U. S. ARMY CORPS OF ENGINEERS
Water Quality Certification // Natural Resources Protection Act
Kennebec River Dredge – Bath and Phippsburg

RESPONSE TO APPEAL

- COVER LETTER FROM THE LICENSEE
- RESPONSE TO THE APPEAL FROM THE PHIPPSBURG APPELLANTS
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DEPARTMENT OF THE ARMY
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MASSACHUSETTS 01742-2751

REPLY TO
ATTENTION OF

June 16, 2011

Office of Counsel

Ms. Susan Lessard
Board of Environmental Protection
Maine Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017

Re: Appeal of Water Quality Certification for Kennebec River Maintenance Dredging Project, DEP #L-16281-4E-E-N

Dear Ms. Lessard:

Enclosed you will find the responses of the U.S. Army Corps of Engineers to the appeals of the Department of Environmental Protection's April 15, 2011 "Corrected Order," DEP #L-16281-4E-E-N, issuing the Water Quality Certification for the U.S. Army Corps of Engineers Lower Kennebec River Federal Navigation Project maintenance dredging project filed by Ms. Dot Kelly, Mr. Douglas Watts and Mr. Ed Friedman, and the Town of Phippsburg et al.

Please contact me at (978)318-8014 if you have any questions regarding this appeal or if there are issues requiring my attention. Thank you for your consideration.

Sincerely,

John P. Almeida

John P. Almeida
Assistant District Counsel

Enclosure

cc Appeal Service List

IN THE MATTER OF

U.S. ARMY CORPS OF ENGINEERS	)	WATER QUALITY CERTIFICATION
Bath and Phippsburg, Sagadahoc County	)	APPEAL—U.S. ARMY CORPS OF
MAINTENANCE DREDGING	)	ENGINEERS RESPONSE TO
L-16281-4E-E-N (approval)	)	TOWN OF PHIPPSBURG ET AL.

INTRODUCTION

The U.S. Army Corps of Engineers ("Corps") provides the following in response to the appeal filed by the Town of Phippsburg et al. ("Appellants") challenging the Maine Department of Environmental Protection's ("DEP") Order of April 14, 2011 granting a water quality certification ("WQC") to the Corps for a proposed maintenance dredging project of the Kennebec River federal navigation project. This response incorporates by reference the responses filed by the Corps to the appeal filed by Ms. Dot Kelly ("Kelly appeal") and the appeal filed by Douglas H. Watts and Ed Friedman ("Watts appeal"), and addresses items not raised in the Kelly and Watts appeals. As set forth more fully below, the record reflects that DEP analyzed the impacts of the proposed dredging and disposal activities, and reasonably concluded that the standards of the Natural Resources Protection Act had been satisfied, and therefore DEP's Order should be affirmed.

FACTUAL BACKGROUND

On April 14, 2011, DEP issued an Order providing the U.S. Army Corps of Engineers ("Corps") with a water quality certification for a proposed maintenance dredging project in the Kennebec River federal navigation project. The authorized depth of the Kennebec federal navigation project is 27 feet mean lower low water ("MLLW"), which, due to shoaling from sand waves, is not the current depth of the federal channel at Doubling Point south of Bath, and at the mouth of the river near Popham Beach. The Corps project would dredge the shoaled areas and dispose of the Doubling Point materials at an in-river disposal site north of Bluff Head and dispose of the Popham Beach materials at a near-shore site near Jackknife Ledge. The Corps has dredged at Doubling Point and Popham Beach using the Bluff Head and Jackknife Ledge disposal sites for decades. Disposal of material dredged from the Kennebec at these locations has allowed the sandy dredged material to remain in the riverene and littoral systems, eventually providing sand to the beaches outside the mouth of the Kennebec.

The areas at Doubling Point are described as a bed-load convergence zone, where bottom material moves around on a daily basis. A bed-load convergence zone is an area where dual-direction sediment transport converges, and induces sediment deposits causing a sinusoidal sand-wave formation. At Doubling Point, such sand waves build across the federal navigation project, and require dredging to clear the channel. Because these sand waves regularly build up across the channel and create significant navigation risk, in this portion of the project, the Corps will be performing advanced maintenance dredging to bring the channel below the 27 foot authorized

depth to a depth of 30 feet. Advanced maintenance is dredging to a specified depth and/or width beyond the authorized channel dimensions in critical and fast shoaling areas to avoid frequent re-dredging and ensure the reliability and least overall cost of operating and maintaining the project authorized dimensions. Additional areas will be dredged from the federal channel near Popham Beach. These areas are not subject to the same dynamic shoaling as Doubling Point, so the Corps will not perform advanced maintenance dredging, and these areas will be dredged to the project's authorized depth of 27 feet.

As part of the dredging, areas at both Doubling Point and Popham Beach will be subject to two (2) feet of allowable overdepth dredging. Allowable overdepth dredging is a construction design method for dredging that occurs outside the required dimensions of a dredging project. It entails the removal of dredged material below the required depth of a dredging project as specified by contract documents to help ensure that the required depth of the project is achieved. The required depth of dredging is typically the Congressionally authorized depth of the project or project segment, or, as in this instance at Doubling Point, the Congressionally authorized depth plus the additional depth to achieve advanced maintenance requirements. Allowable overdepth dredging is permitted to account for inherent imprecision in the dredging process that varies with the physical conditions (tides, currents, and waves), the dredged material characteristics (silt, clay, sand, gravel, rock, etc,), the channel design (depths being dredged, side slopes, etc.), and the type of dredging equipment (mechanical, hydraulic, hopper). The amount of allowable overdepth dredging is specified in contract documents and typically consists of up to 2 feet of dredging below the required depth. Dredging contractors are paid for the allowable overdepth quantity removed, provided the quantity removed is not in excess of that specified by contract documents. Thus, in this instance, the Doubling Point areas will be dredged to a required depth of 30 feet (the authorized depth of 27 feet, plus three feet of advanced maintenance) with an allowable overdepth of 2 feet, which may[1] result in dredged depths up to 32 feet. At Popham Beach, areas will be dredged to a required depth of 27 feet with an allowable overdepth of 2 feet, which may result in dredged depths up to 29 feet. Allowable overdepth dredging can facilitate the dredging contractor in achieving the required depth more expeditiously, and makes it more likely that there will not be "bumps" of elevations above the required depth remaining after a project is completed. This is particularly important in a time sensitive project like this one, where the passage of the USS Spruance will likely occur very soon after maintenance dredging is complete. If the contractor leaves areas that do not achieve the required depth, efforts to remedy the problem could interfere with the Navy's schedule. Moreover, should contractors have to return to complete areas that have not reached the required depth, multiple dredging operations will have multiple environmental impacts. Use of allowable overdepth will help ensure that the job is done once and done completely, thereby minimizing environmental and social impacts associated with dredging.

Over the years numerous studies have been conducted on the impacts of dredging and disposal to natural resources of the Kennebec. DEP is well aware of these numerous studies, and in fact, a number of them were prepared at the behest of DEP. In 1967, a comprehensive

[1] Allowable overdepth simply allows a contractor to be paid for materials dredged to the levels established in the contract. A contractor is not required to dredge to these levels, however, and all a contractor must achieve is the required depths.

bacteriological and hydrographic study was conducted to assess the impacts of dredging and in-river disposal on shellfish. E.M. Mitchell, Kennebec River Dredging Operations, State of Maine, Department of Sea and Shore Fisheries (1967). This study concluded that dredging operations were not negatively impacting shellfish beds, and that summer dredging and disposal did not cause the closures of beds. In 1982, a study was completed on the bathymetric contours in and around the Bluff Head disposal site before, during, and after a Corps dredging project. W. Hubbard, Analysis of Survey Data, Kennebec River Disposal Site, Sagadahoc County Maine, U.S. Army Corps of Engineers, New England Division, Waltham MA (1982). This study showed that after disposal, the bottom depths at the Bluff Head disposal site and downstream neared predisposal depths ten months after disposal, as the sandy materials were swept downstream. Another study was completed in 1982 to examine whether dredging and in-river disposal caused sedimentation on clam flats, as alleged by the appellants. P.F. Larson and A.C. Johnson, A Final Report on the Effects of Dredging and Spoil Disposal on the Sediment Characteristics of the Clam Flats of the Lower Kennebec Estuary, Bigelow Laboratory for Ocean Sciences, West Boothbay Harbor, Maine, Bigelow Technical Report No. 24 (1982). The study conclusively determined that dredging and in-river disposal had no adverse effect on the clam fishery. In 1986, extensive biological and water chemistry surveys were conducted in the areas between Doubling Point and Bluff Head, and in 1989 a benthic sampling study was prepared to assess benthic resources at the Jackknife Ledge disposal site. W. Hubbard, BR-IAB-86-4 Biological Report, Kennebec River, Sagadahoc County, Maine. Impact Analysis Branch, New England Division, U.S. Army Corps of Engineers, 424 Trapelo Road, Waltham, MA (1986); W. Hubbard, Biological Report, Jackknife Ledge Nearshore Disposal Site, Kennebec River, Maine, U.S. Army Corps of Engineers, New England Division, Waltham MA (1989). In 1997, monitoring was conducted on turbidity levels, total suspended solids, and coliform levels, before, during and after Corps dredging operations. Normandeau Associates, Yarmouth, ME, Letter dated December 5, 1997 to Bath Iron Works, Bath, Maine This study showed that total suspended solids, a measure of particular relevance for measuring disposal of coarse dredged materials, elevated during a pre-dredge storm, and largely declined after dredging was complete. This study also showed relatively low fecal coliform measurements during and after dredging operations, with the highest levels recorded at a station during a pre-dredge storm event.

Notwithstanding the claims of Appellants, the impacts of dredging and disposal in the lower Kennebec are well known, based on decades of experience and numerous studies that have been conducted. As to impacts on clam flats, there has been no evidence of siltation and sedimentation caused by dredging or disposal at Bluff Head or Jackknife Ledge. It has only been since 1997 that clam flats in the lower Kennebec have been available for harvest, and during the time in which the Kennebec waters were sufficiently improved to allow for clam harvest, and into the present, dredging and disposal in the Bluff Head site and Jackknife Ledge have been a regular occurrence. While DMR expressed concern to DEP over potential impacts from dredge disposal, they also concluded that there was not sufficient evidence to justify a closure of the clam flats from dredging activities. In fact, as part of the DEP review of proposed dredging in 2000, Phippsburg shellfish harvesters indicated that they had not observed harmful impacts to clam flats during or after Corps dredging and in-river disposal in 1997. 2000 Corps WQC. Likewise, in DEP's 1997 review of a proposed dredging project, clam harvesters indicated that they had no evidence that flats had been covered with sand during past dredging events. 1997

Corps WQC. Since the opening of the Kennebec flats in 1997, the Corps has dredged and disposed materials at Bluff Head four times, and neither DEP nor DMR have indicated that flats have been shut down because of dredging operations.

LEGAL BACKGROUND

Pursuant to the Maine Natural Resources Protection Act ("NRPA"), 38 M.R.S. §§ 480-A to 480-GG, DEP reviews and permits certain regulated activities in, on, over, and adjacent to Maine waters and wetlands. The NRPA process is the means by which DEP provides Clean Water Act Section 401, 33 U.S.C. § 1341, water quality certification ("WQC") for federal activities "which may result in any discharge into the navigable waters" of the United States. It is through the limited waiver of federal sovereign immunity found in Section 401 that activities of federal agencies like the Corps find themselves subject to review under the NRPA. Here, it is the disposal of dredged material, not the dredging activities, that represents the discharge for which the Corps seeks a WQC. 33 C.F.R. § 323.2(d)(3)(ii) (incidental movement of dredged material during normal dredging operation is not discharge of dredged material).

The NRPA sets forth eleven standards at 38 M.R.S. § 480-D that an applicant must satisfy to receive a permit.[2] The Board of Environmental Protection ("BEP") has promulgated regulations ("Wetland Protection Rules") to ensure that the standards of 480-D are met by applicants, and these regulations set forth a framework of factors for DEP to consider when conducting its 480-D review. 2 C.M.R. 06-96 Ch. 310. Here, the standards relevant to the appeals before BEP are Standard 1 (activities will not unreasonably interfere with existing scenic, aesthetic, recreational or navigational uses), Standard 3 (activities will not unreasonably harm any significant wildlife habitat, aquatic or adjacent upland habitat, estuarine or marine fisheries or other aquatic life), and Standard 5 (activities will not violate any state water quality law, including those governing the classification of the State's waters). The relevant water quality standards applicable to Standard 5 can be found at 38 M.R.S. § 465-B.

Among the factors in the Wetland Protection Rules is a consideration of whether practicable alternatives to a proposal exist that will result in less environmental damage. Id. § 9(A). As noted by the Maine Law Court, the practicable alternative factor in the Wetland Protection Rules is not an independent, dispositive criteria, rather it is "only a factor to be considered by the Board, and an applicant's failure to comply with one of the rules may support, but does not compel, a determination that a project's impact on a protected natural resource would be unreasonable." Uliano v. Board of Environmental Protection, 2005 ME 88, ¶ 12. The Court further explained how the consideration of alternatives should play out in DEP's review:

> the existence of a practicable alternative does not justify the denial of a proposed project if the degree of interference the project will cause to existing uses is insubstantial. Conversely, the Board might find that the existence of a practicable alternative supports the denial of a

[2] Not all standards in 480-D are applicable to all projects reviewed by DEP. For example, standard 10 is for projects that include significant groundwater wells, and standard 11 applies to offshore wind power projects.

> project if it finds that the degree of the project's interference with existing uses will be substantial. In the latter case, the Board may conclude that, on balance, the resulting interference with existing uses would be unreasonable because of the existence of a practicable alternative that, if pursued, would enable the applicant to accomplish the project's objectives through alternate means.

Uliano, ¶ 13.

In challenging a DEP permit decision, appellants have a high burden. As such a decision "will be sustained if, on the basis of the entire record before it, the agency could have fairly and reasonably found the facts as it did." CWCO, Inc. v. Superintendent of Ins., 1997 ME 226, ¶ 6, 703 A.2d 1258, 1261. Where an appellant challenges the findings in an administrative decision, "the appellant cannot prevail unless he shows that the record compels contrary findings." Kroeger v. Dep't of Envtl. Prot., 2005 ME 50, ¶ 8, 870 A.2d 566, 569. Moreover, even where there is inconsistent evidence in a record, an agency decision will not be deemed unsupported. Seider v. Bd. of Exam'rs of Psychologists, 2000 ME 206, ¶ 9, 762 A.2d 551, 555.

ARGUMENT

I. NRPA Standard 1 Has Been Satisfied.

The Appellants argue that DEP's permit decision does not satisfy the requirements of Standard 1 of the NRPA. While Appellants disagree with the conclusions DEP has reached, they utterly fail to meet the burden of showing that the record compels a contrary finding. Standard 1 of the NRPA requires that an "activity will not unreasonably interfere with existing scenic, aesthetic, recreational, or navigational uses." 38 MRS § 480-D(1). The record reflects that DEP considered each of the components of Standard 1 in the context of the facts of the proposed project and reached a reasoned conclusion that the Standard had been met. As such, Appellant's argument must be rejected.

A. Scenic and Aesthetic Impacts.

As part of its application, the Corps completed a Visual Evaluation Field Survey Checklist, which provided information on the visibility of the project at various types of properties. DEP evaluated the project using the established methodology of its Visual Impact Assessment Matrix, and concluded that the scale and scope of the project was compatible with the existing visual quality and landscape characteristics found within the viewshed of the project. As noted in DEP's Order, the dredging project will not permanently change "the scenic and aesthetic values of the river, because dredging activities will take place in the subtidal area," outside the viewshed. Order § 2. Thus, the only scenic and aesthetic impacts of the project are from the temporary presence of the dredging operation for a few weeks, at most, and DEP reasonably concluded that such temporary visual impacts did not represent an unreasonable interference with the existing scenic or aesthetic uses.

B. Recreational Impacts.

In its evaluation of the proposed dredging project, DEP considered the impacts of the project on recreational uses of the area. DEP noted that this portion of the Kennebec is "visited by the general public, in part, for the use, observation, enjoyment and appreciation of its natural and cultural visual qualities." Order § 2. DEP further acknowledged concerns that the project would impact summertime activities on and adjacent to the river because of noise and the presence of a dredge operation—these impacts were considered and discussed in DEP's Order. However, in light of the relatively short period of time that the dredging would occur and the limited number of trips between the dredge and the disposal sites, DEP reasonably concluded that such impacts would not represent an unreasonable interference with recreational uses of the river. Appellants raise concerns about potential impacts to tourism and the local economy, but tourism is not a component of NRPA standard 1.

C. Navigation Impacts.

The very purpose of the Corps dredging project is to maintain the Kennebec River federal navigation project at its Congressionally authorized depths to allow safe navigation of the lower Kennebec. As part of its evaluation, DEP considered the impacts of dredge operations on existing navigation uses. In light of the short duration of the project, the relatively few trips between the dredge and disposal sites, and DEP's requirement that the Corps notify the public of the locations of dredge disposal sites and the transportation routes from dredge to disposal sites, DEP reasonably concluded that there were not unreasonable impacts to navigation.

II. NRPA Standard 3 Has Been Met.

The Appellants argue that Standard 3 of the NRPA has not been satisfied, alleging that the project will result in unreasonable harm to significant wildlife habitat and marine fisheries. Contrary to Appellants' arguments, DEP considered the impacts of the project on the various species that inhabit the project area and concluded that the project will not result in unreasonable harm. This conclusion is eminently reasonable based on the record before the agency, and the many years of experience DEP has had evaluating the impacts of dredging in this stretch of the Kennebec.

A. There Is No Designated "Significant Wildlife Habitat" Affected.

As an initial matter, Appellants' argument that the project will impact significant wildlife habitat must fail as a matter of law, as there is simply no "significant wildlife habitat" affected[3]

[3] The only significant wildlife habitat in the vicinity of the Kennebec dredging project is shoreline habitat used by wading waterfowl and shorebirds. See Appellants' Exhibit 12. These areas are not proposed for dredging or disposal, and will not be impacted by the project. Contrary to the suggestion of Appellant, the mere presence of significant wildlife habitat in the vicinity of the project does not amount to violation of Standard 3. Rather, there must be a showing that there will be unreasonable harm to such habitat. Appellants have not, and cannot show such harm to the designated shoreline habitat.

in the project area as this term is defined by the NRPA statute. As relevant here, the statutory definition of "significant wildlife habitat" hinges on whether an area has been defined in such a manner by the Department of Inland Fisheries and Wildlife ("DIFW") or the Department of Marine Resources ("DMR"), and as is acknowledged by Appellants, neither DIFW nor DMR has designated any of the project area in such a manner to qualify as NRPA "significant wildlife habitat." The portion of the definition section of the NRPA cited by Appellants defines "significant wildlife habitat" as:

> The following areas to the extent that they have been mapped by the Department of Inland Fisheries and Wildlife or are within any other protected natural resource: habitat, as defined by the Department of Inland Fisheries and Wildlife, for species appearing on the official state or federal list of endangered or threatened animal species; high and moderate value deer wintering areas and travel corridors as defined by the Department of Inland Fisheries and Wildlife; seabird nesting islands as defined by the Department of Inland Fisheries and Wildlife; and critical spawning and nursery areas for Atlantic salmon as defined by the Department of Marine Resources.

38 M.R.S. § 480-B(10). In reading the clear language of the statute, it is evident that habitat for species listed as endangered or threatened either federally or by the State of Maine can be considered "significant wildlife habitat," but only if DIFW has defined such habitat. Appellants acknowledge that this has not occurred for the habitat of the federally listed shortnose sturgeon or the Gulf of Maine distinct population segment of Atlantic salmon.

Appellants further suggest that because the project occurs in coastal wetlands and rivers as defined by the NRPA, and these represent "protected natural resources" as defined by the NRPA, then such areas must also be considered significant wildlife habitat. However, such an interpretation disregards the plain language of the statute. The statute limits "significant wildlife habitat" to certain types of habitat, namely endangered/threatened species habitat as defined by DIFW, deer wintering areas as defined by DIFW, seabird nesting islands as defined by DIFW, and critical spawning and nursing areas for Atlantic salmon as defined by the Department of Marine Resources ("DMR"). However, the statute further limits the phrase by providing that such defined habitat types are only considered "significant wildlife habitat" if they have been mapped by DIFW or fall within another "protected natural resource." "Protected natural resources" are also defined by the NRPA, 38 M.R.S. § 480-B(8), and these include coastal wetlands, significant wildlife habitat, great ponds or rivers, and other natural features of Maine. Thus, DIFW or DMR must define "significant wildlife habitat" AND such habitat must fall within DIFW mapped areas or protected natural resources areas. Appellants reading of the statute would disregard the interaction of the first clause with the remainder of the definition, and would result in the designation of all "protected natural resources" as "significant wildlife habitat." Such an interpretation would conflate the two concepts, notwithstanding the fact that the definition of "protected natural resources" includes "significant wildlife habitat" and other features, but the definition of "significant wildlife habitat" is narrower, to only include areas that are defined by state natural resource agencies.

Appellants' suggestion that the federal designation of critical habitat pursuant to the federal Endangered Species Act ("ESA") should be treated as a state designation as "significant

wildlife habitat" is entirely unsupported by law. The NRPA's concept of "significant wildlife habitat" is not a requirement of the federal ESA, it is solely a creation of Maine state law. As such, there is no requirement under federal law that the state's designation of "significant wildlife habitat" be tied to federal designations of critical habitat under the ESA. Likewise, the NRPA's definition does not tie the definition of "significant wildlife habitat" to federal critical habitat designations. To the contrary, the NRPA's definition of "significant wildlife habitat" is clear that it is the sole responsibility of DIFW to designate the habitat of endangered or threatened species as "significant wildlife habitat." Where there are no such designations of "significant wildlife habitat" in the project area, Appellants' argument regarding Standard 3's "significant wildlife habitat" must fail.

B. Marine Fisheries Impacts.

Appellants argue that the project will unreasonably harm marine fisheries. However, the record plainly reflects that DEP gave thorough consideration to the impacts of the dredging project on marine fisheries, and reached a reasoned conclusion that there will not be unreasonable harm to fish species from the Kennebec dredging project. Appellants present no evidence to the contrary, but instead attempt to superimpose federal ESA requirements upon the DEP process, something that neither federal nor state law would require.

As part of its application to DEP, the Corps submitted information on the impacts of the project on fish species federally listed as endangered (Atlantic salmon, shortnose sturgeon), a species proposed for federal listing (Atlantic sturgeon), ecologically significant anadromous and catadromous fish species of the Kennebec estuary (American shad, striped bass, American eel, alewife, blueback herring, rainbow smelt), and marine and estuarine fish species managed by National Marine Fisheries Service ("NMFS") pursuant to the essential fish habitat ("EFH") provisions of the Magnusson-Stevens Fisheries Conservation Management Act (Atlantic salmon, Atlantic cod, Atlantic herring, ocean pout, American plaice, pollock, red hake, white hake, whiting, windowpane flounder, winter flounder, yellowtail flounder, bluefish, Atlantic mackerel, and Atlantic habitat). As set forth in the Corps draft Environmental Assessment ("Corps EA"), impacts to fish species were not expected to be significant. Passage of fish up and down the Kennebec is not expected to be impeded due to the size of the river and the coarse grained material being dredged. With the exception of sturgeon species, anadromous and catadromous fish species were expected to avoid the dredge operation, and due to the timing of the dredging it is unlikely that spawning or juveniles of anadromous species (including Atlantic salmon) would be impacted, as these species typically move up river into fresh water to spawn in the spring and early summer, and the larvae and juveniles of these species remain in fresh water areas until they are large enough to exit the river.

As discussed in the Corps draft EA, with sturgeon species, based on past dredging experience in this federal navigation project, it is expected that there may be impacts to adult sturgeon from the dredging operation. However, the dredging operation would occur after sturgeon species have spawned upstream in freshwater portions of the Kennebec, where the juveniles remain until growing large enough to exit the river. Thus, the dredging would not be impacting the sturgeon spawn or larval development. The DEP Order recognized and acknowledged the potential loss of individual sturgeon. Such impacts, however, are not as

significant as would be the case if they occurred to adult fish on their way to spawning grounds up river, which could result in the loss of a breeding class for the year. Moreover, as noted in DEP's Order, a qualified monitor will be part of the Corps dredging operation to monitor and report on impacts to sturgeon species.[4] As part of the federal Section 7 ESA process, should the dredging operation result in take of endangered sturgeon, NMFS will be notified, and if such takes of sturgeon exceed levels that had been authorized by that agency, there would be further consultation between the Corps and NMFS to address the impacts to the species. To the extent that NMFS concludes that further impacts and take will result in jeopardy to the continued existence of the species, this would halt the operation.

The record reflects a thorough analysis of impacts to estuarine and marine fisheries. Dredging is not expected to impact spawning anadromous fish, their larvae or young. Most adult fish are expected to avoid the dredge operation, and while dredge operations may impact adult sturgeon, such impacts will be monitored and will not result in jeopardy to the species. Based on this record, DEP concluded that there would not be unreasonable impacts to fisheries.

III. NRPA Standard 5 Has Been Met.

The Appellant argues that NRPA Standard 5 has not been satisfied for this project, arguing that the in-river Bluff Head disposal area is a Class SA water where disposal of dredged materials is prohibited, or, in the alternative, if considered Class SB water, disposal at the Bluff Head disposal area or at the Jackknife Ledge site does not meet the water quality requirements. As discussed further below, Appellants' arguments have no merit as the designation for both the Jackknife Ledge and Bluff Head disposal sites are Class SB, and DEP reasonably concluded that disposal of sandy dredged material will not violate the applicable standards for these waters. Any confusion regarding the water quality designation of the Kennebec waters has been clarified by the actions of the Legislature in the passage of LD 1398, which rectified an imprecise designation from earlier legislation.

A. Class SB Water Quality Designation at the Disposal Sites.

Appellants do not dispute that the Jackknife Ledge disposal site is designated as Class SB water, but argue that the Bluff Head disposal site should be considered Class SA waters. An examination of the statutes that classify the relevant waters reveal that both locations, in fact, are Class SB waters. Section 469 of Title 38 of the Maine Revised Statutes provides water quality

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[4] The Department of Marine Resources proposed capturing and acoustically tagging fifty (50) shortnosed sturgeon prior to dredge operations. It is important to recognize that capturing sturgeon would create risks of mortality and would represent a "take" under the federal Endangered Species Act. As such, the Corps would be required to engage in Section 7 consultation with NMFS before engaging in such activities, and without NMFS approval the Corps could not perform such activities, notwithstanding a DEP WQC condition. At this time, the Corps is engaged in Section 7 consultation with NMFS for the dredging operation. NMFS has never indicated that they wanted such acoustic tagging, and neither NMFS nor DEP have ever required such measures in past dredging projects. For further discussion see Corps response to Watts appeal at pages 2-3.

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classifications for estuarine and marine waters of the state. The statute provides a "default" presumption that all marine and estuarine waters are considered Class SB waters unless specifically designated otherwise (ie, Class SA or Class SC). The statute then goes through the various counties of Maine, and provides the exceptions to the default Class SB classification by designating certain areas as Class SA or Class SC. Subsection 5 of the statute addresses marine and estuarine waters of Sagadahoc County where the two disposal sites are located, addressing the waters by town. At the time DEP reviewed the WQC application, the following language appeared in the statute:

> A. Georgetown.
> (1) Tidal waters located within a line beginning at a point on the shore located at latitude 43° - 47'-16" N., longitude 69° -43'-09" W. and running due east to longitude 69° -42'-00" W., thence running due south to latitude 43° - 42'-52" N., thence running due west to longitude 69° -44'-25" W., thence running due north to a point on the shore located at latitude 43° - 46'-15" N., longitude 69° -44'-25" W., thence running northerly along the shore to point of beginning - Class SA.
> B. Phippsburg.
> (1) Tidal waters east of longitude 69°-50'-05" W. and west of longitude 69°-47'-00" W. - Class SA.
> (2) Tidal waters of The Basin, including The Narrows east of a line drawn between 69°-51'-57" W. and 43°-48'-14" N. - Class SA.

DEP has interpreted this statute to mean that certain tidal waters outside the Kennebec have been designated as Class SA, but waters inside the Kennebec to be Class SB. This interpretation can be seen, for example, in the various Integrated Water Quality Monitoring and Assessment Reports[5] ("IWQMA Report") that DEP has prepared and submitted to U.S. Environmental Protection Agency in accordance with Section 305(b) of the Clean Water Act. In these reports, DEP has consistently described the area of the Kennebec at issue here as a Class SB water. In Appendix III to the 2002 IWQMA Report, entitled "Estuarine and Marine Waters," DEP listed various estuarine and marine waters and where they stood from a water quality perspective. On page D-70 of Appendix III (page 70 of the PDF) the segment of water ("Waterbody ID 710") from the south end of Butler Cove in Merrymeeting Bay to the east point of Sagadahoc Bay in Georgetown (the Bluff Head disposal site sits in this segment) is listed as Class SB. Likewise, on page D-73 of Appendix III (page 73 of the PDF), the Lower Kennebec, Phippsburg/Georgetown ("Waterbody ID 710-2") is listed as Class SB. An examination of the 2004 IWQMA Report reveals the same at pages 80 and 89 of Appendix IV (page 80 and 89 of the PDF), as does the 2006 IWQMA Report at pages 91 and 103 of Appendix IV (pages 93 and 105 of the PDF), the 2008 IWQMA Report at pages 80 and 92 of Appendix IV (pages 82 and 94 of the PDF), and the 2010 IWQMA Report at pages 102 and 112 of Appendix V (pages 105 and 115 of the PDF). These documents show that DEP has consistently reviewed and considered this segment of the Kennebec as Class SB waters.

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[5] BEP can consider these reports as part of this appeal as these are DEP documents that can be considered to be part of the record of all DEP's WQC decisions, because these are required by the federal Clean Water Act as part of the Maine water quality program. In other words, the information contained in these documents is in the background of every WQC decision issued by DEP.

An examination of the statutory language for the Class SA designation for Sagadohoc County waters reveals an interesting difference between the Georgetown designation and the Phippsburg designation. Specifically, the Phippsburg designation (enacted in 1990), does not include a northern boundary, while the Georgetown designation does. Appellants apparently believe that this should be taken to mean that there is no northern limit to the designation of Class SA waters in Phippsburg, and that the Class SA designation should extend upriver. However, this would lead to a bizarre result, with Kennebec waters on the Georgetown and Arrowsic[6] side of the river having a Class SB designation, but Kennebec waters on the Phippsburg side being designated as Class SA. Where the boundary between the towns lies mid-river—and would in fact bisect the Bluff Head disposal site--such a result makes little sense. Likewise, with no northerly limit, the Class SA designation would encompass the waters of the Bath Iron Works industrial facility at Bath, a highly implausible result.

When presented with Appellants' interpretation of the classification of these waters, DEP investigated the legislative history of the 1990 designation of the Phippsburg waters. DEP concluded that the intent of the 1990 designation was to protect the habitat and waters of the Phippsburg beaches and Heron Islands area, not the areas inside the river's mouth. Indeed, the coordinates in the Phippsburg classification coincide with the beach areas at the end of the Phippsburg peninsula to the west of the river's mouth. This was consistent with how DEP had interpreted the designation and had permitted past dredging and disposal activities inside the Kennebec. However, in light of the confusion created by the statute's failure to include a northern boundary to the Phippsburg Class SA designation, DEP conditioned the WQC upon a clarification to the designation by the Legislature. This legislative process has been completed, and there should be no further confusion as to the intent of the Phippsburg Class SA designation: that it encompasses marine waters outside the mouth of the Kennebec, but this designation does not extend to waters up the Kennebec.

B. Disposal of Dredged Material at Doubling Point and Jackknife Ledge Satisfies the Standards of 38 MRS § 465-B.

Appellants argue that discharge of dredged material will violate the standard for Class SB waters set forth in 38 MRS § 465-B(2)(C):

> Discharges into 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. There may be no new discharge to Class SB waters that would cause closure of open shellfish areas by the Department of Marine Resources.

Here, DEP reasonably concluded that there would not be an "adverse impact to estuarine and marine life" as this is understood in the statutory meaning. The disposal of sandy materials at both Bluff Head and Jackknife Ledge will not create detrimental changes to the resident

[6] Arrowsic estuarine waters are not specifically designated in 38 M.R.S. § 469, therefore these waters are Class SB by default.

biological community, as the introduction of sandy material at these disposal sites is consistent with the naturally occurring habitat, and the species that inhabit these locations obviously are accustomed to sandy habitat. Sandy material regularly moves down the Kennebec, through the Bluff Head location, out the river, and into the littoral system where Jackknife Ledge is located, and the material being dredged from the Doubling Point and the Popham Beach portions of the federal navigation project is part of this system. Past dredging projects have repeatedly shown that the materials disposed at these locations move through the system and do not result in adverse environmental impacts.

Appellants further argue that the discharge of dredged material will violate the Class SB standards that prohibit discharges that will cause the closure of open shellfish areas by DMR. However, DMR plainly concluded that the project would not require the closure of clam flats. This conclusion is entirely reasonable, as the sandy material being discharged is not a source of fecal coliform or chemical contaminants. It is simply the material that is naturally present in the Kennebec River environment. Likewise, the studies and analyses that have been conducted in the past have shown that there have been no closures of clam flats attributable to the disposal of dredged material. There is no evidence that the disposal of dredged material causes siltation or burying of clam flats, and in the past the Phippsburg clam harvesters have acknowledged as much. See 1997 and 2000 Corps WQC.

The only contrary evidence supporting Appellants' claims regarding impacts to clam flats comes in the form of the observations of Ms. Dot Kelly, in which she states that she observed murky water during Bath Iron Works's ("BIW") 2009 dredge disposal operations at Bluff Head, and subsequently observed deposits of sediment on the banks of the river, both of which Appellants claim were caused by the disposal activities. As to the claims regarding extensive turbidity, neither Ms. Kelly nor the Appellants make any acknowledgement that during the 2009 BIW dredging operation, there was a heavy storm during the afternoon and evening of November 14, 2009[7] that poured nearly three inches of rain in Bath, including a period in which the rain fell at a rate between 1 and 1.5 inches/hr for over an hour, clearly an event that would cause turbidity described by Ms. Kelly. See http://www.bathmaineweather.com/wxwuhistory.php

As to the alleged accumulations of sediment at the riverbank, Ms. Kelly has failed to provide the critical evidence of what the shoreline looked like before dredging operations began, without which any claimed "cause and effect" relationship simply cannot be established. Nor do Appellants explain how huge amounts of silty material could accumulate from the sandy materials that were disposed by BIW, on the banks directly adjacent to the disposal site moving against the powerful down- or upstream currents of the river. Appellants also fail to

[7] As part of its review the Board can properly take administrative notice of weather events in Maine, as these represent facts not subject to reasonable dispute in that when such weather events occur they are generally known within Maine and are capable of accurate and ready determination by resort to sources whose accuracy cannot reasonably be questioned, such as weather records. See Maine Rule of Evidence 201. Taking administrative notice of weather events does not represent supplementation of the record as it is background information of common understanding, about which the Board can always be deemed to have awareness.

acknowledge that the November 2009 BIW dredging followed an extremely wet summer, the wettest summer ever recorded by the National Weather Service's Portland, Maine station, and the fourth wettest season since Portland precipitation records were first kept in 1871. http://www.erh.noaa.gov/er/gyx/climate_f6.shtml During the summer of 2009, weather observers recorded over 8 inches of rain at Bath during the month of June, over 11 inches of rain in July, and over 5 inches of rain in August. http://www.bathmaineweather.com/wxwuhistory.php As noted by the Maine State Geologist, periods of river flooding result in fine grained (silty) sediment being carried in suspension down the river. Email string dated March 17, 2011 from Robert Green, DEP, to Maine State Marine Geologist Stephen M. Dickson. Appellants' failure to mention or acknowledge that the summer of 2009 was the wettest summer in recorded history of Maine undercuts any scientific validity to their assertions on the 2009 BIW dredging activities. In the complex riverene system of the Kennebec, Appellants' simplistic causation theories are unsupported by fact or scientifically credible methodology, and should therefore be disregarded. Appellants are doing no more than disagreeing with DEP's thorough, informed analysis, and this does not satisfy the heavy burden required to overturn DEP's reasonable determinations based on the scientific, unbiased evidence in the record.

IV. DEP's Analysis of Alternatives was Reasonable.

Appellants argue that DEP violated the Wetland Protection Rules' requirement for the analysis of alternatives to a proposed activity. However, Appellants' argument is little more than disagreement with the need for the project. DEP's consideration of alternatives in the context of the purpose and needs being addressed were entirely reasonable, and the proposed alternatives are not practicable as this term is to be understood in the Wetland Protection Rules.

As an initial matter, it is important to recognize that DEP's jurisdiction over this matter is limited to its WQC for the discharge of dredged material, not the dredging activities. Corps regulations make clear that dredging does not constitute a Section 404 discharge. 33 C.F.R. § 323.2(d)(3)(ii) (incidental movement of dredged material during normal dredging operation is not discharge of dredged material). The trigger for a WQC review is a discharge into waters of the United States, and here such a discharge occurs with disposal, not dredging. While the Draft EA provided by the Corps addressed various alternatives relating to dredging (different depths, different dredging equipment), this document was created for the Corps National Environmental Policy Act ("NEPA") process, and as such addressed a broader scope than was necessary for DEP's review. The proper scope of alternatives analysis by DEP for a project like this should be limited to alternatives relating to disposal of dredged material, as that is the activity for which DEP provides a WQC. The Corps did not seek a WQC for its dredging activities and DEP would not have authority under the limited waiver of federal sovereign immunity of Section 401 of the CWA to review dredging activities that do not constitute a discharge. To the extent that Appellants' arguments regarding DEP's alternatives review focus on alternatives relating to dredging (alternative depths, alternative equipment), such arguments must be rejected as they go beyond the proper scope of DEP's review.

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A. "Practicable" Alternatives.

The Wetland Protection Rules direct that a proposal will be considered to have an "unreasonable impact if the activity will cause a loss in wetland area, functions, or values and there is a practicable alternative to the activity that would be less damaging to the environment." 06-96 Ch. 310 § 5(A). "Practicable" is defined as "available and feasible considering cost, existing technology and logistics based on the overall purpose of the project." Id. § 3(Q). The Maine Law Court has directed, however, that the "practicable alternatives" requirement of the Wetland Protection Rules is not an independent criteria, but merely a factor that DEP should consider as part of its evaluation of whether the standards of the NRPA have been satisfied. Uliano v. BEP, 2005 Me. 88, ¶ 12, 876 A.2d 16, 19 (Me. 2005). Thus, the importance of evaluating alternatives depends on the context of a particular project—to the extent an NRPA standard is heavily implicated, the more important the evaluation of alternatives will be. Id. ¶ 13-14, 876 A.2d at 19-20.

B. "No Dredge" Alternative.

Appellants argue that DEP should have insisted on a "no dredge" alternative, by which the Navy would be required to traverse the shoals of the Kennebec or wait until dredging can be performed in winter months. However, as noted in the Corps draft EA, delaying passage of the Spruance would impact the Navy's ability to meet operational schedules and to perform its missions necessary to national security. Because shoaling creates risk of damage to the ship and injury to crew members, the Navy concluded that the risk of traveling outside the channel is unacceptable, and this would be required in a "no dredge" alternative if the Navy is to meet its national security mission. Where the purpose of the proposed dredging is to address shoaling that prevents the Navy from safe transit to achieve its national security mission, the "no dredge" alternative is not practicable, as it is not feasible and does not meet the purpose of the project.

C. Minimized Dredging Alternative.

Appellants argue that DEP should have required a "minimal dredging" alternative, by which dredging would be authorized only to the extent that it would allow passage of the Spruance. It is unclear what Appellants envision as the "minimal dredging" that should be required, but as noted in the draft EA, the channel's authorized depth of 27 feet MLLW is required for the Navy ships passage, and even this requires ships to transit at high tides. Moreover, the planned advanced maintenance work at Doubling Point—by which the Corps would bring the authorized depth to 30 feet MLLW (with an allowable overdepth of 2 feet to 32 feet MLLW)—would make the effectiveness of the maintenance dredging last longer, thereby reducing the frequency of future maintenance dredging. Dredging to shallower depths would require the Corps to return more frequently to dredge, along with impacts associated with dredging, and as such would not necessarily be "less damaging to the environment," as the Wetland Protection Rules would require. Advanced maintenance dredging represents the practicable alternative to address the shoaling, given the costs (both environmental and economic—both of which the Rules require be taken into account) associated with repeated dredging in this environment.

D. Alternative Dredging Methods.

Appellants argue that DEP should have required mechanical methods of dredging, rather than the hopper dredge operation that the Corps will use. However, as noted in the draft EA, mechanical dredging operations are not as effective for accomplishing the proposed work in the high-current Doubling Point area of the Kennebec. Because of its inefficiency, a mechanical dredge operation would result in a longer duration of dredging and disposal activities. NMFS, the federal agency with responsibility for the endangered shortnose sturgeon, indicated that it was their preference that operations be as short as possible in duration, and if that meant using hopper dredges as opposed to mechanical dredges, that was their preference. It is important to note that in their draft "reasonable and prudent measures" provided to the Corps, NMFS has suggested, and the Corps will require, that contractors use certain equipment such as excluder devices to keep sturgeon out of the hydraulic dredge. This type of exclusion equipment is not available for mechanical dredges. It is also worth noting that a number of impacts that Appellants complain about—noise impacts, water quality impacts—can be minimized by using a hopper dredge operation that reduces the amount of time that dredging operations occur. Thus, it is not clear that mechanical dredging would represent an alternative that is "less damaging to the environment," as the Wetland Protection Rules would require, and in this context, in the view of NMFS, the Corps, and DEP, the hopper dredge represents the least damaging alternative to sturgeon or the environment generally.

E. Upland and Offshore Disposal.

Appellants suggest that DEP acted unreasonably by failing to require upland disposal or offshore disposal at the Portland Disposal Site. However, as noted by in the draft EA, taking the sandy material offshore or upland would remove it from the riverene and littoral system. Such removal would be contrary to Corps policy, and contrary to the concerns expressed by the Maine State Geologist, particularly where the sandy material plays a role in the Popham Beach and other beach systems. Draft EA at 18. By removing these materials from the natural systems in which they play an important role, these alternatives would not be "less damaging to the environment," as the Wetland Protection Rules would require.

CONCLUSION

The Corps dredging project satisfies the applicable standards of the NRPA and represents the least damaging practicable alternative. Evidence contained in the record supports the DEP's WQC decision, and Appellants provide no contrary evidence to undermine or contradict DEP's decision. Appellants' arguments at their core represent little more than disagreement with the results, and fail to satisfy the high burden required to overcome the deference owed to DEP in BEP's review of such decisions. Therefore, BEP should affirm the DEP WQC decision in its entirety.

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Respectfully submitted,

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