

Memorandum of Errors Related to the Hearing Examiner's Decision  
To Request for Reconsideration  
Including Evaluation of Errors of Law and Errors of Omission

This Memorandum of Errors is an attachment to the Notice of Appeal to the Thurston County Board of Commissioners from Patrick Townsend, Kathryn Townsend and Anneke Jensen, (collectively, the "Appellants"), who 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.

This document contains a compilation of errors made by the Hearing Examiner in this matter, as evaluated by Appellants, including the errors cited in the Notice of Appeal. The errors that are cited in the Notice of Appeal have identical item numbers in both documents.

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 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.

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 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.

2. 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."*

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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.”*

3. 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).
4. 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.”* (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 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

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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 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.

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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.

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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.

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.

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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

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)*

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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:

“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.

13. The Hearing Examiner erred by not considering the fact that an unending succession of 6 year plant/grow out/harvest cycles constitutes a permanent alteration of the tideland to industrial use. (*Hearing Examiner Findings, Conclusions. P. 45*)

14. The Hearing Examiner erred when she concluded that the weight of scientific evidence favored the development of Thurston County shorelines with commercial geoduck aquaculture despite the fact that geoduck aquaculture is still in its infancy and environmental impacts have not been fully ascertained either at this location or in nearby waters, let alone in South Puget Sound generally. (*Hearing Examiner Findings, Conclusions, p. 35, Item 91*)

15. The Hearing Examiner erred when she concluded that the scientific evidence favored development of Thurston County's shorelines, according undue weight to conclusions of the applicant's experts

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who work as consultants to the industry. The Hearing Examiner failed to take into consideration scientific evidence provided by Appellants. (*Hearing Examiner Findings, Conclusions, p. 35, Item 91*)

16. The Hearing Examiner erred when she approved a permit for Applicant's tideland while at the same time conceding that there are "unavoidable impacts of aquaculture." The Applicant did not demonstrate that the operation would NOT result in probable, significant adverse impacts to eelgrass, recreation, aesthetics or plastic pollution in pristine Zangle Cove. (*Hearing Examiner Findings, Conclusions, p. 43, Item 1*)
  
17. The Hearing Examiner erred when she stated that "the Applicant plans to partner with Taylor Shellfish Farms (Taylor Shellfish) to operate the proposed Farm. (*Findings, Conclusions, p. 10, Item 3*). As of the last day of the hearing, no lease agreement had been signed and there was no definite indication that any lease agreement would be signed with Taylor Shellfish or what the contents of that lease agreement would be. Although the Hearing Examiner required a lease be signed as a mitigating condition, no approval of the permit should have been allowed by the Hearing Examiner until a formal lease agreement has been signed with the shellfish operator that the Applicant intends to partner with and with relevant lease criteria and indication of respective responsibilities of lessor and lessee. It was obvious that the status of any potential partnership between Taylor Shellfish and the Applicant was unclear and unknown to Diane Cooper, representative of Taylor Shellfish. Diane Cooper also noted the Applicant, a person without experience of commercial aquaculture, might manage the farm himself. If a "partnership plan" was developed after the hearing, that plan has not been made public to our knowledge and therefore the Hearing Examiner is being disingenuous in her statements about a partnership.
  
18. The Hearing Examiner erred when she failed to highlight the extent of opposition to the Applicants' proposed geoduck operation from the community members of Zangle Cove and Boston Harbor. (*Hearing Examiner Findings, Conclusions, p. 52-57, p. 82-83*). These included a total of at least 128 written and verbal comments along with an additional 70 signatures on a petition:

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- 87 letters in response to Notice of Application opposing the Applicant's geoduck operation on Zangle Cove;
- 26 letters in response to the MDNS dated May 3, 2016 opposing the Applicant's geoduck operation on Zangle Cove. Some of these contained more than one signature;
- 15 public comments including articles and reports submitted during public comment Oct 17, 2016 opposing the Applicant's geoduck operation on Zangle Cove.
- 70 signatures on a petition dated May 17, 2016 from the Boston Harbor community opposing the Applicant's geoduck operation on Zangle Cove;

19. The Hearing Examiner noted that only two individuals submitted comments in support of the permit: Steve Wilson, a shellfish grower, and Derek King, associated with the shellfish industry. (*Hearing Examiner Findings, Conclusions, p. 33, Item 83.*)

20. The Hearing Examiner erred when she failed to explain why she did not accord any relevance whatsoever to the concerns, scientific evidence or testimony related to recreation and aesthetics, of an entire community.

21. In #10 of her Findings, the Hearing Examiner stated that 26 comment letters and emails were submitted during the MDNS comment period, but she failed to state that one of the "comments" was a petition containing 70 signatures and others contained multiple signatures. She also failed to state that all of these comment letters were opposed to the geoduck operation. (*Hearing Examiner Findings, Conclusions, Appendix D, p. 55-56*)

22. The Hearing Examiner erred when she failed to acknowledge that many of the comments opposed to the Applicant's operation contained scientific documents in support of denying the permit.

23. The Hearing Examiner erred when she failed to give predominant weight to the aesthetic and recreational concerns of the community, a community which utilizes Zangle Cove. As the Hearings Examiner allowed the issues of "aesthetics" and "recreation," which are community values, as topic

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in the hearing, it is insupportable that she gave more weight to the industry's interpretation of "aesthetics" and "recreation" than that of the community.

24. The Hearing Examiner erred when she stated that Appellants had not offered photographic evidence of eelgrass on the Applicant's tideland. In fact Appellants did offer photographic evidence of the Applicant raking in eelgrass on his tideland property. The Hearing Examiner excluded this evidence based on objection of the Applicant's attorney, because the attorney apparently and incorrectly believed that the evidence defamed the Applicant. Thus the Hearing Examiner cannot claim that Appellants did not offer photographic evidence when she, herself, excluded the photographic evidence that was offered. (*Hearing Examiner Excluded Appellant Exhibit, Photographs of Dr. and Mrs. Sohn digging in eelgrass on their tideland*).
25. The Hearing Examiner erred when she allowed Thurston County to proclaim that a geoduck operation "would be considered to be consistent with the character of the community," (*Findings, Conclusions, p. 22, Item 44*). The County did not in any way attempt to engage the community in a discussion regarding the community opinion of the character of its own neighborhood prior to giving the Applicant a permit.
26. The Hearings Examiner erred when she failed to consider that the inclusion of Zangle Cove in a US Department of Energy funded Puget Sound wide eelgrass restoration project is highly significant and should be protected beyond the usual boundaries of eelgrass proximity to aquaculture installations. Zangle Cove was included in the project largely because the occurrence of natively recruited eelgrass this far south-west in Puget Sound is an occurrence that is rare and unusual. (*Hearing Examiner Findings, Conclusions. P. 16, Item 17*)
27. The Hearing Examiner erred when she stated that "eelgrass completely died off in 2016." The information that she cites from Philip Bloch is inaccurate. Mr. Bloch did not provide written comments from Jeffrey Gaeckle of DNR and so Mr. Bloch's reminiscence of his telephone conversation with Mr. Gaeckle is hearsay. In fact, contrary to Mr. Bloch's testimony there is documented evidence of eelgrass found natively recruited in 2013, a fact Jeffrey Gaeckle was aware of through email correspondence with Zangle Cove residents and that was the impetus for including

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Zangle Cove in the DNR/Battelle/Us Department of Energy eelgrass restoration project in Puget Sound. (*Hearing Examiner Findings, Conclusions. P. 16, Item 17*) Mr. Bloch's statement shows his ignorance of eelgrass, which in fact may "disappear" and "reappear." To say it has "completely died off" without the observation of DNR from 2006 to present is ill-informed at best.

28. The Hearing Examiner erred when she did not distinguish between the eelgrass rich areas of North Puget Sound, described in great detail by Applicant's witness, Mr. Bloch, and the paucity of eelgrass in South Puget Sound. Neither did Mr. Bloch make this distinction. Comparing the survival of eelgrass adjacent to an aquaculture site in an area rich in eelgrass (North Puget Sound) to an aquaculture site where self-recruitment of eelgrass is somewhat of a miracle because there is almost no recruitment of eelgrass on its own (South Puget Sound), is a spurious comparison that any competent scientist would be aware of and make a clear distinction about. (*Findings, Conclusions, p.26, Item 54*)
29. The Hearings Examiner erred in failing to consider that the Applicant's expert witnesses, speaking about eelgrass and its relation to aquaculture, were testifying about eelgrass in Samish Bay in North Puget Sound, where there is an abundance of eelgrass, not South Puget Sound, where eelgrass recruitment is rare and therefore the recruitment in Zangle Cove is highly unique. There is no mention of the specific location (Samish Bay) that the Applicant witnesses are referring to in relation to their comments about eelgrass. (*Hearing Examiner Findings, Conclusions, p.26, Item 54*)
30. The Hearing Examiner erred when she failed to comprehend that an eelgrass restoration project is not about one little test plot of eelgrass, but envisions a full-scale restoration across the entire Zangle Cove. (*Hearing Examiner Findings, Conclusions, 1-A. p. 43*)
31. The Hearing Examiner erred when she failed to give weight to the importance of eelgrass in South Puget Sound, where native eelgrass is rare:
  - a. Eelgrass is considered a prime indicator of ecosystem function in Puget Sound and similar environments.
  - b. Eelgrass provides valuable habitat for juvenile salmon and adult marine species and forage fish, including herring to spawn, refuge and nursery area for juvenile life stages, detritus and

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forage for a large variety of invertebrates, fish and aquatic birds, including Endangered Species Act listed species. Although there is a great deal of eelgrass in North Puget Sound, there is almost none remaining in South Puget Sound—in part because of the large expansion of shellfish aquaculture farms, to whose owners and operators eelgrass is considered a “pest” to be eradicated.

- c. Based on the unlikely occurrence of eelgrass in South Puget Sound, discovered by residents of Zangle Cove in 2006, the Department of Natural Resources has monitored the eelgrass from 2006 to the current date and is still monitoring the eelgrass in Zangle Cove.
- d. Because of the unique occurrence of eelgrass this far south in Puget Sound, Zangle Cove was included in the study conducted by Pacific Northwest National Laboratory, “Eelgrass (*Zostera marina* L.) Restoration in Puget Sound: Development and Testing of Tools for Optimizing Site Selection,” September 2014, RM Thom, and was included in the Battelle eelgrass restoration project, funded by the US Department of Energy, beginning in 2013.
- e. It is commonly known that patches of eelgrass move around and re-colonize and expand. In 2007, Jeffrey Gaeckle of DNR documented eelgrass patches in Zangle Cove, one on or adjacent to the Sohn tideland. These patches differed from the original four patches found in 2006 and from patches found in 2013. (*Appellant Exhibit, Email/Map from Jeff Gaeckle, DNR*)
- f. Eelgrass was growing on his tideland at that time. Eelgrass is prime refuge for crabs, juvenile salmon, and other species

32. The Hearing Examiner erred when she described in Finding Number 3, the various responsibilities of the Applicant and Taylor Shellfish in relation to the Applicant's geoduck operation. Diane Cooper stated that she did not know who would be responsible for the planting and harvesting on site, if the Applicant intended to manage the operation or if he intended Taylor Shellfish to manage the operation. On the final hearing day, no agreement had been signed between the Applicant and any shellfish operator, which should have precluded giving a permit. (*Hearing Examiner Findings, Conclusions, p. 48, Item H-a*)

33. The Hearing Examiner erred when she stated that “there would be no removal, raking, or disturbance of substrate to prepare for planting geoducks. She failed to mention that an entire harvest of natively

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recruited geoducks would precede planting, which would involve extensive disturbance of the substrate. (*Findings, Conclusions, p. 11, Item 4*)

34. The Hearing Examiner erred in accepting the testimony of Applicant's witness, Marlene Meaders, regarding impacts to eelgrass and wildlife in Zangle Cove. Ms. Meaders dismissed the 2015 Ferriss Study, a University of Washington study that calculated the impacts of geoduck aquaculture gear (43,560 PVC tubes per acre, approximately 7 miles of PVC weighing approximately 16 tons) in Central Puget Sound. Ms. Meaders testified that the conclusion of the study was both incorrect and unsupported and dismissed Appellant's reliance on those conclusions. We question Ms. Meaders' credentials related to her dismissal of the University of Washington study.
35. The Hearing Examiner erred in giving credence to Ms. Meaders' testimony that a one-acre farm is nothing compared to the 38,000 acres of shellfish farms in Washington State, including, presumably, the thousands of acres of shellfish aquaculture in Willapa Bay. She dismissed the idea that a 1.1 acre farm will have any impact. This is a flawed argument. Everyone understands that dramatic devastation, such as that caused by severe floods or volcanic eruptions, are rare. However, the more common form of devastation is small incremental exploitation, otherwise known as "death by a thousand cuts." This is the case with one-acre geoduck operations put in willy-nilly onto any available tideland, without long-term consideration of cumulative impacts.
36. The Hearing Examiner erred when she discounted Mr. Townsend's testimony regarding visibility of the PVC tubes. The Applicant's expert, Marlene Meaders, averaged visibility of tubes over an entire year, attempting to make visibility appear to be an insignificant issue. The Appellant's testimony on visibility takes into consideration tidal occurrence as follows:
  - a. PVC tubes are almost never visible from October through March, the winter months when there is much less recreation on Zangle Cove, because very low tides occur in the middle of the night during these months. Ms. Meaders, when questioned on this point, agreed that the lowest tides in the winter months are in the middle of the night.
  - b. PVC tubes are visible sometime during daylight hours approximately 83-87% of the days from April through September, summer months, when there is high use recreation on Zangle Cove, because very low tides in these months occur in the middle of the day.

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- c. Mr. Townsend testified, based on government tide charts, regarding visibility from April through September, "the period of time that people are actually using Puget Sound...here you can see in 2015 that 87% of the days, the vast majority of days, the tubes are visible in Zangle Cove."
- d. Mr. Townsend did calculate the number of hours per day that the tubes would be visible during these months from actual tide charts, but he did **not** say, as Ms. Meaders claims, that tubes would be visible all day during summer months.
- e. Ms. Meaders stated she summarized hours of visibility by month and when asked if she averaged visibility over the year, she said, "No," then immediately stated that the average over the year is 18%, thus bringing into question her ultimate conclusions on the facts.
- f. Ms. Meaders quibbled about the number of minutes of exposure over 6 years. Appellant addressed the fact of exposure on nearly a daily basis during the six warmer months of the year.
- g. A geoduck operation is, in our opinion, synonymous with a very bad tooth. It makes no difference if it only hurts for one hour a day or 6 hours a day—there is a constant reminder of a serious and unwelcome problem.

a. The point that the Hearing Examiner appears to have missed is that based on analysis of tide charts by the Appellants, tubes will rarely be visible during winter months and will be visible for some portion of the day nearly every day from April through September (approximately 83-87% of the days.)

37. The Hearing Examiner erred when she gave precedence related to analysis of tides to aquaculture industry employees over neighborhood witnesses. Disparaged neighborhood witnesses included a librarian, a high level computer systems analyst and a former banker. Persons "familiar with aquaculture practices" are not necessarily, by that fact, more intelligent or informed in relation to reading a tide chart and analyzing tidal trends than others, particularly others who have careers in fields that require high level technical and/or information analysis and who have lived with the tides for 25 to 60 years. The Hearing Examiner's error is discriminatory and diminishes her credibility as a "finder of fact." If the Hearing Examiner is willing to make judgments based on her subjective bias, then Appellants have a right to question her judgment. *Hearing Examiner (Findings, Conclusions, p. 35, Item 91)*

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38. The Hearing Examiner erred when she stated that the proposed geoduck commercial aquaculture operation would not interfere with “public recreational facilities, or community use of the tidelands via boats, kayaks, or other means.” (*Hearing Examiner Findings, Conclusions, Page 47 – G*). Logic dictates that because of varying tidal elevations, 48,000 PVC pipes, rebar and canopy nets on the tideland will interfere with recreation and potentially cause impact to boating, kayaking, canoeing and paddle boarding, all of which are frequent in Zangle Cove.
39. The Hearing Examiner erred when she stated that the proposed geoduck commercial aquaculture operation would “not obstruct views.” (*Hearing Examiner Findings, Conclusions, Page 47 – G*). The Hearing Examiner misses the point. The ugliness of 48,000 PVC pipes, netting and rebar IS the view. Property taxes for waterfront residents in Thurston County are higher than average, sometimes much higher, because of the Puget Sound view.
40. The Hearing Examiner erred when she concluded that geoduck aquaculture beds improve water quality. In that regard, see the comments rejecting this contention from the US National Marine Fisheries Service Northwest Fisheries Science Center in paragraph 6, above. The Hearing Examiner also failed to consider the fact that in planted densities of up to 132,000 geoducks per the 1.1 acre, large quantities of geoduck pseudo feces are deposited in and on the underlying sediments and the environmental consequence of that deposit. (*Hearing Examiner Findings, Conclusions, p. 36, Item 93*)
41. The Hearing Examiner erred when she gave a permit to the Applicant, who to our knowledge has no experience at all with geoduck aquaculture, without a signed lease agreement with an aquaculture operator. Contrary to the Hearing Examiner's characterization of Ms. Cooper's testimony, Diane Cooper made clear in testimony that there is no guarantee that the Applicant will sign a lease agreement with Taylor Shellfish or any other known aquaculture company. (*Hearing Examiner Finding, Conclusions, H-a, p. 48*)
42. The Hearing Examiner erred when she stated that “the record...supports the conclusion that recreationists can be attracted to and interested in aquaculture activities.” (*Hearing Examiner Findings, Conclusions, I-C, p. 44*). Neither the Hearings Examiner nor the Applicant cite any

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objective evidence to support this very general allegation by the industry, let alone a study or survey regarding recreationists nor one for this particular site. This is merely a self-serving statement from one of the Applicant's witnesses, a witness who works for the shellfish industry, without any support in fact for this site-specific proposed geoduck farm.

43. The Hearing Examiner erred when she excluded testimony regarding the fact the four geoduck operations just east of Zangle Cove are not permitted by the County (Marshall/Townsend testimony), while allowing testimony from Thurston County planner, Tony Kantas, that he does not know how many geoduck operations exist in Thurston County (Kantas testimony). At the very least, this is a contradiction in the rules that the Hearing Examiner imposed on "relevance" of nearby unpermitted geoduck farms to the Applicant's project on Zangle Cove. We submit that the fact that Thurston County has no knowledge of these four operations along with the fact that Thurston County does not know where all geoduck operations are (and how many there are) in Thurston County is highly relevant. A permit to the Applicant should not be considered until the County makes a full accounting to the public of geoduck operations on County shorelines.
44. The Hearing Examiner failed to cite the number of letters and public comments (approximately 130) written to the County from community members opposed to this operation and find the operation a degradation to the environment. (*Hearing Examiner Findings, Conclusions, Item 77, p. 31, Item 82, p. 32, E. p.44*)
45. The Hearing Examiner erred when she stated that neighboring property owners' "displeasure" (a term coined by the Applicant), "by itself is not a basis for overturning the MDNS." (*Hearing Examiner Findings, Conclusions, 1-D, page 44*) This characterization by the Applicant of the neighboring property owners' views is disingenuous. The term "displeasure" does not suffice to describe the repugnance of community members regarding the actions of the Applicant and his lack of scruples in changing the Zangle Cove estuary into an industrial operation for his own purposes, in spite of early cordial conversation with him alerting him to the concerns of the neighborhood. We submit, therefore, that the opposite is also true: that the personal desires of one property owner should not be the basis for granting the MDNS when it will impact the collective aesthetic value, a value directly associated with the willingness to pay high property taxes, of an entire neighborhood.

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46. The Hearing Examiner erred by mischaracterizing Appellant's arguments when she states that Appellants "failed to identify additional conditions that should be imposed." The Appellants argued to deny the permit altogether because there is not a way to make 44,000 PVC pipes along with mass harvesting and creating a monoculture "more acceptable" with regard to eelgrass, plastics on the tideland, recreation, aesthetics and cumulative impacts in a beach front community of property owners. (*Findings, Conclusions, 1-D, page 44*)
47. The Hearings Examiner erred in her failure to require written documentation from the County regarding their "review" of comments from the public. (*Hearing Examiner Findings, Conclusions, 1-E, page 44*)
48. The Hearings Examiner erred in her mandated requirement that Applicant routinely pick up trash that has drifted off the Applicant's tideland geoduck operation. This mandate:
  - a. Verifies that the operation pollutes
  - b. Grants an illegal easement onto neighboring properties, something the Hearings Examiner is not authorized to do. This would never be legal on upland property. (*Hearing Examiner Findings, Conclusions, p. 13, Item 5*)
49. The Hearing Examiner erred in her failure to consider testimony from Jack Marshall, local resident and author of "A History of Boston Harbor" related to the fact that the tidelands in Zangle Cove were originally sold in 1927 with the specific statement that the tidelands were not for oyster lands. Documentation of the original sale of these tidelands was provided by title expert, Nancy Moore (now deceased), of Thurston County Title. Diane Cooper, Applicant witness and employee of Taylor Shellfish, attempted to equate Zangle Cove with the Bush Callow lands that were sold for aquaculture purposes in the late 1800's. Appellant objected to this characterization by Ms. Cooper because it was not truthful, as anyone can know by looking at the Bush Callow map put out by the Department of Natural Resources.
50. The Hearing Examiner erred in her failure to consider testimony from Kathy Knight, a resident of Zangle Cove for 60 years. Ms. Knight particularly testified about the extent of recreation in the Zangle Cove community and provided photo documentation.

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51. The Hearing Examiner erred in her failure to consider testimony from Appellant expert witness David Batker, (environmental economist) who testified, among other things, that aesthetic value is difficult to measure, unlike impacts on a moon snail. Aesthetic value depends on what humans think, feel and experience and one way to measure impact is the number of people upset by a project related to their mutual aesthetic value, that impacts to aesthetics and recreation often dwarf environmental impacts and are generally swept under the carpet.

Mr. Batker also testified that eelgrass is a key species in Puget Sound, that it will be almost impossible to restore Puget Sound if we don't restore eelgrass, that systems such as Zangle Cove are dynamic, that eelgrass moves around, that a geoduck operation will preclude eelgrass in the area of the operation, that harvesting can cause smothering of eelgrass and in general will have a significant adverse impact on self-recruited eelgrass and eelgrass restoration project in Zangle Cove. He additionally testified that PVC pipes break down and there can be harmful chemicals that result. He stated he had collaborated with the shellfish industry in the past but that every industry has scale limitations and that the Applicant's operation represents a large percentage of Zangle Cove.

52. The Hearing Examiner erred in allowing false testimony by Diane Cooper, who claimed their geoduck aquaculture operations are certified sustainable. The ASC standard does not certify "sustainability," only the label of "responsible."

<http://www.asc-aqua.org/index.cfm?act=tekst.item&iid=2&lng=1>

Dated this 23rd day of March, 2017.

Respectfully submitted,

By: \_\_\_\_\_  
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