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March 30, 2011

U. S. Army Corps of Engineers
New England District
696 Virginia Road
Concord, MA 01742-2751
ATTN: Mr. Bill Kavanaugh, Programs Project Management Division

VIA EMAIL

Re: Maintenance and Advance Maintenance Dredging of the Federal Navigation Project in the Kennebec River, Maine

Dear Mr. Kavanaugh,

On behalf of the parties listed below (together as Phippsburg Commenters), please accept the following comments regarding the proposed Maintenance and Advance Maintenance Dredging of the Federal Navigation Project in the Kennebec River, Maine. The Phippsburg Commenters also wish to incorporate by reference comments submitted by the Town of Phippsburg Shellfish Commission, the Kennebec Estuary Land Trust, the Phippsburg Land Trust, and the Friends of Merrymeeting Bay.

Maintenance dredging of the Federal Navigation Channel in the lower Kennebec River is normally conducted in winter. The Army Corps of Engineers has proposed out-of-season dredging in August solely to allow the U.S.S. Spruance to exit from Bath Iron Works to the sea in September 2011. As explained below, the Phippsburg Commenters request that permits for the proposed summertime dredging be denied because it will have severe adverse impacts to virtually all other uses and users of the Kennebec River estuary and surrounding waters—including shellfish harvesting, lobstering, tourism and recreation, commercial and recreational fishing, swimming, boating, hiking, property owners, wildlife and other aquatic life – and because there are more cost effective and less environmentally damaging alternatives to enable delivery of the Spruance.

Additionally, the Phippsburg Commenters contend that the application cannot be permitted because the Corps has failed to meet its legal obligation under the Clean Water Act and the National Environmental Policy Act to analyze and disclose to the public information about the severe adverse impacts this project would cause, and because the proposed activity would violate Maine Water Quality Standards and would “take” species protected under the federal Endangered Species Act.

I. The Phippsburg Commenters and A Statement of Their Interests

Bob Cummings has lived on Drummore Bay since 1962, and has been a member of the Phippsburg Shellfish Committee for many years working to clean up the Kennebec River and reopen once-closed clamflats. He enjoys canoeing on Drummore Bay and the Kennebec River,

watching the seals at play in the Kennebec and the eagles that reside on Lee Island. In summer, his canoe is joined by many other small boaters who are fishing and recreating on the Kennebec River. He is concerned that the wildlife in this portion of the Kennebec River will be disturbed by impacts from the dredge operations; that clam flats in the lower part of Drummore Bay will be contaminated; that his boating experience will be negatively affected by the noise and disruption of the dredging; and that the fishing and guiding businesses that depend on this stretch of the Kennebec River will be adversely affected by the full-time dredging and disposal operation planned for August, 2011.

Capt. Ethan DeBery is a Phippsburg resident and owner and operator of Fish 'n' Trips Charters. Capt. DeBery operates the ferry to Seguin Island and conducts fishing charters around Popham and in the Kennebec River. The proposed dredging would impact his ferry and charter fishing operations by obstructing and preventing use of impacted waters during the height of the boating and fishing season. Additionally, the proposed activity would create noise, air pollution, water quality impacts, and disturb fish, wildlife and habitat – all of which would degrade the experience for his customers and detract from his business.

Brett Gilliam is a Phippsburg resident and commercial lobsterman. Like most Small Point lobstermen, Brett has traditionally fished the waters surrounding Jackknife Ledge (JKL) during the month of August. Brett generally runs 60 to 70 traps in the JKL waters and plans to continue fishing this area in the future. Dredging of the Popham Beach area and disposal of dredge spoils at JKL would prevent Brett from continuing to fish the area, and would result in destruction of lobster and lobster habit, burial of his lobster gear under the sand, and cut lines and lost and damaged gear due to dredge, barge, tug, and attendant boat traffic.

Peggy Johannessen is owner and operator of Popham Beach Bed & Breakfast. The B&B is located in the old lifesaving station on Popham Beach at the mouth of the Kennebec River, directly in front of the proposed dredge operations. August is the B&B's busiest month of the year, and accounts for roughly a third of its business. Generally, the B&B has a full house all month long. Past dredging conducted during winter and spring months has been marked by very loud and persistent noise, night and day, but when few or no guests were present. Mrs. Johannessen is concerned that the proposed dredging during August will significantly affect her guests and business. In particular, she is concerned about noise impacts, which will occur night and day, as well as nighttime lighting and other impacts to the otherwise spectacular views of the ocean, islands and the Seguin Lighthouse.

Dot Kelly is a Phippsburg property owner, member of the Phippsburg Conservation Commission, and direct riverfront abutter to the disposal area in the Kennebec Narrows at Bluff Head. Mrs. Kelly uses the river and shores to swim and wade, is an avid river kayaker and observer of wildlife. She highly values the river's quiet, clean and natural setting, and likes to observe fishermen drifting with currents in the river. Past dredge and dumping events have disrupted this natural setting, both during the day and at night. Mrs. Kelly has also personally observed that during and after past dredging and disposal events, the entire river corridor in front of her house turned turbid and discolored, resulting in deposits of silt and muck along her shoreline and upstream and downstream areas. These impacts detract from her ability to use the area, and have driven away resident seals and other wildlife that she enjoys watching.

Dick LeMont is a Phippsburg resident, commercial clam harvester, a member of the Phippsburg Harbor Committee and, for 20 years, was chair of the Phippsburg Shellfish Committee. Mr. LeMont harvests clams throughout Phippsburg, including clamflats in Drummore Bay, the Upper Flats, Parker Head, Wyman's Bay, Atkins Bay, and the Popham/Small Point Beach and Morse/Sprague River areas. Mr. LeMont has observed siltation of clamflats due to past dredging, especially in Atkins Bay. He is concerned that siltation from the proposed action will cover the above listed clamflats and force closure of shellfishing under state and federal public health protocols. A closure due to dredging in August would impose severe negative impacts on Mr. LeMont's business and all other clambers in town: August is the most important month of the year for clambers because it generally has the best weather (i.e. fewest rain-induced flats closures) and long days for harvesting. Not only is their harvest volume highest in August, but clambers also get premium prices during the month – often double the price paid for clams in the winter and spring. Even short of a closure, siltation of the clamflats will cover air holes, making it difficult to find clams and reducing harvests. In addition, siltation in August is likely to have severe negative impacts on clam spat (juvenile clams), which must set near the top of the flats until they mature sufficiently to survive at deeper levels. Burial by a layer of silt and sediment will kill many of these juvenile clams.

Lawrence Pye is a Phippsburg resident, Phippsburg Town Selectman, and commercial lobster fisherman. Lawrence traditionally fishes the waters surrounding JKL in August and plans to continue fishing this area in the future. Dredging of the Popham beach area and disposal of dredge spoils at JKL would prevent Lawrence from continuing to fish the area, and would result in destruction of lobster habit, burial of his lobster gear under the sand, and cut lines and lost and damaged gear due to dredge, barge, tug, and attendant boat traffic.

Laura Sewall is a Phippsburg resident who lives on the Sprague River Marsh, very near to Seawall Beach in the Small Point area. Laura is an avid swimmer and surf kayaker and enjoys the water at Seawall Beach and other area beaches on most August days. Laura greatly values the aesthetic experience of a clean, quiet, scenic, and natural coastline. She is also the director of the Bates-Morse Mountain Conservation Area (BMMCA). Every summer season, nearly 16,000 people walk over Morse Mountain to go to Seawall Beach. The trail ends just inshore of Jack Knife Ledge. The turbidity in the water, and concerns about potential toxins stirred up by dredging and dumping would prevent Laura and the public users of BMMCA from engaging in recreational activities in and on the water, and would detract from their enjoyment of the scenic, quiet and natural experience that the area has to offer.

The Small Point Association (SPA) owns Seawall Beach, which is adjacent to Popham Beach. SPA opposes the proposal to conduct dredging operations in August and especially the proposed dumping of dredged material so close to the shores of Seawall Beach. SPA's opposition is based on the negative impact of this dumping to Small Point residents and members of the public who visit the beach via the Bates-Morse Mountain Conservation area for swimming, fishing, and boating. This project will occur at the height of annual usage of the beach and the waters adjacent to the beach. SPA is also opposed due to the negative impact the dumping will have on the rich wildlife habitat on Seawall Beach, which is one of the few remaining pristine beaches on the New England coast. In particular, early August is a time of

peak use of the beach by large populations of migratory birds that depend on feeding on the tidal flats at Seawall Beach as a final stop before non-stop flight thousands of miles south. SPA also stands in strong support of its Phippsburg neighbors whose livelihood from clamming, lobstering, and tourism, would be severely impacted by a major dredging project during the summer months.

II. Statutory and Regulatory Background

The proposed action must comply with both the Clean Water Act (CWA) and the National Environmental Policy Act (NEPA).

a. Clean Water Act

“Congress enacted the Clean Water Act to ‘restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.’” *Town of Norfolk v. U.S. Army Corps of Engineers*, 968 F.2d 1438, 1445 (1st Cir. 1992) (*quoting* 33 U.S.C. § 1251(a)). Section 301 of the CWA prohibits discharge of pollutants, including dredged or fill materials, into navigable waters unless authorized by a permit. 33 U.S.C. §§ 1311(a), 1362(6). Navigable waters includes all “waters of the United States,” *id.* at 1362(7), including adjacent and interconnected wetlands. 40 C.F.R. § 230.3(s)(7).

Section 404 of the CWA authorizes the Corps to issue or deny permits for the discharge of dredged and fill materials at specified disposal sites. 33 U.S.C. § 1344(a). Before issuing a permit, the Corps must ensure that the proposed action complies with CWA Section 404(b)(1) Guidelines issued by the Environmental Protection Agency (“EPA”) in conjunction with the Secretary of the Army. *Id.* § 1344(b)(1); *see also* 33 C.F.R. § 320.4(a)(1) (section 404 permits will be denied for projects that do not comply with the EPA’s 404(b)(1) Guidelines).

The 404(b)(1) Guidelines provide that:

[N]o discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences.

40 C.F.R. § 230.10(a) (known as the less environmentally damaging practicable alternative, or “LEDPA”, standard). The review of practicable alternatives must include, at a minimum, activities that do not involve a discharge of dredged or fill materials into the navigable waters. *Id.* at § 230.10(a)(1)(i). “An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.” *Id.* § 230.10(a)(2). For activities that involve filling of special aquatic sites such as wetlands, marshes, mud flats and clam flats, but which are not water dependent, there is a dual presumption that (1) “practicable alternatives that do not impact special aquatic sites are presumed to be available, unless clearly demonstrated otherwise.” *id.* at 230.10(a)(3); and (2)

that such alternatives “are presumed to have less adverse impact on the aquatic ecosystem, unless clearly demonstrated otherwise.” *Id.*

The courts have held that “this presumption of practicable alternatives is very strong,” *Northwest Bypass Group v. U.S. Army Corps of Engineers*, 552 F.Supp. 2d 97, 108 (D.N.H. 2008), and that “the Corps may not issue a § 404 permit unless the applicant, ‘with independent verification by the Corps, provides detailed, clear and convincing evidence *proving*’ that an alternative with less adverse impact is ‘impracticable’”. *Greater Yellowstone Coal. v. Flowers*, 359 F.3d 1257, 1269 (10th Cir. 2004) (emphasis in original)(quoting *Utahns for Better Transp. v. U.S. Dept of Transp.*, 305 F.3d 1152, 1186-87 (10th Cir. 2003). See also *id.* 359 F.3d at 1270 (collecting cases regarding applicant’s burden); EPA, *Guidelines for Specification of Disposal Sites for Dredged or Fill Material*, 45 Fed. Reg. 85336, 85339 (Dec. 24, 1980) (dual presumption imposes responsibility on applicant “to persuade the permitting authority that both of these presumptions have clearly been rebutted in order to pass the alternatives portion of these guidelines”). An applicant that fails to provide sufficient information to determine that a presumptively practicable alternative is in fact impracticable fails to meet their burden and is ineligible for a fill permit. *Bersani v. Robichaud*, 850 F.2d 36, 42 (2d Cir. 1988); see also EPA & Corps of Engineers, *Memorandum: Appropriate Level of Analysis Required for Evaluating Compliance with the Section 404(b)(1) Guidelines Alternatives Requirements*, at 3(b) (Jan. 12, 2009) (same).

Additionally, projects that involve discharge of fill materials may not be permitted if they cause or contribute to non-attainment of any applicable state water quality standard, 40 C.F.R. § 230.10(b)(1), or cause or contribute to significant degradation of waters of the U.S. *Id.* § 230.10(c). Effects contributing to significant degradation of the waters, individually or collectively, include adverse effects to human health or welfare (including due to impacts to shellfish, fish, wildlife and special aquatic sites), *id.* § 230.10(c)(1); adverse effects on life stages of aquatic life and spread of pollutants through bioaccumulation and other processes, *id.* § 230.10(c)(2); significant adverse effects on fish, wildlife, habitat, and wetlands, *id.* § 230.10(c)(3); or significant adverse effects on recreational, aesthetic, and economic values. *Id.* § 230.10(c)(4).

a. National Environmental Policy Act

Pursuant to both the CWA and the National Environmental Policy Act (“NEPA”), 42 U.S.C. § 4331 *et seq.*, the Corps must take a “hard look” at a proposed project, alternatives, and impacts. *Kleppe v. Sierra Club*, 427 U.S. 390, 410 n. 21 (1976); 45 Fed. Reg. at 85339. The hard look doctrine requires the permitting agency to “set forth sufficient information for the general public to make an informed evaluation, and for the decisionmaker to consider fully the environmental factors involved and to make a reasoned decision after balancing the risks of harm to the environment against the benefits to be derived from the proposed action.” *Sierra Club v. U.S. Army Corps of Eng.*, 701 F. 2d 1011, 1029 (2d Cir. 1983) (quotations and citations omitted). The Corps review must ensure “the integrity of the process of decision by giving assurance that stubborn problems or serious criticisms have not been ‘swept under the rug.’” *Id.* (citing *Silva v. Lynn*, 482 F.2d 1282, 1285 (1st Cir. 1973)). “[W]here comments from responsible experts . . . disclose new or conflicting data or opinions . . . these comments may

not simply be ignored. There must be good faith, reasoned analysis in response.” *Silva*, 482 F.2d at 1285. See also *Alliance to Save the Mattaponi v. U.S. Army Corps of Engineers*, 606 F. Supp. 2d 121, 130 (D.D.C. 2009) (LEDPA review requires the Corps to “explain fully, based [on] an analysis adequate to the task, why other alternatives are either impracticable or more damaging”.)

An action that significantly affects the quality of the human environment requires preparation of a full Environmental Impact Statement (“EIS”). 42 U.S.C. § 4332(2)(C). The term “significantly” requires consideration of both context and intensity; for site-specific actions determination of significance is determined based on the context of local impacts. 40 C.F.R. § 1508.27(a). Intensity refers to the degree of impact, and requires consideration of:

- Public health or safety;
- Unique characteristics of the area such as proximity to historic or cultural resources, park lands, wetlands, or ecologically critical areas;
- The degree of public controversy regarding the project;
- The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks;
- The relationship to other actions with individually insignificant but cumulatively significant impacts;
- The degree to which the action may adversely affect districts, sites, structures, or objects listed in or eligible for listing in the National Register of Historic Places;
- The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973; and
- Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

40 C.F.R. § 1508.27(b).

III. Purpose and Need, Alternatives

The sole justification for this proposed out-of-season dredging in August is to enable a one-time egress of the U.S.S. Spruance from Bath Iron Works to the sea in September 2011. Because normal (winter season) dredging operations are permitted separately, out-of-season dredging is not necessary to permanently maintain the Federal Navigation Channel (FNC) in the Kennebec River. Accordingly, long-term maintenance of the FNC should not be considered as part of the purpose and need for this project, and issues related to long-term maintenance of the FNC must be excluded from the analysis.

Pursuant to both NEPA and the CWA, the Corps must evaluate all reasonable alternatives capable of meeting the basic project purpose – to enable the Spruance to transit the Kennebec River in September 2011. The Draft Environmental Assessment (EA) submitted as part of the Corp’s application for Maine state permits and 401 Certification fails to meet this requirement for the following reasons:

a. No Action Alternative

The Draft EA suggests that the No Action Alternative is not viable because it would prevent or delay sea trials and transits of the river by Navy, cargo ships and other deep draft vessels, eventually making the federal navigation channel totally impassable and causing negative economic impacts on the region. As noted above, however, regular maintenance of the FNC is separately permitted. Thus, the No Action Alternative would not cause any of the impacts suggested in the draft EA. Rather, the sole potential impact of the No Action Alternative would be to delay transit of the U.S.S. Spruance by no more than three months (until normal season dredging can begin in Nov. 2011).

In this case, however, there need be no delay. The Spruance can clearly exit the Kennebec River safely without dredging; it did so to conduct sea trials just last month as shown by the photograph in Figure 1. Thus, there is simply no need for emergency out-of-season dredging and all of the adverse impacts it would cause. The No Action Alternative is clearly practicable, less environmentally damaging, and cost effective – in fact it would save taxpayers



Figure 1: The U.S.S. Spruance seen leaving the mouth of the Kennebec River at Fort Popham on Feb. 18, 2011

approximately \$1 million. Because the No Action Alternative would not impact special aquatic sites, it is the Corps' burden under 40 C.F.R. § 230.10(a) to show that this presumptively available alternative is in fact not practicable, i.e. that the Navy is prohibited by law, or by some other reason, from using the same course and pilot as BIW did to exit the river this spring. Use of trained river pilots to help Navy ships navigate local hazards is a historic and global practice, and is presumably used by the Navy in other locations (and has been used on the Kennebec River in the past –

including for the Spruance). Unless the Navy can show why it is legally prohibited from using a local pilot, out of season dredging is not LEDPA and the Corps cannot issue a 404 permit under the Section 404b1 Guidelines. *See Alliance to Save the Mattaponi*, 606 F. Supp. 2d at 130 (LEDPA review requires the Corps to “explain fully, based [on] an analysis adequate to the task, why other alternatives are either impracticable or more damaging”.)

b. Minimum Dredging and Upland Disposal

To the extent that out-of-season dredging is absolutely required to enable egress of the Spruance in September, the Corps must evaluate a low impact alternative that authorizes the least amount of dredging possible to help this one ship exit the river. For example, instead of advance dredging and over-dredging, as is currently proposed, the Corps must consider minimal dredging and alternative sand crest manipulation techniques that knock the wave crests into the adjacent troughs.

To the extent that any dredging is required in such an alternative, the Corps must consider upland disposal for dredge spoils. Because upland disposal is, by definition, non-water dependent, the dual presumption at 40 C.F.R. § 230.10(a) applies. To overcome this presumption, the Corps must do more than mention that an upland disposal site and non-federal sponsor need to be identified. The 404(b)(1) Guidelines strictly require that alternatives that do not involve discharge of fill materials are presumptively available unless and until the applicant proves otherwise by *clear and convincing evidence*. *Greater Yellowstone Coal.*, 359 F.3d at 1269. External alternatives must be considered and be utilized if available to fulfill the project's basic purpose. *Id.* at § 230.10(a)(2) (areas not owned by applicant must be considered if it can "reasonably be obtained, utilized, expanded or managed in order to fulfill the basic purpose of the proposed activity"). In order for an "external" alternative to be practicable, it must be reasonably available or obtainable; however, "the mere fact of ownership or lack thereof, does not necessarily determine reasonable availability." 45 Fed. Reg. at 85339.¹ In this case, based on current practice of upland disposal of dredge spoils by BIW using Reed & Reed General Contractors, the necessary equipment, land-based infrastructure, and trained personnel are all available for use in a scaled-back alternative. Moreover, the spoils likely have commercial value; sale of materials could defray some or all of the added cost of upland disposal. *But see* 45 Fed. Reg. at 85339 ("The mere fact that an alternative may cost somewhat more does not necessarily mean it is not practicable."). Additionally because use of sand from dredge spoils will displace other sand and gravel mining – which causes environmental impacts – environmental benefits and beneficial use would accrue from this alternative, thus meeting Corps' policy. Finally, the Corps must evaluate upland disposal and/or beach replenishment separately for each of the two proposed dredging locations.

c. Minimum Dredging and Offshore Disposal Using Existing Sites

To the extent that out-of-season dredging is absolutely required to enable egress of the Spruance and upland disposal is found, based on clear and convincing evidence, to be impracticable for one or both dredge sites, the Corps must evaluate a minimum impact approach designed to dredge just enough to help the Spruance exit the river, and to dispose of all spoils offshore where it will have the least possible impact on other uses, including shellfishing, lobstering, tourism and recreation, and wildlife.

As discussed below, dredging in August will have unacceptable impacts on virtually all other users and resources in the river aside from navigation. The Corps must evaluate an alternative designed to minimize these impacts. By dredging the least amount possible, it would reduce the duration and extent of dredging impacts to other resources and remove less material from the Kennebec River sand budget. By using pre-approved offshore disposal sites (such as

¹ As noted in the discussion of external alternatives in the preamble to the 1979 draft of the Guidelines, "Section 403(c)(1)(F) [of the CWA] specifically refers to other possible locations and methods of disposal, without limitations." EPA, *Guidelines for Specification of Disposal Sites for Dredged or Fill Material*, 44 Fed. Reg. 54222, 54224 (Sept. 18, 1979).

² Additionally, an EIS is warranted because the project will violate state water quality standards, 40 C.F.R. § 1508.27(b)(10), and will impact species protected under the Endangered Species Act. *Id.* § 1508.27(b)(9).

³ National Shellfish Sanitation Program, *Sanitary Survey and the Classification of Growing*

the pre-approved Portland Disposal Site), many of the impacts to lobstering, shellfishing, tourism and recreation, wildlife, and water quality would be averted.

d. Minimum Summertime Dredging

Finally, the Corps must evaluate minimal dredging during the summer, combined with normal maintenance dredging during the winter season when impacts are reduced. As with the above alternatives, the Corps must consider upland disposal and alternative offshore disposal sites that both minimize losses to the Kennebec River sand budget, yet also do not cause the severe environmental and economic effects from in-river and near-shore disposal as described in this document.

IV. Impacts to Tourism and Recreation, Fisheries, and Aesthetics

The Feb. 2011 Draft EA for this project was developed based on a 2002 EA that reviewed only winter dredging activities. The 2002 EA did not consider any summer uses of the area, such as tourism and recreation, lobster fishing, the commercial and recreational fin fishery, or other activities that make Phippsburg and the lower Kennebec River estuary a world class tourist destination and fishery resource. Perhaps this difference in seasons explains why the Draft EA concludes that maintenance dredging “is not anticipated to have any negative effects on social or economic resources,” Draft EA at 24, and why the March 1, 2011 Public Notice entirely omits any discussion of these critically important issues.

The findings in the Draft EA are patently untrue; the proposed month-long dredging during the height of a very short two-month summer season would likely have significant, intense, and severe impacts to the area’s tourism and recreation industry, to natural resource industries including lobster fishing, shellfishing, and striped fishing, and to the area’s incomparable environment and quality of life. An August dredging operation is fundamentally different than winter operations and the likely impacts to the Phippsburg economy and community (as well as to adjacent towns) would be simply devastating.

Failure to analyze and disclose these impacts violates NEPA. 42 U.S.C. § 4332(c). Failure to consider whether these impacts cause or contribute to significant degradation of waters of the U.S. – including adverse effects to human health, aquatic life, habitat, or recreational, aesthetic and economic values – violates the Clean Water Act. *See* 40 C.F.R. § 230.10(c).

a. Impacts to Tourism and Recreation

The Draft EA omits any mention of the incredible recreation and historic resources on the Phippsburg peninsula. Popham Beach State Park is one of the crown jewels of the Maine Park’s system, and is among the most heavily visited parks in the entire state. Together with Fort Popham, the Popham Colony historic site, Fort Baldwin, the Seguin Island Lighthouse, the Bates-Morse Mountain Conservation Area, and Seawall Beach, the project area offers some of

the best recreation opportunities in Maine. Visitors and locals alike come to enjoy the spectacular beaches, swimming, surf kayaking, fishing, sailing, motor boating, clamming, hiking, nature trails, historic sites, scenic ocean views and more. The tourism and recreation business is a mainstay of the local economy and supports a wide range of businesses including restaurants, gifts shops, hotels, B&B's, vacation cottages, campgrounds, retail outlets, water sports, boat tours, fishing charters, etc. August is the key month for each and every one of these businesses, and accounts for the bulk of their annual income.

The proposed action would involve up to five weeks of day and night operations beginning Aug. 1, 2011, using massive hopper dredges – essentially giant vacuums – located a just few hundred feet offshore of Popham Beach. Hopper dredging uses suction to lift material off the bottom, pumps it to the surface in slurry form, and then filters the slurry in floating barges. This activity will result in constant noise, visual impacts, air pollution, water quality impacts (both at the bottom and at the surface), disturbance of fish and wildlife, loss of habitat, take of endangered species, destruction of fishing gear, and a hazard to fishermen and boaters. All of these harms will occur immediately offshore of some of the most popular and scenic beaches in Maine and in some of the most heavily fished and recreated waters on the Maine Coast. Disposal of dredge spoils at Jackknife Ledge (JKL) will result in total suspended solids dispersed throughout the water column and surrounding areas, and will likely also impact nearby swimming areas, beaches, and mudflats in the Popham, Small Point, Morse River and Sprague River Marsh.

At the upstream Doubling Point dredge site and Bluff Head disposal site, kayakers, canoers, motor boaters, anglers, fishing guides, nature lovers, homeowners and tourists will be displaced by a massive dredging operation that will dominate the narrow river channel and make other uses difficult and dangerous – again operating day and night during the height of the season. Further, dredging operations will cause noise, air quality and water quality impacts that will harm and detract from all other uses of the river.

Clearly, the proposed action will have severe and intensive negative impacts upon all aspects of the recreational experience – swimming, boating, aesthetics, view, sound, air quality, wildlife, etc. – for virtually all visitors. One visits the shore to hear the sound of the surf and wind, not massive vacuum barges operating day and night. Coming during the most important month of a very short summer tourism season (which lasts all of two months) the economic impacts could well be devastating to many businesses that rely upon summer visitation. The degree of impact within this context is local but extreme: it will undercut the entire local economy. For this reason, the Corps must prepare an EIS to ensure that impacts are disclosed and that the public can provide informed comments to decision makers prior to any action. 40 C.F.R. §§ 1500.1(b), 1508.27(a).

In addition, the Corps must consider the potential that disposal of large volumes of sand at JKL may cause more permanent impacts by contributing to or exacerbating erosion of Popham Beach. As indicated by the map of the Popham Beach sediment gyre, currents push sediment towards the mouth of the Morse River. See Figure 2, *infra*. By adding sediment on the seaward and western edge of the sediment gyre, there is a chance that sediment loading of the Morse River sandbar will increase and recreate conditions that led to erosion of Popham Beach in recent

years. Specifically, build up of the sandbar at the mouth of the Morse River started by 2003, worsened in 2005, and continued to cause heavy erosion until the sand bars were broken in 2010. This unusual situation may well have been tied to use of the JKL site for disposal of dredge spoils. If additional dredging disposal from this project contributes sediment that rebuilds the sand bar system, the Popham Beach State Park Beach and bathhouse are very susceptible. The precautionary principle suggests that no further disposal at Jackknife ledge be done until strong scientific evidence proves that dumping at Jackknife ledge does not build the sandbar off the mouth of the Morse River. This is exactly the type of high-level environmental risk and uncertainty that warrants preparation of an EIS prior to taking an action that could adversely affect the outstanding and irreplaceable natural, historic, and cultural resources at Popham Beach State Park. See 40 C.F.R. §§ 1508.27(b)(3, 5, 7, 8, & 10). Further analysis of this complex issue is also required by the CWA Section 404(b)(1) Guidelines. See 40 CFR 230.11 (a) (“Potential changes in substrate elevation and bottom contours shall be predicted on the basis of the proposed method, volume, location, and rate of discharge, as well as on the individual and combined effects of current pattern, water circulation, wind and wave action, and other physical factors that may affect the movement of the discharged material.”).

The wide range of impacts and loss of values discussed above are examples of “Potential Effects on Human Use Characteristics” that “should be considered in making the factual determinations and findings of compliance or non-compliance” required by the 404(b)(1) Guidelines. 40 C.F.R. § Part 230, Subpart F. For instance, the Corps must analyze whether disposal of dredged or fill material will “adversely modify or destroy water use for recreation by changing turbidity, suspended particulates, temperature, dissolved oxygen, dissolved materials, toxic materials, pathogenic organisms, quality of habitat, and the aesthetic qualities of sight, taste, odor, and color.” 40 C.F.R. § 230.52(b). Similarly, the Corps must review impacts to aesthetic values and quality of life, including actions that, as here, “can mar the beauty of natural aquatic ecosystems ... harmony or unity, visual distinctiveness or diversity of an area” by degrading water quality or causing visual impacts, noise, odor, air quality and other harms. *Id.* § 230.53. The Corps must also review impacts to parks, historic sites, and protected natural areas, and the loss of values that may affect such areas including modification of the aesthetic, educational, historical, recreational and/or scientific qualities. *Id.* § 230.54. Unless and until the Corps fully evaluates these impacts (and discloses the results of that analysis to the public) it cannot make the required finding of compliance or non-compliance, *Id.* § 230.10(c), and therefore cannot proceed with this project.

Figure 2: Popham Beach Sediment Gyre

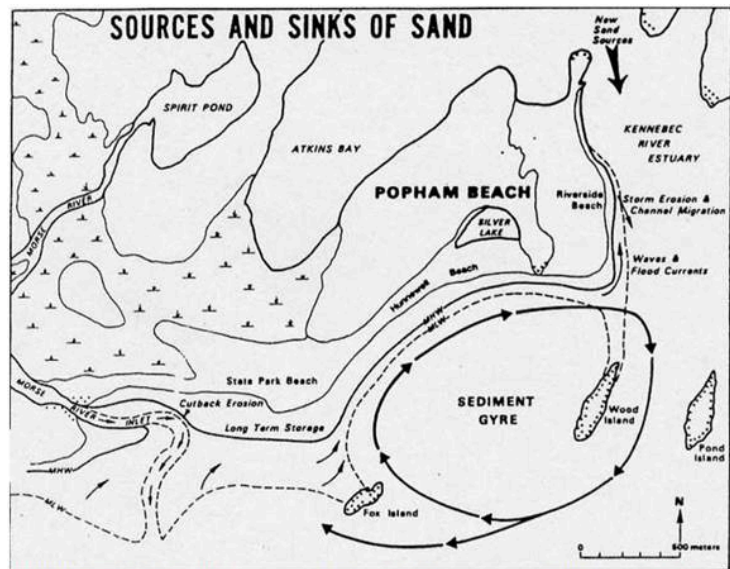


Figure 11. A map illustrating the dockwise circulation gyre that moves sand east of the Fox Islands from Popham Beach to Hunnewell Beach and eventually the Kennebec River. The map also suggests some sand bypasses the Fox Islands, moving in a westerly direction, on the seaward side to come ashore in the vicinity of the Morse River. From Goldschmidt and others (1989).

b. Impacts to Commercial and Recreational Fishing

The proposed activity would also impose significant losses on the area's commercial and recreational fishing industry. In summer, lobsters are highly abundant in the project area surrounding the Popham Dredge site and JKL dump site. JKL is part of the area's traditional fishing grounds, and is extensively fished by Small Point and Phippsburg lobstermen in August, including by several commenters here. Harvests from JKL make up a significant portion of their summer catch and thus their annual income.

Use of hopper vacuum dredges, barges and tugs, and dumping during the height of the lobster season will, literally, cut and bury the fishery. The proposed action will kill and disturb lobster, destroy habitat, cut lines, and cover lobster and gear in meters of sand and silt. The project will effectively prevent any fishing within the project area and a large buffer zone, will degrade fishing quality in adjacent areas, and will cause crowding of remaining fishing areas due to loss of the JKL fishing grounds. Coming during the prime fishing season in August, this will cause severe adverse impacts to the local lobstermen as well as businesses that depend upon the lobster industry, such as suppliers of bait and equipment and operators of lobster pounds. It is absolutely unconscionable that the draft EA would wholly ignore this localized, but nevertheless severe and major economic impact.

With the revival of water quality in the Kennebec River basin, clamming and other shellfishing has also become a significant component of the local economy. According to the Phippsburg Shellfish Committee, at least 40 families depend upon commercial shellfishing and derive the bulk of their income from harvest during the month of August – a time when demand and prices are at their highest. Based on past experiences, the proposed dredge and dumping operations will cause siltation of clamflats in Drummore Bay, the Upper Flats, Parker Head, Wyman's Bay, Atkins Bay, and the Popham/Small Point Beach and Morse/Sprague River areas. Siltation of the clamflats is almost certain to result in closure of certain highly productive shellfishing areas by the Department of Marine Resources (DMR) pursuant to its shellfish sanitation and public health protocols. Additionally, siltation of the clamflats will cover air holes, making clams difficult to find and reducing harvests. Closure of the clamflats or reduced harvesting in the month of August could cause up to \$400,000 in losses. Because that is such a large percentage of clambers' annual income, this impact would likely have major and irreversible impacts to those families and therefore to the entire community.

The Phippsburg Commenters are also concerned that heavy metals deposited in sediment due to years of industrial applications up and down the Kennebec River could potentially be dredged up and re-released into the river system and either drift ashore to affect clam flats in adjacent areas, or settle on the bottom and affect the tomalley in lobsters. As noted by DMR, siltation of clamflats will almost certainly result in closure to shellfishing until sanitation and toxicity testing can be done to ensure public health and safety. Because each day of new dredging could potentially release toxins, closures would have to remain in effect throughout the project period. Similarly, toxins may affect marketability of lobster harvests. In the past, shipments have been turned back from Europe/Asia due to identification of contaminants within the tomalley. Having such incidents occur can severely damage the marketability of a product

such as lobster, thus driving down dockside prices for harvesters. This type of uncertainty and significant risk to public health and safety further warrants preparation of an EIS. *See* 40 C.F.R. §§ 1508.27(b)(2, 4, & 5).

Both the Popham/JKL and upstream Doubling Point/Bluff Head dredge and disposal sites are also extensively used in August by commercial and recreational anglers fishing for stripers and groundfish. Dredge and disposal operations will devastate both fishing quality and the fishing experience, disturbing fish and fishermen alike. No one is going to pay a commercial guide to go fishing in the middle of an industrial dredging operation. As with the clambers and lobstermen, loss of the best month of a very short season will simply destroy many local guide businesses.

Individually and in combination, the proposed month-long dredging project, coming at the height of the summer season in August, will have major impacts upon the Phippsburg area natural resource economy. As with tourism and recreation, the degree of impact within this context is local but extreme and intense – and it will affect the entire local economy. For this reason, the Corps must prepare an EIS to ensure that impacts are disclosed and that the public can provide informed comments to decision makers prior to any action. 40 C.F.R. §§ 1500.1(b), 1508.27. Moreover, given the intensity of the impact to the Phippsburg community, we sincerely doubt that this project can be permitted pursuant to the 404(b)(1) Guidelines, 40 C.F.R. § Part 230, Subpart F.

Failure to make ANY information regarding these impacts available for public review prior to close of the comment period is unforgivable and a clear violation of NEPA and the CWA. As the permitting agency, the Corps must disclose “sufficient information for the general public to make an informed evaluation, and for the decisionmaker to consider fully the environmental factors involved and to make a reasoned decision after balancing the risks of harm to the environment against the benefits to be derived from the proposed action.” *Sierra Club v. U.S. Army Corps of Eng.*, 701 F. 2d at 1029. These issues may not be ignored or ‘swept under the rug.’” *Id.* (citing *Silva v. Lynn*, 482 F.2d 1282, 1285 (1st Cir. 1973)). Rather, “[t]here must be good faith, reasoned analysis in response” to issues raised by commenters. *Silva*, 482 F.2d at 1285.² Failure to consider whether these impacts cause or contribute to significant degradation of waters of the U.S. – including adverse effects to human health, aquatic life, habitat, or recreational, aesthetic and economic values – also violates the Clean Water Act. *See* 40 C.F.R. § 230.10(c).

Accordingly, the Phippsburg Commenters request that the Corps not proceed with the proposed August dredging. It will cause severe and unnecessary harm to the entire economy and community, and to the area’s unparalleled natural beauty, wildlife, environment and quality of life.

² Additionally, an EIS is warranted because the project will violate state water quality standards, 40 C.F.R. § 1508.27(b)(10), and will impact species protected under the Endangered Species Act. *Id.* § 1508.27(b)(9).

V. Water Quality Violations

Pursuant to the 404(b)(1) Guidelines, no project can be permitted if it causes or contributes to non-attainment of any applicable state water quality standard. 40 C.F.R. § 230.10(b)(1). Maine classifies the tidal waters of the lower Kennebec River in Phippsburg and the Popham/Small Point Beach areas as Class SA waters. 38 M.R.S.A § 469 (designating tidal waters east of longitude 69°-50'-05" W and west of longitude 69°-47'-00"W as Class SA). The dredging site north of Doubling Point is classified as SB. *Id.*

a. Class SA Violations

The Class SA designation reflects that the waters of the Kennebec Narrows, Kennebec Estuary, and the Popham/Small Point Beach complex are "outstanding natural resources and which should be preserved because of their ecological, social, scenic, economic or recreational importance." 38 M.R.S.A § 465-B(1). The designation prohibits any discharge of pollutants (other than exceptions not relevant here). *Id.* § 465-B(1)(C). Sand, silt, and other material released from dredging and disposal constitute a discharge of pollutants in violation of Class SA standards and, for the reasons explained above, will significantly and adversely impact the waters and the community.

The Popham and Small Point beaches and the highly productive clamflats in the Morse and Sprague River wetland and marshes are designated class SA. Merely because the JKL discharge point is feet inside the line between SA and SB waters (69°-47'-00"W) does not change the fact that dredge spoils are drifting directly into class SA waters in violation of statute and impacting the outstanding natural resources the class SA designation is meant to protect. Accordingly, the proposed dredging at Popham Beach and dumping at JKL cannot be permitted under 40 C.F.R. § 230.10(b)(1).

The Bluff Head disposal site is also designated Class SA, and therefore this site is also ineligible for a fill permit to discharge dredge spoils. According to the Maine Department of Environmental Protection, the state will either ask the Corps to move the disposal site so that it lies entirely within Class SB waters or it will ask the Legislature to downgrade the classification to Class SB. The latter option cannot be done unless the state conducts a Use Attainability Analysis pursuant to 40 C.F.R. § 131.10(g) and 38 M.R.S.A § 464(2-A), and conducts public hearings and public participation consistent with the procedures required by 49 C.F.R. part 25. *See also* 38 M.R.S.A § 464(2). A 401 Certification and 404 permit cannot be based on a water quality classification unless those requirements are met (and they have not been met) and the revision is approved by the U.S. Environmental Protection Agency.

b. Class SB Violations - Clamflats

Nor can disposal in SB waters be permitted if it would cause the Department of Marine Resources (DMR) to close open shellfishing areas. 38 M.R.S.A § 465-B(2)(C). As documented by the Phippsburg Shellfish Committee, past disposal at Bluff Head did not stay in the disposal

area but rather caused significant siltation of clamflats at Drummore Bay, the Upper Flats, Parker Head, Wyman's Bay, and Atkins Bay. Past disposal at JKL has resulted in siltation of clamflats in the Popham/Small Point Beach and Morse/Sprague River complexes. DMR monitors have stated to the Phippsburg Shellfish Committee that siltation of clamflats would trigger mandatory public health reporting protocols and would almost certainly require a complete shutdown of shellfish harvesting for the duration of the dredging and disposal period. As noted above, because each day of new dredging could potentially release toxins, closures would have to remain in effect throughout the project period and potentially for several days and/or weeks afterwards.

DMR's shellfish protocols are based upon the U.S.D.A Food and Drug Administration's National Shellfish Sanitation Program (NSSP) and are required to safeguard public health.

Oysters, clams, mussels and scallops are filter feeders that pump large quantities of water through their bodies when actively feeding. During this process, molluscan shellfish can concentrate microorganisms, toxigenic micro-algae and poisonous or deleterious substances from the water column when they are present in the growing waters. Concentrations in the shellfish may be as much as 100 times that found in the water column. If human pathogens are concentrated to an infective dose, and if the shellfish are consumed raw or partially cooked, human disease can result. If toxigenic micro-algae are present and producing toxin, human illness or death can occur, and cooking is not reliable as an effective barrier against intoxication.³

Accordingly, the NSSP program requires immediate closure of shellfish areas any time discharge of pollutants may endanger public health. Because potential impacts endangering public health from siltation due to dredge spoils disposal cannot be determined in advance, there is clearly a significant chance that the proposed activity would result in closure of currently open shellfishing areas and thereby violate state water quality standards. Thus, the state cannot certify that the proposed activity will comply with water quality standards pursuant to section 401 of the CWA. Without that water quality certification, the Corps cannot issue a Section 404 permit for the proposed activity. 40 C.F.R. § 230.10(b)(1).

In addition, siltation of the clam flats from dredging and dumping during the summer months will bury clam spat sets (juvenile clams) in the above listed clamming areas, potentially disrupting the year class, causing impairment of habitat in violation of 38 M.R.S.A § 465-B(2)(A), and damaging the fishing economy and community.

³ National Shellfish Sanitation Program, *Sanitary Survey and the Classification of Growing Waters National Shellfish Sanitation Program Guide for the Control of Molluscan Shellfish 2007*, Section IV, Guidance Documents, Chapter II. Growing Areas, .03 Sanitary Survey and the Classification of Growing Waters, available at <http://www.fda.gov/Food/FoodSafety/Product-SpecificInformation/Seafood/FederalStatePrograms/NationalShellfishSanitationProgram/UCM053724>.

c. Class SB Violations – Habitat and Aquatic Life

The Kennebec Narrows disposal site north of Bluff Head is a rocky deep, narrow (300 yards) channel with strong currents, eddies and upwelling. It is a critical and very biologically rich area: all the aquatic life that rides the currents up and down the Kennebec transits these narrows. Since it is a fertile fishing ground, it attracts diving ducks, birds, birds of prey and seals. Impacts to this rich aquatic environment have not been studied; nor are there any analyses of impacts to this river segment in the draft EA or Public Notice document.



Figure 3: A thick layer of mud and muck still coats the western shore of the Kennebec Narrows approximately 17 months after being deposited from the dumping of dredge spoils in 2009

During a prior dredging event in November 2009 – which involved disposal of 18,750 cubic yards of material designated as “clean sand” – dumping resulted in immediate and extreme turbidity and discoloration of the entire reach of the Kennebec Narrows, and drove virtually all wildlife from the area. Despite being labeled as clean sand in the state and federal permits, a foot-plus thick layer of mud, muck and silt was deposited on the shoreline and adjacent marshes. This impact is not temporary. As shown in the photograph in Figure 3, approximately four to six inches of mud and muck still covers most of the intertidal zone over a year later.

This artificial layer of muck extends throughout much if not all of the Kennebec Narrows and adjacent marshes and wetlands, including the marsh at the Phippsburg Land Trust’s Greenleaf Preserve. (This is also an example of the kind of deposition that threatens clamflats, see above).

Maine’s Class SA water quality standards require “free flowing and natural” habitat, 38 M.R.S.A § 465-B(1)(A), and SB requires “unimpaired” habitat. 38 M.R.S.A § 465-B(2)(A). Further, “[d]ischarges to Class SB waters may not cause adverse impact to estuarine and marine life in that the receiving waters must be of sufficient quality to support all estuarine and marine species indigenous to the receiving water without detrimental changes in the resident biological community.” *Id.* at § 465-B(2)(C). Deposition of over a foot of mud and muck along the Kennebec Narrows intertidal zone and wetlands is a categorical violation of both SA and SB standards, impairs habitat and adversely affects aquatic life. As such, the dredging proposal cannot be permitted. 40 C.F.R. § 230.10(b)(1); *see also id.* § 230.32-43 (requiring evaluation of impacts to wildlife, sanctuaries and refuges, wetlands, mud flats and vegetated shallows in order to determine compliance with the Section 404(b)(1) Guidelines).

VI. ESA and Marine Mammals

The project area is Essential Fish Habitat for a number of migratory and resident fish species including shortnose sturgeon and Atlantic salmon, both of which are listed under the Endangered Species Act. The lower Kennebec River also contains an active seal population most common of which are harbor seals, which are protected under the Marine Mammal Protection Act. All of these species are most active in the river in summer and are at highest risk of harassment or harm from dredging activities. Previous dredging in winter resulted in incidental take of shortnose sturgeon; if anything loses of those species – if permitted by NMFS – will likely be even greater at this time of year due to both dredging and disposal activities.

VII. Conclusion

For the above reasons, the 404 permit for August dredging should be denied.

Sincerely,

A handwritten signature in black ink that reads "Stephen F. Hinchman". The signature is written in a cursive, flowing style.

Stephen F. Hinchman, Esq., for the Phippsburg
Commenters

Cc: Mary Colligan, NMFS
Bob Green, MDEP
Steve Silva, EPA
Wende Mahaney, USFWS
Jay Clement, USACE
Town of Phippsburg