

Notice of Appeal of Patrick and Kathryn Townsend and Anneke Jensen
Of Hearing Examiner Decision on Reconsideration

I. Decisions Being Appealed

Patrick Townsend, Kathryn Townsend and Anneke Jensen, (collectively, the "Appellants"), seek review of the Thurston County Hearing Examiner's (Hearing Examiner) Decision on Reconsideration to approve a Substantial Shoreline Development Permit for ChangMook Sohn (the "Applicant") Project No. 2014108800, issued on March 13, 2017. With this decision, the Hearing Examiner authorized the development of a 1.1 acre commercial geoduck aquaculture operation on tidelands owned by the Applicant on Zangle Cove (2014108800), located within Thurston County.

Per Thurston County Code (TCC) 2.06.070 and 19.04.010(e), an appeal of the Hearing Examiner's decision on a shoreline permit is to the Thurston County Board of County Commissioners.

II. Standing of Appellants

See attached document entitled "Standing of Appellants."

III. Statement of Facts and Issues

ChangMook Sohn, with witnesses who are employees of Taylor Shellfish, consultants to Taylor Shellfish, and tideland lessors to the shellfish industry, sought approval for development of a commercial geoduck aquaculture operation within his tidelands located on the estuary of Zangle Cove. These tidelands are associated with a residentially-zoned parcel located in Thurston County designated as Conservancy in the current Thurston County Shoreline Master Plan. (Exhibit B, Map of Sohn tideland).

ChangMook Sohn seeks to develop a 1.1 acre commercial geoduck aquaculture operation on his tidelands. The commercial geoduck aquaculture operation would involve the placement of approximately 44,000 PVC tubes in the intertidal substrate at a placement rate of every 1 to 1.2 feet. Area canopy nets would be used to cover the pipes. Planting would occur between the -4.5 and +3 tidal elevation. With the height of tubes above the sediment surface, the tidal elevation would be approximately +3.5. Seeding

generally occurs at three seeds per tube, introducing approximately 132,000 geoducks into the shoreline's ecosystem.

Prior to planting, all natively recruited geoducks on the tideland would be harvested. Since geoducks can live up to 168 years, and since to our knowledge no general harvesting of geoducks has ever been done on the estuary of Zangle Cove, it is likely that some of the natively recruited geoducks have existed on Zangle Cove since Washington statehood in 1889. Harvesting of all natively recruited geoducks is thus equivalent to the clear-cutting of an old growth forest—it will never be the same again.

Evidence, both written and oral, was presented by Appellants to the Hearing Examiner in regards to the impacts of commercial geoduck aquaculture on the shoreline environment. This evidence demonstrates not only a loss of the ecological functions of the shorelines, both short-term and long-term, but impacts to recreation, aesthetics and eelgrass along with impacts from the use of plastic on the tideland and the transformation of the tideland to a monoculture, all issues generated by these industrialized operations which will specifically impact Zangle Cove.

IV. Uniqueness of Zangle Cove

The Hearing Examiner failed to consider the uniqueness of Zangle Cove, uniqueness made evident in testimony by Appellants and Appellant witnesses. The unique qualities and characteristics of Zangle Cove argue for a denial of a permit for a geoduck operation that will permanently alter Zangle Cove. These unique qualities and characteristics of Zangle Cove include:

1. Zangle Cove is a residential community within the larger Boston Harbor community--a long-time community with a colorful history described by Jack Marshall in his book, "A History of the Boston Harbor and Gull Harbor Area." Mr. Marshall, who has lived on Zangle Cove for 39 years, talked about the history of Boston Harbor in his testimony.
2. Native geoducks live on the tidelands of Zangle Cove and to our knowledge, other than recreational harvesting, there has never been a commercial harvest of these geoducks. Mr. Marshall described geoducks as having the longest lifespan of any animal, up to 168 years, some extending back to the time of our first settlers. Mr. Marshall stated "It's a piece of living history that could disappear" because all native geoducks from the Applicant's tideland will be "clear-cut" and sold before the Applicant's geoduck operation goes in.
3. The Zangle Cove community along with the entire Boston Harbor community values water recreation and the aesthetics of Zangle Cove, with several residents having lived in Zangle Cove for 25 to 60 years;

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4. There is a high level of recreational activity in Zangle Cove from residents who own and use a total of 48 watercraft, including 2 ski boats, 26 kayaks, 7 dinghies, 5 SUP boards, 6 outboard motor boats, 2 canoes;
5. There are some 29 shoreline residences between Dover Point on the western shore of Zangle Cove and the Sohn residence on the eastern shore of Zangle Cove. Fifteen of the 29 shoreline households have direct views of the Applicant's proposed geoduck operation from their view windows;
6. Because of the V-shape of Zangle Cove, the proposed geoduck farm will be in the front yard of an entire community, creating a dramatic and negative view for homeowners;
7. Zangle Cove is a primary destination for boaters, kayakers, paddle boarders who rent boats from the Boston Harbor Marina and who bring their own boats and launch them from the launching ramp at the Marina, approximately one half mile away;
8. Fishermen have been coming to Zangle Cove for at least 26 years in the fall for seine fishing, both on the west side of Zangle Cove and the east side, directly over the Applicant's tideland property. Seine fishing involves using nets weighted on the bottom by lead weights, dragged along the bottom, so fish don't escape.
9. Zangle Cove is an estuary, one of the last untouched estuaries in South Puget Sound;
10. Zangle Cove is the area furthest southwest beyond Dana Passage in South Puget Sound where eelgrass has self-recruited, which is significant and should be protected regarding long-term possibilities of re-populating eelgrass in South Puget Sound—a objective consistent with the local and national goals to restore Puget Sound;
11. Zangle Cove is a test site for a Puget Sound wide eelgrass restoration project managed by DNR, sponsored by Battelle and funded by the US Department of Energy in 2013. Eelgrass has been monitored by Jeffrey Gaeckle of DNR since 2006 and was documented on the Applicant tideland in 2007;
12. The Boston Harbor community is engaged and interested in the eelgrass restoration project. Many community members participated in the shoot sorting and bundling of eelgrass on the deck of the Boston Harbor Marina for planting by divers in Zangle Cove in 2015;
13. Zangle Cove is habitat for an abundant number of species including but not limited to a long-time resident Bald Eagle family and Blue Heron families, including fledglings, which regularly feed on the exact tideland of the applicant (documented by residents of Zangle Cove). Other species include seals, otters, water birds, pigeon guillemots, threatened Chinook salmon, Chum salmon, geoduck, sand lance, smelt, sand collars, ghost shrimp, cutthroat trout, native eelgrass, kelp, scoters, shorebirds, deer, fox, dolphins, passing Orca whales, hundreds of varieties of invertebrates that live in the benthic layer of the tideland, along with many other species;

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14. The Zangle Cove eagle's nest is approximately 800 feet east of the Applicant's tideland. The eagles do not obey the 600 foot distance that humans arbitrarily determine is the distance within which operations would not be allowed, because the soaring eagles do not count the number of feet of their flight and they feed where there is food which is frequently the tideland of the Appellant in Zangle Cove. There are documented occurrences of eagles caught in geoduck nets;
15. Documentation from 1927 provided by title expert, Nancy Moore (now deceased), of Thurston County Title, confirms that Zangle Cove tidelands were specifically NOT sold for oyster farming. This fact contradicts the claims of the Applicant and Applicant's consultant, ACERA, that oysters were historically farmed on Zangle Cove.
16. On the Application from a then local firm, Norpia, to purchase tidelands of Zangle Cove in 1927, it states: "there are no natural or artificial oyster beds on the land herein described nor is the same in any state oyster bed reserve, that said land is not suitable for cultivating of oysters."
17. Zangle Cove is not a Bush Callow land, sold by the State into private ownership for oyster growing in 1895, as claimed by Applicant's witness, Diane Cooper of Taylor Shellfish.
18. Just east of Zangle Cove on Dana Passage are four geoduck operations that have no permit from Thurston County and there is an application in process for a fifth adjacent operation. Thurston County planner, Tony Kantas, stated to the Hearing Examiner that the County has no record of the four existing farms and that they do not know how many geoduck operations exist in Thurston County. One of the witnesses for the Applicant was the owner of one of the unpermitted operations.
19. In the hearing, the information about the four unpermitted farms was objected to by Applicant, however Mr. Kantas statement that the County does not know how many geoduck operations exist in Thurston County was allowed, so that fact of unpermitted farms close to Zangle Cove seems highly relevant. No attempt has been made to ascertain the direct and indirect cumulative environmental impacts of so many geoduck operations in this area or the impact on Zangle Cove;
20. The permit requirements for the Applicant to pick up trash that floats from his operation involves authorization to trespass on neighboring shoreline properties;
21. In 1971 the Boston Harbor Community established a sewer/water system with the original price per household with interest, of approximately \$17,000. Long time Boston Harbor residents will thus be subsidizing this commercial, industrial tideland enterprise with no compensation. Applicant lives outside of the sewer system and is on a septic system.
22. Zangle Cove residents treasure the beauty of Zangle Cove and willingly pay higher taxes for the privilege of living here. There is little taxation involved with a commercial geoduck operation and therefore no apparent benefit to the County or the State.
23. Zangle Cove residents, supported by the community of Boston Harbor (130 letters and public comments in opposition along with a 70 signature petition in opposition) do not want the commercialization of Zangle Cove in full view of the community.

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24. A commercial geoduck operation is a fundamental change to the use, aesthetics, ecology and environment of a pristine cove. There is no way to hide this commercial activity, as much as the industry claims it can. For the industry, it appears to be a "grab every tideland we can" without consideration for the community or rational long-term planning.
25. Many other relevant facts are documented in the Memorandum of Errors attached to this document.

V. Relevant Sections of Thurston County Code, Shoreline Master Plan Thurston Region, Shoreline Management Act, Thurston County Comprehensive Plan, RCW and WAC

- Shoreline Management Act including RCW 90.58, RCW 90.58.020, WAC 173-26-176(3), WAC 173-26-221(2)(c)(iii)(A) , WAC 173-26-241(3)(b)(i)(C), WAC 173-27, SMP Handbook-Chapter 4,
- Shoreline Master Plan Thurston Region (SMPTR) Section Two, Paragraphs I , II, III, IV, V. A, B, C, F and G; VI, A. B. D. and E ;VII, A, B 1, 2 , 4 and 5 (Pages 19-26, 28-29);
- SMPTR Section Three, II, paragraphs B.5, 6, 8, and 9 and paragraph D. 1 (Pages 39-40, 43);
- SMPTR Section Seven , paragraph A. 1 and 2 (page 161);
- Thurston County Comprehensive Plan , Natural Resources Lands Section, Part II Aquaculture Resources, pages 3-9 and 3-10 -- as misapplied and misinterpreted on page 30 of the Hearing Examiner's Decision;
- Thurston County Code (TCC) 17.09.010 and .020 ; 19.01.010; 19.13.010;24;01.010, 020, 030: 24.01.035 A and B ;24.050,.055 ;24.25.410
- TCC 24.25.045 Fish and wildlife habitat conservation areas – Important marine habitats. This section applies to marine shorelines of statewide significance and marine shorelines of the state (see chapter 90.58 RCW and related rules) consistent with WAC 220-110-020, as amended. It also applies to marine areas supporting kelp and eelgrass beds; herring spawning areas; intertidal areas supporting surf smelt and sand lance spawning, salmonids, and shellfish beds sustaining commercial or recreational harvest, including shellfish protection districts established pursuant to chapter 90.72 RCW
- 24.25.090 Fish and wildlife habitat conservation areas – General standards. The following requirements apply, as applicable, to all uses and activities listed in Table 24.25-3.

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- 24.25.090-D. No net loss of habitat functions. Uses and activities carried out pursuant to this section shall result in equivalent or greater habitat functions, as determined by the approval authority consistent with best available science. All actions and uses shall be designed and constructed to avoid or, where that is not possible, minimize all adverse impacts to the important habitat area and associated buffers. Applicants must first demonstrate an inability to avoid or reduce impacts before impacts will be allowed. No activity or use shall be allowed that results in a net loss of important habitat area functions; destroys, damages, or disrupts habitat supporting priority species; adversely affects water quality; creates unstable earth conditions; or erosion.
- 24.25.090-G. Surety. Applicants for proposals involving, as a condition of permit approval, mitigation of impacts, restoration or enhancement shall submit to the county a surety consistent with chapter 24.70 TCC.
- 24.25.170 Fish and wildlife habitat conservation areas – Existing, lawfully established uses. Existing, lawfully established uses not specifically addressed in this chapter may continue. However, existing uses in the important wildlife habitat areas and associated buffers should employ BMPs to minimize adverse impacts on the important habitat area(s).

VI. Errors and/or Issues that Appellants Request the Board to Consider

There are multiple grievances related to this permit approval by the Hearings Examiner, and we will attempt to be succinct while identifying the error and/or issue that we ask the Board to consider. **All grievances related to the Decision and errors of the Hearing Examiner are listed in detail in the Memorandum attached to this document.**

Specific application and interpretation of the following regulations of the State Shoreline Management Act and Thurston County Shoreline Master Plan are as follows:

1. The Hearing Examiner erred when she determined that Applicant met the mandates of the Shoreline Management Act, RCW 90.58, and its implementing regulations, WAC 173-27et seq., including the Thurston County Shoreline Master Program (SMP). In order to be approved, a shoreline substantial development permit must demonstrate compliance with the Shoreline Management Act, applicable regulations, and the Shoreline Master Program for the Thurston County Region. A primary mandate of the Shoreline Management Act is to “preserve the natural character of the shoreline” and this is

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accomplished by ensuring no net loss of the ecological functions of the shoreline. (*SMP Handbook, 6/22/2010, Chapter 4 No Net Loss of Shoreline Ecological Functions*). The Hearing Examiner's decision to approve the permit for the Sohn commercial geoduck farm will not preserve the natural character of the shoreline and will result in a net loss of ecological functions of the shoreline without adequate mitigation for that loss.

2. The Hearing Examiner erred when she approved a permit for the Applicant's tideland without considering the fact that just to the east of Zangle Cove are four current geoduck operations, none of which has a Thurston County permit. A fifth operation in the same area is pending approval by Thurston County but has not obtained an ACOE permit. See the following RCW regarding "*inherent harm in an uncoordinated and piecemeal development of the state's shorelines.*" There are numerous other existing and pending commercial shellfish and geoduck operations in the nearby South Puget Sound area. In fact, Tony Kantas of Thurston County acknowledged at the Hearing that the County did not know either number of commercial shellfish farms operating in Thurston County, their size or location, let alone their environmental impacts. Consequently, the cumulative adverse environmental impacts from these existing and pending commercial shellfish operations were not adequately considered, if considered at all by the hearing Examiner, but they should have been and if they were, they would have and should have led to the requirement to perform direct and indirect cumulative impacts analysis before approval could be considered.

RCW 90.58.020 Legislative findings—State policy enunciated—Use preference.

*The legislature finds that the shorelines of the state are among the most valuable and fragile of its natural resources and that there is great concern throughout the state relating to their utilization, protection, restoration, and preservation. In addition it finds that ever increasing pressures of additional uses are being placed on the shorelines necessitating increased coordination in the management and development of the shorelines of the state. The legislature further finds that much of the shorelines of the state and the uplands adjacent thereto are in private ownership; that unrestricted construction on the privately owned or publicly owned shorelines of the state is not in the best public interest; and therefore, coordinated planning is necessary in order to protect the public interest associated with the shorelines of the state while, at the same time, recognizing and protecting private property rights consistent with the public interest. **There is, therefore, a clear and urgent demand for a planned, rational, and concerted effort, jointly performed by federal, state, and local governments, to prevent the inherent harm in an uncoordinated and piecemeal development of the state's shorelines.***

It is the policy of the state to provide for the management of the shorelines of the state by planning for and fostering all reasonable and appropriate uses. This policy is designed to insure the

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development of these shorelines in a manner which, while allowing for limited reduction of rights of the public in the navigable waters, will promote and enhance the public interest. This policy contemplates protecting against adverse effects to the public health, the land and its vegetation and wildlife, and the waters of the state and their aquatic life, while protecting generally public rights of navigation and corollary rights incidental thereto.

Thurston County cannot claim "a planned, rational, and concerted effort...to prevent the inherent harm in an uncoordinated and piecemeal development of the state's shorelines" if Thurston County does not know how many geoduck operations there are in Thurston County and as such, does not know where they are. (Testimony of Tony Kantas, Thurston County Planner). The Applicant's operation in Zangle Cove in proximity to four unregistered, unapproved operations that are unknown to the County is an example of the failure of this mandate.

3. The Hearing Examiner erred when she stated "State shoreline regulations express a preference for water-dependent uses that utilize the shoreline for economically productive activities and protect the ecological functions of the shorelines." (*Hearing Examiner Findings, Conclusions, Section 2-B, p. 45*). This statement implies and was interpreted by the Hearing Examiner to mean that "economically productive activities" and aquaculture in particular, such as the Applicant's proposed commercial geoduck operation, is to be the primary preferred use of the shoreline, which is not true at all. Such water-dependent uses are to be approved by allowing the issuance of an SSDP only when the development proposed is consistent with the applicable master program and the SMA. (*See: RCW 90.58.020; 90.58.140(2) (b) and WAC 173-26-176(3)*). *See de Tienne v. Shorelines Hearings Board, __ Wa. App. __ (Div. 1) November 14, 2016; 2016 WL 6683618*. In fact, the RCW and WAC cite a wide variety of water-dependent uses with the emphasis on the "**opportunity for substantial numbers of people to enjoy the shorelines of the state,**" NOT "economically productive activities" as the Hearing Examiner implies.

RCW 90.58.020 Legislative Findings – State Policy Enunciated – Use Preference

"The public's opportunity to enjoy the physical and aesthetic qualities of natural shorelines of the state shall be preserved to the greatest extent feasible consistent with the overall best interest of the state and the people generally."

"Alterations of the natural conditions of the shorelines of the state, in those limited instances when authorized, shall be given priority for. . . development that will provide an opportunity for substantial numbers of people to enjoy the shorelines of the state."

WAC 173-26-176

“The legislature finds that the shorelines of the state are among the most valuable and fragile of its natural resources and that there is great concern throughout the state relating to their utilization protection, restoration and preservation.”

The act states, among other things, that *“Alterations of the natural condition of the shorelines of the state, in those limited instances when authorized, shall be given priority for single-family residences and their appurtenant structures, ports, shoreline recreation uses including but not limited to parks, marinas, piers, and other improvements facilitating public access to shorelines of the state, industrial and commercial developments which are particularly dependent on their location on or use of the shorelines of the state and other development that will provide an opportunity for substantial numbers of the people to enjoy the shorelines of the state.”*

4. The Hearing Examiner erred when she stated, referencing WAC 173-26-176(3), that the gear from the operation, some 48,000 PVC tubes along with canopy netting on the tideland will **“protect the ecological functions of shorelines.”** (Hearings Examiner Findings, Conclusions, P 45-B).
5. The Hearing Examiner erred when she stated, referencing WAC 173-26-221(2)(c)(iii)(A), that *“shoreline regulations recognize commercial shellfish beds as critical saltwater habitat that requires a higher level of protection due to the important ecological functions they provide.”* (Hearing Examiner Findings, Conclusions, P 45-B)

(iii) Critical saltwater habitats.

(A) Applicability. Critical saltwater habitats include all kelp beds, eelgrass beds, spawning and holding areas for forage fish, such as herring, smelt and sandlance; subsistence, commercial and recreational shellfish beds; mudflats, intertidal habitats with vascular plants, and areas with which priority species have a primary association. Critical saltwater habitats require a higher level of protection due to the important ecological functions they provide. Ecological functions of marine shorelands can affect the viability of critical saltwater habitats. Therefore, effective protection and restoration of critical saltwater habitats should integrate management of shorelands as well as submerged areas.

This WAC, written before the introduction of geoduck aquaculture or when geoduck aquaculture was in its infancy, refers to old style clam and oyster beds. The WAC does not specifically say that geoduck operations using 43,000 PVC tubes per acre and canopy netting provide “critical saltwater habitat.” More importantly, the contention that this commercial geoduck operation will in fact so provide is false and constitutes error. Such industrial-scale commercial geoduck operations destroy habitat. They do

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not provide organic matter and detritus (the basis of the food chain) as does eelgrass. They provide no carbon-fixing / sequestration. They are not a key species in the marine food web and the contention that they help improve water quality has been debunked by NOAA's Northwest Fisheries Science Center. In its August 27, 2015 official comments regarding the programmatic Biological Opinion for Shellfish Aquaculture:

"There are repeated mentions of shellfish improving water quality. Virtually all of these analyses are derived from shallow, expansive estuaries of the east coast (i.e., Chesapeake Bay) and the structures in Puget Sound are fjord like and nothing like Chesapeake Bay. It seems unlikely to us that shellfish improves water quality noticeably within the structure of Puget Sound."

The Northwest Science Center comments found inadequate studies of the impacts of commercial shellfish operations on the environment and recommended deleting any claims that shellfish culture enhanced forage base and cover for juvenile chum salmon or that aquaculture sites substitute for habitat structural function otherwise provided by eelgrass beds that cannot form at those sites, or that aquaculture activities enhance habitat characteristics for eelgrass colonization or provide alternative eelgrass habitat function because of lack of supporting evidence for those claims. See Page 9 of the Science Center's comments.

This is thus a serious misapplication of the WAC in question. We would hope that the Hearing Examiner and state authorities do not believe that filling Puget Sound tidelands with PVC pipe and plastic netting provides "important ecological functions," because if they do, it demonstrates that the Hearing Examiner and other authorities have not just erred, but lost critical thinking.

6. The Hearing Examiner erred when she failed to follow the preferences mandated in RCW 90.58.020 (in order of preference) to

...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 recreation 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.

This fundamental provision of the Shoreline Management Act (SMA) was ignored by the Hearing Examiner. For example, the statewide interest in authorizing the construction of yet another commercial geoduck farm in the waters of South Puget Sound is minimal at best. There was no

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evidence introduced about long-term economic benefits of permitting this geoduck farm, and we know from numerous sources that it is minimal. The industry employs few people. According to the Washington Sea Grant December 2015 Final Report to the Washington Legislature, the industry as a whole estimated that there were about 1900 people employed statewide and with indirect and induced jobs, the figure increased to 2710. (See page 2 of the Report). Its biggest impact is reported to be in rural counties where it has a larger presence, Pacific and Mason counties being the two largest. This proposed 1.1 acre farm here in Thurston County cannot be expected to employ many people and those who are will presumably be seasonal employees or existing full-time employees of the operator with duties covering many such farms who will have an occasional presence at the Sohn farm to perform maintenance, oversight and repair pending a few weeks of harvest after 5-6 years.

The industry has been remarkably successful in limiting its payment of taxes. It pays no sales taxes on exported shellfish and 95% of geoduck, is exported, almost all to China, where it is considered both a luxury seafood product commanding a retail price of up to \$125 per pound and an aphrodisiac because of the exaggerated phallic shape of its long neck. Indeed, it is the still growing Chinese geoduck export market that has fueled the enormous expansion of the industry in Puget Sound, of which this permit is indicative. Similarly, because the clams will be grown on private aquatic lands, the geoducks are exempt from payment of the Enhanced Food Fish Excise Tax (fish tax). Exported shellfish are exempt from the state's B&O tax, and, regardless, normally take advantage of the Agriculture Wholesale B&O Exemption found in RCW 82.04. Finally, tidelands are typically not appraised by counties at their true value and what property taxes they do pay are extremely low. Taylor Shellfish reportedly pays \$24 in annual property tax for its 12 acre geoduck farm in Hammersley Inlet. In sum, there is no meaningful statewide economic benefit to be realized from the approval of the SSDP for this farm.

Contrarily, there is likely to be meaningful harm to the ecology of the shoreline, as the operation uses the resources and ecology of the natural shoreline rather than "protecting" them, including damage to nearby eelgrass and to the numerous aquatic species dependent upon eelgrass for food, refuge and habitat including spawning herring and other forage fish, juvenile salmon, birds etc. The densely packed geoduck will out-compete the other nearby aquatic species for phytoplankton. Gear from the farm, i.e., PVC pipes and nets, will adversely impact the nearby Puget Sound food web as was recently reported in a peer-reviewed scientific article published in The International Council for the

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Exploration of the Sea's journal of Marine Science. Members of the public will have reduced recreational opportunity as recreation seekers will be forced to go elsewhere to avoid risk of injury or interference in commercial operation associated with the farm and the public will also be negatively impacted by the adverse unsightly aesthetic impacts of the farm. There is also no evidence that the proposed geoduck farm will provide long-term benefits to anyone. While there will certainly be short-term economic benefit to the farm owner and operator, it is at best uncertain what the long-term economic consequences of an industrial scale geoduck farm will be. Commercial farming for geoduck is only 20 years old. How many 5-7 year intensive harvest cycles can shoreline sustain before long-term decline of the shoreline, upon which the farm is located and the health of which it depends to feed the clams, becomes a dead zone? Where is the evidence to support the statewide long-term benefit from approval of this farm?

Additionally, the project will decrease rather than increase recreation opportunities for the public in the shoreline as well as subvert the public's opportunity to enjoy the physical and aesthetic qualities of natural shorelines of the state which "is to be preserved to the greatest extent feasible consistent with the overall best interest of the state and the people generally." The Applicant, Dr. Sohn, had the burden of proof before the Hearing Examiner to show that he would fully comply with the ecological and public protection mandates of the SMA. He failed to do so. As a consequence of the above, we not only disagree with the Hearing Examiner, we contend that the Hearing Examiner erred when she concluded that all of the consequences of approving an SSDP for this geoduck farm, including the 43,000 PVC pipes per acre that will be covered by canopy netting on the Puget Sound tideland, is in complete harmony with the mandates and preferences of the Shoreline Management Act. (*Hearing Examiner Findings, Conclusions, P. 39*)

7. The Hearing Examiner erred when she failed to follow the preferences of the Shoreline Master Program (SMP) (*Hearing Examiner Findings, Conclusions, p. 40*) for the Thurston Region. The SMP, written in 1990, predates commercial geoduck aquaculture which is now very different in size, scale and operation than what shellfish aquaculture looked like in 1990 when the SMP was adopted.

- a. The SMP States:

- B. "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."***

The above describes the Applicant's tideland on Zangle Cove.

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."

Zangle Cove is one of the last untouched estuaries in South Puget Sound. It is a primary destination related to aesthetic, scenic and ecological enjoyment for boaters, kayakers, and paddle boarders from the Boston Harbor Marina and other areas of Puget Sound.

- b. The Goal Statement for the Conservancy Environment in the SMP (WAC 173-16-40(4)(b)(ii)) regarding Public Access includes a goal to exercise due regard for the safety of the public. That would include or should be interpreted consistent with WAC 173-26-241(3)(b)(i)(C) which says that aquaculture should not be permitted in areas where it, among other things, would significantly conflict with navigation and other water dependent uses.
- c. The Conservation statement for Conservancy Environment in the SMP includes a goal to "protect, conserve and manage existing natural resources and valuable historical and cultural areas in order to ensure a continuous flow of recreational benefits to the public and to achieve sustained resource utilization." To this end, the geoduck aquaculture industry is a 20 year old industry and there is no certainty regarding the long-term future of the industry: (a) It is unknown if the tideland can sustain continual plant/grow/harvest cycles and we express doubt that it can; and (b) it is an industry that is 90-95% dependent on the Chinese luxury seafood/aphrodisiac market. The detailed statistics are 95% export and of that, 90% to high end restaurants. This is not "food for the poor and hungry" as Applicant claimed in his testimony.
- d. The aquaculture activities section of the SMP is industry friendly but if it conflicts with the SMA or the WACs it is invalid. In the Policies section, No. 8 states that "proposed aquacultural activities should be reviewed for impacts on the existing plants, animals and physical characteristics of the shoreline. Neither the ACERA Biological Evaluation nor the Confluence Biological Evaluation adequately addressed these issues.

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8. The Hearing Examiner erred when she determined that this application did not require an analysis as to the cumulative impacts of commercial geoduck aquaculture on the shoreline ecosystem of this area of Dana Passage and Zangle Cove (*Hearing Examiner Findings, Conclusions, p. 47*), allowing the "piecemeal development" referred to in RCW 90.58.020:

"...the legislature...finds that ever increasing pressures of additional uses are being placed on the shorelines necessitating increased coordination in the management and development of the shorelines of the state..." RCW 90.58.020

"There is, therefore, a clear and urgent demand for a planned, rational, and concerted effort, jointly performed by federal, state, and local governments, to prevent the inherent harm in an uncoordinated and piecemeal development of the state's shorelines." RCW 90.58.020.10.

9. The Hearing Examiner erred when she refused to allow information or to consider evidence regarding four unpermitted geoduck operations on Dana Passage just to the east of the Applicant's tideland and failed to take into consideration the statement from Thurston County Planner, Tony Kantas, that the County does not know how many geoduck and shellfish operations even exist in Thurston County, let alone the size and scale and ecological consequences resulting from these other commercial geoduck and shellfish operations. This necessarily means that Thurston County has no idea about the direct and indirect cumulative environmental impacts presented by this project. Geoduck aquaculture is in its infancy and long term impacts are not known.

"The legislature recognizes the 'necessity of controlling the cumulative adverse effect' of 'piecemeal development' of the state's shorelines' through 'coordinated planning 'of all development, not only substantial development,'" *deTienne v Shorelines Hearing Board, _Wn. App (Div. 1, November 14, 2016), 2016 WL 6683618, at page 39 (quoting RCW 90.58.020.030(3)(e)) and referenced in No. 4 above.*

In *deTienne*, the Washington Court of Appeals upheld the rejection of an SSDP for a proposed 5 acre geoduck farm in Pierce County for, among other things, failure to consider the need to prepare a cumulative impacts analysis, just as the Hearing Examiner and Mr. Sohn failed to do here. Thus the Applicant's operation is inconsistent with the Shoreline Management Act. (*Hearing Examiner Findings, Conclusions, p. 45*) and with SEPA's mandate.

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10. The Hearing Examiner erred when she concluded that the shoreline permit application would comply with the applicable policies of the Shoreline Master Program of Thurston County. (*Hearing Examiner Findings, Conclusions, p. 47*) In this regard, the Hearing Examiner erred in the following manner:
 - a. Erred when she concluded the effects on the aquatic environment would be localized and short-term. (*Hearing Examiner Findings, Conclusions, p. 47, G*)
 - b. Erred when she overlooks the fact that there is no end-term to the lease, which means permanent impacts. (*Hearing Examiner Findings, Conclusions, p. 47, G*)
 - c. Erred when she overlooks the fact that 44,000 or more geoducks on this tideland parcel constitute a monoculture that is radically different from a usual tideland culture. (*Hearing Examiner Findings, Conclusions, p. 47, G*)
 - d. Erred when she concluded the industrialization of 1.1 acres of shoreline in Thurston County was consistent with the Rural Shoreline Environment and would not harm the shoreline environment. (*Hearing Examiner Findings, Conclusions, p. 47, G*)
 - e. Erred when she concluded that the project would have localized impacts of a short duration and would not adversely impact the aquatic plants, animals, and physical characteristics of the shoreline. (*Hearing Examiner Findings, Conclusions, p. 47, G*)
 - f. Erred when she concluded that the project would result in minor, short term impacts on intertidal sediments. (*Hearing Examiner Findings, Conclusions, p. 47, G*)
 - g. Erred when she failed to understand that a commercial geoduck operation in an untouched pristine cove is a fundamental change to the land, both with long term consequences to Zangle Cove in particular and as a stepping stone to the permitting of all available tidelands in Puget Sound for commercial development. (*Hearing Examiner Findings, Conclusions, p. 47, G*)

11. The Hearing Examiner erred when she compared a geoduck aquaculture operation to a marina or industrial port, saying that the aquaculture operation had less impact than a marina or industrial port. This is what is known as a fallacious comparison, which is an unreasonable process of comparing one thing to another that is really not related, in order to make one thing look more or less desirable than it really is. (*Hearing Examiner Findings, Conclusions, p. 46, D*). This also violates WAC 173-26-241(3) (b) (i) (C), which provides in pertinent part:

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“Aquaculture should not be permitted in areas where it would result in a net loss of ecological functions, adversely impact eelgrass and macroalgae, or significantly conflict with navigation and other water –dependent uses . “

Any interpretation of the Thurston County SMP to the contrary is not permitted as State law governs where there is any conflict in the law.

12. The Hearing Examiner erred when she concluded that the 18 mitigation measures imposed on the operation as a requirement of approval would ensure the protection and preservation of the ecological functions and values of Thurston County's shorelines as mandated by the Shoreline Management Act, RCW 90.58. (*Hearing Examiner Findings, Conclusions, p. 45-2A*) Geoduck operations, as a monoculture using 43,560 PVC tubes (7 miles, 16 tons) per acre, will disturb and change the ecological functions of the tideland. SMP 24.25.090. There is no way to get around that.

VII. Memorandum Containing Complete List of Errors that Appellants Believe Were Made by Hearing Examiner

See attached Memorandum.

VIII. Relief Requested

Appellants respectfully request that the Thurston County Board of Commissioners find that the Thurston County Hearing Examiner's decision to approve the Substantial Shoreline Development Permit required by ChangMook Sohn, Project No. 2010-108800) on March 13, 2017 is not supported by the evidence or the law. Based on this finding of error, the County Commissioners, as authorized by TCC 2.06.080(D) should reverse the Hearing Examiner's decision and deny the application for issuance of a Substantial Shoreline Development Permit.

Dated this 23rd day of March, 2017.

Respectfully submitted,

By: _____
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