TO: **Robert L. Green, Jr.**, Project Manager
Dept. of Environmental Protection (DEP)
Bureau of Land and Water Quality Control - Portland

FROM: Department of Marine Resources (DMR)

Subject: REQUEST FOR PROJECT REVIEW

PROJECT: DEP Number: L-16281-4E-E-N
Applicant: U.S. Army Corps of Engineers
Location: Bath - Phippsburg (Kennebec River)
Type of Project: Maintenance Dredging

The above proposed project has been carefully reviewed and considered by DMR personnel. The following are DMR's Comments:

DMR understands that the applicant is proposing to conduct maintenance dredging of two sections of the Federal navigational channel in the Kennebec River, one located just up-river from Doubling Point, Arrowsic, and the second located at the mouth of the river near the Sugarloaf Islands. Approximately 50,000 cubic yards of material would be removed from the first area and disposed of at a downstream river location north of Bluff Head, Arrowsic in approximately 98 ft. of water. Approximately 20,000 cubic yards of material would be removed from the second area and disposed of off-shore 0.4 nautical miles south of Jackknife Ledge in 47 ft. of water. A hydraulic hopper dredge, as used previously, would most likely be used again. Dredging and disposal would be done over a three to five week period during late July and early August 2011 prior to the transit of a U.S. Navy destroyer from Bath Iron Works on September 1, 2011. Similar dredging and disposal at these locations has been done by the Corps of Engineers in 1997, 2002, 2002 and 2003, primarily during the winter months as allowed by previous state Water Quality Certifications.

DMR held a meeting in Phippsburg on February 24, 2011 to gather information and hear concerns from the public on this proposed dredging as required by statute[1]. Concerns raised included potential impacts to shellfish growing areas downstream of the Bluff Head disposal site from water turbidity and siltation of the flats; potential siltation of residential shoreline areas adjacent to the Bluff Head disposal area; potential unspecified impacts to recreation fishing and other recreational activities; potential impacts to lobster at the disposal site south of Jackknife Ledge; and concerns related to the noise from dredging operations that would occur continually seven days a week and twenty four hours a day during the summer when residents would have their windows open. The suggestions that the Corps better plan for anticipated dredging needs in the future, and that some sort of "safety net" in the form of compensation for shellfish harvesters impacted by dredge and disposal operations be investigated were also made.

Concerns related to adverse impacts to shellfish resources downstream of the Bluff Head disposal area were raised during DMR's permit application review and Public Meeting processes in 1997. Monitoring studies conducted in connection with dredging in 1997 confirmed that as material to be dredged was, and would be, sandy, coarse grained, containing less than 5% silt, potential siltation of the shellfish areas down-river or areas along the shore adjacent to the disposal area were and would not be a significant concern.[2]

The proposed disposal area south of Jackknife Ledge (a circular area 500 yards in diameter) has been used several times by the Corps for disposal of dredged sandy material from the mouth of the river.

This disposal site was chosen in consultation with the Maine Geological Survey as having the potential to provide sand for nourishment of the Popham Beach system.[3] Fishermen could potentially fish that area prior to dredge material disposal to reduce potential direct adverse impacts to lobster.

Hydraulic dredging and disposal activity during late July and early August in these proposed areas could result in injury or mortality to federally listed endangered shortnose sturgeon, as well as Atlantic sturgeon, which currently are being considered for listing under the Endangered Species Act. A review of DMR's data for the years 1977 - 2003 indicates that shortnose sturgeon and Atlantic sturgeon are abundant in one of the proposed dredging areas (upstream of Doubling Point) from July - November. Previous U.S. Army Corps of Engineers dredging projects have been initiated in mid to late November after sturgeon have left the area. Due to the timing of the proposed activities, DMR recommends that up to 50 sturgeon should be captured in the immediate area prior to the start of dredging activities. These sturgeon should be fitted with acoustic transmitters and be monitored during said dredging activities for their presence. Any monitoring should be done in coordination with the dredging contractor to minimize the potential for entrainment of sturgeon. Entrainment of shortnose sturgeon above the number allowed by the National Marine Fisheries Service (exact number currently unknown) would necessitate the ceasing of dredge operations. DMR recommends that the Corps contact us at its earliest convenience to discuss how we might assist in this effort.

It is DMR's opinion that potential adverse impacts to recreational fishing and other recreational activities from this proposal would not be significant.

As required by statute the dredging contractor must publish, in a local newspaper, the barge route for dredge spoils disposal, and identify the procedure for responding to inquires regarding the loss of fishing gear during the dredging and disposal operations. It would be helpful to also publish this information in the Commercial Fisheries News, a publication widely read by Maine fishermen, and by means of a Notice to Mariners via marine radio.

Comments and editing provided by:

Brian Swan, DMR Environmental Coordinator
Gail Wippelhauser - Bureau of Sea-Run Fisheries - Marine Scientist III
Peter Lamothe - Bureau of Sea-Run Fisheries - Marine Scientist IV

PATRICK KELIHER
ACTING DEPUTY COMMISSIONER OF DMR
Date: March 10, 2011

[1] 38 M.R.S.A. §480-D, sub-§9
[2] Report to Bath Iron Works from Normandeau Associates, Inc., Dec. 1997.
[3] Personal communication with Stephen Dickson, State Marine Geologist, Maine Geological Survey, Feb. 2011.

TO: **Robert L. Green, Jr.**, Project Manager
Dept. of Environmental Protection (DEP)
Bureau of Land and Water Quality Control - Portland

FROM: Department of Marine Resources (DMR)

Subject: REQUEST FOR PROJECT REVIEW – **Additional Comments**

PROJECT: DEP Number: L-16281-4E-E-N
Applicant: U.S. Army Corps of Engineers
Location: Bath - Phippsburg (Kennebec River)
Type of Project: Maintenance Dredging

The above proposed project has been carefully reviewed and considered by DMR personnel. The following are DMR's Comments:

The following is supplemental to DMR's March 10, 2011 comments to you.

The National Marine Fisheries Service (NMFS), the ultimate decision maker regarding the Endangered Species Act (ESA) and associated Take of sturgeon, should be consulted regarding dredging operations and possible Take. DMR has been unable to ascertain what level of Take NMFS has agreed to for this project. The Corps may be asked by NMFS to modify or cease the dredging operations depending on the impact to the species.

To avoid project delays that might result from NMFS's enforcement of the ESA, DMR suggests that up to 50 shortnose sturgeon in the Kennebec River (in the immediate dredging areas) be captured and tagged with acoustic transmitters. Tagged sturgeon would be tracked to determine when fish are in the general area of the dredging equipment. DMR estimates the cost of the tagging and tracking effort at approximately $26,400 ($16,400 for 50 acoustic tags and $10,000 for personnel to track tagged fish). If the tracking of shortnose sturgeon does occur, DMR recommends that a mobile receiver be purchased (estimated cost of $5,000) and placed on the dredge to identify tagged sturgeon in the immediate area.

Subsequent to DMR's March 10, 2011 comments DMR's Public Health Division has reviewed information provided by the Phippsburg Shellfish Committee; had discussions with other state program managers who have managed dredging projects; and had informal consultation with the U.S. Food and Drug Administration (FDA).

Although concerns regarding metals or other deleterious substances have been expressed by local residents, DMR does not currently have enough substantial information specific to the activity sites that would justify a long-term closure of shellfish beds downstream of the Bluff Head disposal area.

The lower Kennebec River had very little shellfish resource that was classified as approved for harvest in 1997, when the issue of potential shellfish area closure downstream of Corps' dredging/disposal was last studied. In recent years DMR has been successful with an incredibly intense effort to re-classify shellfish resource in that area and make it available to local harvesters. In the process of this work, we have documented that shellfish resource in the lower Kennebec

River has proven to be excessively sensitive to river flow and discharge characteristics. FDA has recommended that if we are not able to demonstrate that bioaccumulation of deleterious substances (e.g., metals and other industrial contaminants) is not a public health issue, then at a minimum we need to monitor the water quality downstream of the Bluff Head disposal area, but above the harvestable shellfish resource, for the presence of re-suspended fecal coliforms. We recommend that water samples for fecal coliform be taken by DMR staff at one or more sites, as appropriate, every three days during dredging activity. As long as there is no change in the fecal coliform load that is moving down toward the shellfish resource, then the beds can remain open to harvest; if, however, the DMR measures an impact, then we will need to close the shellfish resource downstream of the disposal site, until such time as testing confirms that there is no longer a public health issue. This testing will require overtime for both the Water Quality field and lab staff, since it is well beyond the normal scope of activities for the program. The time period for this proposed dredging activity (late July to August) falls during the time of year when most of the harvesting takes place in the area, and when clam prices area historically the highest of the entire year. Licensing and landings data available at the towns show that many harvesters make as much as 50% of their annual harvest income during the proposed dredging period, and therefore compensation should definitely be required, if there is a shellfish closure triggered by the dredging activity.

Because these dredging/disposal activities would be taking place outside the normal work window, DMR strongly suggests that the Corps, DEP, DMR, BIW, the Navy and the Phippsburg Shellfish Committee meet to discuss the ramifications to shellfish harvesters for lost income in the event of a necessary shellfish growing area closure caused by these proposed activities.

PATRICK KELIHER
ACTING DEPUTY COMMISSIONER OF DMR
Date: April 11, 2011

Cc: Mary Colligan, Protected Resources Division, NMFS