

AGENCY USE ONLY

JARPA FORM LAST UPDATES: March 19, 2007

Agency Reference #:

Date Received:

Issued by:

(local govt. or agency)

FEB 21 2008

Project Tracking Number:

Washington State JOINT AQUATIC RESOURCES PERMIT APPLICATION (JARPA) Form



Fish Habitat Enhancement Projects per RCW 77.55.181. You must submit copy of completed JARPA form and Fish Habitat Enhancement JARPA Addition to your Local Government Planning Dep't and WA Dep't of Fish and Wildlife (WDFW) Area Habitat Biologist on same day. Note for Local Governments: You must submit comments to WDFW within 15 working days.

Based on instructions at www.wa.gov/permits, I am sending copies of this application to the following: (check all that apply)

Local Government for Shoreline: Substantial Development Conditional Use Variance Exemption Revision
 Floodplain Management Critical Areas Ordinance

Washington Department of Fish and Wildlife for Hydraulic Project Approval (Submit 2 copies to WDFW Region)

Washington Department of Ecology for 401 Water Quality Certification (to Regional Office-Federal Permit Unit)

Washington Department of Natural Resources for Aquatic Resources Use Authorization Notification

Corps of Engineers for: Section 404 permit Section 10 permit

Coast Guard for: General Bridge Act Permit Private Aids to Navigation (for non-bridge projects)

For Department of Transportation projects only: This project will be designed to meet conditions of the most current Ecology/Department of Transportation Water Quality Implementing Agreement

PROJECT TITLE: Intertidal Culture of Geoduck - Foss Farm

PROJECT DESCRIPTION: The planting and harvesting of geoduck in the lower intertidal zone of Case Inlet.

SECTION A - Use for all permits covered by this application. Be sure to ALSO complete Section C (Signature Block) for all permit applications.

1. APPLICANT Taylor Shellfish

MAILING ADDRESS - SE 130 Lynch Road, Shelton, WA 98584

WORK PHONE
360 426-6178

E-MAIL ADDRESS
DianaC@taylorshellfish.com

HOME PHONE
360 490-4800

FAX #
360 427-0327

If an agent is acting for the applicant during the permit process, complete #2. Be sure agent signs Section C (Signature Block) for all permit applications

2. AUTHORIZED AGENT - Diana Cooper

MAILING ADDRESS

Same

WORK PHONE
Same

E-MAIL ADDRESS
Same

HOME PHONE
Same

FAX #
Same

3. Relationship of applicant to property: OWNER PURCHASER LESSEE _____

4. Name, address and phone number of property owner(s) if other than applicant: North Bay Partnership, Leslie Foss, 211 South 6th Street, Mount Vernon, WA 98273 (360) 336-9981

5. Location (street address, including city, county and zip code, where proposed activity exists or will occur) Tidelands abutting Parcels 0020093002, 0020093008, 002018200, 0020084002, north of Joemma State Park on the west side of Key Peninsula in Pierce County.

Local government with jurisdiction (city or county)
Pierce County

Waterbody you are working in		Case Inlet		Tributary of	WRIA #
Is this waterbody on the 303(d) list <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		If YES, what parameter(s)? DO, Fecal Coliform		Puget Sound	15
				Shoreline designation-Natural and Conservancy	
				Zoning designation-Rural Residential	
1/4 Section	Section	Township	Range	Government Lot	DNR stream type if known
	8, 9, an 16	20 North	1 West		1+
Latitude and Longitude:				Tax Parcel Number	
				0020093003, 0020093008	

6. Describe (a) the current use of the property, (b) structures existing on the property, and (c) existing environmental conditions. Have you completed any portion of the proposed activity on this property? YES NO

For any portion of the proposed activity already completed on this property, indicate month and year of completion.

This is an established geoduck farm and has been ongoing for almost eight years. See attached overview and supporting technical documents for additional detail.

Is the property agricultural land? YES NO Are you a USDA program participant? YES NO

7a. Describe the proposed work that needs aqualic permits: Complete plans and specifications should be provided for all work waterward of the ordinary high water mark or line, including types of equipment to be used. If applying for a shoreline permit, describe all work within and beyond 200 feet of the ordinary high water mark. If you have provided attached materials to describe your project, you still must summarize the proposed work here. Attach a separate sheet if additional space is needed.

Juvenile clams are planted in PVC tubes buried in the substrate. The tubes are removed within two years and the geoduck continue to grow until harvest at approximately 4-6 years. Harvest occurs by removing the adult geoduck from softened substrate. The substrate around the adult geoduck is softened by inserting water with a hydraulic wand around the geoduck. The area is then replanted.

PREPARATION OF DRAWINGS: See multiple drawings and guidance for completing the drawings. **ONE SET OF ORIGINAL OR GOOD QUALITY REPRODUCIBLE DRAWINGS MUST BE ATTACHED.** NOTE: Applicants are encouraged to submit photographs of the project site, but these DO NOT substitute for drawings. **THE CORPS OF ENGINEERS AND COAST GUARD REQUIRE DRAWINGS ON 8-1/2 X 11 INCH SHEETS. LARGER DRAWINGS MAY BE REQUIRED BY OTHER AGENCIES.**

7b. Describe the purpose of the proposed work and why you want or need to perform it at the site. Please explain any specific needs that have influenced the design.

Continuation of the commercial cultivation of geoduck clams.

7c. Describe the potential impacts to characteristic uses of the water body. These uses may include fish and aquatic life, water quality, water supply, recreation and aesthetics. Identify proposed actions to avoid, minimize, and mitigate detrimental impacts and provide proper protection of fish and aquatic life. Identify which guidance documents you have used. Attach a separate sheet if additional space is needed.

Shellfish aquaculture is a preferred use under the State's Shoreline Management Act and Pierce County's Shoreline Master Program. The nature of the operation and shellfish farming in general require clean water and a healthy marine ecosystem to be successful. See attached overview and supporting technical documents for additional detail.

7d. For in-water construction work, will your project be in compliance with the State of Washington water quality standards for turbidity (WAC 173-201A-410)? YES NO

8. Will the project be constructed in stages? YES NO

Proposed starting date:

Estimated duration of activity: This is an established farm and activities are ongoing.

9. Check if any temporary or permanent structures will be placed: **N/A**

Waterward of the ordinary high water mark or line for fresh or tidal waters AND/OR

Waterward of the mean higher high water for tidal waters?

10. Will fill material (rock, fill, bulkhead, or other material) be placed: **No.**

Waterward of the ordinary high water mark or line for fresh waters?
If YES, VOLUME (cubic yards) / AREA (acres)

Waterward of the mean higher high water for tidal waters?
If YES, VOLUME (cubic yards) / AREA (acres)

11. Will material be placed in wetlands? YES NO
 IF YES:
 A. Impacted area in acres:
 B. Has a delineation been completed? IF YES, please submit with application. YES NO
 C. Has a wetland report been prepared? IF YES, please submit with application YES NO
 D. Type and composition of fill material (e.g., sand, etc.)
 E. Material source:
 F. List all soil series (type of soil) located at the project site, and indicate if they are on the county's list of hydric soils. Soils information can be obtained from the natural Resources Conservation Service (NRCS).
 G. WILL PROPOSED ACTIVITY CAUSE FLOODING OR DRAINING OF WETLANDS? YES NO
 IF YES, IMPACTED AREA IN ACRES OF DRAINED WETLANDS.
 NOTE: If your project will impact greater than 1/10 of an acre of wetland, submit a mitigation plan to the Corps and Ecology for approval along with the JARPA form.
 NOTE: A 401 water quality certification may be required from Ecology in addition to an approved mitigation plan if your project wetland impacts are greater than 1/10 acre in size. Please submit the JARPA form and mitigation plan to Ecology for 401 certification review.

12. Stormwater Compliance: This project is (or will be) designed to meet ecology's most current N/A stormwater manual, or an Ecology approved local stormwater manual. YES NO
 IF YES -- Which manual will your project be designed to meet?
 IF NO -- For Clean Water Act Section 401 and 404 permits only -- Please submit to Ecology for approval, along with this JARPA application, documentation that demonstrates the stormwater runoff from your project or activity will comply with the water quality standards; WAC 173-201(A)

13. Will excavation or dredging be required in water or wetlands? YES NO
 IF YES:
 A. Volume: (cubic yards) /area (acre)
 B. Composition of material to be removed:
 C. Disposal site for excavated material:
 D. Method of dredging:

14. Has the State Environmental Policy Act (SEPA) been completed YES NO Previous (Previous DNS 10/13/01)
 SEPA Lead Agency: Pierce County
 SEPA Decision: DNS, MCNS, EIS, Adoption, Exemption Decision Date (end of comment period)
 SUBMIT A COPY OF YOUR SEPA DECISION LETTER TO WDFW AS REQUIRED FOR A COMPLETE APPLICATION

15. List other Applications, approvals or certifications from other federal, state or local agencies for any structures, construction discharges or other activities described in the application (i.e. preliminary plat approval, health district approval, building permit, SEPA review, federal energy regulatory commission license (FERC), Forest practices application, etc.). Also, indicate whether work has been completed and indicate all existing work on drawings. NOTE: For use with Corps Nationwide Permits, identify whether your project has or will need an NPDES permit for discharging wastewater and/or stormwater.

TYPE OF APPROVAL	ISSUING AGENCY	IDENTIFICATION NO.	DATE OF APPLICATION	DATE APPROVED	COMPLETED?
SEDP	Pierce County	SD22-00	4/00	10/00	Yes
Nationwide Permit 48	Army COE	NWP48			Yes
Harvest Site Approval	State DOH	46SP	10/00	10/00	Yes
Aquatic Farm Registration	State DFW	8256	10/00	10/00	Yes

16. Has any agency denied approval for the activity you're applying for or for any activity directly related to the activity described herein?
 YES NO
 IF YES, explain:

SECTION B - Use for Shoreline and Corps of Engineers permits only:

17a. Total cost of project. This means the fair market value of the project, including materials, labor, machine rentals, etc.
 This is an established farm and therefore has a substantial investment of materials and labor that have been incurred to date. For continuing operations the value is approximately \$20M. in Goodback / Farm is \$10,000.00

17b. If a project or any portion of a project receives funding from a federal agency, that agency is responsible for ESA consultation. Please indicate if you will receive federal funds and what federal agency is providing those funds.
 FEDERAL FUNDING YES NO IF YES, please list the federal agency.

18. Local government with jurisdiction: Pierce County

19. Provide names, addresses and telephone numbers of adjoining property owners, lessees, etc. *Please note: Shoreline Management Compliance may require additional notice - consult your local government.*

NAME	ADDRESS	PHONE NUMBER
See attached property listing.		

SECTION C - This section MUST be completed for any permit covered by this application

20. Application is hereby made for a permit or permits to authorize the activities described herein. I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief, such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities. I hereby grant to the agencies to which this application is made, the right to enter the above-described location to inspect the proposed, in-progress or completed work. I agree to start work **ONLY** after all necessary permits have been received.

<u>William J. Taylor</u> SIGNATURE OF APPLICANT	DATE <u>2/14/08</u>
<u>Diane Cooper</u> SIGNATURE OF AUTHORIZED AGENT	DATE <u>2/14/08</u>

I HEREBY DESIGNATE Diane Cooper TO ACT AS MY AGENT IN MATTERS RELATED TO THIS APPLICATION OR PERMIT(S). I UNDERSTAND THAT IF A FEDERAL PERMIT IS ISSUED, I MUST SIGN THE PERMIT.

<u>William J. Taylor</u> SIGNATURE OF APPLICANT	DATE <u>2/14/08</u>
<u>on file</u> SIGNATURE OF LANDOWNER (EXCEPT PUBLIC ENTITY LANDOWNERS, E.G. DNR)	

THIS APPLICATION MUST BE SIGNED BY THE APPLICANT AND THE AGENT, IF AN AUTHORIZED AGENT IS DESIGNATED.

18 U.S.C §1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly falsifies, conceals, or covers up by any trick, scheme, or device a material fact or makes any false, fictitious, or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious, or fraudulent statement or entry, shall be fined not more than \$10,000 or imprisoned not more than 5 years or both.

COMPLETED BY LOCAL OFFICIAL

A. Nature of the existing shoreline. (Describe type of shoreline, such as marine, stream, lake, lagoon, marsh, bog, swamp, flood plain, floodway, delta; type of beach, such as accretion, erosion, high bank, low bank, or dike; material such as sand, gravel, mud, clay, rock, riprap; and extent and type of bulkheading, if any)

B. In the event that any of the proposed buildings or structures will exceed a height of thirty-five feet above the average grade level, indicate the approximate location of and number of residential units, existing and potential, that will have an obstructed view:

C. If the application involves a conditional use or variance, set forth in full that portion of the master program which provides that the proposed use may be a conditional use, or, in the case of a variance, from which the variance is being sought:

These Agencies are Equal Opportunity and Affirmative Action employers.
 For special accommodation needs, please contact the appropriate agency in the Instructions

PLANNING & LAND SERVICES

FEB 21 2008

PIERCE COUNTY

Geoduck Farming Fact Sheet – Overview

Geoduck farming is a new industry and continues to adapt and improve in response to emerging technologies and science.

Planting

Geoduck seed produced in a hatchery is used for planting on private tidelands. The seed are approximately 5-15 mm in size when transported from the hatchery or nursery for planting.

Currently, geoduck seed is planted in 4-6" PVC pipe cut in approximately 9" lengths.

A length of pipe is worked into the substrate in the intertidal zone from approximately the -3 to +3 tidal elevation (MLLW) The pipes are spaced about 12" apart. Approximately 3-4" of the PVC pipe is left above the substrate. Generally 3-4 geoduck seed are planted in each pipe.

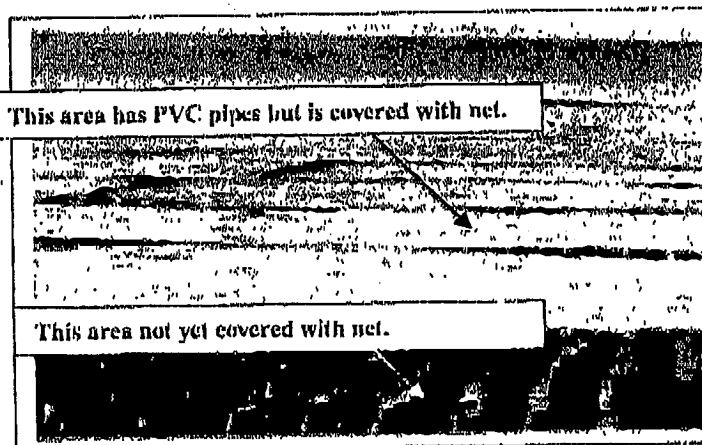
Juvenile geoduck must grow and dig to a depth adequate to evade predation (depth refuge). To help the young clams evade predators, nets are placed over the tops of the PVC pipe. Different types and methods of net have been employed.

On some beaches, each PVC pipe was topped with a single net and rubber-banded to keep the net in place. Many beaches, however, now use a single, large net to cover the pipes. This eliminates excessive debris issues and reduces visual impacts.

Because of the low tidal elevations that geoducks are planted, visibility of the PVC pipes will only occur approximately 5% of the daylight hours over a 6-year crop cycle.



Above: PVC pipe planted with geoduck. Right: PVC pipes covered with a single, large net.

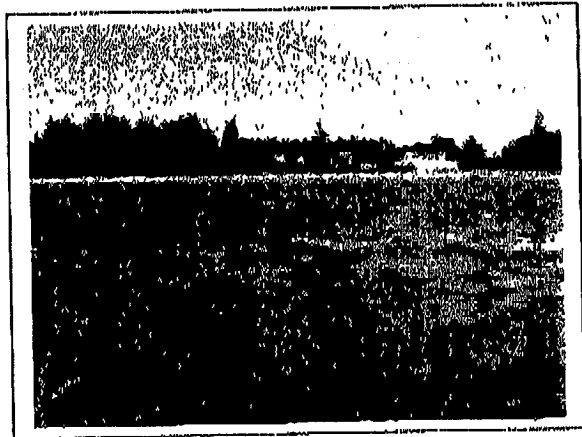
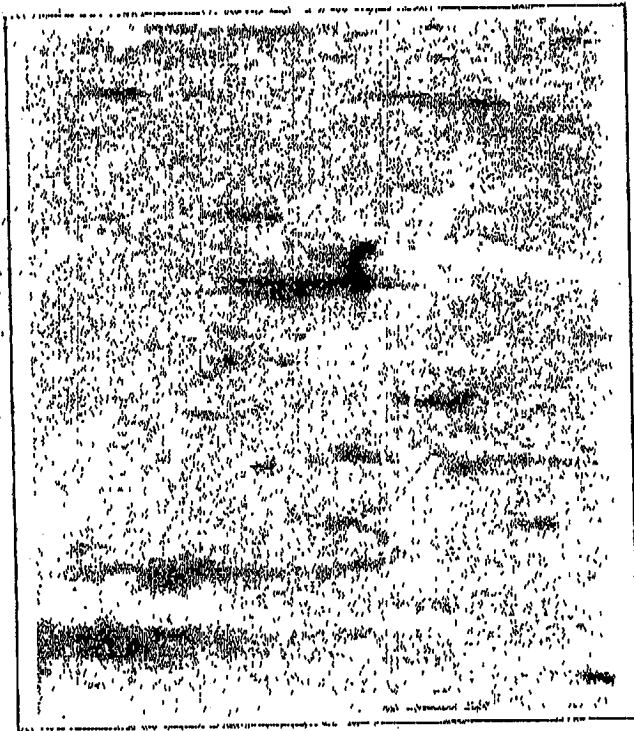


Farm Management

Farms are periodically checked to ensure adequate growth of the geoducks.

Additionally, unnatural debris from the farm is picked and prevented from littering the waters and the beaches.

Depending on growing conditions, the PVC pipes are removed after approximately 12 to 24 months. After the tubes are removed, the beach is visually the same as it was prior to planting.



Above and left: Planted geoduck beaches after PVC pipes are removed.

Harvest

The length of time to harvest may range between 4 and 7 years depending on planting density, substrate quality, tidal elevation, and market conditions.

Generally, geoduck clams weigh approximately 2 pounds at harvest time, but that can vary depending on market demand.

Geoducks can be harvested above the water line at low tide or by divers below the water line.

Both methods utilize water jets to liquefy the sediment where the geoducks are buried. The pumps used to power the water jets are mounted on small boats or barges anchored off-shore. Housing units cover the pumps to reduce noise.

Harvest times and duration are dependent on the farm size, crew size, and market demand.



Top left: Harvesting geoduck. Top right: Geoducks harvested and ready for market.