



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Western Washington Fish and Wildlife Office
510 Desmond Dr. SE, Suite 102
Lacey, Washington 98503



In Reply Refer To:
13410-2007-0420

AUG 30 2007

Mark Ziminske, Chief Environmental Resources
Seattle District, Corps of Engineers
ATTN: Regulatory Branch (Rutherford, Babcock)
P.O. Box 3755
Seattle, Washington 98124-3755

Dear Ms. Walker:

Subject: COE # Shoalwater Bay Shoreline Erosion Project

Your June 1, 2007, letter requested our concurrence with your determination of "may affect, not likely to adversely affect" for the bull trout (*Salvelinus confluentus*), bald eagle (*Haliaeetus leucocephalus*), brown pelican (*Pelecanus occidentalis*), marbled murrelet (*Brachyramphus marmoratus*), and the Pacific-coast population of the western snowy plover (western snowy plover) (*Charadrius alexandrinus nivosus*) for the restoration of a deteriorated barrier dune system and an extension of an existing shoreline flood berm to protect the Shoalwater Bay Indian Reservation in Pacific County, Washington. Your letter and Biological Evaluation were received in our office on June 4, 2007. We requested additional information on June 18 and July 17, 2007, and received additional information on June 19 and 22, and July 10 and August 13, 2007. We completed and sent a final Fish and Wildlife Coordination Act Report to your office on August 23, 2006. This informal consultation has been conducted in accordance with section 7(a)(2) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act).

The U.S. Army Corps of Engineers (Corps) proposes to place approximately 600,000 yd³ of sand onto Graveyard and Empire Spits that form the southern boundary of North Cove to rebuild and maintain the deteriorated dune system formed by these spits. The dune system provides partial erosion protection for the shoreline and terrestrial portions of the Shoalwater Bay Indian Reservation that lie to the north of the North Cove. The restored dune would be 12,500 ft in length, and would be graded and partially planted with native dune species to provide additional erosion protection. Placement of sand would occur to facilitate enhanced nesting habitat for western snowy plovers on the waterward side of the dune system. The borrow site for the sand to be used in the project is located in the adjacent Willapa Bay entrance and channel in areas that have been continuously accreting. No hard structures (groins, dikes, seawalls, etc.) would be placed in North Cove or Willapa Bay in association with the placement of the sand.

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The Corps also proposes to extend the existing flood berm along the northern shoreline of North Cove 4,000 ft northward and 2,770 ft southward. The extensions will be similar to the existing structure (core material and placement of riprap), and will result in a total structure length of 8,470 ft. The extensions will then be covered with sand, regraded, and planted with native vegetation suitable for the site.

The bald eagle was removed from the Federal List of Threatened and Endangered Wildlife, effective August 8, 2007. Given that your project will be implemented after that date, consultation under section 7(a)2 of the Act is not required. We have therefore not provided concurrence on your effect determination for the bald eagle.

Based on the information provided in your letters, Memoranda for the Services, Biological Evaluation, and addenda, we have concluded that effects to the federally listed bull trout, brown pelican, marbled murrelet, and western snowy plover associated with the proposed project would be insignificant and discountable. Therefore, we concur with your “may affect, not likely to adversely affect” determination these resources. Specifically, our concurrence is based on the following rationale.

Bull Trout

- The proposed in-water work will occur during the recommended work window of July 16 and February 15, when bull trout and juvenile salmonids, prey species of bull trout, are not likely to be present in the project area or exposed to potential impacts from the project construction. Therefore, direct effects to bull trout from construction are expected to be discountable.
- The proposed project is also not expected to significantly impact forage fish resources for bull trout over the long-term, although some localized entrainment of prey may occur during sand excavation and/or deposition. Therefore, indirect effects to bull trout from the proposed action via their prey resources are expected to be insignificant.

Brown Pelican

- The brown pelican is not expected to nest in the action area of the proposed project, and the proposed project is not expected to significantly impact food resources for nesting or wintering brown pelicans. The proposed project is also not expected to significantly impact roosting or foraging habitat for nesting or wintering brown pelicans. Furthermore, any brown pelicans present in Willapa Bay during construction would be expected to avoid the project area during construction, and would access other parts of the bay, without experiencing significant effects to foraging behavior. Therefore, direct and indirect effects to brown pelicans from the proposed action are expected to be insignificant and discountable.

Marbled Murrelet

- The marbled murrelet is not expected to nest in the action area of the proposed project, and the proposed project is not expected to significantly impact food resources for nesting or foraging marbled murrelets. The proposed project is also not expected to

significantly impact forage fish resources for marbled murrelets over the long-term, although some localized entrainment of prey may occur during sand excavation and/or deposition. Furthermore, any marbled murrelets present in Willapa Bay during construction would be expected to avoid the project area during construction, and would access other parts of the bay, without experiencing significant effects to foraging behavior. Therefore, direct and indirect effects to marbled murrelets from the proposed action are expected to be insignificant and discountable.

Western Snowy Plover

- The Corps will coordinate with Washington Department of Fish and Wildlife and U.S. Fish and Wildlife Service staff to conduct nesting surveys for western snowy plovers at the project site prior to construction. The construction timing and implementation will be adjusted as necessary to avoid impacts to nesting western snowy plovers based on these survey results and coordination with these two agencies. Therefore, direct effects to nesting western snowy plovers from the proposed action will be discountable.
- As part of the sand placement portion of the project, the COE will create and enhance suitable nesting habitat for western snowy plovers on the waterward side of the dune system in the project area, which is expected to benefit the population. During the past two years, western snowy plovers have begun using the project site in addition to other nesting areas in the vicinity of the Willapa Bay (e.g., Long Beach Peninsula, Midway Beach, etc.). Creation and enhancement of suitable nesting habitat in the project area is expected to benefit western snowy plovers over the long-term.

This concludes informal consultation pursuant to the regulations implementing the Act (50 CFR 402.13). This project should be reanalyzed if new information reveals effects of the action that may affect listed species or critical habitat in a manner, or to an extent, not considered in this consultation. The project should also be reanalyzed if the action is subsequently modified in a manner that causes an effect to a listed species or critical habitat that was not considered in this consultation, and/or a new species is listed or critical habitat is designated that may be affected by this project.

If you have any questions about this letter or our joint responsibilities under the Act, please contact Karen Myers at (360) 753-9098 or Tom McDowell at (360) 753-9426, of this office.

Sincerely,


for Ken S. Berg, Manager
Western Washington Fish and Wildlife Office

cc:
WDFW, Region 6
WDOE, Lacey (L. Ochoa)



**UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration**

NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7600 Sand Point Way N.E., Bldg. 1
Seattle, WA 98115

December 12, 2007

NMFS Tracking No.:
2007/03532

Jeff Laufle
Corps of Engineers, Seattle District
Environmental Resources Section
Post Office Box 3755
Seattle, Washington 98124-3755

Re: Endangered Species Act Section 7 Informal Consultation and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for the Shoalwater Bay Shoreline Erosion Project, Pacific County, Washington (4th Field HUC 17100106, Willapa Bay)

Dear Mr. Laufle:

This correspondence is in response to your request for consultation under the Endangered Species Act (ESA) of 1973, as amended, 16 U.S.C. 1531. Additionally, this letter serves to meet the requirements for the consultation under the Magnuson-Stevens Fishery Conservation and Management Act (MSA, 16 U.S.C. 1855). The National Marine Fisheries Service (NMFS) has reviewed the Biological Evaluation (BE) received from the U.S. Army Corps of Engineers (COE) on June 5, 2007, for the proposed shoreline protection project near the Shoalwater Indian Reservation in Pacific County, Washington. NMFS requested additional information on June 18 and June 27, 2007, and the COE addressed these requests on July 30 and October 3, 2007, respectively. Subsequently, the COE provided a revised project description on November 7, 2007. The COE has requested concurrence with its finding of "may affect, but not likely to adversely affect" for the threatened Southern distinct population segment (DPS) of North American green sturgeon (*Acipenser medirostris*), the threatened Steller sea lion (*Eumetopias jubatus*), the endangered humpback whale (*Megaptera novaeangliae*), and the endangered Southern Resident population of killer whale (*Orcinus orca*). Critical habitat has not been designated or proposed for the Southern DPS of green sturgeon or the humpback whale, and there is no designated critical habitat near the project area for the Steller sea lion or the Southern Resident population of killer whale.

Project Description

The project area is located on the north side of the entrance to Willapa Bay, adjacent to the Shoalwater Bay Indian Reservation, and slightly west of Tokeland, Pacific County, Washington. The purpose of the project is to provide coastal erosion protection for the reservation, reducing flood hazards to the upland areas, and reducing erosion and associated degradation to the tideflats and marshes in North Cove. Erosion and lowering of the barrier dune that extends southward on Graveyard Spit and Empire Spit is exposing the Shoalwater Bay Indian Reservation and the Tokeland Peninsula shoreline to increased flooding from storm waves



during periods of extreme high tides. The COE proposes to dredge approximately 600,000 cubic yards (CY) of sand from the Willapa Bay entrance and channel and rebuild 12,500 feet of the barrier dune system with that sand. The sand would be graded and planted with native dune grass on the dune crest and North Cove side.

Sand for the dune restoration would be pumped from the borrow site(s) by a large pipeline dredge, probably a hydraulic cutterhead dredge. The primary borrow site is located on the north side of the Willapa North Channel, approximately 3500 feet southwest of Graveyard Spit. A secondary borrow site is located across North Channel from the primary borrow site and approximately 7500 feet southwest of Graveyard Spit. Following initial construction, maintenance requirements are assumed to be 250,000 CY at 5-year intervals for dune maintenance. However, maintenance of the dune is not part of the proposed action.

Spill response kits would be on site during construction, and fueling would occur away from water. Equipment that would be used near the water would be cleaned prior to construction, and would be checked regularly for drips or leaks. The proposed timing window for in-water work is July 15 through February 15. The action area for the proposed project includes the immediate project areas of the mainland shoreline (including access areas between Graveyard Spit and State Route 105) and up to 0.25 miles from their boundaries, North Cove (situated between the dune restoration area and the mainland), Graveyard Spit and up to 1,000 feet waterward of shoreline of the dune restoration area, the borrow areas and up to 0.25 miles from their boundaries, and the pipeline corridor extending from the borrow areas to the dune restoration area.

Endangered Species Act

Species Determination – Green Sturgeon

The Southern DPS of North American green sturgeon consists of coastal and Central Valley populations south of the Eel River, California, with the only known spawning population occurring in the Sacramento River. Green sturgeon migrate from their natal streams, after rearing for up to 3 years, and spend several years in the ocean prior to returning to their natal streams. During late summer and early fall, subadult and adult green sturgeon congregate in coastal bays and estuaries, with particularly large concentrations in the Columbia River estuary, Willapa Bay, and Grays Harbor. A genetic analysis was conducted on samples from 98 green sturgeon collected from a Willapa Bay test fishery in July through September of 2003, and approximately 75 percent of the green sturgeon were from the Southern DPS (Israel and May 2006).

Green sturgeon are benthic feeders on invertebrates including shrimp, mollusks, amphipods, and small fish. In Washington estuaries, known green sturgeon prey include sand lance (*Ammodytes hexapterus*), callinassid shrimp, and burrowing thalassinidean shrimp. Opportunistic collection of gut contents from 8 green sturgeon in Willapa Bay indicated that these fish primarily fed on burrowing shrimp (*Neotrypaea californiensis*) (personal communication, Brett Dumbauld, USGS).

Adult and subadult green sturgeon are known to occur in the action area from June through October, and thus would be exposed to any direct effects of the proposed action. The potential effects of the project to green sturgeon may result from: (1) entrainment from the pipeline dredge; (2) exposure to contaminants from the dredge material; and (3) reduction in prey base.

Entrainment

Entrainment of juvenile white sturgeon (*A. transmontanus*) by a hydraulic pipeline dredge has been reported in a study conducted on the Columbia River near Portland, Oregon. The removal of 700,000 CY of sand during 9 days of dredging at a depth of 60 to 80 feet resulted in the entrainment of approximately 2,000 juvenile sturgeon, and much smaller numbers of other fish species (Buell 1992). The great majority of white sturgeon entrained came from a small proportion of the area dredged, the edge of a localized high concentration of juvenile sturgeon or "sturgeon hole," and most sturgeon entrained were between 30 and 50 cm fork length. The behavior or movement of green sturgeon near dredging activities has not been documented; however, work with white sturgeon in the Columbia River has shown that they typically do not disperse from areas where dredging occurs and some fish move toward the disturbance (personal communication, Michael Parsley, USGS). A study of the response of white sturgeon to pipeline and hopper dredge operations on the lower Columbia River found that while white sturgeon were attracted to the area of dredging, none were entrained. Sturgeon tagged for that study were all larger than 50 cm in length.

Green sturgeon have been detected in the vicinity of the proposed borrow sites during late summer and early fall (Moser and Lindley 2007). However, green sturgeon collected from Willapa Bay are much larger than 50 cm in length and are not expected to be vulnerable to entrainment. There are no reports from Willapa Bay of green sturgeon smaller than 100 cm, either by Moser and Lindley (2007) or the Washington Department of Fish and Wildlife (WDFW). Test fisheries conducted by WDFW in Willapa Bay have caught many white sturgeon that were less than 90 cm in length, but the majority of green sturgeon caught were approximately 140 cm in length (personal communication, Olaf Langness, WDFW). In addition, the dredging action would take place in a broad, non-constricted area where any sturgeon present would have ample opportunity to avoid the dredge.

Contaminants

Green sturgeon and their prey may be exposed to potential contaminants released from the dredge material. The proposed borrow sites for dredge material are in a highly dynamic coastal area with high-energy waves and currents. Sediment samples collected from the vicinity of the borrow sites were predominately fine sand with very low fines content (less than 2 percent fines), and therefore are expected to be free from any chemical, biological, or other pollutants. In addition, the proposed dredged material borrow sites are far from any known sources of contamination.

Prey Base

Placement of dredged material for dune restoration may cover or temporarily disturb burrowing shrimp habitat. Given the variety of prey utilized by green sturgeon, very abundant population of burrowing shrimp in Willapa Bay, and the small portion of the estuary that would be affected by the project, this effect is expected to be insignificant.

Therefore, the overall potential effects of the proposed project to green sturgeon are insignificant and NMFS agrees that the effects of the project are not likely to adversely affect the threatened Southern DPS of green sturgeon.

Species Determination – Marine Mammals

Steller Sea Lions

NMFS listed the Steller sea lion as threatened under the ESA on November 26, 1990 (55 FR 49204) across their entire range. Continued declines in the western portion of the population led to a listing of the western stock as endangered on May 5, 1997 (62 FR 24345) however the eastern stock remained listed as threatened. Steller sea lions in Washington are from the eastern stock. The draft recovery plan (58 FR 45269) identified factors having the potential to impact the recovery of the eastern stock. The potential effects of the project to Steller sea lions relate to the following factors identified in the recovery plan: 1) disturbance; 2) reduced prey availability; and 3) contaminants.

Disturbance

Steller sea lions of the eastern DPS can occur along the Washington coast year round, however there are no breeding rookeries in Washington. The haulout locations nearest the proposed project are 25 miles to the south (Columbia River South Jetty) and 45 miles to the north (Split Rock) (Jeffries et al. 2000). The proposed project would not disturb breeding or haulout activities. Steller sea lions are extremely unlikely to be present near the project; therefore, disturbance from construction is discountable. In the unlikely event that Steller sea lions were in the vicinity of the project, proposed use of a hydraulic cutterhead dredge would be audible to Steller sea lions at sound pressure levels (100 to 110 dB_{peak}) below the sound exposure threshold for behavioral disturbance (160 dB_{RMS} re: 1 μPa) from broad band impulse. Thus, effects of sound from dredging are insignificant.

Prey Availability

Steller sea lions are opportunistic predators, and generally prey on fish and invertebrates that are seasonally and locally abundant. Important prey species for sea lions generally inhabit deep water and are unlikely to be in close proximity to the project site. Pacific sandlance will likely be entrained by proposed dredging, yet no measurable effects to the total available prey for Steller sea lions are expected. Therefore, as Steller sea lions are unlikely to occur in the vicinity of the project, and the project would not measurably affect prey availability, effects on Steller sea lion prey are discountable and insignificant.

Contaminants

As described above, sediment in areas of proposed dredging are expected to be free from any chemical, biological, or other pollutants. In addition, the proposed dredged material borrow sites are far from any known sources of contamination. Thus, it is unlikely that potential prey of Steller sea lions could be exposed to release of contaminants from dredge material.

Potential adverse effects to Steller sea lions are discountable and insignificant. NMFS concurs that the effects of this project are not likely to adversely affect the threatened eastern DPS of Steller sea lions.

Humpback Whales

The humpback whale was listed as endangered under the ESA on June 2, 1970 (35 FR 8491). The eastern North Pacific Stock, which includes humpback whales in the waters of Washington State, is located along coastal Central America during winter/spring, and migrates to the coast of California north to southern British Columbia during the summer (NMFS 2005). This project may cause disturbance from anthropogenic noise which was identified as a potential limiting factor in the humpback whale recovery plan,

Disturbance

Although humpback whales migrate through offshore waters in the vicinity of the project area, this species is not commonly seen within 15 km of shore in Washington waters (Shelden et al. 2000). Additionally, sound from proposed dredging would be below the threshold of disturbance for whales (160 dB_{RMS} re: 1 μPa), and sound attenuated at distance offshore from the project site where humpback whales would potentially occur (>15 km) would be almost inaudible. The occurrence of humpback whales in the project area is highly unlikely, and project effects are therefore discountable. Sound from the proposed project is below disturbance threshold at the source and insignificant offshore where whales may be present.

Potential adverse effects to humpback whales are discountable and insignificant. NMFS concurs that the proposed action is not likely to adversely affect endangered humpback whales.

Southern Resident Killer Whales

The Southern Resident killer whale DPS composed of J, K, and L pods was listed as endangered under the ESA on November 18, 2005 (70 FR 69903). The draft recovery plan (71 FR 69101) identifies potential threats to Southern Resident killer whales. The potential effects of the project relate to the following threats identified in the recovery plan: 1) sound disturbance; 2) prey availability; and 3) environmental contaminants (NMFS 2006).

The known range of Southern Resident killer whales extends from central California to the Queen Charlotte Islands off northern British Columbia, which includes the project area. From late spring to early autumn, Southern Resident killer whales spend considerable time in the Georgia Basin with concentrated activity in the inland waters of Washington around the San Juan Islands and move south into Puget Sound in early autumn. Pods make frequent trips to the outer

coast of Washington during this season. Sightings are limited for the Washington coast, however, there are no documented sightings in Willapa Bay or the project area, and the few sightings proximate to the project area are over 15 miles to the north (three sightings, Grays Harbor/Westport) and 30 miles to the south (one stranding, Long Beach) (NMFS 2006). Although Southern Resident killer whales have potential to occur in the project vicinity, the likelihood of whales being present during most of the work window is low.

Sound Disturbance

Southern Resident killer whales are unlikely to occur in the project area. In the unlikely event that Southern Resident killer whales were in the project vicinity during dredging activities, sound from proposed dredging would be below disturbance threshold at the source, and almost inaudible at short distance from the source. Thus, effects of sound from the proposed project are insignificant.

Prey Availability

The main prey of Southern Resident killer whales is adult salmon (Ford et al. 1998). In-water construction will occur between July 16 to February 15, which would avoid potential disturbance to out migrating juvenile salmonids, as well as adult migration for spawning stocks of winter steelhead into the Willapa Bay system (WIRA 24 – Willapa, WDFW 2002). Adult migration for Chinook, coho, and chum stocks in the Willapa Bay system would overlap with in-water construction (WDFW 2002). In general, adult salmonids are highly mobile and dredging action would take place in a broad, non-constricted area where any adult salmon present would have ample opportunity to avoid the dredge. As a result, effects on the prey resources for Southern Resident killer whales will be at insignificant levels.

Contaminants

As described above, sediment in areas of proposed dredging are expected to be free from any chemical, biological, or other pollutants. In addition, the proposed dredged material borrow sites are far from any known sources of contamination. Thus, it is unlikely that potential prey of Southern Residents could be exposed to release of contaminants from dredge material.

Potential adverse effects to Southern Resident killer whales are insignificant. NMFS concurs that the effects of this project are not likely to adversely affect the endangered Southern Resident killer whale DPS.

Critical habitat for Southern Resident killer whales was designated in three specific areas: 1) Summer Core Area in Haro Strait and waters around the San Juan Islands; 2) Puget Sound; and 3) the Strait of Juan de Fuca on November 29, 2006 (71 FR 69054). The proposed action does not occur in designated critical habitat, and the project activities will not result in adverse effects to critical habitat.

Conclusion

This concludes informal consultation pursuant to the regulations implementing the ESA, 50 CFR 402.13.

The COE must reinitiate this ESA consultation if new information reveals effects of the action that may affect listed species or designated critical habitat in a way not previously considered, the actions are modified in a manner that causes an effect to the listed species or designated critical habitat that was not previously considered, or a new species is listed, or critical habitat designated, that may be affected by the identified action.

Magnuson-Stevens Fishery Conservation and Management Act

Federal agencies are required, under section 305(b)(2) of the MSA and its implementing regulations (50 CFR 600 Subpart K), to consult with NMFS regarding actions that are authorized, funded, or undertaken by that agency that may adversely affect Essential Fish Habitat (EFH). The MSA section 3 defines EFH as “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.” If an action would adversely affect EFH, NMFS is required to provide the Federal action agency with EFH conservation recommendations (MSA section 305(b)(4)(A)). This consultation is based, in part, on information provided by the Federal action agency and descriptions of EFH for Pacific coast groundfish, coastal pelagic species, and Pacific salmon contained in the Fishery Management Plans developed by the Pacific Fishery Management Council and approved by the Secretary of Commerce.

The proposed action is described above and in the BE and supporting documents. The project action area is designated as EFH for various life stages of 24 species of groundfish, five coastal pelagic species, and two species of Pacific salmon.

Essential Fish Habitat Conservation Recommendations: Because the conservation recommendations that the COE included as part of the proposed action to address ESA concerns are also adequate to avoid, minimize, or otherwise offset potential adverse effects to the EFH of the species, conservation recommendations pursuant to MSA section 305(b)(4)(A) are not necessary. Since NMFS is not providing conservation recommendations at this time, no 30-day response from the COE is required (MSA section 305(b)(4)(B)).

This concludes consultation under the MSA. If the proposed action is modified in a manner that may adversely affect EFH, or if new information becomes available that affects the basis for NMFS EFH conservation recommendations, the COE will need to reinitiate consultation in accordance with the implementing regulations for EFH at 50 CFR 600.920(1).

NMFS appreciates your efforts to comply with requirements under the ESA and MSA. If you have questions, please contact Tami Black (Tami.Black@noaa.gov, (360) 753-6042) at the Washington State Habitat Office. If you have questions about the marine mammal analyses please contact Alison Agness (Alison.Agness@noaa.gov, (206) 526-6152).

Sincerely,

A handwritten signature in black ink, appearing to read "D. Robert Lohn". The signature is fluid and cursive, with a large loop at the end.

 D. Robert Lohn
Regional Administrator

cc: Nicolle Rutherford, COE
Alison Agness, PRD

References

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