United States Department of the Interior

FISH AND WILDLIFE SERVICE
Anchorage Fish & Wildlife Field Office
605 West 4th Avenue, Room G-61
Anchorage, Alaska 99501-2249

In reply refer to:
AFWFO

December 7, 2011

Fran Roche
Dept. of Environmental Conservation
410 Willoughby Ave. Suite 303
P.O. Box 111800
Juneau, Alaska 99811-1800

Re: Bering Pacific Seafoods wastewater discharge (*Technical Assistance number 2012-0003*)

Dear Ms. Roche,

Thank you for your emails of September 9, and October 27, 2011 concerning Bering Pacific Seafoods (BPS) False Pass seafood processor discharge. The US Fish and Wildlife Service (the Service) is providing these comments as technical assistance to you to reduce the possibility that this project may affect species listed under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq., as amended; Act).

BPS operates a shore-based seafood processor in False Pass and discharges seafood processing waste into Isanotski Strait in Bechevin Bay near the community of False Pass, Alaska. BPS is proposing to increase the production of salmon, halibut, sablefish, Pacific cod, and crab in 2012 and is requesting an amendment to an existing waiver. This waiver (AKG520506) allows BPS to discharge to an excluded area under the expired, but administratively extended Alaska Pollutant Discharge Elimination System (APDES) General Permit for Seafood Processors (AKG520000). The proposed amendment would extend the period of operation to include January, February, March, and April, and increase the total volume of waste solids authorized for discharge. The expanded waiver would allow for a total of 70 days of processing activity for a maximum gross production of 1,400,000 pounds of Pacific cod with a maximum of 400,000 pounds of process waste solids and a maximum gross production of 300,000 pounds of crab with a maximum of 175,000 pounds of process waste solids each year. The total annual amount of solids discharged will be approximately 1.1 million pounds total during a ten-month operational year. All process waste, including chlorinated (saltwater) processing water would be discharged from the existing outfall line anchored on the seabed extending approximately 1,000 feet eastward into the main current. Depth at the outfall terminus is greater than 60 feet (10 fathoms) deep relative to mean lower low water (MLLW). BPS anticipates these increased activities to begin in 2012.

Table 1. Proposed production and processing volumes for 2012.

Catch Processed (by type, e.g., cod, pollock, salmon)	Finished Product (by type, e.g., fillets, surimi, canned)	24-hour Design Capacity in lbs of processing raw product	Location (Lat/Long or ADF&G areas)	Anticipated Processing Activity -- Number of days per month											
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Pacific cod	H&G	75,000 lbs.	Isanotski Strait	10	15	15	10				5	5	5		
Sablefish	H&G	60,000 lbs.	N 54 51.907'								10	10			
Salmon	H&G,Fillet,Roe	75,000 lbs.	W 163 24.704'						20	30	20				
Halibut	H&G,Fillet	40,000	" "					5	5		10	10	10		
Crab	Sections	40,000	" "	10	20										

Existing impact reduction measures will be continued; discharges will be ground to <1/2 inch in any dimension, and all septic (black or gray) waters from the plant and bunkhouse will be discharged to the ADEC-approved absorption field adjacent to the bunkhouse.

ESA-Listed Species

Our records indicate the following species may be found within the action area: short-tailed albatross (*Phoebastria albatrus*, listed as endangered in 2000), the southwest distinct population segment of northern sea otter (Enhydra lutris kenyoni, listed as threatened in 2005), Alaska breeding population of Steller's eider (*Polysticta stelleri*, listed as threatened in 1997), and Kittlitz's murrelet (*Brachyramphus brevirostris*, listed as a candidate species in 2004).

Short tailed albatross forage for fish in the open waters of the North Pacific Ocean and Bering Sea. They rarely use the coastal areas of the Alaska Peninsula and Aleutians, and are unlikely to be affected by the current proposal.

The Steller's eider and northern sea otter occur near the BPS plant. At least 114 Steller's eiders have been observed using the waters of False Pass (Lanctot 2000). Flocks that may number in the thousands consistently use nearby Bechevin Bay during spring migration (Larned 2000-2005, Larned et al. 1993). In recent years, sea otters have been seen here infrequently, but they occurred here regularly and in high numbers prior to the population declines in the 1990s. Surveys conducted in 2000, 2001, and 2004 yielded 11, 14, and 0 otters respectively (Evans et al. 1997, Burn et al. 2003, Doroff et al. 2003, Burn and Doroff 2005). Population declines are not thought to be related to food or habit (Estes et al. 1998, Estes et. al 2010, USFWS 2008), suggesting that False Pass continues to provide important habitat for this species.

The area is designated as critical habitat for the sea otter. Critical habitat was designated in 2009 and includes those areas that provide the physical and biological features—the primary constituent elements (PCEs)—essential to the conservation of this species. The primary constituent elements of sea otter critical habitat are: 1) shallow, rocky areas less than 2 m (6.6 ft) in depth where marine predators are less likely to forage, or 2) nearshore waters within 100 m (328.1 ft) from the mean high tide line that may provide protection or escape from marine predators; and 3) kelp forests, which occur in waters less than 20 m (65.6 ft) in depth, that provide protection from marine predators, or 4) prey resources within the areas identified by PCEs 1, 2, and 3 that are present in sufficient quantity and quality to support the energetic requirements of the species.

Both Steller's eiders and sea otters may be vulnerable to direct or indirect adverse affects from the discharge of seafood processing wastewater. Both species are known to feed on or around seafood waste discharged into marine waters and may suffer from reduced habitat quality, contaminant bioaccumulation, and exposure to industrial contaminants such as petroleum hydrocarbons.

Seafood processor discharge may affect the water column, sea floor, or shoreline directly or indirectly through burial and smothering, eutrophication, nutrient loading, and alteration of aquatic food webs. The deposition of residues on the seafloor creates anoxic conditions due to high biochemical oxygen demand and results in changes in the microbial community and the food web (Bluhm et al. 2003). Although wave action near False Pass may keep particles suspended and prevent waste deposition, contaminants, parasites, viruses, and other pathogens may be present in these wastes. Furthermore, fish waste directly or indirectly supplies food to scavenging seabirds (Furness et al. 1992), seaducks, and eagles that tend to congregate in the vicinity of processing facilities and outfalls (Reed and Flint 2007).

Contaminants in seafood waste can bioaccumulate in marine species. Discharge waste can be ingested by filter feeders and detritivores, allowing contaminants to become incorporated into food webs. Exposure to bioaccumulative contaminants in discharged fish material has been demonstrated; the amount of contamination varies by the type and source of the processed waste (Ben-David et al. 2001, Jewett and Duffy 2007). Species harvested as seafood can amass bioaccumulative contaminants at the harvest location, and be processed at another location (the seafood processing facility), releasing those bioaccumulative contaminants in the processor's discharge. Concentrations of contaminants such as PCBs are typically higher in liver and gonadal tissue of fishes, compared to muscle tissue (reviewed in Eisler and Belisle 1996). Liver tissues of walleye pollock (*Theragra chalcogramma*), the most commercially important fish in the Bering Sea, have been analyzed for organochlorine (OC) residues. PCB and DDT concentrations were greater than other OCs analyzed in these liver tissues (de Brito et al. 2002). Therefore, it is reasonable to assume that seafood processing wastes, such as discarded fish parts like livers and gonads, may hold higher concentrations of contaminants than the parts processed for human consumption.

Finally, petroleum hydrocarbon spills, while they are illegal, are reasonably certain to occur at or in association with seafood processing facilities. There is the potential for petroleum leaks, spills, and chronic discharges due to the boat traffic associated with the off-loading vessels. Because attraction to some seafood outfalls leads to subsequent exposure to harmful agents such as petroleum hydrocarbons and bioaccumulative contaminants, we believe the discharge of seafood processing waste can have negative impacts to listed species (for a review of these impacts, see Day and Pritchard 2000).

Kittlitz's murrelets are not known to occur in the vicinity of False Pass, but have been seen nearby in Izembek Lagoon. Additionally, habitat that may be suitable for nesting exists nearby. The Kittlitz's murrelet is listed as candidate species. Candidate species receive no formal protection under the ESA. However, incorporating their needs into project plans will simplify the reinitiation process should they be listed in the future. Due to their relative rarity in the area, they are not likely to be impacted by changes to BPS's authorization.

Impact Avoidance and Minimization

We recommend the following measures be taken to reduce the potential for impacts to listed species.

- The seafood processing outfall is described as extending offshore approximately 1,000 feet and terminating in -60 feet MLLW. The Enviro-Tech survey report dated December 2008 indicated that the outfall line was damaged and separated at a weld approximately 700 feet offshore at a depth of -28 feet MLLW. We recommend the outfall line be repaired if this has not already been done, and extended to a discharge depth of -66 feet (-20 meters) MLLW. This extension would place the outfall outside of sea otter critical habitat. We further recommend that an additional 100 feet should be added to the end of the pipe to allow for a mixing zone with a 100-foot radius that does not overlap with sea otter critical habitat.
- The Service has reviewed modifications to the BPS waiver in the past, including consultation numbers 2009-0010 and 2008-0074. We also commented on the initial development of the BPS plant in False Pass (consultation 2006-025). Many of the potential impacts to threatened and endangered species remain the same as described in our previous comments. We would like to reiterate some previous recommendations:
    - To minimize the attraction of birds to the processing facility, do not use high-intensity lights, and shield them so that all light is projected downward. This excludes those lights necessary to comply with USCG requirements.
    - While we realize that BPS has no legal authority to impose lighting restrictions on the fishing vessels, the Service recommends that BPS and ADEC continue to work with vessel operators to reduce ship-board lighting in the harbor area to reduce the risk of bird collisions.
    - Prevent oil spills; even a small amount of oil destroys the insulating properties of birds' feathers and otters' fur and can weaken or kill an animal via direct or indirect ingestion. Unless it is an emergency, do not transfer fuel at the facility. Store adequate oil and fuel clean-up equipment to contain and clean up any spills from vessels.
- **Several of the existing or previous conditions** of the permit should continue to apply, including the following:
    - All discharge should be ground, if grinder is not operational, ***processing should cease until grinder is repaired.***
    - Discharge of petroleum, hydrocarbons, oil and grease, is prohibited
    - A best management practices (BMP) plan for preventing and responding to spills should continue to be updated and implemented
    - Seafloor monitoring should be reinitiated, ***should immediately follow the peak processing periods***, and should continue until it can be demonstrated that the extended processing season and increase in volume will not result in accumulation on waste on the seafloor.
- Sewage should continue to be discharged to the septic field. The capacity of the septic field should be evaluated and additional treatment capacity developed if needed to prevent black water from being routed to the marine environment
- If Steller's eiders collides with any structure or vessel associated with the facility, or if sick or dying sea otters or Steller's eiders are observed in the vicinity of the facility, the Service should be notified immediately.

Conclusion:
We appreciate your ongoing efforts to reduce impacts to threatened and endangered species. Thank you for requesting our input on the BPS False Pass APDES authorization.

This letter is provided as technical assistance to reduce the potential impacts to threatened and endangered species; it must not be interpreted as compliance with consultation under section 7 or section 10 of the ESA, nor provide any protection against liability if "take", as defined by ESA (50 CFR 17.3) of a Steller's eider or sea otter were to occur. For more information on section 7 and section 10 of the ESA, please see http://alaska.fws.gov/fisheries/endangered/consultation.htm. This letter relates only to federally listed or proposed species and/or designated or proposed critical habitat under jurisdiction of the Service. It does not address species under the jurisdiction of National Marine Fisheries Service, or other legislation or responsibilities under the Fish and Wildlife Coordination Act, Migratory Bird Treaty Act, Marine Mammal Protection Act, Clean Water Act, National Environmental Policy Act, or Bald and Golden Eagle Protection Act.

Thank you for considering our comments. If you have any questions, please contact me at (907) 271-1467 or Endangered Species Biologist Kimberly Klein at (907) 271-2660 and refer to consultation number 2012-0003.

Sincerely,

Ellen Lance
Endangered Species Branch Chief

cc: Chris Mierzejek, BPS
William Beckwith, EPA

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