

March 20, 2011

COMMENTS SUBMITTED VIA E-MAIL

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RE: Public Comments to the U. S. Army Corps of Engineers (USACE) permit / certification submission: Proposed August 2011 Maintenance Dredging of the Kennebec River Channel, Sagadahoc County, Maine

Thank you for providing this opportunity to comment.¹ USACE is proposing to dredge 50,000 cubic yards of sediment from the navigation channel in Doubling Point reach because the tops of some of the sediment waves which are sculpted by the currents may interfere with the Spruance's departure from BIW in September 2011. USACE is proposing to dispose of these dredge spoils in the Bluff Head disposal site in the Kennebec River two miles downstream.

Besides the comments below, these comments also incorporate by reference the comments submitted on March 21, 2011 by FOMB of which I am a member.

Highlights:

1. Maine DEP permits and certifies both the dredging activity at Doubling Point in Bath as well as the in-river disposal activity at Bluff Head in Phippsburg. Historically, the in-river disposal portion of the activity has been hidden within the dredging application and gotten a disproportionately cursory review.
2. Neither a NRPA permit, nor a water quality certification should be given prior to the applicant providing a thorough evaluation of the disposal site and a demonstration that the disposal site is approved according to the legal requirements. Given the quantity of dredge spoils and the valuable fish/ bird/seal habitat at this narrow, fast part of the Kennebec Estuary, it defies reason to allow the dumping since there are less costly, environmentally sound alternatives.
3. USACE has avoided evaluating the impacts of the in-river disposal at Bluff Head, as required to comply with 40 CFR 230. Somehow the Bluff Head disposal area was being viewed as not needing to comply with the "in-water dredging disposal site" regulations. This disregard of the regulatory requirements is improper and has been detrimental to the resource and should not be allowed to occur again.
4. The 10 year NRPA permit / Water Quality Certification Approval (#L-16281-4E-D-N), signed in March 2002, based its evaluation of the impact on Bluff Head on flawed, scanty information, discussed below. This same study is being cited again as

¹ Not being sure if the Maine DEP 30 day public comment period for the Water Quality Certification ends today, these comments are being submitted in order to provide important input and preserve standing as the process continues.

justification. The statement in the summary, *“based on past water quality monitoring by the applicant during the disposal of material at Bluff Head, the Department does not anticipate that the proposed dredging or disposal of material will degrade water quality in the Kennebec River”* is just wishful thinking, and a real evaluation, such as required by 40 CFR 230, needs to be done.

5. Alternatives to the proposed dump site have not been evaluated according the legal requirement that a practicable alternative that has less environmental impact must be chosen. Viable, less environmentally damaging and less costly alternatives are suggested.
6. These comments request intervenor status, and interested person status, as applicable, on all actions and negotiations related to this 2011 Kennebec River dredging and disposal proposal.

A. What do the Natural Resource Protection Act and the Water Quality Certification require?

Natural Resources Protection Act (NRPA). The NRPA requires that dredging and in-river disposal not be performed until the applicant demonstrates that the action does not unreasonably interfere with existing aesthetic, recreational or navigational uses, and demonstrates that the proposed activity meets the standards.

The Natural Resources Protection Act (38 §480-A) declares that the State’s rivers and streams, . . .and coastal wetlands and coastal sand dunes are resources of state significance.

. . .further finds and declares that there is a need to facilitate research, develop management programs and establish sound environmental standards that will prevent the degradation of and encourage the enhancement of these resources.

. . .further finds and declares that the cumulative effect of frequent minor alterations and occasional major alterations of these resources poses a substantial threat to the environment and economy of the State and the quality of life.

Prohibitions. (38 §480-C). A person may not perform or cause to be performed [dredging or filling] without first obtaining a permit from the department if the activity is located in, on or over any protected natural resource.

The permit will be granted when the Department finds that the applicant has **demonstrated** that the proposed activity meets the standards in subsection 1 to 9.

- **Existing uses.** The action will not unreasonably interfere with existing scenic, aesthetic, recreational or navigational uses. Thus, the demonstration must analyze the impact of dumping 135 million pounds of material into the river in August, including about 1 million pounds of fine silt and clay.
- **Harm to habitats; fisheries.** The demonstration must analyze the significant wildlife habitat in the area, and demonstrate there will be no unreasonable harm. The 2009 dumping clearly affected the seals which had been in the area and the muck being deposited in the intertidal zone appears to inhibit life. Just as the area is recovering

(because much of the muck is being dispersed) another disposal action is being proposed.

- **Lower water quality.** Since the area is a Class SA area, and an NRPA permit should not be given to any activity that violates water quality law, one would think the likelihood for getting a permit for this activity would be slim to none. The Class SA standard states: There may be no direct discharge of pollutants to Class SA waters except for compliant storm water discharges and permitted aquatic pesticides to control mosquito borne diseases. The CWA definition of pollutant includes dredged spoils. (40 CFR 230.3(c)).

A more thorough evaluation of the projects' plan to dispose of dredge spoils at Bluff Head throughout the month of August is required. Will it unreasonably interfere with existing scenic, aesthetic, recreational and navigational uses? Will there be unreasonable harm to the aquatic environment and species? Will it lower water quality? Yes to all three, is the answer that seems most likely. Thus, no NRPA permit should be issued for this proposed application.

Water Quality Certification. The applicant is required to obtain a water quality certification for any activity that may result in a discharge to the navigable waterways of the State. The Maine DEP must certify that any such discharge will comply with the applicable provisions of Section 301, 302, 303, 306 and 307. For the 2011 dredging and disposal in the lower Kennebec, compliance with Section 301(a) needs to be confirmed prior to issuing a water quality certification.

Section 301(a) of the Clean Water Act states:

SEC. 301(a) Except as in compliance with this section and sections 302, 306, 307, 318, 402, and 404 of this Act, the discharge of any pollutant by any person shall be unlawful.

Thus, Section 301(a) requires that the Maine DEP certify that the Army Corps of Engineers has complied with the requirements of section 404 (as it relates to dredging disposal), otherwise the discharge of any pollutant by any person shall be unlawful. Since MEDEP must certify that the discharge complies with Section 301, MEDEP must assure that the Corps approval of the Bluff Head disposal site is done in compliance with 40 CFR 230.

Section 404 provides that the Secretary of the Army, acting through the Chief of Engineers, issues permits for the discharge of dredged or fill material. In order to dispose of dredge spoils in a navigable water, the disposal site needs to comply with the provisions of 40 CFR 230. Although 40 CFR 230 has a thorough description of the findings that need to be made in order to utilize a disposal area, previous permits for disposal at Bluff Head have not been required to show compliance with 40 CFR 230.

In regards to in-river dredging disposal, the Army Corps of Engineers might be compared to a fox watching the henhouse – the ACE is the applicant for the permit, the ACE is also the permit granting authority, and if the permit is violated, the ACE is the enforcement agency!

However, the Water Quality Certification requires that Maine DEP also be watching the hen house. By having Maine DEP determine that the Army Corps of Engineers has complied with Section 404, in granting an in-river dredging disposal approval, an important check has been added to the dredging disposal site permitting process. This comment requests that the Maine

DEP do a full review of the 40 CFR 230 requirements for approval of an in-river disposal site, and make a finding of fact regarding the ACE permit application documentation compliance with 40 CFR 230 requirements.

After making a finding of fact that the ACE is in compliance with the disposal site approval requirements, then Maine DEP will be able to issue a water quality certification, but not before.

B. 1997 Normandeau Letter, the basis of the 2002 water quality certification and prominently mentioned in the 2011 draft Environmental Assessment to justify the issuance of a water quality certification is fatally flawed on many levels, from study design, to the level of “report” detail and sloppy editing, to questionable conclusions.

In March 2002 The Maine DEP issued a water quality certification for dredging of the Doubling Point reach and disposal of the dredge spoils at Bluff Head. However, the findings of fact only provided this statement,

Based on past water quality monitoring by the applicant during the disposal of material at Bluff Head, the Department does not anticipate that the proposed dredging or disposal of material will degrade water quality in the Kennebec River.

In the draft 2011 Environmental Assessment, on page 18, the ACE discusses the 1997 Normandeau study.

A water quality monitoring study was conducted to meet the Water Quality Certification (WQC) conditions for the 1997 dredging and disposal activities at Doubling Point. The WQC conditions specified that bacterial levels be monitored just south of the Bluff Head disposal site immediately before and soon after disposal episodes, and that turbidity be monitored before and after disposal events at Bluff Head. The monitoring was conducted by Normandeau Associates and concluded that the “turbidity levels near Bluff Head dredging and disposal areas in the Kennebec River were low, before, during and after the November 1997 dredging. There was no apparent trend related to station, depth, or dredging/disposal. Fecal coliform levels were low with one exception, possibly related to the pre-dredge storm activity, which may affect runoff or WWTP function. There was no evidence of an increase related to dredging.

Relying on the December 5, 1997, Normandeau Associates monitoring letter (3 pages with 8 pages of attachments) as a demonstration that the disposal area was approved for use when only one sample location (with two samples mid-depth and bottom-depth) were taken a half mile upstream of the disposal area and a similar, one sample location tested at mid-depth and bottom-depth, was taken hundreds of yards downstream of the disposal area and analyzed for turbidity, suspended solids and fecal coliform, is disgraceful. One clue that the study was biased to report results that didn't show an impact, is that the upper portion of the waterway was not sampled (or perhaps just not reported).

Three different days were sampled. Friday November 14 (a day of a “large storm”) was used as a baseline, pre-dredge sample. How ridiculous. Obviously a large storm is going to have a noticeable impact on turbidity and possibly on fecal coliform, as storm water and combined

sewers cause large discharges. An important study to certify water quality should have a study plan which assures that the baseline data gathering effort is typical of baseline.

The only description of the work discusses dredging at Bluff Head, which is obviously wrong, and discusses the work at Bluff Head as being initiated on November 23rd, with the "dredging" samples being taken on November 24, and the "post-dredging" samples being taken on November 25th and November 18th. It's not clear there is any useful data here, but what is clear is that the impact was measured, at best, after only one day of dredge disposal and from pretty far away.

Normandeau collected three sets of samples. The first was collected on Friday, November 14th, prior to reported initiation of dredging at Bluff Head on November 23rd. The second set of samples was collected on November 24th, during the dredging operation. The third set of samples was collected on November 18th on the outgoing tide and November 25th on the incoming tide. [Note: no other part of the report addresses what the tidal direction was during the sampling, which in a high current area is important, and the November 18th date seems suspect].

A review of the data shows that for the station a few hundred yards south of the disposal area, the turbidity value was lowest at pre-dredge, almost doubled on the day of the dredging, and rose a bit higher on the post-dredge. This trend of increasing turbidity in both the mid and bottom sampling may be indicative of a trend that could be a significant impact.

The suspended solids data was generally highest on the day of the storm. Surprising was that the mid-level on the day of the dredging was the second highest value and only slightly less than the highest value on the storm day (53.4 mg/l and 54.0 mg/l) both of which were from the monitoring station to the south of the disposal area. The conclusion here may be that on the one day of dredge disposal the mid depth will be as turbid as a day with a large storm. In the context of the proposed disposal for the whole month of August (which will have cumulative effects from day after day of dredge disposal, one might conclude that the data suggests the impact could be significant. Thus this data set might suggest that more work should be done before additional dredging disposal is undertaken.

For fecal coliform, the bottom sample south of Doubling Point during the pre-dredge storm showed a comparatively high value – 240 MPN/ml. The next highest value was post dredging at the monitoring station a half mile north of the disposal site. Perhaps also noteworthy is that the fecal coliform levels increased dramatically at the disposal site. On the day of the dredge, the mid-depth reading at the monitoring station to the north had a reading of 43, while the deep depth reading was a mere 3.6. By the next day (post-dredge) both the mid-depth and the deep-depth had risen to 93. At the monitoring station to the south on the day of the dredge, both the mid-depth and the deep-depth were low, <3 and 3.6 MPN/ml respectively. On the day of the post-dredge sampling both the mid-depth and the deep-depth were at a fecal coliform level of 23 MPN/ml. Thus interpreting this data set might suggest that additional bacterial concentration work should be done on the dredge spoils and on modeling to see if the rise in fecal coliform over the day of dredge disposal is a predictable result and whether the elevated levels will continue to rise if disposal happens day after day, throughout the month of August. Since bacteria may grow better in warm water, this additional variable should be analyzed.

If the above analysis of the Normandeau study is correct, it is indicative of a problem with scientific method and impartiality, and then insufficient scrutiny off the underlying work by technical persons using the study for future purposes.

C. How does two days of dredge disposal area sampling for turbidity and fecal coliform compare to the 40 CFR 230 data requirements needed to approve an in-river dredge disposal site.

The Factual determinations (40 CFR 230.11) describe the specific short-term and long-term effects on the physical, chemical and biological characteristics of the aquatic environment in the area of the proposed in-river dredge disposal site and this determination must be in writing.

It's too detailed to review the different areas of investigation that must be undertaken, but here is what's required related to the physical substrate.

230.11(a) Physical substrate determination. Determine the nature and degree of effect that the proposed discharge will have, individually and cumulatively, on the characteristics of the substrate at the proposed disposal site. Consideration shall be given to the similarity in particle size, shape and degree of compaction of the material proposed for discharge and the material constituting the substrate at the disposal site and any potential changes in substrate elevation and bottom contours, including changes outside the of the disposal site which may occur as a result of erosion, slumpage, or other movement of the discharged material.

Additionally, the duration and physical extent of substrate changes shall also be considered. The possible loss of environmental values (230.20) and actions to minimize impact (subpart H) shall also be considered in making these determinations. 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 patterns, water circulation, wind and wave action, and other physical factors that may affect the movement of the discharged material. The duration and physical extent of substrate changes shall also be considered. The possible loss of environmental values (§230.20) and actions to minimize impact (subpart H) shall also be considered in making these determinations. 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 patterns, water circulation, wind and wave action, and other physical factors that may affect the movement of the discharged material.

Because the work to approve an in-river disposal area is involved and it is expensive to do testing in a very fast, very deep stretch of water, most in-river dredge disposal areas are no longer in use. Instead regional ocean disposal sites are typically used if the dredged material is going to be dumped in the aquatic environment.

D. The project area, Doubling Point dredging area and the Bluff Head disposal area

Figure 1 is a Google Earth satellite view of the subject area. The most northerly yellow pin shows the location of BIW. The two yellow pins at the south end of Long Reach, just before Doubling Point mark the approximate northerly and southerly boundaries of the seabed

waveform crest that may require re-forming or removal. Dredging is throughout the 500 foot navigation channel as needed. The next yellow pin, downriver, is to identify Morse Cove and then two yellow pins mark the limited amount of 95-100 foot water in the Bluff Head disposal area. All permits for disposal at Bluff Head reference placement in about 95-100 feet of water, or some similar deep sounding disposal.

Figure 1: Google image of the Doubling Point dredging area and the "Bluff Head" disposal area.

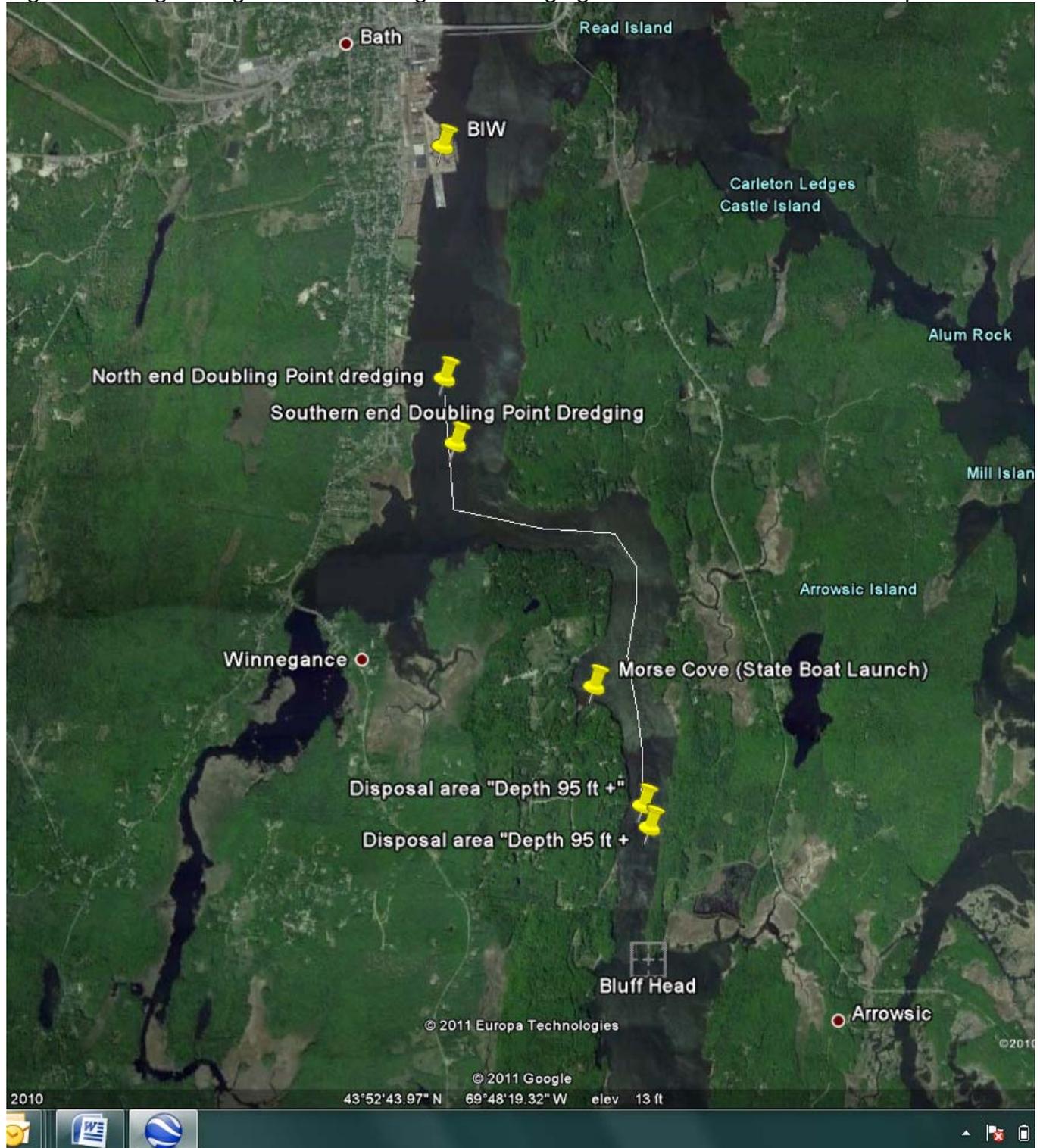
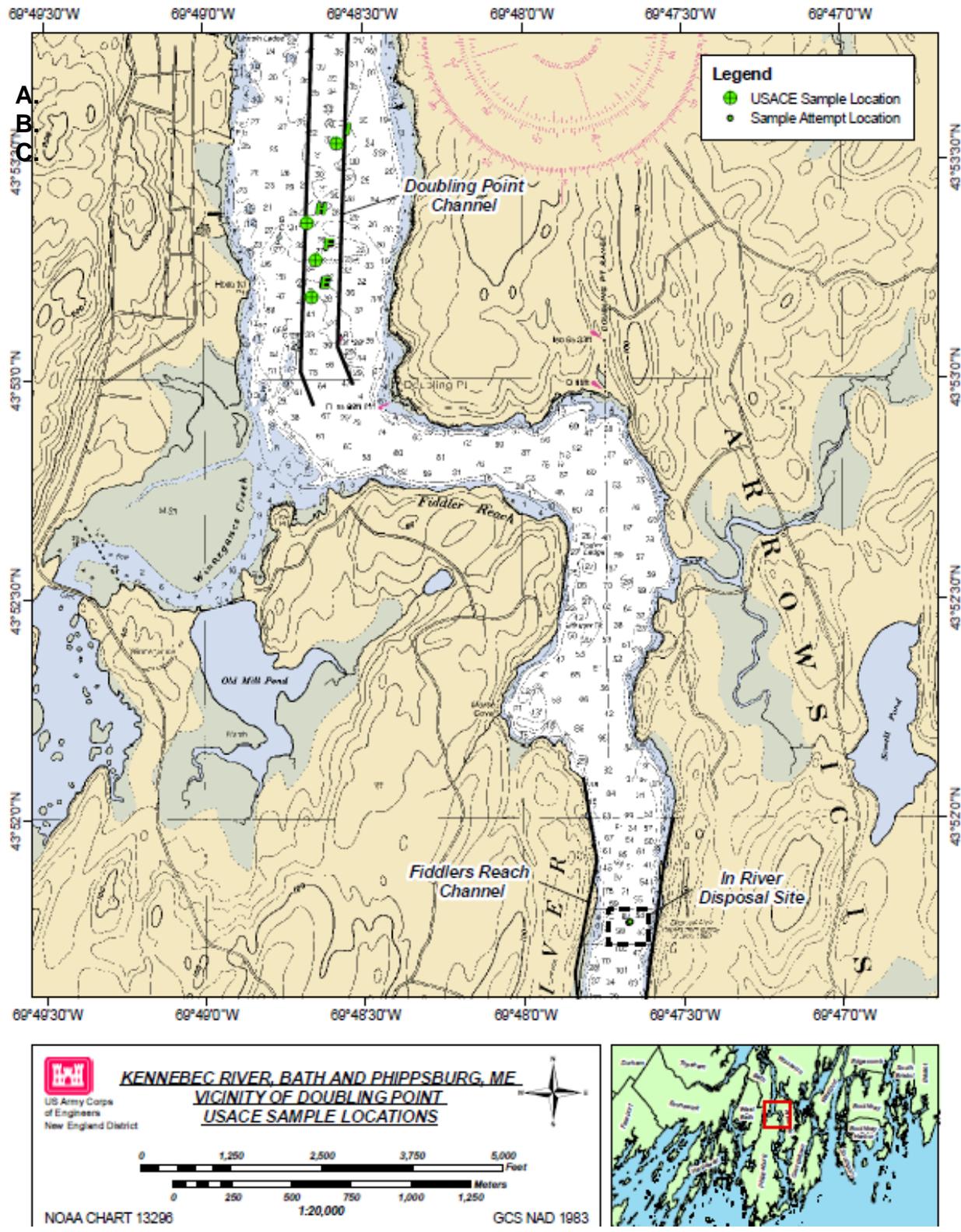


Figure 2: Graphic from the ACE Application that shows a sketch of marking where four dredge material samples were taken from, and where one sample at the Bluff Head disposal area was attempted, but was unsuccessful.



E. Bluff Head disposal area muck.

Currently portions of the intertidal zone adjacent to the discharge area on the west side of the Kennebec, as well as other nearby areas have “dead” zones of muck. Since no investigation of the actual disposal area has been done, as required by the 40 CFR 230 guidelines, I cannot comment on the condition of the disposal area, and it is possible, that the muck has a different cause. However, slimy muck did show up in the intertidal zone immediately after the November 2009 dredge disposal, and in dramatic ways. While kayaking during the disposal period at low tide, a submerged rock which has always been clear of debris had more than an inch of muck perfectly balanced on top of it. This rock is on the west side of the Kennebec and somewhat to the north of the disposal area. One can imagine, with the disposal occurring at almost high tide the suspended material was entrained in the surface water, and then settled out on the rock, which then became above the tide level. The muck did not stay on the rock, after the tide rose again, but it does show a causal relationship of the muck to the disposal.

Regarding the natural state of the Bluff Head disposal area, I had a discussion with Dr. Steven Dickson, Maine Geologist, in the summer of 2010, at a meeting with Maine DEP and Bill Kavanaugh and Jay Clement of the Army Corps of Engineers, and Alicia Heyburn, Outreach Coordinator of the Kennebec Estuary Land Trust, Dr. Dickson provided information on various studies that he has been involved in regarding the movement of material in the stretch of the Kennebec from Merrymeeting Bay to off-shore Popham Beach. Regarding the Bluff Head area, he reported that it is a rocky bottom.

Dr. Dickson has been providing information about the geology of the Kennebec Estuary for many years. When BIW was going through the permitting process to create the LLTF and the dry dock, Dr. Dickson submitted five pages of formal comments on January 23, 1998. Because BIW had suggested dumping the excavated material which was to be generated during the creation of the 12.6 acre and 75 foot deep sinking basin in the Bluff Head disposal area, Dr. Dickson addressed the disposal of dredged material.

Disposal of dredged material should be based on its geological (and chemical) characteristics. Large volumes of blue clay disposed in the river or offshore at the mouth of the river would likely result in increased water turbidity . . . Some of the coarser dredged material may be suitable for river or ocean disposal. Historically, the Bluff Head disposal site is one of dispersal and dredged material would be swept away by the tidal currents. The rate and direction of spoils movement from the disposal site is unknown. In the short-term, normal estuarine circulation may move sand upstream to the sand wave field north of Doubling Point where there is a probable zone of bedload (sediment) convergence. Silt and organic matter will be dispersed in both upstream and downstream directions as the spoils pile is winnowed by the currents. Phippsburg clam flats (e.g. Drummore Bay) have been an area of local concern in past dredge events. The flats are probably not threatened by sand disposal but silt (which has been dumped in large quantities) might be resuspended and result in increased column turbidity and possibly be deposited on intertidal flats. Without more information or analysis, the suitability of the Bluff Head disposal site for silty alluvial sediments remain questionable.

F. How much muck (fine silt and clay) is in the 50,000 cubic yards proposed to be dumped at Bluff Head.

The material dredged and disposed by BIW in 2009 may be very different from the material that may ultimately be dredged this summer, or, at some time in the near future. Even though the materials are different, it may be inappropriate to just disregard the relatively small weight percentage of fine particles. Sand is relatively heavy and typically a cubic yard of sand is estimated to weigh 2700 pounds. Thus the weight of the sand being disposed appears to be **135 million pounds**.

This is just an approximation. Assuming that the estimate is valid as if it was dry sand . . .then the calculation of the amount of fine material is as follows:

If the amount of silt and clay is 1%, that will be 1.35 million pounds of silt and clay. If the amount is 0.5%, that would mean that almost 700,000 pounds of silt and clay will be disposed in the fast part of the river this summer. Considering the restrictive Shoreland protection rules, in part because of a concern of erosion causing the addition of fine materials into the river - -this large, slug of fine materials and its impact on the environment needs to be better understood before it is permitted. Although regulators in the past have not given much credence to the clammers who have testified for years that dredging causes fines to close the clam holes. At the February 24, 2011 public meeting in Phippsburg, the chairman of the shellfish commission described, again, that this phenomenon does occur and how August is an important clamming month. Now in light of the questionable conclusions of the Noramandean 1997 study, the clammer's contention needs to be seriously evaluated.

The amount of silt and clay is important, especially near areas of historic contamination, because unlike particles of sand, silt and clay tend to adsorb toxic metals and organics. Also, these materials can negatively impact the turbidity of the water, which has a negative health impact on many aquatic animals.

Although the permit application describes the dredge material alternatively as clean sand or sandy material, the information shows that a significant amount (in pounds and volume) of fine particles will likely be disposed and dispersed.

G. The Bluff Head disposal area in pictures and the seal report.

Prior to the November 2009 dumping, there were three resident seals that were around throughout much of 2009. I could count on seeing them almost every day in the "disposal area" fishing. If they weren't fishing when I came down to the river, sometimes, all I had to do was whistle for a bit, and they would appear.

Figure 3: Picture of Bluff Head disposal area August 31, 2009, looking south. With a seal near the point of the arrow.



They were visibly disturbed by the dumping and the high turbidity. When USACE, MEDEP and BIW came to the location in November 2009 during the dredging disposal period, so that I could have them see the effect of the dredging disposal, they saw one of the seals. Although the seals came back briefly in January, they appear to have moved on and are no longer in the area. Transitory seals do go in and out with the tide during portions of the year. Today, March 20, 2011, a seal was once again vigorously fishing and keeping me in its awareness. The seal seemed to enjoy my whistling – though I can't tell if it was one of the three seals from 2009.

The dumping of dredge spoils in November 2009 altered the intertidal zone adjacent, downstream and upstream from the disposal area.. As shown at the public meeting, Figure 5 below, the mid-intertidal zone is still encumbered with areas of "dead" mucky material, The material is being tested for metals, grain size and % organic content.

Figure 5. One of the areas of accumulated muck, on an otherwise rocky shore. Footprints From 2/24/2011 when retrieving a sample of the muck for the Phippsburg public meeting.



Figure 4. Dredge disposal by tug and barge in Bluff Head in November 2009. Picture shows dump near the east bank, but the disposal was done in the middle as well.



H. Alternatives that could/should be part of the evaluation.

Especially in these times of economic uncertainty, having our tax dollars used to move sediment from point a – to point b, just so it can move back upstream to be dredged again, seems wasteful when there are less costly, more environmentally sound alternatives that meet the objective. Hopefully the powers that be, will encourage using a cheaper, better, smarter solution. Perhaps one of these options will spark the development of a really great alternative.

1. **No dredge option.** Since the BIW pilots can effectively take the Spruance down river without any dredging, hire a BIW pilot to assist in navigating the Spruance down the Kennebec for the September 1, 2011 sailaway. Cost is very low and environmental impact is very low.
2. **Minimize dredging option with beneficial upland reuse of dredge spoils.** If dredging is required, do a limited dredging, estimated by Bill Kavanaugh at the 2/24/2011 public meeting, of about 10,000 cubic yards to fully satisfy the authorized channel depth. The Navy representative at the 2/23/2011 meeting stated, in a conversation with me, that dredging to the authorized depth is all that they require. Perhaps use a low turbidity clamshell dredge as the dredging equipment to reduce the turbidity of the proposed hopper dredge equipment. The huge reduction in volume, due to not over-dredging, will provide cost savings and environmental impact benefits. Beneficial use of the dredge spoils for landfill cover or similar application should be considered, as that will remove all the requirements related to disposing of this dredged material in-river. In addition, since disposal doesn't have to coincide with almost slack water in the Bluff Head disposal area, this alternative may have increased time flexibility and result in a significant time savings.
3. **Flattening sand crests option by pushing crests into the troughs.** Modify Mother Nature's sculpting efforts by flattening the sand crests, through pushing the sand material in the creste into the troughs. A procedure sometimes called "bar dragging" might accomplish the required result without the extensive dredging and disposal, although further analysis of the sand wave field would be necessary. Because of the rapidity of sand wave formation, and deformation, this option could be used just prior to deep drafts boats transiting the reach. Although no estimate of deep draft transits was provided, it appears to be just a few times a year.
4. **Fully study sand transport issues before doing any "over-dredging".** A full evaluation of the migration of the material which is disposed in Bluff Head is required prior to using the disposal site to comply with 40 CFR 230. Since at least 1980, because it is discussed in the 1980 Environmental Assessment, many regulators/scientists have speculated that we are dredging and re-dredging the same material. In addition, Bill Kavanaugh has repeatedly discussed the fact that sand wave peaks that are a problem because they are too close to the surface, are often gone within weeks because of the strong forces within the river system. Similarly, work that monitored the sand wave heights from the 1982² dredging of

² Environmental Assessment, August 1981 (Signed 9/1/1981 – but did not include a CWA certification).

“-Environmental Assessment and Finding of No Significant Impact for Maintenance Hopper Dredging of the 27-Foot Channel below Bath to Remove about 50,000 cy of Sand Shoal from the Doubling Point Reach, with Disposal In-River North of Bluff Head. Dredging would include Advanced Maintenance to a Depth of -35 Feet MLW, the Elevation of the Base of the Sand Wave Shoals at Doubling Point.

Doubling Point, based on the 1981 Environmental Assessment, apparently (based on reading the draft USACE EA dated February 2011) showed significant sand waves reforming within four months even though over-dredging was done. Thus, over-dredging should not be included as a knee-jerk reaction. The in-river disposal requirements expect that a detailed analysis, with supporting data, be done showing that the extra costs and environmental impacts today are worth the risks that re-dredging will be of little benefit because of current actions on the vast amount of sand still remaining in the seabed convergence zone.

5. **Delay dredging as much as possible and then just do targeted dredging as need arises.** Continue to delay the dredging and develop engineering solutions to do targeted dredgings if a need arises. Switch the mindset from bringing in big dredging operations from the other side of the country with high mobilization costs. Historically, the currently nine year period since the last dredging is well in excess of the average.

I. Review of issues raised at the public meeting of the Department of Marine Resources in Phippsburg (2/24/2011).

For completeness, I'd like to put on the record some of the important points that were brought up at the public meeting. The project dredging work was described at a public meeting in Phippsburg, Maine on February 24, 2011. This was a useful meeting and we thank Brian Swan for organizing it and for the participation of Bob Green, Bill Kavanaugh, and all the stakeholders that attended. Because Phippsburg televised the public meeting, the reach of the meeting and the information discussed, has been much broader than the number of people in the room.

Issues raised at the meeting were:

- a. The inconvenience and disruption of the dredging and disposal occurring in August during the most populated time of year. Tourism is a growing and important economic driver for the lower Kennebec River area. During August, fishermen, clambers, tour boats, vacationers and residents use the water and shoreland extensively. The wildlife is particularly abundant including stripers, sturgeon, seals, ducks, birds, and raptors.
- b. The fact that the breathing holes in the clam flats historically get covered up due to turbidity during dredging and that this makes harvesting clams hard and that August is a prime month for clam harvesting. Brian Swan referenced a 1997 dredging report, and perhaps another report, as showing that material did not stay suspended. This points out the need to document statements and analyze the work to make sure significant problems existed. If the report he referred to was the December 1997 Normandeau letter, that concludes "there was no evidence of an increase related to dredging", as discussed in the body of this report, that study was seriously flawed. This study is a good example of why a report's information should be reviewed with a critical eye to the actual data, before accepting their stated conclusions.
- c. Samples of the slimy muck that came into the intertidal zone by the "Bluff Head" disposal area from the BIW dumping in 2009 were displayed as well as the mucky sand that remains after one year of winnowing by the current and storms. Samples showing the difference to Popham Beach sand were also displayed. A request to Army Corps of Engineers to bring the samples taken in January 2011 of dredged material was denied and a Freedom of Information Act request for viewing the dredge samples was denied.
- d. That the Bluff Head disposal site has not been permitted or evaluated.

- e. That the Bluff Head disposal site is in Class SA water which appears to prohibit dredge spoil disposal.
- f. The dredging is proposed to be done outside the known acceptable window of November through March and the impact of the dredging has not been minimized.
- g. That the concerns raised by the public at the meeting were apparently being given little weight.

Conclusion:

It is my belief that these comments support the conclusion that the current ACE permit application should be revised and resubmitted with an EA that is complete, and shows compliance with 40 CFR 230. As a homeowner abutter to the disposal site, who is affected by the Bluff Head disposals, I request that I be involved in the permitting process for this application to the fullest extent allowed, including participating in coordination discussions and receiving all correspondence. Please add me as an intervenor and interested person. I have a compelling reason to be involved in the negotiations that determine additional testing requirements and their protocols, reporting requirements, mitigation measures and enforceable conditions. I believe my involvement will be helpful in developing an improved solution to the current dredging and in-river disposal.

Please contact me if you would like to discuss any of these comments or desire additional information.

Thank you for the opportunity to make comments.

Sincerely,

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