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SAFE HARBORS:
A COMPARATIVE ANALYSIS OF DREDGING REGULATION IN NEW ENGLAND

Tom Fales*

*“The Skipper he stood beside the helm,
His pipe was in his mouth,
And he watched how the veering flaw did blow
The smoke now West, now South.”*

*“Then up and spake an old Sailor,
Had sailed the Spanish Main,
I pray thee, put into yonder port,
for I fear a hurricane.”*

-from *The Wreck of the Hesperus* by Henry Wadsworth Longfellow¹

I. INTRODUCTION

Searsport is home to the second-busiest industrial port in Maine.² Imports include heating oil and road salt and come from as far away as Africa.³ Situated at the mouth of the Penobscot River and linked to northern Maine and Montreal by rail, Searsport’s Mack Point Marine Intermodal Cargo Terminal (hereinafter “Mack Point”) is a significant international trade hub and source of jobs in Maine’s Midcoast Region.⁴

Since 2000, a plan to deepen the harbor around Mack Point has stalled.⁵ Supporters of the plan, including business groups, argue that deepening the harbor, or *dredging*, is necessary to

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¹ HENRY W. LONGFELLOW, *POEMS AND OTHER WRITINGS* 13 (J.D. McClatchy ed., 2000).

² Dawn Gagnon, *Bangor councilors officially endorse Searsport harbor dredging project*, BANGOR DAILY NEWS, Mar. 11, 2014, <http://bangordailynews.com/2014/03/11/news/bangor/bangor-councilors-officially-endorse-searsport-harbor-dredging-project/>.

³ Tom Groening, *Searsport’s Mack Point is pivot in Maine’s port strategy*, PENOBSCOT BAY PILOT, Sept. 24, 2013, <http://www.penbaypilot.com/article/searsport%E2%EF%BF%BD%E2%EF%BF%BDs-mack-point-pivot-maines-port-strategy/21159>.

⁴ See Paul Molyneaux, *Maine Lobstermen Protest Dumping of Dredge*, N.Y. TIMES, Aug. 6, 2000, <http://www.nytimes.com/2000/08/06/sports/outdoors-maine-lobstermen-protest-dumping-of-dredge.html?pagewanted=1>.

⁵ Kim E. Tucker, *35 feet is deep enough for Searsport Harbor: Dredging would hurt region’s environment, economy*, BANGOR DAILY NEWS, Mar. 3, 2014, <http://bangordailynews.com/2014/03/03/opinion/35-feet-is-deep-enough-for-searsport-harbor-dredging-would-hurt-regions-environment-economy/>.

increase and streamline the flow of cargo to the port.⁶ Opponents, however, like lobstermen and environmentalists, are concerned about the potential consequences of dumping large amounts of dredged sediment into Penobscot Bay; especially when that sediment may be contaminated by mercury, creosote (a known carcinogen), and other harmful pollutants.⁷ After fifteen years, the uncertainty surrounding the dredging of Mack Point has created disharmony in Maine communities and hindered stakeholders' ability to plan for the future.⁸

Prompted by the important environmental and economic issues at stake in the Mack Point dredging project, as well as the absence of finality that does a disservice to both sides in the debate, this Comment explores the regulatory framework in which dredging occurs in coastal New England with an eye toward improving Maine's dredging laws. As a foundation for later discussion, Part II offers a primer on the dredging process. Part III summarizes federal dredging laws and touches on the disposal of dredged material. Part IV discusses selected dredging laws in Connecticut, Rhode Island, Massachusetts, New Hampshire, and Maine for comparison purposes. Part V concludes with analysis and recommendations for Maine's dredging laws.

II. THE DREDGING PROCESS

Dredging is defined as "raising material from the bottom of a water-covered area to the surface and [transporting] it over some distance."⁹ Dredging is important because it contributes to economic growth by "maintain[ing] commercially viable harbors and [shipping] channels"; this is accomplished by keeping waterways deep enough for ships to pass.¹⁰ Historically, "[d]redging is an ancient art but a relatively new science."¹¹ As a result, and particularly in the United States, "very few books on dredging exist."¹² In fact, "dredging is probably the least understood element of the construction industry."¹³ Given this unfamiliarity with dredging, a brief discussion of dredging equipment and procedures is warranted. To begin, there are three stages in the dredging process: (1) excavation, (2) transport, and (3) disposal.¹⁴

⁶ David Gelinas, *After 50 years, Searsport Harbor infrastructure requires upgrade*, BANGOR DAILY NEWS, Mar. 19, 2014, <http://bangordailynews.com/2014/03/19/opinion/contributors/after-50-years-searsport-harbor-infrastructure-requires-upgrade/> [hereinafter Gelinas].

⁷ Anne Porter, *Lobstermen Oppose Dredge Spoil Dump*, ELLSWORTH AM., Apr. 20, 2000, http://ellsworthamerican.com/archive/news2000/04-20-00/ea_news4_04-20-00.html.

⁸ Tom Bell, *Differences run deep over Searsport Harbor dredging plan*, PORTLAND PRESS HERALD, Aug. 19, 2014, <http://www.pressherald.com/2014/08/19/rift-over-searsport-dredging-plan-runs-deep-pitting-jobs-vs-environment/>.

⁹ JOHN B. HERBICH, HANDBOOK OF DREDGING ENGINEERING 1.1 (2d ed. 2000) [hereinafter HERBICH].

¹⁰ *Id.* at xix-xxi.

¹¹ *Id.* at 1.1.

¹² *Id.* at xxv. See JOHN B. HERBICH, COASTAL & DEEP OCEAN DREDGING preface, forward (1st ed. 1975) [hereinafter HERBICH, COASTAL & DEEP OCEAN DREDGING].

¹³ *Id.* at xxi (Suggesting that this may be because dredging often occurs "in open-water areas inaccessible to the public.").

¹⁴ *Dredging: The Facts*, INTERNATIONAL ASSOCIATION OF DREDGING COMPANIES 3 (Marsha Cohen ed., 2005) <http://www.iadc-dredging.com/ul/cms/fck->

Excavation is the process of removing sediment from the sea floor.¹⁵ Specialized equipment (dredges) excavate sediment mechanically or hydraulically.¹⁶ Mechanical dredges can resemble backhoes, a common tool for moving earth on dry land.¹⁷ Other kinds of mechanical dredges include bucket-ladders and grab dredges.¹⁸ In addition to similarities with their land-based cousins, “mechanical dredges are characterized by their inability to transport [] dredged material for long distances; lack of self-propulsion; and relatively low production. Their chief advantage lies in their ability to operate in restricted locations such as docks and jetties.”¹⁹ Hydraulic dredges, by contrast, use suction to remove sediment.²⁰ The suctioned sediment is pumped through tubes directly to a disposal site or into a storage hopper onboard the hydraulic dredge ship for disposal later.²¹ Examples of hydraulic dredges include stationary suction dredges, trailing hopper dredges, and cutter dredges.²² For visual purposes, the head of a cutter dredge resembles a large, rotating ball covered with wavy rows of metal teeth that surround the intake end of the suction mechanism. An important difference between mechanical and hydraulic dredges is how each dredge treats the sediment that it removes: mechanical dredges leave the sediment relatively intact, whereas hydraulic dredges stir it up by adding water.²³ Therefore, although hydraulic dredges “are more efficient, versatile, and economical to operate” than mechanical dredges because hydraulic dredges (1) remove sediment continuously and (2) their digging and disposal operations are self-contained, hydraulic dredges can be riskier to use in environmentally sensitive projects due to the amount of “suspended sediments” they can create.²⁴

The next stage in the dredging process is the transport of excavated sediment.²⁵ The method of transport employed in a dredging project often depends on the kind of dredge being used.²⁶ Mechanical dredges use barges, that is, a separate, flat-bottomed boat engineered to carry large amounts of sediment; during use, a barge will float alongside a mechanical dredge and the mechanical dredge operator will scoop the sediment into the barge.²⁷ Hydraulic dredges, on the other hand, use hoppers, or barge-like containers that are located onboard the hydraulic dredge ship itself.²⁸ As stated earlier, hydraulic dredges can also transport dredged sediment to a disposal site through tubes called pipelines.²⁹ Pipelines are “the only transport system recommended for

uploaded/documents/PDF%20Publications/dredging-literature-dredging-the-facts.pdf
[hereinafter *Dredging: The Facts*].

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ See HERBICH, COASTAL & DEEP OCEAN DREDGING, *supra* note 12, at 202.

¹⁸ *Dredging: The Facts*, *supra* note 14.

¹⁹ HERBICH, COASTAL & DEEP OCEAN DREDGING, *supra* note 12, at 204.

²⁰ See *Dredging: The Facts*, *supra* note 14.

²¹ HERBICH, COASTAL & DEEP OCEAN DREDGING, *supra* note 12.

²² See *Dredging: The Facts*, *supra* note 14.

²³ See *id.*

²⁴ HERBICH, COASTAL & DEEP OCEAN DREDGING, *supra* note 12; ENVIRONMENTAL ASPECTS OF DREDGING, 134-137 (R.N. Bray ed., 2008) [hereinafter ENVIRONMENTAL ASPECTS OF DREDGING].

²⁵ *Dredging: The Facts*, *supra* note 14.

²⁶ *Id.*

²⁷ See *id.*

²⁸ *Id.*

²⁹ HERBICH, *supra* note 9, at 16.11.

movement of dredged [sediment] in slurry form,” or mixtures of sediment and water.³⁰ Pipelines are commonly made of steel and may be submerged, placed onshore, or floating via pontoons while in use.³¹

The final stage in the dredging process is disposal of the dredged sediment.³² There are several ways this may be accomplished, including: (1) relocating clean sediment to an analogous environment (e.g. estuary to estuary), (2) repurposing clean sediment (e.g. creating new seabird habitat), (3) confined disposal (e.g. within a levee), and (4) treating polluted sediment for safe disposal later.³³ These are also examples of environmentally sensitive means of disposal; public concern about dredging’s environmental impact has been increasing around the globe.³⁴

A fifth disposal option, called “open-water disposal,” is what is being proposed for the Mack Point dredging project at Searsport.³⁵ According to a 2014 Army Corps of Engineers document, three possible open-water disposal sites in Penobscot Bay are being considered: two are located northwest of the island of Islesboro and are fairly close to Searsport, but the sites have little record of use.³⁶ The third site is located between Rockland and the island of North Haven and is “an established regional [dredging disposal] site with use dating back to 1973.”³⁷ Where and how to dispose of the Mack Point dredged sediment has proved to be the most controversial aspect of the project.³⁸

III. FEDERAL DREDGING REGULATIONS

The Clean Water Act and the Marine Protection, Research, and Sanctuaries Act direct the Environmental Protection Agency (EPA) and the Army Corps of Engineers (ACE) to “share responsibility for ensuring that dredged [sediment] disposal into the aquatic environment [occurs] in an environmentally acceptable manner.”³⁹ This is a significant responsibility; in 1994, for instance, “about 250 million cubic yards [of dredged sediment was] deposited into waters of the

³⁰ *Id.* at 16.11, 7.57.

³¹ *Id.* at 7.49.

³² *Dredging: The Facts*, *supra* note 14.

³³ *Id.* at 4-6.

³⁴ See HERBICH, COASTAL & DEEP OCEAN DREDGING, *supra* note 12; ENVIRONMENTAL ASPECTS OF DREDGING, *supra* note 24, at 104.

³⁵ *Dredging: The Facts*, *supra* note 14, at 5. See Overview of Dredged Material Disposal at the Proposed Penobscot Bay Site, Army Corps of Engineers, Apr. 8, 2014, <http://www.nae.usace.army.mil/Portals/74/docs/Topics/Searsport/SearsportDAMOS8Apr14.pdf> [hereinafter Army Corps of Engineers].

³⁶ Army Corps of Engineers, *supra* note 35, at 9, 34.

³⁷ *Id.* at 34.

³⁸ See, e.g., Abigail Curtis, *You are going to bury [the lobster industry]’: Skeptical crowd rips Searsport dredging project*, BANGOR DAILY NEWS, Apr. 8, 2014, <http://bangordailynews.com/2014/04/08/business/you-are-going-to-bury-the-lobster-industry-skeptical-crowd-rips-searsport-dredging-project/> [hereinafter Curtis].

³⁹ David G. Davis, *Environmental Regulatory Process: Does It Work? Dredging U.S. Ports*, 427 TRANSPORTATION RESEARCH CIRCULAR 26 (1994) [hereinafter Davis]. Accord HERBICH, *supra* note 9, at 11.2.

U.S., [of which] 60 million cubic yards [went] into the ocean.”⁴⁰ Because “cargo ships have been getting bigger worldwide” during the intervening years, in addition to other factors, it is reasonable to assume that these numbers have grown.⁴¹ The following legislative authorities each play an important role in regulating the dredging process at the federal level. Several of them address the disposal of dredged sediment.

A. *The Clean Water Act*

The Clean Water Act (CWA), also known as the Federal Water Pollution Control Act Amendments of 1972, is one of the two principal federal statutes governing the disposal of dredged sediment in American waters.⁴² Generally speaking, the CWA regulates disposal in inland bodies.⁴³ Section 404 of the CWA directs the EPA and the ACE to “promulgate [g]uidelines to be used in the evaluation of proposed dredge [sediment] discharges.”⁴⁴ Said guidelines are intended to prohibit “unacceptable” harm to the aquatic environment.⁴⁵ The ACE is responsible for (1) applying the guidelines to individual proposals to dump dredged sediment and (2) weighing other factors, like public input, before allowing the proposal to move forward.⁴⁶ At the same time, pursuant to § 404(c), the EPA may veto projects that the ACE approves if the EPA determines that adverse environmental effects would still result from a proposed dredged sediment discharge.⁴⁷ In this way, even though the EPA and the ACE work together to formulate guidelines for the safe disposal of dredged sediment, the EPA still acts as an “independent review[er]” of ACE decisions.⁴⁸

B. *The Marine Protection, Research, and Sanctuaries Act*

The Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972, also known as the Ocean Dumping Act, is the second principal federal statute that governs the disposal of dredged sediment in U.S. waters.⁴⁹ In fact, the MPRSA “regulates the dumping of all matter, including dredged material, into the ocean.”⁵⁰ The MPRSA directs the EPA to consider a host of factors when evaluating requests for ocean dumping, including: (1) “environmental impact,” (2) “need,” (3) “esthetic, recreational, and economic values,” (4) “land-based dumping alternatives to ocean dumping,” and (5) “adverse effects of the dumping on other uses of the ocean.”⁵¹ Prior to the

⁴⁰ Davis, *supra* note 39, at 27.

⁴¹ Curtis, *supra* note 38.

⁴² Davis, *supra* note 39, at 27.

⁴³ *Id.* at 26-27.

⁴⁴ *Id.* at 27.

⁴⁵ *Id.*

⁴⁶ *Id.*

⁴⁷ *See id.*

⁴⁸ *Id.*

⁴⁹ *Id.* Accord HERBICH, *supra*, note 9, at 11.3.

⁵⁰ Davis, *supra* note 39, at 26.

⁵¹ MARINE PROTECTION, RESEARCH AND SANCTUARIES ACT (MPRSA) AND FEDERAL FACILITIES, <http://www2.epa.gov/enforcement/marine-protection-research-and-sanctuaries-act-mprsa-and-federal-facilities#Summary> (last visited Mar. 2, 2015).

MPRSA, ships and airplanes were known to have dumped hazardous materials like industrial and radioactive waste, as well as contaminated dredged sediment, into the ocean.⁵² Today, however, § 103 of the MPRSA limits the kind of dredged sediment that can be dumped into the ocean.⁵³ The primary way that the MPRSA accomplishes this is by requiring the ACE to “issu[e] permits for the ocean dumping of dredged material.”⁵⁴

Although there is significant overlap between the CWA and the MPRSA, there are some important geographic distinctions between them that warrant highlighting. For example, the MPRSA governs dredged sediment to be disposed of in the open ocean.⁵⁵ The CWA governs disposal occurring “inland and in estuarine waters.”⁵⁶ Between these two zones lies the territorial sea, wherein the two statutes overlap.⁵⁷ In the territorial sea, the CWA regulates dredged sediment disposal when it is discharged as “fill” for things like “beach nourishment, island creation, or underwater structures.”⁵⁸ Otherwise, the MPRSA controls.⁵⁹ Because any dredged sediment from Mack Point in Searsport will be disposed of within the MPRSA’s realm, that authority, and not the CWA, should govern.

As the CWA and the MPRSA regulate distinct geographic zones, each authority not only has different regulations about what kind of sediment that may be dumped in its zone, but also where it may be dumped in its zone.⁶⁰ The EPA and the ACE work together to identify dredged sediment disposal sites that are suitable for use.⁶¹

The MPRSA sets forth the criteria for establishing disposal sites in the open ocean.⁶² Open ocean disposal sites are either “predominantly nondispersive or predominantly dispersive.”⁶³ At predominantly dispersive sites, discharged dredged sediment is carried away from the disposal site over time by currents and waves.⁶⁴ The same forces may also disperse it during the dumping process.⁶⁵ By contrast, nondispersive sites are characterized by the discharged dredged sediment remaining at the dump location.⁶⁶ Under the MPRSA, open water disposal sites should be located “beyond the edge of the continental shelf,” if possible.⁶⁷ Section 103 mandates that the ACE make use of historic disposal sites to the extent that they are “available” and doing so is “feasible.”⁶⁸ Each site is required to have a management plan that includes procedures for monitoring its

⁵² *Id.*

⁵³ Davis, *supra* note 39, at 28.

⁵⁴ *See id.*

⁵⁵ *Id.* at 26-27.

⁵⁶ *Id.* Accord HERBICH, COASTAL & DEEP OCEAN DREDGING, *supra* note 12, at 11.3.

⁵⁷ Davis, *supra* note 39, at 26-27.

⁵⁸ *Id.* at 28.

⁵⁹ *See id.*

⁶⁰ *See* HERBICH, *supra* note 9, at 11.4-11.11.

⁶¹ *See* Davis, *supra* note 39, at 26-27.

⁶² HERBICH, *supra* note 9, at 11.8.

⁶³ *Id.* at 11.5.

⁶⁴ *Id.*

⁶⁵ *See id.*

⁶⁶ *See id.*

⁶⁷ *Id.* at 11.10.

⁶⁸ *Id.* at 11.5.

status.⁶⁹ Among other things, monitoring must “ensure that conditions at the site remain as projected” and that ongoing disposal operations are not endangering the aquatic ecosystem.⁷⁰ Currently, there are three active open ocean sites in Maine; they are located off the coasts of Kennebunkport (Cape Arundel), Portland, and Rockland.⁷¹ There are also a number of “inactive or infrequently used disposal sites,” such as Steels Ledge in northern Penobscot Bay.⁷²

Site designation criteria under the MPRSA and the CWA have some similarities. These include the potential: (1) “impacts on physical and chemical characteristics of the aquatic ecosystem,” (2) “impacts on biological characteristics or the aquatic ecosystem,” (3) “effects on special aquatic sites,” and (4) “effects on human-use characteristics.”⁷³

C. *The National Environmental Policy Act*

In addition to the CWA and the MPRSA, the National Environmental Policy Act (NEPA) plays an important role in regulating dredged sediment disposal.⁷⁴ “All proposed disposal activities regulated by the MPRSA and the CWA must also comply with [the NEPA].”⁷⁵ Under the NEPA, federal agencies must take into account the environmental impact of federal legislation and projects, including dredging and the disposal of dredged sediment.⁷⁶ To promote accuracy and accountability, the EPA is instructed to “review and comment” on the environmental analyses done by other federal agencies.⁷⁷ The NEPA also requires that “the public be allowed to review and comment on . . . [federal analyses of] environmental consequences.”⁷⁸ This is especially relevant to the Searsport dredging controversy because local opposition to the Mack Point dredging project is a primary reason why work on it has been delayed.⁷⁹

What is more, under the NEPA, the ACE has some discretion about whether or not to prepare an Environmental Impact Statement (EIS) before it approves a dredging project.⁸⁰ An EIS is a fuller, more detailed version of an Environmental Assessment (EA).⁸¹ The NEPA requires an EIS only if the ACE proposes to undertake a dredging project that constitutes “a major Federal action, and then only when that action significantly affects the quality of the human

⁶⁹ MARINE PROTECTION, RESEARCH AND SANCTUARIES ACT (MPRSA) AND FEDERAL FACILITIES, <http://www2.epa.gov/enforcement/marine-protection-research-and-sanctuaries-act-mprsa-and-federal-facilities> Summary (last visited Mar. 2, 2015).

⁷⁰ *Id.*

⁷¹ ACTIVE OPEN WATER DISPOSAL SITES, [http://www.nae.usace.army.mil/Missions/DisposalAreaMonitoringSystem\(DAMOS\)/DisposalSites.aspx](http://www.nae.usace.army.mil/Missions/DisposalAreaMonitoringSystem(DAMOS)/DisposalSites.aspx) (last visited Mar. 2, 2015).

⁷² *Id.* See Army Corps of Engineers, *supra* note 35 (The Steels Ledge disposal site is a leading contender to receive Mack Point’s dredged sediment.).

⁷³ *Id.*

⁷⁴ *Id.* at 27.

⁷⁵ HERBICH, *supra* note 9, at 11.3.

⁷⁶ See Davis, *supra* note 39, at 27.

⁷⁷ See *id.*

⁷⁸ *Id.*

⁷⁹ See Curtis, *supra* note 38.

⁸⁰ 42 U.S.C. § 4332(2)(C).

⁸¹ See *O’Reilly v. U.S. Army Corps of Engineers*, 477 F.3d 225, 228 (5th Cir. 2007).

environment.”⁸² EAs, on the other hand, are required when the ACE’s “proposed action neither is categorically excluded from the requirement to produce an EIS nor would clearly require the production of an EIS.”⁸³ Further, “[w]here an EA results in a determination that an EIS is not required . . . the [ACE] must issue a Finding of No Significant Impact” (FONSI).⁸⁴ “The FONSI must briefly state the reasons why the proposed agency action will not have a significant impact on the human environment.”⁸⁵ At Searsport, the ACE has yet to decide if it will produce an EIS because “doing a full [EIS] generally takes years and costs millions of dollars.”⁸⁶

D. *The Coastal Zone Management Act*

The Coastal Zone Management Act (CZMA) of 1972 directs federal agencies to abide by applicable state laws when engaging in activities that impact a state’s “coastal zone.”⁸⁷ A state’s coastal zone includes islands, intertidal areas, beaches, and salt marshes.⁸⁸ The CZMA created a partnership between state and federal governments with the aim of reducing conflicts over land and water utilization in coastal areas.⁸⁹ The CZMA also serves to protect vulnerable coastal resources while encouraging sustainable economic development.⁹⁰ The CZMA is particularly relevant to a state like Maine, where the coastline is among the longest and most rugged in the country.⁹¹

The CZMA is administered by the National Oceanic and Atmospheric Administration, the National Ocean Service, and the Office of Ocean and Coastal Resource Management.⁹² Under the CZMA, federal and state governments share responsibility for “effectively managing coastal areas.”⁹³ States develop and implement coastal management programs that take into account the

⁸² *Id.*

⁸³ *Id.*

⁸⁴ *Id.*

⁸⁵ *Id.*

⁸⁶ See Abigail Curtis, *Opponents of Searsport harbor dredging project will have chance to speak at informational meeting in Bangor*, BANGOR DAILY NEWS, Feb. 20, 2014, <http://bangordailynews.com/2014/02/20/news/midcoast/digging-up-searsport-harbor-people-will-have-the-chance-to-speak-out-about-the-controversial-project-next-week-in-bangor/>.

⁸⁷ DREDGED MATERIAL MANAGEMENT PROGRAM, <http://www.epa.gov/region2/water/dredge/intro.htm#Regulatory%20Responsibilities%20and%20Authorities> (last visited Mar. 2, 2015) [hereinafter DREDGED MATERIAL MANAGEMENT PROGRAM].

⁸⁸ *Id.*

⁸⁹ See Jennifer L. Lukens, *National Coastal Dredging Program Dredging Policies: An Analysis of State, Territory, & Commonwealth Policies Related to Dredging & Dredged Material Management*, ORCM/CPD COASTAL MANAGEMENT PROGRAM POLICY SERIES forward (2000), <https://coast.noaa.gov/czm/media/finaldredge.pdf> [hereinafter Lukens].

⁹⁰ *Id.*

⁹¹ TABLE 364. COASTLINE AND SHORELINE OF THE UNITED STATES BY STATE, <https://www.census.gov/compendia/statab/2012/tables/12s0364.pdf> (last visited Mar. 2, 2015).

⁹² Lukens, *supra* note 89, at forward.

⁹³ *Id.*

“broader national interest in . . . coastal resources,” as well as their own needs.⁹⁴ In return for their participation, states receive federal funding and added representation in related matters at the federal level, plus other benefits.⁹⁵ Dredging has profound implications for the economic and environmental health of coastal states and the CZMA serves as an important link on this issue between state and federal governments.⁹⁶

E. Other Federal Authorities

There are many more federal authorities bearing on the disposal of dredged sediment. One is the London Dumping Convention (LDC), also referred to as the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter of 1972.⁹⁷ The LDC’s objective is to control and prevent all sources of marine pollution.⁹⁸ Eighty-seven countries have signed on to the LDC.⁹⁹ As a result, the LDC represents a widely accepted approach to assessing the suitability of dredged material for disposal at sea. The U.S. is a signatory to the LDC and administers it under Title I of the MPRSA.¹⁰⁰

Another federal authority is the Water Resources Development Acts (WRDA). The WRDA refers to a series of federal legislation enacted in 1986, 1990, 1992, and 1996.¹⁰¹ The WRDA addresses environmental concerns associated with the long-term disposal of dredged material.¹⁰² Specifically, it promotes the development of decontamination technologies used in repurposing dredged sediment for “beneficial uses.”¹⁰³ A beneficial use can be environment or construction related and specifically refers to things like beach nourishment (replacing eroded sand), dune preservation, and brick/concrete production.¹⁰⁴ Beneficial uses are not unlike recycling.

The last federal authority that will be mentioned here is the Rivers and Harbors Act (RHA) of 1899. The RHA helped to establish the current federal framework wherein the ACE “regulates dredging and other construction activities in navigable waters.”¹⁰⁵ As a result, the RHA has played an important role in the development of the current system of federal dredging laws.

IV. STATE REGULATION OF DREDGING

Notwithstanding federal dredging authorities, “state[] [governments] have an increasingly

⁹⁴ *Id.*

⁹⁵ *Id.*

⁹⁶ *See id.* at Executive Summary.

⁹⁷ DREDGED MATERIAL MANAGEMENT PROGRAM, *supra* note 87.

⁹⁸ CONVENTION ON THE PREVENTION OF MARINE POLLUTION BY DUMPING OF WASTES AND OTHER MATTER, <http://www.imo.org/OurWork/Environment/LCLP/Pages/default.aspx> (last visited Mar. 2, 2015).

⁹⁹ *Id.*

¹⁰⁰ DREDGED MATERIAL MANAGEMENT PROGRAM, *supra* note 87.

¹⁰¹ *Id.*

¹⁰² *Id.*

¹⁰³ *Id.*

¹⁰⁴ HERBICH, COASTAL & DEEP OCEAN DREDGING, *supra* note 12, at 204; ENVIRONMENTAL ASPECTS OF DREDGING, *supra* note 24, at 200-208.

¹⁰⁵ DREDGED MATERIAL MANAGEMENT PROGRAM, *supra* note 87.

important role” to play in dredging regulation.¹⁰⁶ In keeping with the diversity of American states, “no two states issue the same type of dredging permits.”¹⁰⁷ However, despite these differences, some degree of friction between business and environmental interests is ubiquitous.¹⁰⁸ Many of the arguments for and against a given dredging project are similar. For example, during Congressional hearings about the proposed dredging of New York Harbor in 1994, then-Representative (now Senator) Robert Menendez said of the consequences of failing to dredge: “[I]n order to accommodate some of the trade, the cargo ships are lightening, off-loading some of their goods, some of their oil in the middle of the bays, in the middle of the different ports outside of their berth, so that they can be lightened and come in and berth.”¹⁰⁹ Now, 20 years later, Searsport dredging supporters have argued: “[I]f a large ship wants to dock in [Mack Point], it has to wait for high tide or come with a lighter load so it doesn’t sit as low in the water.” In addition: “Two of the salt-carrying ships that recently called at the dry cargo pier in [Mack Point] were ‘short loaded’ by as much as 10,000 tons of cargo in order to reduce its draft and to maintain safe under keel clearances.”¹¹⁰

This section will look at selected state dredging laws in Connecticut, Rhode Island, Massachusetts, New Hampshire, and Maine with an eye toward improving Maine’s dredging laws. The comparisons will focus on four dredging sub-topics: (1) permits, (2) water quality, (3) dredging best practices, and (4) dredged sediment disposal.¹¹¹ Almost all of the state data contained in the analysis below is from the year 2000, approximately the same time that the Mack Point project was first proposed.

A. Connecticut

Permits. The State of Connecticut offers two kinds of permits for dredging in its coastal zone.¹¹² One relates to dredging in tidal wetlands only; the other covers a broader range of dredging scenarios, like those involving the transport of dredged sediment for use as fill.¹¹³ The Office of Long Island Sound Programs (OLISP) issues both permits.¹¹⁴ The average processing time for each permit is 90-180 days, but an expedited review process is available if certain criteria are

¹⁰⁶ HERBICH, *supra* note 9, at 11.2-11.3.

¹⁰⁷ Lukens, *supra* note 89, at 7.

¹⁰⁸ See Robert S. Melnick, *Dredging: Making Waves for Commerce or Environmental Destruction*, 19 VILL. ENVTL. L.J. 145 (2008) (“Despite the benefits of increasing access to ports [throughout the United States], environmental concerns over dredging and the disposal of dredged material have forced a conflict between economic development and environmental preservation.”).

¹⁰⁹ *Dredging and the Vital Role U.S. Ports Play in the National Economy, and Using Wise Environmental Practices in Dredging: Hearing Before the H. Subcomm. on Merchant Marine Comm. on Merchant Marine and Fisheries*, 103rd Cong. 9 (statement of Rep. Robert Menendez).

¹¹⁰ Gelinis, *supra* note 6; Nick McCrea, *Searsport harbor dredging long overdue, vital to Maine trade, transportation commissioner tells economic development group*, BANGOR DAILY NEWS, Jan. 29, 2014, <http://bangordailynews.com/2014/01/29/business/searsport-harbor-dredging-long-overdue-vital-to-maine-trade-transportation-commissioner-tells-economic-development-group/>.

¹¹¹ Lukens, *supra* note 89, at Executive Summary.

¹¹² *Id.* at 28.

¹¹³ *Id.*

¹¹⁴ *Id.*

met.¹¹⁵ In practice, expedited review is only for “maintenance” dredging projects and not new dredging projects.¹¹⁶ Dredging permits issued by OLISP typically require that the project be completed within three years; repeat dredging is not allowed without going through the permit process again.¹¹⁷ Inland disposal of contaminated dredged sediment requires a permit of its own and is issued by the Connecticut Department of Environmental Protection’s (CDEP) Bureau of Waste Management.¹¹⁸ It can take 65 days to receive that permit.¹¹⁹

From a public information standpoint, there is a significant amount of dredging information available at CDEP’s website.¹²⁰ Not only does it list relevant statutes and regulations, but also cost information, estimated processing times, and requirements for public participation.¹²¹ Regarding public participation, Connecticut law requires multiple notices about a dredging project to be published before final approval is granted.¹²² First, the applicant for a dredging permit must publish a “Notice of Application.”¹²³ Then, the Commissioner of OLISP issues a public notice of OLISP’s intent to grant or deny the application.¹²⁴ For dredging in tidal wetlands, a public hearing is generally required, but not for dredged sediment fill activities.¹²⁵ Public hearings on the latter are held only at the discretion of the OLISP Commissioner.¹²⁶

Water Quality. Connecticut water quality standards do not contain biological or numerical benchmarks against which dredged sediment to be disposed of in open water can be measured.¹²⁷ Instead, “they specify that adverse long-term effects are to be avoided.”¹²⁸ This does not mean that dredged sediment for open water disposal is not tested in Connecticut, however. On the contrary, although chemical testing is not done on sediment that is composed of beach sand or gravel, chemical testing is conducted on all other kinds of sediment.¹²⁹ CDEP and OLISP have drafted sampling methods that have been approved by the ACE.¹³⁰ Dredged sediment to be disposed of inland, meanwhile, is measured against numerical water quality benchmarks.¹³¹ All dredging projects are judged against their impact on marine wildlife, and shellfish are of particular concern

¹¹⁵ *Id.*

¹¹⁶ *See id.*

¹¹⁷ *Id.* (There is a limited exception where dredged sediment is disposed of inland: annual maintenance dredging is sometimes allowed for up to five years without additional permits.). Maintenance dredging means removing sediment build up from pre-dredged areas to *maintain* their current depth. ENVIRONMENTAL ASPECTS OF DREDGING, *supra* note 24, at 35.

¹¹⁸ Lukens, *supra* note 89, at 28.

¹¹⁹ *Id.*

¹²⁰ *Id.*

¹²¹ *Id.*

¹²² *Id.*

¹²³ *Id.*

¹²⁴ *Id.*

¹²⁵ *Id.*

¹²⁶ *Id.*

¹²⁷ *Id.*

¹²⁸ *Id.*

¹²⁹ *Id.* at 29.

¹³⁰ *Id.*

¹³¹ *Id.*

to Connecticut regulators.¹³²

Dredging Best Practices. Aside from encouraging the use of “the best available [dredging] technologies,” Connecticut offers scant guidance about specific dredging methods that regulators prefer.¹³³ One reason for this may be that there are relatively few innovations to be made within the handful of contexts that dredging happens there. For example, because Connecticut docks and marinas are usually packed closely together, “dredging is almost universally conducted by a clam shell bucket dredge that loads material onto a bottom-dump [barge] for open water disposal.”¹³⁴

Dredged Sediment Disposal. Connecticut participates in a long-range plan for managing the disposal of dredged sediment in Long Island Sound.¹³⁵ Under the plan, among other things, “capping” of disposed dredged sediment is performed on a case-by-case basis, disposal must be done during short time periods “to maximize containment,” and there are seasonal restrictions on disposal that coincide with the migrations and spawning of marine life.¹³⁶ Currently, there are four open water disposal sites in Long Island Sound alone.¹³⁷

B. Rhode Island

Permits. The Rhode Island Coastal Resources Management Council (CRMC) oversees all dredging activities in that state.¹³⁸ CRMC issues dredging permits, coordinates efforts between the ACE and the Rhode Island Department of Environmental Management (RIDEM), and leads a Dredging Advisory Committee.¹³⁹ The Dredging Advisory Committee’s purpose is twofold: to provide logistical support to the ACE during maintenance dredging of the Providence River and to advise CRMC about its “dredged material management plan.”¹⁴⁰

CRMC encourages dredging permit applicants to meet with a representative of their office before applying, at which time “[g]uidance is provided on how to apply for [a permit], which regulations are applicable, and what type of [permit] is needed for the project.”¹⁴¹ Filing for a dredging permit with CRMC triggers an automatic public hearing on the project to occur within 30 days.¹⁴²

In sum, CRMC is charged with: (1) promoting the state’s interests in dredging, (2) crafting policy that reflects those interests, (3) cooperating and entering into agreements with the federal government and others regarding dredging, (4) serving as the primary contact for all applications to dredge in state tidal waters, (5) developing and implementing a plan for managing dredged

¹³² *Id.*

¹³³ *Id.*

¹³⁴ *Id.*

¹³⁵ *Id.* at 30.

¹³⁶ *Id.* “Capping” means covering contaminated dredged sediment with clean dredged sediment to “isolate the contaminants from the water column.” HERBICH, *supra* note 9, at 13.37.

¹³⁷ Lukens, *supra* note 89, at 30. *Accord* ACTIVE OPEN WATER DISPOSAL SITES, [http://www.nae.usace.army.mil/Missions/DisposalAreaMonitoringSystem\(DAMOS\)/DisposalSites.aspx](http://www.nae.usace.army.mil/Missions/DisposalAreaMonitoringSystem(DAMOS)/DisposalSites.aspx) (last visited Mar. 2, 2015).

¹³⁸ Lukens, *supra* note 89, at 89.

¹³⁹ *See id.*

¹⁴⁰ *Id.*

¹⁴¹ *Id.*

¹⁴² *Id.*

sediment over the long term, and (6) coordinating with other state agencies to effect these responsibilities.¹⁴³

Water Quality. All dredged sediment in Rhode Island is subject to RIDEM-approved testing and analysis.¹⁴⁴ RIDEM has instituted a classification system based on contaminant levels, although it is not clear what effect those classifications have.¹⁴⁵ Presumably, they have implications for disposal methods. The contaminant results are made public before the dredging application is referred to CRMC for further review.¹⁴⁶

CRMC requires that an applicant “limit dredging and disposal to specific times of the year in order to minimize harm to fish and shellfish unless it can be demonstrated that the impact will not be significant or can be controlled by other measures.”¹⁴⁷ In addition, CRMC disallows dredging for navigational reasons in and around wildlife refuges, conservation areas, and waters “of unique or unusual significance.”¹⁴⁸ The latter includes waters that have scenic value.¹⁴⁹ And only maintenance dredging is permitted in waters that have scenic value and support recreational uses, like sailing.¹⁵⁰ Anything more invasive than maintenance dredging near residential areas is also a red flag for regulators.¹⁵¹

Dredging Best Practices. CRMC does not promote any specific dredging techniques.¹⁵² At most, it appears to have standards for protecting “coastal features,” for example, but offers no guidance about how to achieve it.¹⁵³ CRMC does, however, favor open water disposal for large quantities of dredged sediment provided that environmental harm can be minimized.¹⁵⁴

Dredged Sediment Disposal. For disposal at an inland site, an applicant must show that the dredged sediment will not secrete pollutants that could threaten groundwater or otherwise significantly harm the environment.¹⁵⁵ For disposal in open water, capping polluted dredged sediment is required.¹⁵⁶ CRMC directs that the capping material be made of a clean, granular-like substance such as gravel.¹⁵⁷ In addition, the cap must be at least six inches thick.¹⁵⁸ Other open water disposal requirements include that dumping cannot occur on “prime fishing grounds.”¹⁵⁹ Also, a monitoring program must be implemented and maintained for at least one year at the dump site to track physical and biological conditions there.¹⁶⁰

¹⁴³ *Id.* at 90.

¹⁴⁴ *Id.* at 89.

¹⁴⁵ *Id.*

¹⁴⁶ *Id.*

¹⁴⁷ *Id.*

¹⁴⁸ *Id.*

¹⁴⁹ *Id.*

¹⁵⁰ *Id.*

¹⁵¹ *Id.*

¹⁵² *Id.* at 89-90.

¹⁵³ *Id.* at 90.

¹⁵⁴ *Id.*

¹⁵⁵ *Id.*

¹⁵⁶ *Id.*

¹⁵⁷ *See id.*

¹⁵⁸ *Id.*

¹⁵⁹ *Id.*

¹⁶⁰ *Id.*

C. Massachusetts

Permits. The Massachusetts Department of Environmental Protection's (MDEP) Bureau of Resource Protection, Wetland, and Waterways Program issues dredging permits in the Bay State.¹⁶¹ There are two kinds of dredging permits in Massachusetts.¹⁶² The first "controls project activities and limits physical and chemical impacts to those permitted under the state water quality standards."¹⁶³ In other words, it acts as a kind of environmental gatekeeper. The second permit "control[s] impacts to navigation, public access, and appropriate use of tidelands held in the public trust."¹⁶⁴ Thus, it addresses collateral aspects of dredging like use of the waterway that is being dredged. Both permits take approximately 120 days to issue.¹⁶⁵ There is a third pseudo-permit required for dredging in Massachusetts called an "order of conditions."¹⁶⁶ It is issued by "local Conservation Commissions" and "certifies that proposed [dredging] activities have appropriately avoided significant resource areas, that unavoidable impacts have been minimized, and that mitigation, if necessary, has been designed appropriately."¹⁶⁷ It takes approximately 60 days for a Conservation Commission to issue an order of conditions.¹⁶⁸

A third state organization, the Massachusetts Coastal Zone Management Program (MCZM), convenes monthly pre-dredging application meetings.¹⁶⁹ The meetings are scheduled on an as needed basis for private applicants.¹⁷⁰ Regional Citizen Advisory Councils and the statewide Coastal Resources Advisory Board (CRAB) facilitate public participation in the dredging permit review process.¹⁷¹

Water Quality. Managing contaminated dredged sediment is the MCZM's chief focus.¹⁷² MDEP sets forth the environmental guidelines.¹⁷³ The guidelines are "based on sediment chemistry[,] biology, ambient environmental conditions, and the particulars of the proposed [dredging] activity."¹⁷⁴ However, there do not appear to be any bright line rules about when dredging is allowed during the year in Massachusetts; MDEP and the Division of Marine Fisheries make those determinations on a case-by-case basis.¹⁷⁵ As a general rule, dredging is restricted when fish are migrating and spawning.¹⁷⁶

Dredging Best Practices. Massachusetts directs that "tight sealing bucket dredges," or

¹⁶¹ *Id.* at 54.

¹⁶² *Id.*

¹⁶³ *Id.*

¹⁶⁴ *Id.*

¹⁶⁵ *Id.*

¹⁶⁶ *Id.*

¹⁶⁷ *Id.*

¹⁶⁸ *Id.*

¹⁶⁹ *Id.*

¹⁷⁰ *Id.*

¹⁷¹ *Id.*

¹⁷² *Id.*

¹⁷³ *Id.*

¹⁷⁴ *Id.*

¹⁷⁵ *Id.* at 55.

¹⁷⁶ *Id.*

similar equipment, be used when dredging contaminated sediment to minimize the amount of suspended sediment in the water column.¹⁷⁷

Dredged Sediment Disposal. MCZM and the ACE have worked together on a state “Dredged Material Management Plan.”¹⁷⁸ It has been a work in progress for years.¹⁷⁹ The aim of the plan is to identify disposal alternatives for contaminated dredged sediment that is not suitable for traditional ocean disposal.¹⁸⁰ For example, land-based, confined disposal options are being considered.¹⁸¹ Identifying viable disposal alternatives is especially important for Massachusetts because MCZM does not allow capping.¹⁸²

D. New Hampshire

Permits. The New Hampshire State Port Authority (NHSPA) coordinates dredging activities in the state.¹⁸³ It is responsible for planning maintenance and development of ports, harbors, and navigable tidal rivers.¹⁸⁴ The New Hampshire Wetlands Bureau and the Water Supply and Pollution Control Division issue dredging permits.¹⁸⁵

During the permit application process, dredging projects are classified as either major or minor “depending upon their nature, size, and scope.”¹⁸⁶ Minor projects have an expedited review process.¹⁸⁷ Factors looked at when granting a permit include: (1) the project’s impact on existing currents or wave energy, (2) whether the project can be designed to minimize “disruption of tidal flushing, ebb, and flow”, (3) the project’s impact on salinity levels (if in tidal waters), and (4) the project’s impact on vulnerable marine wildlife.¹⁸⁸ Also, dredged sediment is subject to testing to see if it contains any hazardous materials.¹⁸⁹ If it does, it must be disposed of at an approved solid waste facility.¹⁹⁰ As was the case for Connecticut, detailed information about dredging permits is available online at the New Hampshire Coastal Program and Wetlands Bureau website.¹⁹¹ Prospective applicants may also consult with a related group called the Council on Resources and Development (CORD) to discuss New Hampshire dredging policies and procedures before filing for a permit.¹⁹²

In addition, CORD hosts an inter-agency Dredge Management Task Force that develops

¹⁷⁷ *Id.*

¹⁷⁸ *Id.*

¹⁷⁹ *Id.*

¹⁸⁰ *Id.*

¹⁸¹ *Id.*

¹⁸² *See id.*

¹⁸³ *Id.* at 63.

¹⁸⁴ *Id.*

¹⁸⁵ *Id.*

¹⁸⁶ *See id.*

¹⁸⁷ *Id.*

¹⁸⁸ *Id.* at 63-64.

¹⁸⁹ *Id.* at 63.

¹⁹⁰ *Id.*

¹⁹¹ *Id.*

¹⁹² *Id.*

policies for dredging along New Hampshire's coast.¹⁹³ The task force reportedly convenes monthly and augments the NHSPA's work.¹⁹⁴ Specifically, it is "working to identify potential onshore and offshore sites to accommodate New Hampshire's future dredged material disposal needs."¹⁹⁵

Water Quality. New Hampshire has established a detailed array of dredged sediment testing procedures that includes "grain size analysis . . . testing [for] metals, organics, and PAHs[,] and[] a priority pollutant scan."¹⁹⁶ Contaminated sediment on the sea floor, for example, would be subject to said testing before it could be dredged.¹⁹⁷

In addition, the state identifies precise dates for when dredging can occur so as to avoid interfering with fish spawning and migrations in tidal waters.¹⁹⁸ Dredging activities must take place between November 15th and March 15th.¹⁹⁹ In addition, dredging during the "larval setting stage of shellfish" must be avoided.²⁰⁰

Dredging Best Practices. No evidence that the State of New Hampshire encourages particular dredging methods could be located.²⁰¹

Dredged Sediment Disposal. New Hampshire does not have a long-term plan for managing its dredged sediment disposal, although the need for one has been recognized by the state Dredged Material Task Force.²⁰² A reason there may not be such a plan in place yet is because New Hampshire has never disposed of contaminated dredged sediment in open water; so far, disposal has occurred at solid waste facilities on land.²⁰³ Also, the number of ports that need to be dredged in New Hampshire are limited by its relatively small coastline.

E. Maine

Permits. Maine has one comprehensive dredging permit.²⁰⁴ It is issued in accordance with the Maine Natural Resources Protection Act (MNRPA) and is required to engage in dredging and filling activities.²⁰⁵ An MNRPA permit can take anywhere from 14 to 120 days to issue and Maine law requires that approximate processing times be printed on applications.²⁰⁶ The large timeframe spread accounts for the most simple through to the most complex projects.²⁰⁷ If the proposed

¹⁹³ *Id.* See also DREDGE MANAGEMENT TASK FORCE (DTMF), <http://des.nh.gov/organization/divisions/water/wmb/coastal/dmtf/> (last visited Mar. 5, 2015) [hereinafter DTMF].

¹⁹⁴ Lukens, *supra* note 89, at 63.

¹⁹⁵ DTMF, *supra* note 193.

¹⁹⁶ Lukens, *supra* note 89, at 63.

¹⁹⁷ *Id.*

¹⁹⁸ *Id.* at 64.

¹⁹⁹ *Id.*

²⁰⁰ *Id.*

²⁰¹ *Id.*

²⁰² *Id.*

²⁰³ *Id.*

²⁰⁴ *Id.* at 48.

²⁰⁵ *Id.*

²⁰⁶ *Id.*

²⁰⁷ *Id.*

dredge site is located on state-owned submerged land, a “submerged lands lease” is also required.²⁰⁸ Under MNRPA rules, dredging cannot “unreasonably interfere with the natural flow of any surface or subsurface waters.”²⁰⁹

An MNRPA permit is not always required, though. For example, maintenance dredging in an area that has been “disturbed” within the last ten years and calls for removing less than 50,000 cubic yards of sediment may be exempt.²¹⁰ On the other hand, if disposal of that sediment will be taking place on land, Maine solid waste management rules apply and a special dumping permit may be needed.²¹¹

The Maine Coastal Program (MCP) coordinates state agencies involved in dredging and disposal activities.²¹² A second, MCP-affiliated informal group also meets to discuss dredging issues.²¹³ Its members include representatives from the Maine Department of Transportation, the Department of Environmental Protection (MDEP), Marine Resources, the State Planning Office, and the Maine Geological Survey.²¹⁴

Detailed permit application information is available at the MDEP’s website.²¹⁵ Prospective applicants are encouraged to contact MDEP to schedule a pre-application consultation, especially if a project seeks “new dredging or use of a non-designated disposal site.”²¹⁶ If a private dredging activity requires an MNRPA permit, the applicant must cause a notice of the project to be published in the local newspaper.²¹⁷ If disposal is slated for an open water site, the barge’s route must also be published but under the headline: “Notice to Fishermen.”²¹⁸ If a dredging project will be performed by a federal agency, “pre-application, pre-submission, and public informational meetings are required.”²¹⁹ This is what has been happening at Searsport.

Water Quality. Under Maine’s NRPA, dredged sediment is evaluated against federal EPA pollution standards.²²⁰ Multiple rounds of testing may be required.²²¹ Data results are collected and kept on file; if an applicant wants to dredge an area where the sediment has been tested within the previous three years, a new sediment test may not be required.²²²

In Maine, dredging typically occurs between November 1st and April 15th to minimize impact on marine life.²²³ Lobster migration is a particular concern for regulators.²²⁴

²⁰⁸ *Id.*

²⁰⁹ *Id.*

²¹⁰ *Id.*

²¹¹ *See id.* *See also* MAINE COASTAL PROGRAM, <http://www.maine.gov/dacf/mcp/about/index.htm> (last visited Mar. 5, 2015).

²¹² Lukens, *supra* note 89, at 48.

²¹³ *Id.*

²¹⁴ *Id.*

²¹⁵ *Id.*

²¹⁶ *Id.*

²¹⁷ *Id.*

²¹⁸ *Id.*

²¹⁹ *Id.*

²²⁰ *See id.* at 48, 49.

²²¹ *Id.* at 48.

²²² *Id.*

²²³ *Id.*

²²⁴ *Id.*

Dredging Best Practices. Maine does not publish general recommendations regarding specific dredging techniques, but “best management practices are made to permit applicants on a case-by-case basis.”²²⁵

Dredged Sediment Disposal. Maine does not have a long-term plan for managing the disposal of dredged sediment, although in the past state officials have said the issue needs attention.²²⁶

Generally, there are four ways to dispose of dredged sediment in Maine. First, if the sediment is clean, it may be repurposed for beneficial use; as beach sand, for example.²²⁷ Second, if using it for beneficial purposes is not an option, “Maine views ocean disposal as the best alternative” if the sediment meets EPA and ACE standards.²²⁸ Third, the sediment may be disposed of inland provided it has less than hazardous concentrations of PCBs.²²⁹ Finally, if the sediment exceeds the PCB threshold, it must be disposed of pursuant to hazardous waste regulations.²³⁰ Compared to the rest of the U.S., “the options for disposal of dredged material in Maine are limited.”²³¹

V. ANALYSIS, RECOMMENDATIONS, AND CONCLUSION

The previous section illustrated some of the things that Maine does well and some areas where it can improve relative to the other coastal New England states. Arguably, a positive aspect of Maine’s dredging laws is that there is a single permit for all dredging in the state (unlike Massachusetts) and it can be tailored to suit projects of very different scales. Having one permit may streamline the application process and increase efficiency. That Maine requires estimated processing times be printed on dredging applications is useful too.²³² Even if the printed timeframe is longer than an applicant wants to wait, uncertainty can breed greater frustration.

Another positive element of Maine’s regulatory framework is encouraging prospective applicants to meet with state officials beforehand.²³³ In doing so, surprises during the permitting process can be minimized because the parties have discussed the project and procedures ahead of time. Similarly, a comprehensive dredging website is a good resource for prospective applicants and community members too.²³⁴ It is telling that so many other states encourage pre-application meetings and have websites dedicated to dredging education and information. These are just a handful of the regulatory decisions that Maine deserves kudos for.

For all that, there are several ways that Maine can learn from our neighbors. Arguably, New Hampshire and Rhode Island are models for how Maine could centralize its dredging administration. Efficiency and institutional knowledge may be increased if dredging stakeholders were consolidated under one or two state agencies. This includes dredging advisory groups like

²²⁵ *Id.*

²²⁶ *Id.* at 49.

²²⁷ *See id.*

²²⁸ *Id.*

²²⁹ *Id.*

²³⁰ *Id.*

²³¹ *Id.*

²³² *Id.* at 48.

²³³ *Id.*

²³⁴ *Id.*

the Maine Coastal Program (MCP) and its informal, associated meeting group.²³⁵ Duplication of efforts should also be looked at: one group could meet under the MCP banner but retain the pan-agency representation aspect of the second group. The group could meet monthly like New Hampshire's Dredge Management Task Force does.²³⁶ First on MCP's agenda could be the creation of a long-term plan for managing the disposal of dredged sediment, something that is urgently needed.

In addition, Maine could review the MNRPA to determine if the EPA's federal dredged sediment disposal standards are right for this state. Unlike other New England states, Maine does not appear to have its own dredged sediment pollution standards.²³⁷ Although this may make it easier for dredging applicants because they do not have to contend with another layer of rules, it may also contribute to local opposition to dredging projects because of the perception that the federal disposal guidelines are not tailored to suit the unique needs of Maine. For example, Maine could implement Rhode Island and Massachusetts's rule that dumping is not permitted on prime fishing grounds.²³⁸ That alone could change the dynamic of the Searsport debate because one of the chief concerns of the Mack Point dredging opponents is the impact on Maine's critical lobster fishery.²³⁹ Other rules that Maine could consider implementing include Rhode Island's minimum capping thickness and disposal site monitoring requirements.²⁴⁰

Maine might also do well to enact some form of the avenues that Massachusetts provides the public to comment on dredging projects. Those are the Regional Citizen Advisory Councils and the statewide Coastal Resources Advisory Board.²⁴¹ Having pre-established, organized conduits through which members of the public can comment may lead to more constructive dialogue. Automatically providing the public a forum to voice concerns about a project, rather than a local meeting being triggered when outcry is loud enough and people feel shut-out and ignored, probably does more to foster productive discussion and trust between the parties.

Further, Maine could publish a list of best dredging practices that it wants to encourage in different situations. Even if not mandatory, state-endorsed "best practices" have the potential to shape the future of dredging in Maine for the better. For example, best practices could address the environmental benefits of mechanical versus hydraulic dredging. Recall that mechanical dredges tend to leave dredged sediment intact (thus minimizing the amount of contaminants entering the water column), whereas hydraulic dredges stir up dredged sediment by adding large amounts of water to it.²⁴² Maine could encourage the use of mechanical dredges where appropriate because they leave the smallest footprint on the marine ecosystem. Best practices could also look at sustainable, land-based disposal options for dredged sediment.

In addition, Maine could create a marketplace for goods derived from dredged sediment. As previously noted, certain kinds of dredged sediment can be combined with clay and manufactured into bricks, concrete, and other building products. Keeping dredged sediment (that is unsuitable

²³⁵ *Id.*

²³⁶ *Id.* at 63.

²³⁷ *Id.* at 48-49.

²³⁸ *Id.* at 90.

²³⁹ Anne Porter, *Lobstermen Oppose Dredge Spoil Dump*, ELLSWORTH AMERICAN, Apr. 20, 2000, http://ellsworthamerican.com/archive/news2000/04-20-00/ea_news4_04-20-00.html.

²⁴⁰ Lukens, *supra* note 89, at 90.

²⁴¹ *Id.* at 54.

²⁴² *Dredging: The Facts*, *supra* note 14, at 3.

for beneficial use) out of the ocean is good for the environment and extends the life of dredged sediment disposal sites.

Finally, a theme throughout this Comment has been the tension between dredging's economic benefits and its environmental costs. At its core, I believe that is what the controversy in Searsport is about. And yet, Maine dredging regulators appear to offer little guidance about how to weigh those two factors against each other. Oregon, for example, requires that proponents of certain dredging projects submit "a cost/benefit analysis which identifies the benefits of the project to the local community, the region, and the state as a whole."²⁴⁴ Maine could implement a policy along those lines to assist interested parties with weighing the pros and cons of a dredging project and help everyone on both sides better understand where the other is coming from.

In conclusion, there may be many opportunities for Maine to improve its dredging laws. However it is done, the end result should be a more predictable, responsive, and transparent process. That way, although dredging supporters and opponents may still disagree, protracted battles like the one that has engulfed Searsport can be avoided.

²⁴⁴ Lukens, *supra* note 89, at 9.