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**Subject:** 8/21/20 Discussion Follow-up  
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Thank you for last week's valuable discussion regarding aquaculture gear retrieval from Dungeness National Wildlife Refuge. Sorry for the length of this email, but I thought it might be helpful to include a quick summary of our discussion, in addition to the recommendations we discussed. Please let me know if I misinterpreted any of the conversation.

#### Discussion Summary

Jamestown S'Klallam Tribe's (Tribe) permit application for a Dungeness Bay commercial oyster operation using up to 20,000 mesh bags is currently under evaluation with US Army Corps of Engineers (USACE). Due to the proximity of the lease area, it is likely that some loose aquaculture gear will accumulate on Dungeness National Wildlife Refuge (Refuge). As part of the permitting process, the Tribe is required to write a gear management plan (to include surveillance and retrieval) that is logistically feasible (e.g., access and ESA compliance). Completion of the plan would be aided by Refuge agreement that future access can be permitted for gear surveillance and retrieval, and USFWS recognition that the plan will not cause concerns related to Endangered Species.

We discussed that the identified strategy reduces disturbance created by gear surveillance and retrieval by requesting Refuge access only if loss is recorded. We also discussed that additional detail would be needed to ensure that Refuge access would meet National Wildlife Refuge System Improvement Act requirements.

The Refuge agreed to provide recommendations to reduce disturbance and increase compatibility of on-Refuge gear surveillance and retrieval. Those recommendations will be incorporated into the gear management plan, as the Tribe deems appropriate. The Tribe will provide an updated gear management to USFWS (i.e., Refuge and Ecological Services) for feedback regarding feasibility of access and impacts to Endangered Species. We agreed that this approach would streamline the gear management planning process.

#### Requested Recommendations

While gear removal strategies cannot eliminate impacts from type of commercial aquaculture operation, the following recommended plan additions will increase the likelihood of meeting National Wildlife Refuge System requirements for future gear surveillance and retrieval activities. These recommendations attempt to reduce impacts from gear surveillance and retrieval and do not address potential impacts from other aspects of the aquaculture operation.

##### 1. Timing

Gear accumulation on Dungeness NWR is most likely to occur in areas closed seasonally or year-round to protect the highest use area for migrating shorebirds and wintering waterfowl. While disturbance at any time of the year is impactful, disturbance to migrating shorebirds and wintering waterfowl is our highest concern. We recommend surveillance and removal during the following time periods when these species are present in lower concentrations.

- Boat-based surveillance and removal of gear from the tidelands from May 15 to September 30 on tidelands open to public use.
  - Protection of eelgrass should be considered during boat operations and gear removal
- On-shore gear retrieval from May 15 to July 31.
  - Notify Refuge prior to access for surveillance and retrieval.
  - To minimize impacts to July shorebird migrants, access during appropriate tides and avoiding periods immediately following stormy weather.
  - Avoid nesting areas of black oystercatchers and terns to minimize impacts to nesting.

- To reduce the likelihood of gear loss during periods of limited access, perform farm setup only from May 15 to July 31.

## 2. Invasive Species

Aquaculture debris will likely accumulate in areas with known European green crab infestations. European green crab could enter empty oyster bags, or use the structure provided by oyster bags within the lease area (if translocated). To reduce the potential for translocation and subsequent impacts to adjacent eelgrass, we provide the following recommendation:

- Equipment retrieved from European green crab infested shoreline should either not be reused in the lease area, or be decontaminated prior to reuse.

## 3. Reporting

We very much appreciate the willingness to share information with the Refuge. We have a few additional reporting recommendations related to gear surveillance and management.

- Notify Dungeness NWR staff as well as WDFW of any stranding or entanglement within 24 hours. Photograph and record the event.
- Report to Dungeness NWR any mortality (species and number of individuals) or habitat damage (area and vegetation effected) associated with debris observed on Refuge lands through visual surveys or upon gear retrieval.
- Report results of forage fish spawning surveys, if necessary, to the Refuge Manager upon completion.
- Report any newly identified invasive species to the Refuge Manager within 24 hours.
- Report the overall weight of discarded and reused/recycled gear to meet Refuge annual reporting requirements.

When National Wildlife Refuge System Improvement Act requirements are completed (e.g., Compatibility and Appropriateness), additional stipulations may be identified (e.g., specific points of access). We do not believe any future stipulations will alter the general gear management strategy or compliance with ESA.

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