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January 31, 2023

Via Email: Ron.Buckholt@co.thurston.wa.us

Mr. Ron Buckholt
 Thurston County
 Community Planning & Economic Development
 2000 Lakeridge Dr SW, Bldg 1
 Olympia, WA 98502

RE: Response to Public Comments provided to Taylor Shellfish 12/12/22 regarding application for Development Application #2022103702 of new geoduck farm on Johnson Point in Henderson Inlet.

Dear Mr. Buckholt,

Thank you for the opportunity to review and respond to public comments regarding Taylor Farm Project Mazanti Lease – Johnson Point Thurston County application #2022103702. As stated in the JARPA and supporting materials, this project is for the cultivation of up to 3 acres of clam and oysters on or near bottom, and up to 3.6 acres of geoduck, on the tidelands of Parcel No. 93000100000 (“Project”). These tidelands were conveyed by the state to private ownership under the Bush Act for the express purpose of shellfish cultivation.

This response to comments includes two sections. Shellfish aquaculture – and in particular, geoduck aquaculture – has been the subject of significant research, permitting, and regulatory efforts over the last several years, and the public comments submitted for the Project primarily raise questions or concerns with respect to the same issues that have been the focus of these efforts. Accordingly, the first section of this response provides an overview of this research, permitting, and regulatory work. The second section includes responses to specific comments submitted with respect to the Project.

A. Shellfish Aquaculture Research, Permitting, and Regulation

Shellfish aquaculture in Washington State is subject to numerous regulatory programs and reviews by federal, state, and local authorities. At the state and local level, shoreline permits under the SMA are required for most new geoduck farms, and the Washington Shorelines Hearings Board (“SHB”) has considered several appeals of shoreline permits for shellfish aquaculture over the last several years. Those decisions have confirmed that shellfish aquaculture is a preferred use that has insignificant environmental impacts. Most of these cases have addressed geoduck aquaculture. For example, the SHB has issued four decisions in recent years addressing challenges to permits issued by local governments for geoduck farms under SMPs. *Coalition to Protect Puget Sound Habitat v. Pierce County*, SHB No. 11-019 (July 13, 2012); *Coalition to Protect Puget Sound Habitat v. Thurston County*, SHB No. 13-006c (October 11, 2013); *Coalition to Protect Puget Sound Habitat v. Pierce County*, SHB No. 13-016c (January 22, 2014); and *Coalition to Protect Puget Sound Habitat v. Pierce County*, SHB No. 14-024 (May 15, 2015).



Shellfish aquaculture opponents have raised numerous arguments and concerns in contending permits should be denied or reversed for new geoduck farms, and they have often raised the same arguments repeatedly. With one limited exception pertaining to the appropriate buffers for eelgrass beds,¹ the SHB has consistently rejected these arguments, holding impacts from geoduck farms would be insignificant and minimized through reasonable permit conditions. Arguments pertaining to the following issues have been raised and rejected by the SHB:

- Forage fish spawning areas [SHB No. 11-019 (Findings of Fact (“FF”) 7, 12, 14, 18, and Conclusions of Law (“COL”) 6); SHB No. 13-006c (FF 17-29, and COL 10-13; SHB No. 14-024 (FF 19-25 and COL 13, 16)]
- Consumption of forage fish larvae [SHB No. 11-019 (FF 7, 8, and COL 6); SHB No. 13-006c (FF 29 and COL 13); SHB No. 13-016c (FF 67)]
- Juvenile salmon [SHB No. 11-019 (FF 7, 18); SHB No. 13-006c (FF 33-35 and COL 14); SHB No. 13-016c (FF 68-71 and COL 15); and SHB No. 14-024 (FF 19-25 and COL 13, 16)]
- Waves, currents, and sediment transport [SHB No. 11-019 (FF 6, 14, 16, and COL 6, 14); SHB No. 13-006c (FF 24-26, 30-32 and COL 13, 15); SHB No. 14-024 (FF 32-38 and COL 13, 19)]
- Microplastics [SHB No. 11-019 (FF 9); SHB No. 13-006c (FF 41-42 and COL 16); SHB No. 14-024 (FF 44-47 and COL 13, 20)]
- Marine debris [SHB No. 11-019 (FF 10, 11, and COL 6, 14); SHB No. 13-006c (FF 36-42 and COL 16); SHB No. 14-024 (FF 39-43, 47 and COL 13, 20)]
- Impact to the benthic community [SHB No. 11-019 (FF 17); SHB No. 13-016c (FF 64, 74-77 and COL 15); SHB No. 14-024 (FF 15 and COL 13-14)]
- Cumulative Impacts—State Environmental Policy Act [SHB No. 11-019 (FF 21, and COL 9); SHB No. 14-024 (FF 52-59 and COL 27-30)]
- Cumulative Impacts—SMA [SHB No. 11-019 (FF 15); SHB No. 13-006c (FF 46-48 and COL 21-27); SHB No. 14-024 (FF 52-59 and COL at 23)]

¹ The one instance in which the SHB reversed a shellfish aquaculture permit, noted by CPPSH, authorized a new shellfish farm within 10 feet of an eelgrass bed, which is a smaller setback than authorized under the programmatic consultation. *Coalition to Protect Puget Sound Habitat v. Pierce County*, SHB No. 13-016c (January 22, 2014). But even in this case, the SHB rejected the broader group of CPPSH’s claims contending shellfish farming harms the environment, consistent with the three other cases cited above.



- Recreation and navigation [SHB No. 13-006c (FF 43-45 and COL 17-20); SHB No. 13-016c (FF 59-62 and COL 15); SHB No. 14-024 (FF 50-51 and COL 13, 22)]
- Marine Mammals [SHB No. 14-024 (COL 17); SHB No. 13-016c (FF 72-73 and COL 15)]
- Birds [SHB No. 13-016c (FF 78-79 and COL 15); SHB No. 14-024 (FF 26-28 and COL 13, 17)]
- Farm preparation [SHB No. 14-024 (FF 12-13 and COL 13-14)]
- Predator protection netting [SHB No. 14-024 (FF 14-15 and COL 13); SHB No. 13-006c (FF 16-18)]
- Harvest activities [SHB No. 14-024 (FF 16-18 and COL 13, 15); SHB No. 13-006c (FF at 24-26, 30-32); SHB No. 11-019 (FF 13-18, 22, and COL 14)]
- Density, Genetics, Diseases, Parasites [SHB No. 14-024 (FF 29-31 and COL 13, 18); SHB No. 11-019 (FF 8)]
- Property values [SHB No. 14-024 (FF 48-49, 51 and COL 13, 21)]

The SHB findings and conclusions regarding the environmental impacts of geoduck aquaculture in these cases are based largely on research conducted by Washington Sea Grant. In 2007, the Legislature directed Washington Sea Grant to review existing scientific information and commission research studies related to geoduck aquaculture according to six priorities. Washington Sea Grant issued its final report in November 2013, and it concludes geoduck aquaculture has limited disruptions within the range of natural variation experienced by benthic communities in Puget Sound. Highlights from the final report include:

- Geoduck harvest practices have minimal impacts on benthic communities of infaunal invertebrates, with no observed “spillover effect” in habitats adjacent to cultured plots, suggesting that disturbance is within the range of natural variation experienced by benthic communities in Puget Sound.
- Differences in the structure of mobile macrofauna communities between planted areas with nets and tubes and nearby reference beaches do not persist once nets and tubes are removed during the grow-out culture phase.
- Nutrients released from a typical commercial geoduck operation are low and localized effects are likely to be negligible.
- Geoduck aquaculture practices do not make culture sites unsuitable for later colonization by eelgrass.



Many of the findings reached by the Washington Sea Grant geoduck research program have been published in peer-reviewed journals, including the following articles: Glenn R. VanBlaricom et. al, *Ecological effects of the harvest phase of geoduck (Panopea generosa Gould, 1850) aquaculture on infaunal communities in southern Puget Sound*, Washington, Journal of Shellfish Research Vol. 34, No. 1, pp. 171-87 (2015); P. Sean McDonald et. al, *Effects of geoduck (Panopea generosa Gould, 1850) aquaculture gear on resident and transient macrofauna communities of Puget Sound*, Washington, Journal of Shellfish Research Vol. 34, No. 1, pp. 189-202 (2015); McPeck et. al, *Aquaculture Disturbance Impacts the Diet but not Ecological Linkages of a Iniquitous Predatory Fish*, Estuaries and Coasts (Nov. 8, 2014). In fact, in April, 2015 a special issue of the Journal of Shellfish Research was published for the express purpose of disseminating the most current information on geoduck aquaculture. These studies demonstrate that, similar to other forms of shellfish aquaculture, geoduck farming does not have significant environmental impacts when properly managed.

The SHB has recognized Washington Sea Grant as the authority on the environmental impacts of geoduck farms. Specifically, in finding that the aquaculture gear and harvesting activities of a newly permitted geoduck farm will not likely cause adverse environmental impacts, the SHB relied on Washington Sea Grant, acknowledging "it is the most specific and relevant scientific information currently available on this subject." SHB No. 14-024 (FF 17).

At the federal level, geoduck, oyster, and clam cultivation activities in Washington State have been exhaustively analyzed in a recent programmatic Endangered Species Act/Essential Fish Habitat consultation ("Programmatic Consultation").² The Programmatic Consultation was conducted between the Seattle District U.S. Army Corps of Engineers, the National Marine Fisheries Service, and the U.S. Fish and Wildlife Service, and it was completed in 2016. This consultation potential impacts of shellfish aquaculture activities throughout Washington State, including on a cumulative basis, to ESA-listed species, designated critical habitat, and essential habitat for over 80 species of fish. The Programmatic Consultation documented that shellfish aquaculture can provide multiple benefits to sensitive species and habitat, including through water quality improvements and provision of structured habitat. It determined shellfish aquaculture activities across the entire state would result in limited, incidental take and would neither jeopardize the existence of listed species or destroy or adversely modify critical habitat. The Programmatic Consultation identified approximately 30 conservation measures that shellfish farmers could follow to avoid and minimize impacts to listed species, critical habitat, and essential fish habitat. This proposed Project will full comply with all of these measures, including siting activities outside of sand lance and surf smelt spawning locations, monitoring for herring spawn and suspending activities while spawn is present, using appropriate marine-grade cultivation gear, securing gear, and regulatory monitoring farm areas.

² Programmatic Biological Assessment, Shellfish Activities in Washington State Inland Marine Waters, U.S. Army Corps of Engineers Regulatory Program, October 2015; Programmatic Biological Opinion, National Marine Fisheries Service, September 2016. Programmatic Biological Opinion for Shellfish Activities in Washington State Marine Waters, U.S. Fish and Wildlife Service, August 2016.

**B. Response to Specific Comments****1. Brad Beach, obo Nisqually Indian Tribe**

- a. Cultural Resources: We appreciate the review of the application by Mr. Beach. Taylor complies with all laws surrounding Inadvertent Discovery of Archaeological Resources and Human Burials. Any evidence of resources or remains found during aquaculture activities will require immediate suspension of crew work and notification to appropriate authorities for further investigation.

2. WA Dept of Ecology

- a. Regulatory Authority: Taylor has applied for Clean Water Act Section 401 certification. Taylor will comply with all monitoring requirements for covered activities.

3. Bruce Justinen

- a. Impacts to species: Taylor appreciates commentor's perspective and applaud their initiative to teach younger generations how to enjoy and sustain our resources. However, the Washington State Shorelines Hearings Board has thoroughly reviewed and rejected the contention that geoduck aquaculture significantly impacts sand dollar beds.³

4. Lanny Carpenter

- a. Impacts to Species: Taylor Shellfish will fully comply with the Programmatic Consultation, which thoroughly analyzes potential impacts to sensitive species and their prey resources. Among other things, the Project will be monitored for forage fish during the seasonal herring spawn monitoring window. This farm is denoted by WA Dept of Fish and Wildlife as containing smelt spawning habitat. Puget Sound smelt are observed to spawn in substrate situated from +7 to mean high water. Taylor will not operate the farm above +5' tidal elevation, and all farm access will occur by boat, thereby avoiding smelt spawning habitat.
- b. Impacts to water quality: Taylor has applied for certification under WA Dept of Ecology 401 Clean Water Act certification. Taylor employees will comply with all farm BMPs, as well as any required monitoring and documentation conditions under this permit.

5. Darcy Eggeman

- a. Opposed to project: Comment noted

6. George and Tonni Johnston

- a. Project Location: As noted by the commentor, the proposed project does not extend in front of Mr. Johnston's property. In fact, the bottom of the project area lies approximately 1,200' north from the bottom edge of his property line.
- b. Use impacts: The Commentor contends this farm would severely impact their use and enjoyment of their beach front and that of their neighbors. Taylor activities are

³ SHB No. 14-024 ([FF 13](#); CL 14).



proposed to occur on privately owned tidelands from +5' to -4.5' tidal elevation. Cultivated shellfish and/or gear will protrude only a few inches above the substrate. None of the proposed farm activities will restrict or prevent access to neighboring properties or tidelands.

- c. Nighttime Operations: Mr. Johnston raises concerns that Taylor's night tide operations may be disruptive to residents. While crews cannot suspend winter operations, regular training to crews is provided in regards to keeping noise levels to minimum required for safety, directing headlamps below the horizon, and making best efforts to schedule boats during the daytime hours. See *Marnin v. Mason County*, SHB No. 07-21 at COL 12, 13, 14 (rejecting conditions prohibiting work on shellfish farms at night, as they would preclude successful farming operations); *Taylor Shellfish Farms v. Pierce County*, SHB Nos. 06-039, 07-003, 07-005 at COL 10, 12 (rejecting restrictive conditions that unreasonably prevented aquaculture in response to noise and light concerns).
- d. Plastics: Mr. Johnston expresses concerns with the use of plastics, contending the farm will result in marine debris. Gear is essential for some areas and shellfish species, to successfully cultivating, and plastics are the most effective and environmentally responsible material available. Taylor Shellfish exclusively uses marine-grade plastics that are designed to maintain physical integrity in the marine environment. Plastic use is exhaustively analyzed in the Programmatic Consultation. The Consultation includes numerous conditions that require operators to use, secure, and monitor gear used in shellfish aquaculture. Mr. Johnston provides no information demonstrating that, so conditioned, the farm will generate marine debris or result in microplastics. And, as discussed above, the Shorelines Hearings Board has consistently rejected the argument that plastics used on shellfish farms will result in significant marine debris or degrade into microplastics.
- e. Public Trust Doctrine: Taylor Shellfish does not restrict access to leased tidelands for beach walking or recreation. Additionally, Taylor regularly invites the public to visit some of its farms, including holding events on the farm for school children and non-profit charity events to answer questions about aquaculture.

7. *Lon Sullivan*

- a. Impacts to property value: Taxes: Taylor Shellfish is not in a position to direct or influence Thurston County on their assessment of taxes. Taylor has been told by current lessors that revenue from their leased tidelands is used in order to afford the taxes on otherwise unaffordable lands.
- b. Trespass: Taylor makes every effort to cultivate lands it either owns or leases for that purpose. Unfortunately, due to the ambiguity of some historical tideland deeds, Taylor has responded to conflicts between these historical records. On the few occasions this has occurred, Taylor has made every attempt to work with the property owner to resolve the conflict and come to a mutual agreement. This property was surveyed in



2017. Physical markers were inserted in the substrate to delineate the property boundary. In addition, Taylor has the GPS coordinates in order to accurately lay out the farm within the property boundary.

8. *Rich Hatstrup*

- a. Opposed to project: Comment noted

9. *Christopher and Kristen Papasian*

- a. Impacts to substrate: According to WA DOE Coastal Atlas map, the shoreline of this area is a feeder bluff, meant to feed the beach through natural deposition of upland sediments. While this area is a relatively stable region due to minimal slope and the fact that it is mapped as 100% modified with shoreline armoring and development, there is an active drift cell which continues to move loose sediments to the south. Taylor's aquaculture activities do not have a history of negatively impacting upland armoring above the natural processes, and we do not expect it to occur in this location. Taylor Shellfish recognizes that shoreline armoring is not a permanent fix to beach movement and repairs or replacement of these systems by upland property owners will most likely be required over the life of the lease. Taylor's proposed Project is not located on the commenters' property, and no specific information is provided demonstrating that the Project would preclude the commenters from repairing their bulkhead. Taylor is prepared and willing to work with these landowners should such coordination be necessary in their future permitting efforts.

10. *Bill and Sherry Reus*

- a. Questions on property lines: County parcel boundaries on the Thurston County GIS website is not an accurate reflection of property lines, and the County states so on its website. The property boundary was professionally surveyed in 2017 and survey stakes were installed. In addition, Taylor received the GPS coordinates and will maintain its beds within those bounds.
- b. Questions on Details Map: The tidelands property corners, as surveyed, are marked with A,B,C & D. The North-South lines are the mapped tidal elevations. The property type OYL are for OysterLands. The Mazanti parcel is privately owned and leased to Taylor Shellfish for the purpose of aquaculture cultivation.

11. *Tristan Atkins*

- a. Impacts to habitat: Mr. Atkins argues that the farm's geoduck aquaculture activities would have serious adverse impacts. His characterization of geoduck aquaculture as significantly disturbing the substrate, impacting benthic organisms, and/or degrading water quality are contradicted by rigorous scientific studies (including studies conducted by Washington Sea Grant) and have been repeatedly rejected by decisionmakers, including the Washington State Shorelines Hearings Board, as discussed in Section A above..
- b. SEPA: Mr. Atkins' expectation that an EIS would be required for this Project is premised on the mistaken contention that it would significantly impact species and habitat. The



Project has no similarity to the state-managed airport projects that Mr. Atkins mentions have required an EIS. This proposal is for a relatively modest shellfish farm, which rigorous studies have demonstrated has minor negative impacts and beneficial impacts to water quality and provision of structured habitat. See Section A, above.

12. *Becky Beswick*

- a. Opposed to project: Comment noted

13. *Jerry Blaser*

- a. Request for extension and Public Hearing: A public hearing is part of the development permit process.

14. *Pyke Johnson*

- a. Impacts to species and habitat: This farm's potential impacts on the environment, including shorebirds, were analyzed in depth in the Programmatic Consultation. All of the environmental concerns that Mr. Johnson raise were exhaustively analyzed in the Programmatic Consultation, and the consultation includes over 30 Conservation Measures to avoid and minimize potential impacts. Taylor will comply with these Conservation Measures, and Mr. Johnson provides no information or analysis demonstrating that this farm, as proposed, would have impermissible impacts or requires additional analysis. Mr. Johnson's assertions have also been repeatedly raised and rejected by the Washington State Shorelines Hearings Board, as discussed above in Section A.
- b. Impacts to navigation: The farm is proposed on private tidelands, and cultivated shellfish and gear will only protrude a few inches above the substrate. Accordingly, the Project will not interfere with access to public tidelands, nor will it preclude the use of the waters overlying the farm at high tide. Upper tideland owners will maintain the ability to launch boats at high tide. Boaters are required by the USCG to be aware of their surroundings and, if necessary, have a spotter to look for underwater hazards. Aquaculture nets are secured to the substrate. If boaters are getting their props caught in net, they are also grounding out in the substrate. Taylor crews complete regular debris patrols when gear is installed and will address debris caused by negligent boaters at that time.
- c. Compliance with the Shoreline Master Program: The west shoreline of Henderson Inlet, including Johnson Point has been identified by WA DOE Coastal Mapping as an area with over 80% shoreline modification and an estimated 70% of its shoreline armored, significantly decreasing the ability for natural processes including feeder bluff deposition and forage fish use. Washington State has identified shellfish production as a preferred use to be encouraged for the benefit of the environment and the economy. E.g., RCW 90.58.020; RCW 15.85.010; WAC 173-26-241(3)(b). Thurston County has a process to review applications for new aquaculture farms and Taylor Shellfish is following that guidance.

15. *Holly Hulst*



- a. Impacts to species and habitat: Previously addressed
- b. Plastics: Previously addressed
- c. Arsenic resuspension: Reviewing the WA DOE Dirt Alert map, the predicted arsenic concentration for this proposed farm is under 20ppm. In addition, both wild (subtidal) and farmed (intertidal) geoduck samples from Henderson Inlet are collected annually for arsenic testing and have been found to be within acceptable limits for human consumption.
- d. Debris: Previously addressed

16. *Laura Hendricks*

- a. NWP 48 Decision: Ms. Hendricks contends that the Corps is “ignoring the guidance it was provided by a federal judge in 2019 regarding a similar permit.” This contention is baseless. The permit at issue there, NWP 48, was a nationwide permit issued by Corps headquarters. The deficiencies identified by the court were specific to that permit and are irrelevant to Taylor’s individual permit application for this farm.

17. *Evan Smith*

- a. Opposed to project: Comment noted.

18. *Deb Hall & Ron Smith*

- a. Conflicts with SMP: Previously addressed
- b. Plastics & gear: Previously addressed
- c. Impacts to species & habitat: Previously addressed
- d. Markets: Taylor invests significantly to develop domestic markets for its products. Taylor’s domestic sales help feed our citizens and support local economies. Taylor foreign sales help combat our nation’s soaring seafood trade deficit.
- e. Taxes: Previously addressed

19. *Bruce Justinen*

- a. Impact to species: Previously addressed

20. *Michael Mason*

- a. Compliance with SMP: Previously addressed
- b. Ownership of tidelands: Tidelands ownership is stated on property deeds and can be determined through professional survey. County parcel layers, as stated on the Thurston County GIS website, are for information purposes only. The proposed project is on Bush Act tidelands, deeded by the State for the purpose of cultivation of shellfish.
- c. Impacts to forage fish: Previously addressed
- d. Effects of aquaculture and need for additional research: The effects of aquaculture, including geoduck aquaculture in Puget sound has been extensively analyzed by the Services through their Programmatic Consultation, which includes a cumulative impact analysis of existing and future farming activities throughout the state. Taylor farms will follow best management practices and all Conservation Measures of the Programmatic Consultation. As such, they will have minimally adverse to beneficial environmental impacts.



21. *Kristin Hearn*

- a. Nighttime Operations: Ms. Hearn raises concerns that Taylor's night tide operations are disruptive to residents. Taylor has made significant changes to its operations to try and reduce conflicts. While crews cannot suspend winter operations, regular training to crews is provided in regards to keeping noise levels to minimum required for safety, directing headlamps below the horizon, and making best efforts to schedule boats during the daytime hours.

22. *Stephanie Bishop*

- a. Impacts to recreational shellfish garden and educational outreach: Taylor is proposing to cultivate shellfish on private tidelands, from approximately +5' tidal elevation to extreme low. Taylor does not expect a negative impact with land or operational use with an adjacent or nearby farm outside of the leased boundary. Crews will not be accessing the beach from uplands. As crews work on site, neighborhood gardeners are encouraged to ask questions, walk through the farm and learn more about other farming practices.

23. *Sam Smith*

- a. Conflict with Thurston SMP: Previously addressed.
- b. Impacts to habitat: Previously addressed
- c. Plastics: Previously addressed.
- d. Conflicts to preferred use: Previously addressed.

24. *Kevin Vandehey*

- a. Conflict with Thurston SMP: Previously addressed
- b. Navigation: Previously addressed
- c. Impacts to habitat and species: Previously addressed
- d. Planting areas: Planting boundaries are bound by the property lines, which have been marked by survey stakes.
- e. Plastics: Previously addressed

I hope these additional details address the concerns listed. Please contact me with any comments or questions at erine@taylorshellfish.com, or (360) 432-3348.

Sincerely,

Erin Ewald
Taylor Shellfish
Shelton, WA 98584

Project Area: 8.5 Acres

Geoduck: approx 3.6 acres

Parcel boundary based on recorded survey



Geoduck



Mazanti Henderson Bay Parcel Survey Boundary

A: 47.170345 / -122.825056

B: 47.170311 / -122.823941

C: 47.166764 / -122.825725

D: 47.166789 / -122.826851

E: 47.168542 / -122.824973

F: 47.169053 / -122.825853

Henderson Inlet

Johnson Point

Otis Beach



0 115 230 460 Feet

REFERENCE:

APPLICANT: Taylor Shellfish

ADJACENT PROPERTY OWNERS:

Please refer to Table of Property Owners

Location: T19N, R01W, S5

Lat/Long: 47.168731 / -122.825359

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Date: 7/21/22
(Rev 3/14/2023)

PROPOSED PROJECT: Mazanti Tidelands

IN: Henderson Inlet

Near/At: Olympia

County: Thurston

State: WA

Document Path: M:\Working\Erin_WorkingMap_Projects\Mazanti\Mazanti_Henderson_Details.mxd