UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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OFFICE OF
WATER AND WATERSHEDS

Mr. Paul Henson
State Supervisor
U.S. Fish and Wildlife Service
Oregon Fish and Wildlife Office
2600 SE 98th Ave, Suite 100
Portland, OR 97266

Re: Revised Biological Evaluation for the General NPDES Permit for Offshore Seafood Processing Discharge within Federal Waters off the coasts of Washington and Oregon (Permit No. WAG520000)

Dear Mr. Henson:

Thank you for your September 29, 2015 letter regarding Endangered Species Act (ESA) Section 7 consultation for the General NPDES Permit for Offshore Seafood Processing Discharge within Federal Waters off the coasts of Washington and Oregon. The EPA has engaged in numerous coordinating calls with Laura Todd of your office, and sincerely appreciates the spirit of collaboration, as well as the rigorous review and analysis, that the Service has dedicated to this effort.

As has been discussed with Ms. Todd, the EPA has made significant revisions to the draft General Permit since the original public notice and submission of a Biological Evaluation in August, 2015. These revisions include the following:

- Inclusion of a seasonal prohibition on wastewater discharges in waters shallower than 100 meters in depth;
- Inclusion of a year-round discharge prohibition over the Heceta/Stonewall Banks complex;
- Clarification on the jurisdiction of the General Permit;
- The addition of a Best Management Practice (BMP) that vessels must be moving while discharging in order to aid dispersion of the discharge;
- Clarification of terminology used in the General Permit;
- Clarification of the Sea Surface Monitoring Requirements;
- Additional provisions to mitigate impact to seabirds;
- Updates to the standard NPDES language and conditions;
- Revisions to the Notice of Intent (NOI) for permit coverage; and
- Revisions to the Annual Report.
- The EPA is also taking comments on other factors that the EPA considered prior to re-proposing this draft General Permit based on comments received (i.e., harmful algal blooms and scientific study sites).

The EPA has revised the Biological Evaluation to reflect these changes, as well as additional review of the scientific literature.

Permit Conditions Relevant to Seabirds

The EPA would like to highlight several revisions to the draft General Permit that are relevant to this ESA consultation, including: 1) discharge prohibitions, 2) National Wildlife Refuge Islands, 3) measures to reduce seabird interaction with the vessels, and 4) sea surface monitoring of ESA-listed species.

1) Discharge Prohibitions

As explained in detail in the enclosed Fact Sheet and re-proposed draft General Permit, the EPA proposes to prohibit discharge shoreward of 100 meters in depth during the summer upwelling season (April 15 – October 15). The EPA also proposes to prohibit discharge year-round over the Heceta/Stonewall Banks complex off the coast of Newport, Oregon, which is prone to year-round hypoxic conditions. See Figure 1, below.

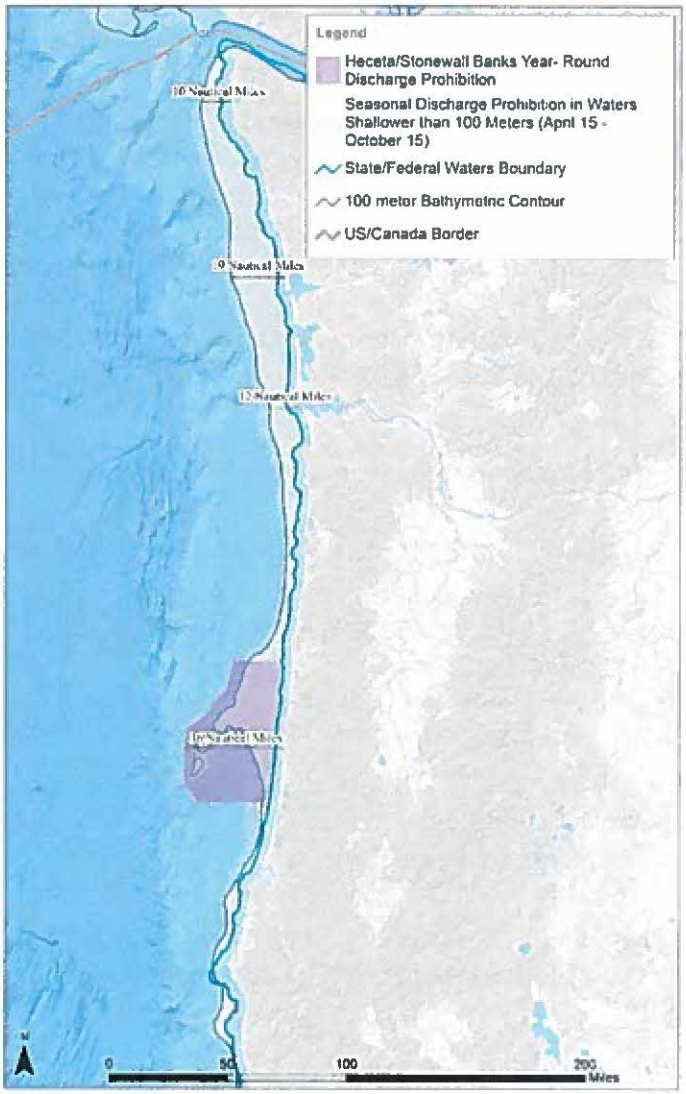

Figure 1. Proposed discharge prohibitions.

2) National Wildlife Refuge Islands: Excluded from Permit Coverage

In your September 29, 2015 letter, you expressed concern about impacts to National Wildlife Refuge Islands, particularly with regard to impacts to nesting seabirds on the islands, and recommended that fisher-processors disposing of offal maintain 0.5 nm distance from all coastal rocks and islands. In this re-proposed draft General Permit, the EPA has clarified that, in the case of emergent offshore rocks and islands, the EPA's jurisdiction begins 3 nm seaward from the offshore rocks and islands. The greatest distance is off the Orford Reef complex (specifically, Fox Island, where Oregon's Territorial Sea boundary is approximately 8 nm from the mainland shoreline). See Figure 2. Thus, no discharge will be allowed within three miles of offshore rocks or emergent islands, and the General Permit will not impact seabird nesting habitat.

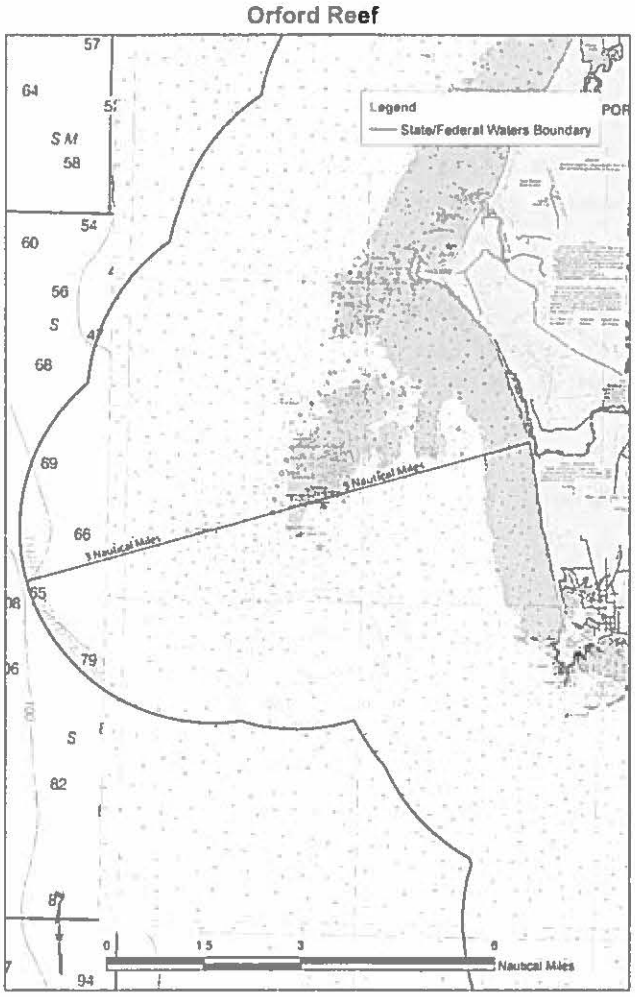

Figure 2. Orford Reef.

3) Measures to Reduce Seabird Interactions with the Vessels

According to the Short-tailed Albatross Recovery Plan, the species is not declining due to seabird bycatch in commercial fisheries (USFWS, 2008). However, the EPA acknowledges that seabirds, including the ESA-listed short-tailed albatross (*Phoebastria albatrus,* albatross), can be attracted to seafood processing waste discharge, which can result in injury and/or mortality due to ship strike and

cable interactions (Zador and Fitzgerald, 2008 and Melvin, et al., 2004). In addition to coordinating with USFWS staff, and in order to discuss more specific approaches to reduce seabird interaction with the discharge, the EPA interviewed Edward Melvin of the University of Washington and Robert Suryan of Oregon State University, both of whom are members of the US Endangered Species Act Short-tailed Albatross Recovery Team and are experts in best practices for reducing seabird bycatch in pelagic fisheries (personal communications, 2016).

As you know, on May 2, 2017, your agency finalized a Biological Opinion Regarding the Effects of the Continued Operation of the Pacific Coast Groundfish Fishery as Governed by the Pacific Coast Groundfish Fishery Management Plan and Implementing Regulations at 50 CFR Part 660 by the NMFS on California Least Tern, Southern Sea Otter, Bull trout, Marbled Murrelet, and Short-tailed Albatross. The Biological Opinion addressed both direct and indirect effects of the Pacific whiting trawl fishery, including short-tailed albatross attraction to fish processing waste from Pacific whiting trawl vessels. The Biological Opinion included an Incidental Take Statement, and stated that the USFWS believes that the reasonable and prudent measures (RPMs) (and accompanying terms and conditions) provided in the Biological Opinion will minimize take of the short-tailed albatross, and that the level of anticipated take is not likely to result in jeopardy to the species.

RPM 2 is relevant to this NPDES General Permit since it aims to minimize the risk of short-tailed albatross interacting with trawl cables, and because it includes offal management techniques. The other RPMs are not directly relevant to this General Permit. The EPA has incorporated the requirements of RPM 2 into Section VII. of the draft General Permit in order to be consistent with the Biological Opinion:

"In order to minimize the risk of short-tailed albatross interacting with trawl cables, Permittees shall consider the following management actions:

a. The use and effectiveness of streamer lines when using trawl gear;
b. The degree to which minimizing the aerial extent of trawl cables affects the risk of bird strike; and
c. Feasible offal management techniques that decrease attraction of short-tailed albatross to the vicinity of aerial lines.
d. Implement measures that minimize the potential for short-tailed albatross interactions with trawl gear (based on NMFS research findings and investigations into trawl-associated mortality or injury, and as these albatross protection measures become available)."

In order to respond to USFWS concerns about lights disorienting seabirds at night, the EPA has added the following provision to Section VII. of the revised draft General Permit:

"Lights used during night operations must be minimized as much as possible, and shielded and directed downward to the extent that is feasible."

4) Sea Surface Monitoring of ESA Listed-Species

The EPA has identified the specific animals that must be included in sea surface monitoring in Section VI.C. of the re-proposed General Permit. The revised General Permit requirement is included below:

"Species Monitoring. The sea surface monitoring must enumerate the occurrence and numbers of the following ESA-listed species attracted to the discharge identified within the survey area: Guadalupe fur seal (*Arctocephalus townsendi),* Blue whale *(Balaenoptera musculus),* Fin whale *(Balaenoptera phyusalus),* Humpback whale *(Megaptera novaeangliae),* Southern Resident killer whale (*Orcinus orca),* North Pacific right whale (*Eubalaena japonica*), Sei whale (*Balaenoptera borealis*), Sperm whale (*Physeter macrocephalus*), Green sea turtle (*Chelonia mydas*), Leatherback sea turtle (*Dermochelys coriacea*), Loggerhead sea turtle (*Caretta caretta*), Olive Ridley sea turtle (*Lepidochelys olivacea*), marbled murrelet (*Brachyramphus marmoratus*, murrelet), and the short-tailed albatross (*Phoebastria albatrus,* albatross). In addition, the sea surface monitoring must enumerate the occurrence and numbers of the following migratory birds: black-footed albatross (*Phoebastria nigripes),* pink-footed shearwater (*Puffinus creatopus*), sooty shearwater (*Puffinus griseus*), and flesh-footed shearwater (*Puffinus carneipes*)."

These data will help to build the body of knowledge with regard to which listed species are attracted to seafood processing vessels.

EPA Effects Determination

In response to feedback received from the Service, the EPA has conducted a more thorough and current review of the scientific literature on the marbled murrelet and the short-tailed albatross. In addition, the EPA has reevaluated its effects determination for these two species, based on the revised draft permit conditions, the findings of the recent Biological Opinion (USFWS 2017), and on input from subject matter experts. The EPA's effects determinations are provided below. For more detail, please refer to the EPA's revised Biological Evaluation.

Marbled Murrelet

The EPA has incorporated the recommended scientific references into the revised Biological Evaluation. As described in the revised Biological Evaluation, murrelets usually feed in shallow, near-shore waters less than 98 feet (30 m) deep (Huff, et al., 2006), but are thought to be able to dive up to depths of 157 feet (47 m) (Mathews and Burger 1998). During the breeding season, marble murrelets are usually found within five miles from shore off of Washington, just over three miles off shore from Oregon (Huff, et al., 2006). The Draft Permit only covers areas 3-200 nm offshore, farther in the case of offshore rocks and emergent islands. In addition, the EPA proposes to prohibit discharge in waters shallower than 100 meters in depth during April 15 – October 15, and year-round over the Heceta/Stonewall Banks complex (see Figures 1 and 2, above). Thus, the permitted discharge will largely occur outside of the marbled murrelet's range.

The primary threat to marbled murrelet is the loss and modification of upland nesting habitat. Marbled murrelet critical habitat is only designated within nesting areas on land and will not be impacted by the proposed Permit. The Draft Permit's jurisdiction does not include offshore rocks and emergent islands, therefore seabird nesting habitat and National Wildlife Refuge Islands will not be affected by the issuance of this Permit, since the EEZ begins 3 miles from those islands. Seafood processing waste discharges are localized and limited to well-mixed waters in order to allow for significant and rapid dispersion and dilution of pollutants. In addition, the May 2, 2017 Biological Opinion stated that murrelets should be able to move away from vessel disturbances without adverse effects, that they are not known to congregate near fishing boats, and marbled murrelet gear entanglement is discountable (USFWS, 2017).

Based on the above information, the EPA believes that effects from offshore seafood processing discharges are expected to be insignificant and discountable. In light of the proposed discharge prohibitions, and the fact that the discharge will occur outside of the marbled murrelet's range, the EPA has determined that the Draft Permit is **not likely to adversely affect the marbled murrelet.** The EPA notes that, in its recent Biological Opinion, the USFWS concurred with the NMFS that the continuation of the Pacific Coast Groundfish Fishery (i.e., continued operation of the Pacific whiting trawl fleet) is "not likely to adversely affect marbled murrelets, because adverse interactions with vessels and gear, and forage depletion are extremely unlikely to occur" (USFWS, 2017).

Short-tailed Albatross

As indicated in your September 29, 2015 letter to the EPA, there is risk of injury or mortality from issuance of this Permit to short-tailed albatross, especially if the discharge is not managed in a manner that minimizes interactions with the ship, trawl cables, or nets. Short-tailed albatross may be attracted to discharge plumes as a food source and, therefore, be at increased risk of ship strikes, incidental catch, or predation (Melvin et al., 2004, 2011). This is described in Section 3.3.2 of the revised Biological Evaluation. Seabirds could also be indirectly affected by seafood processing waste if abundance of fish and other prey is disrupted due to eutrophication and related effects.

The EPA understands that the Heceta/Stonewall Banks complex is a popular location for the short-tailed albatross[1]; the EPA is proposing to prohibit discharge year-round over the Heceta/Stonewall Banks complex. See Figure 1. Further, almost all of the vessels to be covered under this General Permit have fish meal plants on-board and discharge stickwater (see Appendix 1 of this letter), and short-tailed albatross are not known to be attracted to stickwater.

Effects of the Pacific whiting trawl fleet on the short-tailed albatross were considered in the May 2, 2017 Biological Opinion (USFWS, 2017), and the RPM and subsequent terms and conditions specifically addressed offal management techniques and interaction with trawl cables. The EPA proposes to incorporate the terms and conditions of RPM 2 into this General Permit in order to be consistent with the Biological Opinion. The Biological Opinion included an Incidental Take Statement, and found that continued operation of the Pacific groundfish fishery (which includes the vessels to be covered under this NPDES General Permit) would not result in jeopardy to the short-tailed albatross. In light of these factors, the EPA has determined that approval of the Draft Permit is **not likely to adversely affect the short-tailed albatross.**

Migratory Birds and USFWS Birds of Conservation Concern (BCCs)

The additional provisions that the EPA proposes to incorporate into the General Permit will also benefit the conservation of other migratory seabirds, including black-footed albatross (*Phoebastria nigripes*), pink-footed shearwater (*Puffinus creatopus*), sooty shearwater (*Puffinus griseus*), and flesh-footed shearwater (*Puffinus carneipes*).

Conclusion

The EPA has determined that this General Permit may affect, but is **not likely to adversely affect the marbled murrelet and the short-tailed albatross.** This is consistent with the USFWS's recent Biological Opinion and Incidental Take Statement for the groundfish fishery, which included trawl

1 http://audubonportland.org/local-birding/iba/iba-map/heceta

cable interaction and offal management, and the EPA has included the requirements of RPM 2 in order to avoid jeopardizing the species (USFWS, 2017). The EPA respectfully resubmits our Biological Evaluation for your review and consideration, and requests USFWS concurrence on ESA Section 7 consultation for this General Permit.

The EPA appreciates the willingness of USFWS staff and scientists to engage with the regarding this General Permit. If you have any questions or comments about this letter, please feel free to contact me directly, or contact Catherine Gockel of my staff at 206-553-0325 or by email at gockel.catherine@epa.gov.

Sincerely,

Christine Psyk, Acting Director
Office of Water and Watersheds

Enclosures: Draft General Permit, Re-proposal Fact Sheet, Revised Biological Evaluation

cc: Laura Todd, USFWS Newport *(via electronic transmission)*

References

Huff, M.H., S.L. Raphael, K.S. Miller, K.S. Nelson, and J. Baldwin. 2006. Northwest Forest Plan- the first 10 years (1994-2003): Status and trends of populations and nesting habitat for the marbled murrelet. Portland, Oregon: USDA Forest Service, Pacific Northwest.

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USFWS. (n.d.) Environmental Conervation Online System; Short tailed Albatross *(Phoebastria (=diomedea) albatrus)* Accessed on April 4, 2017: https://ecos.fws.gov/ecp0/profile/countiesByState?entityId=88&state=Oregon

Zador, S. G., and S.M. Fitzgerald. 2008. Seabird attraction to trawler discards. AFSC Processed Report 2008-06. NOAA, National Marine Fisheries Service. Seattle, WA.

Appendix A. Information provided to the EPA on April 6, 2017 by the offshore seafood processing fleet in response to an EPA information request.

Seafood Company	Vessel Name	Mother-ship or catcher/ processor	% of time running fish meal	% of time running fish oil	% of time discharging ground offal without any byproduct recovery	Total pounds seafood waste discharged over the 2016 year	Max pounds seafood waste discharged during a single month (specify which)	% by-product recovery (2016 average)	Dates of operation in WA/OR offshore waters in 2016
American Seafood	Eagle	CP	100%	100%	0%	1,409,657 lbs.	400,277 lbs. Oct	3.5%	5/15-5/31, 6/1-6/2, 10/1-10/24, 10/28-10/31, 11/1-11/17
American Seafood	Triumph	CP	100%	100%	0%	1,176,091 lbs.	359,460 lbs. Oct	3.5%	5/17-5/31, 9/1-9/4, 9/14-9/25, 10/3-10/22, 10/27-10-31, 11/1-11/15
American Seafood	Jaeger	CP	100%	100%	0%	733,436 lbs.	305,964 lbs. June	3.5%	5/16-5/31, 6/1, 6/5-6/25, 9/22-9/29
American Seafood	Rover	MS	100%	100%	0%	1,106,623 lbs.	303,039 lbs. May	3.5%	5/16-5/31, 6/3-6/20, 9/13-9/30, 10/1-10-15
American Seafood	Dynasty	CP	100%	100%	0%	1,092,666 lbs.	422,222 lbs. Oct	3.5%	5/17-5/31, 6/1, 9/14-9/28,10/02-10/17, 10/23-10/31, 11/1-11/9
Artic Storm	Artic Storm	MS for West Coast whiting operations	>99%	>99%	0%	1,360,001 lbs. of solid organic waste discharged	481,843 lbs. of solid organic waste discharged	~2% of total delivered lbs.	5/15/-6/8, 9/9-10/31

							September		
Artic Storm	Arctic Fjord	MS for West Coast whiting operations	0%	0%	100%	2,019,926 lbs. of solid organic waste discharged	1,506,328 lbs. of solid organic waste discharged May	0%	5/15-6/7
Glacier	Alaska Ocean	CP for West Coast whiting operations	100%	100%	0%	889,501 lbs. of solid organic waste discharged	471,593 lbs. of solid organic waste discharged May	5.5%	5/15-6/14, 9/16-10/6
Glacier	Pacific Glacier	CP for West Coast whiting operations	0%	0%	100%	2,700,816 lbs. of solid organic waste discharged	1,115,817 lbs. of solid organic waste discharged May	0%	5/16-6/4, 10/1-11/22
Golden Alaska	M/V Golden Alaska	MS for West Coast whiting operations	100%	100%	0%	315,522 lbs.	187,626 lbs. May	4%	5/17-6/1, 6/4-6/17
Phoenix Processor Limited Partner-ship	Excellence	MS for West Coast whiting operations	>99% with brief periods of non-operation during maintenance and cleaning	>99% with brief periods of non-operation during maintenance and cleaning	<1% during brief periods of non-operation of fish meal plant during maintenance and cleaning	1,967,629 lbs. of solid organic waste discharged	500,140 lbs. of solid organic waste discharged July	~4% of total raw fish delivered lbs.	5/15-6/18, 6/25-7/27, 8/5-9/6, 9/12-10/13, 10/21-11/3
Phoenix Processor Limited Partner-ship	Ocean Phoenix	MS for West Coast whiting operations	0%	0%	0%	0	0	0%	Did not operate in Pacific Whiting fishery in 2016
Trident	Island Enterprise	CP for West Coast whiting operations	100%	100%	0%	1,010,868 lbs. of solid organic waste discharged	291,743 lbs. of solid organic waste discharged May	~8% of total delivered lbs.	5/16-5/31, 6/5-6/19, 10/8-10/13, 10/17-10/25, 11/4-11/19

Trident	Kodiak Enterprise	CP for West Coast whiting operations	0%	24.5%	75.5%	3,378,923 lbs. of solid organic waste discharged	1,133,545 lbs. of solid organic waste discharged Oct	~0.023% of total delivered lbs. (only ran oil operations in May at 0.078%)	5/15-5/27, 6/1-6/15, 9/25-10/8, 10/17-10/27
Trident	Seattle Enterprise	CP for West Coast whiting operations	0%	23.6%	76.4%	3,364,937 lbs. of solid organic waste discharged	993,905 lbs. of solid organic waste discharged May	~0.06% % of total delivered lbs. (only ran oil operations in May at 0.21%)	5/15-5/26, 5/31-6/12, 10/17-10/30, 11/3-11/18

Note: Byproduct recovery machinery may periodically cease operations during periods of startup, shutdown, and cleaning.