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HEARING EXAMINER

Creating Solutions for Our Future

**BEFORE THE HEARING EXAMINER
FOR THURSTON COUNTY**

In the Matter of the Application of)	Project No. 2018103842 – Net Venture Farms
)	
Hui Xia, on behalf of)	
Net Venture)	
)	
For Approval of a)	FINDINGS, CONCLUSIONS,
Shoreline Substantial Development Permit)	AND DECISION
_____)	

SUMMARY OF DECISION

The requested shoreline substantial development permit to develop commercial intertidal geoduck beds on 3.6 acres of leased private tidelands at 7944, 7938, 7924, 7908, 7842, and 7830 61st Avenue NE is **GRANTED** with conditions.

SUMMARY OF RECORD

Request:

Hui Xia (Applicant) requested approval of a shoreline substantial development permit (SSDP) to develop commercial intertidal geoduck beds on 3.6 acres of leased private tidelands at 7944, 7938, 7924, 7908, 7842, and 7830 61st Avenue NE. The subject tidelands, which are within the Nisqually Reach of Puget Sound, are designated as a Rural shoreline environment by the Shoreline Master Program for the Thurston Region.

Hearing Date:

The Thurston County Hearing Examiner held an open record hearing on the request on January 8, 2019. Because a large volume of written public comment was offered at the hearing, the record was held open to allow Planning Staff and the Applicant time to review and respond to public comment. At the close of the hearing, the record was held open through January 11, 2019 for additional written materials from member of the public Laura Hendricks.¹ The record was

¹ Ms. Hendricks requested to submit a book into evidence: Toxic Pearl, by M. Perle. This request was denied on records retention grounds; however, Ms. Hendricks asked and was allowed to copy and submit one chapter from the book, the one specifically addressing Puget Sound, by Friday January 11th. She did not submit the agreed to chapter by that date. Instead she offered a review of the book from the Cliff Mass Weather and Climate Blog, which was admitted as Exhibit 7. See Finding 23.

held open through February 1, 2019 for Planning Staff to submit written response to public comment, including any changes to recommended conditions. Additionally, the record was held open for Staff's final comments and the Applicant's final response to public comment and Planning's final comments through February 8, 2019. The parties agreed to a decision issuance deadline of March 4, 2019; however, deliberations took longer than agreed.

Testimony:

At the hearing the following individuals presented testimony under oath:

Leah Davis, Associate Planner, Thurston County
Dawn Peebles, Thurston County Environmental Health Division
Hui Xia, Net Venture Farms, Inc., Applicant Representative
Rachel Villa, Soundview Consultants, Scientist Project Manager (on behalf of Applicant)
Dennis Burke
Laura Hendricks
Ken Bago
Carol Goss
Darren Nienaber
Lee Reimer
Grant Tibbets

Exhibits:

At the hearing the following exhibits were admitted into the record:

- Exhibit 1 Community Planning & Economic Development Department Staff Report, including the following attachments:
- A. Notice of Public Hearing, dated December 20, 2018
 - B. Revised Master Application, submitted August 23, 2018
 - C. Revised JARPA Application, submitted August 23, 2018
 - D. Revised SEPA Checklist, submitted August 23, 2018
 - E. Site Plan
 - F. Notice of Application, dated August 2, 2018
 - G. Mitigated Determination of Non-Significance, issued October 26, 2018
 - H. Memo from Thurston County Health Department, dated November 19, 2018
 - I. Comment letter from Nisqually Tribe, dated July 23, 2018
 - J. Comment letters from Department of Ecology, dated September 28, 2018 and November 13, 2018
 - K. Comment email from Washington State Department of Natural Resources, dated September 1, 2018
 - L. Biological Evaluation, dated July 2018

- M. Cultural Survey, dated July 20, 2018
- N. Washington Sea Grant Final Report
- O. Public Comment:
 - 1. Erin Merrell, dated August 13, 2018 (with attachments)
 - 2. Barbara and Dick Yunker, dated August 15, 2018
 - 3. Stephen and Paige Backholm, dated August 22, 2018
 - 4. Gary and Marilyn Ritchie, dated September 16, 2018
 - 5. Jeff and Jolene Holmes, dated September 16, 2018
 - 6. Dave Campbell, dated September 16, 2018
 - 7. Terry and Gerald Stempson, dated September 17, 2018
 - 8. Mike & Bonnie Gross, dated September 17, 2018
 - 9. Grant & Suzan Tibbetts, dated September 17, 2018
 - 10. Ellen and Jon Wan, dated September 18, 2018
 - 11. Laura Hendricks, Coalition to Protect Puget Sound (with attachments), dated September 18, 2018
 - 12. Harry Branch, dated January 7, 2019
- Exhibit 2 Photo of Notice of Public Hearing posting on site (submitted by Staff)
- Exhibit 3 Written testimony of Hui Xia, January 8, 2019, with attachments:
 - A. Email exchange between Ms. Xia and Erin Merrell
 - B. Permit addendum
 - C. Email exchange between Ms. Xia and Jordan Bunch, U.S. Army Corps of Engineers
 - D. Email exchange between Ms. Xia and Jeff Dungan, Washington State Department of Natural Resources
- Exhibit 4 US Army Corps of Engineers Letter of Authorization under Nationwide Permit 48, dated October 11, 2018
- Exhibit 5 Racheal Villa, Soundview Consultants, Curriculum Vitae and written hearing testimony, dated January 8, 2019
- Exhibit 6 Laura Hendricks, Coalition to Protect Puget Sound comment letter, dated January 7, 2019
- Exhibit 7 Cliff Mass Weather and Climate Blog – Toxic Pearl book review
- Exhibit 8 Carol Goss and Glen Simmelink comment letter, dated January 8, 2019
- Exhibit 9 Marine Pollution Bulletin #62

Exhibit 10 Endangered Species Act Section 7 Formal Biological Programmatic Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for Shellfish Aquaculture Activities in Washington State (COE Reference Number NWS-2014-12)Programmatic biological opinion of National Marine Fisheries Services, dated September 2, 2016

Exhibit 11 County response to public comment, dated January 25, 2019

Exhibit 12 Applicant's post hearing comment, dated February 7, 2019

Based on the record developed at hearing, the following findings and conclusions are entered:

FINDINGS

1. The Applicant requested approval of an SSDP to develop commercial intertidal geoduck beds on 3.6 acres of leased private tidelands at 7944, 7938, 7924, 7908, 7842, and 7830 61st Avenue NE. The subject tidelands are within the Nisqually Reach of Puget Sound.² *Exhibits 1, 1.B, 1.C, and 1.E.*
2. The uplands portion of the subject parcels are zoned Rural Residential Resource (RRR 1/5), and there are single-family residences on six of the seven parcels. Primary permitted uses in the RRR 1/5 zone include single and two-family residences, agriculture, home occupations, and farm housing. *Thurston County Code (TCC) 20.09A.020.* The zoning ordinance defines "agriculture" as including raising, harvesting, and processing clams. *TCC 20.03.040(3).* Consequently, the proposed use is allowed in the RRR 1/5 zone. *Exhibit 1.*
3. Surrounding land uses are primarily single-family residential. Tolmie State Park, which is also on the Puget Sound shoreline, is approximately 200 feet west of the subject property. *Exhibits 1 and 1.E.*
4. As intertidal lands in the Nisqually Reach, the project site is subject to the jurisdiction of the Washington State Shoreline Management Act (SMA) as implemented through the Shoreline Master Program for the Thurston Region (SMPTR), the County's shoreline master program. *SMPTR, Section 4, Definitions.* The SMPTR designates the subject tidelands as Rural shoreline environment. Aquaculture is allowed in this environment. The proposed geoduck operation requires the installation of equipment on the tidelands that constitutes a "structure," the installation of which is considered "development" for the purposes of the SMPTR. Non-exempt development in the shoreline jurisdiction that exceeds \$7,047.00 in fair market value requires a shoreline substantial development permit (SSDP). *SMPTR, Section 1.II.A; Exhibit 1; Washington State Register (WSR) 17-17-007.*

² The subject parcels are legally described as portions of Section 23, Township 19 North, Range 1 West, W.M.; also known as Tax Parcel Numbers 11923241000, 11923241100, 11923241200, 11923241300, 11923241500, 11923241600, and 11923130100. *Exhibits 1, 1.B, and 1.C.*

5. The subject beach is considered to have high aquaculture potential due to its shallow slope and soft sediment. Due to water quality, the area is designated by the Washington Department of Health as an “approved” growing area. *Exhibits 1 and 1.L.*
6. The proposed geoduck culture area is limited to the portion of the tidelands between -4 feet MLLW to +3.0 feet MLLW. No vegetation or animal species would be removed in preparation for planting the geoduck seed. The geoducks would be planted in eight- to 12-inch lengths of four- to six-inch diameter flexible polyethylene mesh tubes that have been placed in the substrate, with the upper two to four inches tubes exposed. The purpose of the tubes is to exclude predators, as the geoduck seed are vulnerable due to their small size and shallow depth. The tubes would be placed at a density of approximately one per square foot, and after seeding, the tubes would be closed by write-on zip ties that have been labeled with the Applicant’s company contact information. The planting process is expected to require six to eight workers, working approximately 40 six-hour periods. *Exhibits 1.C and 1.L.*
7. The proposed mesh tubes are different than the commonly used PVC tubes in that they do not require the use of either large area nets or individual tube nets to secure the geoduck seed from predation, nor do they require rebar to hold area nets in place. The Applicant proposes to use grey PVC. Once installed, the mesh tubes would visually blend with and stay anchored in the substrate. They are believed to be less likely to result in marine debris than PVC tubes, and the flow-through design minimizes alteration of the substrate.³ *Exhibits 1.C, 1.L, and 3; Hui Xia Testimony.*
8. The tubes would be removed approximately 24 months after planting, once the clams have burrowed to a sufficient depth to provide protection from predators. Workers would remove the tubes by hand. *Exhibits 1.C and 1.L.*
9. The geoducks would be harvested approximately three to four years after the mesh tubes are removed. Depending on the tides, harvest would be accomplished either “in the dry” (i.e., when the beds are exposed during low tide) or “in the wet” (i.e., using divers during high tide). In either case, workers would approach the geoduck beds from the water. Harvest would take place by use of hand-held low-pressure water jets designed to loosen the clams from the sand. The pumps, and the small combustion engine powering the pumps, would be vessel-mounted, and the intake lines on the pumps would be fitted with mesh screens to prevent intake of fish and other wildlife. The engine and pump would be fitted with a muffler and kept inside an insulated box to minimize sound. *Exhibits 1.C, 1.L, and 3; Hui Xia Testimony.*

³ At the time of the original application, the project proposed to use a combination of standard PVC and mesh PVC tubes. *Exhibit 1.C.* After discussing the proposal with concerned parties, the Applicant opted to use 100% mesh PVC tubes and to avoid solid PVC, area netting, and rebar to hold netting down in order to minimize the potential for entanglement of wildlife from nearby Tolmie State Park. *Exhibit 3; Hui Xia Testimony.*

10. To minimize conflict with recreational uses at Tolmie State Park, the Applicant proposes to conduct nearly all harvest activities at night during the winter. Workers would wear headlamps, and there would be a light on the barge. *Exhibits 1.C and 3; Hui Xia Testimony.*
11. Based on a site survey conducted at low tide in August of 2017, the project area does not contain eelgrass, surfgrass, kelp, saltmarsh, or riparian wetlands. *Exhibit 1.L; Rachel Villa Testimony.*
12. There are several species of wildlife that are listed as threatened or endangered under the Endangered Species Act that may occur in the project area, including: bull trout, Puget Sound Chinook salmon, Puget Sound steelhead, bocaccio rockfish, canary rockfish, yelloweye rockfish, eulachon, green sturgeon, marbled murrelets, humpback whales, and southern resident orca whales. In addition, the project site contains critical habitat for Puget Sound Chinook, steelhead, and nearshore rockfish. *Exhibit 1.L.* No large runs of Chinook or chum salmon are known to exist in nearby tributaries to the Sound. *Exhibit 1.L, page 18.*
13. The Applicant commissioned a professionally prepared biological evaluation (BE) of the project's impacts on the identified species listed as Threatened or Endangered pursuant to the federal Endangered Species Act, as well as its impacts on essential fish habitat. After considering the specific characteristics of the site (specifically lacking eelgrass), the documented forage fish spawning areas in the vicinity, and the details of the proposal, the BE concluded that the project "may affect, but is not likely to adversely affect" Puget Sound Chinook salmon, steelhead, bull trout, rockfish, Southern Resident killer whales, humpback whales, marbled murrelets, or critical habitat of these species. The BE concluded the project would have no effect on Pacific Eulachon or Green sturgeon, and that it is not likely to disturb Bald eagle. *Exhibit 1.L.*
14. Surf smelt and sand lance spawning has been mapped in the vicinity of the project area. Forage fish are important prey for marine species, including salmonids and birds. The documented spawning has occurred at +7 feet MLLW, whereas the proposed geoduck aquaculture would occur from +3 MLLW to -4.5 feet MLLW. No work would be conducted above +3 feet MLLW and all access to the operation would be by water. According to the Applicant's biological evaluation, forage fish spawning would not be impacted by the proposal due to the lack of spatial overlap between farming operations and spawning areas. *Exhibit 1.L.* This opinion was seconded by the Applicant's fisheries biologist consultant. *Exhibit 5; Rachel Villa Testimony.*
15. On October 11, 2018, the U.S. Army Corps of Engineers reviewed the application and determined that the project is authorized under 2017 Nationwide Permit 48 (*Commercial Shellfish Aquaculture Activities*), subject to compliance with the terms of the permit and with the measures contained in the programmatic biological opinions issued by the National Marine Fisheries Service and United States Fish and Wildlife Service. Compliance with these measures would satisfy the requirements of the Endangered Species Act. *Exhibit 4; Rachel Villa Testimony.*

16. The project would not conflict with recreation or navigation. During the period of time that the tubes are in place (a maximum of two years out of the five to six-year growing cycle), they would only extend a few inches above the substrate. Water above the tubes would remain available for recreational use. Harvest activities would occur during the winter, largely during low tides at night. *Exhibits 1 and 1.C.*
17. The Thurston County Environmental Health Division reviewed the proposal and determined that it would meet the requirements of the Thurston County Sanitary Code, and recommended approval of the SSDP. Sanitary facilities would be available on the barge for workers' use. *Exhibit 1.H.*
18. The Nisqually Island Tribe submitted that it does not have concerns about the project but requested that it be informed if there are inadvertent discoveries of archaeological resources or human burials. This request was incorporated into the conditions of the mitigated determination of non-significance (see below). *Exhibits 1.G and 1.I.*
19. Thurston County acted as lead agency for review of the environmental impacts of the proposal under the State Environmental Policy Act (SEPA). In making its environmental determination, the County considered the following:
 - Master Applications, submitted August 23, 2018
 - SEPA Environmental Checklist (revised), submitted August 23, 2018
 - JARPA Application (revised), submitted August 23, 2018
 - Cultural Resources Report, dated June 20, 2018
 - Biological Evaluation, submitted July 10, 2018

The County determined that, with mitigation and compliance with applicable County, state, and federal laws, the project would not have a probable, significant adverse effect on the environment, and issued a mitigated determination of non-significance (MDNS) on October 26, 2018. The MDNS was not appealed and become final on November 17, 2018. *Exhibits 1 and 1.G.*

20. The MDNS imposed the following 14 mitigation measures:
 1. The preparation, planting, maintenance, and harvesting at the subject sites shall be in compliance with the most current version of the Washington State Geoduck Growers Environmental Codes of Practice for Pacific Coast Shellfish Aquaculture.
 2. An unobtrusive but visible sign shall be placed at the aquaculture bed listing the name and contact information for a person designated to immediately address problems associated with the aquaculture bed when discovered by citizens or agency representatives.
 3. All tubes, mesh bags, and nets used on the tidelands below the ordinary high water mark (OHWM) shall be clearly, indelibly, and permanently marked to identify the permittee name and contact information (e.g., telephone number,

email address, and mailing address). On area nets, if used, identification markers will be placed with a minimum of one identification marker for each 100 square feet of net.

4. The Applicant/operator shall routinely inspect, document, and report any fish or wildlife found entangled in anti-predator nets or other culturing equipment. At least twice a month during the time the nets are installed, they shall be inspected and a record of observations maintained. Live entangled fish and wildlife shall be released upon observation. During the required bi-monthly site visits, the Applicant/operator shall remove from the beach or secure any loose nets, tubing, or aquaculture related debris.
5. All protective tubes and netting related to the proposed Geoduck aquaculture shall be removed from the shoreline within two (2) years of installation.
6. Weekly patrols of tidelands within a half mile of the geoduck farm shall be conducted when gear is present. During those patrols, all geoduck debris must be collected regardless of its source.
7. Patrols to search for and collect geoduck debris must also be conducted within a day following a severe storm event
8. The Applicant/operator must keep a record of the total number of mesh tubes and canopy nets they place on the site, and how many of those pieces of geoduck gear they remove through farming practices or collect from beach patrols.
9. Gear that blends into the surrounding environment (e.g., neutral colors or black) shall be used at the greatest extent possible to reduce potential aesthetic impacts.
10. Land vehicles and equipment shall not be washed, stored, fueled, or maintained within 150 feet of any waterbody. All vehicles will be inspected for fluid leaks daily within 150 feet of any waterbody.
11. Permanent lighting of the aquaculture beds shall not be permitted. Any temporary lighting shall be directed such that off-site glare is minimized to the extent possible. When tides force nighttime operations, crews shall only use headlamps and shall be trained to limit light pollution.
12. Noise impacts shall be minimized by using fully-enclosed and insulated motors with approved muffled exhaust systems.
13. If archaeological artifacts are observed during any phase of the aquaculture operation, all work shall be immediately halted. The State Department of Archaeology and Historic Preservation, the Thurston County Community Planning & Economic Development Department, and affected Tribes shall be contacted to assess the situation prior to resumption of work.
14. No physical work on the beds shall be initiated until the Applicant provides evidence that required State and Federal permits and approvals have been granted. A listing of the known State and Federal requirements is provided in the Notes "A" and "B" below.

Exhibit 1.G.

21. Notice of the application (as revised to reflect all seven parcels that are part of the instant proposal) was mailed to property owners within 500 feet of the subject property on August 29, 2018. *Exhibits 1, 1.B, and 1.F.*
22. Notice of the open record hearing was mailed to property owners within 500 feet of the subject property on December 20, 2018, published in *The Olympian* on December 28, 2018, and posted on site on December 27, 2018 in accordance with ordinance standards. *Exhibits 1, 1.A, and 2; Leah Davis Testimony.*
23. The County received public comment opposing the proposal, expressing the following concerns:

Aesthetic and recreation impacts: Some expressed the concern that PVC tubes are unsightly and it is not known what the mesh PVC tubes would really look like. Some who live in the immediate vicinity do not wish to have their view altered to include tubes and farming operations in this quiet, rural area. Public comment alleged that the farm would present hazards to users of nearby Tolmie State Park, especially swimmers. One neighboring property owner questioned whether the farm would contribute to harmful algal blooms and/or increase cyanotoxins, which he stated are now known to be related to heart attacks. One nearby neighbor expressed surprise that there was no requirement for a buffer between the farm and the State park. One member of the public expressed concern that the tidelands would be fenced off. *Testimony of Dennis Burke, Carol Goss, Lee Reimer, and Grant Tibbets; Exhibit 1.O and 8.*

Opposed to commercial agriculture in the neighborhood: Some expressed the concern that because it is a conservation area, the operation – which they alleged should be considered corporate, commercial agriculture – should not be allowed on the subject waterfront. One person argued that any runoff from private uplands, including that from pets and failing septic systems, would runoff into this farm, and if the waters are polluted, it would not only adversely affect the farmer, but also the neighbors because the County would then require landowners to do additional maintenance. Already, every year, the requirements increase for properties in the protected watershed. One person argued that the only natural beaches left in Nisqually Reach are in Pierce County and that Thurston County should be required to reserve some natural beaches. In terms of economic value, she contended that geoducks are a much smaller piece of the economic pie than salmon and that preference should be given to salmon preservation. One neighbor expressed concern that the harvested geoducks are primarily exported to China, asking whether we should potentially damage local environments to generate food consumed so far away. *Testimony of Dennis Burke, Laura Hendricks, Carol Goss, and Lee Reimer; Exhibits 1.O, 6, and 8.*

Impacts to wildlife: Again, because of the conservation area and the nearby park, there are many species of wildlife in the vicinity including deer and bald eagles. The farm would be a competing use of the water and the local environment. Of specific

concern was impact to Chinook salmon, which are the preferred prey species of Orcas, which are experiencing heightened survival challenges. Both species are the focus of state efforts. One person testified that the comments in the record from NMFS contain a finding of “likely to affect Chinook salmon”, and that on that basis alone the project should be denied. She also questioned the County’s focus on SeaGrant as a solitary source of geoduck research, challenging its lack of forage fish studies and lack of studies on plastic. She asserted that the proposed mesh tubes would be worse than regular PVC tubes because they have more exposed surfaces and are at risk of degrading and leaching plastics into the marine environment. She testified that she believes the Applicant would remove crabs and most species of wildlife from the farm, because they are predators, which would interrupt the food web for the surrounding wildlife. Several members of the public mentioned the governor’s Orca task force. One person asserted that the proposal would impact eelgrass. *Testimony of Dennis Burke, Laura Hendricks, Lee Reimer, and Grant Tibbets; Exhibits 1.O and 6.*

Procedural: Some who opposed the project did so on procedural grounds, as well. Some nearby residents testified that they did not receive notice and never saw the posted notice. Some challenged the Applicant’s biological opinion, noting it had been prepared by a consultant paid the Applicant and was therefore not impartial. Some questioned the self-monitoring conditions imposed through the MDNS and expressed concern that conditions of the MDNS and of the permit itself would not be adequately enforced. Several people requested a more in-depth cumulative impacts analysis, considering the extent of existing geoduck and shellfish aquaculture already existing in Nisqually Reach (see map at Exhibit 8.1) and throughout Puget Sound. One person submitted that the project’s SEPA determination was not appealed because the interested people cannot afford the costs of an appeal. In addition to agreeing with the call for cumulative impacts analysis prior to permit approval, one member of the public requested that the permitting process be slowed down to allow more time for review by the public and reposting notice of the proposal at Tolmie State Park so that park visitors have more opportunity to be involved. *Testimony of Dennis Burke, Laura Hendricks, Carol Goss, Darren Nienaber, and Lee Reimer; Exhibits 1.O, 6, and 8.*

24. One member of the public, Laura Hendricks, submitted comments on behalf of the Coalition to Protect Puget Sound, alleging the following errors in the County’s recommendation for approval of the instant permit:
- County’s failure to analyze cumulative impacts of the many shellfish operations in Nisqually Reach;
 - The mitigation measures “only ‘reduce the potential for short term effects from in-water construction and long term effects from habitat change’”, which the comment asserted is inconsistent with the Governor’s 2018 Southern Resident Orca Task Force Recommendations 1 and 2;
 - The farm is proposed below both surf smelt and sand lance spawning grounds, and geoducks will consume the forage fish larvae;

- The mesh tubes will displace sand lance, and the farm will remove Chinook prey species, including crab, crab larvae, and other marine life;
- A 2015 Army Corps Biological Assessment concluded that shellfish farming “may affect, likely to adversely affect” Puget Sound Chinook Salmon and its designated critical habitat and also stated, “While these effects would be minimized by the implementation of many Conservation Measures, the proposed action would result in adverse effects to EFH for groundfish, coastal pelagic and pacific salmon species... .”;
- The project’s biological assessment is inconsistent with a 2017 Draft Cumulative Impacts analysis produced by the Army Corps, which stated that “significant cumulative impacts to surf smelt and sand lance spawning habitat would occur are a result of the proposed [shellfish permitting]” and that the “[proposed shellfish permitting] is inconsistent with requirements under the SMA to protect forage fish spawning habitat.... .”;
- The SeaGrant Ferris et al. study documents that geoduck aquaculture decreases aquatic life (bird and fish species);
- The project’s biological assessment did not consider two recent studies showing that PVC and HDPE aquaculture gear release toxins into the environment, specifically toxic metals and plastic microbeads; and
- Reliance on the Army Corps’ Nationwide Permit (NWP) 48 process as adequate protection for the environment is misplaced because the Army Corps has been sued by the Coalition to Protect Puget Sound, the Center for Food Safety, and the Swinomish Tribal Community for adoption of the NWP48, which fails to protect Chinook salmon; and
- The SMPTR clearly intends to prevent “piecemeal development”, such as individually approved shellfish operations, and that shoreline uses are only preferred to the extent that they “are consistent with the control of pollution and prevention of damage to the natural environment or are unique to or dependent upon use of the State’s shoreline.”

Exhibit 6. Ms. Hendricks also submitted a review of a recently published book in evidence. The book, entitled Toxic Pearl, The Pacific Northwest Shellfish Companies’ Addiction to Pesticides by M. Perle, was reviewed by the Cliff Mass Climate and Weather blog on January 14, 2019. Specific to the Pacific Northwest, the review primarily addresses the book’s contention that shellfish companies spray pesticides and herbicides to marine waters with the intention of eradicating the burrowing shrimp and shore grasses to facilitate oyster and clam farming. According to the review, the book also alleges that the shellfish industry enjoys privileged access to and support by state and local legislators. *Exhibit 7.*

25. Ms. Hendricks submitted a Coalition to Protect Puget Sound informational brochure summarizing the information that organization finds pertinent from a 2017 draft cumulative impacts analysis produced by the Army Corps of Engineers in preparation for

the most recent Nationwide Permit 48 publication. (The brochure provides a link to the full draft.) The brochure states that the draft cumulative impacts analysis concluded that “industrial scale aquaculture” if allowed to continue, would adversely impact eelgrass, a necessary habitat for juvenile salmon, and forage fish species. The Coalition’s brochure states that it is not known why the draft analysis was never published and notes that the Army Corps will not “acknowledge” the findings in the draft analysis. *Exhibit 6; Laura Hendricks Testimony.*

26. The County also received public comment in support of the proposal. One owner of the underlying tidelands testified that he did a lot of research on the Applicant’s company and has talked to other people leasing their tidelands to the Applicant and only heard good things. He testified that there would be a lot of beach between the bulkhead and the tidelands for walking and that there is no reason for meandering among the tubes, although Tolmie State Park visitors have been known to trespass outside the park boundary onto his private property regularly. That the Applicant has offered to clean up the park says a lot about them. This property owner has seen other shellfish operators clean the beach and dump the organisms in the bay; according to his research, the Applicant does not do this. He testified that he is proud to do business with Net Venture. He requested that the voluntary actions proposed by the Applicant to reduce neighbor concerns be made conditions of permit approval. *Ken Bago Testimony.*
27. Addressing public comment that focused on the finding in the NMFS programmatic biological opinion that shellfish aquaculture is likely to adversely affect Puget Sound Chinook and its critical habitat, Applicant witness and consultant Racheal Villa, a fisheries biologist and marine ecology scientist, testified that the “likely to adversely affect” determination was based on the effects of generalized shellfish aquaculture in Puget Sound without regard to any specific operation’s impacts. She noted that the project, as proposed and conditioned by the County’s MDNS and the authorization under NWP48, is consistent with the conservation measures and best management practices identified in the NMFS programmatic biological opinion as a result of the proposed location, the use of mesh tubes without area or cover nets, and through site monitoring. In her professional opinion, the project would not adversely affect Puget Sound Chinook or critical habitat. *Exhibit 5; Racheal Villa Testimony.*
28. In post-hearing response to the public comment offered at hearing, Planning Staff noted that the primary concern in the public comments is microplastics in the marine environment. Staff submitted that:

Although it is likely that geoduck mesh tubes (as proposed ...) contribute to the ever-increasing impact of plastics in the ocean, the vast majority of suspended micro-plastic is originating from the millions of tons of plastic garbage that makes its way to the ocean every year. Staff [noted that the public comments acknowledge] ... that there have been no peer-reviewed studies of the impacts of geoduck farming and (PVC and HDPE) gear on orcas, salmon, or forage fish. Although staff is aware of, and concerned about, the issues related to micro-plastics, staff is limited to reviewing a proposal against adopted code and/or

adding conditions based on the comments from other regulatory agencies, such as Washington State’s Department of Ecology or Department of Fish and Wildlife. It would be unethical for staff to consider information from the Army Corps of Engineers Cumulative Impact Analysis (Draft), as it was never adopted. Until federal, state, or local laws change, staff must recommend approval of aquaculture.

Exhibit 11.

29. On the subject of plastics, the project proposes fewer plastic gear items than are typically used in geoduck operations. The individual mesh tubes would be closed at the top and avoid altogether the use of cover nets to prevent predation. The proposed aquaculture bed location is lower in the intertidal environment than many existing geoduck beds, at +3 feet rather than +5 feet MLLW. This would further reduce the duration of UV exposure and the temperatures experienced by the tubes during the one to two summer seasons they may be in place per growth cycle. *Racheal Villa Testimony; Exhibit 5.*

30. In response to public comment, the Applicant submitted an application addendum with additional proposed mitigation measures to address neighbor/public concerns. Speaking to enforcement of the mitigation measures imposed on the various permits, the Applicant invited concerned citizens to report observed violations to the ACOE via that agency’s website. To address concerns about trespass and encroachment between the farm and park users, the Applicant offered to have the tideland boundary surveyed between the two uses at her own cost; she assured that adjoining property owners would be contacted and offered the chance to be involved in the process. The proposal includes a one-foot buffer between farm activities and site boundaries. The addendum once again contends that no vegetation and no native species would be picked up and moved off the site’s tidelands. Macroalgae and individual species would be moved to the side of each tube as it is placed but left within the farm and at the same tidal elevation it was found. Seaweed would not be removed from the farm. The Applicant would provide sanitary facilities for employees on board the boats used to access the farm. Harvest would be performed during the winter and at night, which would reduce the potential for the temporarily loosened substrate to pose any hazard to park visitors who stray out of park bounds. *Exhibit 3; Hui Xia Testimony.*

31. The Applicant’s post-hearing response to public comment contained the following (paraphrased/abbreviated) points.
 - The Shoreline Master Program for the Thurston Region (“SMPTR”) and the Shoreline Management Act (“SMA”) recognize aquaculture is a water-dependent, preferred use that can have long-term benefits and protect the resources and ecology of the shoreline.
 - None of the project opponents has observed the Applicant’s operations in person and their concerns are based on hypothesized, theoretical impacts from aquaculture generally, specifically citing practices from other farms’ operations.

- The Applicant contended that the articles submitted by the Coalition to Protect Puget Sound do not support the claims of the Coalition, asserting the following:
 - The article “Macro and micro plastics sorb and desorb metals and act as a point source of trace metals to coastal ecosystems” documents research conducting a trace metal analysis in marine debris of plastics collected from urban intertidal regions in Vancouver, B.C. The article indicates that the majority of the macro and micro plastics collected and analyzed are from uses other than aquaculture; named items included children’s toys, bicycle parts, personnel hygiene items, and food packaging. The article did not disclose whether any marine debris collected for the research was from shellfish aquaculture.
 - The article entitled “Abundance and distribution of microplastics within surface sediments of a key shellfish growing region of Canada” discussed the probable impacts of microplastics from oyster aquaculture in Canada, noting that the greatest numbers of microplastics were found in Baynes Sound coinciding with regions of intense shellfish aquaculture. The Applicant noted that the article did not seek to prove, and did include evidence, that microplastics found in the region were from aquaculture gear and asserted that regions of intense shellfish tend to be to regions of higher population density.
 - The Applicant asserted that the article “Microplastic Ingestion by Wild and Cultured Manila Clams (*Venerupis philippinarum*) from Baynes Sound, British Columbia” concluded that shellfish aquaculture operations do not appear to be increasing microplastic concentrations in farmed clams in this region. The study documents the quantity of microplastics present in wild and cultured Manila clams and found there was no significant difference between microplastic concentrations in cultured and wild clams. The Applicant noted that hearing testimony from Ms. Villa confirmed that plastics degrade when exposed to sun and high temperatures, which will not be the conditions in which the project’s PVC tubes engage the environment.
- Finally, the Applicant reiterated the additional measures proposed to reduce conflict with neighbors:
 - Substantial reduction in the use of plastics by using flow-through mesh tubes without any net covering;
 - The Applicant has met adjoining non-lease neighbors and offered to pay for a tideland survey, neighborhood patrol, insurance coverage, and noise control;
 - The Applicant met with the managers from Tolmie State Park to discuss the existing conflicts between the private tideland owners and the public, and offered to reduce the negative impacts of conflicts by helping establish legal survey lines with the company’s costs;
 - The Applicant has made a mutual agreement with the Tolmie State Park mangers regarding regular cleanup patrol in the community;

- The proposal would conduct the majority of harvest in the winter when low tides are exposed at nights so that interference with the public’s use of the water will be minimized; and
- Compliance with conservation measures including placing the tubes out of the spawning areas of the forage fish, doing a habitat survey prior to farm activities during the spawning season, and participating in regular beach cleanups to reduce the project’s impacts on the environment.

Exhibit 12. In response to public comment concerns about the use of pesticides in shellfish aquaculture, the Applicant indicated that Net Venture does not use or support the use of any pesticide in marine waters. The Applicant stated that burrowing shrimp do not affect geoduck aquaculture operations as they do to oysters because the shrimp tend to inhabit areas above +3 tidal elevation. *Exhibit 12.*

32. The Southern Resident Orca Task Force Recommendations cited by Ms. Hendricks state as follows:

- Recommendation 1: Significantly increase investment in restoration and acquisition of habitat in areas where Chinook stocks most benefit Orcas.
- Recommendation 2: Immediately fund acquisition and restoration of nearshore habitat to increase the abundance of forage fish for salmon sustenance.

The ten bulleted implementation goals for Recommendation 1 all speak to capital budget/ state government funding, grant making, prioritization of Chinook habitat restoration/ preservation in various agencies’ work programs (e.g., WSDOT), and legislative action. The implementation goal for Recommendation 2 likewise speaks solely to government funding for projects consistent with the stated goal. *Exhibit 6.*

33. The record submitted includes the *Endangered Species Act Section 7 Formal Biological Programmatic Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for Shellfish Aquaculture Activities in Washington State (COE Reference Number NWS-2014-12)*, a 2016 programmatic biological opinion (PBO) prepared by the National Marine Fisheries Services (NMFS) assessing shellfish aquaculture permitting in Washington under the Nationwide Permit 48. The PBO concluded that the proposed action (shellfish permitting pursuant to NWP 48) is likely to adversely affect Puget Sound (PS) Chinook salmon (and other species, omitted) and their designated critical habitat, but is not likely to jeopardize the continued existence of [the] species or to adversely modify their critical habitat. It further concluded that the proposed action is not likely to adversely affect the Southern Resident killer whale or adversely affect their designated critical habitat. *Exhibit 10, page 1.*

34. Addressing the concern expressed in public comment that geoduck operators would remove organisms from the site and thus reduce diversity and habitat within the farm, the PBO concluded that they found no evidence to support the argument that forage productivity of benthic organisms is limited in and around managed [shellfish] sites. Rather, it concluded that the level of benthic disturbance from existing shellfish

aquaculture in Washington State is well within the range of normal benthic processes, and that slight effects on productivity are likely to be so limited in space (the footprint of the shellfish bed plus some down drift area to account for current) and duration (from a few hours to days, and certainly less than a year) that they are insignificant. *Exhibit 10, pages 77-78.*

35. Aquacultural activities involving the use of herbicides or pesticides other than imazamox for treatment of Japanese eelgrass on clam culture beds are not covered by the 2016 programmatic biological opinion upon which the most recent NWP48 was based. Imazamox is authorized for use in the Willapa Bay area for clams, but not for geoducks. Operations proposing the use of pesticides other than imazamox require individual consultation and are not covered under NWP48. *Exhibit 10, pages 9-10, 81.*
36. Addressing impacts to forage fish, the PBO concluded the information reviewed during consultation suggested that shellfish aquaculture adversely affects forage fish species in Washington State, including surf smelt, sand lance, and herring, to the detriment of ESA-listed salmonids. To minimize and avoid effects on forage fish species, specific mandatory conservation measures were included in the proposed action. Conservation measure 8 prohibits new activities from occurring above tidal elevation of +5 feet (MLLW) if the area is documented as Pacific Sand lance spawning habitat by the WDFW. Conservation measure 9 requires a herring spawn survey if conducting certain activities outside of the Army Corps of Engineers (ACOE) approved work window. Conservation measure 10 requires a spawn survey for sand lance or surf smelt prior to bed preparation or other activities outside of the approved ACOE work window. *Exhibit 10, pages 80-81.*
37. Similarly, the PBO considered whether the proposed action (shellfish aquaculture permitting) would impact critical habitat for Puget Sound Chinook. At the time the PBO was drafted, then-current active continuing shellfish culture in greater Puget Sound totaled approximately 4,654 acres, with 1,201 acres of projected growth anticipated over the next 20 years. The ACOE estimates that 8,170 acres of designated critical habitat are continuing (cultivated and fallow) shellfish areas, which represents approximately 6% of the total 161,800 acres designated critical habitat for Puget Sound Chinook salmon, and less than 1% of the total 1,029,193 acres of nearshore zone. *Exhibit 10, page 84.* Specifically addressing eelgrass, the PBO concluded that while shellfish culture results in temporary disturbances to eelgrass beds, and could result in the preclusion of eelgrass colonization in new shellfish culture areas, eelgrass appears able to recolonize shellfish culture areas, sometimes developing to nearly undisturbed densities. Because shellfish aquaculture occupies a limited portion of designated Puget Sound Chinook critical habitat that contains or could contain eelgrass, and because these areas are interspersed with undisturbed eelgrass, the PBO concluded that the effects of shellfish aquaculture on Puget Sound Chinook critical habitat are minor. *Exhibit 10, page 85.* Considering impacts to the species, the PBO concluded that the effects of disturbance to eelgrass and water quality repeated at the interval of one to seven years is not expected to cause significant impairment on the growth or survival of juvenile Puget Sound Chinook salmon, and as such, that the proposed action would not result in discernible effects on

Puget Sound Chinook salmon population abundance or productivity. *Exhibit 10, page 91.*

38. Specifically with respect to plastic pollution from PVC tubes used in geoduck aquaculture, the 2016 PBO stated the following:

We analyzed the degradation of rigid polyvinyl chloride (PVC) pipe tubes inserted in the beach, and possible leaching of contaminants from the plastic into marine waters. From [the] literature [addressing rigid PVC in marine water], it appears that the material (PVC) is inert, and sediment near tubes on geoduck farms has not shown any evidence of microplastics or leaching of metals. Laboratory analysis indicates PVC is sensitive to temperatures above about 122°F and high ultraviolet light exposure, and that these are the conditions where some leaching may occur. Neither of these conditions occur during shellfish culture. Further, if PVC pipe was exposed to enough ultra-violet sunlight that the PVC did depolymerize, the chlorine in the PVC might release as chloride ions. This is a relatively non-toxic form of chlorine and is a major constituent of seawater, composing over 1 percent of the weight of seawater. As such, any increase in chloride from PVC depolymerization would be undetectable. Other constituents of concern in PVC are lead, silver, and chromium. Sediment testing around both new and used PVC tubes after 20 months in typical geoduck sediment revealed metals are not detectable in sediment regardless of what pipe was used. Further, [one study] detected no significant differences in percent organics, oxidation reduction potential, total organic carbon, and total nitrogen immediately before or up to 12 months after the geoduck clam seeding process. We also looked at the potential for leaching of phthalates, a plasticizer used in the production of PVC. However, rigid PVC, including the pipe material used in geoduck culture, does not contain phthalates. As discussed above in the conservation measures section, best management practices including securing cover nets and labeling of geoduck PVC tubes are intended to avoid and minimize the loss of tubes into Puget Sound. Because there is no indication that any detectable contaminants are released from geoduck tubes, we find it unlikely that this would result in any discernable effect on [Puget Sound] Chinook

Exhibit 10, page 74 (internal citations omitted).

39. Finally, the PBO concluded there would be no adverse effects from the proposed shellfish aquaculture permitting to Puget Sound Steelhead or to Southern Resident killer whales (and eight other ESA-listed species), stating, “the project will have minimal take on PS Chinook salmon, the primary forage base of SRKW” and “the potential for effects on SRKW from the action is insignificant.” *Exhibit 10, pages 100 and 104.*

CONCLUSIONS

Jurisdiction

The Hearing Examiner has jurisdiction to decide substantial shoreline development applications pursuant to TCC 2.06.010(C), RCW Chapter 36.70, WAC 173-27, and Section One, Part V of the Thurston County Shoreline Master Program.

Criteria for Review

Shoreline Substantial Development Permit

Pursuant to WAC 173-27-150, in order to be approved by the Hearing Examiner, an SSDP application must demonstrate compliance with the following:

1. The policies and procedures of the Shoreline Management Act;
2. The provisions of applicable regulations; and
3. The Shoreline Master Program for the Thurston Region.

(a) Shoreline Management Act

Chapter 90.58 RCW, the Washington State Shoreline Management Act (SMA) of 1971, establishes a cooperative program of shoreline management between the local and state governments with local government having the primary responsibility for initiating the planning required by the chapter and administering the regulatory program consistent with the Act. The Thurston County Shoreline Master Program (SMPTR) provides goals, policies and regulatory standards for ensuring that development within the shorelines of the state is consistent the policies and provisions of Chapter 90.58 RCW.

The intent of the policies of RCW 90.58.020 is to foster “all reasonable and appropriate uses” and to protect against adverse effects to the public health, the land, and its vegetation and wildlife. The SMA mandates that local governments adopt shoreline management programs that give preference to uses that (in the following order of preference): recognize and protect the statewide interest over local interest; preserve the natural character of the shoreline; result in long term over short term benefit; protect the resources and ecology of the shoreline; increase public access to publicly owned areas of the shorelines; and increase recreational opportunities for the public in the shoreline. The public's opportunity to enjoy the physical and aesthetic qualities of natural shorelines of the state is to be preserved to the greatest extent feasible consistent with the overall best interest of the state and the people generally. To this end uses that are consistent with control of pollution and prevention of damage to the natural environment, or are unique to or dependent upon use of the state's shoreline, are to be given preference.

(b) Applicable regulations from the Washington Administrative Code

WAC 173-27-140 Review criteria for all development.

- (1) No authorization to undertake use or development on shorelines of the state shall be granted by the local government unless upon review the use or development is determined to be consistent with the policy and provisions of the Shoreline Management Act and the master program.

- (2) No permit shall be issued for any new or expanded building or structure of more than thirty-five feet above average grade level on shorelines of the state that will obstruct the view of a substantial number of residences on areas adjoining such shorelines except where a master program does not prohibit the same and then only when overriding considerations of the public interest will be served.

WAC 173-27-150

- (2) Local government may attach conditions to the approval of permits as necessary to assure consistency of the project with the act and the local master program.

WAC 173-27-190 Permits for substantial development, conditional use, or variance.

- (1) Each permit for a substantial development, conditional use or variance, issued by local government shall contain a provision that construction pursuant to the permit shall not begin and is not authorized until twenty-one days from the date of filing as defined in RCW 90.58.140(6) and WAC 173-27-130, or until all review proceedings initiated within twenty-one days from the date of such filing have been terminated; except as provided in RCW 90.58.140 (5)(a) and (b).

(c) Shoreline Master Program for the Thurston Region

SMPTR Section Two, V, Regional Criteria

- A. Public access to the shorelines shall be permitted only in a manner which preserves or enhances the characteristics of the shoreline which existing prior to establishment of public access.
- B. Protection of water quality and aquatic habitat is recognized as a primary goal. All applications for development of shorelines and use of public waters shall be closely analyzed for their effect on the aquatic environment. Of particular concern will be the preservation of the larger ecological system when a change is proposed to a lesser part of the system, like a marshland or tideland.
- C. Future water-dependent or water-related industrial uses shall be ...
- D. Residential development shall be undertaken in a manner that will maintain existing public access....
- E. Governmental units shall be bound by the same requirements as private interests.
- F. Applicants for permits shall have the burden of proving a proposed substantial development is consistent with the criteria which must be met before a permit is granted. In any review of the granting or denial of an application for a permit as provided in RCW 90.58.18.180(1), the person requesting the review shall have the burden of proof.
- G. Shorelines of this Region which are notable for their aesthetic, scenic, historic, or ecological qualities shall be preserved. Any private or public development which would degrade such shoreline qualities shall be discouraged. Inappropriate shoreline uses and poor quality shoreline conditions shall be eliminated when a new shoreline development or activity is authorized.
- H. Protection of public health is recognized as a primary goal. All applications for development of use of shorelines shall be closely analyzed for their effect on the public health.

SMPTR Section Three, II, Aquacultural Activities

A. Scope and Definition

Aquaculture involves the culture and farming of food fish, shellfish, and other aquatic plants and animals in lakes, streams, inlets, bays and estuaries. Aquacultural practices include the hatching, cultivating, planting, feeding, raising, harvesting and processing of aquatic plants and animals, and the maintenance and construction of necessary equipment, buildings and growing areas. Methods of aquaculture include but are not limited to fish hatcheries, fish pens, shellfish rafts, racks and longlines, seaweed floats and the culture of clams and oysters on tidelands and subtidal areas.

B. Policies

1. The Region should strengthen and diversify the local economy by encouraging aquacultural uses.
2. Aquacultural use of areas with high aquacultural potential should be encouraged.
3. Flexibility to experiment with new aquaculture techniques should be allowed.
4. Aquacultural enterprises should be operated in a manner that allows navigational access of shoreline owners and commercial traffic.
5. Aquacultural development should consider and minimize the detrimental impact it might have on views from upland property.
6. Proposed surface installations should be reviewed for conflicts with other uses in areas that are utilized for moorage, recreational boating, sport fishing, commercial fishing or commercial navigation. Such surface installations should incorporate features to reduce use conflicts. Unlimited recreational boating should not be construed as normal public use.
7. Areas with high potential for aquacultural activities should be protected from degradation by other types of uses which may locate on the adjacent upland.
8. Proposed aquacultural activities should be reviewed for impacts on the existing plants, animals and physical characteristics of the shorelines.
9. Proposed uses located adjacent to existing aquaculture areas which are found to be incompatible should not be allowed.

C. General Regulations

1. Aquaculture development shall not cause extensive erosion or accretion along adjacent shorelines.
2. Aquacultural structures and activities that are not shoreline dependent (e.g., warehouses for storage of products, parking lots) shall be located to minimize the detrimental impact to the shoreline.
3. Proposed aquaculture processing plants shall provide adequate buffers to screen operations from adjacent residential uses.
4. Proposed residential and other developments in the vicinity of aquaculture operations shall install drainage and waste water treatment facilities to prevent any adverse water quality impacts to aquaculture operations.

5. Land clearing in the vicinity of aquaculture operations shall not result in offsite erosion, siltation or other reductions in water quality.

Conclusions Based on Findings

1. While the Shoreline Management Act seeks to protect important ecological resources, it also fosters reasonable and appropriate uses of the shoreline. As conditioned, the project would comply with the policies and procedures of the Shoreline Management Act. As the Shoreline Hearings Board has acknowledged, the Washington State Legislature has identified aquaculture as an activity of statewide interest that is a preferred, water-dependent use of the shoreline, which when properly managed can result in long-term over short-term benefits and protect the ecology of the shoreline. Aquaculture is allowed outright in the underlying zoning district and in the Rural shoreline environment upon review for compliance with applicable provisions in the Shoreline Master Program for the Thurston Region. With the conditions contained in the County's MDNS and in the instant decision, and those conservation measures required by other agencies with jurisdiction, the proposal would be consistent with the policies of the SMA and would be a reasonable and appropriate use of the shoreline. *Findings 4, 15, and 20; WAC 173-27-241(3)(b); Cruver v. San Juan County and Webb, SHB No. 202 (1976); Marnin and Cook v. Mason County and Ecology, SHB No. 07-021 (Modified Findings, Conclusions, and Order, February 6, 2008); Coalition v. Pierce County, SHB No. 14-024 (Findings of Fact, Conclusions of Law, and Order, May 15, 2015) at 34.*
2. As conditioned, the project would comply with applicable shoreline regulations. A condition of approval is included to ensure that project activities do not commence until 21 days after filing or until after all review proceedings have terminated. No residence would have its view obstructed by the proposal and no structure taller than 35 feet would be built. *Findings 6, 7, 8, 9, and 10.*
3. As conditioned, the proposed aquaculture activities would comply with all applicable policies and regulations of the SMPTR.
 - A. With regard to regional criteria, the project would not hinder existing nor create new public access to shorelines, as the site is comprised of privately-owned tidelands and all aquaculture access would be by water. The project is designed to be protective of water quality and the aquatic environment. The aesthetic qualities of the shoreline would be preserved. There is no credible evidence in the record that would support a conclusion the proposal would result in any adverse effects to public health. The Environmental Health Division reviewed the proposal and determined that Thurston County Sanitary Code requirements would be satisfied. *Findings 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, 17, 19, 30, and 31.*
 - B. Approval of the requested permit would support the SMPTR's stated policy of encouraging aquacultural uses for the sake of strengthening the local economy. The record demonstrates that the site is an area with high aquaculture potential. The project would not interfere with navigation of shoreline owners or commercial traffic. As proposed and conditioned, the project would minimize visual impacts to surrounding properties because the Applicant would be required

to pick up escaped gear and debris on a regular basis, and because the tubes would not be visible most of the time. The water above the tubes would be usable during high tide for those recreating in the area. There is existing residential development on the upland portion of the parcel, and a condition of approval is included to ensure that activities do not impact the septic system(s), thereby protecting the project from water quality degradation. The project area is generally free of vegetation, and planting would occur at a lower elevation than is used for forage fish spawning. There is no eelgrass in the vicinity. No vegetation or animals would be removed from the shoreline or tidelands where the farm is proposed. Any creatures or vegetation that need to be moved out of the way of tubes would be placed to the side at the same tidal elevation within the farm. Sediments disturbed during harvest would settle relatively close to their point of origin. These features, along with the conditions of approval, would minimize impacts to plants, animals and the physical characteristics of the shoreline. *Findings 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, and 39.*

- C. As conditioned, the project is consistent with the shoreline regulations. No evidence in the record shows extensive erosion or accretion along the shoreline would occur. No processing plant, residential development, or land clearing is proposed. *Findings 6, 7, 8, 9, 10, 19, 20, 30, and 31.*
4. Addressing concerns raised in public comment: Information submitted by project opponents did not rise to the level of showing that the project, as conditioned, would fail to meet the approval criteria in the SMPTR or would result in significant adverse impacts to protected species or to the marine environment.
- As conditioned by the County, State, and Federal agencies with authority, the project would be consistent with the conservation measures required pursuant to the Nationwide Permit 48 and therefore consistent with the County's practice for the review and approval of shoreline permits related to geoduck aquaculture.
 - The 2017 draft cumulative impacts analysis was not adopted by the Army Corps of Engineers and is not relevant.
 - As conditioned, the proposal is consistent with the 2016 programmatic biological opinion issued for Nationwide Permit 48.
 - With regard to plastics, the elevation of the farm at no higher than 3+ MLLW, the minimal exposure of the mesh tubes to sunlight, and the low temperatures the tubes would be exposed to for the majority of the time they are installed in the substrate, together with the requirements of the MDNS for the Applicant to secure any tubes loosened within one day after storm events and to participate in weekly beach patrols to remove any aquaculture gear, would prevent significant breakdown of the PVC mesh tubes. These same factors would tend to prevent any significant leaching of chemicals from the PVC into marine waters.
 - The farm would operate at elevations below the locations of known forage fish

spawning shoreward of the proposed planted geoducks. The project's NWP48 authorization requires forage fish spawning surveys prior to activities that disturb the substrate. Based on the opinions in the site-specific biological evaluation and on the NMFS programmatic biological opinion, as well as that of the Applicant's expert at hearing, there would not be significant predation by the farmed geoduck of forage fish larvae.

- The farm is subject to the current version of the Washington State Geoduck Growers Environmental Code of Practice.
- Regarding the alleged inadequacy of notice, the record demonstrates that notice of application and notice of hearing were both provided consistent with County requirements.
- Finally, addressing the request to require cumulative impact analysis, the Shoreline Hearings Board (SHB) has held that such analysis is not required for shoreline substantial development permit approval under the SMA and that, "[w]ith respect to geoduck aquaculture, ... each separate ... proposal will need to be reviewed on its own particular site characteristics." *Longbranch, SHB No. 11-109 (2011) at 24*. While the SHB has concluded that it is not precluded from considering cumulative impacts of SSDP approval, it has held that a cumulative impacts analysis is warranted if "there is proof of impacts that risk harm to habitat, loss of community use, or a significant degradation of views and aesthetic values." *Fladseth v. Mason County, SHB No. 05-026 (2007) at 25*. The factors considered in deciding whether a cumulative impacts analysis is appropriate have been established as follows: 1) Whether a shoreline of statewide significance is involved; 2) Whether there is potential harm to habitat, loss of community use, or a significant degradation of views and aesthetic values; 3) Whether a project would be a "first of its kind" in the area; 4) Whether there is some indication of additional applications for similar activities in the area; 5) Whether the local SMP requires a cumulative impacts analysis be completed prior to the approval of an SSDP; 6) The type of use being proposed, and whether it is a favored or disfavored use. *Coalition v. Pierce County, SHB No. 14-024, Findings of Fact, Conclusions of Law, and Order, May 15, 2015, at 43; citing De Tienne, SHB No. 13-016, pages 54-55*. The undersigned concludes that, considering all of these factors, no cumulative impacts analysis is required. Nisqually Reach is a conservation area, but credible site-specific scientific evidence found the project was not likely to affect protected species or designated critical habitat. There are many geoduck farms in Nisqually Reach. There is no information in the record about potential future additional geoduck operations in the vicinity. The SMPTR does not require cumulative impacts analysis for SSDP approval. As noted previously, shellfish aquaculture is a preferred, water dependent use.

Findings 6, 7, 8, 9, 10, 11, 15, 19, 10, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 32, 34, 35, 36, 37, 38, and 39.

DECISION

Based upon the preceding findings and conclusions, the request for a shoreline substantial development permit to develop commercial intertidal geoduck beds on 3.6 acres of leased private tidelands at 7944, 7938, 7924, 7908, 7842, and 7830 61st Avenue NE (Tax Parcel Numbers 11923241000, 11923241100, 11923241200, 11923241300, 11923241500, 11923241600, and 11923130100) is **GRANTED** subject to the following conditions:

1. The proposed project must be consistent with all applicable policies and other provisions of the Shoreline Management Act, its rules, and the Shoreline Master Program for the Thurston Region.
2. Development and operation of the proposed aquaculture activities must comply with all conditions of the Mitigated Determination of Non-Significance dated October 26, 2018 (Exhibit 1.G).
3. Aquaculture preparation, planting, maintenance and harvesting shall be in compliance with the most current version of the Washington State Geoduck Growers Environmental Codes of Practice for Pacific Coast Shellfish Aquaculture except as otherwise conditioned or required by Thurston County Community Planning and Economic Development or any other required government permits.
4. Bed preparation must commence within two years and all tubes must be installed within five years of the effective date of this permit. The effective date is the date of the last action required on the shoreline permit and all other government permits and approvals that authorize the development to proceed.
5. No physical work on the aquaculture beds shall be initiated until all required State and Federal permits and approvals have been granted.
6. Physical activities on the beach pursuant to this permit shall not begin and are not authorized until 21 days from the date of filing of the Hearing Examiner decision with the Department of Ecology as required in RCW 90.58.140(6) and WAC 173-27-130, or until all review proceedings initiated within 21 days from the date of filings have been terminated, except as provided in RCW 90.58.140(5)(a) and (b).
7. There shall be no removal of shrubbery or fallen trees located in the buffer of the toe of the marine bluff or on the beach during placement of the bed.
8. All activities related to the proposed geoduck bed shall be in substantial compliance with the site plan submitted and made part of this staff report, including modifications as required by this approval. Any expansion or alteration of this use will require approval of a new or amended shoreline substantial development permit.
9. Any revision to the shoreline permit must be in compliance with WAC 173-27-100.

10. Prior to commencement of the geoduck operation, the Applicant shall receive and provide to the Community Planning and Economic Development Department evidence of current U.S. Army Corps of Engineers NWP 48 Permit authorization or the Corps Individual Permit.
11. A Construction Stormwater Permit from the Washington State Department of Ecology may be required. Information about the permit and the application can be found at: <http://www.ecy.wa.gov/programs/wq/stormwater/construction/permit.html>. It is the Applicant's responsibility to obtain this permit if required.

Decided March 18, 2019.



Sharon A. Rice
Thurston County Hearing Examiner

THURSTON COUNTY
PROCEDURE FOR RECONSIDERATION AND APPEAL
OF HEARING EXAMINER DECISION TO THE BOARD

NOTE: THERE MAY BE NO EX PARTE (ONE-SIDED) CONTACT OUTSIDE A PUBLIC HEARING WITH EITHER THE HEARING EXAMINER OR WITH THE BOARD OF THURSTON COUNTY COMMISSIONERS ON APPEALS (Thurston County Code, Section 2.06.030).

If you do not agree with the decision of the Hearing Examiner, there are two (2) ways to seek review of the decision. They are described in A and B below. Unless reconsidered or appealed, decisions of the Hearing Examiner become final on the 15th day after the date of the decision.* The Hearing Examiner renders decisions within five (5) working days following a Request for Reconsideration unless a longer period is mutually agreed to by the Hearing Examiner, applicant, and requester.

The decision of the Hearing Examiner on an appeal of a SEPA threshold determination for a project action is final. The Hearing Examiner shall not entertain motions for reconsideration for such decisions. The decision of the Hearing Examiner regarding a SEPA threshold determination may only be appealed to Superior Court in conjunction with an appeal of the underlying action in accordance with RCW 43.21C.075 and TCC 17.09.160. TCC 17.09.160(K).

A. RECONSIDERATION BY THE HEARING EXAMINER (Not permitted for a decision on a SEPA threshold determination)

1. Any aggrieved person or agency that disagrees with the decision of the Examiner may request Reconsideration. All Reconsideration requests must include a legal citation and reason for the request. The Examiner shall have the discretion to either deny the motion without comment or to provide additional Findings and Conclusions based on the record.
2. Written Request for Reconsideration and the appropriate fee must be filed with the Resource Stewardship Department **within ten (10) days of the written decision**. The form is provided for this purpose on the opposite side of this notification.

B. APPEAL TO THE BOARD OF THURSTON COUNTY COMMISSIONERS (Not permitted for a decision on a SEPA threshold determination for a project action)

1. Appeals may be filed by any aggrieved person or agency directly affected by the Examiner's decision. The form is provided for this purpose on the opposite side of this notification.
2. Written notice of Appeal and the appropriate fee must be filed with the Community Planning & Economic Development Department **within fourteen (14) days of the date of the Examiner's written decision**. The form is provided for this purpose on the opposite side of this notification.
3. An Appeal filed within the specified time period will stay the effective date of the Examiner's decision until it is adjudicated by the Board of Thurston County Commissioners or is withdrawn.
4. The notice of Appeal shall concisely specify the error or issue which the Board is asked to consider on Appeal, and shall cite by reference to section, paragraph and page, the provisions of law which are alleged to have been violated. The Board need not consider issues, which are not so identified. A written memorandum that the appellant may wish considered by the Board may accompany the notice. The memorandum shall not include the presentation of new evidence and shall be based only upon facts presented to the Examiner.
5. Notices of the Appeal hearing will be mailed to all parties of record who legibly provided a mailing address. This would include all persons who (a) gave oral or written comments to the Examiner or (b) listed their name as a person wishing to receive a copy of the decision on a sign-up sheet made available during the Examiner's hearing.
6. Unless all parties of record are given notice of a trip by the Board of Thurston County Commissioners to view the subject site, no one other than County staff may accompany the Board members during the site visit.

C. STANDING All Reconsideration and Appeal requests must clearly state why the appellant is an "aggrieved" party and demonstrate that standing in the Reconsideration or Appeal should be granted.

D. FILING FEES AND DEADLINE If you wish to file a Request for Reconsideration or Appeal of this determination, please do so in writing on the back of this form, accompanied by a nonrefundable fee of **\$750.00** for a Request for Reconsideration or **\$1,020.00** an Appeal. Any Request for Reconsideration or Appeal must be **received** in the Building Development Center on the second floor of Building #1 in the Thurston County Courthouse complex no later than 4:00 p.m. per the requirements specified in A2 and B2 above. **Postmarks are not acceptable.** If your application fee and completed application form is not timely filed, you will be unable to request Reconsideration or Appeal this determination. The deadline will not be extended.

* Shoreline Permit decisions are not final until a 21-day appeal period to the state has elapsed following the date the County decision becomes final.



Project No. _____ Appeal Sequence No.: _____

Check here for: **RECONSIDERATION OF HEARING EXAMINER DECISION**

THE APPELLANT, after review of the terms and conditions of the Hearing Examiner's decision hereby requests that the Hearing Examiner take the following information into consideration and further review under the provisions of Chapter 2.06.060 of the Thurston County Code:

(If more space is required, please attach additional sheet.)

Check here for: **APPEAL OF HEARING EXAMINER DECISION**

TO THE BOARD OF THURSTON COUNTY COMMISSIONERS COMES NOW _____
 on this _____ day of _____, 20___, as an APPELLANT in the matter of a Hearing Examiner's decision rendered on _____, 20___, by _____ relating to _____

THE APPELLANT, after review and consideration of the reasons given by the Hearing Examiner for his decision, does now, under the provisions of Chapter 2.06.070 of the Thurston County Code, give written notice of APPEAL to the Board of Thurston County Commissioners of said decision and alleges the following errors in said Hearing Examiner decision:

Specific section, paragraph and page of regulation allegedly interpreted erroneously by Hearing Examiner:

1. Zoning Ordinance _____
2. Platting and Subdivision Ordinance _____
3. Comprehensive Plan _____
4. Critical Areas Ordinance _____
5. Shoreline Master Program _____
6. Other: _____

(If more space is required, please attach additional sheet.)

AND FURTHERMORE, requests that the Board of Thurston County Commissioners, having responsibility for final review of such decisions will upon review of the record of the matters and the allegations contained in this appeal, find in favor of the appellant and reverse the Hearing Examiner decision.

STANDING

On a separate sheet, explain why the appellant should be considered an aggrieved party and why standing should be granted to the appellant. This is required for both Reconsiderations and Appeals.

Signature required for both Reconsideration and Appeal Requests

APPELLANT NAME PRINTED

SIGNATURE OF APPELLANT

Address _____

Phone _____

Please do not write below - for Staff Use Only:

Fee of \$750.00 for Reconsideration or \$1,020.00 for Appeal. Received (check box): Initial _____ Receipt No. _____
 Filed with the Community Planning & Economic Development Department this _____ day of _____, 20___.