, safe navigation, and the San Francisco International Airport expansion project. It also supports the needs of several partner agencies by helping to define long-term management goals and restoration strategies for the Bay.

In addition to the Watershed Database and Mapping Project CD**,** and in an effort to improve access and information exchange between Bay Area stakeholders and NOAA scientists, NOAA has developed a prototype web-based GIS mapping resource known as the *Project Impact Evaluation System*, or PIES (http://putchki.nwn.noaa.gov/website/pies_ims_webby/). The PIES site, built from the San Francisco Watershed Database and Mapping Project, is a pilot project that was initiated by the partnership between the NOAA agencies, the Port of Oakland, the American Association of Port Authorities, and the Coastal States Organization. The project intent is to provide geospatial data to improve management and regulatory processes and facilitate marine transportation projects and activities, while also helping avoid or reduce impacts to subtidal habitats and the aquatic species that utilize them. Opportunities for restoration and enhancement can also be better identified with this product, which in turn may help establish better and more successful mitigation for impacts that are unavoidable.

The PIES ArcIMS website provides access to information pertinent to planning port maintenance, development, and environmental permitting. By using a common web browser and the project's interactive mapping component as tools to view and query GIS data, users are able to access information on natural resources and view it within a specific geographic setting. Although the available GIS map layers alone do not provide a solution to many complex environmental issues facing San Francisco, these layers can help streamline permit reviews by providing a basic level of visual information for ports with complex dredging and construction issues.

2.4.5 Dredging Contracting & Scheduling

The consideration of "fish windows" is an integral part of the planning process of dredge projects. Projects are planned to strictly avoid any type of dredging or construction during established fish windows. The workshop participants have often encountered situations in which the dredging contractors were not able to start as planned due to the timing of various Federal contracting procedures. This impacts the overall project schedule because the construction may coincide with the fish windows, resulting in delays to the project and increased project costs.

To mitigate these situations, the USACE San Francisco District, working with Port of Oakland, has recently created a selection board to procure a contractor for multi-year Federal maintenance programs. Formerly, each individual dredge project was required to go through a separate Corps' contracting procedure. With the new contracting procedures, a multi-year/multi-project contract will be established to authorize the Corps to utilize this contract for any number of projects over the next three years, thereby reducing the waiting time for construction up to two months. The Port of Oakland and the USACE San Francisco District are continuing discussions on how to better coincide scheduling and contracting procedures.

2.5 COMMON THEMES

Common themes have emerged from the information above about processes that improve the planning of dredge and disposal activities. These themes provide a starting point for NOAA in determining which strategies to implement in the San Francisco area and possibly across the country.

Theme: Early Interagency Coordination

Strategies for NOAA Fisheries to enhance its role regarding this theme:

- create one stop shops (e.g., San Francisco's DMMO, LA's CSTF);
- develop consolidated permits;
- conduct pre-application meetings;
- ensure consistency (low turnover) and commitment by key people (e.g., applicants and stakeholders know who the players are, who to trust, who to call);
- position a port liaison at NOAA Fisheries; and
- focus on making the environmental review process more transparent for applicants (e.g. what measures are being considered in order to plan for restrictions on work).

Theme: Science

Strategies for NOAA Fisheries to enhance its role regarding this theme:

- consolidate and disseminate fishery information used to establish seasonal constraints (e.g., GIS);
- encourage collaboration between NOAA Fisheries Science Centers and the monitoring and research arms of the USACE (Waterways Experiment Station), both regionally with the districts, and with the Engineering Research and Development Center (currently, USACE/ERDC is more actively involved in assessing seasonal windows than is the NOAA Fisheries); and
- pursue federal funding opportunities and conduct joint studies with the ports.

Theme: Education / Stakeholder & Community Involvement

Strategies for NOAA Fisheries to enhance its role regarding this theme:

- educate constituency by attending annual meetings (e.g. AAPA) to highlight updates about pertinent regulatory changes and hear concerns;
- ensure consistency among websites (e.g., list of staff, information about key species of concern, library of biological opinions and EFH consultations, environmental guidelines);
- maintain public track record or history of what the issues are (e.g., meeting minutes);
- view participants as owners of the process; and
- funnel projects to science committee prior to other committees, so that policy issues do not influence the decision-making process.

Theme: Regional Guiding Document/Agreement

Strategies for NOAA Fisheries to enhance its role regarding this theme:

- take a proactive role in regional natural resource management agreements and partnerships (e.g., Chesapeake 2000 Agreement, Comprehensive Conservation & Management Plan).

Theme: View of Process

Strategies for NOAA Fisheries to enhance its role regarding this theme:

- view DMMP as pre-NEPA approach; and
- consider all participants owners of the process.

3.0 LAKE CHARLES PILOT PROJECT

3.1 WORKSHOP SUMMARY

The format of the initial workshop for the Lake Charles pilot project, held on January 24, 2003, paralleled the San Francisco pilot project workshop (Appendix C). The attendees included representatives from federal and state agencies, ports, environmental organizations, and consultants (Appendix C). The goal of the workshop was to elicit issues of local concern, including local perception, current procedure, what has worked/not worked, and local priorities. The workshop participants brainstormed environmental issues affecting the Port of Lake Charles that could serve as focus areas for NOAA in developing EMPs. As with the San Francisco pilot project, an issue was considered ideal if crossed several of NOAA's responsibility areas: navigation, stewardship, and environmental reviews. Several issues were raised, including ship channel studies, dredge material management, Moss Lake restoration, and the need for Physical Oceanographic Real-Time System (PORTS). The participants established that NOAA should focus on two programs: navigation and beneficial use of dredged material. As these areas are of local concern, in addition to affecting ports across the nation, they serve as ideal topics for developing transferable environmental management practices.

3.2 WORKSHOP CONCLUSIONS & NEXT STEPS

The workshop discussions mostly revolved around the issues of navigation and beneficial use of dredged material, since the participants determined these are two areas that provide a basis for developing environmental management practices. The workshop participants felt the best way to address navigation concerns was through the development of a hydrodynamic model of the Calcasieu Ship Channel. The participants suggested various purposes of a model, including to:

- monitor saltwater intrusion in the neighboring lake and marshes from channel maintenance dredging and deepening;
- locate disposal sites for dredged material;
- mitigate erosion, habitat degradation, and shoaling in the channel;
- study contaminant transport; and
- model current flow.

Participants agreed that NOAA, with significant modeling capabilities, could support the development of a hydrodynamic model of the Calcasieu Ship Channel and surrounding estuaries from both a marine transportation and environmental stewardship perspective.

The other focus area, the beneficial use of dredged material (e.g., wetland restoration), also cuts across NOAA's interest areas of navigation, stewardship, and environmental reviews. Considering the alarming rate of wetland loss in Louisiana and the problem of placement areas next to the channels reaching capacity, developing transferable environmental management practices for dredged material is a high priority for NOAA, the port, and the environmental stakeholders in the region. The participants discussed the challenges associated with beneficial use projects; for example, siting habitat creation areas, husbanding current dredge disposal sites, right-of-way negotiations, the Corps' legal requirement that the incremental cost over the least cost method of disposal must be cost shared with a non-federal sponsor, and conflicting uses of the coastal areas. As a result, the participants agreed that finding new and creative approaches for managing dredged material could assist in developing EMPs and a long-term strategy for wetland restoration.

The workshop participants also discussed the development of additional layers for use in NOAA Office of Response and Restoration's Calcasieu Estuary Watershed Database GIS, which combines scientific data and watershed characteristics. New layers would include potential restoration sites, how much material could be moved there, property ownership, and accessibility restrictions. The GIS database would also reflect the Army Corps Vicksburg District Confined Dredge Material Disposal Facility capacity analysis for moderate and high-risk sediment to enable the creation of a decision tree matrix on sediment management (using contamination and U.S. Environmental Protection Agency risk information). The data layers could then feed into an analysis of infrastructure improvements necessary to implement restoration projects, such as pipelines to transport dredge slurry to interior wetland locations.

The workshop participants felt that the permitting process for dredging and dredge placement activities could be improved. The consensus was that a regional permitting approach is preferred over the current project-by-project permitting process for beneficial use projects. To reduce the cost and time associated with obtaining a permit for dredging, the participants brainstormed the value of a regional "blanket" permit so that not all projects are required to go through the entire permitting process. For example, participants explored the possibility of private terminal operators utilizing an existing permit. Participants also suggested it would be helpful to have pre-approved disposal sites

for federal and private beneficial use projects. Although a regional approach to permitting is not something new, the participants felt the scope of activities eligible for regional permitting should be increased.

At the end of the workshop, the participants developed a list of next steps for NOAA in developing EMPs (Appendix C):

1. Navigation
    - Develop hydrodynamic model for marine transportation and environmental stewardship purposes that provides information such as water levels, currents, temperature, and salinity.
2. Beneficial Use Programs
    - Demonstrate the feasibility of restoring wetlands using a pipeline to transport dredged material.
    - Provide overview of beneficial use pipeline projects and technologies.
    - Create additional GIS layers to assist in the planning of beneficial use projects.
    - Identify, with partner agencies, the planning and permitting process for dredging or wetland restoration projects.

3.3 SUMMARY OF ACTIVITIES

3.3.1 Hydrodynamic Model

Appendix C – Hydrodynamic Model Status Report

3.3.2 Demonstration Project

As an objective of the Lake Charles pilot project is to develop EMPs for dredged material management, NOAA is supporting a demonstration of the feasibility of transporting dredged material by pipeline to multiple wetland restoration areas. NOAA has contracted Tetra Tech, Inc. to: evaluate infrastructure requirements for delivery of dredged material; develop a scoping budget estimate for implementation of the pipeline project; develop conceptual "plan view" drawings; and, perform a preliminary analysis of benefits and impacts.

3.3.3 USACE Pipeline Projects

This section provides an overview of representative USACE pipeline projects and a discussion on emerging technologies.

New Orleans District

Dustpan Dredge Marsh Restoration on the Lower Mississippi River

In June of 2002, the Corps of Engineers New Orleans District and the State of Louisiana completed a demonstration project in the lower Mississippi to determine the feasibility of restoring a marsh with dredged material using a dustpan dredge. Dustpans, which are hydraulic dredges with a wide, flat dredge head, are ideal for placing dredged material in shallow, open waters for marsh creation. The dredge's high volume, low pressure pumps are capable of pumping sediment up to 900ft through a pipeline. A hopper dredge, in comparison, disposes of dredge material in deep waters.

A dustpan dredge was utilized because it was considered the most economical and safe for the project area. This project used two anchor lines, instead of the traditional six, which allowed for greater maneuverability. The dredge material was transferred from the dustpan dredge to the marsh restoration area using a flexible floating hose rather than a rigid pipeline. The floating pipeline, about 1,420 ft in length, was connected to a submerged pipeline, which came up on the land to distribute the dredge material to the marsh area via additional sections. The length of the entire hydraulic circuit was 6,440 ft. The marsh was filled with approximately 250,000 yards of dredged material.

The project was conducted under the Corps Dredging Operations and Environmental Research (DOER), Innovative Dredging Technology Focus Area and the majority of the funding came from the State through the Coastal Wetlands Planning Protection and Restoration Act (CWPPRA) (*14*).

Additional information regarding this project can be found on the following website: http://www.wes.army.mil/el/dots/pdfs/drv5n3.pdf or contacting James Clausner, the Focus Area Manager for DOER Innovative Technologies, at 601.634.2009 or James.E.Clausner@erdc.usace.army.mil.

Sabine Marsh Creation Project

The Sabine Marsh Creation Project, sponsored by the Corps of Engineers New Orleans District, U.S. Fish and Wildlife Service, and the State of Louisiana (also via CWPPRA), is transporting dredge slurry through a temporary steel pipeline from the Calcasieu Ship Channel to a marsh area four miles away. The project expects five cycles of marsh creation events over 5-6 years; to date, the first cycle has been completed and created 125 acres of marsh. The dredge slurry moves through the pipeline to the containment area, which is created with retention dikes with each marsh creation cycle. Initially, a permanent pipeline was considered instead of a using a temporary pipeline but it was determined that a permanent pipeline proves cost effective only when 10 pumping events are conducted. Another challenge with a permanent pipeline is the erosion factor, which depends on the type of material that passes through the pipe. The pipe would need to be rolled to balance the erosion, and this would be especially costly if it is buried (*15*).

Additional information regarding this project can be found on the following website: http://www.lacoast.gov/projects/list.asp or contacting Chris Monnerjahn, Project Manager, USACE New Orleans District, at 504.862.2415.

St. Paul District

McMillan Island, Mississippi River Channel Maintenance

The Corps St. Paul District is utilizing a small hydraulic dredge to remove dredge material from the Mississippi River channel and excavated material from the transfer site at McMillan Island. The dredge material is transferred to a permanent location at the Buck Creek placement site via pipeline. The total length of the pipeline from the dredge to the placement site varies from 11,000 feet to 14,500 feet. To avoid interference with river recreational and commercial traffic, portions of the pipeline are submerged and buried and the entire pipeline will be removed at the end of the project. The project consists of dredging 70,000 cubic yards of material from the main channel and 170,000 cubic yards of material previously dredged and placed at the McMillan Island transfer site. The material moves through the pipeline in a 25% sand-75% water mixture and is contained at the site with dikes. The sand will remain at the site, but the water will be returned to the Mississippi River once it has attained acceptable water quality levels. The Buck Creek site is divided into two sections: a 4-acre landfill that will serve as a wildlife viewing area and a 6-acre area of dredged material free of charge to the public, federal, state, and local agencies for uses such as road construction (*16*).

Additional information regarding this project can be found on the following website: http://www.mvp.usace.army.mil/navigation/default.asp?pageid=89 or contacting Paul Machajewski, Channel Maintenance Coordinator, USACE St. Paul District, at 608.687.3112 or paul.r.machajewski@mvp02.usace.army.mil.

San Francisco District

Hamilton Wetlands Restoration Project

The San Francisco District is in the process of restoring 1,000 acres of the former Hamilton Army Airfield to wetlands using dredge material from shipping channels in the San Francisco Bay area. From 2002 to 2009, the Hamilton Wetlands Restoration Project is expected to pump 10.6 million cubic yards of dredged material through a 34,000 foot pipeline. Dredged material will come from the Port of Oakland's harbor fifty foot deepening project (2.5 million cubic yards), other federally authorized operations and maintenance projects, and possibly private dredging projects. The wetland restoration is expected to take 10 years and the pipeline will remain in the marsh throughout the project's duration. The 5/8-inch thick, steel pipeline consists of welded sections that are 40 feet long and 30 inches in diameter (*17*).

Additional information regarding this project can be found on the following website: http://www.hq.usace.army.mil/cepa/pubs/apr02/story16.htm or contacting Lorraine Louie, Project Manager, USACE San Francisco District, at 415.977.8718.

Innovative Technologies

In October of 2003, the EPA and the U.S. Army Engineer Research and Development Center (ERDC), Coastal and Hydraulics Laboratory (CHL) hosted a technical workshop to determine the feasibility of long-distance transport of dredged material by pipeline to restore coastal wetlands of Louisiana. The presentations and discussions focused on emerging innovative technologies in pipeline transport such as utilizing abandoned gas pipelines and air injection. These innovative technologies, however, are often only feasible for small scale projects. For example, it would be rare to find an abandoned pipe that is the size necessary for large scale projects (e.g., 30-inch diameter). The majority of the Corps' pipeline beneficial use projects utilize the traditional pipeline methods. The workshop agenda and PowerPoint presentations are located on LAcoast's website: http://lacoast.gov/news/press/2003-09-19a/.

3.3.4 Geographic Information System

The workshop participants suggested additional layers for NOAA's Office of Response and Restoration's Calcasieu Estuary Watershed GIS database would be useful for infrastructure and restoration planning activities. NOAA's Coastal Services Center has funded a project, the Rhode Island Habitat Restoration Portal, which may serve as a model for developing EMPs at the Port of Lake Charles in addition to ports nationwide. The website provides downloadable data and maps for habitat restoration. The available spatial data, including restoration, anadromous fish, and bathymetry data, can be used with GIS software to support restoration planning. NOAA's Coastal Services Center's efforts serve as a resource, and provide a foundation, for addressing port communities' needs as highlighted in the workshops. The Rhode Island Habitat Restoration Portal can be found on line: http://www.edc.uri.edu/restoration/index.htm.

3.3.5 Planning & Permitting

The workshop participants discussed a need to have more of a "regional permitting process" that would recognize approved disposal sites and would allow private terminal owners to be included in these regional permits. The concerns of the participants was that while the Corps had approved regional disposal permits for the federal maintenance dredging program, individual terminal operators had to initiate a new permit for each dredging operation and were precluded from using approved federal disposal sites.

The Department of Army authorizes regional general permits (RGPs) on a regional basis (District-wide or geographic) for activities that are similar and cause minimal individual and environmental impacts. Each Corps District administers its own set of RGPs. For example, in regards to dredging activities, the San Francisco District has issued an RGP for conducting maintenance dredging in the San Rafael Canal, Marin County, by waterfront property owners. All dredging activities in the San Francisco Bay area also need to be authorized by the San Francisco Bay Conservation and Development Commission (BCDC). The BCDC also takes a regional approach through its region-wide permit, which allows certain activities to fall under an existing BCDC permit. The Pacific Northwest is also creating momentum for a regional approach through the Regional Sediment Evaluation Team (RSET). RSET, co-chaired by the Northwestern Division of the Corps and the EPA Region 10, is a multi-agency effort to coordinate dredge material management. RSET is revising the

Dredged Material Evaluation Framework for the Lower Columbia River to ensure consistent evaluation of dredging projects across the region.

In Louisiana, the Corps New Orleans District and the Louisiana Department of Natural Resources (LDNR) have jointly issued Programmatic General Permits (PGP) for a variety of activities in the coastal zone of Louisiana. The permit, which is valid 5 years from its effective date, covers activities such as dredging of existing waterbodies and wetland restoration. The permit is currently being revised by the Corps and the State, indicating an opportune moment for stakeholders to make a case for additional activities to be included under the PGP. To pursue discussions in this respect, the contact at the New Orleans District office is Ron Ventola, Branch Chief, at 504.862.2255 or Bill Pitman in LDNR's Coastal Management Division at 225.342.6466.

4.0 CONCLUSIONS

Each of the pilot projects had different procedures and issues that they needed NOAA to address; the differences in needs can be attributed to the existing planning processes of their respective areas. The smaller port pilot project, Lake Charles, was interested in developing specific products to assist in the overall planning and permitting process. The "product" oriented approach Lake Charles was seeking included the development of a hydrodynamic model of Calcasieu Ship Channel and specific guidance in establishing a broader regional planning and permitting process. The larger port pilot project, San Francisco Bay, had a more advanced planning and permitting process in-place. As a result, this pilot expressed the need for additional technical and scientific support from NOAA rather than guidance in establishing a regional planning process. However, both pilots expressed the need for NOAA to increase its *participation* in the regional planning process and better overall coordination between the various Federal government agencies involved in the planning. Specific "lessons learned" from these pilot projects can be summarized as:

4.1 PLANNING SUPPORT

Both pilot projects emphasized the need for NOAA agencies to be actively involved in the local and regional planning efforts. While the planning process for the smaller port, Lake Charles, was clearly not as advanced or organized as the planning process for the larger regional area of San Francisco Bay, both projects demonstrated the need for NOAA input and participation. The various issues that the pilot projects elicited follow:

- Constituents want NOAA staff to: 1) be available, 2) meet over long-term planning, 3) actively participate in problem solving, and 4) provide information and expertise to answer questions;
- Community and multiple agency planning frameworks assist the planning process and NOAA can support them;
- Local planning organizations, at all levels, are seeking "tools" to address local concerns and issues, specifically: 1) GIS support for project identification, 2) development of regional permitting procedures, and 3) availability of modeling and other forms of project evaluation support during the early phases of the planning process.

4.2 SPECIAL STUDIES

The pilot projects demonstrated the need for NOAA to provide expert services and other specialized support to the local owners. The concepts that were raised during the pilot programs included:

- Improve the consultation processes;
- Develop a technical library, or a common source for unique studies and data, to evaluate projects;
- Develop a peer review system to better assist the local owners and agencies; and,
- Provide a clearing house for scientific and technical data.

4.3 BETTER FEDERAL COORDINATION

Both of the pilot studies highlighted the need for better coordination, at the local level, of the Federal review and development process. The coordination issues that were discussed ranged from disposal permitting to mitigation planning to construction activities.

4.4 NEXT STEPS

NOAA will continue to refine the specific actions that were requested by the pilot projects. For Lake Charles, this includes the Calcasieu Ship Channel hydrodynamic model, the demonstration of the feasibility of transporting dredged material by pipeline, and additional GIS layers for the NOAA Office of Response and Restoration's Calcasieu Estuary Watershed Database. For San Francisco, progress will continue to develop GIS tools to support planning and permit review and identify information sources and develop databases to assist with the planning process and permit reviews. NOAA will evaluate the development of a clearinghouse of scientific literature, in addition to NOAA projects and NOAA special consultants, to assist with planning and permitting. Lastly, NOAA will consider strategies for playing a more active role in the early phases of regional and project planning, rather than just during the permit review phase of a project. A start to this may be to increase port awareness of NOAA's capabilities and areas of expertise.

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Appendix A

Appendix B

Appendix C