LONG ISLAND SOUND STUDY
A Partnership To Restore And Protect The Sound

UPDATE

Winter 1999

MESSAGE FROM THE DIRECTOR

Up to a million cubic yards of sediment each year must be dredged if access to Long Island Sound's commercial and recreational ports and harbors is to be maintained. Where does the sediment come from? Some of it is from rivers and streams that carry naturally suspended sediment into Long Island Sound. Stormwater pipes carry sediment that runs off of roads and parking lots. Currents and storms move and deposit sediment along the Sound's shoreline. These processes would eventually lead to the filling of many waterways with sand and mud.

But there is something else that can happen to the sediment as it is transported to the Sound or as it sits on the Sound's bottom. Contaminants, such as heavy metals, PCBs, and other organic compounds, adhere to the sediment. Some of these contaminants are the result of current activities (has your car ever dripped oil?) and some are a legacy of past industrial discharges. In either case, this contamination raises environmental concerns with how to safely dispose of the dredged material.

What are the disposal options? Generally, there are three: open-water disposal at one of four sites in the Sound, confined disposal at aquatic or upland sites, and beneficial uses such as beach nourishment, landfill cover, or wetland creation. In practice, the majority of sediments dredged from the coastal areas of Long Island Sound are disposed at the four open-water sites. When sediments containing elevated levels of contaminants have been disposed of at these sites, the material has been covered or "capped" with clean sediment to prevent the resuspension and dispersal of the contaminants. While the disposal of dredged material in Long Island Sound has been a closely regulated activity for many years, supported by both federal and state statutes, and guided by published criteria and protocols, conflicts and controversies remain on how to best balance the use and protection of Long Island Sound.

Managing dredged material offers both opportunities for cooperation and risks of conflict. This edition of the ***UPDATE*** hopes to highlight both and, in the process, provide a clearer picture of where the interests of different groups overlap and coincide. Laurie Reynolds Rardin, CTDEP, opens by describing a new report that looks at how dredged material is currently managed in Long Island Sound. Another article describes a new study that will review how and where dredged material is disposed in the future. John Atkin, President of Save the Sound, Inc., presents the role of citizen involvement in fostering solutions. Environmental and commercial interests are presented by Marguerite Purnell, Director of the Fishers Island Conservancy, and Allen Berrien, Milford Harbor Marina, Inc., respectively. Bill Hewitt, NYSDEC, describes the approach being taken to meet the disposal needs for the Port of New York and New Jersey. And finally, Laurie Reynolds Rardin provides an update on the project to dredge the Thames River for the Navy's Seawolf submarine.

What's ahead? Decisions on specific dredging projects will continue to be made. The challenge we have is whether we will lurch from one conflict to another or build regional consensus around a long-term strategy. Communication and understanding will be key. One step in that direction will be a workshop sponsored by the LISS to bring together groups that have a stake in the management of dredged material. Details on the workshop can be found in an insert to the newsletter. I invite you to participate or share your interests with regional trade and environmental groups.

Mark Tedesco

In This Issue

LONG ISLAND SOUND STUDY
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Workshop on Dredged Sediment Planned

by John Atkin

The LISS *Comprehensive Conservation and Management Plan*, described Long Island Sound as "the sink for a 16,000 square mile watershed," collecting most everything that flows into the estuary. One of the substances that finds its way to the Sound via the rivers, streams, and stormwater drains that discharge to its harbors and coves is sediment. While erosion of sediment is a natural process, land use activities have greatly accelerated the rate and volume at which sedimentation of our harbors occurs.

There are various problems associated with sediments: they can carry both metals and organic compounds, which at certain levels may be toxic - the sediments, particularly silt or clay, serving as an excellent substrate for these undesirables to adhere; they can choke upriver habitat areas used by spawning fish; they can contaminate benthic habitats in rivers and harbors that serve a critical role in the food chain; and they can clog navigation channels and slowly fill areas that once served as a berth, both of which impact commercial and recreational marine industries. The increased sedimentation of harbors has increased the need for dredging and has raised concerns with environmentally sound economically feasible disposal options. While some of the contamination associated with dredged sediment may be due to in-harbor spills, many of the pollution sources lie farther afield and are less easy to track. Again, nonpoint pollution (polluted runoff) is the main culprit; and again, the solutions lie within the individual communities that have purview over land use regulations, and the county and state agencies that can regulate activities at a higher level.

This past September, the CAC was presented with the *State of Connecticut's Dredged Sediment Management Study.* The report's, purpose is to summarize the existing dredge management approach, examine the results of the approach based on present knowledge, and review alternatives to the existing approach. The report authors also made recommendations to help in the development of a dredged material management plan for Long Island Sound. The report indicates that there are some basic underlying issues that need to be resolved if dredged materials are to be managed effectively. One of these is how the two primary federal laws governing dredged material disposal in LIS (the Clean Water Act and the Marine Protection, Research and Sanctuaries Act) affect disposal sites. It also points to the need to further study the current management practices used, such as, capping of dredged spoils, as well as the feasibility of alternatives to ocean water disposal.

It is the CAC's job to address the above issues and related concerns that the report raises. Such an undertaking will require no less of a coordinated effort than the nitrogen reduction strategy entailed. We need to study the areas that warrant further study; assemble all stakeholders to work in partnership to develop management strategies that will be effective and appropriate, and involve the public in the process in order to ensure their needs and concerns are met, as well as to ensure their understanding of the issues and how they are impacted (and impact) them. The CAC's goal is to make sure that a viable Dredged Material Management Plan for the Sound is a top priority for the Management Committee, the Policy Committee, and the public. To this end, the EPA LIS Office, in conjunction with Save the Sound and the University of Connecticut, will sponsore a workshop on March 19, 1999 (see enclosed flyer). I encourage CAC members, and all interested and affected stakeholders, to attend and begin the important process of charting a future course for sediment management in the Sound.

John Atkin is the Connecticut CoChair of the Citizens Advisory Committee and is the president of Save the Sound, Inc. in Stamford, CT and Glen Cove, NY.

Dredged Material Management in Long Island Sound
New Report Looks at Current Issues and Next Steps

by Laurie Reynolds Rardin

The management of dredged material disposal in Long Island Sound is an extremely important issue that has remained in the background of public awareness until recently. Determining the most environmentally sound and economically feasible methods of dredging and disposing of sediments, are vital to the continued safe and efficient use of Long Island Sound's ports and waterways.

The States of Connecticut and New York have operated under an "Interim Plan for the Disposal of Dredged Material From Long Island Sound" since 1980, along with the use of Army Corps of Engineers (ACOE) and federal Environmental Protection Agency (EPA) testing protocols and state water quality standards and statutes. This "Interim Plan" was developed by the New England River Basins Commission with the concurrence of New York and Connecticut as a temporary plan until a comprehensive long-term dredged material management plan could be produced. New technical developments and changes in regulations, laws and protocols have resulted in a growing need to reevaluate current practices and produce a long-term plan for dredged material management.

In response, with support and funding from the Long Island Sound Study, the CT Department of Environmental Protection initiated the evaluation of the current status of dredged material disposal management in Long Island Sound. During the Summer of 1995, discussions with the State of New York and other stakeholders and interest groups involved in this issue were initiated and led to the development of a study plan and Request for Proposals to provide background information necessary to produce a final management plan.

Science Applications International Corporation (SAIC) was contracted to gather information and report on three outstanding issues identified in the Interim Plan as vital to the development of a long-term dredged material management plan: 1) defining and clarifying the roles and responsibilities of the various regulatory agencies; 2) identifying and evaluating various alternatives to open-water disposal; and 3) gathering background data and identifying the scientific research required to improve the dredged sediment disposal regulation process.

Work on the report progressed as a series of three drafts. During this process, significant input and review was encouraged and received from New York State, the sediment focus group of the Long Island Sound Study Citizens Advisory Committee and other interest groups. In addition, several workshops were held for all stakeholders involved to discuss the process of developing the report, including a workshop to review and discuss alternatives to open-water disposal.

The final "Long Island Sound Dredged Material Management Approach" (SAIC Report No. 442) was completed in August of 1998 and establishes the background for the eventual goal of producing a final dredged sediment disposal management plan for Long Island Sound. The author, Dr. Drew Carey, presents a thorough review of all of the current issues and analysis of alternatives to open water dredged sediment disposal. Details on relevant federal and state statutes, and on disposal alternatives, are contained in a separate appendix to the report.

The Report concludes that open water disposal is, ".... feasible and valuable to the region," but that the "region must determine if a formal dredged material management plan (beyond the [ACOE/EPA] Environmental Impact Statement to authorize the disposal sites under the Ocean Dumping Act) is worth the effort to get it in place." Additional, more specific conclusions on current management practices and future management directions were included.

- No significant environmental effects have been found at open-water disposal sites directly related to disposal activities.
- The available data on environmental effects of disposal generally supports the federally-mandated testing and review procedures.
- Available alternative technologies to open-water disposal are limited by the scale, timing, and cost of projects.
- There is potential for progress on emerging confinement techniques and beneficial reuse.
- The region needs to continue to monitor developments in treatment technology.

Five goals for future work on defining a dredged material management plan were also presented:

- Define a common set of management goals and priorities for the region.
- Develop a planning mechanism for a dredged material management plan.
- Improve the transfer of information between agencies and with stakeholders.
- Develop scientifically defensible procedures for management and monitoring.
- Improve public understanding and stakeholder involvement in a Dredged Material Management Plan.

While Long Island Sound is in many ways a national leader in cost-effective, environmentally responsible management of open water dredged material disposal, the SAIC Report will be extremely helpful as managers take the next steps toward improving management of dredged sediment disposal in the Sound.

Laurie Reynolds Rardin works for CT Department of Environmental Protection in the Office of Long Island Sound Programs.

Dredging and Disposal - An Environmental Perspective

by Marguerite Purnell

Environmental Concerns Associated with Dredging Process:

The physical process of dredging results in the alteration of the bottom sediments through removal of material (either by clam shell dredge or hydraulic means); immediate effects can include: resuspension (with subsequent transport and redeposition elsewhere) of fine grained sediments (and associated contaminants) during dredging, and loss (death or relocation) of bottom organisms.

These short term effects can cause longer term problems. There is an overall loss of benthic diversity as fewer species recolonize the disturbed area - community structure is altered and opportunistic species dominate. Higher level organisms are in turn affected by the loss of prey. If the degree of disturbance is too great and/or the remaining level of contamination is too high, the natural succession of organisms recolonizing the area will not proceed and instead will remain at an early successional stage - a sign of a stressed ecosystem.

The resuspension issue can also cause longer term effects. First, contaminants can be transported to areas outside that being dredged; a small dredge project has the capability of affecting a much larger area. Some of these contaminants are then available for uptake by organisms. Second, when dredge depths are greatly increased, the deepest sediments date back to a time when environmental safeguards did not exist and thus they may contain higher concentrations of contaminants than the overlying sediments. When this type of material is resuspended, the dredged areas and environs can end up with higher contamination levels than prior to the start of the project.

Environmental Concerns Associated with the Open Water Disposal Process:

The short term environmental impacts are similar at the disposal site: water quality impacts (turbidity and toxicity) during the disposal process, alteration of the bottom substrate through deposition of material, loss of bottom organisms (by burial and suffocation), and resuspension, transport, and redeposition of contaminants during disposal.

There are long term concerns associated with dredged material disposal: 1) the possibility of bioaccumulation, 2) nutrient enrichment at the disposal site leading to localized hypoxic events and, 3) the possibility for transport/spread of any contaminated material off site.

Organisms exposed to contaminated sediments face the threat of bioaccumulation - certain compounds will concentrate in the tissues at levels higher than the levels found in the surrounding sediment and water. Bioaccumulation of these materials can harm the organism by impairing its ability to function in a normal manner thus leading to reduced survival or, in the worst case scenario, by becoming acutely toxic and killing the organisms outright. This problem can biomagnify as higher level organisms consume contaminant laced lower organisms and in turn accumulate these contaminants to an even greater degree. The end results are the alteration of community structure, loss of diversity, colonization by opportunistic and pollution tolerant species, increased incidence of disease, and the possibility for contaminants to pass through the food chain to the highest trophic levels - including humans.

Environmental Concerns Associated with "Capping":

An attempt has been made to prevent organisms from coming into contact with contaminated dredged material utilizing a management approach called "capping". Seriously contaminated sediments, are disposed of first and subsequently covered by "cleaner" sediments (those found suitable for unconfined open water disposal - note that these sediments also contain contaminants, but at lesser concentrations). Capping is intended to isolate highly contaminated sediments from exposure to living organisms. There have been difficulties with this approach.

Adequate areal and depth coverage is frequently not achieved; subsequent bioturbation (the burrowing and reworking of the sediment by benthic organisms) effectively negates the "capping" effort in these cases and the contaminated material is exposed, in some cases for years.

There is no definitive proof that material does not move off site. During the disposal process, there may be a loss of 4-5% of the mass; this is very fine grained material which is carried away by currents. An additional volume of material is "lost" during the first year post disposal due to consolidation, but values reported and methodologies used range widely; thus making it exceedingly difficult to assess whether the loss was due to consolidation or to sediment transport off site. Limited samples are taken outside the boundaries of the disposal sites, and have given inconclusive results. It is a fact that dredged material exists outside the boundaries of the disposal sites; the questions that need to be answered are how did it get there, where is the material from, and at the very least what is the contaminant level?

Conclusions:

One major goal for the future should be to limit the material entering the system. Progress has been made with regard to limiting point source pollution; these efforts must continue. The next arena will be addressing nonpoint source pollution in coastal communities and upland communities - an entire watershed approach. If the majority of contaminants and the majority of sediments can be prevented from entering the system, the frequency of dredging is reduced and the environmental problems associated with dredging and disposal could be reduced.

If open water disposal of dredged material is to continue, it must be guided by detailed scientific background studies (proper disposal site selection and proper reference site selection, etc.), evaluated through conscientious monitoring, and managed using strategies that are effective and prompt. Funding needs to be increased to ensure that the proper studies are undertaken.

Research involving new technologies continues and alternative treatments for dredged material are being explored. At this time, given current methods for evaluation of natural resources, open water disposal falls out as the most technologically and economically feasible method for dredged material disposal. Until we learn how to properly place an economic value on a natural resource, such as the ocean or an estuary, we must make every effort to ensure that the solutions we utilize today will not become the environmental problems of tomorrow.

Marguerite Purnell is the Director of Fishers Island Conservancy.

Dredging and Disposal - A Marina Perspective

by Allen Berrien

"Dredging", is there another word that has been so demonized or that polarizes the waterfront community more intensively? What was once a function of waterborne commerce, akin to sweeping the sidewalk or plowing the street to clear the snow, has now acquired the status of Armageddon, or at a minimum, the fear of some vague but unmentionable disease.

Look at its importance and its primary function. In the Northeast, the oil to heat our homes comes into harbors via ships/tankers. It is necessary to periodically remove silt to provide safe navigation channels for these vessels - no one wants an oil spill from grounding in a silted channel. So what are the alternatives: Bring oil and gasoline in shallower and smaller barges at much more cost to us, or dredge the waterway to provide safe navigation.

At a more local level, consider the multiple functions my harbor, Milford Harbor, provides. First, it is the drain for over 40 thousand homes and their streets. Did you ever consider how many tons of salt and sand go into the storm drain each winter? Well, it all goes into the harbor; no need to sweep it up or recycle it because Connecticut prohibits the reuse of street sand because it is contaminated. Additionally, many of those homes back up to a stream or the river and those colorful leaves are in the front and back yards of those residences. Through the modern invention of rakes, and better yet leaf blowers, required for grooming those yards, we can rake or blow those unwanted leaves out into the stream or river. If we are not actually on a stream, we rake them into the street so some of the leaves go down the storm drain and then into the stream - out of sight! Thousands and thousands of cubic yards disappear by magic - no smoke from burning leaves; no compost either because those piles are messy and "my" city does not compost. The magic is that the leaves disappear under the water surface and are out of sight - but not gone! The leaves and sand are now on the bottom in the marinas and Federal channel, but we can not see it, so it is not our problem. We all go to work or numerous meetings via the roads and interstates that also drain into the harbor. Now we have hydrocarbons mixed with leaves and sand with a seasoning of heavy metals from society's march forward.

My harbor has a few houses on the shore, but not many. We do have a Federal research lab to understand the inshore fishery and their vessels require a safe navigation channel, and a State shellfish lab to study clams and oysters and lease the beds of Long Island Sound to provide food for our table – their vessels do not like to run aground either. There is also one yacht club offering several sailing programs to teach good seamanship to our youth and recreational activities that require safe water; three boat yards that service several commercial and recreational vessels; and one marina that is home to more than 200 folks that can not live on the shoreline, but use their discretionary income to enjoy what we all agree is one of New York and Connecticut's major assets, Long Island Sound. My harbor also has a public launching ramp for small and medium size boats to access the fishing, pleasure, and serenity of Long Island Sound. Included in this same harbor is a large bird sanctuary and a new public marina for visitors to this harbor. There are many other user groups that come to this harbor, such as, tour boats, etc. The only group that does not require a safe navigation channel is the waterfowl!

Now comes the D word! Those leaves, sand, dog houses, refrigerators, bicycles, railroad ties, wood piles, trees, and sandwich wrappers that come down into the river and channel are a hazard to navigation. So the local marine facility files for a permit to dispose of society's trash. Did you think it came from the boats? And all that stuff that is in the way contains "toxins". Did most of that come from the water persons? No, because they also want clean water. Is the marine facility happy about dredging? Of course not; it is a cost not a profit center, and there is that disposal permit that is required. It is okay to dredge, but we have to dispose of society's effluent and get permission to do it at our cost.

Do you have any appreciation for the price paid to continue safe navigation in an environmentally responsible and permitted way? The waterway is another highway that must be kept in operating condition. The siltation that goes on 24 hours a day must be removed and, as we close out this century, the removal of obstructions to navigation must continue with a regulated and approved methodology.

You and I do have a new opportunity to reduce the need to dredge. The idea is new and would require every environmental group, user group, lawn service, neighborhood association, town, city, state and the federal government to agree. Big job? No! Think of the other improvements in our society in the last 30 years. This new idea asks for both an attitude and a physical change. We have an opportunity to regulate and stop land erosion, leaf disposal, chemical discharge permits, etc., and commence an aggressive organic removal and abatement operation upstream while it is still upland. If all of the thousands of yards of organic detritus were recycled before it got into the marine district, it would not have to be dredged. The marine industry and environmental organizations could probably agree on this.

Our failure to manage our rivers causes massive degradation of Long Island Sound. There are numerous dams which no longer provide any use to society except create pretty little ponds which are full of silt. Those same dams have spelled the death knell for all the fish that provided an abundant riverine fishery. I believe the Edwards Dam on the Kennebec River in Maine is the first of many to be removed. We have some real opportunities to eliminate the need for dredging.

I believe I speak for the waterfront community when I say, "We do not enjoy dredging, but we do have to survive in a water dependent use."

Allen Berrien is one of the owners of the Milford Boat Works, Inc. Milford Harbor Marina, Inc.

New York New Jersey Harbor Dredging

by Bill Hewitt

It would be an understatement to say that the Port of New York and New Jersey is important to the local and regional economy. In 1995, the Port handled 120 million tons of cargo, valued at $93 billion. It is responsible for 193,000 jobs — 90,000 of which are located in New York or are filled by New York residents. New York State is the third largest exporter state in the country—$34 billion to 200 countries. With the critical economic importance of the port in mind, in October1996, the Governors of New York and New Jersey released a *Bi-State Dredging Plan* which, among other things, committed a total of $130 million directly to the search for disposal alternatives for the Harbor's dredged material.

The State of New York has committed to multiple options to meet our disposal and management needs for dredged materials. These include: identification and reduction of the sources of contamination; decontamination technologies to enhance the prospects for beneficial use of Harbor sediments; investigation of both in-water and upland disposal capacity with siting and development linked to cleanup of contaminated sediments; research and development to improve technologies and methods for management of sediments; restoration of habitat in the New York Harbor ecosystem; and protection of habitat from the impacts of ongoing and future projects.

New York State Department of Environmental Conservation has put together a 23-member team of engineers, biologists, attorneys, and other staff to realize the goals of the comprehensive plan. We are in the process of letting contracts for sampling and data analysis as part of our contaminant track down and reduction program. In addition, we continue to work closely with the US Army Corps of Engineers on their crucial task of deepening and maintaining the channels through Staten Island's Arthur Kill and Kill Van Kull. The new generation of superships rides close to 50 feet deep in the water when fully loaded. So it is imperative, if we are to be able to compete with other ports such as Halifax, Nova Scotia; Norfolk, VA; and Charleston, SC, to deepen and extend our shipping channels. The total cost for the deepening of the harbor channels is estimated to be in the hundreds of millions of dollars.

The thriving Howland Hook container port on Staten Island, reopened a couple of years ago, depends on dredging. The further expansion of the Port's capabilities will also depend to a great degree on the success of this program.

Bill Hewitt works for NY State Department of Environmental Conservation as the Public Affairs Director for Region 2.

Dredging For Seawolf Submarine Completed in 1996!

by Laurie Reynolds Rardin

Open-water disposal of dredged sediment in Long Island Sound became a particularly controversial issue when the U.S. Navy proposed additional dredging of the Thames River to accommodate home porting the Seawolf-class submarine. Although the Navy dredging of the Thames River for the Seawolf was completed January 31, 1996, rumors persist that more dredging is planned. In fact, this dredging project is over. A brief chronology and current status may help put the project into perspective.

During the first half of 1995, the CT Department of Environmental Protection (DEP) reviewed the Navy proposal to dredge the Thames River to accommodate home porting of Seawolf-class submarines. Disposal of the dredged material was proposed for a Long Island Sound disposal site. Discussions with the Navy resulted in a change to their proposal which would lessen any potential environmental impacts of the dredging and dredged material disposal by reducing the total amount of sediment to be dredged from 1.7 to 1.1 million cubic yards.

CT DEP issued the water quality certification and federal consistency concurrence on July 5, 1995, and the Navy received the Army Corps of Engineers (ACOE) permit to dredge in October of 1995. Shortly thereafter Navy contractors began dredging the Thames River in preparation for the Seawolf. Although the total volume of sediments permitted to be dredged was 1.1 million cubic yards, only about 900 thousand cubic yards actually needed to be dredged in order to attain project dimensions. The dredging was completed on January 31, 1996 and no additional dredging under the existing water quality certificate will be taking place.

The staff of CT DEP's, Office of Long Island Sound Programs have participated in the Navy's development of an extensive, tiered monitoring plan of the Seawolf disposal mound which is being implemented through the existing ACOE DAMOS (Disposal Area Monitoring System) disposal site monitoring program.

Two separate legal actions seeking to stop the dredging were filed in federal court by the State of New York (on the grounds that the project was inconsistent with New York's approved Coastal Zone Management Program), and by the Fishers Island Conservancy (on claims of violations of the Ocean Dumping Act or the Marine Protection, Research, and Sanctuaries Act, and irreparable harm to Fisher's Island). Connecticut received party status as a defendant in both cases. New York has subsequently settled their suit. The Fishers Island suit is still pending regarding the applicability of the Ocean Dumping Act.

Laurie Reynolds Rardin works for CT Department of Environmental Protection in the Office of Long Island Sound Programs.

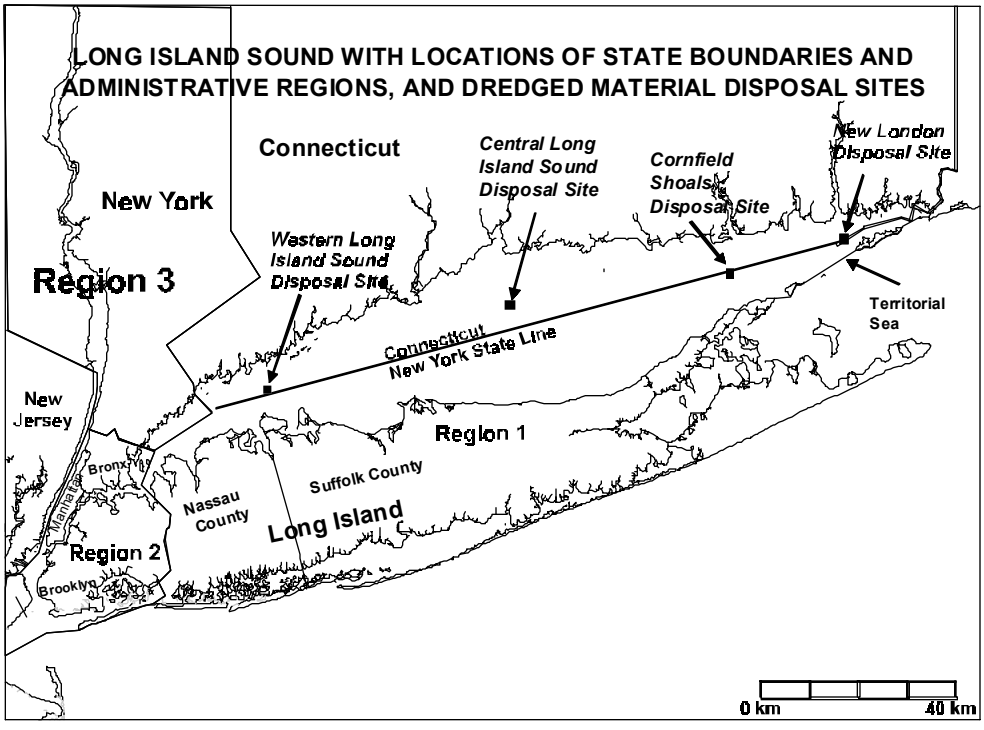
Site Authorization Under Marine Protection, Research, and Sanctuaries Act

An important development that will affect dredged material management in Long Island Sound is an agreement entered between the US Army Corps of Engineers (ACOE), New England District, and the US Environmental Protection Agency, New England Region, to designate, by the year 2003, one or more disposal sites in Long Island Sound pursuant to section 102 of the Marine Protection, Research, and Sanctuaries Act (MPRSA). For disposal projects occurring between the agreement and the designation, the ACOE will select alternative disposal sites pursuant to section 103(b) of MPRSA. The site for disposal of dredged material from the recent Mamaroneck Harbor dredging project was selected in this manner.

Prior to the agreement, dredged material disposal occurred at four sites in Long Island Sound. The *1980 Interim Plan for the Disposal of Dredged Material from Long Island Sound* identified three interim regional dredged material disposal areas: Central Long Island Sound Disposal Site, Cornfield Shoals Disposal Site, and New London Disposal Site. In 1982, the Western Long Island Sound Disposal Site was established. The ACOE has conducted the Disposal Area Monitoring System (DAMOS) program to ensure appropriate management of these sites and assess the environmental affects of disposal.

Under the new agreement, EPA and the ACOE will review existing data and studies on dredging, dredged material disposal, environmental resources and impacts in Long Island Sound, and evaluate the use of the four disposal sites under MPRSA criteria. EPA will examine all practicable alternatives to the use of these sites and prepare an Environmental Impact Statement (EIS) and dredged material management plans for any disposal sites selected for final designation. The expected actions under the agreement will result in increased knowledge of the effects of disposal on the existing sites, a comprehensive review of available data on Long Island Sound, the potential for new data characterizing conditions at selected sites, and final designation of sites in the Sound for disposal of dredged material.

The immediate future of dredging and dredged material disposal will be strongly influenced by the results of the EIS for designating one or more open-water disposal sites under MPRSA. Regardless of the outcome, the existing disposal sites could still be used for non-federal disposal projects under 25 thousand cubic yards that would be regulated under the Clean Water Act rather than under MPRSA, emphasizing the continuing need to manage dredged material disposal under that statute as well.



GLOSSARY

Bioaccumulation - The accumulation of contaminants in the tissue of organisms through any route, including respiration, ingestion, or direct contact with contaminated water, sediment, pore water or dredged material.

Consolidation - The gradual reduction in volume of a sediment mass resulting from an increase in compressive stress; the compressive stress may be due to incresed overburden load, desiccation, or dewatering.

Contaminant - A chemical or biological substance in a form that can be incorporated into, onto or be ingested by and that harms aquatic organisms, consumers of aquatic organisms, or users of the aquatic environment.

Contaminated Sediment - Sediments or other types of material that are dredged from industrialized harbors that have been demonstrated to cause an unacceptably adverse effect on human health or the environment.

Dredged Material - Sediments or other types of material that are dredged from industrialized harbors that have been demonstrated to cause an unacceptably adverse effect on human health or the environment.

Open-Water Disposal - Placement of dredged material in rivers, lakes, or estuaries via pipeline or surface release from hopper dredges or barges.

Program News

LONG ISLAND SOUND GRANTS FUND EDUCATION PROJECTS

The Long Island Sound Study announced $50,000 in grants to fund twelve education projects throughout the Sound's watershed. The twelve grant recipients were selected from 43 proposals submitted to the Long Island Sound Office of the U.S. Environmental Protection Agency. The funded projects focus on controlling nonpoint source pollution, teacher training, public radio features, environmentally sound gardens, community education, Piping Plover education, and water quality monitoring.

This is the fifth year of funding for the Long Island Sound Study Public Participation Information and Education Small Grants. A total of 31 projects has been funded since 1995, amounting to $89,387.

The grant recipients include the Westchester County Department of Planning, The Children's Garbage Museum, Theodore Roosevelt Sanctuary, North Fork Audubon Society, Inc., Connecticut Audubon Coastal Center, Manhasset Bay Protection Committee, Great Neck North High School, Bruce Museum, Connecticut Public Broadcasting, Save the Sound, Inc., Rye Nature Center, and New Haven Land Trust.

Another solicitation for proposals will go out later this year. Anyone interested in being placed on the Long Island Sound Study Small Grants mailing list should contact Kimberly Zimmer at the New York Sea Grant Extension office at (516)632-9216.

Calendar of Events

March

11 CAC Meeting in Glen Cove, contact Joe Salata for more information (203) 977-1541

19 Dredging Workshop, see insert to newsletter

22- 25 National Estuary Program Meeting in Washington DC, contact Mark Tedesco for more information (203) 977-1541

April

5 USCG/USMMA Troubled Waters Workshop, contact Carl Schwaab (860) 444-8301

10 LISWA Conference, contact Lisa Carey for more information (203) 327-9786

15 LISS Management Committee Meeting, contact Mark Tedesco for more information (203) 977-1541

LIS Dredged Material Managment Approach, this report, produced by SAIC, covers current dredge management rules and approaches, the alternatives to these management approaches, and research areas. There will be a presentation on this report at the Dredging Workshop on March 19th by the author Dr. Drew Carey. Copies of the report are available from the Stamford LIS Office (203) 977-1541.

Dredged Sediment Web Sites

EPA Dredged Material Management Plan site: www.epa.gov/owow/oceans/dmmp

Army Corps of Engineers DAMOS site: www.nae.usace.army.mil/environm/damos1

Army Corps of Engineers NY/NJ Dredged Management Plan site: www.nan.usace.army.mil/business/prjlinks/dmmp

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