

**From:** [BrownScott, Jennifer](#)  
**To:** [Stenvall, Charlie](#)  
**Subject:** Clallam County Issues MDNS: JST Commercial Oyster Farm - Dungeness Bay  
**Date:** Monday, November 4, 2019 4:18:50 PM  
**Attachments:** [MDNS, SEPA Memo & Chklist JST Oyster Farm.pdf](#)  
[Ops Mitigation Monitor jbsnotes 06072019.docx](#)

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Clallam County issued a Modified Determination of Non-Significance for the Jamestown S'Klallam Tribe Commercial Oyster Farm in Dungeness Bay. As part of their mitigation measures to ensure a DNS they are requiring the Tribe to visit the site at least on a weekly basis and implement established Conservation Measures, Site Specific Stewardship Measures and the Monitoring Plan (pg2). These requirements will create even more disturbance than the original permit request. The Refuge concern related to disturbance and debris removal/site access was lost with the withdrawal of our two comment letters earlier this year.

Given the language provided in the County's public notice and this SEPA document, it would appear that the County believes that all of our concerns were resolved by the Tribe's submission of the Site Specific Stewardship Measures and Monitoring Plan. Are we meeting our obligation under the NWRS Improvement Act to manage for fulfillment of the Refuge Purpose, if we do not let the County know these measures (added to reduce environmental impact) will actually increase impact?

-jennifer

Please find attached the MDNS and some preliminary notes on the mitigation and monitoring plans (originally provided 6/7/2019).

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Jennifer Brown-Scott  
Refuge Manager  
Washington Maritime NWRC  
715 Holgerson Rd  
Sequim, WA 98382  
office: (360) 457-8451 ext.22  
fax: (360) 457-9778

*~~Dungeness NWR~Protection Island NWR~San Juan Islands NWR~~  
~~Copolis NWR~Flattery Rocks NWR~Quillayute Needles NWR~~*

----- Forwarded message -----

From: **Ballard, Greg** <[gballard@co.clallam.wa.us](mailto:gballard@co.clallam.wa.us)>  
Date: Thu, Oct 31, 2019 at 1:47 PM  
Subject: [EXTERNAL] FW: Jamestown S'Klallam Tribe Oyster Farm in Dungeness Bay (SHR 2017-00011) is back to being processed  
To: Ballard, Greg <[gballard@co.clallam.wa.us](mailto:gballard@co.clallam.wa.us)>

Dear Interested Parties:

Attached is the MDNS, SEPA Memo and SEPA Checklist for a proposal by the JST to re-establish an Oyster Farm in Dungeness Bay.

[MDNS & SEPA Memo JST Oyster Farm](#)

The MDNS is issued on October 31, 2019. The SEPA comment period ends on November 14, 2019

Also below is a link to the Notice of Application that includes the applications and drawings.

[NOA, Applications & Drawings JST Oyster Farm](#)

These documents and other documents and studies are available at the link below (in Section B) or at the bottom of this e-mail.

[On-line Permit System SHR2017-00011](#)

This matter has been scheduled for a Public Hearing before the Clallam County Hearing Examiner at 1 p.m. on November 21, 2019 in Room 160 of the Clallam County Courthouse.

The DCD staff report will be available on November 14, 2019, which will also be available at the link above.

Please feel free to contact me with any comments or questions regarding this proposal.

If you want to be taken off this e-mail list please let me know.

Thanks

**Greg Ballard**

Senior Planner

Clallam County Department of Community Development

223 E. 4th Street, Suite 5, Port Angeles, WA 98362

Direct Phone# (360) 565-2616 Fax# (360) 417-2443

Email: [gballard@co.clallam.wa.us](mailto:gballard@co.clallam.wa.us)

Documents related to this case:

[\*\*B.0 MDNS, SEPA Checklist for JST Oyster Farm in Dungeness Bay \(MDNS, SEPA MEMO & CHKLST JST OYSTER FARM\)\*\*](#)

[\*\*B0.5 Notice of Application, Application, JARPA & Site Plans \(NOA & APP JST OYSTER FARM\)\*\*](#)

[\*\*B1.0 Notice of Application Oyster Farm Hearing on 11-21-19 \(NOA JST OYSTER FARM 10-21-19\)\*\*](#)

[\*\*B1.01 Lawsuit of Corp of Eng. Nationwide 48 permits \(NWP 48 CORP\)\*\*](#)

[\*\*B1.1 Revised Shoreline and SEPA Application \(REVISED ECL & SMP APP 12-11-18\)\*\*](#)

**B1.2 Revise Joint Aquatic Permit Resource Appl. 12-11-18 (REVISED JARPA)**

**B1.3 Revised SEPA Checklist 12-11-18 (REVISED CHKLST)**

**B1.4 Revised Drawing for JST Oyster Proposal 12-11-18 (SITE PLANS JST OYSTER)**

**B1.5 Dungeness Bay Field Report 12-11-18 (DB FIELD REPORT)**

**B1.6 Shellfish Operation & Bird Interaction Rpt 12-11-18 (S & B INTERACTION RPT)**

**B1.7 Info on Micro-Plastics (MICRO-PLASTICS)**

**B1.8 Mitigation and Monitoring Plan revised 3/1/19 (MITIGATION & MONITORING PLAN)**

**B1.81 Visual Assessment (VISUAL ASSESSMENT)**

**B1.82 JST Operation Plan (JST OPERATIONAL PLAN)**

**B1.83 JST Resp USFW, Dung Bird Study & Resp to Corp comments (JST RESP. TO USFA & BIRD STUDY)**

**B1.84 Corp Nationwide 48 JST Sequim Bay Shellfish Oper (NWP 48, OPOR PLAN, & PDN)**

**B1.85 DNR Covered Lease Letter dated 1-10-19 (DNR LETTER)**

**B1.86 NOAA Importance of Eelgrass (NOAA EELGRASS)**

**B2.1 Letters from U.S. Fish & Wildlife regarding oyster farm (USFW LETTERS REGARDING JST OYSTER FARM)**

**B2.2 DCD e-mail to Ecology dated 1-25-19 (DCD E-MAIL TO ECOLOGY)**

**B2.3 U.S. Army Corp of Engineers Notice (CORP NOTICE)**

**B2.4 Comments received by the Corp for their permit (COMMENTS ON CORP PERMIT TO 3-11-19)**

**B2.5 Comments received from 5-10-18 to 4-19-19 - SHR 2017-11 (COMMENTS 5-10-18 TO 4-19-19)**

**B2.6 Comments received from 4-19-19 to 9-27-19 (COMMENTS 4-19-19 TO 9-27-19)**

**State Environmental Policy Act (SEPA) WAC 197-11**  
**MITIGATED DETERMINATION OF NON-SIGNIFICANCE**

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**LANDOWNER:** The Aquatic Lands are owned and managed by:  
Washington State Department of Natural Resources  
Aquatic Resources Division Orca – Straits Division  
411 Tillicum Lane  
Forks, WA 98331

**APPLICANT:** Jamestown S’Klallam Tribe (JST)  
1033 Old Blyn Highway  
Sequim, WA 98382

**Case Number:** Certificate of Compliance (SHR 2017-00011) and SEPA Threshold Determination (ECL 2017-00027)

**Location:** The 50 acre leased area is located approximately 5.5 miles northwest of the City of Sequim. The leased area is 731 feet wide by 2,977 feet long and starts around the mean lower low water (MLLW) at the northwest corner of Dungeness Bay, south of the Dungeness Spit and the Dungeness National Wildlife Refuge (DNWR) (Latitude 48.167N, Longitude -123.155W).

**Project Description:** The JST has a 50 acre Aquatic Lease from the DNR. A 25 foot buffer was provided from eelgrass patches determined through an eelgrass survey. This eliminated 16 acres from being utilized for oyster production. For the 34 acres remaining, on-bottom bag culture methods will be used by anchoring lines of black mesh oyster bags to the substrate. The bags would contain naturalized Pacific oyster seed. The on-bottom bags would be approximately 2 ft. wide by 3 ft. long by 0.5 ft. high. There would be an approximate 10 feet of separation between each row of bags (based on visual representation). The applicant estimates that the bags would be located between a +1 and the -2 tidal elevation, and would only be visible from a close proximity (<100 yards) during minus tides. The bags would be exposed on average 10 percent of the time during daylight hours, and only visible from a few viewing locations on the Dungeness Spit as addressed in the Visual Analysis.

The on-bottom bag density is estimated to be approximately 4,000 bags per acre with a maximum number of 80,000 bags throughout the 34 acre farming area. The project would be development in 3 phases: Phase 1: (years 1 & 2) 5 acres of on-bottom bags; Phase 2 (Years 3 to 5) up to 10 acres of bags; Phase 3 (Years 5 and beyond) maximum of 20 acres of on bottom bags over the 34 acre area. If impacts to bird or eelgrass beds occur from the initial phases of the project, the placement of additional bags may be reduced as outline in the Monitoring and Mitigation Plan. Each bag would contain from 100 to 200 single oyster seed. The single oyster seed is intended for the fresh shucked oyster market, and would grow out for approximately 14 months in bags. The mature oysters may be spread onto the upper portions of the beach’s natural substrate to achieve desired characteristics. The applicant has estimated that the proposal would have 3 to 15 employees that would access the site by a small (~30 ft) marine vessel as addressed in the Operation Plan.

This proposal is located off the Dungeness Spit which is designated Natural per the Shoreline Master Program. This proposal does not meet criteria for developments exempt from Substantial Development permit requirements found in WAC 173-27-040, and therefore requires a Shoreline Substantial Development Permit. Because the use of sub tidal oyster bags is not a specific use addressed in the Natural section of the SMP, this activity also requires a Shoreline Conditional Use Permit per WAC 173-27-160(3).

**Studies Submitted:** A Critical Eelgrass Habitat Survey was prepared by the Jamestown S’Klallam Tribe (JST) dated November 13, 2017. An Archaeological Survey was prepared by Gary Wessen dated January 2017. Shellfish Aquaculture & Bird Interaction Report, and Dungeness Bay Field Report were prepared by Confluence Environmental Company and are both dated November 2018. A Mitigation and Monitoring Plan, Visual Analysis, and Bird Distribution Patterns in Dungeness Bay were prepared by the JST for this proposal.

**Permits Required:** A Section 10/404 will be required from the U.S. Army Corp of Engineers. An Aquatic Farm Registration and Shellfish Import/Transfer Permit will be required from the WDFW. A Shellfish Operation License will be required from the WA State Department of Health.

**Lead Agency:** Clallam County DCD is the lead agency for this proposal per WAC 197-11-926. This proposal is subject to Clallam County’s existing land use regulations. Even with these existing land use regulations, the following impact could still result in a probable significant adverse impact if not mitigated:

- Potential impacts to marine plants and animals from the operation
- Potential impacts to the Dungeness National Wildlife Refuge.

The above referenced impact can be mitigated to a level of non-significance with the following mitigation measure.

**Conditions of Approval for Mitigating Environmental Impacts**

(The following mitigation measures shall be a condition of any future development application):

1. The proposal shall be implemented in substantial conformance with the Shoreline Application, JARPA, SEPA Checklist, Drawing, and Reports Submitted with this proposal except as modified through the Shoreline CUP and Substantial Development Permit.
2. The Proposal shall comply with the Monitoring and Mitigation Plan prepared by the Jamestown S’Klallam Tribe that was submitted on March 1, 2019. This shall include the implementation of the: 1). Established Conservation Measures; 2). Site Specific Stewardship Measures; 3). The Monitoring Plan.
3. The proposal shall comply with the Operation Plan submitted February 20, 2019.
4. The Jamestown S’Klallam Tribe would visit the site at least on a weekly basis, and shall remove debris and gear (including broken bags) from the facility or within the lease area. Waste will be transported in containers with lids. Finally, the applicant would be required to perform a comprehensive beach clean-up to collect all debris on the beaches along the Dungeness Bay and Dungeness Spit a minimum of twice per year, and the results would be coordinated with the Clallam County Marine Resources Committee and the Dungeness National Wildlife Refuge.

This Mitigated Determination of Non-Significance is issued under WAC 197-11-350. This decision was made after review of a completed environmental checklist, SEPA Memo dated October 30, 2019 and other information on file with Clallam County. For additional information please contact the project planner Greg Ballard at (360) 565-2616. Comments must be submitted by **November 14, 2019**.

Issuance Date: October 31, 2019

Signature:  10/31/19  
Mary Ellen Winborn, DCD Director/SEPA Responsible Official  
Clallam County Department of Community Development  
223 E. 4th Street, Suite 5,  
Port Angeles, WA 98362

This may be the only opportunity to comment on the environmental impacts of the proposal. Unless the Responsible Official withdraws the threshold determination pursuant to WAC 197-11-340(3)(a), the threshold determination shall be final at the end of the comment period. Agencies and interested parties will be notified if the threshold determination is withdrawn.

A public hearing (where public testimony will be taken) has been scheduled for SHR 2017-11 before the Clallam County Hearing Examiner on Thursday, November 21, 2019 at 1:00 p.m., in room 160 of the Clallam County Courthouse, 223 East Fourth Street, Port Angeles, WA 98362. The decision on the application will be made by the Hearing Examiner within 10 working days after the record closes.

The Clallam County Hearing Examiner Decision will be forwarded to the WA State Department of Ecology (Ecology) for review. Within 21 days of Ecology's Final Action determination of the matter, the Shoreline Permit and SEPA Threshold Determination may be appealed to the WA State Shorelines Hearing Board.

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DATE: October 30, 2019

TO: Mary Ellen Winborn, Clallam County SEPA Responsible Official  
& all Permit and Review Authorities

FROM: Greg Ballard, Project Planner (360) 565-2616

PROJECT: The Jamestown S’Klallam Tribe (JST) is proposing to re-establish oyster aquaculture in Dungeness Bay. This entails the placement of on-bottom mesh bags containing oyster seed and growing oysters on the natural substrate. This activity would occur 25 feet from where eelgrass beds have been determined through an eelgrass survey. This proposal requires a Shoreline Substantial Development and Conditional Use Permit (SHR 2017-00011). A 50 acre area is being leased from DNR at the northwest corner of Dungeness Bay near the Dungeness Spit.

Environmental Review and Staff Recommendation that a SEPA Threshold Mitigated Determination of Non-Significance (MDNS) be issued for SHR 2017-11, JST’s proposal to re-establish an oyster farm in Dungeness Bay.

**I. PROJECT INFORMATION:**

LANDOWNER: The Aquatic Lands are owned and managed by:  
Washington State Department of Natural Resources  
Aquatic Resources Division Orca – Straits Division  
411 Tillicum Lane  
Forks, WA 98331

APPLICANT: Jamestown S’Klallam Tribe (JST)  
1033 Old Blyn Highway  
Sequim, WA 98382

LOCATION: The 50 acre leased area is located approximately 5.5 miles northwest of the City of Sequim. The leased area is 731 feet wide by 2,977 feet long and starts around the mean lower low water (MLLW) at the northwest corner of Dungeness Bay, south of the Dungeness Spit and the Dungeness National Wildlife Refuge (DNWR) (Latitude 48.167N, Longitude -123.155W).

HISTORY: This site had been utilized as an Oyster Farm since the 1960’s, which entailed oysters on long lines and mechanical harvesting by shallow dredge. The JST acquired the 50 acre leased area in 1990 and operated a long line operation until 2005 when water quality issues closed Dungeness Bay to commercial oyster production. Recently the water quality of Dungeness Bay has improved and this area is now open to commercial oyster production.

The JST submitted an application on December 29, 2017 to re-establish oyster production using on-bottom bags. The Clallam County Department of Community Development (DCD) issued a DNS for this proposal on February 23, 2018. A Public Hearing was held on April 5, 2018. At the hearing the following issues were raised: impacts to birds; compatibility with the Dungeness National Wildlife Refuge. The U.S. Army Corps of Engineers also determined that this proposal would be subject to an Individual Section 10/404 permit and not a Nationwide Permit 48 (NWP48). This means that an Individual ESA Consultation and NEPA would be required for the Individual 10/404 Permit instead of the Programmatic Biological Assessment for Shellfish Operation for a NWP48 permit.

As a result, the case was placed on hold, and DCD withdrew the DNS on May 10, 2018. A subsequent April 4, 2019 hearing was continued to allow consultation between the JST and the U.S. Fish & Wildlife Service to conduct Government to Government Consultation to address potential impacts to DNWR. On August 6, 2019 the U.S.F.W.S. provided a letter dated August 6, 2019 rescinding their 2/27/19 & 5/22/19 letters expressing significant concerns regarding the impacts of the JST Oyster Farm on the DNWR. Based on revisions to the project and the submission of new information, DCD is issuing a new SEPA threshold determination for this proposal scheduled for a Public Hearing at 1 p.m. on November 21, 2019.

PROPOSAL: The JST has a 50 acre Aquatic Lease from the DNR. A 25 foot buffer was provided from eelgrass patches determined through an eelgrass survey. This eliminated 16 acres from being utilized for oyster production. For the 34 acres remaining, on-bottom bag culture methods will be used by anchoring lines of black mesh oyster bags to the substrate. The bags would contain naturalized Pacific oyster seed. The on-bottom bags would be approximately 2 ft. wide by 3 ft. long by 0.5 ft. high. There would be an approximate 10 feet of separation between each row of bags (based on visual representation). The applicant estimates that the bags would be located between a +1 and the -2 tidal elevation, and would only be visible from a close proximity (<100 yards) during minus tides. The bags would be exposed on average 10 percent of the time during daylight hours, and only visible from a few viewing locations on the Dungeness Spit as addressed in the Visual Analysis.

The on-bottom bag density is estimated to be approximately 4,000 bags per acre with a maximum number of 80,000 bags throughout the 34 acre farming area. The project would be development in 3 phases: Phase 1: (years 1 & 2) 5 acres of on-bottom bags; Phase 2 (Years 3 to 5) up to 10 acres of bags; Phase 3 (Years 5 and beyond) maximum of 20 acres of on bottom bags over the 34 acre area. If impacts to bird or eelgrass beds occur from the initial phases of the project, the placement of additional bags may be reduced as outline in the Monitoring and Mitigation Plan. Each bag would contain from 100 to 200 single oyster seed. The single oyster seed is intended for the fresh shucked oyster market, and would grow out for approximately 14 months in bags. The mature oysters may be spread onto the upper portions of the beach's natural substrate to achieve desired characteristics. The applicant has estimated that the proposal would have 3 to 15 employees that would access the site by a small (~30 ft) marine vessel as addressed in the Operation Plan.

This proposal is located off the Dungeness Spit which is designated Natural per the Shoreline Master Program. This proposal does not meet criteria for developments exempt from Substantial Development permit requirements found in WAC 173-27-040, and therefore requires a Shoreline Substantial Development Permit. Because the use of sub tidal oyster bags is not a specific use addressed in the Natural section of the SMP, this activity also requires a Shoreline Conditional Use Permit per WAC 173-27-160(3).

## **II. REQUIRED PERMITS AND APPROVALS:**

Clallam County - Shoreline CUP & Substantial Development Permit: This will examine whether the proposal is compliant with Shoreline Conditional Use and Substantial Development criteria found in WAC 173-27-150 & 160, and that the proposal is consistent with the Shoreline Management Act and the Clallam County Shoreline Master Program.

Clallam County - SEPA Compliance: The applicant provided an “expanded” checklist that included studies and reports to address potential impacts of the proposal. Prior to the issuance of any state or local permits, a SEPA Threshold Determination is required for Compliance with the State Environmental Policy Act (RCW 43.21C and WAC 197-11).

WDFW<sup>1</sup> - Aquatic Farm Registration: An annual registration requirement that requires operators of aquatic farms to provide information to WDFW regarding ownership, species being raised, production levels and other operations of the aquatic farm. This permit is required to address species to be raised along with quarterly production values.

Ecology<sup>2</sup> - Coastal Zone Management Act (CZMA) Consistency Determination: The CZMA determination requires projects in coastal areas to be compliant with the State and Federal Coastal Zone Management Act/Programs. This review by Ecology will be completed after all local, State, and Federal permits are issued.

WDNR<sup>3</sup> - Aquatic Resource Use Authorization: DNR owns the aquatic lands where the oyster farm will be located. The operation would lease 50 acres but would utilize 34 acres because of the presence of eelgrass. Within the 34 acres the JST would have up to 20 acres of bags. DNR will also charge additional royalty amounts based on harvested production during each year. The applicant will be required to post a bond to ensure improvements are removed when the lease is terminated. The lease has standards and guidelines for allowable use of the aquatic lands.

USACE<sup>4</sup> - Section 10 Permit Authorization: A Section 10 Rivers and Harbors Act Authorization and a 404 Permit may be required from the U.S. Army Corp of Engineers. This is the main Federal permit because it includes the Endangered Species Act Consultation with Federal Agencies (such as U.S.F.W.S<sup>5</sup> and NOAA<sup>6</sup> National Marine Fisheries Service).

U.S. Food and Drug Administration (USFDA): Aquaculture facilities must comply with USFDA rules and regulations for the production of food fish for human consumption. Only USFDA approved disease control chemicals are allowed to be used.

Footnotes:

- 1 – Washington State Department of Fish and Wildlife
- 2 – Washington State Department of Ecology
- 3 – Washington State Department of Natural Resources
- 4 – U.S. Army Corp of Engineers
- 5 – U.S. Fish and Wildlife Services
- 6 – National Oceanic & Atmospheric Administration

### III. ENVIRONMENTAL RECORD/EXHIBITS\*

Environmental review of the JST Oyster Farm in Dungeness Bay off the Dungeness Spit consisted of analysis based on the following documents included in the environmental record. Items in parentheses (B\_) are the most recent documents on the Clallam County On-Line Permit System. Exhibits 1 to 80 are from items from the previous April 4, 2019 continued hearing and are items C, D, and E on the on-line permits system and are for reference use only.

81. Left Intentionally Blank
82. Revised Clallam County Shoreline Substantial Development and CUP Application (B1.1)
83. Revise Joint Aquatic Permit Resource Application (B1.2)
84. Revised SEPA Checklist (B1.3)
85. Revised Drawing for JST Oyster Proposal (B1.4)
86. Dungeness Bay Field Report prepared by Confluence Environmental Company (B1.5)
87. Shellfish Operation & Bird Interaction Report by Confluence Environmental Co. (B1.6)
88. Information on Micro-Plastics (B1.7)
89. Monitoring & Mitigation Plan prepared by the JST (B1.8)
90. Visual Assessment prepared by the JST (B1.81)
91. Operation Plan prepared by the JST (B1.82)
92. (A) JST Response to USFWS May 22, 2019 letter; (B) DNWR Technical Memo Bird Survey Data; & JST Response to Comments on Corp Individual Permit (B1.83)
93. U.S. Army Corps of Engineers Nationwide 48 Permit # NWS-2007-1215 for the JST shellfish operation in Sequim Bay dated March 28, 2017 (B1.84)
94. DNR Letter dated January 10, 2019 that the lease area "covered" by the 2007 Shellfish Settlement agreement (B1.85)
95. Lawsuit on the Corps of Engineers Nationwide 48 Permit (B1.01)
96. NOAA Fisheries Importance of Eelgrass Fall 2014 (B1.86)

Unless otherwise noted, the above information is available for review between the hours of 8:00 AM and 4:30 PM Monday through Friday at the Clallam County Department of Community Development, Clallam County Courthouse, 223 E. Fourth Street, Port Angeles, Washington 98362. This information is also available on the Clallam County Online Permit website at [www.clallam.net/Permits](http://www.clallam.net/Permits) under On-Line Permit System under SHR2017-00011 or under cases open for comment, or you can "Google" SHR 2017-00011.

#### **IV. STAFF AMENDMENTS TO THE ENVIRONMENTAL CHECKLIST**

The following sections correspond with related categories of the environmental checklist submitted for the proposal, and clarify, amend, or add to that document.

##### **Checklist Items:**

##### **1. EARTH**

The oyster operation would occur between the tidal elevations of +3 to -2 mean lower low water (MLLW). The on-bottom bags would be located between +1 to -2 MLLW. Once the oysters have reach a certain size they may be removed from the bags and spread on the upper areas (+1 to +3 MLLW) to grow to maturity without any structures.

The oyster farm would be located in mud and sand flats that have slopes ranging from 0.5 to 2 percent. The lower tidal elevation is mainly silt transitioning to sand in the higher elevations of the project site. Up to 20 of the 34 acres would be utilized for on-bottom bags, which allow the on-bottom bag area to rotate to other areas. The placement of a maximum of 80,000 2 by 3 by 0.5 foot bags would equate to approximately 8,888 c.y of material being placed within the inter-tidal area.

No gravel or shell (frosting) is proposed for this proposal. This is typically done where the substrate is not suitable such as if ghost shrimp have made the substrate too soft. This proposal is not allowed to frost the beds and would only use on-bottom bags to as the only predator control method to protect the young oyster seed.

This proposal does not include and would not be permitted to utilize any predator control methods (i.e. use of pesticide, herbicide, and other measure) to control undesirable species that could impact the oyster farm.

## 2. AIR

Exhaust can result from small marine vessel (~30 ft) during transport of materials, farm maintenance, and harvest of on-bottom bag culture and beach oysters. The number of boat trips is roughly estimated between 50 to 90 days per year and will largely dependent on environmental conditions and production.

The checklist description is adequate.

## 3. WATER

- A. Surface Water: This proposal is located within Dungeness Bay, which is connected to the Strait of Juan de Fuca, a Shoreline of State-Wide Significance. Therefore, Dungeness Bay is also considered a Shoreline of State-Wide Significance. This proposal is located in the Northwest corner of Dungeness Bay, south of the Dungeness Spit and the Dungeness National Wildlife Refuge. Because the Dungeness Spit is designated Natural the open waters projected from the upland areas are also designated Natural per the Clallam County Shoreline Master Program (SMP) adopted in 1976 and as amended. Although Clallam County is in the process of updating SMP, it has not been approved by the WA State Department of Ecology, therefore this proposal is vested to the 1976 SMP.

The on-bottom bags would be located between - 2 to +1 MLLW. This proposal would have a maximum of 4,000 bags per acre over 20 acres, which equates to a maximum of 80,000 bags. The on-bottom bags would be approximately 2 ft. wide by 3 ft. long by 0.5 ft. high. This equates to a maximum of 11 acres of the 50 acre lease area (22 percent) being occupied by on-bottom bags. Because the on-bottom bags would be used primarily in the first year of the two to three years need to produce the desired oyster product, it is likely that the on-bottom bags would be utilized on approximately 3.6 to 5.5 acres at any one time. After the first year the oysters from the bags the oysters are not as susceptible for predation, and may be spread on the higher areas on the beach (+1 to +3 MLLW) to finish growing to maturity and to achieve their desired size and characteristics for oysters on the half-shell.

- B. Ground Water: The checklist description is adequate.
- C. Water Runoff: The placement of oyster bags and oysters within the inter-tidal area is not impervious surface.

## 4. PLANTS

### Upland Plants

The highest on-bottom bags would be located would be at the +1 MLLW and the vegetation on the Dungeness Spit is located ~200 feet away at an elevation of +11 MHHW.

### Submerged Aquatic Vegetation (SAV).

The Dungeness Bay Field Report prepared by Confluence Environmental Company dated November 2018 (Exhibit 86) addresses the SAV within the project area. This site contains native eelgrass (*Zostera Marina L*), non-native eelgrass (*Z. Japonica*), kelp (in the order

Laminariales) and other microalgae, including green, red, and brown species. Cover of Ulvoids (i.e. Ulva algae that is called sea lettuce) increase towards the middle elevations of the parcel where it covers approximately 50 to 75 percent of the seabed. Percent coverage of ulvoids changes seasonally in Dungeness Bay, and have been shown to increase by over 250% over a 7 year period in the bay, which corresponds to a decrease in eelgrass per Confluence Field Report. The increase is likely due to the eutrophication — increased nitrogen and phosphorus in the water.

In Fall of 2014 (Exhibit 96) NOAA Fisheries provided guidelines regarding the importance of eelgrass because of it's one of nature's most valuable and productive habitats in the marine environment. This publication states:

“Eelgrass provides a number of important ecosystem functions, including foraging areas and shelter to young fish and invertebrates, food for migratory waterfowl and sea turtles, and spawning surfaces for species such as the Pacific herring. By trapping sediment, stabilizing the substrate, and reducing the force of wave energy, eelgrass beds also reduce coastal erosion. In fact, eelgrass forms the base of a highly productive marine food web. The unique habitat also produces food and oxygen, improves water quality by filtering polluted runoff, absorbs excess nutrients, stores greenhouse gases like carbon dioxide, and protects the shoreline from erosion.

Many people are unaware of the importance this plant plays in the marine environment. As a result, there has been significant degradation of eelgrass, primarily from human impacts such as urban development, dredging, pollution, and sediment runoff from upland areas.

The federal government designated eelgrass as Essential Fish Habitat (EFH) and a Habitat of Particular Concern under the Magnuson-Stevens Fishery Conservation and Management Act in 1996. The designation as EFH requires federal agencies to consult with NOAA Fisheries on ways to avoid or minimize the adverse effects of their actions on eelgrass. The consultation process does not apply to state or private projects.”

Confluence compared 2018 field data to prior data from the area, including the 2016 eelgrass survey described by Jamestown S'Klallam (2017) and monitoring efforts in Dungeness Bay undertaken by DNR's Submerged Vegetation Monitoring Program from 2011 to 2015 (DNR 2018). The identification and delineation of eelgrass beds (*Zostera* spp.), which are a type of special aquatic site under Section 404 of the Clean Water Act. Eelgrass beds may also be affected by activities requiring a Section 10 of the Rivers and Harbors Act. These Eelgrass surveys are required to meet the Corp of Engineers Components of a Complete Eelgrass Delineation Report dated January 9, 2018. The Confluence Report utilized drones (at elevations of 120 and 400 feet above ground level) to map the eelgrass within the project site and within the 180 acre surrounding area, and performed walking transits through the project site and adjacent areas (Exhibit 86).

In the proposed project area, eelgrass was concentrated in the southwest portion of the site. While most of the point observations represent one or two turions (shoots), points observed near the southwestern boundary include observations of more than three individual turions and may comprise a series of small eelgrass areas. Aerial photograph and ground-based observations documented two larger eelgrass beds adjacent to the project area. One bed is immediately southwest of the lease boundary extending southward along the mudflat into deeper water associated with Dungeness Bay. The second eelgrass bed is southeast of the lease boundary. This bed extends southward just offshore of the lease boundary and appears to be growing primarily in the upper reaches of a broad channel that remains wetted during extreme low water.

Per the JST response to USFW letter dated May 22, 2019 (Exhibit 92A), to be considered sustainable eelgrass areas are required to have 3 shoots per 0.25m<sup>2</sup>. This is also the Corps of Engineers definition of an eel grass area (bed). Eelgrass would be avoided using a 25-foot buffer, which is larger than the 16-foot buffer required under the current Nationwide Permit 48 conditions (Corps 2015). Based on 2016 eelgrass surveys conducted by the Tribe and USFWS (Jamestown S'Klallam Tribe 2017), the total farmable acreage, which avoids eelgrass using a 25-foot buffer, is approximately 34 acres (identified in the field report as the proposed culture plot) within the 50 acre project area. Since there has been no oyster farm activity within the leased area for over 14 years and no eelgrass has established within this area, it appears that this area is not conducive for eelgrass bed.

#### Measure to reduce impacts:

##### Mitigation and Monitoring Plan (Exhibit 89 Item #3)

##### *Eelgrass Surveys*

Following established Tier 1 eelgrass survey protocols by the Corps' Seattle District, eelgrass surveys will be conducted within the 50-acre lease parcel every 2-3 years by Tribal biologists to:

1) update the delineation of the eelgrass area within the lease parcel, 2) assess any changes in the distribution and area of eelgrass beds/patches and 3) adjust farm activities, as needed, to ensure the eelgrass conservation area is maintained. Eelgrass surveys will extend 200 ft. from the boundary of the lease parcel to serve as a reference site. If survey data identifies that eelgrass within the lease parcel retreats by more than 50% buffer distance (i.e., >37.5 ft. from the edge of the oyster farm), but equivalent retreat is not observed in the reference site (of similar density, tidal elevation and substrate), then the distance will be increased by the measured distance of the eelgrass retreat. Such eelgrass buffer expansion will occur until eelgrass retreat is no longer identified in the survey data. Survey records and eelgrass delineation maps will be available upon request to Clallam County, WA State Departments of Ecology, Natural Resources, and Fish and Wildlife, USACE, USFW and NOAA.

##### USFW Eelgrass Impacts:

#### 5. ANIMALS

##### Forage Fish (Exhibit 86):

Forage fish spawning habitat was evaluated for the following species: surf smelt (*Hypomesus pretiosus*), Pacific sand lance (*Ammodytes personatus*), and Pacific herring (*Clupea pallasii*). Presence of documented forage fish spawning habitat was reviewed prior to the site survey using the online Forage Fish Spawning Map (WDFW 2018a). Documented spawning habitat was visually characterized to determine the quality of spawning habitat and distance to potential aquaculture activities. Surf smelt and sand lance spawn in sand to pea-gravel sized sediments, typically at elevations above +7.0 feet MLLW and +5.0 feet MLLW, respectively (Penttila 2007). Spawning habitat was characterized, photographed, and reviewed further using the aerial photography images.

There is documented spawning habitat for surf smelt and sand lance at higher tidal elevations than the proposed project area. A higher proportion of shoreline is documented as sand lance spawning habitat within inner Dungeness Bay compared to

surf smelt spawning habitat (WDFW 2018a). Because these species spawn in the higher intertidal elevations (above +5 MLLW), the top edge of the project area is approximately 250-feet from the intertidal elevation where forage fish spawning has been detected in Dungeness Bay. The upper beach habitat was confirmed to provide potential spawning habitat for surf smelt and sand lance during the July 14, 2018 field survey. Although no recent surveys for spawning have occurred (last one was in 1993), it is assumed that spawning continues to occur in the vicinity.

The closest documented holding area for the Dungeness/Sequim Bay herring stock is located just outside of outer Dungeness Bay (WDFW 2018a). Virtually all of the recent spawning activity for the stock occurs within inner Dungeness Bay, including an area just south of the proposed project area. Recent spawning surveys for the Dungeness/Sequim Bay herring stock (Stick et al. 2014) show that spawning grounds have not included Sequim Bay and have been concentrated in the central and southern portion of the cumulative documented spawning grounds shown in the WDFW (2018a) online database. It is unclear what may cause this change in spawning distribution. The recent spawning grounds may represent core or preferred spawning areas within the larger cumulative spawning area, or it may reflect a change in the available spawning substrate compared to historic levels. However, Stick et al. (2014) indicated that spawning substrate is not considered to be limiting abundance of herring.

Pacific herring typically broadcast spawn over marine vegetation, such as macro algae and eelgrass, and hard substrates and polychaete tubes. Herring spawn at elevations typically ranging from -10 feet to 0 feet MLLW (Penttila 2007; Stick et al. 2014). The population of herring near inner Dungeness Bay is from the Dungeness/Sequim Bay Stock. In recent years, the majority of the spawning populations that holds offshore of these bays prior to spawning has spawned in inner Dungeness Bay.

Measure to reduce impacts:

Mitigation and Monitoring Plan (Exhibit 89)

Conservation Measure #7. "Activities shall not occur above the tidal elevation of +7 ft (MLLW) if the area is listed as documented surf smelt (*Hypomesus pretiosus*) spawning habitat by WDFW."

Conservation Measure #8. "Activities shall not occur above the tidal elevation of +5 ft (MLLW) if the area is listed as documented Pacific sand lance (*Ammodytes hexapterus*) spawning habitat by WDFW." **Addresses concern #4.** *The proposed upper tidal elevation of Pacific oyster cultivation is +3 ft. (MLLW). All activity will occur at or below a tidal elevation of +3ft. MLLW.*

Conservation Measure #9. "If conducting [on-bottom bag removal] within a documented spawning area of Pacific herring (*Clupea pallasii*) outside of the approved work window, the work area shall be surveyed for the presence of herring spawn prior to the activity occurring. Vegetation, substrate and materials (bags) shall be inspected. If herring spawn is present, [bag removal] is prohibited in the areas where the spawning has occurred until such time as the eggs have hatched and herring spawn is no longer present." **Addresses concern #4.** *This egg incubation time period will be avoided in general. If bag removal must occur from January 16 -April 30, all conditions will be met as described above (see forage fish survey details under monitoring plan).*

Conservation Measure #10. "Activities occurring in or adjacent to potential spawning habitat for sand lance or surf smelt shall have a spawn survey completed in the work area

by an approved biologist prior to undertaking bed preparation, maintenance and harvest activities if work will occur outside approved work windows for these species. If eggs are present, these activities are prohibited in the area where spawning has occurred until such time as the eggs have hatched and spawn is no longer present." **Addresses concern #4.** *If on-bottom bag removal or maintenance activities must occur outside the approved work window, all conditions will be met as described above (see forage fish survey details under monitoring plan).*

Per the conditions specified in conservation measures #9 and #10 (see above), forage fish spawn survey will be conducted by a WDFW-certified tribal forage fish biologist before removal or maintenance of on-bottom bags outside of the approved work windows. If any forage fish spawn is present no farm activity will occur in the area where spawning has occurred until the eggs have hatched. A record will be maintained of all spawn surveys, including date and time; the survey area and gear surveyed; and results of the survey. If spawn is detected, USACE and USFWS will be notified. Survey records will be available upon request to Clallam County, USACE, USFWS and NOAA.

#### Birds

This proposal is located within the Dungeness National Wildlife Refuge (DNWR), which is an important area utilized by migratory birds, waterfowl geese, and shorebirds.

The USFW operates the DNWR and provided comments on the initial proposal on April 4, 2018. Based on these comments and the Corp decision to require an individual permit instead of a Nationwide 48 permit, the JST requested that the application be placed on hold. The JST resubmitted the application on December 22, 2018. This included a Dungeness Bay Field Report and a Shellfish Aquaculture and Bird Interaction Report, which were both prepared by Confluence Environmental dated November 2018. In addition the JST prepared an Operation Plan dated February 20, 2019, and a Mitigation and Monitoring Plan dated March 1, 2019. This shoreline case (SHR 2017-11) was scheduled for hearing before the Clallam County Hearing Examiner on April 4, 2019. USFW provided comment on the proposal dated March 5, 2019. The EPA provided a comment on March 4, 2019 expressing concerns regarding the proposal and referencing the USFW letter. The application was placed on hold to allow the JST and USFW to conduct agency to agency discussions. The USFW provided a comment letter dated May 22, 2019.

On June 28, 2019 the JST provided a detailed response to each of the USFW concerns (Exhibit 92A). In addition, the JST provided a DNWR Bird Survey Data Technical Memo (Exhibit 92B). This includes examining the Midwinter Waterfowl Survey conducted in January or February from 2010 to 2018. The report also examined the Avian Shoreline Study from October through April from 2013 to 2015. These studies examined 6 locations along the Dungeness Spit, which start at MM0 at the beginning of southern end of the Dungeness Spit to MM5 at northern end of Spit. The Technical Memorandum also looked at the Legacy data from 1994 to 1999, which divided the Dungeness Spit into 21 areas. The saltwater marsh (MM3 or Areas 12, 13, & 21) and lagoon area near Graveyard Split is the highest use area. The JST Oyster proposal is proposed within MM2 or Areas 14 & 15 per the Legacy Data. This Technical Memo indicated, per the Legacy and Avian Shoreline Study, that 2/3 of the birds used the Harbor, 1/6 used the Bay and 1/6 of the birds used the Strait. The Midwinter Waterfowl indicated that 88 percent used the Harbor, 10 percent Bay, and 1 percent Strait. The Oyster farm would be located in the intertidal mudflat located in the Harbor Area.

The Legacy Data has 34 percent of total birds located in areas 14 & 15 (~MM2). The Avian Shoreline has 14 percent of all birds in MM2. The Midwinter waterfowl has 12 percent of the total waterfowl in MM2. This Technical Memo also indicated that ducks, geese, seabirds, and shorebirds were more prevalent in area MM2 in the mid 1990's when the oyster operation was being conducted than during 2013 to 2015 Avian Study when the oyster farm had ceased operation. They inferred that the oyster operation could have increased bird usage of area MM2 and at a minimum did not deter the use of birds near the oyster farm site.

The USFW withdrew their May 22, 2019 letter and other letters and replaced it with their August 6, 2019 letter. Below is a summary of JST responses to the issues raised by USFW in their May 22, 2019 letter (Exhibit 92A).

Per the Operational Plan (Exhibit 91), twice a year for a week during low tides for set up and out planting there would be 7 to 15 people on-site for 4 to 6 hours. This would occur during periods of least bird sensitivity per USFW April 4, 2018 letter. There would be 3 to 6 workers for 4 to 6 hours for 52 days annually to perform maintenance and harvest. This equates to approximately 2 to 3 percent of the year. In comparison, the DNWR estimates that 76,000 to 80,000 people visit the Dungeness Spit each year.

The Dungeness Wildlife Refuge was established in 1915 and a tideland use easement was conveyed to the USFW in 1943. Since at least 1963 the proposed site was utilized for shellfish operations. The previous operation utilized long lines and mechanical harvest. The JST also indicated that there was no impacts raised from the DNWR regarding impacts to wildlife while the JST operated the farm from 1990 to 2005. Also that the type of activity associated with the proposed oyster farm is different than the oyster farming methods that were studied regarding activities that causes flushing of birds.

The tribe would visit the site during low tides, which is less disruptive to birds (geese) than activity during high tides according to one study cited. When the tide was out, there was a large area in which displaced Brent geese could resettle, and feeding could be resumed very quickly. Around high tides, however, the available feeding space was relatively crowded and more likely to be disturbed.

The Tribe uses boats that are up to 30 feet in length with up to 150-horsepower 4-stroke outboard motors. Because of the shallow habitat in the proposed project area, boats typically travel at slow speeds in inner Dungeness Bay (<10 mph). The JST proposed a no wake zone in their monitoring plan and would access the site through a deep tidal channel that already has seasonal recreation and year round commercial fishing activity. The tribe would also use noise reduction insulation for the motors and hydraulic wench to reduce the noise to 50 Db (equivalent to a refrigerator motor). It is estimated that 50 to 90 annual round-trip boat trips would be needed to support the proposed oyster farm in Dungeness Bay, with an estimated 1-2 round-trip boat trips per week. An individual trip length extends for up to 8 hours during maintenance visits and harvests. Oysters would be harvested and planted every 1.5 to 3 years, depending on culture method, conditions, species of oyster, and other factors. Between harvests, visits would occur at a rate of approximately once a week to perform maintenance or harvest. During winter these visits will occur primarily during darkness due to the lack of winter daytime low tides.

### *Brant-Farm Interactions (Exhibit 89)*

Monthly observations will be recorded by a shellfish farm worker, Tribal biologists and/or an Audubon volunteer on brant and shellfish farm interactions. A log will be kept that includes the date and time of observation, tidal height, number of brants observed and a description of interactions observed (i.e., type of activity occurring and brant response behaviors). If observation logs indicate any persistent (e.g., recurring over the length of the migration season) negative behavioral responses from brant to specific farm activities, those activities will be evaluated and mitigation measures will be put into place to minimize or eliminate the adverse impact. Observation logs will be available upon request to Clallam County, WA State Departments of Ecology, Natural Resources, and Fish and Wildlife, USACE, USFW and NOAA.

### *Shorebird counts (Exhibit 89)*

Monthly shorebird counts will be conducted within and adjacent to the lease parcel by a shellfish farm worker, Tribal biologists and/or an Audubon volunteer. A log will be kept that includes the date and time, tidal height, number and species of shorebirds observed within and adjacent to the lease parcel. Observation logs will be available upon request to Clallam County, WA State Departments of Ecology, Natural Resources, and Fish and Wildlife, USACE, USFW and NOAA.

### ESA:

The Corps of Engineers provided a Joint Comment period on their Section 10 permit and the WA State Department of Ecology Water Quality Certification and/or Coastal Zone Management Review on December 3, 2018 (NWS 2007-1213). The comment period ended on March 5, 2019, and there were 28 letters (5 expressing support and 23 expressing opposition). The applicant addressed all of these comments in a Response to Comments document dated August 6, 2019 Exhibit 92C).

The Corps of Engineers is in the process of conducting ESA Section 7 Consultation with Federal and Tribal agencies on the potential impacts of the proposal. Federal and Tribal agencies will comment on the effects determination on the impacts to ESA listed species and their critical habitat. These comments will be addressed in the Corps of Engineers Section 10 permit.

Measure to reduce impacts: The Section 7 Consultation process allows Federal and Tribal agencies to review the Biological Evaluation (BE) and addendums and comment on the effects determinations regarding potential impacts to ESA listed species and their critical habitat. These comments will be addressed in the Corps of Engineers Section 10 permit.

## 6. ENERGY AND NATURAL RESOURCES

## 7. ENVIRONMENTAL HEALTH

### Water Quality:

In 2000, the Washington State Department of Health (DOH) downgraded 300 acres of commercial shellfish harvest area in Dungeness Bay from "Approved" to "Prohibited year-round" and additional downgrades in subsequent years (Clallam County 2018). As a result of these downgrades in water quality, the Tribe had to abandon their operations in inner Dungeness Bay.

Following the major downgrade in 2000, the Washington State Department of Ecology, the Tribe, Clallam County, Clallam Conservation District, and other partners focused on years of monitoring, cleanup actions, and public outreach (Clallam County 2018). The result of these efforts led to an upgrade by DOH in April 2011 for 500 acres in Dungeness Bay from "Prohibited" to "Conditionally Approved." Additional water quality improvements have occurred since 2011 that resulted in further upgrades. Currently, approximately 689 acres are designated as "Approved" while an additional 661 acres are designated as "Conditionally Approved" for commercial shellfish harvest. The area leased by the Tribe since 1990 is located in an area that is currently "Conditionally Approved." It is likely that the leased area will be upgraded in the next few years. This is based on the fact that the 2017 field sampling meets the standards for approval of shellfish harvesting based on the National Shellfish Sanitation Program criteria (DOH 2018).

The WA State Department of Health and the U.S. Food and Drug Administration (USFDA) will ensure that the oysters are safe for human consumption. This includes restrictions on what chemical are allowed to be used and are safe for human consumption. However, the JST are not proposing to utilize any chemicals for this proposal.

#### Micro Plastics

The applicant provided the following information regarding micro-plastics (Exhibit 88):

Some key points of these reviews are as follows:

- While all plastics will ultimately degrade in the marine environment the rate of degradation in seawater is significantly slower compared to plastic material continuously exposed to air. This retardation of degradation is primarily the result of: lower temperature and oxygen concentration of seawater, biofouling and reduced UV exposure.
- Plastics debris that enters the water directly, prior to any significant weathering degradation, is unlikely to yield microplastics via standard mechanisms of degradation in seawater.
- Microplastics in the marine environment are primarily from land-based sources or discarded plastics debris on beaches. Hence, beach cleaning and debris removal (note conservation measure #22 in the Programmatic) are considered to be effective mitigation strategies.
- Plastics gear used for shellfish aquaculture is specifically designed for use in the marine environment and made of UV & corrosive resistant materials to further slowdown degradation.
- In the Salish Sea, the lowest levels of plastic marine debris were found in beaches of south Puget Sound, including areas with the highest density of aquaculture.
- While the fishing industry is a source of marine plastics, with a range of reported contribution, by far the largest contributor to marine plastics is land-based sources. Nylon from netting and line are presented as less than 3% globally.

Degradation timescales for UV-resistant, HDPE plastics used for oyster bags are reported to be on the order of decades. The applicant has contacted their Sequim Bay oyster farm manager. He said that oyster grow-out bags are typically cycled out of use in the marine environment after about 4 – 5 years due to standard 'wear and tear' from bag maintenance. The plastic bags do not show signs of deterioration (i.e., not brittle), but the bags can form holes over time so they are no longer usable.

Monitoring and Mitigation Plan (Exhibit 89):

Measure #11. "All shellfish gear that is not immediately needed or is not firmly attached to the substrate will be moved to a storage area..." **Addresses concern #5.** *The storage area for shellfish farming gear will be offsite. All gear will be brought in by boat and will be in active use and firmly secured to the substrate once onsite.*

Measure #18. "All [gear] shall be clearly, indelibly and permanently marked to identify the permittee name and contact information."

Measure #19. "All gear shall be tightly secured to prevent them from breaking free."

Measure #22. "... beaches within the project vicinity will be patrolled by crews who will retrieve debris that escape from the project area. Within the project vicinity, location will be identified where debris (if any) tends to accumulate to wave, current or wind action.... A record shall be maintained with the following information and made available upon request to Corps, NMFS and USFWS: date of patrol, location of areas patrolled, description of and amount of debris." **Addresses concern #5.** *All labeling, securing, patrolling and reporting requirements as outlined by the above conservation measures will be met. Retrieval of any identified debris will occur in close communication and coordination with Dungeness Wildlife Refuge staff.*

Gear loss and retrieval. The JST would visit the site at least on a weekly basis. When the site is visited any waste from the facility or within the lease area should be removed. Waste will be transported in containers with lids. Finally, the applicant would be required to perform a comprehensive beach clean-up to collect all debris on the beaches along the Dungeness Bay and Dungeness Spit a minimum of twice per year, and the results would be coordinated with the Clallam County Marine Resources Committee and the Dungeness National Wildlife Refuge.

*Noise:* Noise from 1-2 small marine vessels (~30 ft) and occasional use of an on-board hydraulic winch (pot puller) would be used for set-up, maintenance and harvest activities associated with this project. Noise levels will be low at the project site. Noise from outboard motors (150 hp, 4 stroke engines) would occur in transit to and from the site (~70-85 db; no wake- cruising speed), and while loading oyster bags. Noise hours would occur in association with harvest during low tides (~50-90 times per year).

Measures to Reduce Impacts: Site Specific Stewardship #3 for Mitigation & Monitoring Plan (Exhibit 89).

Noise levels associated with farm activities will be low. The project site will only be accessed by low profile marine vessels from designated locations (see JARPA Project Drawings) through deep tidal channels. Vessels will maintain slow (5 mph), no-wake speeds when approaching the project site and/or within 200 ft. of the shoreline of Inner Dungeness Bay. Boxes constructed with noise insulation will house the hydraulic winch motor to further reduce noise levels (< 50 dB) associated with oyster harvest activities.

Although a smaller boat with a smaller engine could be launched from Cline Spit Boat Launch, the smaller gas engines would make more noise than a larger 4 stroke engine. The applicant should address why an electric trolling motor would not be feasible when small maintenance activities would occur at the site.

## 8. LAND AND SHORELINE USE

Shoreline- Aquaculture is defined in Section 5.02(A) of the Clallam County Shoreline Master Program (SMP). The shoreline designation for proposals located waterward of the OHWM is based on the extension of the landward shoreline designation. The project area located off of the Dungeness Spit, which is designated Natural by the SMP. This proposal does not meet criteria for developments exempt from Substantial Development Permit requirements found in WAC 173-27-040. Therefore, this oyster farming proposal in the Natural Shoreline Environment is reviewed through a Shoreline Substantial Development Permit. Because the use of sub tidal oyster bags is not a specific use addressed in the Natural section of the SMP this activity requires a Shoreline Conditional Use (per WAC 173-27-160(3)). This proposal is being reviewed as Shoreline CUP and Substantial Development Permit, which are Type III permits that require a public hearing before the Hearing Examiner. The County's decision would be forwarded to the Washington State Department of Ecology.

Measure to reduce impacts: This proposal is being reviewed as Shoreline Substantial Development Permit, which is a Type III permit that requires a public hearing before the Hearing Examiner. The Shoreline Substantial Development Permit will ensure that the proposal is consistent with the requirements of the Clallam County Shoreline Master Program and other Clallam County Codes. If this proposal is approved, the mitigation measures from the MDNS would be incorporated into the conditions of approval of the permit. DCD would ensure that the Conditions of Approval are enforced. The applicant would also be required to obtain the necessary State and Federal Permits listed and described in Section II above.

The JST have a 19.5 acre Pacific Oyster, Manila Clam and Geoduck aquaculture operation within Sequim Bay, which has a Nationwide 48 Permit from the Corp of Engineers Exhibit 93). This proposal for an oyster farm in Dungeness Bay did not qualify for a Nationwide 48 permit because the proposal has the potential for more than minimum impacts to the Dungeness National Wildlife Refuge, which receives similar protection provided to wetlands. Even though an individual Section 10/404 permit is required, the conservation measures from the Nationwide 48 measures are still applicable for the proposal. The applicant has provided the following information :Dungeness Bay Field Report & Shellfish Operation & Bird Interaction Report by Confluence Environmental Company; Info on Micro-Plastics; Monitoring & Mitigation Plan; Operation Plan and Visual Analysis prepared by the JST; JST Response to USFWS May 22, 2019 letter; DNWR Technical Memo Bird Survey Data; & JST Response to Comments on Corp Individual Permit. This is intended to address the specific site conditions related to re-establishing aquaculture at this site located within the Dungeness National Wildlife Refuge.

### Dungeness Bay Oyster Farm General Operation Plan (Exhibit 91)

	Timing	Site Visit Duration (hrs.)	# Visits per month	# people on site per day	Tidal Range for visit (MLLW)	Activity
*Gear placement /removal	Late Apr. – May & Mid Oct. – Mid Nov.	4 - 6	5 - 6	7 - 15	+1 to -2.5	Set up &/or removal of on-bottom bags

<b>Bag Maintenance</b>	Year Round	4 - 6	2 - 6	~3 - 6	+1 to -2.5	Manually flip bags, remove biofouling
<b>Harvest</b>	Year Round	4 - 6	2 - 6	~4 - 6	+1 to -2.5	Manually harvest beach oysters or oyster bags

The USFWS recommended annual time period where shellfish farm activities would be least sensitive to Refuge wildlife and habit: March 15 – April 15, June, July and October 15 – November 15 (See USFWS April 4, 2018 comment letter). All higher intensity farm activities, such as gear placement and removal, will generally align with these time periods. Year-round shellfish farm activities, which include on-bottom bag maintenance and oyster harvest, involve few workers (~ 3-6 individuals) and infrequent site access. It is anticipated that farm maintenance and harvest activities will require no more than 4-6 site visits per month (an average of 1 site visit per week) during low tides. During spring/summer months (March – September) workable low tides will occur primarily during daylight hours and in fall/winter months (October– February) workable low tides will occur almost exclusively at night. Oyster bags stacked for harvest are retrieved from the site during high tide using a mechanized lift; there is no corresponding onsite activity.

The DNWR places access (pedestrian and boat) restriction of the interior portion of the Dungeness Spit because of potential impacts to wildlife. The JST would access the oyster farm by boat only. The DNR owns the 50 acres of tidelands on the interior of the Dungeness Spit being leased by the JST for the Oyster Farm. DNR can authorize secondary uses even with the DNWR tidal use easement granted in 1943.

**Dungeness National Wildlife Refuge:**

The Dungeness National Wildlife Refuge was established in 1915 to protect migratory birds, water fowl and songbirds. It has been reported that over 250 species of birds utilize the DNWR with a daily count of 20,000 birds. The DNWR is considered a Special Aquatic Site, which is similar to a wetland area from a regulatory perspective from the Corp of Engineers. This is part of the reason that the Corp required an individual Section 10/404 permit instead of the Nationwide 48 (NW48) Permit that relies upon the Programmatic Biological Evaluation for this proposal in their letter dated March 29, 2018.

In a recent lawsuit against the Corp of Engineers NW 48 Permit (Exhibit 95), the court found that the NW 48 permits were flawed. This project requires an Individual Section 10/404 permit but still utilizes some of the mitigation measures from the Programmatic Biological Evaluation for the NW 48 permit. The Programmatic BE for the NW 48 was not found invalid by this lawsuit.

**9. HOUSING**

The checklist adequately addresses the issues of this section.

## 10. AESTHETICS

The JST provided a Visual Analysis for this proposal (Exhibit 90). The Jamestown S'Klallam Tribe is proposing to resume farming of pacific oysters on the DNR-owned aquatic tideland parcel (#20-A013012) in Dungeness Bay using on-bottom culture methods. The two proposed cultivation methods include on-bottom bag and on-bottom beach culture. This report provides a brief assessment of visual impacts associated with the proposed farm activities.

1. **On-bottom beach culture:** This method of oyster cultivation does not involve any gear placement or equipment. Oysters are spread on the beach and allowed to naturally grow to maturity on the substrate. Since beach oysters already occur on the Dungeness Bay tidelands, there will be no visual impact associated with this cultivation method.

*Visual impact:* No visual impacts are expected with this cultivation method.

2. **On-bottom bag culture:** In years 1 & 2 of operation ("Phase 1") up to 5 acres (10%) of the lease parcel will be used to grow oysters using this method. Oysters grow in 2 ft. x 3 ft. x 3 in. durable mesh bags which are secured to a line and anchored to the substrate using 3 ft. x 3 in. screw anchors.

The vertical profile of the on-bottom bag cultivation is ~6 in. (Figure 1).

*Bag exposure rate:* On-bottom bag cultivation occurs between tidal elevations of +1 ft MLLW to approximately -2 ft. MLLW. Therefore, bags are only exposed periodically when the tide level is below +1 ft. MLLW tidal elevation. The percentage of daylight hours per month when the tide drops below the +1 ft. MLLW mark, resulting in partial exposure of the on-bottom bags, is shown in Figure

2. Bags will not be exposed during daylight hours from October through January. The highest bag exposure rate (20% of daylight hours) occurs in July. Over the course of a year, the on-bottom bags are only exposed for approximately 10% of daylight hours.

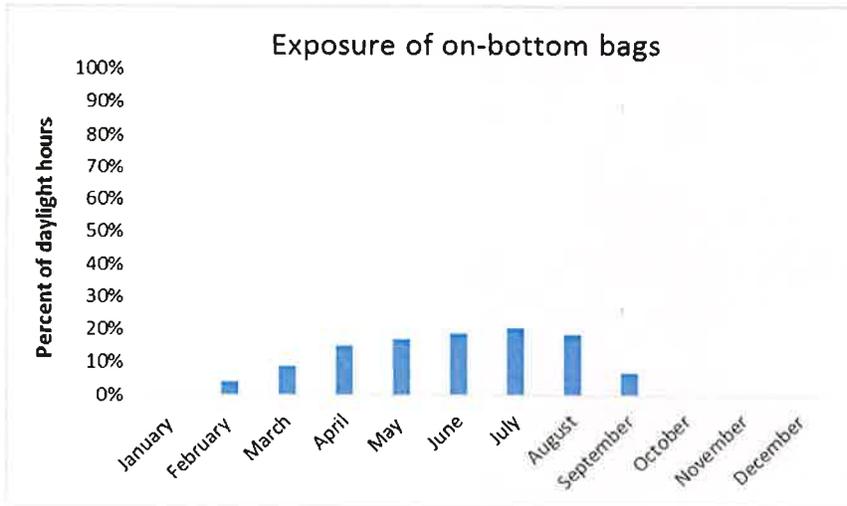
*Visual impact:*

- A. Residents of Marine Dr. with houses over-looking Dungeness Bay will not be able to see the on-bottom bags even when the tide is out during daylight hours. The distance from Marine Dr. to the nearest location of the farmable area of lease parcel is greater than 5,276 ft. (1 mile). This distance is too far for the unaided eye to detect the oyster bags. No visual impacts are expected without long-range magnification optical aides.
- B. If recreational users access Dungeness spit during a low tide period when the on-bottom bags are exposed, the visual impact will be minimal. Public access to Dungeness Spit is restricted to the outside (i.e., Strait of Juan de Fuca side) of the spit, so the closest possible distance that a recreational user of Dungeness Spit can view the on-bottom oyster bags ranges from 430 – 945 ft. (Figure 3). Given the low vertical profile of the on-bottom bags (which also blend in with the substrate), they are difficult to see from this distance without the use of binoculars.

A few representative pictures (Figures 4 & 5) of the Jamestown's S'Klallam Tribe oyster farm in Sequim Bay (which uses both on-bottom and suspended oyster cultivation methods) are shown for reference below. **Oyster harvest activities:** Oysters are harvested manually by 4-6 farm workers that access the site periodically at low tide (see general operational plan). Oyster harvest bags may be temporarily bundled so they can be retrieved

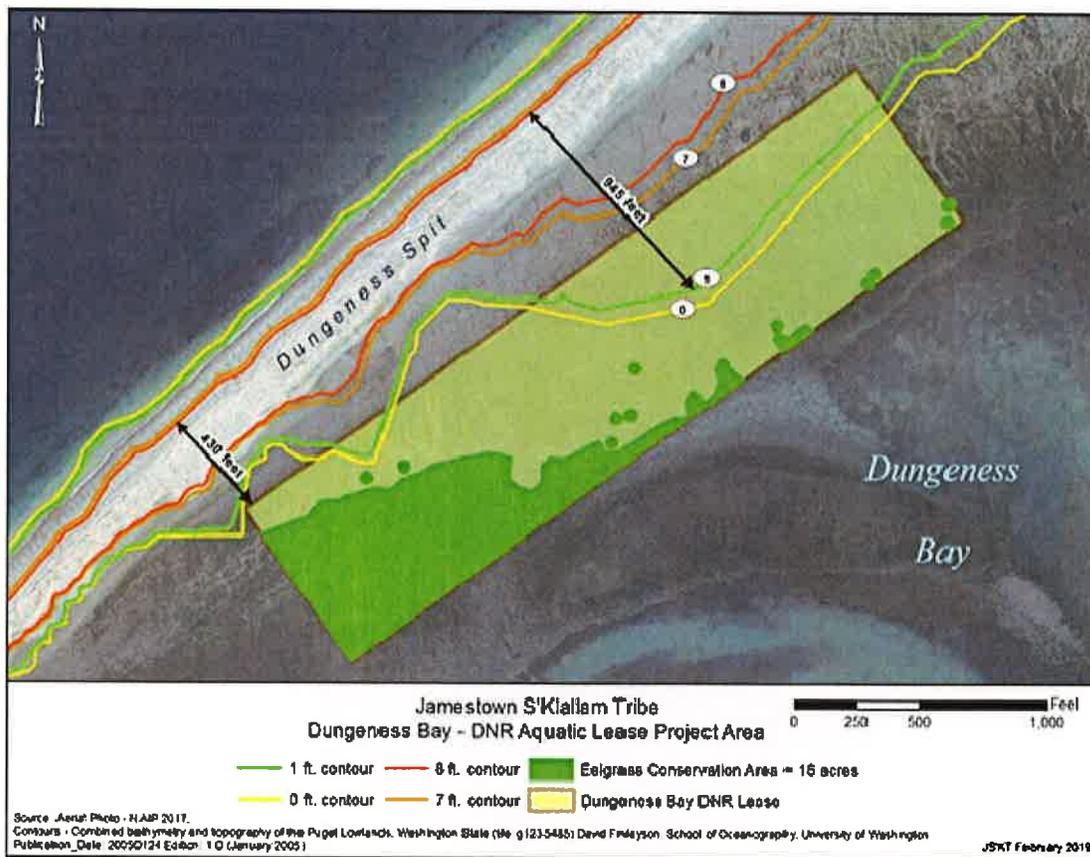
by mechanical lift from a boat at high tide.

*Visual Impact:* The bundled oyster bags will not represent a negative visual impact for most people. The color blends in well and the bags are not especially noticeable without buoys (the Dungeness farm will not use marker buoys). A few representative pictures of oyster harvest activities from the Jamestown S'Klallam Tribe's Sequim Bay shellfish farm are provided for reference below (Figures 6 – 8).



**Figure 2.** The proportion of daylight hours when the tide level drops below +1 ft. MLLW in Dungeness Bay partially exposing the on-bottom cultivation bags

Based on the eelgrass beds being located at the southeast corner of the site it is not anticipated that there would be oyster bags in area within 430 feet of the outer edge open area for the public.



11. LIGHT AND GLARE

500 to 1,000 lumens headlamps would be used during nighttime.

12. RECREATION

The re-establishment of this oyster farm (with on-bottom bags vs long lines and mechanical harvest) should not impact the DNWR.

13. HISTORICAL AND CULTURAL PRESERVATION

This proposal would be located over water. The checklist adequately addresses the issues of this section.

14. TRANSPORTATION

Addressed in Operation Plan discussed in Section 8 above.

15. PUBLIC SERVICES

The checklist adequately addresses the issues of this section.

## 16. UTILITIES

This proposal would not utilize any utilities.

## V. CONCLUSIONS

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The environmental review indicates that there may be a potential for adverse environmental impacts from the project proposal, which may not be mitigated through conditions imposed by authority of existing Clallam County land use regulations. Therefore, a Mitigated Determination of Non-Significance (MDNS) should be required.

---

Based on review of the Environmental Checklist and other available material provided on the subject proposal, Development Review staff recommends that the Responsible Official consider the following as potential significant adverse environmental impacts (organized by the elements of the environment as analyzed in Section IV above) as a result of development of the subject proposal:

- Potential impacts to marine plants and animals from the operation
- Potential impacts to the Dungeness National Wildlife Refuge.

### **Proposed Mitigation Measures:**

The following mitigation measure has been proposed by Development Review Division staff for consideration by the Responsible Official. It is intended to address and mitigate to a point of non-significance the environmental impacts listed above.

1. The proposal shall be implemented in substantial conformance with the Shoreline Application, JARPA, SEPA Checklist, Drawing, and Reports Submitted with this proposal except as modified through the Shoreline CUP and Substantial Development Permit.
  2. The Proposal shall comply with the Monitoring and Mitigation Plan prepared by the Jamestown S'Klallam Tribe that was submitted on March 1, 2019. This shall include the implementation of the: 1). Established Conservation Measures; 2). Site Specific Stewardship Measures; 3). The Monitoring Plan.
  3. The proposal shall comply with the Operation Plan submitted February 20, 2019.
  4. The Jamestown S'Klallam Tribe would visit the site at least on a weekly basis, and shall remove debris and gear (including broken bags) from the facility or within the lease area. Waste will be transported in containers with lids. Finally, the applicant would be required to perform a comprehensive beach clean-up to collect all debris on the beaches along the Dungeness Bay and Dungeness Spit a minimum of twice per year, and the results would be coordinated with the Clallam County Marine Resources Committee and the Dungeness National Wildlife Refuge.
-

I have reviewed and considered the referenced proposal, the environmental checklist, agency comments, and other available material. I hereby recommend:

a Determination of Non-Significance (DNS)

a Mitigated Determination of Non-Significance (MDNS)

a Determination of Significance (DS)

  
\_\_\_\_\_  
Greg Ballard, Senior Planner

10/30/19  
DATE

# SEPA ENVIRONMENTAL CHECKLIST

## **Purpose of checklist:**

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

## **Instructions for applicants:**

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

## **Instructions for Lead Agencies:**

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

## **Use of checklist for nonproject proposals:** [\[help\]](#)

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the [SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS \(part D\)](#). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

## **A. Background** [\[help\]](#)

1. Name of proposed project, if applicable: [\[help\]](#)  
Jamestown S'Klallam Tribe Dungeness Bay Oyster Farm
2. Name of applicant: [\[help\]](#)  
Jamestown S'Klallam Tribe



3. Address and phone number of applicant and contact person: [\[help\]](#)

Elizabeth Tobin (contact): Jamestown S'Klallam Tribe  
1033 Old Blyn Hwy, Sequim WA 98382  
360-681-4656, [etobin@jamestowntribe.org](mailto:etobin@jamestowntribe.org)

4. Date checklist prepared: [\[help\]](#)

12/03/18

5. Agency requesting checklist: [\[help\]](#)

Clallam County Department of Community Development

6. Proposed timing or schedule (including phasing, if applicable): [\[help\]](#)

Project start: May 1<sup>st</sup> 2019 - phase 1 on-bottom culture set up

Phase 2 start: May 1<sup>st</sup> 2021 - expand on-bottom bag cultivation up to 10 acres

Phase 3 start: May 1<sup>st</sup> 2024 – farm operation follow adaptive management, on  
bottom bag cultivation may expand up to 20 acres.

Project end date: On-going oyster cultivation and harvest

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain. [\[help\]](#)

No.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. [\[help\]](#)

A Dungeness Bay Field Report and a report on Shellfish Aquaculture and Bird Interactions have been prepared for the Jamestown S'Klallam Tribe by Confluence Environmental Company.

The Jamestown S'Klallam Tribe has prepared an eelgrass habitat survey report for the DNR lease #20-A013012.

US Fish and Wildlife Biological Opinion:

[http://www.nws.usace.army.mil/Portals/27/docs/regulatory/160907/USFWS\\_Final%20BiOp\\_AQ%2020160826.pdf](http://www.nws.usace.army.mil/Portals/27/docs/regulatory/160907/USFWS_Final%20BiOp_AQ%2020160826.pdf)

USACE Programmatic Biological Assessment:

[https://www.nws.usace.army.mil/Portals/27/docs/regulatory/NewsUpdates/Shellfish\\_PB\\_A\\_30\\_Oct\\_2015.pdf?ver=2016-09-07-185805-287](https://www.nws.usace.army.mil/Portals/27/docs/regulatory/NewsUpdates/Shellfish_PB_A_30_Oct_2015.pdf?ver=2016-09-07-185805-287)

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. [\[help\]](#)

No.

10. List any government approvals or permits that will be needed for your proposal, if known.

[\[help\]](#)

Aquatic Use Authorization (WA-DNR), Individual Permit (U.S. Army Corps of Engineers), and Substantial Development & Conditional Use Permit (Clallam County).

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.) [\[help\]](#)

The purpose of this proposal is to resume pacific oyster aquaculture operations on up to 34 acres of a 50 acre DNR tideland parcel (#20-A013012) in Dungeness Bay. Oyster farming methods will use a combination of on-bottom bag culture (at mid-lower elevations of the parcel) and beach harvest of mature oysters (at higher elevations of the parcel).

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. [\[help\]](#)

The proposed project is located on 50 acres of Department of Natural Resources managed aquatic land at Dungeness Spit in Sequim, WA 98382 (County: Clallam, Section: 23, Township: 31 North, Range: 4 West). Project coordinates: 48.16745 N, 123.15525 W - NAD83.

## **B. ENVIRONMENTAL ELEMENTS** [\[help\]](#)

### **1. Earth** [\[help\]](#)

a. General description of the site: [\[help\]](#)

The project parcel is located on tidal mudflats located within Inner Dungeness Bay.

b. What is the steepest slope on the site (approximate percent slope)? [\[help\]](#)

2%

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils. [\[help\]](#)

Silt, sand and shell rubble from pre-existing oyster production, as well as, adult oysters. See details in Dungeness Bay Field Report.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe. [\[help\]](#)

No. The site is located on tidal mudflats.

- e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill. [\[help\]](#)

Not applicable. No fill will be used on the site.

- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe. [\[help\]](#)

No. Proposed use will not cause erosion.

- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? [\[help\]](#)

0% - No part of the site will be covered by impervious surfaces after project construction.

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: [\[help\]](#)

Not applicable. Erosion control measures are not needed because proposed activities will not cause erosion.

## 2. Air [\[help\]](#)

- a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known. [\[help\]](#)

Exhaust from small marine vessel (~30 ft.) during transport of materials, farm maintenance and harvest of on-bottom bag culture and beach oysters. The number of boat trips is roughly estimated between 50-90 days/year and will be largely dependent on environmental conditions and production.

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe. [\[help\]](#)

No.

- c. Proposed measures to reduce or control emissions or other impacts to air, if any: [\[help\]](#)

We do not believe mitigation measures are needed since emissions from boat operation will be restricted to meet the basic needs of farm maintenance and harvest. Emissions produced by farm boat use would be a small fraction of emissions produced by on-going marine vessel activities in the Dungeness Bay area, including commercial fishing, crabbing and recreational boating.

## 3. Water [\[help\]](#)

- a. Surface Water:

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. [\[help\]](#)  
The project site is located on intertidal mudflats of Inner Dungeness Bay. There are no streams, ponds, lakes or wetlands in the immediate vicinity of the project site.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans. [\[help\]](#)  
Yes. All oyster farming operations will occur on the tideland parcel that is located within Inner Dungeness Bay. See site location in the attached project drawings.
- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material. [\[help\]](#)  
Not applicable. This proposal does not include any fill or dredge activities.
- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. [\[help\]](#)  
No, the project will not require any surface water withdrawals or diversions.
- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan. [\[help\]](#)  
No, this is a marine aquatic site.
- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge. [\[help\]](#)  
No waste materials will be discharged to surface waters.

b. Ground Water:

- 1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known. [\[help\]](#)  
No groundwater will be withdrawn for this project.
- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve. [\[help\]](#)  
Not applicable. This project will not generate any waste material that will be discharged into groundwater.

c. Water runoff (including stormwater):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe. [\[help\]](#)  
Not applicable. This project will not generate any runoff water.
- 2) Could waste materials enter ground or surface waters? If so, generally describe. [\[help\]](#)  
No. The project will not generate any waste material into ground or surface waters.

- 3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe. [\[help\]](#)

No. The proposal will not alter or affect drainage patterns in the vicinity of the site.

- d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any: [\[help\]](#)

Not applicable. This project will not generate any runoff water or impact water drainage.

#### 4. Plants [\[help\]](#)

- a. Check the types of vegetation found on the site: [\[help\]](#)

deciduous tree: alder, maple, aspen, other

evergreen tree: fir, cedar, pine, other

shrubs

grass

pasture

crop or grain

Orchards, vineyards or other permanent crops.

wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other

water plants: water lily, eelgrass, milfoil, other

other types of vegetation

- b. What kind and amount of vegetation will be removed or altered? [\[help\]](#)

No attached vegetation, namely native eelgrass (*Zoostera marina*), will be removed or altered. Drift sources of Ulvoids and other kelp that accumulate on oyster culture gear may be cleaned off periodically.

- c. List threatened and endangered species known to be on or near the site. [\[help\]](#)

No threatened or endangered plant species are known to be on or near the project site.

- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any: [\[help\]](#)

Fallow areas of the project site with native eelgrass (*Z. marina*) of 3+ shoots per square meter will be avoided and preserved by establishing a 25ft buffer for all farming activities. See Project Cultivation Map in project drawings.

- e. List all noxious weeds and invasive species known to be on or near the site. [\[help\]](#)

No noxious weeds or invasive plants are known to be on or near the site.

#### 5. Animals [\[help\]](#)

- a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site. [\[help\]](#)

Birds: waterfowl, shorebirds, seabirds, raptors

Mammals: harbor seal, elephant seal, orca whale – observed in Dungeness Bay

Fish: smelt, sand lance, herring, steelhead, salmon

Invertebrates: bivalves, barnacles, crab

b. List any threatened and endangered species known to be on or near the site. [\[help\]](#)

Murrelet, marbled - typically observed in outside waters of Dungeness Spit  
Salmon, Chinook Puget Sound ESU  
Steelhead Puget Sound DPS  
Trout, bull U.S.A.  
Whale, killer Southern Resident DPS

c. Is the site part of a migration route? If so, explain. [\[help\]](#)

The project site, located on the intertidal mudflats along Dungeness Spit, is located within the migration route of the marbled Murrelet, and several other species of waterfowl and shorebirds. Dungeness Bay is a known stop-over for many migrating birds.

Migration routes of anadromous Chinook, Steelhead and Bull Trout populations occur within the Dungeness River watershed, however, the project site is not directly part of the migration route of these anadromous fish species (see vicinity map in project drawings).

d. Proposed measures to preserve or enhance wildlife, if any: [\[help\]](#)

This project will incorporate conservation measures identified in the 2015 [USACE Programmatic Biological Assessment for Shellfish Activities in WA Inland Marine Waters](#) which includes specific conservations measures (section 3.5) identified and approved by NMFS and USFWS. All terms and conditions of conservation measures applicable to this project (see JARPA) will be met. Applicable conservation measures to preserve wildlife include: #7,8,9 (forage fish), #23 (entanglement) and #26 (eelgrass habitat).

Proposed measures to help protect wildlife include: no activities within 25ft of eelgrass (avoidance of critical habitat for brant and herring), no activities in the upper intertidal above tidal elevation of +3 MLLW (avoidance of critical sand lance and smelt spawning habitat), direct site access by boat via deep tidal channels and no mechanical harvest (minimize disturbance to birds).

While there is the potential to affect behavior and foraging for certain species of birds through disturbance (e.g., noise) related to farm activities (see references in Shellfish Aquaculture and Shellfish Interactions Report), these effects are expected to be minimal at this site due to the limited scale of activities, the limited total area where activities will occur, and the lack of eelgrass forage resources on-site for brant. Much of the bird activity in Dungeness Bay occurs during winter months when low tides occur at night. Therefore, best farm management practices focused on avoidance and minimization combined with the timing of aquaculture activities limits potential impacts on birds.

e. List any invasive animal species known to be on or near the site. [\[help\]](#)

European Green Crab:

Intensive trapping efforts in Dungeness Bay have primarily found Green Crab east (~0.25 mi) of the project site in the salt marsh and barrier lagoon habitat near

Graveyard Spit. No Green Crab have been observed on the project site. See Washington Sea Grant Crab Team map: <https://www.google.com/maps/d/viewer?mid=1nSlqgKGbfcxzbclgCWF57qjOAv4&ll=48.16562817984258%2C-123.14616345248714&z=15>

Japanese Oyster Drill: observed on the project site

## 6. Energy and Natural Resources [\[help\]](#)

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc. [\[help\]](#)  
The completed project will not require energy to operate. Fuel will be required to gain access to the farm site by boat.
- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe. [\[help\]](#)  
Not applicable.
- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any: [\[help\]](#)  
Not applicable. Energy, beyond boat fuel, is not required for shellfish farm operation.

## 7. Environmental Health [\[help\]](#)

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe. [\[help\]](#)  
No. This project does not pose any environmental health hazards.
  - 1) Describe any known or possible contamination at the site from present or past uses. [\[help\]](#)  
No known contamination has occurred at this site.
  - 2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity. [\[help\]](#)  
Not applicable. There are no known existing hazardous chemical/conditions at or near this site.
  - 3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project. [\[help\]](#)  
Not applicable. No toxic or hazardous chemicals will be stored, used or produced at any time during the life of this project.

- 4) Describe special emergency services that might be required. [\[help\]](#)  
Not applicable. No hazardous materials will be used during the life of this project.
- 5) Proposed measures to reduce or control environmental health hazards, if any: [\[help\]](#)  
Not applicable. This project will not produce any environmental health hazards.

b. Noise [\[help\]](#)

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)? [\[help\]](#)

No noises exist in the area that would affect the proposed project.

- 2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site. [\[help\]](#)

Noise from 1-2 small marine vessels (~30 ft.) and occasional use of an on-board hydraulic winch ("pot puller") would be associated with set-up, maintenance and harvest activities associated with this project. Noise levels will be low at the project site. Noise from outboard motors (150 HP, 4-stroke engine) would occur in transit to and from the site (~70 – 85 db: no wake – cruising speed), and while loading oyster bags. Noise hours would occur in association with harvest during low tide series (~50-90 times per year).

- 3) Proposed measures to reduce or control noise impacts, if any: [\[help\]](#)

Noise impacts from this project will be minimal to non-existent. It is not anticipated that the intermittent boat and hauling activity associated with this project would significantly contribute to noise levels in Dungeness Bay, particularly compared to noise production from other commercial fishing activity in the bay and recreational boating in the summer. Boxes constructed with noise insulation will house the hydraulic winch motor to further reduce noise levels (< 50 dB) associated with oyster bag loading activity at the project site.

8. Land and Shoreline Use [\[help\]](#)

- a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe. [\[help\]](#)

The DNR aquatic lease for shellfish cultivation held by the Tribe is currently in holdover status since poor water quality forced the Tribe to cease historic oyster farming at this site in 2005. Improvements in water quality in recent years led to DOH upgrades for shellfish growing in the bay and motivated the Tribe to utilize their DNR lease agreement for on-bottom oyster culture and beach harvest. The USFWS Dungeness Wildlife Refuge holds a use easement on the parcel. The proposed project will not affect current land uses on nearby properties.

- b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use? [\[help\]](#)

The project site has been designated and continually used for shellfish farming since

1953. This proposal will continue to use this site for shellfish cultivation. None of the tideland will be converted to non-farming use with the exception of the identified eelgrass habitat conservation area (see Project Cultivation Map in project drawings).

- 1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how: [\[help\]](#)

No. This project will not use large equipment and does not include the application of pesticides.

- c. Describe any structures on the site. [\[help\]](#)

No structures are located on the site. Some remnant metal and PVC posts still remain from past shellfish farming operations..

- d. Will any structures be demolished? If so, what? [\[help\]](#)

Not applicable. Some of the remnant posts located on the site may be removed.

- e. What is the current zoning classification of the site? [\[help\]](#)

Not applicable. Aquatic lands do not have a zoning classification.

- f. What is the current comprehensive plan designation of the site? [\[help\]](#)

Existing land use designations at the proposed site are: DNR-managed aquatic lands and US Fish and Wildlife use easement. Shellfish aquaculture is a supported use of the project tideland parcel pending an aquatic use authorization from DNR (Attachement E).

- g. If applicable, what is the current shoreline master program designation of the site? [\[help\]](#)

The shoreline designation for proposals located waterward of the OHWM is based on the extension of the of the landward shoreline designation which is designated Natural by the shoreline master program.

- h. Has any part of the site been classified as a critical area by the city or county? If so, specify. [\[help\]](#) The site is located waterward of the Ordinary High Water Mark of Dungeness Bay.

- i. Approximately how many people would reside or work in the completed project? [\[help\]](#)

No employees would reside on the project site. Once the oyster farm is initially set up, 4 – 15 employees per day over an estimated 50 – 90 days per year, would work on site based on maintenance and oyster harvest needs.

- j. Approximately how many people would the completed project displace? [\[help\]](#)

Zero.

- k. Proposed measures to avoid or reduce displacement impacts, if any: [\[help\]](#)

Not applicable. This project will not result in any displacement.

- L. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: [\[help\]](#)

The project is consistent with Clallam County's Comprehensive Plan, and works to achieve goals related to natural resource industry (goal 8), while protecting the environment (goal 10). The Tribe has continually leased this tideland parcel from DNR for 28 years for oyster aquaculture. With the recent Department of Health upgrade in classification for shellfish growing in the bay, the Tribe would like to utilize their current DNR lease agreement and resume historic oyster cultivation. The proposal will not affect the existing USFWS use easement on the parcel.

- m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any: [\[help\]](#)

Not applicable. This project is continuing activities of long-term commercial significance.

## 9. Housing [\[help\]](#)

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing. [\[help\]](#)

Not applicable.

- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing. [\[help\]](#)

Not applicable.

- c. Proposed measures to reduce or control housing impacts, if any: [\[help\]](#)

Not applicable.

## 10. Aesthetics [\[help\]](#)

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed? [\[help\]](#)

The height of the on-bottom culture bags will not exceed 6 inches fully stocked. Anchoring posts used to secure lines of culture bags to the ground may extend above the ground up to 1 ft. Culture bags are made of black, heavy duty, UV-resistant polypropylene mesh.

- b. What views in the immediate vicinity would be altered or obstructed? [\[help\]](#)

Due to the extremely low ( $\leq 1$  ft) vertical profile of on-bottom bag oyster cultivation and the remote location of the project site, no views in the immediate vicinity would be altered or obstructed. See photos in the Field Survey Report.

- c. Proposed measures to reduce or control aesthetic impacts, if any: [\[help\]](#)

The on-bottom bag oyster cultivation method utilizes low profile, black mesh bags that blend in with the substrate and are only visible within a few hundred yards during negative tides. This culture method was, in part, selected to minimize any aesthetic impacts.

## 11. Light and Glare [\[help\]](#)

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur? [\[help\]](#)  
Personal headlamps may be used by workers during oyster farm maintenance and harvest during nighttime low tides which typically occur during winter months.
- b. Could light or glare from the finished project be a safety hazard or interfere with views? [\[help\]](#)  
No. Light produced from personal headlamps would not be a safety hazard or interfere with views.
- c. What existing off-site sources of light or glare may affect your proposal? [\[help\]](#)  
None.
- d. Proposed measures to reduce or control light and glare impacts, if any: [\[help\]](#)  
Personal lights used during nighttime shellfish activities are not anticipated to have any impacts.

## 12. Recreation [\[help\]](#)

- a. What designated and informal recreational opportunities are in the immediate vicinity? [\[help\]](#)  
Wildlife viewing and photography  
Boating  
Hiking Dungeness Spit  
Fishing and Shellfishing
- b. Would the proposed project displace any existing recreational uses? If so, describe. [\[help\]](#)  
No. All recreational uses can continue as designated without any interference or displacement.
- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: [\[help\]](#)  
Not applicable. The project will not impact any existing recreational opportunities.

## 13. Historic and cultural preservation [\[help\]](#)

- a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe. [\[help\]](#)  
Yes, the New Dungeness Light Station is located approximately 2.5 miles from the project site. The proposal will have no impact on this structure.
- b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources. [\[help\]](#)  
Yes. Dungeness Bay has a rich history of use and cultural importance to the Salish Klallam people. Areas of cultural importance have been documented in chapter 5 of the Dungeness National Wildlife Refuge's Comprehensive Conservation Plan:  
<https://www.fws.gov/pacific/planning/main/docs/wa/docsdungeness.htm#proj>

A cultural resources statement for Dungeness Bay was also prepared by the Jamestown S’Klallam Tribe and has been submitted in the JARPA permit application materials.

- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

[\[help\]](#)

The Jamestown S’Klallam Tribe has continually leased this parcel from DNR for oyster cultivation for 28 years. The proposal will have no impact to culture and historic resources near the project site. Further, the purpose of this project is to establish a shellfish farm in a traditional place – so that S’Klallam could renew the practice of their ancestors and earn a living from Dungeness Bay. Dungeness Bay is the ancestral home of Jamestown S’Klallam people.

- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required. [\[help\]](#)

This project will not result in any disturbance or changes to cultural and historic resources.

#### 14. **Transportation** [\[help\]](#)

- a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any. [\[help\]](#)

Not applicable. The project site is not located on an existing street system and must be accessed by boat.

- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop? [\[help\]](#)

Not applicable.

- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate? [\[help\]](#)

Not applicable.

- d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private). [\[help\]](#)

No. The project will not require any improvements to existing roads or transport facilities.

- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe. [\[help\]](#)

Yes. The project site must be accessed by boat. All materials needed for on-bottom culture methods can be easily transported by small boat and assembled by hand on site.

- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates? [\[help\]](#)

Less than one boat trip per day would be generated by the set-up, maintenance and harvest activities associated with this proposal. It is anticipated that farm access would be limited to 50 – 90 trips annually based on a weather and tides, as well as, environmental and biological conditions.

- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe. [\[help\]](#)

No. The proposal will not interfere with the movement of any agricultural or forest products in the area.

- h. Proposed measures to reduce or control transportation impacts, if any: [\[help\]](#)

Not applicable.

15. **Public Services** [\[help\]](#)

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe. [\[help\]](#)

No. The project will not increase the need for public services.

- b. Proposed measures to reduce or control direct impacts on public services, if any. [\[help\]](#)

Not applicable.

16. **Utilities** [\[help\]](#)

- a. Circle utilities currently available at the site: [\[help\]](#)

electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other \_\_\_\_\_

Not applicable. The site is an aquatic tideland with no utilities.

- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed. [\[help\]](#)

No utilities are needed for set-up, maintenance or harvest activities on the farm.

**C. Signature** [\[help\]](#)

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: \_\_\_\_\_

Name of signee \_\_\_\_\_

Elizabeth Tobin

Position and Agency/Organization \_\_\_\_\_

Project Agent Jamestown S'Klallam Tribe

Date Submitted: \_\_\_\_\_

12/7/10



# Clallam County

## Department of Community Development

223 East 4<sup>th</sup> Street, Suite 5, Port Angeles, WA 98362

(v) 360-417-2420 ✧ (f) 360-417-2443

email: [dcdplan@co.clallam.wa.us](mailto:dcdplan@co.clallam.wa.us)

### ENVIRONMENTAL CHECKLIST APPLICATION

ECL \_\_\_\_\_

APPLICANT INFORMATION

Name Jamestown S'Klallam Tribe

Mailing Address 1033 Old Blyn Hwy

City Sequim St. WA Zip 98382

Phone Number 360-460-3240 Business Phone 360-681-4630

AGENT INFORMATION (If applicable)

I, Ron Allen, (applicant) do hereby authorize Elizabeth Tobin (agent) to act on my behalf for this land division pursuant to Title 29, CCC.

Mailing Address 1033 Old Blyn Hwy

City Sequim St. WA Zip 98382

Phone Number 360-460-3240 Contact Person Elizabeth Tobin

Applicant Signature \_\_\_\_\_

PROJECT INFORMATION

Tax Parcel Number 20-A013012 Size of Parcel 50 acres Zoning Not applicable

Existing Land Use Aquaculture Proposed Land Use Aquaculture

Description of proposal Re-establish oyster aquaculture subsequent to resolution of water quality impairments in Dungeness Bay.

Associated Permits JARPA

Directions to site Take US-101 W into Sequim, WA 98382. Take the Sequim-Dungeness Way to Clark Rd. Follow Clark Rd to Cline Spit Rd which dead ends at Dungeness Bay.

Nearest Public Street Cline Spit Rd.

Proposed Water Supply N/A Proposed Sewage Disposal N/A

Is property within 200-feet of surface water? Yes If so, which water body or type? Dungeness Bay

Is the property located within an Irrigation District? No Which one? \_\_\_\_\_

Has the property been logged within the past six years? No Forest Practices Permit # \_\_\_\_\_

By making this application, you are hereby granting consent to the Clallam County Director of Community Development and his/her designee to enter and inspect the property, structure(s) or geophysical feature related thereto which is the subject of this application, in order that the County may verify actual physical site issues, as well as compliance with proposed conditions or conditions imposed pursuant to the application. Unless otherwise further granted, the consent to enter established by this application is terminated upon the final action on the application or resulting permit.

I certify, under penalty of perjury of the Laws of the State of Washington, that I am the owner or authorized agent\* of the property that is the subject of this application.

Ron Allen 12/7/18 Elizabeth Tobin 12/6/18

Applicant Date Agent Date

## Mitigation Plan

### Established Conservation Measures

- Shellfish activities will not occur within 25 horizontal feet of eelgrass (pg1)
- Shellfish activities will not occur above +7 ft (pg1)
- Shellfish activities shall not occur above +5 ft. (All activity will occur at or below +3ft).(pg1)
- Herring egg incubation time will be avoided in general (Jan 16 – Apr 30). If bag removal must occur between this time, all monitoring conditions will be met. (pg2)
- If on-bottom bag removal or maintenance activities (site prep?) occurring August 1 – March 31 will have a spawn survey conducted within the work area by an approved biologist prior to the undertaking. (pg2)
- All shellfish gear that is not actively in use will be stored off-site. (pg2)
- All gear shall be clearly, indelibly and permanently marked to identify the permittee
- All gear shall be tightly secured to prevent loss. (pg2)
- Beaches will be patrolled for debris removal in accordance with Measure 22. Any retrieval will be in close communication and coordination with DNWR. (pg2)
- The applicant has identified site access routes and locations that will avoid eelgrass (pg3)

### Site-specific Stewardship Measures

- Limited gear use in starting operations: Will not exceed 5 acres in first 2 years. Outcomes from monitoring will inform phased expansion (what monitoring? Who is writing the protocol?) (pg3)
- Gear placement/removal and out planting (7-15 people) will **generally** align with original recommended timeframes.
  - Occur over a single low tide cycle every few months. (pg3)
- During the sensitive periods, activity would **mostly** involve on-bottom bag maintenance and harvest (3-6 people) during negative low tides with 2-3 visits per low tide cycle (4-6 visits per month) (pg3)
- Oyster bags stacked for harvest are retrieved at high tide using a mechanized lift – “there is no corresponding onsite activity (how is that not an onsite activity?) (pg3)
- Hydraulic winch motor will be insulated to reduce noise (<50 dB). (pg3)
- Farm workers will use headlamps (500 – 1000 lumens) with down casted light (4-6 site visits per month at negative tides). No other light sources will be used. (pg3)

## Monitoring Plan

Monitoring activities will be used to evaluate potential impacts associated with farming activities. If "more than minimal" adverse impacts are not identified based on statistically-supported evaluation, then the applicant reserves the right to expand activities to "Phase 2" (in years 3 - 5) and "Phase 3" (beyond year 5) operations as outlined in the JARPA. (pg4)

Who is conducting the “statistically-supported evaluation” and monitoring? What experts are they using to create disturbance protocols? What about cumulative impact vs incremental change to the area by phased approach? Who is deciding what “more than minimal” equals statistically? We do not have a baseline of waterfowl/shorebird activity specifically associated with the site. We only have general surveys of the area. How will they determine if there is change (e.g., movement to a less suitable portion of the beach)? (pg4)

**Eelgrass surveys** will extend 200 ft. from the boundary of the lease parcel to serve as a reference site. If survey data identifies that eelgrass within the lease parcel retreats by more than 50% buffer distance (i.e., >37.5 ft. from the edge of the oyster farm), but equivalent retreat is not observed in the reference site (of similar density, tidal elevation and substrate), then the distance will be increased by the measured distance of the eelgrass retreat. Such eelgrass buffer expansion will occur until eelgrass retreat is no longer identified in the survey data. Survey records and eelgrass delineation maps will be available upon request to Clallam County, USACE, USFWS and NOAA. (Will the original buffer be maintained regardless of eelgrass retreat? What if it only retreats by 25%, will they be able to push into those original buffer areas? What if it is a bad year for eelgrass and the area outside also retreats by 50%, will they push into the original buffered area?) (pg4)

**Forage Fish Spawn Surveys** will be conducted by a WDFW-certified tribal forage fish biologist before removal or maintenance of on-bottom bags outside of the approved work windows<sup>2</sup>. If any forage fish spawn is present no farm activity will occur in the area where spawning has occurred until the eggs have hatched. If spawn is detected, USACE and USFWS will be notified. (pg4)

**Brant-Farm Interaction Observations** will be recorded monthly by a shellfish farm worker, Tribal biologists and/or an Audubon volunteer on brant and shellfish farm interactions. A log will be kept that includes the date and time of observation, tidal height, number of brants observed and a description of interactions observed (i.e., type of activity occurring and brant response behaviors). If observation logs indicate any persistent (e.g., recurring over the length of the migration season) negative behavioral responses from brant to specific farm activities, those activities will be evaluated and mitigation measures will be put into place to minimize or eliminate the adverse. Who is conducting the “statistically-supported evaluation” and monitoring? What experts are they using to create disturbance protocols? What about cumulative impact vs incremental change to the area by phased approach? Who is deciding what “more than minimal” equals statistically? (pg4)

**Shorebird counts** will be conducted monthly within and adjacent to the lease parcel by a shellfish farm worker, Tribal biologists and/or an Audubon volunteer. A log will be kept that includes the date and time, tidal height and number and species of shorebirds observed within and adjacent to the lease parcel. Observation logs will be available upon request to Clallam County, USACE, USFWS and NOAA. (additional people and/or time on site = increased disturbance). (pg5)

OPERATIONS PLAN

	Timing	Duration (hrs)	# Visits Per mo	#people Per day	Tide Range	Activity
Gear Placement/Removal	Late Apr. – May & Mid Oct. – Mid Nov	4-6	5-6	7-15	+1 - -2.5	Set up/remove on-bottom bags
Bag Maintenance	Year Round	4-6	2-6	~3-6	+1 - -2.5	Manually flip bags
Harvest	Year Round	4-6	2-6	~4-6	+1 - -2.5	Harvest beach or bag oysters

\*Outplanting? What does the approximation mean? How many additional people could be used before they are outside of the range of the approximation? Do the site visit numbers include site access for retrieval of harvested bags?

The table makes it look like Maintenance and Harvest are separate activities requiring separate visits, but the write-up makes it look like they are overlapping activities. Not sure if maintenance and harvest activities occurring together would require 6 or 12 people. Need to ask the applicant for clarification.

Depending on response there could be 6-12 people in a closed area during the most sensitive periods 6 times/month.

Their gear placement and removal periods meet our original timeline, but do not meet the amended timeline based on additional information re: Brant and Shorebirds. Given that this activity requires more people, and more time on site, it would need to occur during the May 15 – July 31 timeline, in order to reduce impacts to wildlife.

Need to ask if they anticipate that 80,000 bags can be manually flipped by 6 people, or if these #s are for the 1<sup>st</sup> phase of the project.

When tribe provided the application materials they provided the SEPA and JARPA docs, and the two attached reports