No. 47717-3-II

IN THE COURT OF APPEALS
OF THE STATE OF WASHINGTON
DIVISION II

DARRELL de TIENNE and CHELSEA FARMS, INC.,

Appellants,

vs.

SHORELINES HEARINGS BOARD; PAUL H. GARRISON and BETTY N. GARRISON; PIERCE COUNTY; and COALITION TO PROTECT PUGET SOUND HABITAT,

Respondents.

APPELLANTS' OPENING BRIEF

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I. INTRODUCTION

The Appellants in this case are a landowner and a shellfish company who partnered together to permit a shellfish farm on privately-owned tidelands in Pierce County ("County"), Washington. After an eight-year review process that culminated in a two-day hearing before the County Hearing Examiner, the County issued a shoreline substantial development permit ("SDP") for the proposed farm. The SDP included 39 conditions designed to ensure the farm had a minimal environmental footprint.

The Washington State Shorelines Hearings Board ("Board") reversed the County's decision and vacated the SDP for the farm. In doing so, the Board committed numerous legal errors, the first of which was exceeding its authority and jurisdiction by issuing its decision after the statutory timeline for a decision lapsed.

The Board also erred in interpreting and applying the law on five independent bases:

- it refused to consider critical testimonial evidence based on a mistaken belief that the testimony was not supported by documentary evidence;
- it failed to properly allocate the burden of proof;
- it improperly required the County to prepare a "cumulative impacts analysis" as part of the County review process;
- it misinterpreted the Pierce County Code, turning a provision designed to protect areas for aquaculture into an exclusionary zoning provision; and
- it inappropriately applied a "no net loss" standard that is not found in Pierce County Code.

Finally, the Board's conclusions regarding potential environmental impacts of the proposal are unsupported by any credible evidence in the record, much less substantial evidence, as required by law.

Taken as a whole, the Board went far outside the evidence and its own authority to address a perceived environmental harm that was simply not shown to exist. Based on these errors, Appellants request that this Court vacate the Board's decision and reinstate the SDP issued by the County.

II. ASSIGNMENTS OF ERROR

Appellants assign error to the trial court's Order (CP 821-824) affirming the subject Board decision ("Decision") (CP 24-81). This Court reviews the Board's Decision directly. Appellants assign error to Findings 6, 7, 8, 9, 10, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 36, 37, 38, 39, 41, 42, 43, 44, 45, 46, 47, 48, 50, 51, 52, 53, 54, 56, 57, 58, 62, 63, 73, and 79, and Conclusions 8, 9, 11, 14, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, and 27 in the Board's Decision. The following assignments of error are presented per RAP 10.3.

1. The Board issued the Decision more than 210 days after Paul H. Garrison and Betty N. Garrison ("Garrisons") and Coalition to Protect Puget Sound Habitat ("Coalition") filed their petitions for review with the Board. The Board only has jurisdiction to issue decisions within 210 days from the date the petition is filed. The Decision is therefore *ultra vires* and void.

2. The Board erroneously interpreted and applied the law by disregarding critical, uncontroverted testimony demonstrating that numerous resource agencies with expertise regarding eelgrass agreed that the proposed farm provides adequate environmental protection, based solely on a mistaken belief that the testimony was not supported by documentary evidence.

3. The Board erroneously interpreted and applied the law when it failed to properly allocate the burden of proof to the Garrisons and the Coalition.

4. The Board erroneously interpreted and applied the law when it improperly required the County to prepare a "cumulative impacts analysis" as part of its review process.

5. The Board erroneously interpreted and applied the law by determining that the County failed to balance statewide interests in issuing the SDP for the proposed farm. The Board improperly construed a provision of the Pierce County Code ("PCC") that is designed to protect areas for shellfish farming into an exclusionary zoning provision.

6. The Board erroneously interpreted and applied the law by inappropriately applying a "no net loss" standard that is not found in the Pierce County Shoreline Master Program ("County SMP"), the PCC, or the Shoreline Management Act of 1971, chapter 90.58 RCW ("SMA").

7. The Board's denial of the shoreline permit for the proposed shellfish farm on the basis that the farm would damage eelgrass is not supported by substantial evidence.

8. The Board's Holding that a cumulative impact analysis is warranted for the proposed shellfish farm is not supported by substantial evidence.

III. STATEMENT OF THE CASE

A. The Proposed Geoduck Farm

Geoducks are large, edible burrowing clams native to Puget Sound. AR 2322 (Ex. R-2). Since 2005, Darrell de Tienne and Chelsea Farms, Inc. ("Growers") have worked through the various County, State, and federal processes required to establish a geoduck aquaculture farm ("Farm") on limited portions of a 10.74-acre intertidal and subtidal parcel ("Site") that Mr. de Tienne owns on the northern shore of Henderson Bay in the County. AR 2317-18 (Ex. R-2). The proposed Farm would occupy five acres of the Site with approximately 4.5 acres in subtidal areas and 0.5 acres in intertidal areas. AR 2317 (Ex. R-2). The Farm would be set back 220 to 320 feet from the shoreline. AR 2333 (Ex. R-2).

Geoduck aquaculture involves three phases: planting, grow-out, and harvest. Planting involves placing juvenile geoducks inside four-inch diameter polyvinyl chloride ("PVC") tubes approximately 15 to 18 inches apart into the substrate. AR 2323 (Ex. R-2). The Growers would plant the Farm in phases, and at no time would more than two acres of the Farm contain PVC tubes. *Id.* The PVC tubes are used for predator exclusion and are removed after approximately two years. *Id.* The geoducks grow for a total of three to seven years after planting, until they reach market

size. *Id.* Divers then harvest the geoducks using a hand-held low-pressure wand, which is used to loosen the substrate to extract the geoduck. *Id.* Other than planting and harvesting, the only activity on the Site involves regular maintenance. AR 2560-61 (Ex. R-24).

An eelgrass bed is located on a discrete portion of the Site. AR 2366 (Ex. R-7).[1] The Farm would not be located within the area containing eelgrass. AR 2697-2712 (Ex. R-34). The Farm would maintain eelgrass buffers and incorporate monitoring and adaptive management to ensure those buffers adequately protect eelgrass. *Id.*

The Farm Site is located in the Rural-Residential shoreline environment designation ("SED") in the County SMP.[2] AR 2322 (Ex. R-2). Aquaculture operations, including geoduck farms, are allowed in the Rural-Residential SED pursuant to the County's SDP guidelines. PCC 20.24.030.B.

At the time of the subject Board proceeding, there were no pending geoduck farm applications in Henderson Bay other than the Growers' proposed farm, although the County had previously approved at least six geoduck farms in other parts of the County. Tr. at 843:9-19, 834:22-35, 968:15-969:8. The County had also previously approved three shoreline

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[1] The "intertidal parcel" listed on the map at AR 2366 (Ex. R-7) is not part of the Farm. The entirety of the Site is located within the larger rectangle.

[2] The SMP contains goals, policies, and general regulations adopted pursuant to PCC chapter 19D.190 PCC. PCC title 20 contains specific use regulations applicable to each SED and activity in order to implement the SMP. For ease of reference, the term "SMP" will be used to refer generally to these collective goals, policies, and regulations, and citations to specific provisions will be provided as appropriate.

permits for Washington State Geoduck Fisheries, which are located in subtidal locations, including one in Henderson Bay. AR 2322 (Ex. R-2); Tr. at 822:22-25, 843:23-834:2.

B. Agency Review and Approval Process

The Growers submitted a shoreline substantial development permit ("SDP") application to the County to establish the Farm. AR 2317 (Ex. R-2). The application went through a rigorous eight-year review process by the County, from 2005 through 2013. *Id.* This process included review by Pierce County staff, with a recommendation of approval (with conditions); a recommendation of approval (with conditions) by the Pierce County Key Peninsula Advisory Commission ("KPAC");[3] and reviews by the U.S. Fish and Wildlife Service ("USFWS") and the National Marine Fisheries Service ("NMFS"), the U.S. Army Corps of Engineers ("Corps"), the Washington Department of Ecology ("Ecology"), the Washington Department of Fish and Wildlife ("WDFW"), and the Washington State Department of Natural Resources ("DNR"). AR 2316-2338 (Ex. R-2), 2438 (Ex. R-18), 2546-2669 (Ex. R-24), 2697-2712 (Ex. R-34), 3247-3254 (Ex. R-73), AR 3465-3467 (Ex. R-100). As part of the County review process, the County reviewed numerous eelgrass surveys and environmental analyses, including a site-specific Biological Evaluation

[3] KPAC is a County commission charged with reviewing projects proposed for Key Peninsula and advising the County as to whether they are appropriate for that area of the County.

("BE"). AR 2547-2669 (Ex. R-24).[4] The County issued a Mitigated Determination of Non-Significance ("MDNS") under the State Environmental Policy Act ("SEPA") finding that, as conditioned, the Farm would not result in any significant adverse environmental impact. AR 2340-51 (Ex. R-3).

The Pierce County Hearing Examiner ("Examiner") held an open-record hearing on the Farm's SDP application on March 27, 2013. CP 507. The Examiner provided the public the opportunity to submit written comments through April 10, 2013, and the Examiner reconvened the hearing for an additional day on May 2, 2013. *Id.* During this proceeding, the Examiner considered extensive written and oral testimony provided by the County, the Growers, and interested members of the public. CP 507-508, 517-525, 539-555. On May 20, 2013, the Examiner issued a 54-page decision ("Examiner's Decision") that thoroughly documented the evidence presented and considered. CP 507-560. The Examiner's Decision analyzed the Farm's consistency with SDP approval criteria and approved the SDP subject to 39 conditions of approval. CP 528-538.

C. County Consideration of Eelgrass Issues

The eelgrass bed within the Site was professionally surveyed three times during application review, twice by Marine Surveys & Assessments

[4] The BE is a 123-page site-specific analysis of the Farm and its potential environment effects. The BE relied on the eelgrass surveys described below, as well as site-specific surveys to detect benthic epifauna, macroalgae, and fish, and determine substrate conditions. AR 2588-2600 (Ex. R-24). The BE also included qualitative measurements on site for turbidity and water visibility/clarity. AR 2598 (Ex. R24).

in 2004 and 2012 and once by Environ International ("Environ") in 2009. AR 2522-2534 (Ex. R-21); 2538-2546 (Ex. R-23); 2589-2599 (Ex. R-24). The purpose of the surveys was to determine the condition and location of eelgrass beds on the Site. All surveys were confirmed using dive surveys and GPS coordinates. AR 2522-23 (Ex. R-21), 2539-40 (Ex. R-23), 2588-90 (Ex. R024). The eelgrass buffers, described below, were based on the survey performed in 2012, which used the most conservative definition of an "eelgrass bed." Tr. at 1027:18-1028:1, 1190:5-9.

A key conservation measure adopted by the County was an eelgrass buffer, which required Growers to conduct Farm activities at least 10 feet away from the eelgrass bed on the shore side and 25 feet away from the eelgrass bed on the water side. CP 536-537. This condition evolved based on significant evaluation and study by the County and state and federal regulatory agencies.

In its March 11, 2013 staff report, County staff proposed a buffer of 10 feet on the shore side and two vertical feet on the water side. AR 2337 (Ex. R-2). The Growers opposed the two vertical foot water side buffer, arguing that it was not scientifically justified. AR 2356-57 (Ex. R-5).

In light of the Growers' objections to the two-foot vertical buffer, the County took advantage of the time between the March 27 and May 2 hearing examiner hearing dates to revisit the issue. On April 22, 2013, the County facilitated a meeting with the Growers and representatives from WDFW and Ecology to discuss the appropriate buffer size. Tr. at 848:8-

18, 932:9-13, 966:13-22, 1057:5-9. All meeting participants agreed that a 25-foot horizontal buffer on the water side would protect eelgrass. AR 2437-38 (Ex. R-18); Tr. at 948:16-949:16.

In a subsequent meeting with the Corps and DNR on April 29, 2013, the water side buffer was revised to a split-plot design based on a request from DNR. The split-plot design required 50 percent of the Farm have a 10-foot horizontal buffer on the water side (consistent with Corps requirements) and a 25-foot horizontal buffer on the other 50 percent. AR 2697-2712 (Ex. R-34); Tr. at 958:16-959:7, 1057:18-1058:9.

The split plot design included a robust monitoring and adaptive management plan to ensure the adequacy of the buffers. The complete eelgrass monitoring plan was memorialized in a memorandum from the Growers' environmental consultant and distributed to the Corps, Ecology, DNR, and the County. AR 2697-2712 (Ex. R-34). The plan included the split-plot design proposed by DNR. This would permit study of the most appropriate buffer based on scientific monitoring and Site-specific data. As confirmed by the County, the buffer could be increased or decreased based on the results of the monitoring plan. Tr. at 967:14-968:3. The Examiner's Decision approved the Farm's SDP subject to these established buffers and monitoring requirements. CP 536-537.

D. Shorelines Hearings Board Review and Decision

The Coalition and the Garrisons separately appealed the Farm's SDP to the Board, raising a broad array of environmental and other

concerns. The Coalition filed its Petition with the Board on June 25, 2013, and the Garrisons filed their Petition on June 11, 2013. AR 1, 247. The Growers also appealed the SDP, challenging certain conditions of approval, but the Growers settled all of their issues with the County prior to hearing and did not act as petitioners during the proceeding. CP 25. The Board conducted its hearing from November 12 through November 19, 2013. CP 25.

On November 21, 2013, the Board informed the parties that it would unilaterally extend the statutorily-mandated deadline to issue a decision by 30 days, from December 8, 2013 to January 7, 2014. In its letter to the parties, the Board stated:

> The Shoreline Hearings Board is required to render a written decision within 180 days after a petition for review is filed, unless the parties agree to waive the 180-day rule or the Board extends the date for cause, no more than 30 days. RCW 90.58.180(3).
>
> Due to the Board's schedule, the 180-day timeline provided under RCW 90.58.180 is extended from December 8, 2013 to January 7, 2014. CP 229.

On December 30, 2013, the Board issued a letter to the parties stating that it would not be able to meet its January 7, 2014 deadline, and that the "final decision will be issued shortly thereafter." CP 231. The Board finally issued its decision on January 22, 2014. CP 80.

In its Decision, the Board rejected most of the issues raised by the Coalition, yet it denied the SDP on three grounds, all of which are tied to

its conclusions regarding eelgrass. First, it found that there was not sufficient evidence in the record to support the eelgrass buffers that were reviewed and approved by various local, state, and federal agencies. CP 48-49. Second, the Board held that the County failed to appropriately balance statewide interests under the County SMP and SMA based on inadequate protections for eelgrass. *Id.* at 1007-8. Third, the Board held that, because there was a potentially significant impact to eelgrass on a shoreline of statewide significance, the County was required to conduct a cumulative impact analysis for the Farm. *Id.* at 1011.

One Board member dissented, finding that the testimony and evidence presented by the Growers provided a sufficient scientific basis for the eelgrass buffer. CP 83-87. The dissent also held that the single document the Board relied upon in determining there would be adverse impacts to eelgrass, a 2001 supplemental environmental impact statement prepared by DNR for the wildstock geoduck fishery ("DNR SEIS"), did not provide an adequate basis to require a buffer other than that approved by the County and other regulatory agencies. CP 85-86. The dissent found that there was not sufficient evidence in the record for the Coalition to meet its burden of establishing that the Farm would impact eelgrass. *Id.*

IV. ARGUMENT

A. Burden of Proof Before the Board

The Growers, as applicants for the Farm's SDP, bore the burden of proof before the Examiner to demonstrate that the Farm would comply

with the SDP approval criteria in the County SMP and SMA. RCW 90.58.140(7). The Growers met this burden, and the Examiner approved the Farm's SDP subject to 39 conditions. RCW 0.48.140(7); CP 525-538.

The Coalition and Garrisons, as the parties challenging the SDP, bore the burden of proof before the Board. RCW 90.48.140(7); WAC 461-08-500(3). To meet their burden, they were required to do more than point to information gaps, theorize about potential impacts, or criticize studies relied upon by the County and Growers. Rather, they were required to demonstrate that the Farm, as conditioned, would violate one or more criteria for SDP approval. RCW 90.58.140(7); *Overlake Fund v. Shorelines Hearings Board*, 90 Wn. App. 746, 764, 954 P.2d 304 (2009); *Buechel v. Dep't of Ecology*, 125 Wn.2d 196, 205, 884 P.2d 910 (1984); *McQuarrie v. City of Seattle*, SHB No. 08-033, at Conclusion 2 (Findings of Fact, Conclusions of Law and Order, Aug. 5, 2009) (Appendix A). While the Board considered their appeal *de novo*, it was required to give deference to the County's interpretation of its own laws and its extensive technical expertise. *Port of Seattle v. Pollution Control Hearings Board*, 151 Wn.2d 568, 594, 90 P.3d 659 (2004); *McQuarrie*, SHB No. 08-033, at Conclusion 17. Further, a presumption of regularity supports the official acts of County officers and in the absence of clear evidence to the contrary, it is presumed they have properly discharged their official duties. *Pierce v. Lake Stevens School Dist. No. 4, Snohomish County*, 84 Wn.2d 772, 782, 529 P.2d 810 (1974).

B. Standard of Review Before This Court

The Administrative Procedure Act ("APA"), chapter 34.05 RCW, governs this Court's review of Board actions. The Court reviews the Board's Decision, not the decision of the superior court below. RCW 90.58.180(3); *May v. Robertson*, 153 Wn. App. 57, 72-73, 218 P.3d 211 (2009). The standards of review, set forth at RCW 34.05.570(3), require that this Court grant relief from the Board's Decision if it determines the Board committed any one of nine errors, including: (1) the Decision is outside the authority or jurisdiction of the Board; (2) the Board erroneously interpreted or applied the law; or (3) the Decision is not supported by evidence that is substantial when viewed in light of the whole record.

The Board is a legislatively-created administrative tribunal and, as such, can only exercise those powers explicitly granted or necessarily implied. *Properties Four, Inc. v. State*, 125 Wn. App. 108, 117, 105 P.3d 416 (2005). Any action taken outside of these explicit parameters is in excess of the Board's jurisdictional authority, *ultra vires*, and must be set aside. *Id.* Failure to meet statutorily-imposed deadlines results in a loss of jurisdiction where such deadlines are mandatory. *Erection Co. v. Dep't of Labor & Indus.*, 121 Wn.2d 513, 518, 852 P.2d 288 (1993).

The Board's legal analysis is not entitled to deference by this Court. "[T]he process of applying the law to the facts is a question of law subject to *de novo* review, meaning the Court must determine the correct law independent of the agency's decision and then apply the law to the

established facts de novo." *Port of Seattle*, 151 Wn.2d at 588. When a Court is asked to ensure that a proposal complies with applicable approval criteria, as is the case here, it may substitute its own judgment for the Board's legal determinations. *Jefferson County v. Seattle Yacht Club*, 73 Wn. App. 576, 589, 870 P.2d 987 (1994). In addition, the Board has no specialized expertise with respect to the County's shoreline regulations. If anyone has expertise in this regard, it is the Examiner and County staff, whose interpretation of County provisions is entitled to deference. *Port of Seattle*, 151 Wn.2d at 593-94; *Douglas v. City of Spokane Valley*, 154 Wn. App. 408, 415, 225 P.3d 448 (2010); *McQuarrie*, SHB No. 08-033, at Conclusion 17.

Finally, this Court determines whether substantial evidence supports the Board's decision when viewed in light of the whole record before the Board. *May*, 153 Wn. App. at 73-74. In order for evidence to be substantial, it must be sufficient to convince an unprejudiced, thinking mind that a declared premise is true. *Id.* at 74. Evidence is not substantial if, even though there is some support for the Board's findings, there is insufficient evidence to support the critical findings that led to the Board's Decision. *Overlake Fund*, 90 Wn. App. at 756.

C. The Board's Decision Is Void, and the SDP Must Be Reinstated, Because the Decision Was Outside the Board's Jurisdictional Authority

The Board issued the Decision more than 210 days after the Coalition's and Garrisons' petitions were filed in direct violation of RCW

90.58.180(3) and WAC 461-08-560. The Decision therefore must be set aside because it is outside of the Board's authority and jurisdiction. RCW 34.05.570(3)(b).

1. The Board Issued the Decision More than 210 Days After the Petition Was Filed, Exceeding Its Authority.

The SMA plainly requires "[t]he board *shall* issue its decision on the appeal . . . within one hundred eighty days after the date the petition is filed with the board . . . The time period may be extended by the board for a period of thirty days upon a showing of good cause or may be waived by the parties." RCW 90.58.180(3) (emphasis added). This requirement is restated in the Board's rules at WAC 461-08-560.

The Garrisons filed their Petition on June 11, 2013, and the Coalition filed its petition with the Board on June 25, 2013. AR 1, 247. These were the only petitions before the Board at the time of hearing. CP 25. The Board issued the Decision on January 22, 2014, 225 days after the Garrisons' appeal was filed and 211 days after the Coalition's appeal was filed. CP 80. Therefore, the Decision was issued outside of the Board's jurisdiction, is inconsistent with the Board's rules, and is the result of unlawful procedure. *Properties Four, Inc.*, 125 Wn. App. at 117; *Erection Co.*, 121 Wn.2d at 518. Accordingly, it must be reversed, and the Farm's SDP must be reinstated. RCW 34.05.570(3)(b).[5]

[5] Because the Board's own rules also require decisions to be issued within 210 days after the petition is filed, the Decision must also be reversed because it is inconsistent with the Board's rules and contrary to established procedure. RCW 34.05.570(3)(c), (h).

2. Shall Means Shall, and the Board Knowingly Exceeded Its Authority by Issuing the Untimely Decision.

Statutory interpretation begins with the plain language of a statute, and courts must construe statutes such that all of the language is given effect. *Lake v. Woodcreek Homeowners Ass'n*, 169 Wn.2d 516, 526-27, 243 P.3d 1283 (2010). The plain language of RCW 90.58.180(3) provides: (1) the Board "shall" issue its decision within 180 days after the petition for review is filed; (2) the Board may extend this deadline by 30 days upon good cause; and (3) the deadline is mandatory unless otherwise waived by the parties. "It is well settled that the word 'shall' in a statute is presumptively imperative and operates to create a duty. The word 'shall' in a statute thus imposes a mandatory requirement unless a contrary legislative intent is apparent." *Erection Co.*, 121 Wn.2d at 518.

Far from providing a contrary intent, the legislative intent behind RCW 90.58.180(3) confirms the 180-day timeline is imperative and creates a mandatory duty. This deadline was added to the SMA by legislative amendment in 1995 upon a recommendation of the Governor's Task Force on Regulatory Reform. Laws of 1995, ch. 347, § 310; CP 233, 236. The Task Force recommended that the Board "should be *required* to issue its decision on the appeal of a substantial development permit within 180 days after the appeal is filed with the board" based on a finding that it was taking over one year on average for the Board to issue final decisions. CP 241, 301. In light of this legislative history, and the plain language of

RCW 90.58.180(3), it is clear that the legislature created a mandatory duty for the Board to issue a decision within the statutory timelines.

Respondents may contend that voiding the Board's Decision would not be just, but it is clear that the legislature found the Board's history of issuing delayed decisions was causing injustice to all parties involved and imposed the statutory 180-day deadline to resolve this problem. Allowing the Board's Decision to stand would therefore not only render RCW 90.58.180(3) meaningless, but it would ensure that the very injustice that required legislative intervention will continue in future Board proceedings.

It is also clear, based on the Board's prior rulings and its own correspondence in this very case, that the Board itself considers this timeline to be mandatory. For example, in a 2011 proceeding petitioners requested the Board delay its determination on a SDP while they challenged a SEPA decision with the County. The Board held that it did not have the authority to extend the deadline:

> The Board cannot stay its review of the SSDP and allow the SEPA decision to 'catch up' because it is required by RCW 90.58.180(3) to complete its review within 180 days of the filing of the petition for review at the Board. Petitioners have not convinced the Board by their argument that the doctrine of equitable tolling provides the Board with the authority to waive the statutorily imposed deadline. While the statute itself allows the Board to extend the deadline by 30 days for good cause, 30 days appears to be insufficient time for the County to conclude its process under the circumstances of this case.

Moe v. King County, SHB No. 11-013, at 5 n.3 (Order Granting Motion to Remand, July 12, 2011) (Appendix B).

The Board's holding in *Moe* is directly in line with a prior holding from a concurrence opinion by the Board that explicitly states the Board's 180-day timeline is mandatory and jurisdictional.

> As an administrative agency the Board may only exercise those powers conferred expressly or by necessary implication by its authorizing statute. We have no authority to expand the clear jurisdictional limits established by the Shoreline Management Act. The statute sets the deadline for filing an appeal with reference to an objective and identifiable date. The specific reference was added by amendment to the SMA in 1976 and evidences an intent to create certainty and finality for shoreline permit decisions. This intent was reinforced by a more recent amendment of RCW 90.58.180(1) under regulatory reform legislation adopted in 1995. That legislation . . . *limited the jurisdiction of the board to 180 days from the date a request for review is filed.*

Eagles Roost v. San Juan County, SHB No. 96-47, at 2 (Order of Dismissal (Concurrence), Feb. 19, 1997) (Appendix C) (emphasis added).

Indeed, the Board previously agreed in the case under review that the Decision must be filed within 180 days, subject only to a 30-day extension. The Board stated, in its November 21, 2013 letter to the parties, "[t]he Shorelines Hearings Board is *required* to render a written decision within 180 days after a petition for review is filed, unless the parties agree to waive the 180-day rule or the Board extends the date for cause, *no more than 30 days*. RCW 90.58.180(3)." CP 229 (emphasis added). As the parties had not agreed to waive the deadline, the Board

elected to extend the deadline by 30 days. By the Board's admission, the 30-day extension expired on January 7, 2014, 210 days from the original date of filing of the consolidated appeal, June 11, 2013.[6]

Because the Decision was issued outside of the statutory timeframe, it is *ultra vires*, against lawful procedure, and inconsistent with the Board's rules. It must be set aside. Allowing the decision to stand would illegally extend the Board's jurisdiction, render RCW 90.58.180(3) meaningless, and defeat the legislature's mandate requiring timely Board decisions. On this basis alone, the Court should reverse the Board's Decision and reinstate the Examiner's Decision, approving the Farm's SDP.

D. The Board Erroneously Interpreted and Applied the Law

The Board erroneously interpreted and applied the law in issuing the Decision. The Board committed five significant legal errors. First, it disregarded critical and uncontroverted testimony regarding various resource agencies' agreement that the Farm's buffers provided adequate protection based on a mistaken belief that the testimony was not supported by documentary evidence. Second, it inappropriately shifted the burden of proof to the County and the Growers to demonstrate the buffers were adequate. Third, it held the County erred in not conducting a cumulative impact analysis for the Farm. Fourth, it misinterpreted the Pierce County Code, transforming a provision intended to protect areas for aquaculture

[6] Even if the Board were to use the date of filing of the Coalition's later appeal, the Decision was untimely, as it was 211 days after that filing. AR 1; CP 24, 80.

into an exclusionary zoning provision. And finally, the Board erroneously applied a "no net loss" standard that was not applicable to this proposal because it has not been implemented by the County.

1. The Board Erroneously Disregarded Critical and Uncontroverted Testimony.

The Board erred in disregarding critical, uncontroverted testimony demonstrating that numerous resource agencies with expertise regarding eelgrass agreed that the buffers that the County imposed on the Farm provided adequate protection to eelgrass. Finding 29 of the Decision states, in part, "[w]hile the Applicants assert that agreement was reached as to the acceptability of a smaller buffer in conversations with individuals at the State Department of Ecology, WDFW, DNR, the USFW and/or the Corps (Meaders Testimony), the record lacks documentation to show agreement by all agencies involved." CP 29-30.

This Finding constitutes clear legal error. The sworn testimony of Ms. Meaders is *itself* evidence that the various agencies agreed to the Farm's eelgrass buffers, particularly when her testimony was completely uncontroverted. ER 702, 703, 705. The Board did not find that Ms. Meaders' testimony on this particular subject lacked credibility, and the Board cannot disregard this uncontroverted testimony simply because it is not presented with a written agreement that separately and formally records the substance of the testimony.

Moreover, contrary to the Board's conclusion, the record actually does contain written correspondence from DNR to Ms. Meaders

documenting agreement with the Farm's buffers. CP 740-745. Ms. Meaders drafted and distributed a memorandum to DNR, the County, the Corps, and Ecology that memorialized the Farm's eelgrass buffers and the monitoring plan that the agencies agreed upon after extensively discussing and analyzing the best available science pertaining to geoduck farming and eelgrass. AR 2697-2712 (Ex. R-34). The Board erroneously disregarded this critical evidence.

Ms. Meaders and Mr. David Risvold, the County biologist that reviewed the Farm's SDP application, both described not only the extensive discussions with regulatory agencies that led to an agreement on buffers, they also detailed the scientific and regulatory foundation for the buffers. The Corps generally requires a 10-foot buffer from eelgrass beds. AR 3840 (Ex. R-135); Tr. at 977:9-20. DNR selected a more conservative standard than the Corps, and is currently recommending a 25-foot buffer from eelgrass beds, or a 10-foot buffer with monitoring. Based on extensive discussions regarding this particular site, DNR recommended a split-plot design. Tr. at 975:14-976:17, 1074:11-1075:20; CP 740-745. Jennifer Ruesink, an expert in the field of geoduck interactions with eelgrass, confirmed that geoduck harvesting does not cause significant impacts beyond the immediate harvest area, and thus a buffer is primarily needed to avoid trampling rather than sediment dispersion. AR 3284-86 (Ex. R-86); Tr. at 1055:13-1056:10.r

These buffers are based on recent studies conducted by both private researchers and State agencies. For example, the County relied on

a DNR technical memorandum to evaluate the most appropriate buffer to implement for the Farm. Tr. at 944:10-23, 951:3-7; AR 2938-2971 (Ex. R-51). The DNR technical memorandum was based on a cooperative effort between the DNR aquatics program, USFWS, NMFS, the University of Washington, the Northwest Indian Fisheries Commission, several tribes, and shellfish industry representatives. AR 2941 (Ex. R-51). DNR looked at several scientific factors to determine how far a buffer should be from an eelgrass bed. It determined that five meters was appropriate to allow for eelgrass expansion and seed dispersal.[7] AR 2965-67 (Ex. R-51); Tr. at 1150:16-22.

The Board's decision to simply disregard the uncontroverted testimony and supporting documentation that the Farm's eelgrass buffers were developed through extensive consultations with agencies with expertise, substituting its own judgment for that of the technical experts within the federal, state, and County governments, constituted clear legal error.[8]

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[7] Further, eelgrass expansion at this Farm was limited by light availability. Eelgrass growth was not shown in the eelgrass surveys after a point prior to the start of the eelgrass buffer. Tr. at 1150:16-22, 1233:4-13.

[8] The Board members do not have any technical expertise on these issues. Rather, the Board is composed of six members: three members from the pollution control hearings board, one member appointed by the association of Washington cities, one member appointed by the association of county commissioners, and the commissioner of public lands or his or her designee. RCW 90.58.170.

2. The Board Erred in Interpreting and Applying the Law by Misapplying the Burden of Proof.

The Board also committed legal error by misdirecting the burden of proof to the County and the Growers, requiring them to affirmatively demonstrate to the Board's satisfaction that the eelgrass buffers imposed by the County provided adequate protection for eelgrass. This is clear and reversible legal error, as the Coalition and Garrisons bore the burden of proof before the Board. RCW 90.48.140(7); WAC 461-08-500(3); *Van Sant v. City of Everett*, 69 Wn. App. 641, 647-50, 849 P.2d 1276 (1993). To meet their burden, they were required to do more than point to information gaps, theorize about potential impacts, or criticize studies relied upon by the County and Growers. They were required to demonstrate that the Farm, as conditioned, would violate one or more criteria for SDP approval. RCW 90.58.140(7); *Overlake Fund*, 90 Wn. App. at 764.

The Decision is bereft of any meaningful analysis demonstrating the Farm will damage eelgrass, because no evidence exists to support such a finding. Instead, the Decision extensively criticizes the information that the County relied upon in developing the buffers and ultimately finds as follows:

> These studies do not provide sufficient scientific support for Ms. Meaders opinion that the buffers imposed will adequately protect eelgrass at this Site, and thus finds Ms. Meaders' opinion on the protectiveness of the smaller buffer unpersuasive. The Board is left with no real analysis in the record that assesses spillover effects to nearby eelgrass for a similarly-scaled geoduck farm operating in a higher energy

subtidal environment.

CP 48-49. The Board further found, in Finding 51, "a lack of complete and/or reliable scientific evidence in the record to support a buffer of this size at this Site . . ." CP 50.

The Coalition and the Garrisons had the burden of proof to demonstrate that this particular Farm would violate specific SDP approval criteria by damaging eelgrass. RCW 90.58.140(7). Therefore, if the Board indeed was "left with no real analysis in the record that assesses spillover effects to nearby eelgrass for a similarly-scaled geoduck farm," then the Board was required to uphold the County's SDP. Absent such evidence, the Coalition and Garrisons necessarily failed to meet their burden of proof; as petitioners before the Board, they were required to demonstrate impacts, not speculate as to potential impacts or criticize information that was provided in support of the SDP. RCW 90.58.140(7); *Overlake Fund*, 90 Wn. App. at 764.

The Board's decision to vacate the County SDP because it did not find adequate record support for the County's technical decisions essentially transferred the burden of proof to the Growers. Because that reallocation of the burden of proof violates RCW 90.48.140(7), which makes clear that the Coalition and Garrisons bore the burden of proof before the Board, it constitutes erroneous interpretation and application of the law. RCW 34.05.570(3)(d). The Decision therefore must be reversed and the

SDP reinstated.

3. The Board's Mandate that the County Prepare a Cumulative Impact Analysis Constitutes Legal Error.

As the Board has recently recognized, a "cumulative impact analysis is not required for an SDP approval under the SMA." *Coalition to Protect Puget Sound Habitat v. Pierce County and Longbranch Shellfish ("Longbranch")*, SHB No. 11-019, at Conclusion 15 (Findings of Fact, Conclusions of Law, and Order, July 13, 2012) (Appendix D). This is because neither the County's SMP nor the SMA call for cumulative impacts to be assessed for an SDP application. RCW 90.58.140; WAC 173-27-150; PCC 20.24.020.

Nonetheless, courts and the Board have recognized that in limited circumstances the *Board* can consider cumulative impacts when reviewing appeals for approved SDPs. *See e.g., Hayes v. Yount,* 87 Wn.2d 280, 287-88, 552 P.2d 1038 (1976) (holding the Board's consideration of cumulative impacts was not arbitrary and capricious); *Skagit County v. Dep't of Ecology*, 93 Wn.2d 742, 750, 613 P.2d 115 (1980) (same); *Friends of the San Juans v. San Juan County*, SHB No. 08-005 at Conclusion 13 (Findings of Fact, Conclusions of Law and Order, August 25, 2008) ("It is proper for the SHB to consider the cumulative effects that become possible with the granting of a substantial development permit") (Appendix E); *Fladseth v. Mason County*, SHB No. 05-026 at Conclusion 13 (Findings of Fact, Conclusions of Law, and Order, May 1, 2007)

(clarifying that the *Board* may consider cumulative impacts when reviewing SDP appeals) (Appendix F).

When the Board decides that consideration of cumulative impacts is appropriate, the Board *itself* engages in a further analysis where it "balance[s] ... the interests of project proponents, adjacent shoreline property owners, and those of the public" in order to determine whether a project should be denied or conditioned on that basis. *Fladseth*, SHB No. 05-026, Conclusion 15; *see also Friends of the San Juans,* SHB No. 08-005 at Conclusion 14.

While there is judicial and administrative precedent for the *Board* to consider cumulative impacts in reviewing SDP appeals, there is no authority for the Board to require a *local jurisdiction*, such as Pierce County, to prepare a cumulative impact analysis when reviewing a SDP application. Yet that is exactly what the Board did here. It concluded the various factors "weigh in favor of *requiring* a cumulative impact analysis" to be prepared for the Farm. CP 80. The Board did not engage in a cumulative impact analysis itself, but instead denied the SDP on the basis that the County did not perform a cumulative impact analysis. *Id.* Because there is no authority in the SMA, the SMP, or prior court or Board opinions for such a requirement, the Board's findings and

conclusions in this regard are reversible as erroneous interpretations and applications of the law. RCW 34.05.570(3)(d).[9]

The practical effect of the Board's requirement that the County prepare a cumulative impact analysis as part of its SDP review is to again improperly shift the burden of proof from the Coalition to the Growers and County. And, not only would the County bear the burden of proving no cumulative impact will occur, it would have to anticipate that the Board would find that consideration of cumulative impacts is appropriate and affirmatively analyze those impacts during the County review process.

That is simply not how the applicable statutes work. Rather, because the SDP for the Farm was approved by the County, RCW 90.48.140(7) places the burden on the Coalition to establish there is some cumulative impact associated with the Farm that the Board should consider. Neither the Coalition nor the Board point to any evidence that the project *would* result in a cumulative impact. Instead the Board is requiring that the County point to some analysis in the record showing the project *will not* result in a cumulative impact. Such a requirement constitutes an erroneous interpretation and application of the law.

[9] In addition, because the Board is a statutorily-created body and can only exercise those powers specifically granted, it lacks jurisdictional authority for requiring the County to prepare a cumulative impact analysis where such an analysis is not required under the SMA or the County SMP. RCW 34.05.570(b).

4. The Board Erred in Determining the County Failed to Balance Statewide Interests in Issuing the SDP.

The Board erroneously determined that the County failed to balance statewide interests in issuing the Farm's SDP on the basis that the Site does not meet the requirements "for prioritizing it as an appropriate aquaculture site" under PCC 20.24.020(A)(10). The cited provision states "Shoreline areas having the prerequisite qualities for aquacultural uses shall have priority in order to protect Pierce County's aquacultural potential." The Board's sole basis for its determination that this site should not be prioritized for aquaculture was its concerns over eelgrass. As discussed in Section E below, substantial evidence does not support the finding that the Farm will damage eelgrass, so the Board's determination lacks factual support. However, regardless of the validity of the Board's concerns regarding eelgrass, the Board committed a clear legal error in its interpretation of PCC 20.24.020(A)(10).

The Board's analysis improperly transforms a SMP provision that *prioritizes* aquaculture uses over other uses into a zoning limitation excluding aquaculture in any area where the Board believes a proposal might result in environmental impacts. This is a tortured reading of the County SMP that is inconsistent with extensive legal and policy recognitions regarding the importance of shellfish farming.

Shellfish aquaculture is a preferred, water-dependent use under the SMA, and the implementing Ecology guidelines ("Ecology Guidelines") recognize that shellfish beds promote long-term benefits, protect the

resources and ecology of the shoreline, are priority habitats, and require protection. RCW 90.58.020; WAC 173-26-241(3)(b), -221(2)(c), -020(24). While several uses are preferred under the SMA, no other use is specifically identified in Ecology's Guidelines as providing these various benefits. In addition, as the Board has previously recognized, "[t]he importance of shellfish aquaculture as an activity of statewide interest is emphasized by the Washington Shellfish Initiative, announced by Governor Gregoire on December 9, 2011." *Longbranch*, SHB No. 11-019, at Conclusion 16. "The State identifies aquaculture as an activity of statewide interest, and when properly managed, an activity that can result in long-term over short-term benefit and protection of the resources and ecology of the shoreline." *Id.* at COL 12.

Shellfish aquaculture is similarly encouraged under the County's SMP. The Farm Site is located within the County's Rural-Residential shoreline district, and geoduck aquaculture is an expressly allowed use in this district. CP 69; PCC 20.20.010, 20.24.030. In fact, the SMP not only allows aquaculture, but it encourages this use in order to provide commodities for human consumption and effectively maximize the County's resources. CP 526 (Aquaculture Practices Policies (a)-(c)); PCC 20.24.020.A(1). There is no requirement in the County SMP that aquaculture operations only be located in areas prioritized for aquaculture uses, and the Board committed a clear legal error in misconstruing PCC 20.24.020(A)(10) to state such a requirement.

Finally, courts have recognized "[t]he SMA does not prohibit all development in the shoreline. Rather, its purpose is to allow careful development of shorelines by balancing public access, preservation of shoreline habitat, and private property rights." *Overlake Fund*, 90 Wn. App. at 761. In *Overlake Fund*, the court reversed the Board's decision to disregard the multiple goals of the SMA and impose a condition on a shoreline permit prohibiting any development in wetlands. The Board went even further here in denying an application that not only avoided placement within a specific shoreline feature (an eelgrass bed), but included buffers, monitoring, and adaptive management requirements.

The proposed shellfish Farm is not only expressly allowed, but encouraged to be located at the Site under the SMA and the County's SMP. The Board's misinterpretation of PCC 20.24.020(A)(10) as somehow limiting the use of this site for aquaculture constitutes an erroneous interpretation and application of the law, and the Decision must be reversed. RCW 34.05.570(3)(d).

5. The Board Erred in Applying a No Net Loss Standard.

The Board determined that the proposed Farm did not meet the "no net loss" standard contained in Ecology's SMA Guidelines. CP 74. The SMA provision cited by the Board, WAC 173-26-241(3)(b), requires counties to incorporate a "no net loss" standard into their SMPs when they are updated. WAC 173-26-241(3) ("Master programs shall establish a comprehensive program of use regulations for shorelines and shall

incorporate provisions for specific uses consistent with the following as necessary to assure consistency with the policy of the act and where relevant within the jurisdiction"). However, as the Board itself recognized, the County has not yet incorporated a "no net loss" standard into its SMP; it is currently undergoing the process to update that program. CP 70.

In circumstances where a county has not yet incorporated the "no net loss" standard into its SMP, the no net loss standard does not apply to specific projects. *Friends of the San Juans*, supra at Conclusion 12 ("Petitioners urge the Board to adopt a 'no-net-loss' approach to projects that involve eelgrass beds . . . The County has not yet amended [its SMP] . . . and thus WAC 173-26-241(3)(j) does not directly apply to the fact of this case"). Therefore, the Board erred in interpreting and applying the law in determining that the "no net loss" standard applied to the Farm.

However, even if a "no net loss" standard did apply to the Farm, for the reasons discussed in the following section, there is not substantial evidence in the record to demonstrate the Farm would violate such a standard.

E. The Decision Must Also Be Reversed Because It Is Not Supported by Substantial Evidence.

Even if the Board had authority to issue the Decision and the Decision was not the result of an erroneous interpretation and application of the law, it must be reversed because it is not supported by substantial evidence. RCW 34.05.570(e),(i).

1. The Board Erred in Denying the SDP on the Basis of the Farm's Alleged Impacts to Eelgrass.

The Pierce County SMP does not require geoduck farms to be set back any particular distance from eelgrass beds; in fact, the SMP does not even expressly prohibit siting a geoduck farm *within* eelgrass. The Board could deny the SDP on the basis of eelgrass concerns if and only if substantial evidence demonstrates that the Farm will have adverse impacts to eelgrass, and that those adverse impacts will violate specific SDP approval criteria. No such evidence exists in the record.

a. There is not substantial evidence in the record demonstrating the Farm will harm eelgrass.

The Board concluded that the Farm's SDP violates PCC 20.24.020.A(3), which states that aquaculture operations "shall be conducted in a manner which precludes damage to specific fragile areas and existing aquatic resources." CP 74 (Conclusion 17). The Decision contains extensive findings regarding the importance of eelgrass, yet no finding explicitly states that the Farm will "damage eelgrass." *See* CP 31-51 (Findings 14-53). The closest the Board comes in this regard is Finding 51, which summarily states "the Coalition has met its burden to show that the Permit conditions are inadequate to protect eelgrass." CP 50. The Board fails to cite a single piece of evidence to support Finding 51, and a close inspection of the Board's findings and record evidence demonstrates that there is not substantial evidence to support it.

The vast majority of the Board's findings relating to eelgrass simply describe the general role of eelgrass in the ecosystem,[10] summarize how the Farm's eelgrass buffers were developed, criticize information that was relied upon in establishing the buffers, criticize monitoring and adaptive management, and state additional consideration should be given to off-site impacts. *See* CP 31-51 (Findings 14-16, 17-23, 28-31, 33-34, 36-50, 52, and 53, respectively). In addition, Finding 24 states "[s]edimentation and turbidity *can* occur from commercial geoduck operations" and "[s]uch disturbances *can* harm eelgrass, especially if farming activities were to be performed directly within eelgrass." CP 37 (emphasis added). Because this finding only relates to *potential* impacts, and especially impacts from operations *within* eelgrass, it provides no basis for finding that the Farm will damage eelgrass beds. RCW 90.58250(7); *Overlake Fund,* 90 Wn. App. at 764; *Buechel*, 125 Wn.2d at 205; *McQuarrie*, SHB No. 08-033 at Conclusion 2.

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[10] The Board inappropriately relied on its own prior, unrelated decisions discussing eelgrass in its Findings. Specifically, Finding 14 contains extensive quotations from two prior Board decisions, *Holley v. San Juan County,* SHB No. 00-001 (Final Findings of Fact, Conclusions of Law, and Order, July 31, 2000) (Appendix J) and *Friends of the San Juans*, SHB No. 08-005, to establish, as a factual matter, that eelgrass plays an important role in the ecological system. CP 31-33. This is improper as a matter of law, as the Board's factual findings must be based on substantial evidence in the record in this case. RCW 34.05.570(3). The Board's reliance on these two cases is further improper because those cases are highly distinguishable. They both involved permits for docks located directly over eelgrass beds. The Growers' Farm, by contrast, would not be located in or over eelgrass beds, and would maintain significant buffers from eelgrass. The Board's reliance on *Holley* and *Friends of the San Juans* is legally and factually improper, and it demonstrates the Board's willingness to reach well beyond the record to justify its result-oriented decision to deny the Farm's SDP.

The only evidence the Board cited that could even potentially support a finding that the Farm would damage eelgrass were the DNR SEIS, the testimony of Mr. Penttila, and the testimony of Ms. Meaders. *See* CP 38-39, 41, 42 (Findings 25-27, 32, and 35). However, none of these three pieces of evidence provides any credible basis for finding that the Farm will damage eelgrass.

b. The DNR SEIS provides no basis for determining the Farm will damage eelgrass.

DNR, the State agency responsible for managing state-owned aquatic lands, opened up a fishery for the harvest of wild geoducks on state-owned lands in 1970. AR 1198 (Ex. P-7). No cultivation occurs as part of this fishery, and the fishery takes place exclusively in relatively deep areas between -18 feet and -70 feet mean lower low water. *Id.* The geoduck fishery is jointly managed by DNR and WDFW, as well as 16 Tribes that have a right to 50 percent of the harvestable surplus of geoducks. *Id.*

DNR initially prepared an Environmental Impact Statement ("EIS") for the wild geoduck fishery in 1985, and in 2001 it completed a Supplemental Environmental Impact Statement ("SEIS"). AR 1197-1210 (Ex. P-7). The Coalition relied heavily upon the DNR SEIS in the hearing before the Board, and the DNR SEIS is the only document that the Board references to indicate the Farm's eelgrass buffers are inadequate. CP 38-39 (Findings 25-28). Given the Board's and Coalition's heavy reliance on the DNR SEIS, one would expect this document to at the very least state

that larger buffers are biologically necessary in order to protect eelgrass. It does not. The DNR SEIS simply lists the two-foot vertical buffer as one of several "mitigation measures [that] have *already* been implemented through the *State-Tribal management agreements* and harvest plans[.]" AR 1200-1201 (Ex. P-7) (emphasis added).

In fact, the DNR SEIS itself does not indicate any buffers are biologically necessary to protect eelgrass. Instead, the only mitigation measure that the DNR lists for eelgrass is that "[g]eoduck harvest is not allowed *in* eelgrass beds . . ." AR 1205 (Ex. P-7) (emphasis added). The Farm's SDP is not only consistent with this mitigation measure, but it is far more conservative. It requires that the Farm be located at least 10 or 25 feet away from eelgrass beds, along with a monitoring and adaptive management plan to assess the effectiveness of that buffer. CP 536-37.

The DNR SEIS does not discuss how the State and Tribes agreed to the two-foot vertical buffer in their management plans, and there is no indication that the two-foot vertical buffer is intended to apply to private geoduck projects. In fact, discussions with DNR in this case revealed that the buffer was based on a variety of interests not associated with eelgrass protection, including maintaining an appropriate distance from shore to avoid adverse impacts to residents and ease of measurement. Tr. at 907:5-18, 1209:12-18; *see* AR 1206 (Ex. P-7) (requiring harvesters to remain at least *200 yards* from shore to reduce impacts to local residents).

Indeed, the most conclusive evidence that the two-foot buffer referenced in the DNR SEIS is not appropriate for the Growers' Farm is

the fact that its author, DNR, concluded that it is not applicable. Discussions with DNR revealed that the SEIS was based on outdated models and assumptions related to sediment transport that had been proven incorrect by later studies. Tr. at 889:20-891:3, 943:13-20; AR 2437-38 (Ex. R-18). Further, the SEIS was intended to apply to every single tract available for wild harvest in the State; therefore, it had to assume the worst-case scenario and could not be based on site-specific concerns and analysis. Tr. at 892:21-893:7. DNR concluded that a split-plot design that incorporated a 25-foot buffer and 10-foot buffer was appropriate for the Farm proposed here, given the site-specific characteristics and studies analyzing the appropriate buffer. AR 2697-2712 (Ex. R-34); Tr. at 958:16-959:7, 1057:18-1058:9; CP 740-45.[11]

The Board's Decision provides no evidence or analysis as to why a limitation referenced in a 14-year-old SEIS applicable to wild geoduck harvests has any relevance to the Growers proposal here. The relevance of that document is particularly questionable in light of the 2013 opinion of DNR and other state and federal regulatory agencies that have jurisdiction over the issue that the buffer proposed here adequately protect eelgrass; opinions that were informed by site-specific information and analysis; and more recent studies regarding sediment transport and the effects of geoduck aquaculture on eelgrass.

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[11] Exhibit R-166 was admitted but apparently inadvertently omitted by the Board from the administrative record transmitted to Superior Court. *See* AR 2259. The Growers requested that it be included in the administrative record before Superior Court, and it is included in the Clerk's Papers.

The DNR SEIS cannot provide a basis for the Board's conclusion that the proposed Farm may negatively impact eelgrass.

c. Mr. Pentilla's testimony provides no credible basis for finding the Farm would damage eelgrass.

In addition to the DNR SEIS, the Board cited the testimony of Mr. Dan Penttila as support for its conclusion that the Farm could potentially impact eelgrass. While Mr. Penttila has expertise concerning how forage fish spawn and interact with eelgrass, he has no general expertise in eelgrass; he has no experience with shellfish aquaculture or its interactions with the surrounding environment; he is not a qualified expert in sediment transfer or geomorphology; and he did not visit the site or review any of the relevant site-specific studies prior to his testimony. His opinions regarding how the Farm would interact with eelgrass, and eelgrass biology at the Site, are uninformed lay testimony at best.

Mr. Penttila had not observed the eelgrass present on the Site or conducted Site-specific eelgrass surveys. Tr. at 240:1-15, 251:16-21, 324:13. He admitted that he has no experience regarding appropriate eelgrass buffers or eelgrass mitigation policies.[12] *Id.* at 244:7-14. He admitted that he is not an expert in eelgrass regrowth. *Id.* at 365:10-11. He admitted that he did not review the multiple eelgrass surveys prepared

[12] The Coalition clarified upon objection that Mr. Penttila's testimony regarding eelgrass buffer areas was associated with his expertise regarding forage fish and the testimony was related to forage fish impacts. Tr. at 288:16-23. This is consistent with Mr. Penttila's previous testimony that his only involvement with the DNR SEIS was limited to identifying locations of forage fish habitats and spawning areas. *Id.* at 242:2-19.

for the Site and only reviewed the material available in the Examiner staff report (which did not include the eelgrass surveys). *Id.* at 244:15-25; AR 2338 (Ex. R-2). Indeed, Mr. Penttila's only experience measuring the impacts of structures on eelgrass was an unpublished shading study conducted in 1991, a type of impact that is irrelevant to the Farm given that there are no overwater structures. Tr. at 241:4-8, 243:1-5.

Mr. Penttila identified two potential ways that the project could impact eelgrass: shading and trampling. Tr. at 272:7-15; AR 1166 (Ex. P-4). However, Mr. Penttila admitted that, because the majority of the Site is subtidal, which requires dive harvesting, there would not be a significant impact associated with trampling in eelgrass. Tr. at 329:1-18. Regarding shading, Mr. Penttila's concern was not based on shading effects associated with *documented* eelgrass areas, which were appropriately buffered and had no structures within that area. His concern was based on an assumption that there *may* be macroalgae or eelgrass within the area where the Farm's gear will be located. *Id.* at 331:2-17. Astonishingly, he makes this assumption without reviewing the previous eelgrass surveys prepared for the Site and without any personal knowledge as to how they were prepared. *Id.* at 332:7-333:23.

Mr. Penttila explicitly stated that he was not qualified to discuss sediment transfer or geomorphology, and the Board agreed that he was not qualified to testify as an expert on such issues. *Id.* at 17:17-19, 246:21-25, 254:5-9, 290:13-15 ("I don't have experience in harvesting-induced sediment plumes"), 302:17-303:7, 306:2-5, 312:6-9 (stating he does not

have an opinion regarding spillover effects associated with geoduck operations), 331:18-332:1, 360:21-25 ("I don't have any data on bottom sediment changes. I couldn't testify to that if it did.").

Mr. Penttila was the only witness called by the Coalition to testify regarding the impacts of the Farm on eelgrass. Notably, the Board Decision did not cite Mr. Penttila's testimony for any explanation as to *how* the Farm might impact eelgrass, no doubt because his testimony was based on inapplicable assumptions (i.e. that the Farm would be located in intertidal areas with eelgrass present underneath the structures). In light of Mr. Penttila's limited understanding of site conditions and the proposed Farm, combined with his acknowledged lack of expertise on eelgrass issues, Mr. Penttila's testimony provides no support for the Board's finding that the Farm would adversely impact eelgrass.

d. The Board Erred in Mischaracterizing Ms. Meaders' Testimony Regarding Eelgrass Impacts.

Perhaps the Board's most egregious error with regard to eelgrass impacts relates to the testimony of Marlene Meaders, the Growers' biologist who clearly testified that, with the required buffers, the proposed Farm would not impact eelgrass. Finding 32 states:

> The Applicants concede that farming in this intertidal area will allow sediment to be distributed over the landward edge of the eelgrass bed during harvest activities. This is likely, as sediment will travel laterally along the shore and therefore over the eelgrass, where it will begin to settle out. Meaders Testimony. There has been no analysis of the effects of this sediment deposition on the eelgrass in this area, only a

> recognition of the potential problem. No Permit term addresses this issue.

CP 41. There are numerous flaws with this finding.

First, even if the Board's characterization of Ms. Meaders' testimony was full and accurate, which it is not, this cannot support a finding that the Farm will harm eelgrass. In the Board's own words, the Board found "only a recognition of the potential problem." *Id.* Recognition of a potential problem is an inadequate basis to deny the SDP given the Coalition and Garrisons bore the burden to demonstrate inconsistency with the SMA or County SMP. RCW 90.58.140(7); *see also* Sec. IV.D.2, *supra.*

Second, the Board ignores Ms. Meaders' conclusions regarding potential impacts to eelgrass: "[s]o the documents that we used to understand whether spillover effects are likely to occur at the de Tienne site are in relation to Dr. Pearce's work that showed no impacts to eelgrass beds that were 1 meter from the harvest site . . . the potential impacts to eelgrass are associated with trampling and the effects of a harvest are limited to the farmed area." Tr. at 1175:7-15; *see also* Tr. at 1237:19-24 ("I do think that you could get some transport of sediment into the [off-site] eelgrass bed, but the likelihood of significantly impacting the bed is very low based on the energy regime and it being maintained within an environment from a harvest").

Third, and most disturbingly, while the Board selectively cites Ms. Meaders' testimony when it believes doing so will support its apparently

pre-determined conclusion to deny the SDP, it dismisses her conclusions regarding the Farm's likely impacts from sediment distribution on the basis that she is not an independent expert with respect to sediment transport. CP 42-43 (Finding 36).[13] The Board cannot have it both ways, citing Ms. Meaders on sediment issues in one finding, yet dismissing her conclusions on the exact same issue in another finding when those conclusions undermine the only substantive basis the Board identified for denying the SDP. The Board's contradictory treatment of Ms. Meaders' testimony on this specific subject is arbitrary, capricious, and offers yet further proof that the Decision was based on a preconceived opinion regarding eelgrass, rather than the evidence presented in this case.

Because there is no credible evidence in the record demonstrating the Farm will damage eelgrass, the Board's Decision is not supported by substantial evidence and it must be reversed.

e. The Record as a Whole Demonstrates the Proposed Farm Will Not Impact Eelgrass.

As discussed above, the Board's Decision should be reversed on any one of these independent bases: it was untimely and therefore outside the Board's authority and jurisdiction; it was based on an erroneous interpretation and application of the law on numerous bases; and the Board's conclusions regarding impacts to eelgrass are not supported by

[13] To the extent the Board found Ms. Meaders was not qualified to offer opinions with respect to sediment transport, that finding is contradicted by the Board's ruling during the hearing, where it determined that she *was* qualified to testify on all of the opinions she offered, including sediment transport. Tr. 1004:4-1005:9, 1016:14-17.

any credible evidence in the record, much less substantial evidence. The Court's inquiry need go no further. However, if the Court nevertheless takes a broader review of the record before the Board, that record clearly demonstrates, through uncontroverted evidence, that the proposed Farm will not damage eelgrass.

The only potential impact associated with eelgrass that is actually described in the Decision relates to sediment disturbance by geoduck planting and harvesting. CP 37, 38 (Findings 24, 26). While the Coalition's analysis of this impact was solely based on the DNR SEIS, the Growers presented extensive testimony and analysis on the subject, establishing that any impact associated with geoduck planting and harvesting is temporary and localized, and therefore would not impact the existing eelgrass bed.

Regarding planting and maintenance, Ms. Meaders testified that the maximum amount of sediment that would be accumulated in the geoduck tubes would be 0.04 inches around each tube, which would easily be redistributed when the tubes are removed. Tr. at 1035:2-1036:20.

Ms. Meaders also testified that, based on the work of Dr. Chris Pearce, the amount of sediment disturbed by a geoduck harvest is less than the disturbances in a storm event. *Id.* at 1045:8-1048:3, 1054:12-1055:18, 1117:18-1118:16, 1121:11-16, 1223:6-12; AR 1788-89 (Ex. P-116), 4045-4046 (R-167). Dr. Pearce's work is the most comprehensive study in the record that analyzes sediment impacts of a subtidal geoduck harvest on

eelgrass. AR 1788-1844 (Ex. P-116).[14] The study concludes: "in the context of natural variability . . . it can be concluded that commercial geoduck harvesting does not appear to cause significant negative impacts to the benthic environment beyond the borders of the immediate harvest area, including nearby eelgrass beds." AR 1822 (Ex. P-116); *see also* AR 3299-3335 (Ex. R-89) (Sauchyn *et al.* study concluding the sediment impacts from subtidal geoduck harvesting are limited to the harvest area and of short duration).

The Board goes to great lengths to discredit Dr. Pearce's work, noting that it was conducted in a different location and at a different planting density than the Farm. CP 46-48 (Findings 43-45). However, the Board provided no scientific basis for determining that any differences between Dr. Pearce's study site and the proposed Farm would manifest in different impacts to eelgrass. The Coalition also provided no evidence as to why Dr. Pearce's study is inapplicable to the proposed Farm Site.

Dr. Pearce's study and Ms. Meaders' testimony is consistent with prior Board opinions recognizing the limited scale of disturbances associated with geoduck aquaculture on sediment transport. In fact, the Board has previously rejected claims that geoduck aquaculture results in

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[14] The Board also grossly mischaracterizes Ms. Meaders' testimony regarding the study, stating that Ms. Meaders requested that the report "not be relied upon as evidence of the hearing." CP 47. Ms. Meaders stated no such thing; rather, she requested that the parties not distribute the study further than the hearing, at the request of the researcher, given that it was still in draft form awaiting publication. Tr. at 1052:1-9. Ms. Meaders clarified that Dr. Pearce's statements were not related to the document itself, which the Growers clearly supported, but to its dissemination beyond the hearing. *Id.*, at 1050:3-18, 1052:1-9. Clearly, Ms. Meaders' testimony indicates that the Board should consider Dr. Pearce's study.

significant sediment transport in three cases. In particular, the Board has recognized that any sediment transport associated with geoduck aquaculture activities is temporally and spatially limited, and well within the scale of natural disturbances such as wind, wave, and storm events. *Longbranch* at Findings 6, 14-16, 18, Conclusions 6, 14; *Coalition to Protect Puget Sound Habitat v. Thurston County*, SHB No. 13-006c, at Findings 24-25, 30-32, and Conclusions 9, 13, 15, 25 (Findings of Fact, Conclusions of Law, and Order, Oct. 11, 2013) (Appendix G); *Coalition to Protect Puget Sound Habitat v. Pierce County*, SHB No. 14-024, at Findings 32-38, and Conclusions 13, 1 (Findings of Fact, Conclusions of Law, and Order, May 14, 2015) (Appendix H). As the Board most recently concluded, "sediment likely to be released as a result of operations at the [proposed geoduck] Farm would not be significant when compared to the baseline sediment transport regime at [the] Site." *Coalition to Protect Puget Sound Habitat*, SHB No. 14-024, at Conclusion 19. These are the same conclusions that Dr. Pearce drew, indicating that his studies are fully applicable to the proposed Farm at issue here.[15]

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[15] Further analysis regarding potential geoduck harvest impacts is found in the Sea Grant research, which was prepared at the request of the Washington State Legislature. The Sea Grant study concluded that there were "no spillover effects of [geoduck] harvests on uncultured habitat adjacent to cultured plots," with results similar to natural sediment disturbances. AR 3803 (Ex. R-112), 3909 (R-143). The Sea Grant research addressed the first key question to be answered by the Board; namely, do harvests associated with geoduck aquaculture disturb enough sediment to affect neighboring eelgrass areas? The result of these studies, as confirmed by Ms. Meaders' expert testimony, is a resounding no.

2. The Board's Holding that a Cumulative Impact Assessment Is Warranted Is Unsupported by Substantial Evidence.

As discussed above, the Board committed a legal error in denying the Farm's SDP on the basis that the County did not prepare a cumulative impact analysis. *Supra* at Sec. IV.D.3. But even if the Board did have the authority or legal foundation for requiring the County to perform a cumulative impact analysis, which it does not, the Board's determination that such an assessment is required for the present Farm is not supported by substantial evidence.

The Board has recently established a set of factors that it may consider in determining whether a review of potential cumulative impacts is warranted. The factors considered by the Board are (1) whether a shoreline of statewide significance is involved; (2) whether there is potential harm to habitat, loss of community, use, or a significant degradation of views and aesthetic values; (3) whether the project would be a "first of its kind" in the area; (4) whether there is some indication of additional applications for similar activities in the area; (5) whether the local SMP requires a cumulative impacts analysis be completed prior to the approval of a SDP; and (6) the type of use being proposed, and whether it is a favored or disfavored use. *Taylor Shellfish Company v. Thurston County*, SHB No. 12-012, at Conclusions 10-13 (Findings of Fact, Conclusions of Law, and Order, June 17, 2013) (Appendix I). Similar to all other impacts, the Coalition bore the burden of establishing

that the factors weigh in favor of requiring a cumulative impact analysis. RCW 90.58.140(7); *Overlake Fund*, 90 Wn. App. at 764.

While the SDP at issue here involves a shoreline of statewide significance, all other factors weigh in favor of not requiring a cumulative impact analysis. *See Taylor Shellfish Company*, SHB No. 12-012, at Conclusions 10-13 (holding that a cumulative impact analysis was not required despite the fact the project was located on a shoreline of statewide significance). As noted above, the Coalition (and Board) failed to establish adverse environmental impacts associated with loss of habitat.[16] As previously noted by the Board, the Corps concluded that geoduck farms do not result in a cumulative impact in Washington State: "the geoduck farms authorized by the re-issued nation-wide permit [48] (approximately 3,200 geoduck farms) would only result in 'pulse disturbances' that have temporary effects on aquatic ecosystems, and that those systems will recover after those disturbances occur." *Coalition to Protect Puget Sound Habitat,* SHB No. 13-006c, at Conclusion 25.

Further, the Farm is not the "first of its kind" in the area. The County has previously approved six other geoduck farms and previously approved a large wild geoduck subtidal tract in Henderson Bay. Tr. at 834:22-835:1, 968:15-969:11; AR 2077-84 (Ex. P-142d). The County has also approved three shoreline permits for Washington State Geoduck

[16] While the Board Decision also discusses impacts to recreation, it determined that "planted PVC tubes submerged at this subtidal location pose a minimal risk to recreational users" and that other recreational impacts "remains unclear based on testimony." CP 56 (Finding 62).

Fisheries, which are located in subtidal locations. Tr. at 822:23-25, 843:23-844:2. At the time of the Board hearing, the County did not have any pending applications for other geoduck farms. Aquaculture is also a preferred use under the SMA and SDP.[17] PCC 20.24.020; RCW 90.58.020; WAC 173-26-241(3)(b). Therefore, as five of the six factors weigh in favor of the Board *not* conducting a cumulative impact analysis, the evidence does not support the Board's decision to require such an analysis, and the Board incorrectly applied its own factors in evaluating the project's impacts.

Finally, the Board's Decision includes no analysis whatsoever of how the Farm has the potential to result in an adverse cumulative impact; therefore, its denial of the SDP on these grounds was unwarranted. *See May*, 153 Wn. App. at 94 n.31 (reversing the Board's denial of a shoreline permit when denial was based on speculative cumulative impacts).

3. The Board Overreached to Impose Unnecessary Protections for Eelgrass, Similar to *May v. Robertson*.

While many cases have come before the Board presenting eelgrass concerns, in only one prior case has the Board denied a shoreline permit for a project that is not actually located in or over eelgrass. In *May v. Robertson*, 153 Wn. App. 57, the Board denied a SDP issued by Pierce County for a joint-use pier. While a professional survey had concluded

[17] The Board finds that factors 5 and 6 are inapplicable. CP 78 (Conclusion 23). They are clearly applicable and must be weighed in the Board's decision. Simply because the factors do not support the Board's apparent pre-determined decision to deny the Farm's SDP does not make them irrelevant or inapplicable.

that there was no eelgrass present at the location of the proposed pier, local residents observed eelgrass in the vicinity and testified that eelgrass beds were in a state of recovery in the area. Accordingly, the Board denied the SDP on the basis (among others) that the proposed pier would be detrimental to the natural habitat currently existing and recovering at the project site. *Id.* at 89.

The applicants appealed the Board's decision to deny the SDP, and this Court upheld the superior court's reversal of the Board's decision. Specifically, this Court found the Board erred in disregarding the testimony of the applicants' expert witness that the proposed dock would not harm eelgrass and instead relied on testimony from the opposition that eelgrass was in a state of recovery, and the proposed dock would likely be detrimental to the natural habitat currently existing and recovering at the dock site. *Id.* This Court held the Board's findings and conclusions about eelgrass were unsupported by substantial evidence. *Id.*

Similar to *May*, the Board in this case improperly disregarded critical and uncontroverted testimony provided by the Growers' environmental consultant regarding eelgrass protections, specifically that the Farm's buffers were developed through extensive cooperation and input from resource agencies with expertise. As discussed above, the Board committed numerous additional errors in interpreting and applying the law, and its findings regarding the Farm's alleged impacts to eelgrass

are wholly unsupported by the record evidence. Accordingly, as in *May*, the Board's Decision must be reversed, and the SDP reinstated.[18]

V. CONCLUSION

Geoduck farming is unquestionably an allowed use at the Site under the County SMP and the SMA. The Board in this case inappropriately disregarded uncontroverted testimony and documentation that numerous federal, state, and local resource agencies with expertise carefully evaluated the Farm to ensure it contains appropriate environmental protections. The Board erred in not only disregarding this critical evidence, but in misallocating the burden of proof to the County and the Growers and finding that they did not prove that the County's conditions of approval adequately protect eelgrass. There is no credible, let alone substantial, evidence in the record that demonstrates the Farm will harm eelgrass or any other environmental feature. Accordingly, the Growers request that the Court reverse the Board's Decision and find that the County's approval of the Farm's SDP was valid and in compliance with the SMA and County SMP.

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[18] The Board's Decision in this case also bears striking similarities with the Board decision that was reversed in *Overlake Fund*, 90 Wn. App. 746. There, as here, the Board based its decision on setback requirements that were not properly before it in considering the SDP appeal. *Id.* at 764. In *Overlake Fund*, the Board inappropriately relied upon setback requirements in a conditional use permit. *Id.* Here, the Board reached even further, treating the eelgrass buffer that was referenced in the DNR SEIS as a regulatory requirement and denying the Farm's SDP because the Growers did not prove to the Board's satisfaction that a "reduction" from this inapplicable buffer was justified. CP 38-39, 48-50, 73-75 (Findings 25-28, 47-51, Conclusions 16-18).

Respectfully submitted this 26th day of October, 2015.

PLAUCHÉ & CARR LLP

By: _____
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CERTIFICATE OF SERVICE

I, Christine M. Lengele, declare as follows:

That I am over the age of 18 years, not a party to this action, and competent to be a witness herein;

That I, as a legal assistant in the office of Plauché & Carr LLP, caused true and correct copies of the foregoing document to be delivered as set forth below:

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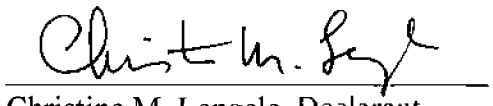
I certify under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct.

EXECUTED at Seattle, Washington on October 26, 2015.



Christine M. Lengele, Declarant

Appendix A

SHORELINES HEARINGS BOARD
STATE OF WASHINGTON

HEATHER AND CHRISTOPHER McQUARRIE, Petitioners, v. THE CITY OF SEATTLE, Respondent, STAN HANSON, REED CONSTRUCTION, INC. FIN-ME-OOT I LLC, and JOHN REED HUNTER, Additional Respondents.	SHB NO. 08-033 FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER

PROCEDURAL BACKGROUND

Petitioners Heather and Christopher McQuarrie (McQuarries) appealed a decision by the City of Seattle (City) to issue a Determination of Nonsignificance (DNS) and approve a shoreline substantial development permit (SSDP) for construction of a house near the shore of Lake Washington. The Shorelines Hearings Board (Board) held a hearing on May 4-7, 2009, in Seattle and Lacey, Washington. Patrick J. Schneider, of Foster Pepper PLLC, represented the McQuarries. Assistant City Attorney Roger D. Wynne appeared on behalf of Respondent City of Seattle (City), and G. Richard Hill, of McCullough Hill, PS, represented the Additional Respondents (referred to collectively as Reed Construction).

The parties submitted thirteen issues to the Board, which were set forth in the Pre-Hearing Order as follows:

1. Whether the City's SEPA determination of nonsignificance should be reversed and a limited scope environmental impact statement should be prepared for the proposal.

2. Whether the City complied with its SEPA obligations under SMC 25.05.908.

3. Whether the City complied with its SEPA obligations regarding the archeological resource impacts of the proposal.

4. Whether any Respondent challenge to the Board's jurisdiction or authority constitutes an impermissible collateral attack on the City's Code.

5. Whether the Board has jurisdiction or authority to decide issues relating to the City's Critical Areas Ordinance.

6. Whether the Board has jurisdiction or authority to decide issues relating to the City's zoning code or Director's Rule 12-2005.

7. Whether the Board has the jurisdiction or authority to review the adequacy of the City's SEPA conditions.

8. Whether the proposal has been adequately conditioned by the City pursuant to SEPA.

9. Whether Interpretation No. 08-007 should be reversed.

10. Whether the proposal is in compliance with the City's critical areas ordinance: SMC 25.09.060 and 25.09.080.

11. Whether the proposal is consistent with SMC 23.60.152(E), (F), (J), and (K) and SMC 23.60.574(B).

12. Whether the Board has jurisdiction or authority to review City code interpretations issued pursuant to SMC 23.88.

13. Whether the proposal is consistent with SMC 23.44.010(C)(2) and (4), the height restrictions in SMC 23.44, and Director's Rule 12-2005.

The City and Reed Construction moved for summary judgment on several of these issues, but the motions were denied by the Board by order of April 27, 2009, because there were disputed issues of material fact. However, the Board did hold that it had jurisdiction to review the City's SEPA decision, exercising its review authority under the Shoreline Management Act and RCW 43.21C.075(7). (Order on Summary Judgment, April 27, 2009).

The Board hearing the matter was comprised of Kathleen D. Mix, William H. Lynch, Andrea McNamara Doyle, Mary-Alyce Burleigh, Simon Kihia, and Peter Philley. Administrative Appeals Judge Cassandra Noble presided at hearing for the Board.[1] Olympia Court Reporters provided court reporting services. The Board conducted a site visit, witnesses were sworn and heard, exhibits were introduced, and the parties presented their arguments. Based upon the evidence presented, the Board makes the following

FINDINGS OF FACT

[1]

Reed Construction proposes to construct a 9,885-square foot multi-story single-family home on a 11,416 square foot lot located at 344 McGilvra Boulevard East in Seattle, Washington. *Ex. R-10.* The property is located between 39th Avenue East, to the east, and McGilvra Boulevard to the west, with views east across 39th Avenue E. to Lake Washington.

[1] Board Member Lynch was absent the first day of hearing, but listened to a recording of the proceedings prior to participating in this decision. Judge Noble left the Board for other employment after the hearing and before issuance of this decision.

The easterly portion of the property (approximately eighteen percent (18%)) lies within the Urban Residential (UR) Shoreline Overlay zone under the City of Seattle's Shoreline Master Program (SMP), thereby requiring review and permitting under the Shoreline Management Act (SMA). The property is located on a slope designated by the City as an environmentally critical area (ECA). The site, including many surrounding residences, is also located within a known and historic area of landslide activity. *Exs.R-4, R-10, A-50, A-51; Mills Testimony, Merriman Testimony.*

[2]

Reed Construction hired Associated Earth Sciences, Inc. (AESI) to conduct a geotechnical engineering analysis on the proposed McGilvra Boulevard residence. The final revised report, dated July 3, 2006, analyzed site conditions, subsurface conditions, geologic and erosion hazards and possible mitigation, and made design recommendations. The report recognized that the presence of old landslide and colluvial debris would require a project-specific design, and that the residence would need to be founded on, and tied into suitable strata (10 feet into bearing soils) in order to provide suitable foundation support and improve site stability. AESI concluded that the residence could not be built into an "open cut" into the soils, and recommended supporting the entire structure on a deepened foundation of augercast pilings, extending to a particular depth. In addition to both temporary shoring and a deep foundation, AESI recommended certain drainage and groundwater management actions. The report also recommended a program to monitor the horizontal and vertical movement of the excavation

sidewalls and shoring wall and visual survey of adjacent structures. *Ex. A-50; Merriman Testimony.*

[3]

Prior to any construction at the site, the City reviewed the Reed Construction proposal and AESI geotechnical report, and requested additional information through several correction notices. *Exs. A-59 and A-66; Bou Testimony.* There was discussion among the City, AESI, and Reed Construction throughout 2006 about aspects of the proposal, the need for a deep foundation, design of retaining walls, and slope stability, among other issues. *Exs. A-55 through A-80.* In response to the Department of Planning and Development (DPD) correction notices, AESI provided responses and a "minimum risk statement" in which the principal engineer on the project, by way of a professionally stamped statement, stated that so long as conditions stated in the geotechnical documents were satisfied, areas disturbed by construction would be stabilized, the risk of damage to the proposed development or to adjacent properties from soil instability would be minimal, and the proposed grading and development would not increase the potential for soil movement during or after construction (letter dated Feb. 19, 2007). *Ex. A-86.*

[4]

Prior to any construction at the site, the McQuarries, who live in the adjacent residence to the north, retained counsel. The lawyers apprised Reed Construction that the McQuarries had concerns related to redevelopment of the site (letter dated October 30, 2006). *Ex. A-78.* The McQuarries' attorney also provided the City's engineer on the project with an analysis of the

history of landslides at the site. This analysis shows landslide and drainage problems at the McGilvra Boulevard site in the 1930's and 1940's, but no further landslide activity after grading and drainage improvements in 1956. *Ex. A-71.*

[5]

The City issued demolition and construction permits on June 11, 2007. *Exs. R-20 and R-21.* The City did not conduct a review under the State Environmental Policy Act (SEPA) prior to issuing these permits. Pursuant to these permits Reed Construction demolished the previously existing structure on the McGilvra Boulevard site,[2] and over the course of the next several months, completed a new foundation, driveway, and some miscellaneous work in furtherance of construction of the new residence. *Ex. A-128; Merriman Testimony.* The foundation work started on July 18, 2007, and continued through the fall of 2007. AESI directed or reviewed site work throughout this period of time, and filed a series of "field reports" with the City. AESI was at the site frequently, but not all day, every day. *Ex. A-128; Merriman Testimony.* After the piling work was completed, AESI continued to monitor installation of drainage systems and erosion control through the fall and winter of 2007-2008. *Ex. A-128, Merriman Testimony.*

[6]

Sometime during the course of work at the McGilvra Boulevard site, the McQuarries brought a legal action in King County Superior Court seeking reversal of the construction permit under the Land Use Petition Act (LUPA), RCW 36.70C. The lawsuit resulted in the City issuing a "stop-work" order, ceasing further construction activities at the site. The Superior Court

[2] The prior residence on the site was constructed in 1927. *Exs. R-6, R-10, and 15.*

reversed the City's decision to issue the construction permit because construction of the residence involved work in a landslide-prone area, and the project exceeded 9,000 square feet of "developmental coverage," thereby making the permit action subject to review under SEPA. The Court relied on Seattle Municipal Code (SMC) 25.05.908.C(1)(a), and remanded the matter to the City for completion of further environmental review.[3] *Ex. A-158 (February 2008 Order on LUPA Appeal); Mills Testimony.*

[7]

Having been directed by the Superior Court to conduct a SEPA review, DPD reviewed the project as lead agency under SEPA. The City assigned Senior Land Use Planner Bill Mills to supervise the SEPA review. During the SEPA review by the City, Mr. Mills relied on William Bou, a City geotechnical engineer, for matters related to geotechnical review. The Applicant, through their Architect at Stuart Silk Architects, filed an Environmental (SEPA) Checklist on April 28, 2008. *Ex. R-4.* DPD issued a Determination of Non-Significance (DNS) under SEPA, and conditionally granted the SSDP for the project on November 3, 2008. *Ex. R-10* (City Analysis and Decision of the Director, hereinafter "Decision"). The City did not require an environmental impact statement (EIS) for the project, despite objections by the McQuarries.

[3] The Superior Court also noted that the City did not violate SEPA by allowing for a "limited reopener" of SEPA categorical exemptions for residential projects on steep slopes, nor did such action constitute impermissible piecemealing under SEPA. *Ex. A-158*

[8]

The City did not initially require that the Reed Construction project obtain a shoreline substantial development permit (SSDP), even though a portion of the project lies within the Shoreline Urban Residential (UR) Environment. The City considered the project to be exempt from this permit as an owner-built single family residence. During the course of the SEPA review, the City reconsidered that decision and required a SSDP, directing architects for Reed Construction to address compliance standards for the UR Environment, document compliance with height standards, provide a calculation of the amount of impervious surfaces proposed for that portion of the property within the shoreline district, and explain other shoreline matters. *Mills Testimony; Ex. R-7.* The City's decision to require an SSDP for project resulted in the City withdrawing an initial DNS which had been issued on July 10, 2008, and issuing a modified DNS on November 3, 2008, that addressed both SEPA and shoreline matters. *Exs. R-6, R-7, R-8, R-10; Mills Testimony.*

[9]

The City imposed certain conditions as a part of both the DNS and shoreline permit. The DNS conditions required Reed Construction to limit the hours of demolition and construction, and required the owner to install and maintain landscaping "per plan." The SSDP conditions required the applicants to revise plans related to surface water treatment to protect Lake Washington from certain pollutants, and to notify all contractors and subcontractors of the general requirements of the Seattle Shoreline Master Program (SMP). *Ex. R-10.*

[10]

On the same date it issued the DNS and SSDP (November 3, 2008), Mr. Mills, issued Code Interpretation No. 08-007 (Code Interpretation) in response to a request by the McQuarries regarding the project. *Ex. R-15*. The Code Interpretation concludes that the project complies with development standards for both environmentally critical areas and landslide prone areas under the SMC, stating as follows:

> Based on review of the construction plans for related building Permit No. 6100839, as well as technical reports and supplemental letters by the applicants' geotechnical engineers and other technical reports, it is further determined that the application is in compliance with the requirements of the general development standards of the Regulations for Environmentally Critical Areas in SMC Section 25.09.060 B and is also in compliance with the standards for landslide-prone areas in SMC Sections 25.09.080 B 1 and B 2.

The Code Interpretation also reviewed the procedural and development history at the site, recognized that there had been geotechnical issues related to the pile installation during construction of the foundation, and addressed the question of whether there had been complete stabilization of all on-site and adjacent properties. The Code Interpretation concluded, based on the assessments of both the City's geotechnical engineer and the Reed Construction geotechnical engineer (AESI), there were no significant instability issues at the site. *Ex. R-15, p.4*

[11]

On November 26, 2008, the McQuarries filed a Combined Petition for Review, Request for Interpretation, and Appeal of the Code Interpretation (Petition for Review) with this Board.

[12]

Central to the McQuarries' appeal to this Board is the assertion that the City did not give full consideration to environmental values when it issued the November 3, 2008, DNS and SSDP. They assert, more specifically, that the City failed to require adequate characterization of soils and groundwater on site or consider possible soil instability at the site which had allegedly resulted in damage to the McQuarries' home during the installation of the foundation by Reed Construction. The McQuarries argue that the City relied too heavily on the geotechnical engineering work of Reed Construction contractors. The McQuarries assert that the nature and potential for movement of soils at the site presents an ongoing risk to them, and request that the Board require that the City complete a limited purpose EIS.

[13]

The McQuarries assert that the contractor that AESI supervised on site, as well as Reed Construction, were negligent in the manner in which they installed the augercast pile foundation. They argue that the geotechnical impacts of the faulty pile installation have not been factored into the analysis of soil stability at the site, and that fact, along with the lack of soils information, resulted in the City not having adequate information upon which to base a DNS. The McQuarries assert that there were too few soil borings at the site and they were not deep enough to test soil strength, and that AESI failed to continuously monitor work at the site as required by City directives. They assert that a piezometer (groundwater monitoring well) should have been installed to measure groundwater in the historic slide area, as groundwater could contribute to

ongoing instability. The result of such failings, according to the McQuarrie consultants, is not only that the McQuarrie property suffered damage, but that the site was not completely stabilized, adjacent properties not protected, and development was not limited consistent with the Seattle Municipal Code (SMC). *McCormack Testimony; Ex. A-166.*

[14]

In order to assess the McQuarries' claim that the DNS and SSDP, as conditioned, were clearly erroneous under the Seattle Municipal Code and SEPA, or otherwise contrary to the City's SMP and the SMA (the relevant and uncontested legal standards), the Board heard much evidence about the manner in which Reed Construction installed the foundation for the new residence, whether there was or was not movement or cracking of the McQuarrie foundation, and opinions as to whether or not the foundation installation caused possible damage to the McQuarries' residence. However, it is not the function of this Board to make a determination of whether the foundation installation *caused* damage to the McQuarries' property, nor make findings about *the extent of damage*, if any, to that residence—that is an issue for another forum and another type of litigation. The function of this Board is to determine based on disputed facts before us, whether the City's decision to issue a DNS was clearly erroneous, or the SSDP was inconsistent with the SMA and the City's SMP, or otherwise arbitrary. We review the factual evidence for those purposes only, looking not only to the information the City had before it and the City's assessment of the same, but also to the record before the Board during our *de novo* review of the case.

[15]

AESI served as the "special inspector" for construction activities at the construction site. Under the City's Director's Rule 23-87 (*Ex. A-16*), the special inspector is responsible for quality control functions, including inspections required by City building officials, on a project that involves reinforced concrete, geotechnical engineering matters, and surface or subsurface drainage systems. The McQuarries complain that use of AESI in this role was evidence of bias and lack of independent evaluation of the quality of work at the project. However, while the special inspector is not to inspect construction performed by a contractor, subcontractor, or vendor with whom the inspector is employed, the Director's Rule gives the owner responsibility to select the special inspector, and it is common for the same firm to do both the design work for a project and to serve as a special inspector for construction of that project. In this case AESI supervised other contractors on site, but was not their employee. Director's Rule 23-87 assumes that a geotechnical firm working for an owner/developer, such as AESI, will serve in this special inspection role. These firms, like AESI, also have a responsibility to professionally account for the work being accomplished according to their direction. *Bou Testimony, Merriman Testimony, Zipper Testimony.*

[16]

AESI oversaw the augercast pile installation (by another contractor) in the summer and fall of 2007, and actively managed the contractor on site. It is undisputed that Reed Construction hired an inexperienced contractor to install the augercast pilings, and that the contractor

encountered significant difficulties as the foundation work proceeded at the site. Some equipment was in poor condition, some augercasts were pre-drilled in contravention of standard practice, and grout used to fill the augercast holes was poorly inserted and wasted, raising questions about the integrity of the rebar installation into the pile and the final strength of the piles, among other problems. *Ex. A-128; McCormack Testimony, Merriman Testimony, Horvitz Testimony.* AESI was frequently present at the site, and concluded that despite significant problems throughout the work, at the end of the day, the piles were deep enough into bearing soils, and fully grouted with reinforced steel. AESI also observed that the excavation and pile drilling log information was consistent with the soil borings performed in earlier soil characterization. This information confirmed earlier soils analysis; and, as a result, AESI was satisfied that the foundation--as installed--was stable, into load-bearing soils, and that there was no ongoing risk to either the Reed Construction or the McQuarries' property. *Merriman Testimony.* The City was aware of the problems with the pile installation at the time it issued the DNS. *Mills Testimony, Bou Testimony; Ex. R-15.*

[17]

The evidence before the Board on the question of whether there was movement or cracking of the McQuarrie foundation as a result of the foundation work at the Reed Construction site was also disputed, with consultants for each party reaching different conclusions. The City had a similar degree of disputed and contradictory information before it when it issued the DNS and SSDP for the project in November 2008. *Mills Testimony, Bou*

Testimony. The McQuarries hired a consultant to do surface monitoring in June 2007 in order to measure possible changes in the McQuarries' foundation. This consultant (Mr. Furtado of Lin & Associates) had not professionally surveyed for a number of years, but conducted site monitoring on various dates from late June 2007 through December 2007. He concluded that there was settlement of the south foundation wall of the McQuarries' residence (closest to the construction site) beyond accepted margins of measurement error. *Ex. A-150; Furtado Testimony.* The consultant opined that there had been up to 1/4 to 1/2 inch movement at points along the foundation of the McQuarries' home, but conceded the conclusion could be less if one relied on other monitoring data points. There was a margin of error in his work of 1/16 inch. He would not offer an opinion as to whether or not such movement was significant nor as to the cause of the settling. *Furtado Testimony*. The consultant also stopped taking readings for a two-month period in 2007, because the readings were so constant, and he saw "no difference" in monitoring point data in early 2009, indicating there had been no movement at the site. *Furtado Testimony.*

[18]

Reed Construction and the City countered this evidence with an engineering consultant who noted that the McQuarries' house has been moving ever since it was built,[4] and because of the shallow foundation of the house, has the potential for continued movement. However, this consultant concluded that the drilling of the augercast piles had no effect on the McQuarries' residence. He opined that observed, existing cracks in the foundation were consistent with 1993 and 1998 inspection and geotechnical reports about the McQuarrie house, but inconsistent with

[4] The McQuarries' residence was constructed in 1956. *Ex A-172*

the work done by Reed Construction and the amount of movement being reported by the Lin and Associates monitoring survey. He also opined that the caving soil in the auger holes as they were drilled was unlikely to cause movement at the McQuarries' residence. This witness noted that the presence of the completed foundation made the slope more stable than it had been prior to construction, and less sensitive to ground water intrusion. *Zipper Testimony; Ex. A-175.*

[19]

Although there is dispute about whether the foundation installation by Reed Construction *caused* damage to the McQuarries' residence, and the extent, if any, of such damage, there was no dispute that homes in this part of McGilvra Boulevard and 39th Street are generally vulnerable to settling and slippage, *see Exs. R-11, A-23, and A-27 (1991 Report on property at 414 McGilvra that concludes "documented earth movement has been occurring on the subject slope for the past 21 years and has accelerated in recent months;" 1998 Report on the McQuarries' property that notes the hillside is "vulnerable to slippage," and that the concrete foundation shows "some cracking and settling;" 2002 Report on McQuarries' home that notes a portion of the house may have undergone several inches of slippage);* The McQuarries' house itself is on a shallow foundation and has been subject to slippage and foundation cracks over a longer period of time. *McCormack Testimony, Horvitz Testimony, Zipper Testimony; Exs. A-23, A-27* There also was no dispute that no further slippage or movement has been detected at the McQuarries' residence since completion of the foundation work at the site in the fall of 2007. Data shows a stable site at the current time, and showed a stable site at the time the City issued the DNS and

SSDP. *Furtado Testimony, McCormack Testimony. Horvitz Testimony, Bou Testimony.* Additionally, the greatest measured movement during pile installation was within the margin of error for the survey equipment. *Zipper Testimony; Ex. R-27.*

[20]

In December 2007, the City informed lawyers for the McQuarries that in-house engineers would review data submitted by the McQuarries that suggested there was settlement at the McQuarries' residence as a result of construction at the site. The City noted that given the position being advanced by the McQuarries, the City would expect the report about settling to be stamped with a licensing seal from the engineer who submitted the data, and that there would be conclusions about the causal relationship between the project under development, the data submitted and the conditions on the adjoining site. The City never received such a statement, and declined to issue a stop work order at the site at that time. *Ex. R-31*; *Bou Testimony*. Mr. Bou contacted AESI to discuss the issues raised about possible movement at the McQuarries' site, but in the end, concluded the information was inconclusive. To the extent there was movement at the McQuarries' site before or during the time period of the foundation installation, the City considered that data and analysis, but concluded that even if there had been ¼ -½ inch movement at the McQuarries' property, it was not significant from a geotechnical standpoint. *Bou Testimony*; *Ex. R-26.*

[21]

A key dispute between the McQuarries and Reed Construction is whether or not the City has required adequate study of soils and groundwater at the site such that a slope stability analysis can correctly conclude that there is a "factor of safety" above necessary regulatory minimums to protect the property, adjacent property, and people in both static and pseudostatic (earthquake) conditions. The City requires that new construction achieve a factor of safety of 1.5 in static conditions, and 1.1 in earthquake conditions. The McQuarries assert that the AESI study of the site lacked adequate assessment of the factor of safety at the site because it was based on only two borings (excluding information gained from the augercast pile borings) which were insufficient in depth, and that there was no boring done on the uphill section of the property. Additionally, they assert that AESI failed to address the presence of groundwater in the area, which can reduce the forces that resist landslide activity, and consequently, reduce the factor of safety at the site below acceptable levels. The McQuarries believe some form of piezometer testing is necessary to account for ground water and its potential effects at the site and on their property. *Horvitz Testimony.*

[22]

The Board finds that the City had adequately developed information about slope stability at the time it issued the DNS. AESI provided the City slope stability profiles in 2006 which showed that the construction would meet the necessary factor of safety standards for a landslide area. These profiles showed that the proposed residence would meet a factor of safety of 2.8 in

static conditions and 1.181 in pseudostatic conditions. These factors of safety were well above those of the existing residence at the site (1.426-static; .752-pseudostatic). *Ex. A-80.* AESI developed the slope stability profile based on field exploration borings, visual reconnaissance of the site, review of literature, including geologic maps, and soil borings from a rebuilt residence several houses to the north of the Reed Construction site. (residence at 414 McGilvra Boulevard) *Ex. A-50*; *Merriman Testimony*. The exploration borings completed at the Reed Construction site went to a depth of 33-40 feet, encountering medium stiff silts below the colluvium or old landslide debris. AESI considered this type of soil deposit to be suitable for support of shoring and foundation loads. *Ex. A-50.* The findings of the on-site exploration borings were consistent with similar borings on the property located at 414 McGilvra Boulevard. Those soil borings went to a deeper depth (2 borings terminated at 51.5 feet), and found the same type of soils. *Exs. R-11, A-13.* AESI subsequently completed one more soil boring after the house was demolished, for further confirmation of soil conditions. That boring went to a depth of 45 feet, which was further into bearing soils than the original soil borings. It confirmed the earlier conclusions. As the foundation was installed, AESI also reviewed the logs of the augercast pile drilling, which reflected consistent subsurface geologic conditions. *Merriman Testimony; Ex. A-128 (field reports).*

[23]

AESI determined that additional soil borings beyond those described above were unnecessary in light of the availability of computer modeling that is widely used and generally

accepted in these contexts. AESI employed a computer-generated "back analysis" to define the material properties at the site. The analysis utilized compounding conservative assumptions, including assuming conservative soil strength values consistent with weak soils and a much higher groundwater table than was actually present at the site, and omitting the additional slope protection offered by the project's deep-pile foundation, shored excavation, and drainage and erosion control measures. The results of this analysis confirmed the slope would both meet the required factors of safety, including the factors of safety against global slope failures that would pass beneath the proposed development, and significantly improve the long-term stability of the slope compared to existing conditions. *Exs. A-50 and A-172; Merriman Testimony.*

[24]

Mr. Bou reviewed these geotechnical reports as part of his review of the project. When the City issued its Land Use Code Interpretation No. 08-007 (*Ex. R-15*), the City again analyzed the questions as to whether or not the site complied with development standards for landslide-prone critical areas for "complete stabilization and avoidance of adverse impacts appropriate to site conditions." The City states that through the original review and review that occurred as geotechnical issues arose during augercast pile installation, they concluded that there were no "significant instability issues." *Exs. R-15, A-50, and A-172.*

[25]

At the time the City made the decision to issue the DNS, it had considerable information about soil conditions at the Reed Construction site, and in the area surrounding the development.

The City was well-informed as to the landslide history and historic soil instability at the site. Early in the project, and prior to issuance of the initial demolition and construction permits in 2006, the City Engineer sent out several correction notices,[5] specifically directed at the need for deepened foundations, footing drains, and excavation plans that address site walls and possible encroachments on adjacent properties. *Ex. A-55.* Other correction notices addressed geotechnical issues such as seismic loading. *Exs. A-59 and A-66.* Reed Construction and AESI responded to the correction notices with information about project design specifically to address soil conditions. *Exs. A-74, 75, 76, and 77.* During the first part of 2007, the City issued additional correction notices for Reed Construction to address geotechnical aspects of the proposal. *Exs. A-90, A-94, and A-113.* Later, during the SEPA review in 2008, in response to ongoing letters from the McQuarries' attorney and comment letters, the City obtained additional soils information from Reed Construction and AESI in order to evaluate claims of instability at the site, and problems with the deepened foundation installation. *Mills Testimony, Bou Testimony.* The City also issued additional Correction Notices after the foundation installation was completed. In the first of these, dated June 16, 2008, the City requested information from the geotechnical firm working on the project, including various field memorandum, "all survey monitoring data" for the project, and both comments and a summary about possible ground movement at the site and construction difficulties encountered during the installation of the foundation. *Ex. R-5.* That same month, AESI provided a nine-page discussion and response to

[5] The City has issued a total of twelve Correction Notices during this project to this point, starting on August 8, 2006, through October 1, 2008. *See Exs. R-1; A-55; A-59; A-66; A-90; A-92 {R-2}; A-94; A-113; A-114; A-123; R-5; and R-7.*

issues raised by the McQuarries' geotechnical consultant on issues related to monitoring data, installation of shoring walls, and augercast pile installation and other issues. AESI again acknowledged that the area is one of historic landslide and soil creep, but disagreed with the suggestion that there was a need for further drilling, piezometer installation, and testing at the site, given a lack of "movement or observed conditions" sufficient to warrant further study. *Ex. A-174.* Another Correction Notice, dated October 1, 2008, requested additional information that addressed compliance with development standards in the shoreline, as the City had not yet addressed any shoreline matters. *Ex. R-7.*

[26]

The City did not direct that Reed Construction conduct a specific analysis of adjacent properties as part of site development studies. However, as part of the City's review of the proposal, it considered the location, soils history, excavation, and slope in relation to adjacent properties. In August 2007, when Reed Construction sought a steepened excavation slope cut as part of the foundation work, the City concluded that the site was stable and that adjacent properties would not be at risk. The City engineer (Mr. Bou) concluded that compliance with the ECA code standards would take care of all issues of concern to adjacent property owners. *Bou Testimony; Ex. A-134.* In October 2008, prior to the issuance of the DNS, Mr. Bou provided Mr. Mills a final comment on the project, stating among other items, that it was his professional opinion that, assuming proper drainage was established, the new structure would have minimal adverse impact to the stability of the adjacent properties. *Ex. R-25.* AESI also concluded that

the adjacent lot was adequately protected because the work on the construction site included elements to address slope stability, shoring, erosion, and groundwater control, and that management of these elements at the construction site would manage off-site consequences. *Merriman Testimony.*

[27]

In considering the environmental impacts of the project, Mr. Mills, as the responsible SEPA official, considered all plans related to the residence, all relevant municipal code provisions, including the critical areas ordinance and land use code, and the project file, which included numerous documents related to soil conditions and possible problems at the site. The project file also included public notices, comments, application, and other site information. In his evaluation of the project permit and necessary conditions Mr. Mills considered the several "correction notices" to the developer, requesting specific information and evaluation and comment on issues related to site stability and the potential adverse impacts of any ground movements at the site in relation to adjacent properties, as well as the responses to these corrections notices. *Mills Testimony, Bou Testimony; Exs. R-5, R-1, R-2, A-94, A-113.*

[28]

Additionally, between the time the City was directed by King County Superior Court in February 2008, to conduct a SEPA review and the DNS was ultimately issued in November 2008, Mr. Mills had specifically considered the following additional information:

- March 12, 2008, letter from Foster Pepper (the law firm representing the McQuarries) to DPD, asserting that a new permit is necessary. *Ex. A-161*
- Three comment letters from surrounding neighbors, expressing concerns about various issues, including water run-off, lot coverage, and damage to adjacent properties from construction of foundation (dated May 19, 21, 28, 2008). *Exs. A-162-164.*
- June 4, 2008, letter from Foster Pepper to DPD, asserting that Reed Construction had not disclosed all relevant environmental information, and requesting that DPD require a limited scope EIS to ascertain the impact of "unanticipated geologic conditions" at the site and the effects on site stability, including adjacent properties. *Ex. A-166.*
- June 4, 2008, letter from the law firm representing a neighbor directly to the south of the project site (McReal) to DPD, requesting care in review of the Reed Construction application, given cracking in the walls of the McReal residence during foundation installation at the site and lack of response from the contractor on issues of concern. The City also received geotechnical drawings related to crack monitoring in the home. *Exs. A-167, A-4.*
- June 16, 2008, internal memo from Mr. Bou entitled "geotechnical comments" which set forth certain items that needed to be addressed by Reed Construction/permit applicant. *Ex. R-25.* This memo led to a more formal

"correction notice" of the same date, directing the applicant, through their architect to provide monitoring data, evaluate and comment on potential adverse impacts of any ground movements at the property, provide a summary of the construction difficulties encountered during installation of the foundation, and evaluate and comment on the stability of the installed shoring system and deep foundations. *Ex. R-5.*

- Additional correction notice dated October 1, 2008. *Ex. R-7.*
- Response from AESI to correction notice, dated June 23, 2008. *Ex. A-174.*
- September 26, 2008, letter from Foster Pepper to DPD, asserting that the SEPA checklist submitted by Reed Construction was incomplete and flawed, that there had been inadequate analysis and assessment of geologic hazards at the site and that they project was inconsistent with the City's Shoreline Master Program. *Ex. R-14.*
- October 20, 2008, Statement of William Bou, commenting on site stabilization, and opining that the new residence would have minimal adverse impact to the stability of the adjacent properties, and that allegations of ground movement on the McQuarries' property were inconclusive. *Ex. R-26.*

[29]

Additional slope stability analysis performed after the city issued the DNS supports its conclusions. John Zipper, a geotechnical engineer hired by Reed Construction who does

geotechnical design review for cities in the area, performed a "wedge analysis" to verify earlier slope stability conclusions. This wedge analysis showed very close agreement to the earlier analysis, and Mr. Zipper determined the foundation design specifications were conservative enough to conclude no on-going risks to slope stability. *Zipper Testimony; Ex. R-30.*

[30]

The parties dispute a number of issues related to application of the shoreline district and other regulations at the site. The City has concluded that the site plans generally comply with the SMP requirement that there be no more than thirty-five percent (35%) lot coverage. Although the parties dispute what is and is not considered in this calculation, the Board finds the proposal to be within the lot coverage requirements, *subject to* final building plan review by the City which must ensure it does not cover more than thirty-five percent (35%) of the lot.[6] The final approval by the City must determine exactly which project elements are counted in the lot coverage calculation, including planters, retaining walls, gutters, and the like. The McQuarries presented no evidence that the amount of square footage in dispute between the parties would have any material effect on the shoreline environment. There was also no evidence that there are archeological resources at the site affected by construction. Although disputed, there is no evidence that the height of the house will be in violation of the SMP, again subject to final

[6] The parties agree the maximum lot coverage at the site is 3918 square feet. The City has agreed with architects for Reed Construction that certain items are not considered in this calculation, but opened the door to consider others, such as a planter. The Board leaves it to the City to determine how its Code provisions should be applied to these details of house construction, consistent with the lot coverage requirements and maximum allowable figure.

review by the City to ensure the details of the SMP and zoning code are properly applied to the final building plan.

[31]

Any Finding of Fact deemed to be a Conclusion of Law is hereby adopted as such.

CONCLUSIONS OF LAW

[1]

The Board has jurisdiction over the parties and this case pursuant to RCW 90.58.180 and considers the scope and standard of review of the appealed action is *de novo*, unless otherwise required by law. WAC 461-08-500(1).

[2]

The appealing party has the burden of proving the shoreline substantial development permit and any related conditions are inconsistent with the Shoreline Management Act and the City's SMP adopted under the SMA. With respect to the challenge to the City's SEPA determination, the appealing party has the burden to show that the City's decision is clearly erroneous. *ASARCO Inc. v. Air Quality Coalition*, 92 Wn.2d 685, 700-701, 601 P.2d 501 (1979); *Norway Hill v. King County Council*, 87 Wn.2d 267, 552 P.2d 674 (1976); RCW 43.21C.075. *Valero Logistics Operations, LP v. City of Tacoma*, SHB No. 06-001 (Findings of Fact, Conclusions of Law, and Order) (July 19, 2006). In this case, the Board can invalidate the City's decision to issue a DNS with conditions only if it is firmly convinced that the City has made a mistake. *Sisley v. San Juan County*, 89 Wn.2d 78, 84, 569 P.2d 712 (1977). We must accord

substantial weight to the agency's decision to issue a negative threshold determination and not require an EIS. *Boehm v. City of Vancouver,* 111 Wn. App. 711, 718, 47 P.3d 137 (2002); RCW 43.21C.090.

SEPA Issues

[3]

As we held on Summary Judgment, the SEPA challenge in this case is appropriately before the Board because it is linked to the appeal of the shoreline substantial development permit.

> In the case of an appeal under this chapter [SEPA] regarding a project or other matter that is also the subject of an appeal to the shorelines hearings board under chapter 90.58 RCW, the shorelines hearings board shall have *sole jurisdiction* over both the appeal under this section and the appeal under chapter 90.58 RCW, shall consider them together, and shall issue a final order within one hundred eighty days as provided in RCW 90.58.180.

RCW 43.21C.075(7) (emphasis added). To the extent the City argues that the Board does not have jurisdiction to consider SEPA issues because the SEPA review related only to the "land-use" decisions under the critical areas ordinance, and not the shoreline permit, we reject this argument. The SSDP and SEPA decision were issued on the same day, and in the same document. There is nothing in the SEPA review itself that so limits its consideration to only non-shoreline issues. RCW 43.21C.075(7) requires that this Board hear both the shoreline appeal and the related SEPA appeal at the same time.

[4]

We also ruled on summary judgment that review of an agency's exercise of substantive SEPA authority (i.e., the content of agency action, such as mitigation or conditions) is also under the clearly erroneous standard. *Cougar Mountain Assocs. v. King County*, 111 Wn.2d 742, 765 P.2d 264 (1988); *Wallingford Community Council v. City of Seattle*, SHB No. 04-012 (2005) COLs 29-31. Therefore, in our review of both the City's decision to issue a DNS and the appropriateness and adequacy of the conditions imposed to mitigate environmental impacts, the Board must affirm the City's decision unless we are firmly convinced the City has made a mistake, giving substantial weight to its decision.

[5]

Single family dwellings, such as the proposed Reed Construction project, are generally considered "minor new construction," and categorically exempt from SEPA review under the SMC. SMC 25.05.800. However, single family dwellings in excess of 9,000 square feet proposed to be located in an environmentally critical area, such as the landslide-prone area of the McGilvra Boulevard residence, are not categorically exempt from SEPA review. SMC 25.05.908 A. and C. This is the basis of the King County Superior Court's decision requiring SEPA review of the Reed Construction proposal. *Ex. A-158*. However, as discussed below, the SEPA review the City must undertake is limited in scope and circumscribed by Code provisions adopted to address environmental concerns.

[6]

To make the SEPA threshold determination, the City may rely upon existing development regulations and other applicable laws to provide environmental analysis, protection, and mitigation measures for some or all of the project's specific adverse environmental impacts, although additional environmental review may be required. WAC 197-11-158; *Moss v. City of Bellingham*, 109 Wn. App. 6, 17, 31 P.3d 703 (2001). In Seattle, the City Code specifically ties and limits SEPA review to compliance with various development regulations adopted to address environmental concerns:

> Relationship to City Codes. Many environmental concerns have been incorporated in the City codes and development regulations. Where City regulations have been adopted to address an environmental impact, it shall be presumed that such regulations are adequate to achieve sufficient mitigation....

SMC 25.05.665D. Accordingly, the Board must first presume that where the City has adopted code provisions to address an environmental impact, such regulations are adequate to achieve sufficient mitigation of impacts. The City has adopted such regulation for environmentally critical areas, and those are applicable to the SEPA review of the Reed Construction development. As we recognized in our summary judgment ruling, the City also sets forth certain circumstances under which mitigation of environmental impacts beyond what is required by other environmental code provisions may be appropriate. SMC 25.05.665D.1-7. We address each group of regulations in turn.

[7]

The scope of environmental review within the environmentally critical area is defined and limited. The City's environmental review of the Reed Construction proposal was guided, and limited, as follows:

> B. The scope of environmental review of proposals within these environmental critical areas is limited to:
>
> 1. Documenting whether the proposal is consistent with The City of Seattle Regulations for Environmentally Critical Areas, SMC Chapter 25.09; and
> 2. Evaluating potentially significant impacts on the environmentally critical area resources not adequately addressed in The City of Seattle Environmentally Critical Areas Policies or the requirements of SMC Chapter 25.09, Regulations for Environmentally Critical Areas, including any additional mitigation measures needed to protect the environmentally critical areas in order to achieve consistency with SEPA and other applicable environmental review laws.

SMC 25.05.908B.

Under this section, the City was first required to document that the proposal was consistent with the development regulations contained in SMC Ch. 25.09, and evaluate potential significant impacts on the environmentally critical areas not addressed in City Policies or the Code itself.

[8]

The relevant sections of SMC Ch. 25.09 contain both general development regulations for environmentally critical areas, and specific provisions for development in landslide-prone critical areas and steep slopes. *See* SMC 25.09.060 (general), 25.09.080 (landslide prone areas),

and 25.09.180 (steep slopes). The landslide prone development regulations are the most relevant to disposition of this case, and provide in part that the developer is to provide "complete stabilization" of all portions of a site disturbed or affected by the proposed development. Complete stabilization includes both site improvements and "all on-site areas and adjacent properties" that are disturbed or affected by the development. SMC 25.09.080B.1. The development must be limited and controlled to avoid adverse impacts and potential harm, and provide safe, stable, and compatible development appropriate to site conditions.[7] SMC 25.09.080B.2.

[9]

A majority of the Board concludes that the City did "document" that the proposed residence was consistent with the development regulations of SMC 25.09, and that the City had reasonably sufficient information upon which to conclude that the development provided for complete stabilization of all on-site and adjacent properties. City engineering staff was involved from the outset to evaluate and require a deepened foundation on the site because of the known landslide history and type of soils underlying the area. The City's earliest efforts at the site (2006) were directed at ensuring stability not just in the foundation of the residence, but on

[7] The General development standards of SMC 25.09.060 call for avoidance of adverse impacts from development on environmentally critical areas and buffers, and restrict development activities to the most suitable, stable, and least sensitive portion of the site in order to protect ecological functions, prevent erosion on steep slopes, and protect public health, safety, and welfare in landslide-prone areas, among other requirements. The steep slope requirements are relevant because the Reed Construction development qualified for an exemption from the prohibition on development on steep slopes, making it subject to the steep slope development standards SMC 25.09.180 The steep slope development standards set out buffer and vegetation removal requirements (among other standards) and *also incorporate and apply* the standards for development in landslide-prone critical areas, analyzed above. SMC 25.09.180A, 25.09.080.

adjacent properties. The "back analysis" completed by AESI and provided to the City was an adequate and well-founded slope stability study that used conservative parameters to design around what they knew to be a marginally stable slope, and was based on multiple sources of information about the character of soils at the site. That information included not only soil borings at the project site, but review of the borings at a neighboring property to the north—all with similar results as to where load-bearing soils existed in this historic landslide area. The AESI analysis made conservative assumptions about groundwater and soils in the greater area and calculated the resultant factor of safety accordingly. The analysis resulted in AESI designing a "heavy-duty" foundation, with attention to temporary shoring, erosion control, and groundwater, in order to protect the construction site and adjacent properties. We conclude that it was not error for the City to rely on the conclusions of the analysis in that review, nor was there a need for further study to verify or add to the assumptions and data behind that analysis. At the point the City issued the DNS, it had received an even larger amount of geotechnical data from both Reed Construction and the McQuarries, disputing whether there had been soils movement, or the extent of such movement, during the excavation and pile installation. After review of much supplemental and disputed information, the City concluded that soils movement, if it had occurred at all, was not significant. At the point the City issued the DNS, the site had been stable with no evidence of any movement whatsoever for a long period of time.

[10]

For these same reasons, the Board also concludes that the City documented that the development was "limited and controlled to avoid adverse impacts and potential harm, and provide safe, stable, and compatible development" as required by the second portion of the relevant development regulations.

[11]

Despite the numerous problems with the foundation pile installation, the Board also concludes that the City evaluated potentially significant impacts on environmentally critical resources not addressed in the Code, including the need for additional mitigation measures. AESI analyzed and responded to criticisms by the McQuarries, and informed the City of both difficulties and corrections made at the site. The City had before it the opinions of lawyers and consultants for the McQuarries, as well as that of AESI. On the same date the City issued the DNS, it issued a Code Interpretation in response to the McQuarries' request, analyzing three separate issues related to compliance with development standards for steep slopes (and a fourth related to the need for a shoreline permit). *See Ex. R-15.* The City reasonably relied on the opinions and work of the on-site geotechnical engineer and had reasonably sufficient information when it documented that the proposal was consistent with the Environmentally Critical Areas development standards of SMC Chapter 25.09.

[12]

While adopted Code provisions are presumed adequate to address environmental impacts, there are also several circumstances under which mitigation of environmental impacts beyond what is required by the environmental code provisions could be appropriate. SMC 25.05.665D.1-7. These provisions include situations where the project site "presents unusual circumstances, such as substantially different site size or shape, topography, or inadequate infrastructure," or when the proposal presents "unusual features, such as unforeseen design," which would result in adverse environmental impacts that "substantially exceed" those anticipated by the City code or zoning. SMC 25.05.665D. 3., 4. This section also allows denial or mitigation of a project based on adverse environmental impacts where the project creates undue impacts based on cumulative effects. SMC 25.05.665D.7.

[13]

The Board concludes that there was no evidence that the Reed Construction development proposal triggered the provisions of this section of the Code. The City relied on Code provisions that addressed development on steep slope or landslide-prone areas, required stabilization of the site and adjacent properties, and were relevant and adequate to address the type of residential construction at issue. The City was not clearly erroneous in issuing a DNS that did not require further mitigation beyond that required by Code provisions.

[14]

The Board cannot reverse the City's decision to issue a DNS unless we have a "definite and firm conviction that a mistake has been committed," and we must accord substantial weight to the City's determination. *Norway Hill*, 87 Wn.2d at 274; *Swift v. Island County*, 87 Wn.2d 348, 357, 552 P.2d 175 (1976). The Board has reviewed the entirety of a long and disputed record, much of which was before the City when it issued the DNS. It is notable that on nearly every issue before the Board, there were competing and contradictory expert opinions, particularly related to the geotechnical aspects of the case. These experts, largely engineers and architects, were all professional and experienced, and offered credible and well-informed opinions on behalf of their clients. Over the course of this dispute, AESI, as the on-site geotechnical engineer, responded to a large number of questions, and criticisms related to the integrity of work at the site, doing so in a professional and credible fashion. The City relied on its own geotechnical engineering staff to evaluate the disputed information about site stability. Thus, in making our determination of whether the City's decision is clearly erroneous, we have recognized that the City had the same degree of disputed professional judgments before it and that it not only relied on, but also questioned, geotechnical analysis provided by these consultants. It was reasonable and not a mistake for it to rely on AESI evaluations of various information. A majority of the Board is not firmly convinced that a mistake has been made in issuing a DNS, in light of this contested record, and the amount of geotechnical and other analysis that was before the City. Given the insignificance of possible soil movement at the site,

long-standing, as well as recently-developed knowledge of soils at the site, and the type of deepened foundation that was ultimately installed at the site, we cannot conclude that the City erred in concluding that there would be no significant adverse impact on the environment. The relevant Seattle Municipal Code provisions, including the Environmentally Critical Areas regulations, limit the review the City must conduct, and when applied to the facts before us, the Board concludes that the City properly reviewed extensive and disputed facts about the site against those regulations. The McQuarries have failed to meet their burden to demonstrate that the City lacked reasonably sufficient information to make the decision to issue a DNS, or that the decision does not meet or comply with Code provisions applicable to this project.

Shoreline Issues

[15]

The Board also concludes that the McQuarries have failed to show that any specific provisions of the City's Shoreline Master Program are violated by this proposal, including the general development regulations for the Shoreline District contained at SMC 23.60.152E., F., J., and K. These provide, respectively, minimization and control of surface runoff so that water quality and shore properties and features are not adversely affected; use of permeable pavement, where practicable to minimize surface water runoff; location, design, construction, and management of shoreline developments to minimize adverse impacts to surrounding land and water uses and be compatible with the same; and limiting, to the minimum necessary, land clearing, grading, filling, and alteration of natural drainage features and landforms, including

professional design of drainage and earth modifications to prevent adverse impacts on the shoreline and maintenance problems. SMC 23.60.152D., F., J., K.

[16]

The McQuarries have not met their burden to show a violation of these shoreline standards. There was no evidence before the Board that there would be an adverse effect on the shoreline from uncontrolled surface water runoff. The McQuarries' expert agreed that use of permeable pavement was not feasible at the site, as it would increase slope instability *(McCormack Testimony)*. There was evidence that the location, design, and construction of the residence was compatible with the urban environment, consistent with past development of the site, and professionally designed and managed to protect shoreline resources. The McQuarries failed in their burden to show a violation of any section of the SMP.

[17]

The Shoreline Master Program provides that structures in the Urban Residential environment, such as the proposed residence, shall not occupy more than thirty-five percent (35%) of the lot area. SMC 23.60.574. As an initial matter, we give substantial weight to DPD's interpretation of the regulations it administers as to how lot coverage is calculated (*i.e.*, which project elements must be counted and which may be excluded in the coverage calculation) and deference to its technical expertise in this area. *Port of Seattle v. Pollution Control Hearings Board*, 151 Wn.2d 568, 594, 90 P.3d 659 (2004). *See also Marnin & Cook v. Mason County*, SHB 07-021 (Concurrence, January 14, 2008). The McQuarries have presented an alternative

calculation, based on a different view of the regulations, but have not established that the City's interpretation is unlawful or unreasonable in any respect. Additionally, in the absence of any effort by the McQuarries to show any potential harm to the shoreline environment as a result of the City's interpretation, we conclude that the difference in square footage represented by the disputed project elements (*e.g.*, the stoop, planter box, and gutter overhangs) is inconsequential and *de minimis* in any event. The City expects that Reed Construction will conform the final structural elements of the proposal to be within the thirty-five percent (35%) coverage area limitation, and we hold that the developer must meet the City's ultimate conclusion about such details.

[18]

The Board lacks jurisdiction over other, non-shoreline-based and non-SEPA-related development regulations that the McQuarries have attempted to put in issue. These issues include compliance with the critical areas ordinance, zoning code, and archeological impacts requirements (Legal Issues 3, 5, and 6). These issues are not brought in under the limited SEPA review that is applicable to this project, nor are they in any way associated with the shoreline regulations. As we said on summary judgment, the Board has ruled that the SMA provides no Board jurisdiction over local zoning code provisions unless they are incorporated by specific reference into an SMP *and* Ecology approves such provisions as part of an SMP. *Breakwater Condominium Assoc. v. City of Kirkland et al.,* Order on Motions, SHB No. 06-034. p. 6 (2007). In this case, the Board concludes that there is no such incorporation of the City of Seattle

Critical Area Ordinance (CAO) by reference in the Shoreline District regulations (the Seattle Shoreline Master Program), nor have the parties cited to the Board any incorporation of the City's Regulations for Environmentally Critical Areas. Therefore, under the SMA, the Board lacks jurisdiction to decide the issues that address the proposal's consistency with general development regulations in SMC Chapter 23.60, code interpretations issued pursuant to SMC Chapter 23.88, or the City's Residential Land Use Code provisions in SMC Chapter 23.44.

[19]

We address archeological resources issue specifically, as it was argued to the Board at hearing. Under *Breakwater,* we lack jurisdiction over this issue in the first instance. The rules regarding historic preservation are contained in SMC 25.05.675, and are not a part of the Environmentally Critical Areas provisions that are applicable in the limited SEPA review. Nor are these provisions part of or incorporated into the Shoreline Master Program. The Board also concludes that, even if we had jurisdiction, there has been no violation of the archeological preservation policies or regulations of the City in its permitting decisions in this case. We address this issue further only because of the City Policy's reference to both SEPA and shoreline issues.

[20]

DPD Director's Rule 2-98 requires assessment of a site's probable archeological significance if the site is located within 200 feet of the U.S. Government meander line or in other areas where information suggests the potential for archeologically significant resources. *See Ex.*

A-25. The purpose of this Rule is to elaborate on the SEPA Historic Preservation Policy of the SMC and note the connection between shoreline areas and archeologically significant sites. The SEPA checklist filed by the applicant identified no known archeological resources in this area. The McQuarries have not identified the presence of, or potential for, such resources to exist at this site. The City was unaware of any such resources or the potential for such resources. Given the dearth of evidence on this point, we conclude that the initial assessment completed by the project proponent was adequate to meet the requirements of the Policy, and that the McQuarries have failed in their burden to establish a violation of the SMA, or show that the DNS was clearly erroneous for failing to further address archeological resources.

[21]

Based on the above Findings of Fact and Conclusions of Law the following Order is entered

ORDER

The Board AFFIRMS the decision of the City to issue a Determination of Nonsignificance and a Shoreline Substantial Development Permit.

DONE this 5th day of August, 2009.

SHORELINES HEARINGS BOARD

_____

KATHLEEN D. MIX, Presiding

SEE DISSENT
WILLIAM H. LYNCH, Member

ANDREA McNAMARA DOYLE, Member

SIMON KIHIA, Member

SEE DISSENT
MARY-ALYCE BURLEIGH, Member

PETER PHILLEY, Member

Appendix B

SHORELINES HEARINGS BOARD
STATE OF WASHINGTON

PETER AND BARBARA MOE, Petitioners, v. KING COUNTY and REZA MOUHAJER SABOUR, Respondents.	SHB NO. 11-013 ORDER GRANTING MOTION TO REMAND SHORELINE SUBSTANTIAL DEVELOPMENT PERMIT TO KING COUNTY

Petitioners Peter and Barbara Moe (Petitioners) filed a petition with the Shorelines Hearings Board ("Board") for review of Shoreline Substantial Development Permit (SSDP) issued to Reza Mouhajer Sabour (Applicant) by King County (County) for construction of an approved three lot short subdivision which is partially within the shoreline management jurisdiction of Lake Washington. Shortly after the pre-hearing conference on this appeal, the Petitioners filed a motion to either remand the SSDP back to King County or, alternatively, to stay the proceedings. The Board considering this matter was comprised of Kathleen D. Mix, Chair, Andrea McNamara Doyle, William H. Lynch, O'Dean Williamson, Pamela Krueger, and Timothy Farrell. Administrative Appeals Judge Kay M. Brown presided for the Board.

In rendering this decision, the Board considered the following submittals:

1. Petition for Review with attached Exhibits A through C;
2. Petitioners' Motion for Remand of the SSDP or for a Continuance of Proceedings, Declaration of Ray Liaw in Support of Motion for Remand of the SSDP or for a Continuance of the Proceedings with attached Exhibits A through C;
3. County's Response on Petitioners' Motion for Remand or Continuance;
4. Response of Applicant to Stay Petition of Moe;
5. Petitioners' Reply on Motion for Remand or for a Continuance;

Based upon the records and files in the case, the evidence submitted, and the written legal arguments of counsel, the Board enters the following decision.

BACKGROUND

On April 26, 2011, the County issued an SSDP to the Applicant for an approved three lot short subdivision, a portion of which is located within the shoreline management jurisdiction of Lake Washington. Also on April 26, 2011, the County transmitted the SSDP to Ecology and issued the State Environmental Policy Act (SEPA) determination of nonsignificance (DNS) for the proposal. *Petition for Review, Exs. A, B.*

On May 13, 2011, the Petitioners filed a Notice of Appeal of the DNS before the King County Hearing Examiner. *Petition for Review, p. 3, footnote 1; Liaw Decl., Ex. B.*

On May 25, 2011, the Petitioners filed a Petition for Review of the SSDP and the underlying SEPA determination with the Shorelines Hearings Board (Board). In the Petition, they stated that they had also filed a Notice of Appeal of the underlying SEPA determination before the County Hearing Examiner. However, to preserve their right to appeal the SSDP before the SHB, they also filed the Petition for Review. The Petition requested this Board to stay the proceedings in this action pending resolution of the related SEPA appeal before the County Hearings Examiner. *Petition for Review, p. 3, footnote 1.*

The Petitioners have now moved the Board to either stay the proceeding until the County Hearing Examiner has completed review of the SEPA DNS, or remand the SSDP back to the County, and allow the County to complete the review of the SEPA DNS at the local level prior to acting on the SSDP. The County, while standing by the validity of its process, does not

actively oppose either of these options. The Applicant opposes the stay of the proceeding, but does not respond to the request in the alternative for a remand, contending that it is outside the request for a stay.[1]

ANALYSIS

Petitioners' argue that this case should not move forward at the Board level until the local government completes the SEPA review process. They argue that the appeal of the SSDP is premature because administrative review of the SEPA determination, relied upon by the local government in issuing the SSDP, is ongoing at the local level, and that to proceed forward at the Board could result in conflicting and/or duplicative proceedings. The Board agrees, and concludes, for the reasons set forth below, that the appropriate remedy is a remand of the SSDP back to the County.

A. SEPA Appeals

The Washington Supreme Court has recognized two core concepts related to SEPA appeals: (1) that if administrative review is provided by an agency or local government, the administrative review must be completed prior to judicial review and (2) that review of the SEPA claims pertaining to an action, and the review of the underlying action, should remain linked together. *State v. Grays Harbor County*, 122 Wn.2d 244, 857 P.2d 1039 (1993).

---

[1] Applicant contends he would not have agreed to a shortened briefing schedule on the motion for a stay if he had known that a remand was one type of relief the Petitioners would request in their motion. However, the Petitioners clearly requested this type of relief in their motion and opening brief. If Applicant's counsel had needed more time to respond to Petitioners' motion once he saw its content he could have filed a motion to expand the time for filing responsive briefing or requested a conference. WAC 461-08-475(d). The Applicant instead chose not to respond to this portion of Petitioners' motion. By not responding to the request for a remand at the appropriate time, the Applicant has waived his opportunity to do so. *See Walker v. Point Ruston,* SHB Nos. 09-013, 09-016, at 5 (Order on Summary Judgment, Jan. 19, 2010); *Johanson v. King Co.*, SHB No. 94-65 (Order Granting Motions for Summary Judgment, Mar. 10, 1995).

The first concept, exhaustion of administrative remedies, is derived directly from SEPA. The relevant sub-section states:

> (4) If a person aggrieved by an agency action has the right to judicial appeal and if an agency has an administrative appeal procedure, such person shall, prior to seeking any judicial review, use such agency procedure if any such procedure is available, unless expressly provided otherwise by state statute. RCW 43.21C.075(4).

This Board, in prior decisions, has held that for purposes of applying this provision, the exhaustion requirement applies equally to appeals brought before the Board and appeals filed in court. The Board has reasoned:

> The statutory reference in RCW 43.21C.075 (4), above, is to exhaustion of an "agency" (county) appeal prior to "judicial" review. The use of the term "judicial", however, should not vary the principle involved where, in the specific area of shoreline appeals, appeal lies to this State Board from county action, as opposed to the more common review of county action by writ of review in a judicial forum. The function of this Board is, like a judicial forum, one of review over the SEPA actions taken below. Both the judicial branch and quasi-judicial boards are exempted, themselves, from SEPA compliance because of this review role. Both judicial and quasi-judicial bodies are granted this SEPA categorical exemption under the heading of "Judicial Activity". WAC 197-11-800 (12).

Rebound v. Pacificorp, SHB No. 95-22 (Order Granting Partial Summary Judgment, Jan. 11, 1996)(¶ XIV).[2]

The second concept, linkage of the SEPA appeal with the underlying permit action, is also statutorily based. *See* RCW 43.21C.075(2)(a)(Generally requiring appeals under the SEPA statute to be "of the governmental action together with its accompanying environmental determinations.").

[2] The *Rebound* decision by the Board directly refutes Applicant's argument that *Grays Harbor* is distinguishable because it involved an appeal to Superior Court, not the Shorelines Hearings Board.

B. Application of SEPA in This Case

King County provides an opportunity for a review before its hearing examiner of a SEPA DNS connected to a SSDP. KCC 20.44.120.A.1., 20.24.080.1. The County does not, however, provide for hearing examiner review of the SSDP. It is the structure of this local government review process that creates the problem presented by this appeal.

Here, despite the available opportunity for administrative review of the SEPA DNS, the County proceeded to approve the SSDP and transmit it to Ecology prior to completion of that administrative review process. This action started the time period running for an appeal to the Board while the window for a request for county-level administrative review of the DNS was still open. The Petitioners requested administrative review of the SEPA DNS as was their right under the King County Code. To avoid missing their appeal window on the SSDP, however, the Petitioners filed their appeal of the SSDP, including their SEPA challenge, at the Board. As a result, the Board must now either conduct a hearing on the SSDP and accompanying SEPA challenge before the Petitioners exhaust administrative remedies on the SEPA decision, or proceed with review of the SSDP decision while the County simultaneously conducts an administrative review of the underlying SEPA determination.[3] Both of these options violate SEPA requirements for exhaustion of administrative remedies and linkage of the SEPA appeal with the underlying permit decision.

[3] The Board cannot stay its review of the SSDP and allow the SEPA decision to "catch up" because it is required by RCW 90.58.180(3) to complete its review within 180 days of the filing of the petition for review at the Board. Petitioners have not convinced the Board by their argument that the doctrine of equitable tolling provides the Board with the authority to waive the statutorily imposed deadline. While the statute itself allows the Board to extend the deadline by 30 days for good cause, 30 days appears to be insufficient time for the County to conclude its process under the circumstances of this case.

C. The Remedy

The situation in this case is very similar to the one presented to the Supreme Court in the *Grays Harbor County* case. There, Grays Harbor County granted a surface excavation permit, following the review of a SEPA checklist and the issuance of a SEPA DNS. 122 Wn.2d at 246. The SEPA determination was appealable to the County, while the permit was appealable to Superior Court. *Id.* at 246, 247. The neighbors, who were challenging the issuance of the permit, were faced with the same dilemma the Petitioners are in this case: wait for the completion of the local government SEPA process and risk being late on the judicial appeal, or file the judicial appeal and be challenged on the basis of failure to exhaust their administrative remedies under SEPA. The Supreme Court held the time for judicial review did not begin to run until after the county had made its final administrative decision. *Id.* at 248. In reaching this conclusion the Court stated:

> We conclude that the neighbors should not have been forced to initiate judicial review of a decision when the SEPA component of that decision was not yet final in that it was still subject to further administrative review. Since the SEPA statute requires exhaustion of any available administrative review, and the GHC SEPA appeal ordinance provides for the DNS decision to be appealed to the Commissioners, the neighbors should have been allowed to complete the appeal to the Commissioners before their time to seek judicial review began to run.

Id. at 256.

In the instant case, the SEPA component of the SSDP decision is not final because administrative review is ongoing at King County. In the Court's words, "it would be unfair and wasteful of judicial resources" to require the parties and the Board to continue the review of the SSDP at the Board when that permit decision is based on a SEPA decision which is not yet final.

Grays Harbor County at 256. If, during the review of the SEPA determination the hearing examiner concludes changes are necessary, this could require corresponding changes in the SSDP. It is not efficient for the Board to proceed with review of the SSDP in light of the potential for changes to the SSDP as a result of the ongoing review of the underlying SEPA determination at the County.

The Board concludes that, based on the analysis in *Grays Harbor County,*[4] the SSDP decision is not final. This is not the first time the Board has encountered the lack of finality of local government decisions on appeal at the Board. In *Powers v. Jefferson County*, SHB No. 05-029 (Order on Motions, May 7, 2006), the Board addressed a situation where a county sent an SSDP to Ecology prior to the completion of appeal procedures that were underway at the county. The appealing party was then forced to file an appeal of the SSDP with the Board even though it was still being reviewed by the local government because the appeal period to the Board was running. The Board in *Powers* concluded that "the County erred by sending the SSDP to Ecology . . . because it was not the final decision of the County." *Id.* at 8. It then remanded the SSDP to the local government, noting that:

> A remand to the local government is usually the remedy in a case where there is a lack of a final decision by the local government. Here, because of confusion and misdirection in the application of the proper procedures for the shoreline permit, there is no final decision by a local government sufficient to give the Board jurisdiction.[5]

---

[4] The Applicant contends that the *Grays Harbor County* case is distinguishable because it involves an appeal to Court, whereas this case involve an appeal to the Shorelines Hearings Board. The Board, however, has already considered this issue and ruled that in this situation the SEPA exhaustion requirement applies equally to appeals brought before the Board and appeals filed in Court. *Rebound v. Pacificorp,* SHB No. 95-22 (Order Granting Partial Summary Judgment, Jan. 11, 1996)(§ XIV).

[5] Similarly, the Court, when asked to review a land use decision it concluded was not final, determined the proper remedy was a remand. *See Stientjes Family Trust v. Thurston Co.*, 152 Wn. App. 616, 217 P.3d 379 (2009).

Id. at 15.

Here too, because of the lack of finality of the SSDP where the underlying SEPA determination is undergoing review at the County, the Board concludes that a remand is the appropriate remedy. Once the County concludes its SEPA review, and, if necessary, makes changes to the SSDP based on the conclusion(s) from the County hearing examiner's review of the DNS, the SSDP along with the SEPA determination, can be properly appealed to this Board.

ORDER

The Board GRANTS Petitioner's motion for a remand, and REMANDS the SSDP back to King County for further action consistent with this opinion.

SO ORDERED this 12th day of July, 2011.

SHORELINES HEARINGS BOARD

KATHLEEN D. MIX, Chair
WILLIAM H. LYNCH, Member
ANDREA MCNAMARA DOYLE, Member
TIM FARRELL, Member
O'DEAN WILLIAMSON, Member
PAMELA KRUEGER, Member

Kay M. Brown
Administrative Appeals Judge

Appendix C

BEFORE THE SHORELINES HEARINGS BOARD
FOR THE STATE OF WASHINGTON

EAGLES ROOST, INC., and CHARLES F. RICHMOND,	)	
Appellants,	)	SHB NO. 96-47
v.	)	**CONCURRENCE**
SAN JUAN COUNTY, and ROBERT OSBORN,	)	
Respondents.	)	

This case involves the appeal of a shoreline substantial development permit. The subject permit was issued by San Juan County and filed with the Department of Ecology on March 14, 1996. There is no dispute that March 14, 1996, constitutes the date of filing as defined under RCW 90.58.140(6). The appellant's request for review was not, however, filed with the SHB until October 22, 1996. The request for review was untimely and, therefore the SHB lacks jurisdiction and the matter must be dismissed.

The SHB jurisdiction over a shoreline permit decision is strictly limited under RCW 90.58.180(1) to cases where a request for review has been filed with the board within twenty-one days of the date of filing as defined in RCW 90.58.140(6). The date of filing for a substantial development permit is the date of actual receipt of the local government permit decision by the Department of Ecology. RCW 90.58.140(6). We have no authority to vary or expand this jurisdictional requirement.

As an administrative agency the board may only exercise those powers conferred expressly or by necessary implication by its authorizing statute. *Human Rights Commission v. Cheney*, 97 Wn.2d 118 (1982); *State v. Munson*, 23 Wn. App. 522, 597 (1979). We have no authority to expand the clear jurisdictional limits established by the Shoreline Management Act. The statute sets the deadline for filing an appeal with reference to an objective and identifiable date. The specific reference was added by amendment of the SMA in 1976 and evidences an intent to create certainty and finality for shoreline permit decisions. *Brooks v. Issaquah*, SHB No. 89-1 (1989). This intent was reinforced by a more recent amendment of RCW 90.58.180(1) under regulatory reform legislation adopted in 1995. That legislation reduced the appeal period from thirty to the present twenty-one days and limited the jurisdiction of the board to 180 days from the date a request for review is filed.

The board may not therefore enlarge the appeal period to exercise jurisdiction over appeals filed beyond the twenty-one day period simply based on allegations of improper notice under the SMA. To do so violates the cardinal rule of statutory construction that requires this board to give effect to the plain meaning and, therefore, intent of language adopted by the legislature. Absent some ambiguity in the statutory language, neither the liberal construction provision of RCW 90.58.900 nor the principle of reading statutory provisions together may be marshaled in order to reach a new rule that there is no date of filing if there was a failure to comply with notice requirements under the act. To do so would result in the SHB improperly expanding its jurisdiction. It would also result in absolutely no finality as to any shoreline permit decision in direct conflict with the 1976 and more recent amendments of the SMA.

The only other means for this board to intercede where an appeal is not timely is to conclude that the appellant's constitutional due process rights were violated by the failure to comply with notice requirements under the SMA. The SHB does not, however, have jurisdiction to hear constitutional claims. By long established precedent, the SHB has declined to consider constitutional issues raised by parties. *Adams v. City of Seattle,* SHB No. 156; *Sperry Ocean Dock v. City of Tacoma,* SHB No. 89-4. Any such claim must be raised in the first instance before a court of general jurisdiction. *Barrie v. Kitsap County*, 84 Wn.2d 579 (1974).

Notice requirements are not taken lightly by this board as reflected in the SHB decisions cited in the appellants' briefing. The controlling factor in each of those cases, however, was the fact that the SHB had before it a timely appeal over which it could exercise jurisdiction. *See, e.g., Silver Lake Action Committee v. Everett,* SHB No. 88-59; *South Point Coalition v. Jefferson County*, SHB No. 88-47. Absent a timely appeal, as in this case, the board has no recourse other than dismissal for lack of jurisdiction.

DATED this 19th day of February, 1997.

SHORELINES HEARINGS BOARD

JAMES A. TUPPER, JR.

MARTIN CARTY

JUDITH B. BARBOUR

Appendix D

SHORELINES HEARINGS BOARD
STATE OF WASHINGTON

COALITION TO PROTECT PUGET SOUND HABITAT and CASE INLET SHORELINE ASSOCIATION, Petitioners, v. PIERCE COUNTY and LONGBRANCH SHELLFISH, LLC, Respondents. WASHINGTON STATE DEPARTMENT OF ECOLOGY, Intervenor.	SHB NO. 11-019 FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER

Petitioners Coalition to Protect Puget Sound Habitat and Case Inlet Shoreline Association challenge Pierce County's approval of a shoreline Substantial Development Permit along with the accompanying Determination of Nonsignificance (DNS) issued to Longbranch Shellfish, LLC for a geoduck farm. A hearing in the case was conducted in Tumwater, Washington on February 29 and March 1, 2012. The Board requested and received post-hearing briefs from the parties following the hearing. The Board also received on June 6, 2012, at the Board's request, proposed Findings of Fact from the Respondents. The Board was comprised of Bill Lynch, presiding, Kathleen D. Mix, Chair, and members Tom McDonald, Pamela Krueger, Jon R. Wagner, and Dave Somers. Board Member Somers was unable to attend the hearing, but

listened to the tapes of entire proceeding, reviewed the exhibits, and participated fully in the deliberations on this appeal.

Based upon the evidence presented, the Board makes the following:

FINDINGS OF FACT

[1]

On March 6, 2006, Longbranch Shellfish, LLC (Longbranch Shellfish) submitted a shoreline substantial development permit (SDP) application and a State Environmental Policy Act (SEPA) checklist to Pierce County for a geoduck farm.[1] Longbranch Shellfish proposes to plant, cultivate, and harvest geoduck clams for commercial purposes on approximately two and one-half acres of private tidelands. *Schoos Testimony; Risvold Testimony; Ex. L20.*

[2]

The County spent several years analyzing the potential environmental impacts of the farm, frequently requiring and receiving additional studies and analysis from Longbranch Shellfish. *Booth Testimony; Risvold Testimony; Exs. L20-L24, L26-L33.* On May 26, 2010, the County issued a DNS for the farm. *Ex. L34.* The County and Longbranch Shellfish essentially used the Mitigated Determination of Nonsignificance (MDNS) process to work together to reduce the impacts of the proposed project below the level of being significant. *Ex. L83 at 21.* The DNS was appealed by the Petitioners to the Hearing Examiner, who held a combined hearing on the DNS appeal and the SDP. The Hearing Examiner affirmed the DNS and issued an SDP for the farm. *Ex. L83.* Pierce County requested reconsideration of the decision for the

[1] The original proposal included manila clam aquaculture on the project site as well, but this proposal was later withdrawn. *Ex. L31.*

purpose of clarifying the conditions of approval. The Hearing Examiner issued revised conditions of approval in a decision on reconsideration dated July 14, 2011, which includes 37 conditions. *Ex. L84.* The Coalition to Protect Puget Sound Habitat and Case Inlet Shoreline Association (Petitioners) timely filed a petition for review with the Board challenging the County's issuance of the DNS and the SDP.

[3]

The Longbranch Shellfish geoduck farm will be located on the Key Peninsula in Pierce County on tidelands owned by the applicants. *Schoos Testimony; Ex. L38.* Longbranch Shellfish is a small company comprised of five owners. Four of the owners live directly upland of the farm site and operate terrestrial farms.

The farm is within the Rural Environment shoreline designation, which allows commercial aquaculture pursuant to SDP approval. *Booth Testimony; Ex. L111 at 5.* County policies encourage using shorelines for producing commodities for human consumption and give priority to aquaculture in shoreline areas having the prerequisite qualities for aquacultural uses. Pierce County Code §§ 20.24.020(A)(1), 20.24.020(A)(10); Pierce County Shoreline Master Program (SMP), pp. 22-23. The Longbranch farm is not located in a shoreline of statewide significance. *Booth Testimony.* On July 13, 2010, the Key Peninsula Advisory Commission heard Longbranch Shellfish's proposal and in a split decision recommended approval of the geoduck farm. *Booth Testimony; Ex. L83 at 5.*

[4]

Geoduck clams are large, edible burrowing clams indigenous to the Puget Sound. At harvest, they weigh between one and two pounds. When planted, however, they are small and vulnerable to predation. To protect juvenile geoduck clams from predators, the tidelands are "planted" with PVC tubes. Planting a geoduck tube consists of manually pushing it into the sand in an upright position. Tubes are placed at a density of approximately one tube per square foot. The tubes are four inches in diameter and approximately ten inches in length. About four inches of each tube are exposed above the surface of the sand. Usually, four juvenile clams are placed in each tube. Each PVC tube is individually covered with a mesh cap, secured with a UV-resistant band. The caps are removed approximately six months following the initial planting. As the geoducks grow, they burrow into the substrate until their bodies are deeper than the tube. Between 18 and 24 months following planting, the tubes are removed. The geoducks continue to mature for a total of five to seven years, at which time they are harvested by hand with the use of a high volume, low pressure water pump. The farm owners need the ability to utilize both dry harvest (not wearing dive gear) and wet harvest (wearing dive gear). *Schoos Testimony.*

[5]

Although Petitioners' expert expressed concerns that installation of PVC tubes is a habitat modification that interferes with plant and animal activity, most of his concerns were generally directed at impacts upon forage fish spawning habitat, potential for geoducks to ingest forage fish larvae, and the importance of forage fish to salmon survival. *Daley Testimony; Ex. P19.* Longbranch Shellfish's expert testified that the presence of aquaculture gear will not

adversely affect native marine species through habitat alteration due to the relatively short duration of its installation. The aquaculture gear used to culture geoducks, particularly the PVC tubes, creates artificial hard substrate, resulting, temporarily, in increased habitat diversity. This increased habitat diversity augments the presence of certain species at the farm site, including species important to juvenile salmon foraging along the nearshore. *Houghton Testimony; Ex. L11.* The Board finds Longbranch Shellfish's expert provided a more detailed and convincing expert report, and therefore finds this expert more credible regarding any impacts to the environment resulting from the presence of the PVC tubes.

[6]

The presence of the PVC tubes also will not have a significant impact on sediment deposition at the farm. Due to the relative submergence of the farm site and the slight emergence of the PVC tubes above the substrate, the tubes will have little effect on waves and currents. Each ½-acre of the farm planted with PVC tubes will accumulate less than a square meter of sediment. This sediment will easily be redistributed once the tubes are removed. *Osborne Testimony.* Once the tubes are removed, the beach returns to natural conditions. *Houghton Testimony.*

[7]

Bivalves, including geoducks, are filter feeders, consuming plankton naturally found in marine waters. Petitioners' experts raise questions about the ingestion of forage fish larvae by geoducks. They testified that there is insufficient data on this question but that it could hypothetically happen. *Penttila Testimony; Daley Testimony.* Longbranch Shellfish's expert

was able to rebut these concerns regarding predation of zooplankton by geoducks. The filtration rate of geoducks is relatively low compared to other bivalves. There is no access to seawater more than a few centimeters above the tip of the siphon, and therefore there is limited access by the geoducks to the water column. During the winter months, when forage fish spawn and feed, geoducks are relatively dormant and do not compete with forage fish or salmon for food resources. *Davis Testimony; Ex. L14.* An earlier study suggests that geoducks feed exclusively on phytoplankton and not zooplankton. *Ex. L9V at 97.* There is no evidence that farmed geoduck will cause adverse impacts to forage fish or salmon by depleting food resources.

[8]

Petitioners posited that the farm could adversely affect forage fish because geoducks will consume forage fish larvae. Petitioners presented no evidence to support this hypothesis. Geoducks do not typically ingest particles the size of forage fish larvae. The geoduck bivalve gill is not designed to ingest such relatively large particles. Although ingestion of forage fish larvae is technically possible, it would happen only infrequently and would not adversely impact forage fish. *Davis Testimony.* Petitioners raise concerns about impacts from the high density of geoducks in the farmed areas, but fail to cite to any evidence of these impacts. Respondent's expert indicated that a high density of geoducks may come at the expense of other bivalves, but it does not significantly change the ecological function of the area. *Houghton Testimony.*

[9]

Petitioners hypothesized the PVC used in geoduck farming would break down into microplastics and be consumed by marine life, causing harm. No credible evidence was

presented to support this claim. Conversely, there are studies of ambient concentrations of microplastics in the Puget Sound. Expert testimony presented to the Board considered these studies and concluded the level of microplastics in Puget Sound is "substantially less" than what might cause a significant impact. Further, conditions at the Longbranch site, including low UV exposure, low wave energy, and the likelihood debris will be transported onshore and collected by the owners, minimize the possibility that equipment from the farm will result in microplastics. Any debris that does permanently escape the farm to deeper waters will not degrade or break into microplastics due to the lack of UV exposure and wave energy at those depths. *Baker Testimony.* Additional expert testimony described the absence of plastic in the stomach contents of 235 fish captured near active geoduck tube fields. *VanBlaricom Testimony.* Finally, laboratory test results of sediment samples taken from within active geoduck tube fields demonstrated the absence of microplastics. *Baker Testimony; Ex. L5, Appendix B.* There is no credible evidence that microplastics will result from the use of aquaculture gear at the farm or harm the environment.

[10]

Evidence also does not support a claim that potential marine debris (macro) from the farm will cause damage to the environment. Longbranch Shellfish will weekly patrol the beach for marine debris. *Ex. L84, Condition 15.* Longbranch Shellfish also will store unused aquaculture gear in an existing shed located upland of the farm. *Schoos Testimony.* Although Longbranch Shellfish will store nets and tubes out of the sun inside a shed, this is not a condition of the Permit. *See Ex. L84.* No evidence was presented to justify a condition of approval that

PVC tubes and net caps used at the farm be labeled. Moreover, labeling net caps likely would involve introducing additional gear into marine waters, such as zip ties and tags. *Schoos Testimony*. This would contradict the purpose of reducing potential marine debris from the farm.

[11]

Expert testimony presented at the hearing also establishes that the potential release of chemicals from PVC used in geoduck aquaculture does not pose a risk to the environment. This testimony was based on laboratory studies performed on PVC tubes used in geoduck aquaculture and sediment samples taken from active geoduck tube fields. Those studies identified "very, very little" metal in the PVC and demonstrated that any potential release of metals from the PVC would not exceed ambient concentrations. *Schoof Testimony; Exs. L2, L66 and L67*. Credible expert testimony concludes that the amount of chemicals potentially released from the PVC is so minute that it cannot be measured in the environment. *Schoof Testimony*. Additionally, due to the "negligible potential" for the farm to generate microplastics, there is no significant potential for a release of chemicals resulting in toxicological harm to humans or the environment. *Schoof Testimony*. The use of PVC tubes for geoduck aquaculture will not adversely affect the environment.

[12]

The Longbranch farm will be located at a tidal elevation of between +2 and -3 feet. *Schoos Testimony*. Sand lance spawn in areas between +5 and +11 feet in tidal elevation. Surf smelt spawn in areas between +7 and +11 feet in tidal elevation. It is possible that sand lance or surf smelt will spawn shoreward of the planted geoduck. *Penttila Testimony*. However, the

difference between +5 feet in tidal elevation and +2 feet in tidal elevation at the farm (between the farm and sand lance spawning) can be between 75 and 150 or more horizontal feet. *Houghton Testimony.* Farm activities are highly unlikely to physically overlap with potential spawning areas.

[13]

Petitioners' expert testified that spawning areas for surf smelt and sand lance are essentially silt-free. He found sand lance spawning directly on the farm site, and surf smelt spawning on nearby land to the north of the farm site. He testified that he did not have information on how fish react to people working on the beach, but is mostly concerned about silt moving into spawning areas after a harvest occurs. Silt covered eggs experience delays in hatching, which can affect survival of larvae. *Penttila Testimony; Ex. P111.* Measures can be taken to avoid impacts of harvest to forage fish during spawning season. These measures include doing a habitat survey prior to harvest during the spawning season, and if eggs are found, delaying the harvest until after the eggs have incubated and hatched. *Penttila Testimony.* The farm is subject to the most current version of the Washington State Geoduck Growers Environmental Code of Practice. *See Condition 15, Ex. 84 at 4.* This Code contains seven suggested strategies for geoduck cultivation and harvesting, but none of these strategies is mandated. One of the recommended strategies is timing harvesting activities to a period when species of concern will not be present. *Ex. L42 at 86 – 88.*

[14]

Petitioners' expert opined that harvest of geoducks could "possibly have deposition over sand lance spawning beds" in the parcels north of the farm. *Johannessen Testimony.* Appellants' expert, however, did not present any evidence supporting that claim. Expert testimony presented by Longbranch Shellfish was based on site-specific sediment sampling and harvest sediment plume modeling customized to the conditions of the farm site. These studies demonstrate that the site's substrate has a small percentage of fine sediment (5%) and a large distance between potential spawning areas and harvest areas. Sands will drop out of any harvest sediment plume within just a few meters of the harvest site. Fine sediments will drop out and settle farther from the harvest site, but before reaching potential spawning areas. Further, a daily-occurring phenomenon called "turbid fringe" on rising and falling tides prevents accumulation of fine sediment in the foreshore. Similarly, "bed load transport" is unlikely to project fine sediments onto the foreshore. Wind-related wave heights are relatively small near the site. The site is a relatively low energy site due to some sheltering. *Osborne Testimony.* Sediment suspended in harvest plumes is unlikely to settle or accumulate in forage fish spawning areas. *Osborne Testimony; Houghton Testimony.* Although Petitioners' expert critiqued the site-specific modeling results, Petitioners did not present evidence of their own demonstrating geoduck harvesting at the farm would result in deposition of sediment over sand lance spawning beds.

[15]

Petitioners' expert also expressed concern that the harvesting process can change the grain structure of the beach because fine sediments and sands will be liquefied and transported out of the area. He noted that there was very little harvest and post-harvest data. In addition, he testified about visiting a site soon after a harvest, and the beach was very soft. Mr. Johannessen, however, did not do his own modeling or sediment sampling, and has not been to a geoduck site post-harvest. *Johannessen Testimony.*

[16]

Longbranch Shellfish's experts indicated that the beach can restore itself after two or three tidal cycles. *Osborne Testimony, Davis Testimony; Ex. L8.* Depending on the substrate, geoduck harvesters have been able to replant a bed that has been harvested in a couple of weeks. It is likely that the area Mr. Johannessen visited where he thought the beach was soft was actually a ghost shrimp bed because the geoduck area that was harvested was still underwater at the time of this visit. *Phipps Testimony.* Although Petitioners raised some concerns about the impacts of harvesting on the sediment structure at the beach, they did not meet their burden of showing a probable significant adverse impact.

[17]

Appellants claimed the harvest of geoducks would harm the benthic community. This claim is the subject of a recent scientific study conducted by the University of Washington Sea Grant. The study concludes that harvest impacts are of short duration and insignificant in consequence. Following geoduck harvest, both the abundance and diversity of organisms

quickly return. *VanBlaricom Testimony; Ex. L18.* A similar scientific study with similar results was recently conducted by researchers in British Columbia. *Ex. L19.* Expert testimony presented at the hearing also indicates that geoduck harvest disturbance is within the range of natural disturbances and that such disturbances are in fact necessary for the health of the ecosystem. *VanBlaricom Testimony.*

[18]

Expert testimony presented by Longbranch Shellfish addressed the potential effects on juvenile salmon of sediment plumes from harvesting. The expert testified that geoduck harvesting at the farm will create sediment plumes that are comprised of clean sediments, of short duration, and localized in nature. *Houghton Testimony.* The National Marine Fisheries Service (NMFS) also analyzed the potential impacts of geoduck harvest on the migratory behavior of Chinook salmon and found that any degradation of forage conditions would be temporary and localized following a geoduck harvest. NMFS concluded that juvenile salmonids could avoid any disturbance and pass through the work area. *Ex. L108 at 10.* The Board finds that Petitioners have not demonstrated significant adverse impacts to fish, including salmonids, will result from sediment plumes generated by geoduck harvesting at the farm.

[19]

Ecology intervened in this case as a Respondent. Ecology is the agency tasked with developing guidance to assist in the implementation of the Shoreline Management Act (SMA). Ecology staff testified at the hearing that while the SMA seeks to protect important ecological resources, it also fosters reasonable and appropriate uses. Water dependent uses are given

priority over many other types of shoreline uses. Ecology staff testified the Longbranch farm, as conditioned by the Examiner, is consistent with the SMA and with the protection of the shorelines. *Lund Testimony.*

Ecology's guidelines specifically call out aquaculture as an activity of statewide interest. WAC 173-26-241(3)(b). The importance of shellfish aquaculture as an activity of statewide interest is emphasized by the Washington Shellfish Initiative, announced by Governor Gregoire on December 9, 2011. *Ex. E2.*

Ecology also is responsible for issuing section 401 water quality certifications under the federal Clean Water Act. The permittee is required to obtain a section 401 certification, which requires the farm to comply with water quality standards and protect beneficial uses. *Lund Testimony.*

[20]

Pierce County planning staff and Longbranch Shellfish engaged in a multi-year dialogue concerning the potential environmental impacts of the Longbranch farm. *Risvold Testimony; Booth Testimony; Exs. L20-L24, L26-L33.* Staff testified that the County had adequate environmental information on which to base its decision to issue the DNS for the farm. *Booth Testimony.* When viewed in its entirety, the record supporting the County's decision demonstrates the County was diligent, conscientious, and comprehensive in its review of the Longbranch application.

[21]

The Longbranch farm is not dependent on any existing or subsequent development. *Schoos Testimony.* No evidence was presented that similar projects will be proposed and approved under applicable regulations near the farm. Approval of the SDP for the Longbranch farm does not set a precedent for approvals of subsequent SDP applications for geoduck aquaculture because of the need to examine specific site conditions. Petitioners' expert testified that probable significant adverse impacts would result if there were six acres of actively farmed tidelands. *Johannessen Testimony.* The combined acreage of geoduck farming between the Longbranch Shellfish farm and the adjacent Aquaduck farm is less than six acres. *Schoos Testimony.* The testimony presented at the hearing did not demonstrate the Longbranch farm will result in impacts that risk harm to habitat, loss of community use, or a significant degradation of views and aesthetic values.

[22]

The Board finds that the SDP should be further conditioned to match the practices the farm owners' state they will employ, to make sure that conditions are enforceable, and to ensure that areas where forage fish have spawned are protected from harvest until after the eggs are hatched. The Board finds that the geoduck operation should store all nets and tubes out of the sun inside a shed, that the suggested strategies for geoduck culture and harvest from the Washington State Geoduck Growers Environmental Code of Practice (Environmental Code of Practice) should be mandatory rather than suggested practices, and that no harvesting may occur when the eggs of forage fish are present in the growing area (shellfish beds and adjacent

tidelands) until after the eggs have hatched. The evidence demonstrates juvenile salmonids are able to avoid the area of disturbance. Therefore, the Board finds that the implementation of the Environmental Code of Practice provides the necessary protection of salmonids, and it is not necessary to fully prohibit harvest when juvenile salmonids may be migrating through the area.

[23]

Any Conclusion of Law deemed to be properly considered a Finding of Fact is hereby adopted as such.

LEGAL ISSUES

The parties submitted legal issues to the Board, which were set forth in the Amended Pre-Hearing Order. An additional legal issue was added in a letter dated November 2, 2011, from the original presiding officer. The combined list of legal issues in this appeal is as follows:

Shoreline Management Act Issues

1. Was the County's approval of the Longbranch Substantial Development Permit inconsistent with and in violation of the goals and requirements of the Shoreline Management Act (SMA), including RCW 90.58.020 and 90.58.140, the SMA guidelines, including WAC 173-27-140 and 173-27-150, the goals and policies of the Pierce County Shoreline Master Program (PSMP), including the Aquacultural Practices Element, Element 5B, and the Pierce County Shoreline Management Use Regulations, PCC Title 20, including PCC 20.24 Aquaculture Practices, because it authorizes aquacultural operations which are not conducted in a manner that precludes damage to specific fragile areas and existing aquatic resources?

2. Was the County's approval of the Longbranch Substantial Development Permit inconsistent with and in violation of the goals and requirements of the Shoreline Management Act (SMA), RCW 90.58.020 and 90.58.140, the SMA guidelines, including WAC 173-27-140 and 173-27-150, the goals and policies of the Pierce County Shoreline Master Program (PSMP), including the Aquacultural Practices Element, Element 5B, and the Pierce County Shoreline Management Use Regulations, PCC Title 20, including PCC

20.24 Aquaculture Practices, because it authorizes aquacultural operations without requiring those operations to maintain the highest possible level of environment quality?

3. Was the County's approval of the Longbranch Substantial Development Permit inconsistent with and in violation of the goals and requirements of the Shoreline Management Act (SMA), RCW 90.58.020 and 90.58.140, the SMA guidelines, including WAC 173-27-140 and 173-27-150, the goals and policies of the Pierce County Shoreline Master Program (PSMP), including the Aquacultural Practices Element, Element 5B, and the Pierce County Shoreline Management Use Regulations, PCC 20.24 Aquaculture Practices, because the Hearing Examiner erred in eliminating a conditions of approval requiring identification markings on tubes and screens and compliance status/monitoring reports?

4. Was the County's approval of the Longbranch Substantial Development Permit inconsistent with and in violation of the goals and requirements of the Shoreline Management Act (SMA), RCW 90.58.020 and 90.58.140, the SMA guidelines, including WAC 173-27-140 and 173-27-150, the goals and policies of the Pierce County Shoreline Master Program (PSMP), including the Aquacultural Practices Element, Element 5B, and the Pierce County Shoreline Management Use Regulations, PCC Title 20, including PCC 20.24 Aquaculture Practices, because the Hearing Examiner failed to include a condition precluding in-water harvesting?

5. Was the County's approval of the Longbranch Substantial Development Permit inconsistent with PCC 20.24.020(4)?

<u>State Environmental Policy Act Issues</u>

1. Should the Mitigated Determination of Non Significance be reversed and a Determination of Significance be issued because the proposed geoduck operation does, in fact, have probable significant adverse environmental impacts, viewed both in isolation and cumulatively, relating to the following issues on which an EIS should have been prepared as required by RCW 43.21C.031 and, for which, cumulative impacts should have been addressed as required by WAC 197-11-060(4):
    a. Significant adverse impacts on forage fish and other species that rely on forage fish, including endangered salmon populations, within Puget Sound:
    b. Significant adverse impacts on the Puget Sound ecosystem due to equipment debris, including various forms of plastics.

2. Should the Mitigated Determination of Non Significance (MDNS) be remanded because it was based in inadequate information in violation of WAC 197-11-080?

CONCLUSIONS OF LAW

[1]

The Board has jurisdiction over the parties and the subject matter in this case pursuant to RCW 90.58.180. The Board considers the scope and standard of review of the appealed action *de novo*, unless otherwise required by law. WAC 461-08-500(1).

[2]

Shoreline development must comply with SEPA, and be consistent with the SMA and local shoreline master program. *Washington Department of Natural Resources v. Kitsap County*, SHB No. 03-018 (Order Granting Partial Summary Judgment, Dec. 16, 2003) (citing *Bellevue Farm Owners Ass'n v. Shorelines Hearings Board,* 100 Wn. App. 341, 350 (2000), *rev. den.* 142 Wn.2d 1014, 16 P.3d 1265 (2000)). The Coalition, as the appealing party, has the burden of proof of proving the shoreline substantial development permit and any related conditions are inconsistent with the Shoreline Management Act and the County's SMP adopted under the SMA.

[3]

With respect to the challenge to the County's SEPA decision, the appealing party has the burden to show that the County's threshold determination is clearly erroneous. In the present case, the Board can invalidate the County's decision to issue a DNS only if it is firmly convinced that a mistake has been made by the County. *Sisley v. San Juan County*, 89 Wn.2d 78, 84, 569 P.2d 712 (1977); *Moss v. City of Bellingham*, 109 Wn. App. 6, 13, 31 P.3d 703 (2001). SEPA requires an environmental impact statement (EIS) only for "major actions having a probable significant, adverse environmental impact." *Echo Bay Community Ass'n v. Pierce County*, SHB

No. 05-027 (2006); RCW 43.21C.031(1). The Board must accord substantial weight to the agency's decision to issue a negative threshold determination and not require an EIS. *Boehm v. City of Vancouver*, 111 Wn. App. 711, 718, 47 P.3d 137 (2002); RCW 43.21C. 090. The Board will first address Petitioners' SEPA challenges, and then address Petitioners' issues regarding the SDP.

SEPA ISSUES

[4]

To establish the inadequacy of the conditions imposed by the County on the project under SEPA, the Coalition must present actual evidence of a probable significant adverse impact from the project that has not been adequately addressed by the County's negative threshold determination. See *McQuarrie v. Seattle*, SHB No. 08-033 (Order on Summary Judgment, April 27, 2009, at 15). For the DNS to survive judicial scrutiny, the record must demonstrate that environmental factors were considered in a manner sufficient to amount to prima facie compliance with the procedural requirements of SEPA and that the County's decision to issue the DNS was based on information sufficient to evaluate the proposal's environmental impact. *Wenatchee Sportsmen Ass'n v. Chelan County*, 141 Wn.2d 169, 176, 4 P.3d 123 (2000); *Anderson v. Pierce County*, 86 Wn. App. 290, 302, 936 P.2d 432 (1997). Furthermore, the included mitigation measures must be reasonable and capable of being accomplished. *Anderson at 302*; RCW 43.21C.060.

[5]

An impact is "probable" if it is likely or reasonably likely to occur. It is distinct from impacts that "merely have a possibility of occurring, but are remote or speculative." WAC 197-11-782. In reviewing whether an impact is "significant", it must have a reasonable likelihood of more than a moderate adverse impact on environmental quality. Significance involves both context and intensity. WAC 197-11-794.

[6]

Petitioners' witnesses provided their opinions about potential harm from sediment plumes to forage fish spawning beds, the potential for geoducks to consume forage fish larvae, the modification of habitat that may interfere with plant and animal activity, and the potential harm to the environment from marine debris. Petitioners' witnesses raised questions about potential impacts from the geoduck operation, but failed to introduce evidence that support their claims. Respondents' witnesses provided detailed, site-specific studies to rebut the testimony of the Petitioners' witnesses. The Petitioners failed to demonstrate that any of the potential impacts from the geoduck farm were "probable significant adverse impacts."

[7]

Petitioners rely primarily in this appeal on their assertion that additional information is needed in order to have reasonably sufficient information to evaluate the environmental impacts before the threshold determination can be properly made. WAC 197-11-335. Petitioners contend that until new scientific information is provided, the risks from operation of the geoduck farm are unknown and the risks to the shoreline are too great.

[8]

A record may have some limitations in the data but still contain enough information to evaluate the probable impacts of the proposal with sufficient precision to decide the threshold determination. Pierce County requested and obtained numerous scientific studies from Longbranch Shellfish. In addition, the County staff biologist participated in the Shellfish Aquaculture Regulatory Committee (SARC) convened by Ecology. SARC was responsible for developing recommendations for geoduck aquaculture regulations for local shoreline master programs. Both the County senior planner and the staff biologist worked on the update to the Pierce County SMP. Ecology testified that the proposed project as approved by the County meets Ecology's update to the SMA Guidelines regarding geoduck aquaculture. The Sea Grant studies have resulted in preliminary assessments of the nature of impacts from geoduck aquaculture that do not support a finding of significance in this case. The fact that all of the Sea Grant studies have not been completed, or not completed as comprehensively as Petitioners desire, is not a reason to deny this project. The County engaged in an extensive review of the potential impacts from the proposed geoduck farm and based its threshold determination on sound science. As the science further evolves, Ecology will update its SMA Guidelines, and the new scientific information will be considered as part of the permitting process for shorelines permits and other related permits.

[9]

Petitioners also assert that SEPA requires the County to take into account that "several marginal impacts when considered together may result in a significant adverse impact." WAC 197-11-330(3)(c). The only identified potential impacts from the geoduck farm, however, are transitory in nature. Even when the potential impacts from the proposed project are considered together, Petitioners have not demonstrated that there will be a probable significant adverse impact on forage fish or other wildlife species.

Petitioners contend that impacts from the proposed geoduck farm need to be considered cumulatively with other proposals or reasonably foreseeable projects in the area. The testimony supported the DNS in this regard in that nearby land and water uses were considered. Under SEPA, however, it is unnecessary to conduct a cumulative impact analysis of speculative future actions. *Boehm v. City of Vancouver*, 111 Wn. App. 711, 720, 47 P.3d 137 (2002); *Gebbers v. Okanogan County PUD No. 1*, 144 Wn. App. 371, 386, 183 P.3d 324 (2008); *SEAPC v. Cammack II Orchards*, 49 Wn. App. 609, 614, 744 P.2d 1101 (1987). Further farm owner Barbara Schoos testified that the proposed farm is not part of a larger proposal and therefore was properly defined for purposes of the scope of the proposal analyzed. No further cumulative impact analysis under SEPA is therefore necessary.

[10]

Because Petitioners were unable to demonstrate that the proposed Longbranch Shellfish geoduck farm was likely to result in probable significant adverse environmental impacts, they did not meet their burden of showing that the County's issuance of the DNS was clearly

erroneous. The Board concludes that the County's extensive review of scientific information and its participation in the SARC process provided the County with sufficient information to evaluate the environmental impacts of the proposed geoduck farm and make a threshold determination. The Board therefore denies Petitioners' SEPA claims.

SDP ISSUES

[11]

Any shoreline development undertaken in Washington must be consistent with the policies and procedures of the SMA and its associated regulations, and the applicable local shoreline master program. RCW 90.58.140(1); WAC 173-27-150. With respect to compliance with the SMA and the local shoreline master program, Petitioners argue that geoduck aquaculture by its very nature alters the nearshore habitat for the propagation of non-native species, causes the loss of nearshore habitat diversity thereby resulting in a net loss in a primary ecological function of the shoreline environment, impacts vital life stages of forage fish, impacts salmon by reducing food resources and exposing juvenile migrating salmon to predation, and impacts wildlife through the introduction of plastic debris. Petitioners question the appropriateness of geoduck aquaculture as an industry and not just Longbranch Shellfish's proposed project. Petitioners assert "*Allowing for intensive monoculture operations will forever change this fragile and valuable environment of not only Pierce County, but also of Puget Sound.*" Petitioners' Closing Brief at 2.

[12]

Aquaculture is a desired and preferred water-dependent use of the shoreline. *Cruver v. San Juan County and Webb*, SHB No. 202 (1976). Aquaculture is of statewide interest and benefit, and when properly designed and managed, does not impose on navigation or recreational uses of nearshore waters and does not interfere with shoreline and upland residential uses. *Penn Cove Seafarms v. Island County*, SHB No. 84-4 (1984) at 9. The State identifies aquaculture as an activity of statewide interest, and when properly managed, an activity that can result in long-term over short-term benefit and protection of the resources and ecology of the shoreline. *Marnin and Cook v. Mason County and Ecology*, SHB No. 07-021 (Modified Findings of Fact, Conclusions of Law, and Order, Feb. 6, 2008) (referencing WAC 173-27-241(3)(b)).

[13]

The proposed geoduck farm is located within an area designated as a Rural Environment under Pierce County's SMP. A Rural Environment has the potential for supporting agricultural or recreational development. Aquaculture is recognized under state law as a type of agriculture. PCC 20.12.010; RCW 15.85.010. Pierce County's SMP encourages the use of shoreline areas for producing commodities for human consumption, promotes the siting of aquaculture operations in areas well suited for such areas, and gives priority to aquaculture over other uses. PCC 20.24.020(A)(1); County SMP at 22-23; PCC 20.24.020(A)(10).

[14]

Petitioners assert that the proposed project conflicts with the SMA because it results in the net loss of ecological function. Petitioners further assert that commercial geoduck

aquaculture adversely impacts fragile areas of the shoreline, as well as native species in violation of County SMP regulations. PCC 20.24.020. As discussed earlier in the opinion, Petitioners failed to produce evidence of such impacts to the shoreline or native species. In addition, Petitioners fail to show any water quality violations as related to the SDP because the sediment plumes from harvesting are of short duration and there is no indication that the PVC tubes will cause environmental harm. The proposed project is required to comply with any Section 401 water quality certification conditions imposed by Ecology. Longbranch Shellfish must comply with the 37 conditions required by the Hearing Examiner as part of the SDP approval, as well as the additional conditions set forth by the Board in this Order, and comply with all applicable federal, state, and local laws, regulations, and ordinances.

[15]

A cumulative impact analysis is not required for an SDP approval under the SMA. The Board has concluded that it is not precluded, however, from considering cumulative effects of an SDP approval and set forth some guidelines when such review is appropriate. *Fladseth v. Mason County*, SHB No. 05-026 (2007). First, the Board concluded that a cumulative impacts analysis is less appropriate for a project not located on a shoreline of statewide significance. Next, the Board stated that cumulative impacts for SDP applications is warranted if "there is proof of impacts that risk harm to habitat, loss of community use, or a significant degradation of views and aesthetic values." *Id at 25*. With respect to geoduck aquaculture, the Board concludes that each separate geoduck aquaculture proposal will need to be reviewed on its own particular site characteristics. For example, if a particular proposed site had currents that made it likely to

transport sediments over known spawning areas of forage fish, the Board would give that particular proposed project considerable scrutiny. The Board rejects any suggestion by the Petitioners that a cumulative impacts analysis under the SMA is required in this case, given the circumstances of the Longbranch Shellfish site.

[16]

Ecology concluded that the SDP issued for Longbranch Shellfish's geoduck farm is consistent with the SMA, the Pierce County SMP, and Ecology's new guidelines pertaining to geoduck aquaculture. Ecology's interpretation of the law is entitled to great weight. *Hama Hama Co. v. Shorelines Hearings Board*, 85 Wn.2d 441, 448, 536 P.2d 157 (1975). The Legislature could have imposed a moratorium on geoduck aquaculture in 2007 when it recognized the need for more scientific study of industry practices, but it did not do so. The SMA does not prohibit development of the shorelines but instead provides for permitted uses that are "designed and constructed in a manner to minimize, insofar as practical, any resultant damage to the ecology and environment of the shoreline area and any interference with the public's use of the water." RCW 90.58.020; *Jarvis v. Kitsap County*, SHB No. 08-001 (Findings of Fact and Conclusions of Law and Order, July 7, 2008) at 22. The importance of geoduck aquaculture to the State was recently restated in the Washington Shellfish Initiative announced on December 9, 2011. Absent substantial evidence to support Petitioners' assertions of negative impacts, the Board concludes that Petitioners failed to meet their burden of showing that the SDP is inconsistent with either the SMA or the Pierce County SMP. The Board dismisses all of the Petitioners SDP-related claims.

[17]

Any Finding of Fact deemed to be properly considered a Conclusion of Law is hereby adopted as such.

Based upon the foregoing Findings of Fact and Conclusions of Law, the Board enters the following:

ORDER

Pierce County's decision approving the Determination of Nonsignificance under the State Environmental Policy Act is AFFIRMED. Pierce County's issuance of the Shoreline Substantial Development Permit is AFFIRMED as conditioned by the County with the following modifications:

1. Condition 11 of the SDP, as set forth in the Pierce County Hearing Examiner's Decision on Reconsideration, shall be modified as follows:
   "The farm shall be subject to the most current version of the Washington State Geoduck Growers Environmental Code of Practice, but the seven suggested strategies for geoduck culture listed on page 88 of the Pacific Coast Shellfish Growers Association Environmental Codes of Practice (June 14, 2011) are mandatory requirements rather than optional practices."
2. All nets and tubes not in active use will be stored out of the sun and inside a shed.
3. In addition to following the protocol recommended in the Environmental Code of Practice when endangered species or forage fish are identified in the growing area,[2] no harvesting may occur during the sand lance or surf smelt spawning seasons until a spawning survey is conducted. If sand lance or surf smelt spawn are present in the growing area to be harvested or adjacent tidelands, then no harvest activities may occur until the eggs are hatched and therefore extreme caution should be taken to avoid impact and minimize disturbance of sand lance or surf smelt larvae that are present.

[2] Ex. L42 at 24.

SO ORDERED this 13th day of July, 2012.

SHORELINES HEARINGS BOARD

William H. Lynch, Presiding

Kathleen D. Mix, Chair

Tom McDonald, Member

Pamela Krueger, Member

Jon Wagner, Member

/See Dissent/
Dave Somers, Member

Appendix E

SHORELINES HEARINGS BOARD
STATE OF WASHINGTON

FRIENDS OF THE SAN JUANS, a Washington not-for-profit corporation, Petitioner, v. SAN JUAN COUNTY, a political subdivision and charter county of the State of Washington; ARCHITECTS & CONSULTANTS, LLC, a Washington Limited Liability Company, Chris Hughes, Registered Agent and Applicant; and the WASHINGTON STATE DEPARTMENT OF ECOLOGY, Respondent.	SHB NO. 08-005 FINDINGS OF FACT AND CONCLUSIONS OF LAW AND ORDER

This appeal involves San Juan County's issuance of a shoreline substantial development permit (SSDP) on February 1, 2008 for construction of a dock on the northwestern tip of Pearl Island, part of the San Juan Islands in the State of Washington. The Shorelines Hearings Board (Board) held a hearing on July 2 and 3, 2008 in Roche Harbor, Washington, and on July 10, 2008, in Lacey, Washington. The Board hearing this matter was comprised of Kathleen D. Mix, Chair, and Judy Wilson and Mary-Alyce Burleigh, members. Cassandra Noble, Administrative Appeals Judge, presided for the Board. Petitioner Friends of the San Juans (FOSJ) was represented by attorney Kyle A. Loring. Respondents Architects and Consultants, LLC and

Chris Hughes (Mr. Hughes) were represented by attorney Stephanie Johnson O'Day, and Respondent San Juan County was represented by Deputy Prosecuting Attorney Karen E. Vedder. Kim L. Otis of Gene Barker & Associates, Olympia, Washington provided court reporting services. On July 2, 2008, the Board conducted a site visit. Witnesses were sworn and heard, exhibits were introduced, and the parties presented arguments to the Board. Based upon the evidence presented, the Board makes the following

FINDINGS OF FACT

1.

On February 1, 2008, San Juan County (the County) approved Shoreline Substantial Development Permit Application No. 05SJ013 pursuant to a January 14, 2008 settlement agreement between the County and Mr. Hughes, and a San Juan County Hearing Examiner's decision dated October 27, 2006. *Exhibit R-Q.* The County approved a single family dock (the dock) on Lot 23, located on the northwestern shoreline at the tip of Pearl Island, within Spieden Channel, in the San Juan Islands, San Juan County, in the State of Washington. *Exhibit P-A, Joint Aquatic Resources Permit Application (JARPA), p. 42, 43; Exhibit P-JJJ.* Pearl Island lies directly to the north of the port of Roche Harbor, a residential town and also a busy destination area of hotels, shops, restaurants, marinas, and recreation activities.

2.

Lot 23, an undeveloped .47 acre property, is located in the Rural Residential environmental designation of the San Juan County Shoreline Master Program (SJSMP). Pearl

Island lies within waters classified as shorelines of state-wide significance. *Exhibit R-Q-1.* Lot 23, is owned by Respondent A-C Successor, LLC, and Chris Hughes, Registered Agent. *Exhibit R-Q-1; Exhibit P-G.* Mr. Hughes' family has owned property on Pearl Island for about 40 years, and throughout his life, Mr. Hughes has spent considerable time on the island vacationing, picnicking, and camping. *Testimony of Hughes.*

3.

There are currently no docks on the northwestern tip of Pearl Island, nor along the sandy northern shore that runs away from Lot 23 along much of the north shore of the island. In contrast to the busy harbor views from the south and eastern lots on Pearl Island, the view from Lot 23 is of undeveloped and undisturbed islands to the north and east, as well as expansive water views. There is one joint use dock two lots away from the proposed dock on Lot 20 that faces South. There are a total of 11 docks on Pearl Island, the majority of which surround the south and eastern areas of the island in the area closest to, or facing toward Roche Harbor. *See Exhibit R-A, R-W.* Each of these docks serves multiple lots and are considered joint use docks.

4.

Pearl Island is a small, heavily wooded island with an elongated teardrop shape oriented east to west, with the longest sides of the island on the north and south. The island is privately owned and has been entirely subdivided. A single line of lots lie around the edge of Pearl Island, which has a mostly rocky shore, except for a long stretch of sandy beach on the north side. *Exhibit R-A.* The Pearl Island subdivision includes an open common area in the center of the

widest part of the island, which is Lot 22. Lot 22 includes an eastern passageway to the beach, and an easement extending down the center of the island that provides a rudimentary road for accessing the shore-side lots, all the way to Lots 21 and 23 at the west end of the island. There is also an informal trail that encircles the island on the outer edge. *Exhibits R-C; P-JJJ; R-W.* In 2005, Mr. Hughes had Lot 23 on the market for sale, and the real estate advertising noted the existence of the access easement as a feature of the property. Mr. Hughes has since taken Lot 23 off the market. *Exhibit P-D, p. 3; Testimony of Hughes.*

5.

The waterfront portion of Lot 22 (the common area) is a barge dock site that can be, and is, used for bringing equipment, building materials, and other large items onto the island. A barge travels regularly between Roche Harbor on San Juan Island and Pearl Island. The mid-island easement is used in conjunction with the barge landing on Pearl Island to provide access for equipment and materials. *Exhibit P-N.* Property owners can access their property either by: 1) private boats and joint use docks or mooring buoys; 2) by the barge and the common area which adjoins the barge landing and the central trail; or 3) the informally developed trail along the shore. People either walk or use golf carts to get to and from the barge landing and to travel between lots. *Testimony of Fausko.*

6.

Pearl Island is not served by a private ferry, but it is located a short distance from San Juan Island, which is served by the Washington State Ferry System. *Exhibit P-A, JARPA, p. 56.*

No cars are allowed on Pearl Island. People regularly travel back and forth on the barge from the Roche Harbor Marina to Pearl Island, and use it for transporting larger items. The crossing takes no longer than four or five minutes. *Testimony of Fausko.* It is uncertain whether Lot 23 has a suitable place to land a dinghy or other small boat, but it would be possible to land a dinghy at either the barge dock or on one of the several neighbors' docks through a joint use agreement or by permission. During the winter, Mr. Hughes would have access to and joint use of his half-brother's dock. *Testimony of Hughes.*

7.

Pearl Island is not particularly hospitable for year-round residency. Most of Pearl Island property owners use their island property only part time, in the summer months. At the present time, Mr. Odd Fausko and his family are the only year-round residents of Pearl Island. Sometimes, in the winter, Mr. Fausko must move onto adjacent San Juan Island because the weather often limits his ability to travel safely over the water and land a boat at his dock. *Testimony of Fausko.* Winter weather and travel conditions limit the ability of those who are older or who have health conditions to live on the island year-round. Mr. Hughes testified that he has had some serious health issues, and that he knows that his half-brother moves off the island in the winter months. Mr. Hughes' half-brother plans to move off permanently when he gets a little older due to winter isolation. *Testimony of Hughes.* Particularly on the parts of the island that are more exposed to severe weather, longer docks are less stable due to wind and wave action at some times of the year. Several people use buoys and dinghy docks for safer

transport in the winter months. *Testimony of Fausko.* For these reasons, Pearl Island is primarily a place used seasonally, in the good weather.

8.

Mr. Hughes is not currently a full time resident of Pearl Island. He visits his Pearl Island property only a few times a year. *Testimony of Hughes.* Mr. Hughes owns another home with a dock on San Juan Island, just across the bay from the proposed dock site, where he now keeps a boat. *Exhibit P-V; Testimony of Hughes.*

9.

Lot 23 is currently unimproved. Mr. Hughes has applied for a building permit for a single-family home. He states that a single-family residence will be constructed on the site at some unknown time in the future. *Exhibit P-A, JARPA, p. 47.* As a condition of the SSDP, the County required that construction of the dock not begin until a building permit was issued for the house. *Exhibit P-C, p. 6.* Mr. Hughes testified at hearing that he plans to use the planned Pearl Island house to supplement his current full-time residence on San Juan Island. *Testimony of Hughes.* Even if a single-family residence is constructed on Lot 23, it is unlikely that Mr. Hughes' use of the property would be full time.

10.

Mr. Hughes' planned dock would extend into the water off of Lot 23 approximately 98 feet to the west and toward the main channel for boat traffic going to and from Roche Harbor. At hearing, there was some argument that the dock could pose a hazard to navigation, but, based

on the evidence and the site visit, the Board finds that the channel is sufficiently wide that it is unlikely the dock would pose a hazard to navigation. *Testimony of Hughes, Exhibit P-G; site visit.*

11.

San Juan County issued SSDP No. 05SJ013, authorizing Respondent Administrators and Consultants, LLC, and Chris Hughes, Registered Agent, (Mr. Hughes) to construct a single-family residential use pier, ramp, and float (dock). Mr. Hughes' proposed dock would be used for recreation and moorage. Mr. Hughes plans to moor boats of various sizes, from 20 to 30 feet, at the dock. *Exhibit P-A, JARPA, p. 23.* It is undisputed that the dock would extend over eelgrass beds that surround Pearl Island and that some percentage of the eelgrass will die as a result of placement of the dock at this location. Mr. Hughes has endeavored to design a dock that will minimize the loss of eelgrass at the site. The dock would extend 98 feet westerly over the water, with a float at the end. The dock's over water coverage would be approximately 543 square feet. *Exhibit R-Q-15.* To minimize shading of the water below the dock, the dock was designed with a six-foot width, which is now a more common design. The float would be oriented north-south, to help minimize shading of the existing eelgrass bed. The fixed pier will be 3 feet, 8 inches in width. A total of 75 percent of the total dock area, including the moorage float, the fixed pier, and the ramp, would be constructed of light penetrating grating material to the maximum extent possible. *Exhibit P-A, JARPA, P.31; Testimony of Wilcox.* To further reduce shading of the eelgrass bed, the float would be seasonally removed and stored at Roche

Harbor in the winter months. *Exhibit P-A, JARPA, p.21; Exhibit P-C, p.5; Testimony of Williams, Hughes.* The Board finds that the design of the dock would be as favorable to the environment as is possible under available current technology, but that this dock will still damage and eliminate at least a portion of the eelgrass bed surrounding Pearl Island. This fact was undisputed at hearing.

12.

The Hughes dock was designed pursuant to an experimental dock program of the Washington State Department of Fish and Wildlife (WDFW), designed to allow docks over eelgrass beds on an experimental basis. The docks in this program incorporated special design techniques to diminish or mitigate for adverse impacts on marine vegetation. Several parcels of property in San Juan County have docks that were built over eelgrass, but relatively few docks with a similar shore type as exists on Mr. Hughes' property have been built on Pearl Island and County-wide. *Exhibit P-FFF.* At the request of the County, WDFW has since discontinued its experimental dock program in San Juan County. *Exhibit R-H.* The County requested that the experimental dock program be discontinued because the County concluded that it directly conflicted with local environmentally sensitive area regulations, as well as the County shoreline master program. Further, the County determined that alternative research methods exist that can provide more informative results with less resource impact. *Exhibits P-C, p.5; P-CC.*

13.

All of the existing docks on Pearl Island are joint use docks that serve multiple owners by formal agreements between neighbors. *Exhibits R-W; P-K; Testimony of Fausko.* Mr. Hughes' half brother, John Hughes, also owns property on Pearl Island. John Hughes' property has a joint use dock on the opposite side of the island from Lot 23. John Hughes' joint use dock is used by a total of three lots by formal agreement. John Hughes has agreed that his half-brother, Mr. Hughes, may use the joint use dock during the winter months, but has not agreed that Mr. Hughes can use the dock during the summer months because it is fully utilized during that time. *Testimony of Hughes.*

14.

Pearl Island is surrounded by eelgrass beds of varying density. According to a survey conducted on behalf of Mr. Hughes on July 17 and 24, 2005, the proposed dock, including the float, the float landing, and the seaward end of the ramp would all be located over eelgrass beds (*Zostera marina*). *Exhibits R-E; P-A, Eelgrass Survey, JARPA, p. 47.* The County implements a requirement to separate overwater structures from vegetation, expressed in Appendix A of the Joint Aquatic Resources Permit Application Form (JARPA). No overwater structures may be constructed within 25 feet (horizontally) measured in all directions of macroalgae beds or eelgrass. The distance from the proposed dock to the surveyed eelgrass in this case is zero feet. The County also has a policy regarding the necessary vertical distance between structures and eelgrass. This requires that no floats or float support piling can be constructed within a 4-foot

depth elevation between the top of the float stopper and eelgrass in a zone 25 feet wide on both sides of a float. The elevation from the proposed Hughes float to the surveyed eelgrass in this case is 1.5 feet. *Exhibit P-A, JARPA, p. 24.*

15.

The Washington State Department of Ecology has determined that eelgrass is important because it provides a number of functions and values in the marine environment. Eelgrass functions and values are largely place specific. Ecology has designated eelgrass a saltwater habitat of special concern. Eelgrass serves essential functions in the developmental life history of fish and shellfish. WAC 220-110-250. It provides refuge sites and shelter from predators for fish and invertebrates, and for other small organisms. Eelgrass is a source of food for many marine animals and birds, and is habitat for red algae and other marine plants. It also provides physical stabilization of the nearshore area. Seagrasses baffle wave and tidal energy, protecting subtidal sediments and shorelines from erosion and can alter local and regional hydrography. Seagrasses such as eelgrass are the only rooted organisms in the near-shore region and they serve as the foundation for thousands of vertebrate and invertebrate species that use it for shelter, foraging, spawning habitat, and nurseries. For these reasons, protection of eelgrass and other seagrasses safeguards species richness, biodiversity, ecosystem structure, and many ecological processes. *Exhibits P-WW; P-Y; Testimony of Williams.*

16.

Eelgrass is particularly important in Washington State. Eelgrass plants grow on submerged, soft-bottom land within San Juan County and throughout Puget Sound. Eelgrass is protected by Washington State largely because of the many ecological services it proves such as spawning habitat for Pacific herring, out migrating corridors for juvenile salmon, and foraging grounds for Great Blue Heron and other species of birds. Eelgrass plants also provide significant economic benefits because of the many resource functions they support. *Exhibit P-Y; Testimony of Williams.*

17.

Because eelgrass occurs in shallow coastal areas, it is especially vulnerable to human-induced disturbances, including the placement of overwater structures such as docks. Even where light pervious grating is used, overwater floats will likely affect eelgrass density. The proliferation of residential overwater structures is a recognized threat to eelgrass in Puget Sound. A significant decline in eelgrass density has been documented as the result of placement of overwater structures over eelgrass beds. Such overwater structures can, in some instances, cause a total loss of eelgrass beds. *Exhibit P-X.*

18.

Damage to eelgrass can affect whole populations of fish, including threatened salmon, waterfowl, shellfish, and other animals. Eelgrass also serves to physically stabilize the state's shorelines by concentrating in nearshore areas where these animals live, feed, and spawn.

Exhibit P-O. There has been a marked decline in eelgrass and other sea grasses world-wide, which can be classified as a global crisis. This decline has accelerated in developed countries such as the United States. Due to the site-specific nature of the functions and values of eelgrass, protection of eelgrass beds is preferable to replacement of beds because the surrounding environment loses the functions and values that the destroyed eelgrass beds provide, and replacement efforts are not always successful, and can take a long time. *Testimony of Wille-Escheverria.* When seagrasses are damaged, restoration is expensive and uncertain. Many of the lost ecological services cannot be adequately restored, and the cumulative effects from loss of seagrasses such as eelgrass can degrade seagrass biomes on both local and regional scales. Documented success of restoration by replanting is rare. *Exhibit P-WW.* Also, at the place where eelgrass is lost, the bed begins to fragment and thin. Sharp, rapid decline can result because the eelgrass bed ceases to be self-sustaining. The evidence in this case from various scientific studies established that, in addition to the loss of eelgrass functions and values at the impact site, loss of patches of eelgrass will fragment the whole plant community, which contributes to the eventual decline of the entire eelgrass bed. *Exhibit P-EE, p. 9-11.* Because of this, the loss of eelgrass under the proposed dock has implications of cumulative effects beyond the mere number of shoots that will immediately disappear.

19.

Design measures cannot fully protect the eelgrass under and around a dock. Grating alone is not sufficient to completely mitigate the shadow effect on the seabed and its plants.

Testimony of Williams. In addition to shading from the structure, docks impact eelgrass beds in other ways. Additional shading results from moored boats surrounding and on top of decking, regardless of its composition. Boat use involves the introduction of chemical and biological contaminants, disruption of the surrounding waters from the use of boats by people, and the churning of water from propellers, which results in scouring of the sea bottom. *Testimony of Willie-Echeverria.*

20.

Mr. Hughes applied for a SSDP to build the dock on August 24, 2005. On March 3, 2006, the San Juan County Hearing Examiner (Hearing Examiner) denied Mr. Hughes's application for the SSDP. In connection with an appeal of the permit denial to this Board, the parties entered into a settlement agreement, which the Hearing Examiner subsequently reviewed and approved. The Hearing Examiner's approval included conditions that there be a reduction in the size of the dock and that Mr. Hughes obtain a building permit for a house prior to constructing the dock. Mr. Hughes was also required to complete an off-site eelgrass mitigation plan that formed part of the settlement agreement. On January 14, 2008, Mr. Hughes and the County reached a second settlement agreement to permit Mr. Hughes to construct the proposed dock in exchange for the proposed off-site mitigation that included a habitat management plan. In this January 14, 2008 settlement agreement, Mr. Hughes and the County accepted the off-site mitigation plan prepared for Mr. Hughes by Fairbanks Environmental Services, Inc. in accordance with the requirements of WDFW. *Exhibit R-Q.*

21.

The agreement between the County and Mr. Hughes, which became a term of the SSDP, required Mr. Hughes to complete "compensatory off-site mitigation" involving restoration of a part of an eelgrass bed located in Mosquito Pass, off the shoreline of Henry Island, approximately 1.3 miles from the proposed dock site. The agreement included removing an unpermitted buoy, chain, and anchor that had scoured out a swath of eelgrass on State Department of Natural Resources (DNR) property. DNR had never required the illegal buoy to be removed. Mr. Hughes agreed to submit a habitat management plan and a mitigation plan to the County (the off-site mitigation project) and a bond to ensure the successful completion of the project. Mr. Hughes purchased the illegal buoy from its owner and had, at the time of hearing, already completed the removal. The removal took less than a day, and cost no more than $1,000. *Testimony of Fairbanks*. Under the agreement with the County, Mr. Hughes would be allowed to construct his dock once he could demonstrate that eelgrass density in the Mosquito Pass buoy scour area had recovered to 60% of the density measured in an eelgrass control area. The mitigation would be deemed successful upon the return of 80% eelgrass density as measured in the control area. To ensure completion and success of the off-site mitigation project, Mr. Hughes was required to provide a $20,000 bond. The eelgrass bed at the off-site mitigation site has now nearly completely re-established on its own simply by removal of the buoy, chain, and anchor. Mr. Hughes did not have to plant any new eelgrass shoots. R-L, p. 11. The mitigation plan did not analyze the respective habitat values of the mitigation site versus the dock site, nor consider

the cumulative effect of multiple docks around Pearl Island and the resulting fragmentation of the eelgrass beds that surround the island. *Exhibit R-S; Testimony of Williams.*

22.

The State of Washington Department of Fish and Wildlife (WDFW) is the state agency responsible for issuing hydraulic project approvals for docks. Brian Williams (Mr. Williams) is the Regional Biologist who worked on the Hughes dock proposal for that agency. Mr. Williams has the authority to approve off-site mitigation plans submitted by WDWF permit applicants. He also implements the WDFW habitat incentives program statute, which allows the agency to enter into agreements with landowners for the enhancement of fish and wildlife habitat. WDFW was not a party to the agreement between Mr. Hughes and San Juan County, but did issue a hydraulic permit approval (HPA) for the Hughes dock on October 3, 2005, and issued a time extension and modification of the original HPA on July 20, 2007. The revised approval recognized the reduction in length of the dock to 98 feet from the original proposal and the off-site mitigation plan. Mr. Williams had used WDFW statutory authority and the implementing regulations for habitat incentive agreements and hydraulic project approvals to guide his approach to the Hughes off-site mitigation project. In his capacity as Regional Biologist, Mr. Williams approved the selection and design of Mr. Hughes' off-site mitigation project and he worked closely with Mr. Hughes' consultant, Chris Fairbanks, to design the off-site mitigation plan and the plan to monitor its success. *Testimony of Williams; Fairbanks.*

23.

The County approved the off-site mitigation plan pursuant to its Critical Areas Ordinance, under Sec. 18.30.160 of the San Juan County Code (SJCC) related to protection of fish and wildlife conservation areas. The County has not incorporated its Critical Areas Ordinance into the SJSMP, and no critical areas provisions have been approved as part of the SJSMP by the Department of Ecology.

24.

On February 1, 2008, the San Juan County Community Development and Planning Director approved Mr. Hughes' SSDP. On the face of the permit is the following language: "[p]ursuant to Chapter 90.58 RCW, a permit is hereby approved according to the Settlement Agreement and Hearing Examiner decision on remand, dated October 27, 2006." The permit stated that "development pursuant to this permit shall be undertaken according to the terms and conditions listed in the San Juan County Hearing Examiner's decision dated 10/27/2006 and the Settlement Agreement of 1/14/08, both of which are attached to this permit." The referenced settlement agreement states that, in addition to dock design mitigation as a condition of the permit, Hughes had also agreed "to undertake compensatory off-site mitigation measures to improve the marine environment." *Exhibit R-K.*

25.

Any Conclusion of Law deemed to be a Finding of Fact is hereby adopted as such.

From these Findings of Fact, the Board makes the following

CONCLUSIONS OF LAW

1.

The Board has jurisdiction over the parties and the subject matter of this case pursuant to RCW 90.58.180(1). Both the scope and standard of review for this matter is *de novo*. WAC 461-08-500(1). The Shoreline Management Act (SMA), Chapter 90.58 RCW, requires that all shoreline development conform with both the SMA and the local government's shoreline master program. RCW 90.58.080(2), *Buechel v. Dep't of Ecology,* 125 Wn.2d 196, 203-04, 884 P.2d 910 (1994). As the appealing parties, Petitioners, FOSJ, have the burden of proof and must establish that the SSDP approval is inconsistent with the requirements of the SMA or the San Juan County Shoreline Master Program (SJSMP). RCW 90.58.140(7); WAC 461-08-500(3).

2.

The Pre-Hearing Order identified nine legal issues, which framed the evidence and argument in the case. In its Order on Summary Judgment, the Board dismissed one issue and decided that the subject matter of two others (the off-site mitigation plan devised in conjunction with the County's Critical Areas Ordinance and the HPA) should be addressed in its decision on the merits, but only in connection with the Board's consideration of whether the permit complied with the SMA and the SJSMP (Issue 1). Within that framework, the remaining issues to be decided concern the following:

A. San Juan County Private Dock Criteria and Availability of Alternative Moorage (Issues 2 & 7)

B. Preservation of ecological functions ("no-net-loss" policies) (Issue 5) and potential cumulative impacts (Issue 8)

C. Whether the Off-Site Mitigation Plan Compensates for Impacts to the Environment (Issues 3 and 4)

D. Long-term benefits to the public versus short-term economic gain or convenience (SJSMP 3.2.A.1 and 3.4.F.3.b.) (Issue 6)

3.

The parties do not dispute that the shoreline of Pearl Island is a shoreline of statewide significance. SJCC 18.50.110; RCW 90.58.030((2)(e)(iii). The SMA provides preferences for certain types of uses and alterations to shorelines of statewide significance. In adopting guidelines for shorelines of statewide significance local governments must give preference to uses that:

(1) Recognize and protect the statewide interest over local interest;
(2) Preserve the natural character of the shoreline;
(3) Result in long term over short term benefit;
(4) Protect the resources and ecology of the shoreline;
(5) Increase public access to publicly owned areas of the shorelines;
(6) Increase recreational opportunities for the public in the shoreline;
(7) Provide for any other element as defined in RCW 90.58.100 deemed appropriate or necessary.

RCW 90.58.020.

4.

The SJCSMP must be construed to give effect to the objectives and purposes for which it was enacted. RCW 90.58.900. The SJSMP articulates policies that govern the permitting of shoreline uses in San Juan County. As does the SMA, these policies include preservation of the

natural character of shorelines of statewide significance, and permitting only uses that will produce long term benefits as opposed to short term benefits or conveniences. "The short term economic gain or convenience associated with a proposed development should be evaluated in relationship to long term and potentially costly impairments to the natural environment." SJSMP Goals and Policies 3.4.F.3.b. The County's shoreline management policies mirror the natural resource protection goals of the SMA, which emphasizes protection of shoreline natural resources. RCW 90.58.020. The County's policies address environmentally sensitive areas, those areas with especially fragile biophysical characteristics and/or significant environmental resources, which includes areas of fish and wildlife habitat. These policies require that the County work to "[p]reserve unique, rare and fragile shoreline resources," and discourage development on shorelines identified as sensitive or limit development in a manner that minimizes environmental damage. SJSMP Goals and Policies 3.4.D.1 and 3. To assure the preservation of natural resources, the County's policies include the preservation of critical marine wildlife habitat, particularly those that are breeding grounds, resting and feeding places for migratory birds, nursery areas, and habitats of endangered species. SJSMP Goals and Policies 3.2.F. Pearl Island is such a place. It is surrounded by eelgrass, a critical marine habitat that serves all those breeding, resting, feeding and nursery functions. The Board concludes that both state law and the SJSMP require that its decision in this case assure the protection and preservation of the natural resources that characterize Pearl Island and its surrounding marine habitat.

5.

San Juan County shoreline policies recognize that docks and piers are facilities that can interfere with the public use of public waters and tidelands. Docks can interfere with wave action from boats and can act as driftway barriers, disrupt aquatic and intertidal habitats, and affect water quality. For these reasons, the County's policies and shoreline regulations require that location and design conditions minimize adverse impacts to protect all forms of aquatic, littoral or terrestrial life including animals, fish, shellfish, birds, and plants, their habitats and their migratory routes. In approving boating facilities in San Juan County, the capacity of the shoreline site to absorb the impact must be considered. SJSMP Goals and Policies 3.5, SJCC 18.50.080.

A. San Juan County Criteria for Private Docks

6.

The San Juan County Code states the prerequisites for obtaining approval of any application for a dock or pier associated with a single-family residence. Applications for nonexempt docks and piers associated with single-family residences shall not be approved until:

> a. It can be shown by the applicant that existing facilities are not adequate or feasible for use;
>
> b. Alternative moorage is not adequate or feasible; and
>
> c. The applicant shall have the burden of providing the information requested for in subsections (A) and (B) of this section, and shall provide this information in a manner prescribed by the administrator.

SJCC 18.50.190.G.5.

7.

San Juan County has a strong policy to control the proliferation of docks along its shorelines, and, under the SJSMP, docks are not permitted outright. *Bishop v. San Juan County*, SHB No. 99-034 (May 16, 2000)(CL 12) (citations deleted). To spare San Juan County from the so-called "porcupine effect" created by numerous individual private docks and piers on the same shoreline, the SJCSMP contains distinct preferences relating to the development of docks and piers. SCC 18.50.190.C.1. In general, mooring buoys and floats are preferred over docks and piers, and joint-use docks are preferred over single-use docks. SJSMP Goals and Policies, docks and Piers, 3.5.C.6, SCC 18.50.190.C.2. In past cases, the Board has recognized San Juan County's preference for joint-use docks as appropriately protective of the environment and state-wide interests existing among these islands. *Shorett v. San Juan County*, SHB No. 06-038 (June 7, 2007) (CL 3) (citations deleted). All the docks that San Juan County has permitted on Pearl Island, or that pre-date the SJSMP, are joint use docks. The majority of these are associated with more than two lots. *Exhibit R-W.* The proposed Hughes dock would serve only one lot. Although several other lot owners declined to enter into a shared use agreement with Mr. Hughes, the evidence did not persuade the Board that all efforts at joint use had been exhausted in this case.

8.

In San Juan County's Rural Residential Shoreline Environmental Designation, docks are permitted subject to the policies and regulations of the SJSMP when they are associated with a

single-family residence. SCC 18.50.190G.5. In this case, there is no single-family residence on Lot 23. Mr. Hughes has applied for a building permit for a modest-sized house, but is not obligated to build any permitted house. Mr. Hughes, his family, and other residents of Pearl Island have been accessing their property on Pearl Island for many years without a dock on Lot 23. The Board concludes that Lot 23 does not qualify for a dock in the first instance because it is not "associated with" a single-family residence.

9.

Even if the Board were to conclude that the lack of a single-family residence did not preclude the construction of the dock, the Board concludes that the FOSJ have met their burden of demonstrating that the proposal fails to meet those parts of the SJSMP that address the adequacy or feasibility of alternative access methods. The Court of Appeals has held that SJSMP General Regulation No. 4 requires the Board to determine whether an applicant has demonstrated that existing facilities and alternative moorage are inadequate or not feasible and that, to make such a determination, the Board must consider how the dock is to be used. *Bellevue Farm Owners Association v. SHB,* 100 Wash. App. 341, 997 P.2d 380 (2000). In previous cases, the Board has clarified that the test in SJCC 18.50.190.G.5 is whether existing facilities, alternative moorage and alternative sites are 'enough or good enough for what is required or needed,' 'barely satisfactory,' 'suitable,' or 'capable of being used.' *Stanford v. San Juan County*, SHB No. 06-004, CL VI (2006) (citing *Inskeep v. San Juan County*, SHB No. 98-033 (1999), *aff'd.* San Juan County Superior Court No. 06-02-05158-1 (June 15, 2007)). An

applicant for a permit does not meet the criteria by showing that a private dock is more convenient to access and use than other facilities in the area. *Id.* at CL VI (citing *Close v. San Juan County*, SHB No. 99-021 (2000)) *Gosta & Carol Dagg, and Larry & Kathryn Enselman, Petitioners, v. San Juan County*, SHB No. 06-037 (2007), Summary Judgment Order.

10.

In this case, the proposed dock would be used for access to a lot that currently is unimproved with a single-family residence. Even if a house is built on Lot 23, it is likely to be used only on a seasonal basis, and as second home. Mr. Hughes has a current personal dock on San Juan Island, near the Roche Harbor Resort, and can quickly access Pearl Island through other means. Access to the island or the property via the barge, or through use of a buoy and small craft, is possible and reasonable. While less convenient than a personal dock off of Lot 23, these options are capable of use and are satisfactory options. In the winter, Mr. Hughes may also access the island by use of his brother's dock. Other joint use options may also be available, and have not been thoroughly explored. While the proposed dock would provide Mr. Hughes with a convenience, there are other feasible options available for accessing the property year-round. Therefore, Mr. Hughes failed to establish to the County that existing facilities are inadequate or infeasible for use, and the FOSJ met their burden before this Board to show that the issuance of the SSDP is inconsistent with the county shoreline regulations.

B. Preservation of Ecological Functions and Potential Cumulative Effects

11.

It is undisputed in this case that the proposed dock will damage and eliminate eelgrass. The evidence was insufficient for the Board to determine with any certainty the extent and long-term consequences of the damage that would result from this particular project. Even the experts before the Board were unsure of the extent of the loss that would occur. However, the evidence clearly established that, when eelgrass beds begin to fragment and thin, they are in decline and eventually will be unable to remain self-sustaining. *Exhibit P-EE, p. 9-11.* In the absence of evidence to the contrary, specific to Pearl Island eelgrass beds, the Board concludes that the elimination of eelgrass at the proposed dock site could contribute to the potential decline of the eelgrass bed, which would represent a significant loss of an environmental resource, contrary to the policies expressed in the SMA. RCW 90.58.020.

12.

Petitioners urge the Board to adopt a "no-net-loss" approach to projects that involve eelgrass beds. This position is based upon Ecology's rule requiring that shoreline master programs "include policies and regulations that assure no net loss of shoreline ecological functions resultant from residential development, including specific regulations for vegetation conservation requirements." WAC 173-26-241(3)(j). However, the Board agrees with the County's argument that implementation of the legislation directing the County to incorporate concepts of no-net loss into its shoreline master program does not require such an amendment

until 2012. The County has not yet amended the SJSMP, and WAC 173-26-241(3)(j) does not directly apply to the facts of this case.

13.

The western end of Pearl Island is still relatively undisturbed. The Board finds that there is a danger that the entire island will eventually be encircled by docks. This Board has held that development on a relatively undisturbed beach must be only to the degree and kind that will protect the natural processes and the scenic values. *Fladseth v. Mason County*, SHB No. 05-026 (2007). The Supreme Court has held that it is within the Board's statutory duties to be concerned over the ultimate cumulative impact of piecemeal development on the state's shorelines. *Hayes v. Yount*, 87 Wn.2d 280, 288, 552 P.2d 1038 (1976). It is proper for the SHB to consider the cumulative effects that become possible with the granting of a substantial development permit, recognizing that approval of one project can set a precedent for other similar projects. *Skagit County v. Department of Ecology*, 93 Wn.2d 742, 750, 613 P.2d 121 (1980). The Court said that, "[l]ogic and common sense suggest that numerous projects, each having no significant effect individually, may well have very significant effects when taken together." *Skagit County*, 93 Wn.2d at 750 (quoting *Hayes* at page 287).

14.

RCW 90.58.020 provides that development of the shorelines is to be done in a manner to protect the public's interest against adverse effects. This same statute sets forth additional

considerations for developments along shorelines of statewide significance in an order of preference. Among these additional factors to be considered under RCW 90.58.020, subsection (4) requires protection of the resources and ecology of the shoreline. The Board finds that by these provisions, the Legislature has particularly emphasized that it is important for shorelines to be able to provide their natural functions as shorelines. An undeveloped stretch of beach provides more environmental value than a developed area for fish, marine mammals, other wildlife, and vegetation, which derive great benefits from natural areas. Therefore, consideration of potential cumulative effects and precedential effects is warranted in any case where there is proof of impacts that risk harm to habitat. In such cases, a balancing of the interests of project proponents against those of the public is necessary. In light of the importance to the surrounding environment of the remaining stretches of Pearl Island that are in a more natural state, the Board concludes that the public interest controls.

C. Off-Site Mitigation

15.

The off-site mitigation plan in this case was designed not in response to specific requirements of the SJSMP, but rather, to satisfy the requirements of the hydraulic permit approval process of WDFW and pursuant to the laws and regulations administered by that agency. WAC Chapter 220-110. WDFW has the authority to approve off-site mitigation plans submitted by hydraulic permit applicants for the protection of fish life. RCW 77.55.241. The

County required the off-site mitigation under the authority of its critical areas code. SCC Chapter 18.30. The County's critical areas regulations require protection of fish and wildlife habitat conservation areas such as marine habitat areas, including all kelp and eelgrass beds. SJCC 18.30.160A.5. The mitigation plan was specifically incorporated into the shoreline permit though specific language. The County's critical areas regulations require the use of mitigation to the maximum extent feasible whenever any significant adverse impacts to habitat functions and values occur and according to a prescribed sequence (avoidance of impact, minimization of impact, rectifying or reducing the impact, or compensating through replacement or substitute resources). SJCC18.30.160A.5.B. However, the County's critical areas ordinance has not been incorporated into its shoreline master program, or approved by, Ecology.

16.

Neither the SMA nor the SJSMP provide this Board with criteria or ascertainable standards by which to evaluate the proposed off-site mitigation for the undisputed and expected loss of eelgrass habitat around the perimeter of Pearl Island as a result of this dock construction. There was no evidence in this case of the relationship between the loss of eelgrass at the proposed Hughes dock site and the eelgrass enhancement project 1.3 miles distant. Importantly, because the parties presented no evidence of the functions and values of the particular two eelgrass beds involved in this case, the Board has no factual basis upon which to determine or evaluate whether the loss of eelgrass at the Pearl Island site, with its attendant biological and other key functions is, in fact, mitigated to any degree by the proposed off-site mitigation

proposal. We do not find the counting of shoots of eelgrass at the two locations, as the parties have focused on, to be an adequate or sufficient indication of the quality of mitigation or, indeed, whether the impacts to the functions and values provided at Pearl Island can be mitigated at all.

17.

The County and Mr. Hughes present the off-site mitigation plan as analogous to wetland mitigation. However, the Board is unable to conclude from the evidence that these are equivalent processes. This is unlike other mitigation scenarios, particularly those involving wetlands, where specific regulations are capable of application are before us. Wetland mitigation is regulated by detailed standards that address the replacement of the destroyed functions of affected land and water. Wetland mitigation statutes and regulations address such issues as the appropriate location of mitigation, the relationship between the impacts and the curative measures in a specific proposal, consideration of the scope and degree of the impacts, and the enforceability of the mitigation plan. *See, e.g.* RCW Chapter 90.74, WAC 173-26, 173-351. Here, the Board is completely without such detailed guidance. The parties have merely provided the Board a private settlement agreement and asked us to approve it as sufficient off-site mitigation for the acknowledged loss of a significant amount of eelgrass around Pearl Island. We decline to do so because we are without standards by which to judge the plan.

D. Long Term Benefits vs. Short Term Convenience

19.

Consistent with state law, the SJSMP articulates goals and policies for the County's management of the San Juan County shorelines. Among the County's shoreline management goals are fostering "uses which protect the potential long-term benefits to the public against compromise for reasons of short-term economic gain or convenience," accommodation of preferred shoreline uses "while protecting and preserving shoreline resources and avoiding hazardous or sensitive areas," and ensuring that the location of shoreline developments is "appropriate to the site." SJSMP, *Element 3,* Sec. 3.2.A.1, 3 and 8.

20.

Because Pearl Island is also a shoreline of statewide significance, the Board reviews the priorities of use for such shorelines, as set out at RCW 90.58.020 and our earlier Conclusion of Law. We conclude that the proposed dock fails to protect statewide interests over local interests, fails to preserve the natural character of the shoreline or protect the resources and ecology of the shoreline, and favors short term benefit over long term benefit, contrary to the priorities set forth in the SMA. We reach this conclusion because the proposed dock will result in destruction of fragile and ecologically important eelgrass beds, which serve important ecological functions where they exist now. Further fragmentation of the eelgrass resource at Pearl Island, key to salmon rearing and recovery, would occur at the expense of long term state interests. Allowing a dock at this location would favor short term interests of convenient access, while allowing

permanent changes to the character of a natural shoreline of statewide significance. The Board concludes that the SMA's purpose of natural resource protection and the protection of the public interest has not been served.

21.

On balance, Mr. Hughes' desire for convenience does not outweigh the public's interest in preservation of fragile off-shore environment. In this case, the County's issuance of the SSDP failed to adequately protect the state's interest in the land, vegetation, wildlife, waters, and aquatic life around Pearl Island. Petitioner FOSJ has met its burden of proof and has established that the SSDP issued in this case is not consistent with the requirements of the Shoreline Management Act (SMA) and the San Juan County SMP. RCW 90.58.140(7); WAC 461-08-500(3).

22.

Any Finding of Fact deemed to be a Conclusion of Law is hereby adopted as such.

Based on the foregoing analysis, the Board enters the following

ORDER

San Juan County's decision approval of SSDP Application No. 05SJ013 is REVERSED and the application for approval of the A-C Successor, LLC, Chris Hughes dock is DENIED.

SO ORDERED this 25th day of August 2008.

SHORELINES HEARINGS BOARD

KATHLEEN D. MIX, Chair
MARY-ALYCE BURLEIGH, Member
JUDY WILSON, Member

Cassandra Noble, Presiding
Administrative Appeals Judge

Appendix F

BEFORE THE SHORELINES HEARINGS BOARD
STATE OF WASHINGTON

LOREN and JEANNIE FLADSETH, Petitioners, v. MASON COUNTY, Respondent, and NORTHSHORE NEIGHBORS FOR AN UNCLUTTERED SHORELINE, Intervenor.	SHB NO. 05-026 FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER

This appeal involves a proposal for a pier, ramp and float (PRF) project on the north shore of Hood Canal in Mason County near Belfair, Washington. Petitioners Loren and Jeannie Fladseth (the Fladseths) challenge Mason County's denial of their application for Shoreline Substantial Development Permit No. SHR2004-00027 on August 30, 2005 to build a PRF to serve their residential property. Appellant Loren Fladseth appeared *pro se*. Deputy Prosecuting Attorney T.J. Martin represented Mason County (the County), and Dennis Kenny appeared *pro*

se as representative of the Intervenor, Northshore Neighbors for an Uncluttered Shoreline (Northshore Neighbors). The Shorelines Hearings Board (SHB, Board) was comprised of William H. Lynch, Chair, Kathleen D. Mix, Andrea McNamara Doyle, Mary-Alyce Burleigh, Judy Wilson, and Peter Philley, members.[1] Administrative Appeals Judge, Cassandra Noble presided for the Board. Kim L. Otis of Gene Barker & Associates, Inc. provided court reporting services. The Board held a hearing on January 29, 2007, and conducted a site visit at that time. Witnesses were sworn and heard, exhibits were introduced, and the parties presented arguments to the Board. Based on the testimony from sworn witnesses, exhibits admitted and the arguments of the parties, the Board enters the following

FINDINGS OF FACT

[F1]

Loren and Jeannie Fladseth, along with their neighbors, Raymond and Barbara Sebastian, submitted a Joint Aquatic Resources Permit Application (JARPA), State Environmental Policy Act (SEPA) Environmental Checklist, and a Shoreline Permit Application to Mason County for a shoreline substantial development permit (SSDP) to construct a joint use pier, ramp, and float structure (PRF). *Exhibits R-6, R-8, & R-10.* The Fladseths and the Sebastians intend that the PRF would be used by their two families.[2]

[1] Board members Burleigh and Wilson were unable to attend a portion of the hearing, but listened to the recording, and participated in the decision.
[2] The Sebastians are not petitioners in this appeal.

[F2]

The Fladseths currently moor their boat on a buoy. Their PRF proposal consists of a 6-foot by 65-foot fixed pier running from their joint property line with the Sebastians out into the water, with 10 pilings, a 4-foot by 40-foot ramp leading to a 6-foot wide by 8-foot long float with two float pilings. Attached at a right angle to this float would be an 8-foot by 60-foot float with two float pilings. *Exhibits R-24, R-25.* The total length of the PRF would not exceed 115 feet from the Ordinary High Water Mark of Hood Canal. The Fladseths' and Sebastions' property have cement bulkheads along their entire length. *Exhibit 6.* The Fladseths desire a dock that would be more convenient for their recreational use and that will not present problems getting on and off boats for their elderly friends and family. *Testimony of Fladseth.*

[F3]

The Fladseths are unable to use the two docks nearest their property because one is restricted to homeowners within the Shorehill Estates subdivision, and the other is a private PRF that is a non-conforming use located several houses from the Fladseths' residence. The Port of Allyn operates a public ramp, dock, and marina located on the north shore about six and one half miles from the Fladseths' residence, which they contend is too far to be convenient. *Exhibits R-1, R-2, R-5, & R-29; Testimony of Zech, Fladseth, & McCoy.*

[F4]

The Fladseths' project site in Belfair is at 10731, 10741 and 10743 North Shore Road, in Belfair, Washington. The Mason County Comprehensive Plan designation for the Fladseths' project site is Rural. The Mason County Shoreline Master Program (MCSMP) designation for the site is Urban, and the parcel is zoned Rural Residential 5 (PR-5). *Exhibit R- 2.* Current development along the shoreline appears to exceed that density.

[F5]

This area of the southern portion of Hood Canal consists of a north shore and a south shore. The proposed PRF would be located on what is known as the "north shore." *Exhibit R-2, R- 8.* Although there are many houses along the north shore, very few docks have been built on that side of the Canal. The south shore has been developed even more intensely on the shore, and is characterized by many more docks and PRFs. This is partly due to the fact that a state highway runs along the south shore, while the residences along the north shore are accessed by a local road. Also, the water is shallower along the entire north shore, which is characterized by a wide sandy shelf. Because of the shelf and shallow water depth, north shore docks have to be longer than those constructed on the deeper-water south shore. *Exhibit R- 2, Testimony of McCoy, Kenny.*

[F6]

The distinct contrast in the intensity of shoreline development between the south and the north shores of Hood Canal in Mason County can be illustrated by comparing the number of

overwater structures along the north and south shores. The north shore and the south shore each have a total shoreline of approximately 28 miles. The north shore has remained relatively undeveloped in the water. Over the approximately 28 mile shoreline, the north shore has only about 21 docks, while the south shore has about 146. Of the 21 docks on the north shore, seven were built before 1992 and 14 after 1992. However, since 2002, the County has denied several applications to build docks on the north shore. *Testimony of McCoy.*

[F7]

The predominant form of anchorage for private residences in the north shore area is moorage-ball buoys. There are also several anchored floating platforms along the north shore that are used for recreation by private residents. The other PRFs that exist along the north shore of Hood Canal are predominantly non-conforming structures that were not built under the current structural requirements of the MCSMP. *Exhibits R-2, R- 3.* Over time, the existing nonconforming PRF structures have been maintained, and rebuilt as required by wear.

[F8]

A Biological Evaluation (BE) was prepared for the Fladseths' PRF proposal on January 10, 2005. *Exhibit R-18.* A BE is required to obtain a SSDP in Mason County. *Testimony of McCoy.* The BE includes a discussion of potential indirect effects from the project, including the alteration of nearshore juvenile salmon migration routes. The BE notes that some studies indicate that salmon migration is not affected by the presence of overwater structures, while

other studies indicate that these migration patterns are altered by overwater structures. The BE states:

> The issue is that no one has shown that these migration changes lead to increased mortality or decreased fitness. . . . Nevertheless, the Services (NMFS and USFWS) have chosen to accept the hypothesis that overwater structures will have negative impacts on salmonids, even though there is no current scientific research proving that this hypothesis is true.

Exhibit R-18 at p. 12-13.

The BE contends that the indirect effects to juvenile salmon are addressed by the amount of grating provided for in the proposed PRF which allows light to penetrate through the structures. The BE, however, did not assess potential cumulative effects from increased numbers of docks and did not address the shoreline criteria utilized by the County. *Testimony of McCoy.*

[F9]

The Washington Department of Fish and Wildlife (WDFW) issued a Hydraulic Project Approval for the Fladseths' PRF on March 24, 2005, pursuant to Chapter 77.55 RCW. *Exhibit R-15.* The United States Army Corps of Engineers issued Permit No. 200401431 on August 10, 2005. *Exhibit A-3, Testimony of Fladseth.* Because cumulative impacts and aesthetics are not criteria for either hydraulic project or Corps permit approval in their permit review, neither agency considered such issues. These agencies evaluated the Fladseth proposal only on a case-by-case basis, in isolation from existing development, other proposals, or possible future development. *Testimony of McCoy.*

[F10]

The Department of Ecology reviewed the PRF proposal and issued an opinion on March 21, 2005. Ecology expressed concerns about the proposed structure in an area with few docks, and observed that there is an issue of cumulative impact from the proliferation of docks on water such as the Hood Canal, a shoreline of statewide significance. *Exhibit R-11.*

[F11]

Northshore Neighbors is a non-profit organization that was created to oppose the construction of inappropriate permanent structures in the inter-tidal zone of Hood Canal. Northshore Neighbors members have concerns about the long-term implications of the Fladseths' proposed PRF based on adverse impacts to views, public enjoyment of the tidelands, and the environmental quality of Hood Canal and its marine life. *Exhibit R-14; Testimony of Kenny.* Some neighbors expressed opposition to the proposal to Mason County, pointing to the scarcity of such structures on the north shore. *Exhibits R-12, R-13.* Some neighbors expressed support for Petitioner's proposal. *Exhibit R-28.*

[F12]

The natural beauty of the area includes the vista across the water. The addition of structures between the houses on the shore would diminish the view of what the Mason County planner termed "what once was" for all users of the beach. *Testimony of McCoy.* One neighbor commented that there are very few private pier ramps on the north shore and this makes people feel lucky to be in an environment free of what she called "the shoreline CLUTTER that is so

common on the south shore." She asked the County to please help maintain "the natural beauty of our shoreline." *Exhibit R-12.* Another neighbor wrote that the proposed PRF would obstruct views for adjacent property owners and also for upland property owners who are year-round residents. *Exhibit R-13.*

[F13]

Neighbors of the Fladseths provided comment to the County that the proposed PRF would interfere with shoreline recreational uses such as beach walks. The shore adjacent to the proposed PRF is a long stretch of shallow beach that is largely not interrupted by docks. *Exhibit R-3.* It is very important to the Fladseth neighbors to preserve not only the view from the shore, but also the ability to use the beach, where residents and visitors walk, swim, kayak, fish, and search for oysters. Users are now able to kayak up and down the beach within a long band of uninterrupted beach. In the summer, it is common to see people swimming and kids "horsing around." *Testimony of Kenny.* The relative lack of overwater structures on the north shore contributes to the rural, rustic feel and the shore's usability for recreation, an attribute that the neighbors want to keep. *Exhibit R-13, Testimony of Kenny.* Neighbors also commented that for generations they have found it convenient to launch their boats at the Port of Allyn and to tie up at a buoy on the front of their property. *Exhibit R-11.* The Board finds that a proliferation of docks would interfere with recreational uses and scenic views of the shore.

[F15]

In its evaluation of development proposals on the shorelines of Hood Canal, Mason County is specifically concerned with maintaining the natural character of the shoreline and limiting the cumulative impact of piers and docks on the shoreline. For many reasons, the north shore of Hood Canal has not seen the proliferation of individual and joint residential piers and docks that has become commonplace along the south shore, and continues to have long stretches of natural shoreline. Mason County does not want to allow an incremental increase of overwater structures on the north shore that would almost certainly progress toward another high-density zone. When reviewing the Fladseths' proposal, the County planner consulted with Marty Ereth, a biologist with the Skokomish Tribe, and reviewed Ecology's letter of concern. The County planner, Charles McCoy, has an undergraduate and a Masters Degree in biology and has several years of experience as a fish biologist. *Exhibit R-35.* Mr. McCoy also reviewed recent scientific studies as well as previous decision of the Board in applying the shoreline criteria to this proposed PRF. He determined that he should not look at the proposed PRF in isolation because its construction would lead to others, and so took cumulative impacts into consideration in the recommendation to deny the Fladseth PRF. *Exhibit R- 2, Testimony of McCoy.*

[F16]

Mr. McCoy recommended denial of the proposed project. *Exhibit R-2.* He testified that even well designed PRFs do not eliminate all of the negative impacts to views and biological

processes. A PRF will have light impacts even if there is grating because there will be a shadow from the outline of the structure. *Testimony of McCoy.*

[F17]

Fish are still considered the key to the Skykomish Tribe's economy. Fish use both the north and south shores of the Hood Canal, but there is higher juvenile fish use along the north shore for migration. Three salmonid species (Chinook salmon, summer chum and bull trout) that are listed as threatened under the Endangered Species Act, 16 U.S.C. §1531 *et seq.*, are found in the general project area. Summer chum is the most prevalent of these species. *Testimony of Ereth; Exhibit 32.*

[F18]

Shorelines consist of discrete segments, and uninterrupted sections of beach are an important part of the nearshore environment. *Testimony of Ereth.* Shallow water has been recognized as a refuge from predation for smaller fish, especially when there is an absence of complex habitat features such as woody debris or submerged vegetation. *Exhibit 34 at p. 30.* Much of Hood Canal, even where there are few overwater structures, is bulkheaded. The Board therefore finds it is logical to assume that the nearshore area of Hood Canal provides much of the refuge area for juvenile fish from predators.

Juvenile fish will often try to avoid PRFs by swimming around them. The increased energy for the fish to avoid the PRFs and the greater potential for predation eventually leads to a

decrease in their survivability. The recovery of nearshore functions is part of the salmon recovery plan in place for this area. *Testimony of Ereth.*

[F19]

Along both the north and the south shores of the Hood Canal, the construction and maintenance of PRFs have ecological impacts, both direct and indirect. The Skykomish Nation Department of Natural Resources is one of several entities that have characterized Hood Canal as currently "in crisis." *Exhibit 32, Testimony of Ereth.* Poor water quality and dissolved oxygen levels, particularly in southern Hood Canal are at an all-time low. Although it is difficult to analyze cumulative effects and assess the additional impacts on the environment of one PRF, it is prudent to conclude that the northern and southern shores of Hood Canal have already exceeded any reasonable threshold of impact. *Exhibit 32, Testimony of Ereth.*

[F20]

The Mason County Hearing Examiner conducted a hearing on the Fladseths' application for an SSDP for a PRF on August 9, 2005, and denied it on August 30, 2005. The Hearing Examiner noted a technical report prepared by the Point No Point Treaty Council in 2003, described by Mr. Ereth. This report mapped shoreline modifications throughout Hood Canal and the eastern Strait of Juan de Fuca, and depicted lower Hood Canal as the area most negatively impacted by such modifications (bulk heading, docks, etc.). *Exhibit R-1.* The Fladseths timely appealed to the Board.

Any Conclusion of Law deemed to be a Finding of Fact is hereby adopted as such. Based on the foregoing Findings of Fact, the Board enters the following

CONCLUSIONS OF LAW

The issues identified in the Pre-Hearing Order are as follows:

1. In denying the Petitioner's permit, did Mason County err by considering:

    a. subjective aesthetic concerns;
    b. adjoining neighbors' visual impacts;
    c. environmental impacts; or
    d. development on both North and South Shores of Hood Canal.

2. Have the Petitioners been denied reasonable use of their property by the denial of the permit?

3. Are the Petitioner's allegations, if proven, within the jurisdiction of the Shorelines Hearings Board with regard to:

    a. factual misrepresentation of the process needed to acquire a permit; or

    b. justifiable reliance upon representations by the County and whether there was subsequent injury.

4. Should joint projects (more than one property owner) be given more weight in permit considerations than a permit requested by a single property owner?

5. May a permit be denied even though the immediate surrounding neighbors support the project?

6. Does the Shorelines Hearings Board have jurisdiction to hear the constitutional issue of 'discrimination' raised by the Petitioners when they allege they were denied a permit on their project even though other property owners in the area were granted permits for the same or similar projects?

7. Are cumulative impacts and concern for establishing a precedent for pier ramp floats valid legal considerations or proper bases to deny Petitioners' permit?

These issues are of three categories: (A) Constitutional, property and personal injury issues regarding Petitioner's dealings with Mason County; (B) Issues concerning the specific bases for evaluating applications for shoreline substantial development permits under the Mason County Shoreline Master Program; and (C) Whether cumulative impacts and concern for establishing a precedent for additional development can be a basis for denying an application for a shoreline substantial development permit.

[C1]

The Board has jurisdiction over the parties and the subject matter of this case pursuant to RCW 90.58.180(1). The appealing parties must establish that the permit approval is inconsistent with the requirements of the Shoreline Management Act (SMA), and Mason County's Shoreline Master Program, Title 7, Mason County Code. Both the scope and standard of review for this matter is *de novo*. WAC 461-08-500(1). As the appealing parties, the Fladseths have the burden of proving that Mason County's decision on their application for an SSDP was unlawful. RCW 90.58.140(7).

(A) Constitutional, Property and Personal Injury Issues (Issues 2, 3, & 6)

[C2]

The Fladseths assert that they have been denied reasonable use of their property by the denial of their permit, and that they have been discriminated against. At hearing, the County moved for dismissals of Issues 2, 3, and 6 based on lack of Board jurisdiction over the subject matter. The Shorelines Hearings Board is an administrative agency, and may exercise only the

power expressly granted to it by statute or necessarily implied from the grant. *Skagit Surveyors and Engineers, LLC V. Friends of Skagit County*, 135 Wn.2d 542, 558, 958 P.2d 962 (1998); *Kaiser Aluminum & Chemical Corp. v. Department of Labor & Industries,* 121 Wn.2d 776, 780, 854 P.2d 611 (1993). The Board's jurisdiction is specifically set forth in statute and a party must identify some statutory authority that would allow the Board to grant meaningful relief. The Board was not granted express authority to address constitutional discrimination claims, or those based upon private property rights or personal injury law. The Board has jurisdiction only over the granting, denying, or rescinding of a permit on shorelines of the state pursuant to RCW 90.58.140. RCW 90.58.180(1). This Board has consistently held that constitutional issues such as those that have been raised in this case cannot be considered by the Board as it lacks the authority to do so. *Eagles Roost v. San Juan County*, SHB No. 96-47 (1997) (Concurrence, citing other Board decisions). In Washington, superior courts have original jurisdiction to address such types of claims. *Chaney, et. al. v. Feterly, et al.* 100 Wn.App. 140, 148, 995 P.2d 1284 (2000), *review denied,* 142 Wn.2d 1001 (2000), citing *Valley View v. Redmond,* 107 Wn.2d 621, 633, 733 P.2d 182 (1987). Without subject matter jurisdiction, an administrative tribunal may do nothing other than enter an order of dismissal. *Inland Foundry Co. Inc. v. Spokane County Air Pollution Control Authority,* 98 Wn.App. 121, 123-124 (2000). Therefore, this Board cannot address the constitutional, property, and personal injury claims made by Petitioner as stated in Issues 2, 3, and 6.

(B) Shoreline Management Act and the Mason County Shoreline Master Program (Issues 1, 4, & 5)

[C3]

The Fladseths' property is within the Mason County Comprehensive Plan Rural designation, a zoning code Rural Residential 5 zone, and an Urban Shoreline Master Program designation. *Exhibit R-2.* The proposed PRF is a substantial development. RCW 90.58.030(3)(e). Under the MCSMP, piers and docks are a permitted use in the Urban Residential shoreline designation. MCSMP Chapters 7.08 & 7.16. Although they are a permitted use, piers and docks are subject to Mason County use regulations and policies. MCC 7.16.170.

[C4]

In reviewing this appeal, the Board is guided by WAC 173-27-150, which provides that an SSDP may be granted only if proposed development is consistent with both the policies and procedures of the SMA and its associated regulations, and with the MCSMP. WAC 173-27-150.

[C5]

Mason County encourages joint use docks. Its shoreline use policies favor cooperative uses of piers and docks, especially in tidal waters. MCSMP 7.16.170(b) 2. In all new waterfront subdivisions, the County gives priority to community piers and docks and encourages cooperative use of docks. MCSMP 7.16.170(b) 4. However, mooring buoys and floats are preferred over piers and docks. MCSMP 7.16.170(b) 5. Although the evidence did not disclose

the existence of any formal joint use agreement, the Fladseths plan joint use of their PRF with one other family, the Sebastians. *Testimony of Fladseth.* A formal two-party joint use agreement would minimally satisfy the Mason County policy favoring joint use.

[C6]

The MCSMP recognizes that additional uses place increasing pressures on the shorelines and that unrestricted construction on the shores of Mason County is not in the best public interest. MCSMP 7.04.020. In denying the Fladseth PRF, the County considered the extent of development on both shores of Hood Canal and the cumulative impact of additional over water structures. The County recognized that the north shore had maintained longer stretches of uninterrupted shoreline, and sought to preserve this aspect of the shoreline, with the attendant view and recreational uses. The County also responded to growing public and official concern about the general health of Hood Canal. *Testimony of McCoy.* The Fladseths assert that, because there is no distinction specifically articulated in the County's shoreline master program between the north and south shores, no distinction between them was appropriate in consideration of their dock proposal. However, the proliferation of docks on the south shore, the County's concern that this not continue to be replicated on Hood Canal shorelines and the environmental concerns for Hood Canal are reasonable bases upon which the County could deny the proposed PRF.

[C7]

Mr. Fladseth testified that applicants spend significant amounts of money on applications for shoreline developments with an expectation that they will eventually be approved. *Testimony of Fladseth.* He points out that there is no moratorium in place on docks on the north shore at this time. The Board recognizes that the costs associated with applications for shoreline permits include technical reports and other expenses that can be considerable. County legislative (or other) action that more clearly codifies the County's policy of how it will process PRF applications on Hood Canal (north and south shore) and the details of its implementation would help avoid any public perception of unfair treatment and would potentially save landowners time, money, and effort in applying for something that in reality will seldom be granted. Nonetheless, existing Mason County policy does disfavor private PDF's.

[C8]

The County's regulations have policies addressing docks that require, among other things, minimization of view obstruction and conflicts with recreational boaters and fishermen. MCSMP 7.16.170(b)(1). MCSMP provisions require that permit decisions address such site-specific issues. The evidence established that the north shore's wide shallow shelf and extensive tidelands would require PRFs to extend some distance into the water to be functional. This factor and the limited development on the north shore result in a high degree of visual impact and likely conflicts with recreational uses. The Board concludes that it is reasonable, appropriate and within the terms of the MCSMP to consider these factors in the denial of the proposed PRF.

[C9]

The type, design and location of docks and piers should be compatible with the shoreline area where they are located, giving consideration to shoreline characteristics, tidal action, aesthetics, adjacent land and water uses, water quality, and the habitat of fish and wildlife. MCSMP 7.16.170(b) 3. The Fladseths argue that, because there is an existing nonconforming PRF comparable to the one they wish to build in existence several houses away from their house, they should be allowed to build a similar structure. The MCSMP requires a finding that a proposed use is compatible with the shoreline area where they are located. MCSMP 7.16.170(b) 3. This Board has held that a finding of compatibility cannot be substantially based upon the existence of a nonconforming use in the area. *Wriston v. Ecology,* SHB No. 05-005 at 24 (2005). The only dock in the immediate vicinity of the Fladseths' property is a nonconforming dock. Because of this, the Board must give it little consideration in evaluating the compatibility of the proposed PRF with the surrounding area and its existing uses.

[C10]

The proposed PRF would be located on Hood Canal, a shoreline of statewide significance. Mason County has adopted the SMA's policy of use priorities on shorelines of statewide significance. MCC 7.24.010. For shorelines of statewide significance, the first order of preference is to recognize and protect the statewide interest over the local interest. The Legislature and Mason County have declared that the interest of all of the people shall be paramount in the management of shorelines of statewide significance. RCW 90.58.020;

MCSMP 7.24.010. The SMA and the MCSMA provide an order of preference for uses on such shorelines, which is as follows:

(1) Recognize and protect the statewide interest over local interest;

(2) Preserve the natural character of the shoreline;

(3) Result in long term over short term benefit;

(4) Protection of the resources and ecology of the shoreline;

(5) Increasing public access to publicly owned areas of shorelines;

(6) Increasing recreational opportunities for the public in the shoreline; and

(7) Providing for other elements defined in RCW 90.58.100 as necessary and appropriate.

RCW 90.58.020; MCSMP 7.24.010.

[C11]

The SMA allows the development of reasonable and appropriate uses along the state's shores, but it is the policy of the state to provide for the management of the shorelines of the state by insuring development of the shorelines in a manner that will promote and enhance the public interest, contemplating 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..." RCW 90.58.020. "The policy of the SMA was based upon the recognition that shorelines are fragile and that the increasing pressure of additional uses being

placed on them necessitated increased coordination in their management and development." *Beuchel v. Dept. of Ecology*, 125 Wn.2d 196, 203, 884 P.2d 910 (1994).

[C12]

The Fladseths challenge the lawfulness of considering aesthetic concerns, visual and environmental impacts, and other development on the north and south shores as factors in Mason County's decision on their permit application. Mason County has adopted shoreline policies reflective of state law that emphasize preservation of the physical and aesthetic qualities of the natural shorelines and the public's "opportunity to enjoy the physical and aesthetic qualities of the natural shorelines of the state." MCSMP 7.24.010. The County has recognized that the portions of its shorelines that could be characterized as natural are diminishing, that they are important to the public for aesthetic values and the enjoyment of public uses, and that they are increasingly being recognized as critical to the health of Hood Canal, which is of a general overriding concern to the County. The health of Hood Canal, which includes its ability to provide natural processes, is essential to ongoing efforts to maintain and restore habitat necessary for fish. The Board concludes that preservation of the parts of the Hood Canal shorelines that retain their natural qualities is a proper criterion in determining whether a SSDP application should be granted or denied.

C. Cumulative Impacts (Issue 7)

[C13]

This Board has recently held that development on a relatively undisturbed beach must be only to the degree and kind that will protect the natural processes and the scenic values. *May v. Pierce County,* SHB No. 06-031 (2007). The Fladseths cite *Roller v. Unger,* SHB No. 06-016 (2006) in support of their argument that the north and south shores are subject to the same criteria and that it should not disadvantage them to be located on the north shore. In *Roller,* the Board held it appropriate to grant an SSDP for a dock, and found that, in that case, cumulative impacts were not a mandatory consideration, as they are for shoreline conditional uses and variances. The Fladseths argue that cumulative effects are not part of the Mason County criteria required to be considered in shoreline substantial development permits. In *May*, however, the Board held that it is not *precluded* from consideration of cumulative effects where appropriate, such as cases where there is a clear risk of harmful impacts to high value habitat, loss of community uses, impacts to views or the loss of extraordinary aesthetic values. *May,* SHB No. 06-031 at 30. Thus, the Board concluded, "[e]ven though cumulative impacts are not listed, *per se*, as shoreline substantial development permit criteria, the Board is not precluded from considering them. *May*, SHB No. 06-031 at 28. The Board has also previously interpreted the MSCMP on this issue, stating "[I]n terms of both compatibility and view impacts, considerable weight must be given to the possibility that similar docks will be sought by property owners..... if the permit here is allowed to stand." *Viafore v. Mason County*, SHB No. 99-033, CL VI

(2000). See also, *Gennotti v. Mason County*, SHB No. 99-011, CL 1X-X11 (1999). Consistent with this conclusion, the Supreme Court has held that it is within the Board's statutory duties to be concerned over the ultimate cumulative impact of piecemeal development on the state's shorelines. *Hayes v. Yount,* 87 Wn.2d 280, 288, 552 P.2d 1038 (1976).

The Supreme Court has held that it is proper for the SHB to consider the cumulative effects that become possible with the granting of a substantial development permit, recognizing that approval of one project can set a precedent for other similar projects. *Skagit County v. Department of Ecology,* 93 Wn.2d 742, 750, 613 P.2d 121 (1980). The Court said that, "[l]ogic and common sense suggest that numerous projects, each having no significant effect individually, may well have very significant effects when taken together." *Skagit County,* 93 Wn.2d at 750 (quoting *Hayes* at page 287). The *Skagit County* court went on to conclude that "[t]he SMA recognizes the necessity for controlling the cumulative detrimental impact of piecemeal development through coordinated planning of all development. RCW 90.58.020." *Skagit County,* 93 Wn.2d at 750 (1980).

[C14]

The County also asserts that a cumulative effects analysis is required in Mason County because MCSMP 7.16.170(b)(3) requires the type, design, and location of docks and piers to be compatible with adjacent land and water uses. The Board finds no reason to disagree with the County's interpretation of its own Shoreline Master Program and finds that there is a general

requirement for cumulative effects to be considered as part of a shoreline substantial development permit for a pier or dock in Mason County.

[C15]

The Board has previously ruled that consideration of cumulative effects is not precluded when reviewing a substantial development permit, but we note there is little direction from state or local policy makers indicating when or how this analysis should be done. The Board seeks to provide some additional guidance for when cumulative effects should be considered as part of a shoreline substantial development permit application in counties without a similar provision in their shoreline master program.

First, RCW 90.58.020 provides that development of the shorelines is to be done in a manner to protect the public's interest against adverse effects. This same statute sets forth additional considerations for developments along shorelines of statewide significance in an order of preference. It is less likely, therefore, that cumulative effects will need to be considered for a substantial development on a shoreline that is not a shoreline of statewide significance.

Among these additional factors to be considered under RCW 90.58.020, subsection (4) requires protection of the resources and ecology of the shoreline. In addition, this same statute states that "Permitted uses in the shorelines of the state shall be designed and conducted in a manner to minimize, insofar as practical, any resultant damage to the ecology and environment of the shoreline area and any interference with the public's use of the water." The Board finds that by these provisions, the Legislature has particularly emphasized that it is important for

shorelines to be able to provide their natural functions as shorelines. The current build-out of an area is one of the most important considerations on the front-end of the analysis. An undeveloped stretch of beach provides more environmental value than a developed area. Fish, marine mammals, other wildlife, and vegetation all derive great benefits from natural areas. If an area already has a substantial number of docks, and the proposed project is tantamount to "infilling" there is little likelihood of significant environmental impacts, as well as limited potential for future build-out of the area. The potential for future build-out of the relevant subject area is an important, albeit not determinative, consideration in a cumulative impacts analysis. For instance, if an area already has a substantial number of docks, the potential for future build-out of the area is more limited and the risk of significant environmental impacts from the additional infilling of docks is likely going to be low. This is particularly true if the proposed dock will be sited between existing docks on adjacent properties. However, even if an area has limited build-out potential, additional development or infilling could produce significant environmental impacts depending on the specific location, characteristics, and natural functions of the shoreline and the health of the water body.

Second, a community may place a high value on keeping a particular beach segment or area, such as a wide sandy beach, in a natural condition because it facilitates numerous recreational opportunities that would be compromised by the development. This is the situation the Board addressed in the *May* decision. The potential for one or more docks to cut across this large, open segment of beach compelled the Board to uphold the denial of the permit.

Aesthetics are a more difficult issue. Each case arises in a different setting, with different combinations and visual characteristics of the upland, shoreline, and overwater development. Docks and piers have different lengths and configurations. In considering aesthetics, compatibility with the surrounding area is the starting point. An area with a substantial number of docks is less likely to require consideration of cumulative aesthetic effects. The Board is also mindful of its ruling in *Inskeep v. San Juan Co.*, SHB No. 98-033 (1999), which acknowledged that any dock will have a physical presence and alter the view of a particular shoreline. The Board noted it was the extent that the man-made alteration constituted a visual presence on the environment that was important to the compatibility analysis.

Therefore, consideration of potential cumulative effects and precedential effects is warranted in any case where there is proof of impacts that risk harm to habitat, loss of community use, or a significant degradation of views and aesthetic values. In such cases, a balancing of the interests of project proponents, adjacent shoreline property owners, and those of the public is necessary. Here, under the facts of this case and in light of the importance of the north shore of the Hood Canal, the Board concludes that the public interest controls.

[C16]

Mason County policies require docks to be compatible with the shoreline area where they are located, and "[c]onsideration should be given to shoreline characteristics, tidal action, aesthetics, adjacent land and water uses." MCC 7.16.170(b)(3). Although a dock is a permitted use in the project area, an SSDP may not be granted *without* consideration of the very factors that

are challenged in this case. Even normally permitted uses may not be allowed if they conflict with the broader goals of the SMA and the local master program. In this case, the potential for cumulative impacts on the north shore is present, and is of particular concern on Hood Canal. The Board has long been cautious about the placement of numerous docks in an incremental fashion. "The step-at-a-time approach means that after each step the developmental outcome becomes more inevitable. Whether this outcome is inappropriate in shorelines terms may not be known until the environment is so changed that there is no reasonable turning back." *Ecology v. City of Bellingham, et al.,* SHB 89-2 (1990).

[C17]

Mason County did not err when it considered aesthetic, environmental and visual impacts, or when it compared the differences and effects of development on the north and south shores. In light of the relative lack of development on the north shore shoreline, the potential environmental impacts of incremental development along a relatively natural shoreline, and the SMA's goals of preserving the public's interest in aesthetic qualities, recreational uses, and uninterrupted scenic views from the north shore of Hood Canal, the Fladseths' application for a PRF should not be granted.

Any Finding of Fact deemed to be a Conclusion of Law is hereby adopted as such.

Based on the foregoing Findings of Fact and Conclusions of Law, the Board enters the following

ORDER

Mason County's decision denying Lorren and Jeannie Fladseth and Raymond and Barbara Sebastian's Shoreline Substantial Development Permit is AFFIRMED and Mason County Permit Application SHR 2004-00027 is DENIED.

SO ORDERED this 1st day of May 2007.

SHORELINES HEARINGS BOARD

WILLIAM H. LYNCH, Chair

KATHLEEN D. MIX, Member

ANDREA McNAMARA DOYLE, Member

MARY-ALYCE BURLEIGH, Member

PETER PHILLEY, Member

JUDY WILSON, Member

CASSANDRA NOBLE, Presiding
Administrative Appeals Judge

Appendix G

SHORELINES HEARINGS BOARD
STATE OF WASHINGTON

COALITION TO PROTECT PUGET SOUND HABITAT, and SUSAN MACOMSON, Petitioners, v. THURSTON COUNTY, TAYLOR SHELLFISH, ARCADIA POINT SEAFOOD (MCCLURE), ARCADIA POINT SEAFOOD (THIESEN) and NET@VENTURE, INC., Respondents.	SHB No. 13-006c FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER

Petitioners Coalition to Protect Puget Sound Habitat and Susan Macomson[1] (Petitioners) challenge Thurston County's approval of four shoreline substantial development permits (SSDP) for geoduck farms. The Shorelines Hearings Board (Board) conducted a hearing on these appeals in Tumwater, Washington on August 12 through 16, 2013.

The Board was comprised of Kathleen D. Mix, Joan Marchioro, Jennifer Gregerson, Pamela Krueger, and Pete Philley.[2] Kay M. Brown, Administrative Appeals Judge, presided for the Board. Spokesperson Laura Hendricks represented the Petitioners. Attorneys Samuel D. Plauche and Jesse De Nike represented Respondents Taylor Shellfish (TSF) and Arcadia Point

[1] Laura Hendricks also filed as a petitioner however she was dismissed for lack of standing. *Coalition to Protect Puget Sound Habitat v. Thurston County*, SHB No. 13-006 (Order Denying Motion to Dismiss and Motion for Summary Judgment, Aug. 6, 2013)(Summary Judgment Decision).

[2] The sixth member of the Board, Tom McDonald, Chair, was unavailable for the hearing and did not participate in the decision.

Seafood (Arcadia). Hui Xia, vice president and co-owner of Net@Venture, Inc. (Net) represented Net. Deputy Prosecuting Attorney Elizabeth Petrich represented Thurston County (County).

Based upon the evidence presented, the Board makes the following:

FINDINGS OF FACT

A. The geoduck farms and their farming practices

1.

On February 17, 2010, Arcadia submitted a Joint Aquatic Resources Permit Application (JARPA) for a commercial geoduck farm on tidelands owned by Marta McClure in Henderson Inlet. Henderson Inlet already has existing geoduck farms. The project address is 8702 Libby Rd. NE, Olympia, Washington. It is referred to as the Arcadia/McClure Farm. The Arcadia/McClure Farm will include .8 acres of planted geoducks. It is located in the Conservancy Shoreline Environment. Cooper Testimony, Phipps Testimony, DeBakker Testimony, S. Wilson Testimony, Exs. R-5, R-5.b, R-6, R-12.

2.

The beach at the Arcadia/McClure site begins as a mixture of fine grain sand and cobbles extending waterward 30-50 feet before becoming fine grain sand and silt. The substrate of the project site is predominately fine grain sand. Littoral vegetation found in the summer of 2008 was comprised primarily of Ulva and Enteromorpha. There is no eel grass in the area where the geoduck farm is proposed. Ex. R-5.b.

3.

On February 17, 2010, Arcadia also submitted a JARPA for a commercial geoduck farm on tidelands owned by Thomas and Carolyn Thiesen in Henderson Inlet. The project address is 8940 Libby Rd. NE, Olympia, Washington. It is referred to as the Arcadia/Thiesen Farm. The Arcadia/Thiesen Farm will include 1.2 acres of planted geoducks. It is located in the Rural Shoreline Environment. S. Wilson Testimony, Exs. R-3, R-3.b, R-12.

4.

The Arcadia/Thiesen Farm is a bulkheaded site. The beach at the toe of the bulkhead begins as a mixture of fine grain sand and cobbles extending between 20 and 40 feet waterward before becoming fine grain sand and silt. The substrate of the project site is predominately fine grain sand. Littoral vegetation in the summer of 2008 was comprised primarily of Ulva and Enteromorpha. No eelgrass was present in the area where the geoduck farm is proposed. S. Wilson Testimony, Exs. R-3, R-3.b.

5.

Arcadia intends to plant and operate the two farms identically. Arcadia plants its geoducks in the intertidal zone between +2 and -4.5 tidal elevations. Planting activities will occur during the lowest tides of the summer and subsequent low tides in the fall. Arcadia plants the juvenile geoducks in four inch diameter, ten inch long off-white PVC tubes that are pushed vertically into the beach at a density of one tube per square foot. The PVC tubes protrude approximately 4 to 6 inches above the surface of the sand. The tubes are covered with a black or brown mesh cap, which is secured with a rubber band. This protects the juvenile geoduck from

predators. In the next tide cycle after the PVC tubes are placed and the caps secured, the tubed area is covered with anchored area netting. S. Wilson Testimony, Exs. R-3.b, R-5.b.

6.

Arcadia removes the mesh caps in approximately nine to twelve months, and re-covers the tubes with an area netting which is three inch stretched mesh or larger. After the beach has been planted, Arcadia will inspect it on a regular basis as long as the tubes are in the beach. All tubes and mesh will be removed sometime between 20 and 24 months after planting. Depending on the presence of predators, the area netting may be placed back on the sand. Arcadia will harvest the geoducks one at a time by hand using a vessel-mounted high volume, low pressure water pump. The harvest will usually occur in the sixth year after the geoducks were planted. S. Wilson Testimony, Exs. R-3.b, R-5.b.

7.

Harvest is performed by three to five individuals either diving or working from the beach at low tides. Planting and tube/cap removal is performed by 12 to 18 workers on the beach at low tide. Inspections will involve one to four workers. Arcadia states that all materials, equipment and workers will access the beach by vessel, and that no materials will be stored on the beach. S. Wilson Testimony, Exs. R-3.b, R-5.b.

8.

The upper elevations of both beaches will be visible less than 20% of daylight hours between mid-March and mid-September. From mid-September through mid-March the farm site

will rarely be visible during daylight hours because the lowest tides occur at night. Exs. R-3.b, R-5.b.

9.

On July 6, 2011, Net submitted a JARPA for a commercial geoduck farm on tidelands owned by John Wheeler. The project address is 9330 Maple Beach Lane NW, Olympia, Washington. This project is located in Eld Inlet. Eld Inlet has historically been used for shellfish farming, and there are currently two acres of geoduck aquaculture just south of this proposed application. For consistency with the other applications on appeal, Net's farm will be referred to as the Net/Wheeler Farm. The Net/Wheeler Farm will include .92 acres of planted geoducks. It is located in the Conservancy Shoreline Environment. Xia Testimony, Exs. N-3, N-4, N-5.

10.

The Net/Wheeler site is undeveloped, has a low gradient slope, and contains a bulkhead. The substrate of the project site is sandy gravel, moving to soft sand at lower elevations. A site visit in October of 2011 during negative tides by the applicant's biologist consultant revealed no eel grass or macroalgae in the area where the geoduck farm is proposed. Layes Testimony, Exs. N-3, N-4, N-5.

11.

Net plants its geoducks in the mid-intertidal zone between +3 and -4 mean lower low water (MLLW). Net represented it will not be working above +3 mean lower low water and will not store any tubes or other aquaculture gear on site. In Net's case, the lease it has with the

owners of the tidelands reserves to the owners all areas above +3 tidal elevation for the owners' recreational purposes. Net surveys the site prior to planting activities and removes garbage, but represents it does not remove, rake, or disturb the substrate or vegetation during this phase. Net plants the site during low tide cycles using a team of two to four workers. It plants the juvenile geoducks in a ten inch PVC pipe, which is six inches in diameter and is exposed two to five inches above the substrate. The tubes are placed at a density of one tube per square foot. Net uses gray tubes to minimize visual impact. It covers the tubes with area netting instead of individual caps. The netting is staked flat to the beach with rebar. After the beach has been planted, Net will inspect at least once a month. Xia Testimony, Exs. N-3, N-4, N-5, N-6.

12.

Net removes the tubes and netting after 18 months, but the netting may be replaced depending on the level of predator presence. Net harvests when the Geoducks are five to six years old. Net harvests in the same manner as Arcadia, generally employing beach harvesting but occasionally using divers. Xia Testimony, Exs. N-3, N-4, N-5, N-6.

13.

During beach preparation, planting, and net removal, Net uses teams of two to four workers. Access to the intertidal zone will be from the water. Like Arcadia, Net states that all equipment will be maintained and stock piled off site. Xia Testimony, N-3, N-4, N-5, N-6.

14.

On November 21, 2011, TSF submitted a JARPA for a commercial geoduck farm on tidelands owned by John and Barbara Lockhart. The project address is 9000 Libby Rd. NE,

Olympia, Washington. It is referred to as the TSF/Lockhart Farm. The TSF/Lockhart Farm, like Arcadia/Thiesen and Arcadia/McClure, is located in Henderson Inlet. It is the northern most proposal and is adjacent to and north of the Arcadia/Thiesen Farm. TSF will plant .13 acres nearest the shore with manila clams and approximately .9 acres adjacent on the waterward side with geoduck clams. The TSF/Lockhart Farm is in the Rural Shoreline Environment. Cooper Testimony, S. Wilson Testimony, Exs R-1, R-1.b, R-1.i.8, R-8.

15.

The TSF/Lockhart site is bulkheaded. The substrate is a mixture of fine sand and silt with trace amounts of shell material. The site is covered with Ulva, but does not have any eelgrass in the area where the geoduck farm is proposed. Cooper Testimony, Phipps Testimony, Exs R-1, R-1.b, R-1.i.8.

16.

TSF's planned planting and operating practices for the TSF/Lockhart Farm are very similar to the Arcadia and Net practices. TSF/Lockhart will be planted with geoducks in the intertidal zone between +3 and -4.2 elevation. TSF uses six inch diameter PVC tubes that are nine inches long, and places the tubes at a 1.2 tube/square feet density. The PVC tubes protrude approximately four to six inches above the surface of the sand. TSF does not cap the individual tubes like Arcadia, but instead covers the entire tubed area with area netting that is anchored to the beach using rebar. TSF plans to harvest the Lockhart Farm from the beach without using divers. Using a three-person harvest crew, the TSF/Lockhart Farm will take 30-40 days to harvest. Cooper Testimony, Phipps Testimony, Exs. R-1.b, R-1.g.

B. Forage Fish

17.

Petitioners contend that these four geoduck farms will adversely affect forage fish. "Forage fish" is a term used for small, schooling fish that prey upon zooplankton and are themselves preyed upon by larger predatory fish, birds and marine mammals. In this way, they provide a critical link between the marine zooplankton community and larger predatory fish and wildlife in a marine food web. The three most common forage fish species, and the ones that were the focus of the evidence at this hearing, were Pacific herring, sand lance and surf smelt. While these fish are not listed as federal threatened or endangered species, they are a critical prey resource for a number of ESA listed species including salmon. Penttila Testimony, Exs, P-62, P-63, P-118.

18.

Surf smelt, sand lance and herring all rely on nearshore habitats to spawn. Surf smelt spawn all year round, in substrate which is a sand-gravel mix. They spawn in the upper one-third of the tidal range, from approximately +7 feet (0 being mean lower low water) to extreme high water. Sand lance spawn primarily in the fall and winter. Like the surf smelt, they spawn in the upper tidal range, from approximately +5 up to +11. They spawn in sandy substrates. Herring spawn primarily in February and March, and their spawning occurs in vegetation such as eel grass in the shallow subtidal and lower half of the intertidal zone. Penttila Testimony, Exs. P-62, P-118, R-111.

19.

Petitioners' expert on forage fish, Daniel Penttila, has visited the general areas of the three Henderson Inlet Farms (TSF/Lockhart, Arcadia/McClure and Arcadia/Thiesen) in years past while participating in region-wide mapping efforts of forage fish for the Washington Department of Fish and Wildlife (WDFW). The species of concern for these three farms, based on the WDFW mapping, is surf smelt. There is historically documented surf smelt habitat in the vicinity of the three Henderson Inlet farms, which means that surf smelt eggs were found in the area. This mapping is not done at the parcel level, however, and it is not possible without a site visit to state with certainty whether there is surf smelt habitat on the individual sites. Mr. Penttila has not made specific site visits to these three farms. Penttila Testimony, Ex. R-111.

20.

TSF had a biological evaluation performed on its TSF/Lockhart Farm site in 2010 by ENVIRON International Corporation. Marlene Meaders, fisheries biologist for ENVIRON performed the survey of the TSF/Lockhart Farm. She also surveyed the two Arcadia Farms. Using this information along with additional information including the habitat data from WDFW, Ms. Meaders testified that there is no spatial overlap between the three farms and the documented surf smelt spawning habit. In fact, a minimum of 50 horizontal feet and four vertical feet separate the cultivated area from documented surf smelt habitat. Meaders Testimony, Exs. R-1.i.8; R-8, R-12, R-16, R-115.

21.

The Net/Wheeler Farm, unlike the farms in Henderson Inlet, is not in documented surf smelt habitat. The species of concern for this area is the sand lance. There are documented sand lance spawning beaches adjacent to the proposed farm. Net commissioned a biological evaluation on this site by ACERA, LLC. Heather Layes, Aquatic Biologist for ACERA, LLC, performed the site evaluation and in the process visited the site two times. She testified that the existing bulkhead on the site is located in the area where forage fish would have spawned. She concludes that the proposed geoduck farm will not impact forage fish because it will not be located above +3 MLLW. At hearing, Mr. Penttila agreed that it is unlikely that forage fish would spawn below +3 MLLW. Layes Testimony, Penttila Testimony, Exs. N-3, N-5, N-6.

22.

None of the proposed four farms are located in or adjacent to documented herring spawning. The presence of eelgrass is of primary importance as a herring spawning substrate. All of the sites have been evaluated for eel grass, and none contain it. The SSDPs for TSF and Arcadia contain a condition requiring that a pre-harvest survey for herring spawn is required. The condition also provides that no harvesting may occur when herring spawn are found to be present on or near the bed. A similar condition on the Net/Wheeler Farm permit prohibits bed preparation, harvesting, net and tube removal occurring between January 15 and March 31 without a pre-activity Pacific herring spawn survey. If herring spawn is present, activities are prohibited until the eggs hatch and spawn is no longer present. Houghton Testimony, Layes Testimony, Meaders Testimony, Exs. N-3, N-5, N-6, N-29, R-2, R-4, R-6, R-115.

23.

The Board finds, based on the weight of the most site specific evidence, that the proposed farms, as conditioned by their applicable SSDPs, are unlikely to impact forage fish spawning habitat.

24.

In addition to overlap with spawning areas, Petitioners presented some evidence on other potential impacts from geoduck farms on forage fish. Mr. Penttila testified that he was concerned that sediment from the geoduck operations could be transported up the beach to areas where sand lance and surf smelt might spawn. Mr. Penttila is an expert on substrates used by sand lance and surf smelt for spawning and has verified through research that the substrates these species utilize for spawning do not have silt size particles. Ex. P-63. He is not, however, an expert on coastal processes, and he did not offer an opinion on whether sediment could actually reach the potential spawning areas on these farms as a result of the proposed geoduck operations. Another witness for the Petitioners, Mr. Jim Johannessen, while an expert in the field of coastal geology, has not been to any of the proposed farm sites, has not done any site specific analysis, and is not an expert on geoduck farming. He testified that he has never witnessed a geoduck harvesting operation. He was not therefore able to offer a credible opinion on whether geoduck harvests on these sites would likely result in silt size particles being transported to forage fish spawning areas. This potential was convincingly analyzed by only one expert witness, Dr. Phil Osborn, a witness for the Respondents. Dr. Osborn conducted two site visits to the proposed Taylor and Arcadia Farms and did grain size sampling, an analysis of coastal processes, and

modeling. Based on this information, he concluded that the percentage of fine sediments on the Arcadia and Taylor Farms is low (less than 7%); that the sediments have a relatively high settling velocity; and that based on the limited size and duration of the plumes of sediment from geoduck harvests, and the distance between the farms and potential forage fish spawning habitat, sediment suspended in harvesting plume is unlikely to settle or accumulate in forage fish spawning areas. Penttila Testimony, Osborn Testimony, Johannessen Testimony, Exs. P-63, R-46.

25.

Ms. Layes, the biologist that prepared the biological evaluation for the Net/Wheeler site, visited the Net/Wheeler site two times. She testified that the transport of sediments on the site is largely attributed to the tides and local drift cell currents in the intertidal system. She testified that in her opinion it is unlikely that sediment will accumulate on forage fish spawning areas due to the horizontal distance between potential forage fish spawning habitat and geoduck cultivation areas, which is between 30 and 60 feet. Layes Testimony, Ex. N-5.

26.

In light of the site specific evidence offered by Dr. Osborn and Ms. Layes, the Petitioners did not offer any persuasive evidence that silt from geoduck harvesting at any of these four farms would be likely to reach forage fish spawning habitat.

27.

Other possible impacts to forage fish raised by the Petitioners include the concern that geoducks will "overgraze" forage fish food, thus resulting in a shortage of food for forage fish, or that the geoducks will consume forage fish larva. Penttila Testimony, Daley Testimony.

28.

Geoducks are filter feeders that eat plankton. Geoducks filter water at low rates because the rate of filtration is determined by gill size. Despite their large body size,[3] geoducks have relatively small gills. Therefore, their filtration rate is relatively low compared to other clams. Dr. Jonathan Davis, a lead researcher and consultant for TSF on geoduck aquaculture, conducted an experiment to measure phytoplankton removal by geoducks. Based on the experiment, he did not detect any measurable depletion of phytoplankton by the geoducks he studied. In Dr. Davis's opinion, geoducks do not consume sufficient amounts of plankton to deplete this food resource for other species. Further support for Dr. Davis's opinion comes from the fact that geoducks are relatively dormant in the winter months when forage fish spawn and feed. While Mr. Penttila voiced concern about the possibility that geoducks compete with forage fish for food, he did not offer any documentary evidence or an opinion contradicting Dr. Davis's opinion that they do not. Mr. Penttila, while an expert on forage fish, does not have the expertise that Dr. Davis does pertaining to geoducks. Davis Testimony, Penttila Testimony, Exs. R-115, R-130.

29.

Mr. Penttila also expressed concern that geoducks ingest forage fish larvae. While the scientific literature supports the idea that bivalves[4] can occasionally ingest forage fish larva, the evidence does not support a finding that geoducks ingest any significant amount of forage fish larva. Instead, the evidence demonstrates that bivalves selectively ingest smaller organisms. Their primary food source is phytoplankton, which is much smaller than forage fish larvae.

[3] A harvestable geoduck weighs about 1.5 pounds. Ex. R-130.
[4] Geoducks are one type of bivalve. Ex. R-130.

Further, geoducks live below the sea floor and their feeding siphons only influence the bottom few centimeters of the water column. Forage fish larva, however, are found throughout the water column. Almost all of the studies which show some ingestion of forage fish larva by bivalves involve bivalves suspended from structures, not buried in the substrate. Therefore, the weight of the scientific evidence supports a finding that it is unlikely that the geoducks' feeding practices will affect forage fish. Penttila Testimony, Davis Testimony, Exs. R-115, R-130, P-86-91.

C. Sediment

30.

In addition to concerns regarding sediment reaching forest fish spawning areas, Petitioners raised other concerns regarding sediment. Petitioners' expert coastal geologist, Mr. Johannessen, stated that the PVC tubes and netting would cause an accumulation of sediment, that sediment would be released during water jet harvest, that the water jet harvest would result in a lack of sediment compaction, and that sediment transported from the three Henderson Inlet farms could change a land form to the south of the farms, called a cuspate spit. As stated previously, Mr. Johannessen had not visited these particular farm sites, nor had he done any site specific analysis. His concerns were based on his general expertise and some scientific literature, most of which was not specific to geoduck farming. For example, he relied upon one study that related to cultivation of manila clams at a different tidal elevation and with substantially different netting practices. Mr. Johannessen's generalized concerns were convincingly refuted by Dr. Osborne, who had performed a specific site analysis of the three Henderson Inlet farms. Dr. Osborne also assessed potential impacts from these farms based on

conceptual modeling of harvest plume dispersion and settlement. Dr. Osborne concluded that sediment accretion from the tubes would consist of a thin layer of sediment that would constitute only a small percentage of the overall sediment budget, and that it would be re-distributed by moderate wave action once the tubes were removed. He also concluded that because the farms are located outside of the region of dominant along-shore sediment transport, large scale off-site deposition or erosion is unlikely. He noted that based on the size of the cuspate spit mentioned by Mr. Johannessen and the amount of sediment released during a geoduck harvest, the spit would not be affected by the three farms. Johannessen Testimony, Osborne Testimony, Exs. R-46, P-77.

31.

Mr. Johannessen also raised concerns that water jet harvesting would result in changes to sediment firmness, which could make the sediments more subject to erosion. Dr. Osborne's testimony rebutted these concerns by noting that fluidization caused by water jet harvest would be temporary, and would fill in over a couple of tide cycles. This opinion was supported by witnesses that had been present on geoduck beds post-harvest and who testified that the beach recovers to normal conditions rapidly. Mr. Johannessen acknowledged that he had never been to a geoduck site during or after a harvest. Johannessen Testimony, Osborne Testimony, Phipps Testimony.

32.

The Board finds, based on the weight of the evidence that is most specific to geoduck harvesting practices, that the proposed harvests are unlikely to cause other than temporary

impacts from sediment release.

D. Salmon

33.

Petitioners presented some evidence on possible impacts to salmon. One suggested impact is based on recent research that has shown that sculpins, a prevalent bottom fish, actually increased in size on the geoduck farms compared to reference plots without geoduck aquaculture. Petitioners contend that sculpin eat juvenile salmon and therefore an increase in sculpin would disfavor salmon. The research, however, did not show an increase in the population of sculpin, but just the weight of the sculpin. Further, Dr. Glenn VanBlaricom testified that there is little evidence of salmon predation by sculpin. In 440 sculpin stomachs examined, no juvenile salmonids were found. Other results from the recent study indicate that prey species for salmon increase around geoduck farms. VanBlaricom Testimony, Houghton Testimony, Exs. R-153, R-132.

34.

Net's SSDP contains a specific timing restriction for the protection of juvenile salmonids. It provides that:

> . . . in-water work must occur when juvenile salmonids are absent or present in very low numbers . . . Currently it is anticipated that in-water work will only be allowed between July 16 and February 15.

Ex. N-5, p. 20, condition 17.

35.

The Board finds, based on the weight of the evidence presented, that these proposed farms, as conditioned, are unlikely to impact salmon.

36.

E. Marine debris

The potential impacts from marine debris falls into three categories: (1) pollution from escapement of aquaculture gear, (2) entanglement of species in nets and (3) pollution from breakdown of plastics. Petitioners evidence on these points consists of testimony from their expert, Captain Charles James Moore, generalized scientific articles on plastic pollution and species entanglement, and policy statements and petitions. Exs. P-34, P-35, P-40, P-43, P-48, P-58. In addition, Capt. Moore presented one e-mail from a WDFW research scientist relating to estimates of aquaculture debris from a bottom trawl survey conducted in 2005 in South Puget Sound. Ex. P-33. Capt. Moore, while very informed and passionate regarding the problem of plastics in the oceans, is not a toxicologist or trained scientist nor did his testimony connect the proposed geoduck farming practices to an increase in marine debris. None of the information, with the exception of the e-mail, was specific to geoduck farming, the farms at issue in this case, Henderson Inlet and Eld Inlet, aquaculture, or even, for the most part, the South Puget Sound. With regard to the e-mail from WDFW, Capt. Moore was not involved in the trawl mentioned, and was not familiar with how the information from the trawl was utilized to obtain the results indicated in the e-mail. Moore Testimony, Ex. 33. Petitioners also presented testimony from

citizens who had observed marine debris on their beaches including rope, netting, wire and plastics. Sheikhizadeh Testimony, Eggelston Testimony.

37.

In response to the Petitioners information, the Respondents presented testimony pertaining to the potential for aquaculture gear to escape from these particular farms based on their particular farming practices. All of these farms use canopy netting which is secured to the beach with rebar. Canopy netting has proven very effective in containing the tubes. In addition to using canopy netting, TSF, Arcadia, and Net all perform regular inspections of their farms to ensure that netting has not come loose, and to collect any loose PVC tubes. TSF and Arcadia also presented expert testimony that escaped tubes from these farms are likely to migrate up the beach and then be collected during routine beach inspections. Ms. Meaders, who offered this opinion, based it upon site-specific work performed by Dr. Osborne and Dr. Joel Baker. Meaders Testimony, S. Wilson Testimony, Phipps Testimony, Xia Testimony, Exs. R-115, R-128, R-137.

38.

TSF geoduck division manager, Brian Phipps, testified regarding data from bi-annual cleanups of garbage from south sound beaches. The shellfish industry started these cleanups in approximately 2005. The garbage they collect is counted and categorized. The number of PVC tubes collected has significantly declined, from a high of 500 tubes, to only two recently. Phipps Testimony, Exs. R-65, R-66.

39.

Ms. Meaders responded to the e-mail information presented by Capt. Moore based on a 2005 bottom trawl survey. The e-mail stated that bottom trawl survey estimates of aquaculture debris in South Puget Sound indicate that there are 61,600 items of netting and 21,600 tubes in the South Puget Sound. Unlike Capt. Moore, who was not familiar with how the actual data from the trawl was used to arrive at the numbers in the e-mail, Ms. Meaders was. She had verified that 12 PVC tubes and 22 nets were collected in the bottom trawl survey of 2005, and that this number was then extrapolated to indicate there are 61,600 items of netting and 21,600 PVC tubes in the entire south sound. She testified that the method of extrapolation utilized to reach these numbers was faulty, because the extrapolation was based on tubes and nets behaving like fish. She opined that this is not a scientifically valid extrapolation. Ms. Meaders testified that the distribution of debris is more irregular because it is dependent on wave action. Meaders Testimony, Moore Testimony, Ex. P-33.

40.

Respondents also presented testimony pertaining to the specific type of netting used by the geoduck industry, and contrasted it to the type of netting used for fishing. Geoduck farmers use canopy netting, not fishing nets. Unlike fishing nets, geoduck canopy netting is not designed to entrap aquatic species. When loose, geoduck canopy netting sinks while fishing nets float. Canopy netting is much more visible than gill nets in particular, which are designed to hang in the water vertically and be virtually invisible. The scientific literature and petitions relied upon by Petitioners addressing entanglement pertains primarily to fishing nets and does not

specifically address geoduck canopy netting. S. Wilson Testimony, Moore Testimony, Exs. P-35, P-43, P-48. In addition, Respondents presented testimony that the geoduck nets are secured during the first one to two years of harvest when they are present, that they are monitored to verify that they remain secure because they are needed for geoduck predator protection, and that they are removed as part of the harvest practice cycle. Phipps Testimony, S. Wilson Testimony, Xia Testimony.

41.

The final area of potential impacts from debris raised by Petitioners involves pollution from microplastics. Microplastics are sub-centimeter particles of plastic that come from the physical degradation of plastic in the environment. Ms. Meaders testified that microplastics are unlikely to be generated on these geoduck farms because the tubes would need to be exposed to several years of sunlight before they would break down. When the limited sunlight exposure they actually experience is combined with the relatively low wave energy and the debris control efforts by the farm managers, Ms. Meaders does not anticipate that a significant amount of microplastics will be generated. Ms. Meader's opinion is consistent with sediment sampling results from existing geoduck farms, and analysis of stomach contents of fish caught in geoduck tube farms, which has not shown the presence of microplastics. A final point made by Ms. Meaders, is that PVC is very stable, and it is unlikely to release chemicals naturally. This result has been confirmed in sediment sampling of an existing geoduck farm with tubes. Meaders Testimony, Exs. R-115, R-125, R-126, R-128, R-137.

42.

The Board finds, based on the weight of the evidence presented on the potential for impacts from escapement of aquaculture gear from these proposed farms, entanglement of species in canopy nets used on these farms, and pollution from breakdown of plastics from the PVC tubes used on these farms, that these farms are unlikely to have such impacts.

F. Recreation/navigation

43.

Petitioners presented the testimony of several individuals that recreate around and in the waters of South Puget Sound. They each testified as to how their recreational use of South Puget Sound had been negatively impacted by established geoduck farms in the area. Common themes in their testimony included negative interactions with geoduck farm workers/managers when kayaking or paddling past geoduck farms, being told by geoduck farm workers/managers that they were on private property when they were in several feet of water, and feeling threatened when boating past a geoduck farm; inability to go close to the shore or access inlets on low tides in paddle boats and kayaks because of the presence of PVC tubes; inability to fish in shallow areas where geoduck farms are present because of the presence of PVC tubes; having props on small boats get caught in nets; and being afraid to scuba dive in areas due to the presence of geoduck nets and the possibility of entanglement. Macomson Testimony, Eggelston Testimony, Troy Testimony, McDonald Testimony, Paradise Testimony.

44.

In response, the applicants testified that they do not restrict public use of the waters overlying their farms or public access to the beach. The evidence in the record is that the PVC tubes protrude only two to six inches from the substrate. Further, the tubes are present only about 24 months out of the multi-year growing cycle of one planting of geoducks. Geoduck farmers themselves occasionally use scuba diving to harvest geoducks. Steve Wilson, who is an experienced diver, testified that divers work in and around geoduck canopy nets all the time. In his opinion it is very unlikely that a scuba diver could become entangled in geoduck canopy nets. Wilson Testimony, Xia Testimony, Cooper Testimony, Phipps Testimony.

45.

The Board finds that, while these geoduck farms may cause very limited restrictions to recreating in very shallow water in the area of the farms when the PVC tubes are present, the impact from these restrictions on the public will be very minor.

G. Cumulative Impacts

46.

Neither the County nor the applicants performed a shoreline cumulative impacts analysis prior to the approval of the four SSDPs at issue here. Petitioners did not challenge the negative threshold determination under the State Environmental Policy Act (SEPA), but raised the issue only as it relates to the Shoreline Management Act (SMA) and the local shoreline master program and related regulations with respect to cumulative impacts. Thus, although the evidence in the record before the Board did not include what cumulative impact analysis may have been

done under SEPA, evidence was referenced and testified about regarding analysis of the potential for cumulative impacts through other regulatory processes. The U.S. Army Corps of Engineers (Corps) took a broader look at impacts from shellfish aquaculture in Washington State in 2007 and 2012 when it issued Nationwide Permit (NWP) 48. NWP 48 is a permit applicable to the entire United States issued under section 404 of the federal Clean Water Act. Nationwide permits are used to authorize activities that have minimal individual and cumulative adverse effects on the aquatic environment. Ex. R-116, 77 Fed. Reg. 10184. As part of NWP 48's initial issuance, the National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFW) issued programmatic biological opinions for all shellfish aquaculture activities in 2009. Exs. R-118, R-119. When NWP 48 was reissued in 2012, the Corps decision document concluded:

> [T]his NWP will be used approximately 3,200 times on a national basis . . . Approximately 3,320 acres of navigable waters will be temporarily impacted by the authorized activities. . . .Shellfish harvesting and bed preparation activities can be considered 'pulse disturbances' that have temporary effects on aquatic ecosystems, because those ecosystems will recover after those disturbances occur (Dumbauld et al. 2009). . . .The individual and cumulative adverse effects on the aquatic environment resulting from the activities authorized by this NWP will be minimal.

Ex. R-117, p. 38.

47.

In 2007, the Washington Legislature also directed that Washington Sea Grant, based at the University of Washington, conduct research on the possible effects of geoduck aquaculture on the Puget Sound and the Strait of Juan de Fuca environments. While this research is not yet completed, Sea Grant has submitted interim reports to the Legislature. The February 2012

progress report is consistent with the Corps' conclusion that effects from geoduck aquaculture are temporary. In particular, Sea Grant's initial conclusion is that effects from geoduck nets and tubes do not persist once the nets and tubes are removed. Ex. R-1.i.26, p. 4.

48.

Many of the Petitioners' witnesses testified to their own perception that the amount of tidelands in geoduck aquaculture in Thurston County was increasing dramatically. However, a map was created for the NWP 48 issuance process in 2008, which showed all of the existing farms at that time. Ninety percent of the farms currently in existence were on the 2008 map. Since the 2008 review, less than 12 new farms have been established, covering approximately four acres total. Data showing pounds of cultivated geoducks harvested from 2009 through 2012 in Washington state also does not support a finding of a marked geoduck farming expansion. Cooper Testimony, Moore Testimony, Daley Testimony, Eggelston Testimony, Troy Testimony, Xia Testimony, Ex. N-51.

H. The permitting and review process

49.

The four applications on appeal received extensive review by Thurston County. All four were subject to review under SEPA. The applicants completed SEPA environmental checklists, which the County reviewed, along with extensive additional information and site visits, and then issued mitigated determinations of non-significance (MDNS). The MDNS issued for the Arcadia/Thiesen and Arcadia/McClure Farms listed 54 items that the County considered in reaching its SEPA MDNS determination and placed eight mitigating conditions on the permit. A

subsequent addendum listed two more items considered and added one more condition. The MDNS issued for the Net/Wheeler Farm listed consideration of 21 documents and imposed 14 mitigating conditions. The MDNS for the TSF/Lockhart Farm listed 54 items that the County considered in reaching its SEPA MDNS determination and placed eight mitigating conditions on the permit. A subsequent addendum listed two more items considered and added one more condition. The SEPA determinations on these applications were not appealed to this Board and are not at issue in this case. Exs. R-1.g, R-1.h, R-3.g, R-3.h, R-8, R-12, R-16, N-3, N-7.

50.

Following completion of SEPA, the County staff recommended that the SSDPs be approved. The County Hearing Examiner (Examiner) held a combined open record hearing on the Arcadia and TSF applications, and a separate open record hearing on the Net application. Subsequently, the Examiner issued separate Findings, Conclusions and Decisions on all four applications approving the SSDPs. The Arcadia/McClure, Arcadia/Thiesen, and TSF/Lockhart decisions were each 40 pages in length, and added 17 conditions to the permits. The Net/Wheeler decision was 26 pages in length and added 12 conditions to the permit. Exs. R-1, R-3, R-5, R-8, R-12, R-16, and N-3.

51.

Following petitions for reconsideration, and appeals to the Board of County Commissioners (BOCC), the Petitioners appealed the County's decisions approving the four SSDPs to this Board. Exs. R-9, R-10, R-11, R-13, R-14, R-15, R-17, R-18, R-19, and N-16.

52.

In addition to the SEPA and SMA review processes at the County, these applications are also subject to other permitting requirements. Under section 404 of the federal Clean Water Act, new geoduck farms must obtain authorization either pursuant to an individual Corps permit or NWP 48. NWP 48 contains 31 general terms and conditions that farms must comply with. Ex. R-1.i.14. Farms covered under NWP 48 must also comply with any special conditions imposed by the Seattle District of the Corps. The Arcadia/McClure, Arcadia/Thiesen and Net/Wheeler farms have all received certification under Nationwide Permit 48. Exs. R-22, R-23, and N-9. Their certifications impose numerous additional special conditions. The TSF/Lockhart Farm has received letters from both the U.S. Fish and Wildlife Service and the National Marine Fisheries Service that the farm is not likely to adversely affect species or critical habitat listed under the Endangered Species Act (ESA). Cooper Testimony, Xia Testimony, S. Wilson Testimony, Exs. R-24 and 26.

53.

There is also additional review by the Washington State Department of Ecology (Ecology) for issuance of a Section 401 water quality certification under the Clean Water Act, which certifies compliance with federal water quality standards. The Arcadia/McClure, Arcadia/Thiesen and Net/Wheeler Farms have received water quality certification from Ecology. Diane Cooper, permit administrative for TSF, testified that Ecology's water quality certification for the TSF/Lockhart's farm is pending. Cooper Testimony, S. Wilson Testimony, Xia Testimony, Exs. R-20, R-21, N-15.

54.

The Pacific Coast Shellfish Growers Association, the group that represents shellfish farmers in Alaska, Washington, Oregon, California, and Hawaii, has also established its own set of environmental regulations entitled *Environmental Codes of Practices for Pacific Coast Shellfish Aquaculture* (ECOP). Ex. R.1.i.10. These codes are "intended to serve as a guideline for developing, complying with and monitoring best management practices for shellfish aquaculture operations that complement the ecosystem in which farmers work." Ex. R.1.i.10, p. 3. While ECOP is not a stand-alone regulatory document, the County, through its SEPA conditions on these four applications, requires compliance with the most current ECOP for all preparation, planting, maintenance and harvesting undertaken on these farms. Exs. R-1.i.10, R-1.g, R-3.g, N-7.

55.

Any Conclusion of Law deemed to be a Finding of Fact is hereby adopted as such.

CONCLUSIONS OF LAW

1.

The Board has jurisdiction over this matter pursuant to RCW 90.58.180. The scope and standard of review for this matter is *de novo*. WAC 461-08-500(1). The Petitioners have the burden of proof. WAC 461-08-500(3).

2.

The Petitioners appealed the County's approval of all four of these applications to this Board. The parties agreed to consolidation of the appeals. The three Respondents filed

dispositive motions, which were denied by the Board. Summary Judgment Decision. The appeals then proceeded to a five day evidentiary hearing, in which the Board heard testimony from 24 witnesses, including 12 experts.

3.

The pre-hearing order entered in this case identified the following issues for hearing:

1. Was the County's approval of the four SSDPs at issue in this consolidated appeal done in violation of RCW 90.58.020 because:
   a. The authorized development does not protect against adverse effects to the shoreline ecology and environment?
   b. The authorized development does not promote and enhance the public interest?
   c. The authorized development does not protect the public right of navigation?
   d. The authorized development does not preserve, to the greatest extent feasible, the public's opportunity to enjoy the physical and aesthetic quality of the natural shoreline?
   e. The authorized development does not control pollution?
   f. The authorized development does not prevent damage to the natural environment?
   g. The authorized development, given its mitigating condition, has not been designed nor will it be conducted in a manner that minimizes, insofar as practical, resulting damage to the ecology and environment of the shoreline?
   h. The authorized development has not been designed nor will it be conducted in a manner to minimize, insofar as practical, interference with the public's use of the water?
   i. The authorized development failed to consider the cumulative impacts to the ecology and environment of the shorelines of the region due to the adverse effects arising from its operation?

2. Was the County's approval of the four SSDPs at issue in this consolidated appeal in violation of the SMA, RCW 90.58.140, its implementing regulations, WAC 173-27-140 and 173-27-150, and the Thurston County Shoreline Master Program (SMP), Section 1, Part II(A), Section 2, Part V(F), and Section 3, Part III(D), because the authorized development is inconsistent with the polices of the SMA?

3. Was the County's approval of the four SSDPs at issue in this consolidated appeal in violation of SMA, RCW 90.58.020, its implementing regulations WAC 173-27- and the SMP because it failed to provide adequate conditions to mitigate any resulting damage to the ecology and environment of the shoreline by:
   a. Failing to include a condition requiring pre-harvest survey for all species of vital forage fish (pacific herring, sand lance, and surf smelt)?

b. Failing to include a condition requiring that no operations were to occur when forage fish egg and/or larvae are present?
c. Failing to include a condition precluding in-water harvesting?
d. Failing to include adequate conditions to prevent the spread of marine plastic debris and adequate third party monitoring and enforcement?

4. Was the County's approval of the four SSDPs at issue in this consolidated appeal in direct violation of SMA, RCW 90.58.020, its implementing regulations WAC 173-27- and the SMP because it failed to provide adequate conditions to mitigate any interference with the public's use of the shorelines?

5. Was the County's approval of the four SSDPs at issue in this consolidated appeal in violation of SMA, RCW 90.58.020, because it failed to recognize and protect private property rights consistent with the public interest?

A. SMA and TRSMP

4.

Any shoreline development undertaken in Washington must be consistent with the policies and procedures of the Shoreline Management Act (SMA) and its associated regulations, and the applicable local shoreline master program, which in this appeal is the Thurston Region Shoreline Master Program (TRSMP). RCW 90.58.140(1); WAC 173-27-150.

5.

The SMA identifies a preference for water-dependent uses of the shoreline. RCW 90.58.020. Ecology's shoreline rules state that:

> [Aquaculture] is of statewide interest. Properly managed, it can result in long-term over short-term benefit and can protect the resources and ecology of the shoreline. Aquaculture is dependent on the use of the water area and, when consistent with control of pollution and prevention of damage to the environment, is a preferred use of the water area.

WAC 173-26-241(3)(b).

Ecology's regulation further states, however, that:

> Local government should consider local ecological conditions and provide limits and conditions to assure appropriate compatible types of aquaculture for the local conditions as necessary to assure no net loss of ecological functions.

WAC 173-26-241(3)(b).

6.

The Board, in *Longbranch*, summarized the Board's past statements regarding aquaculture. It stated:

> Aquaculture is a desired and preferred water-dependent use of the shoreline. *Cruver v. San Juan County and Webb*, SHB No. 202 (1976). Aquaculture is of statewide interest and benefit, and when properly designed and managed, does not impose on navigation or recreational uses of nearshore waters and does not interfere with shoreline and upland residential uses. *Penn Cove Seafarms v. Island County*, SHB No. 84-4 (1984) at 9. The State identifies aquaculture as an activity of statewide interest, and when properly managed, an activity that can result in long-term over short-term benefit and protection of the resources and ecology of the shoreline. *Marnin and Cook v. Mason County and Ecology*, SHB No. 07-021 (Modified Findings of Fact, Conclusions of Law, and Order, Feb. 6, 2008)(referencing WAC 173-27-241(3)(b)).

Longbranch, p. 23, CL 12. As further noted by the Board, "[t]he importance of geoduck aquaculture to the State was recently restated in the Washington Shellfish Initiative announced on December, 9, 2011." *Id.* at p. 25, CL 16. The Board considered these policy statements when it reviewed the SSDP issued by Pierce County in *Longbranch* and concluded that it comported with the applicable provisions of the SMA and Pierce County's Shoreline Master Program. *Id.*

7.

The TRSMP provides support for properly located and managed geoduck aquaculture. Thurston Region policy is to "strengthen and diversify the local economy by encouraging aquaculture uses" while reviewing proposed aquaculture activities for "impacts on the existing

plants, animals and physical characteristics of the shorelines." TRSMP, Section 3, Part II(B), 1, 8. For all development within the shoreline, "protection of water quality and aquatic habits is recognized as a primary goal." TRSMP, Section 2, Part V (B).

8.

The four farms at issue are located in either the conservancy shoreline environment (Arcadia/McClure and Net/Wheeler) or the rural shoreline environment (TSF/Lockhart and Arcadia/Thiesen). Aquaculture is allowed in both of these shoreline environments. TRSMP, Section 3.II.D.

9.

While the parties have identified an extensive list of issues in the pre-hearing order, the questions presented to this Board for determination, based on the evidence presented during the hearing, collapse down to whether the approved SSDPs for the four farms, as conditioned, will adequately prevent impacts to forage fish, salmon, and the public's recreation and navigation, or will allow the farms to harm nearshore and shoreline uses through the release of damaging levels of sediment and marine debris. An additional question is whether the County should have performed a shorelines cumulative impacts analysis prior to approving the SSDPs for these four farms.

B. <u>Likelihood of potential impacts from these four farms</u>

10.

The Board heard extensive testimony from qualified experts on both sides pertaining to the question of impacts to forage fish. The best current site-specific evidence pertaining to the

two Arcadia Farms and the TSF/Lockhart Farm supports the conclusion that the proposed geoduck operations at these farms will not cause impacts to forage fish spawning habitat. Based on WDFW mapping there are no sand lance spawning areas in the vicinity of these sites. There is surf smelt habitat in the vicinity; however, there is a significant vertical and horizontal separation between the cultivated areas of the proposed farms and surf smelt habitat.

11.

The best current site-specific evidence pertaining to the Net/Wheeler farm supports the conclusion that the proposed geoduck operations at this farm will not cause impacts to forage fish spawning habitat. Based on WDFW mapping, surf smelt spawning habitat is not located in the vicinity of these sites, but sand lance habitat is. However, because of the elevation that sand lance spawn at (above +3), and because the geoduck farming will be conducted below + 3, the geoduck farm will not impact sand lance spawning.

12.

None of the four farms at issue are located in or adjacent to documented herring spawning areas. Further, none of the farms contain eel grass, which is an important for the support of herring spawning. As a further safeguard, all of the SSDPs for the farms contain special conditions requiring a pre-harvest survey for herring spawn, and prohibiting harvesting when herring spawn are present. Based on this evidence, the Board concludes that the SSDPs will not impact herring spawning.

13.

Petitioners presented some testimony pertaining to the possibility of other impacts to forage fish from the four geoduck farms. One possible impact is the potential for transport of sediment released as a result of the geoduck harvest to sand lance and surf smelt spawning areas. The Board concludes that while Petitioners made an initial showing that this impact was possible, it was solidly and convincingly refuted by the site specific evidence from Dr. Osborn and Ms. Layes regarding the dynamics of sediment transport on these sites, and the distances between the geoduck cultivation and spawning habitat. Another possible impact raised by Mr. Penttila and Mr. Davis was from geoducks competing with forage fish for food. Based on research he performed regarding the amount of phytoplankton removed by geoducks, Dr. Davis opined that geoducks do not consume sufficient amounts of plankton to deplete this food resource for other species. Dr. Davis's opinion, based on his own research, refutes Petitioners initial showing of a possible impact. Finally, based on scientific literature, Mr. Penttila and Dr. Davis note that bivalves ingest forage fish larvae, and that, because geoducks are bivalves, this could have a negative impact on forage fish. While the literature supports the conclusion that geoducks *occasionally* ingest forage fish larvae, the weight of the evidence presented by Petitioners in this case does not support a conclusion that this would cause any significant measurable impact to forage fish.

14.

While there was less evidence introduced by Petitioners regarding impacts to salmon, other than to the potential impact to the forage fish that salmon eat, some testimony was

presented regarding the increase in sculpin on geoduck farms. If true, this could potentially impact salmon because sculpin eat juvenile salmon. This testimony was based on a misunderstanding of the research about the impacts to sculpins from geoduck farms (the size of sculpins increase, but not the number). Further, sculpins do not eat a significant amount of juvenile salmon. Therefore, the Board concludes the Petitioners have not met their burden of proof to establish a negative impact to salmon from these farms. Overall, the Board concludes that the Petitioners have failed to meet their burden of proving that these farms will negatively impact either forage fish or salmon.

15.

Petitioners also contend that these farms can have adverse impacts because of other possible effects on sediment at the farms, such as an accumulation of sediment because of the presence of PVC tubes and nets, the release of sediment during water jet harvest, the possibility that the water jet harvest would result in a lack of sediment compaction, and that sediment transported from the three Henderson Inlet farms could change a land form to the south of the farms, called a cuspate spit. Here again, while the Petitioners were able to make an initial showing of these potential impacts, the Petitioners evidence was convincingly refuted by the site specific analysis performed by Dr. Osborne.

16.

Another area of potential impacts from these farms is from marine debris. Petitioners offered testimony on escapement of aquaculture gear, entanglement of species in nets and pollution from breakdown of plastics. Most of this testimony was not specific to geoduck

farming, the farm operators involved in these appeals, Henderson Inlet and Eld Inlet, aquaculture, and even for the most part the South Puget Sound. In response to this generalized testimony, the Respondents presented specific evidence regarding the farming practices to be used on these farms to reduce the possibility of aquaculture gear escaping, the trend downward of gear escapement from geoduck farms as documented through the bi-annual cleanups of garbage by the shellfish industry, the type of nets used by geoduck farmers as differentiated from fishing nets, the results from sediment sampling conducted near geoduck farms, and analysis of stomach contents of fish caught on geoduck farms, which fails to show the presence of microplastics near the farms. In the light of this very convincing evidence which was generally not responded to by Petitioners, the Board concludes that these farms will not have negative impacts due to marine debris.

17.

Petitioners offered evidence on one final area of potential impacts at the hearing: interference with the public's recreational activities along the shorelines where these proposed farms will be located. Many of the witnesses that testified were kayakers that had experienced negative encounters with geoduck farm workers. A recreational fisherman testified about limitations on access to shallow water when PVC tubes are present. Scuba divers were afraid that they could become entangled in geoduck area netting.

18.

As to the risk of entanglement for scuba divers, the Board is not convinced, given the visibility of the geoduck netting and the fact that it is anchored to the substrate, that geoduck

canopy netting causes much, if any, risk of entanglement. The evidence established that most of the risk of entanglement to both divers and other animals comes from escaped, and nearly invisible, fishing nets, not geoduck nets.

19.

The evidence established that in areas and times when the water is the most shallow, and PVC tubes and nets are present, kayakers may be restricted from paddling all the way up to the shoreline, and fishermen could not fish right up to the edge of the shoreline. The Board notes that these minor restrictions are of limited duration (PVC tubes and nets are present only for at most two of the approximately six to seven years the geoducks are in the ground). Further, the impact is in a very limited area geographically (because the PVC tubes protrude about six inches from the substrate). Of most significance to the Board, the evidence did not establish that there was anything unique in the location of these proposed farms that made these very minor restrictions to recreation any more significant than they would be from any geoduck farm. The Legislature, in the SMA, has already made the decision that the minor, temporal and geographical limited restrictions from well-managed and -located geoduck farms are justified by their long-term benefit to the statewide interests. Therefore, the Board concludes that the very minor restrictions on recreation posed by these farms does not violate the SMA and or TRSMP.

20.

The Board was troubled by accounts from citizens that they felt intimidated by geoduck farmers when recreating on waters of the Puget Sound. The answer to these types of problems, however, is not precluding these four geoduck farms. Instead it is the responsibility of geoduck

farmers to properly manage and train their workers to prevent these situations. Further, if a citizen determines that they have been precluded from the use of public waters by threatening or intimidating actions of geoduck farmers or their workers, it is incumbent on the citizen to bring the encounter to the attention of the farm owners and/or appropriate regulatory agencies and/or law enforcement.

C. Need for cumulative impacts analysis

21.

The final question for this Board is whether the County should have performed a cumulative impacts analysis prior to making a decision on these SSDPs. The Board recently visited the issue of when a cumulative impacts analysis is required prior to approval of an SSDP under the SMA in reviewing a decision in which the County denied an SSDP for a mussel raft. In that decision, the Board stated:

> Consideration of cumulative impacts is not a listed requirement for review of an SSDP as it is for shoreline conditional use permits and variances. *See* WAC 173-27-150, -160, -170. Further, the Board has stated that a cumulative impacts analysis is not required for an SSDP approval under the SMA. *Coalition to Protect Puget Sound Habitat v. Pierce County,* SHB No. 11-019 (2012)(CL 15). However, the Board has also held that it is not precluded from considering cumulative impacts in its review of an SSDP in some circumstances. *Fladseth v. Mason County,* SHB No. 05-026 (2007)(CL 13).

Taylor Shellfish Company, Inc. v. Thurston County, SHB No. 12-012, CL 9 (June 17, 2013)(*Taylor Mussel Raft)*.

22.

In *Taylor Mussel Raft,* the Board went on to list and weigh factors that it considers in determining whether a cumulative impacts analysis is warranted in review of an SSDP. Taylor Shellfish, SHB No. 12-012 at CL 10-12. The list includes the following factors, with the factors needing to be considered in context in order to properly weigh the significance of one or more of them to the proposal(s) in question:

1. whether a shoreline of statewide significance is involved;
2. whether there is potential harm to habitat, loss of community use, or a significant degradation of views and aesthetic values;
3. whether a project would be a "first of its kind" in the area;
4. whether there is some indication of additional applications for similar activities in the area;
5. whether the local SMP requires a cumulative impacts analysis be completed prior to the approval of an SSDP;
6. the type of use being proposed, and whether it is a favored or disfavored use.

23.

TSF and Arcadia argue that "with regards to geoduck aquaculture, a cumulative impact analysis is generally inappropriate because each 'proposal will need to be reviewed on its own particular site characteristics.'" TSF and Arcadia cite the Board's decision in *Longbranch*, CL 15, for the source of this conclusion. TSF/Arcadia's closing argument, p. 11, lines 17-20. However, TSF and Arcadia misunderstand the point of the Board's quoted language. The correct meaning of the Board's statement becomes clear when the quoted sentence is considered along with the following sentence. The full quote states:

> With respect to geoduck aquaculture, the Board concludes that each separate geoduck aquaculture proposal will need to be reviewed on its own particular site characteristics. For example, if a particular proposed site had currents that made it likely to transport sediments over known spawning areas of forage fish, the Board would give that particular proposed project considerable scrutiny.

Longbranch, CL 15. By this statement, the Board was not implying that geoduck applications should never be subjected to a cumulative impact analysis, but rather that each farm's particular characteristics should be considered when applying the factors used to determine whether a cumulative impact analysis is required.

24.

Here, when considering the particular characteristics of these farms in light of the cumulative impacts factors, several factors point to the conclusion that no cumulative impacts analysis is required. None of these four SSDPs are on shorelines of statewide significance. See RCW 90.58.030(2)(f). Based on the weight of the evidence presented after five days of hearing, the Board has concluded that none of the applications individually will likely have any significant, measurable, or long-term adverse impacts on forage fish habitat and salmon, and that public recreation will be subject to only minor restrictions. Further, nothing in the evidence presented to the Board establishes anything unique to these farms that would cause a greater amount of impact to recreational use than would be anticipated with any geoduck farm. Petitioners did not present evidence on potential aesthetic impacts, nor was this point argued in closing arguments. There are already geoduck farms in both Henderson and Eld Inlet, and geoduck farming is a desired and preferred water-dependent use. These factors all support a conclusion that no cumulative impacts analysis is necessary.

25.

However, there are factors that point in the other direction. For instance, there are four applications at issue in this appeal, and three are in fairly close proximity to each in Henderson Inlet. Further, the TRSMP, while not expressly requiring that a cumulative impacts analysis be completed prior to the approval of an SSDP, does contain the following policy statement:

> Protection of water quality and aquatic habitat is recognized as a primary goal. All applications for development of shorelines and use of public waters shall be closely analyzed for their effect on the aquatic environment. Of particular concern will be the preservation of the larger ecological system when a change is proposed to a lesser part of the system, like a marshland or tideland. (Emphasis added)

TRSMP Section 2, Chapter V, Regional Criterion B (Criterion B). The Board recognized in *Taylor Mussel Raft,* that this policy requires that proposals in Thurston County be analyzed for their effects on the aquatic environment. *TSF,* SHB No. 12-012, CL 12. Here, based on the weight of the evidence presented, the Board has concluded that impact on the aquatic environment from sediment released through the proposed geoduck operations will be minimal and temporary. The Board has also concluded that these farms will have little, if any, impact on forage fish and salmon. In addition, while no cumulative impacts analysis has been done for these applications, there is some evidence in the record pertaining to the potential for cumulative impacts from geoduck farming in general. The Corps' decision document, which it prepared to support its re-issuance of the NWP 48 in 2012, concludes that the geoduck farms authorized by the re-issued nation-wide permit (approximately 3,200 geoduck farms) would only result in 'pulse disturbances' that have temporary effects on aquatic ecosystems, and that those systems

will recover after those disturbances occur. The other evidence in the record pertaining to the potential for cumulative impacts from geoduck farming, which is focused on the Puget Sound, comes from the Sea Grant research. This research is still preliminary, however, interim reports from the research support the Corps' conclusion that any cumulative effects from geoduck farming will be temporary.

26.

On balance, it is a very close call whether a cumulative impacts analysis is warranted prior to approval of these four SSDPs. The County apparently reached the same conclusion, because, while not requiring a pre-approval cumulative impacts analysis, it included a special condition on all four of these applications pertaining to the potential for cumulative impacts. This condition states:

> The subject operation shall be reviewed by the Resource Stewardship Department through an open record review hearing in front of the Thurston County Hearing Examiner prior to subsequent replanting or within seven years, whichever occurs first. Review shall assess emerging environmental research and environmental issues arising from the approved operation, if any. If facts at the time of the review warrant cumulative impact analysis under then-applicable law, it shall be conducted during the review. The hearing shall be held within 60 days following an application for review filed by the Applicant with the Thurston County Resource Stewardship Department.

Ex. R-9, p. 40, condition 10, Ex. R-13, p. 39, condition 10, Ex. R-17, p. 39, condition 10, Ex. N-3, p. 25, condition 7.[5]

[5] The BOCC also expressed concerns regarding "the existing and continued growth of this aquaculture, given that the science demonstrating the long term effects of this practice on the shoreline ecology is relatively new." The Commissioners, when reviewing and affirming the Examiner's decisions, were reassured by the special condition that "the County will continue to thoughtfully and carefully assess the approved geoduck farm." Exs. R-11, R-15, R-19, N-16.

27.

Considering all of the factors, and given the special condition requiring the re-opening of consideration of whether a cumulative impacts analysis should be required, the Board concludes that Petitioners have failed to meet their burden of proving that the County should have required a cumulative impacts analysis prior to the approval of these four SSDPs. The Board reaches this conclusion, however, only due to the strict conditioning on these applications including the special condition requiring another review prior to replanting.

28.

Any Finding of Fact deemed to be properly considered a Conclusion of Law is hereby adopted as such.

Based upon the foregoing Findings of Fact and Conclusions of Law, the Board enters the following:

ORDER

1. The SSDP's issued for the TSF/Lockhart, Arcadia/Wheeler, Arcadia/Thiesen and Net/Wheeler farms are affirmed.

2. The *Washington Geoduck Growers Environmental Codes of Practices* shall be treated as containing mandatory requirements rather than optional practices. Likewise, to the extent it is applicable to the growing and harvesting of geoducks, the *Pacific Coast Shellfish Growers Association Environmental Codes of Practice* (Exhibit R-1.i.10), dated June 14, 2011, shall be treated as containing mandatory requirements rather than optional practices.

3. In the event that conditions issued by the various permitting agencies or those contained in the Pacific Coast Shellfish Growers Association's *Environmental Codes of Practice for Pacific Coast Shellfish Aquaculture* or the *Washington Geoduck Growers Environmental Codes of Practices* conflict, the Applicants shall comply with the more stringent condition(s).

4. Applicants shall *require* (not just encourage) their employees to attend any training made available by WDFW or any other qualified entity relating to the identification of Pacific herring spawn.

SO ORDERED this 11th day of October, 2013.

SHORELINES HEARINGS BOARD

KATHLEEN D. MIX, Member

JOAN MARCHIORO, Member

PAMELA KRUEGER, Member

JENNIFER GREGERSON, Member

PETER PHILLEY, Member

Kay M. Brown, Presiding
Administrative Appeals Judge

Appendix H

SHORELINES HEARINGS BOARD
STATE OF WASHINGTON

COALITION TO PROTECT PUGET SOUND HABITAT, Petitioner, v. PIERCE COUNTY, TAYLOR SHELLFISH, and SEATTLE SHELLFISH, Respondents.	SHB No. 14-024 FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER

Petitioner Coalition to Protect Puget Sound Habitat (Coalition) challenges Pierce County's approval of a shoreline substantial development permit (SSDP) for a geoduck farm in Pierce County. The Shorelines Hearings Board (Board) conducted a hearing on this appeal in Tumwater, Washington on March 2 through 5, 2015. The parties submitted written closing statements following the conclusion of the hearing.

The Board was comprised of Kay M. Brown, Presiding, Chair Joan M. Marchioro, and Members Thomas C. Morrill, Jennifer Gregerson, and Lily Smith.[1] Spokesperson Laura Hendricks represented the Coalition. Attorneys Samuel D. Plauche and Jesse De Nike represented Respondents Taylor Shellfish and Seattle Shellfish (Shellfish Companies). Attorney Cort O'Connor represented Pierce County. Based upon the evidence presented, the Board makes the following:

[1] The Board was unable to obtain a Shorelines Board county representative member that was both available to participate in this hearing and did not have to recuse due to conflicts. Therefore, this matter was heard by a five-member board.

FINDINGS OF FACT

A. The Haley Farm and farming practices

1.

On March 8, 2013, the Shellfish Companies submitted a Joint Aquatic Resources Permit Application (JARPA) for an 11-acre commercial geoduck farm on private tidelands located on the east shoreline of Case Inlet. The proposed new farm, called the Haley Farm, will be in the intertidal zone. The Haley Farm is located in the Rural Residential Environment under the Pierce County Shoreline Master Program (SMP), and is within the Key Peninsula Community Plan area. The proposed Farm is not located on a shoreline of statewide significance. Cooper Testimony, Booth Testimony, Exs. R-1, R-2, R-3, R-9, P-148.

2.

The Haley Farm consists of three parcels, two of which are owned by the Haley Beach Property Trust, and leased by the Shellfish Companies. The third parcel is owned by the Shellfish Companies. The Haley family owns over 50 acres of the abutting uplands, which are heavily forested and undeveloped except for one single-family residence. Washington State Parks owns upwards of 200 acres of tideland and uplands abutting to the north, northeast, and further east of the site, but the property is not currently a developed park. Excluding the Haley property, the closest residence abutting the shoreline is 2,000 feet away. Cooper Testimony, Exs. R-2, R-9, R-12, p. 5, P-148, p. 11.

3.

The beach at the Haley Farm site is gradually sloping. The lower portion is sandy and muddy while the upper portion is rockier. Shells exist throughout the beach. The uppermost portion of the beach is abutted by a medium to high bluff. The distance (fetch) from the site to the closest point on the opposite shoreline is over two miles. No eel grass, kelp, or rooted aquatic vegetation have been identified on the site. The beach does contain large numbers of sand dollars. Phipps Testimony, Cooper Testimony, Exs. P-148, p. 11, R-13, p. 26, R-24.

4.

The Haley Farm site is well-suited for geoduck aquaculture. It has the required substrate and beach topography. It also has clean water with limited pollution sources. There is no significant upland development in the area. The specific site requirements for geoduck farms are a limiting factor for geoduck aquaculture in Puget Sound. Cooper Testimony, Ex. R-13.

5.

The Shellfish Companies' crews will plant in the intertidal area on the Haley Farm between tidal elevations -4.5 to +2 as measured at mean lower low water (MLLW). Mr. Phipps, Geoduck Division Manager for Taylor Shellfish Company (TSF), anticipates that one cycle of geoduck cultivation on this site will take six years. Crews plant baby geoducks, referred to as "seed" that is obtained from a hatchery. A maximum of one-half of the site will be planted each year, using a combination of solid plastic tubes and flexible mesh tubes. The tubes measure 8-12 inches long by 4-6 inches wide, are spaced 1 foot apart, and protrude 2-4 inches above the beach.

The solid plastic tubes will be covered with a combination of either individual nets secured with bands or canopy netting covering multiple tubes secured with metal rebar with the exposed ends bent downward. The flexible mesh tubes do not require a net covering. An average of three geoducks are planted in each tube. The tubes and nets protect the baby geoducks until they reach an adequate depth and size to avoid predators. The tubes will be removed one to two years after planting, while the canopy nets remain until up to 2 ½ years after planting. As the proposed farm will initially be planted over a two-year period, different portions of the farm will be in different stages of planting, growing and harvesting throughout the life of the farm. Phipps Testimony, Exs. R-9, R-12, p. 6, P-148, pp. 12, 13.

6.

The geoducks are harvested using a hand-held water jet which is inserted into the beach next to the geoduck. The jet liquefies the substrate so that the geoduck may be removed. To avoid damaging the geoduck, the jet utilizes a high volume of water at a low pressure. A hose connects the jet to a gas-powered pump located on a vessel. The pump is located inside a noise insulated housing unit and has a muffler. Harvest may occur at low tide on the beach by beach crews or at high tide using divers. A typical harvesting event crew involves two members that harvest and one that bands the geoducks. The bands are used to keep the geoduck shells closed during transport. Harvest may occur during the day or the night, depending on the tides. When harvesting at night, the crews use headlamps. The vessel will also have a light. On the Haley Farm, all harvesting activities will be conducted from the water. The beach will not be used as a

staging area and there will be no vehicles on the beach. Phipps Testimony; Exs. P-148, pp. 12, 13; R-12. pp. 6, 7.

B. County review

7.

The County began its review of the Shellfish Companies' Haley Farm application in March 2013. The County reviewed the JARPA along with a State Environmental Policy Act (SEPA) checklist and a Pierce County Master Application, for fish and wildlife review and habitat assessment (Habitat Assessment). Exs. R-3, R-15, R-16. The County reviewed the application for compliance with the Shorelines Management Act (SMA) and SMP, as well as with SEPA. As part of its process, the County Senior Planner Ty Booth visited the site, provided notice to the public, and other local, state, federal and tribal governmental agencies, and received public comments. County Environmental Biologist David Risvold was assigned to participate in the County's review. He reviewed the Biological Evaluation prepared for the Haley Farm by Environ, the Shellfish Companies consultant, and the Habitat Assessment. Ex. R-13, R-16. He also visited the Haley Farm site. The County received many comments from the public. On April 15, 2014, the County SEPA Responsible Official issued a comprehensive nine-page Mitigated Determination of Non-significance (MDNS). The MDNS contained 11 conditions. Ex. R-4. It was appealed to the County Hearing Examiner (HEX) and a staff report was prepared for the hearing. Ex. R-1. The County staff also prepared a staff report for the HEX's review of the staff recommendation to approve the SSDP for the Haley Farm with additional conditions. The County staff proposed 11 additional conditions in addition to the 11 conditions imposed by

the MDNS. Ex. R-2. The staff reports address the comments the County had received on the Haley Farm Proposal. Booth Testimony, Risvold Testimony, Exs. R-1 through R-9, R-13, R-15, R-16.

8.

An additional step in the County review involved submitting the Haley Farm proposal to the Key Peninsula Advisory Commission (KPAC). KPAC is a group whose members are appointed by the Pierce County Council to make recommendations to the County. KPAC held a public meeting on August 19, 2014, and took testimony from members of the public. After the public testimony, KPAC voted to approve the proposal according to the staff recommendations with the conditions proposed by staff. Based upon the public testimony at the KPAC meeting, the County staff added an additional recommendation for a condition addressing public access to the site. Booth Testimony, Ex. R-18.

9.

The HEX held a public hearing on September 17 and 18, 2014. The HEX heard testimony from 23 interested parties and experts and reviewed numerous exhibits. Based on that information, the HEX issued a 40-page Report and Decision on October 21, 2014. The HEX concluded that the MDNS, as conditioned, was not clearly erroneous, and approved the SSDP with further conditions. The SSDP, which the Board is reviewing, contains 22 multi-part conditions. Ex. P-148.

10.

The approved SSDP does not contain an expiration date. Planting must start within two years of the effective date of the SSDP, and subsequent cycles of planting, cultivation and harvest do not require a new SSDP. Ex. P-148, p. 32. The County Senior Planner recommended that no expiration date be imposed, based on the County's past experience with geoduck farm permits. The County has encountered problems with expiration dates on geoduck farms, because even one cycle of geoduck cultivation can require more than the typical 5-year development period under an SSDP. Booth Testimony, Ex. R-2. The HEX accepted this recommendation and did not impose an expiration date. He did add a condition, however, that states:

> The Proponent shall provide a status report to the County's Department of Planning and Land Services every two years listing all conditions of approval from this decision, noting actions taken by the Proponent to comply with each condition and any deviations from the conditions that have occurred. The first report shall be provided two years after the effective date of this permit.

Ex. P-148, p. 30.

11.

Condition 1.B. of the SSDP requires the Haley Farm to be subject to the most current version of the Pacific Coast Shellfish Growers Association Environmental Codes of Practice and the Washington State Geoduck Growers Environmental Codes of Practice (Environmental Codes of Practice). Ex. P-148, p. 31.

C. Near shore impacts

C.1 Beach clearing

12.

Petitioner contends that the Haley Farm will have impacts on near shore habitat, community, and composition. One contention is that beach clearing will be done in preparation for geoduck farming. Petitioner presented photographs that demonstrate that beaches are cleaned in preparation for shellfish aquaculture activities. Exs. P-135, P-40. Most, if not all, of these photographs, were from types of shellfish farming other than geoducks. Phipps Testimony. The approved SSDP contains conditions addressing the scope of permissible beach preparation activities on the Haley Farm. First, the SSDP states: "There shall be no modification of topography or sediment composition to improve conditions for geoduck." Ex. P-148, Condition 22(a), p.34. The SSDP goes on to state:

> Tube placement and farming activities are to be done in a manner that precludes alteration of the shoreline's natural features. Relocation of beach features (such as, but not limited to, logs and rocks) and wildlife (such as, but not limited to, sand dollars and sea stars) shall occur only where it is not feasible to work around them. Where the relocation of such features is unavoidable, they are to be relocated as minimally as possible. Where the applicant determines that relocation at other than minor, incidental levels is needed, the County shall first be contacted.

Ex. P-148, Condition 22(b), p.34.

Mr. Phipps testified that the intertidal zone on the Haley Farm will not require any beach preparation prior to planting geoducks. He testified that the planting site does not currently have

any rocks or driftwood, and that there are no trees that need to be moved. He testified that if wood floats into the site, planting can usually be done around it. Phipps Testimony.

13.

Petitioner also expressed concerns regarding sand dollars. While the Haley Farm does have large quantities of sand dollars, their numbers do not prohibit "planting through a bed". This process involves crew members pushing sand dollars aside by hand as necessary a few inches to insert the tubes. Even if sand dollars are overturned during planting they are able to aggregate and right themselves. Some sand dollars may be damaged or killed, however, if they are under the sand and the tube is inserted on top of them. Chris Cziesla, a marine fisheries biologist with Environ, co-authored a report on the sand dollars on the Haley Farm. He testified that, based on observations of sand dollar populations at other existing geoduck farms including farms that are on their second cycle of planting, geoduck aquaculture does not have a significant impact on sand dollars. His conclusions include consideration of any impacts from harvesting as well as planting. While sand dollars may be covered by sand during harvest activities, sand coverage would not generally exceed the depth to which sand dollars routinely burrow in the sand. Cziesla Testimony; Phipps Testimony; Exs. R-13, p. 6; R-24.

C.2. Aquaculture gear

14.

Another potential cause of nearshore impact raised by Petitioner are impacts from the placement of PVC tubes, the use of canopy netting, and the maintenance of the netting. Petitioner's near-shore expert Jim Brennan offered his professional opinion regarding a

multitude of impacts from aquaculture gear, including foot traffic on the beach during delivery and dragging of equipment, impacts from insertion of the tubes into the substrate, impacts from impediment to movement of water and reduction of area available for benthic fauna and a general alteration of physical structure and processes on the beach, potential for impacts to juvenile salmonids, loss of prey availability/feeding opportunities, modification to the food web, energetics, and nutrient exchange, risk of entanglement, and aesthetic impacts. Brennan Testimony, Ex. P-135. Most of Mr. Brennan's opinions were either not based on specific scientific literature, or were based on scientific literature that was either not specific to geoduck farming and/or pre-dated more specific geoduck research. Brennan Testimony, P-135.

15.

The Shellfish Companies relied primarily on the Washington Sea Grant Geoduck Research Program (Sea Grant) to refute Mr. Brennan's concerns. In 2007, the Washington State Legislature funded this research in response to the intensive political controversy regarding geoduck farming and its possible ecological changes to marine ecosystems. One of the Sea Grant studies, published in 2014, focused specifically on the question of the effects of geoduck aquaculture gear on benthic invertebrate communities. Ex. R-35. The authors of the study concluded that geoduck gear had little influence on benthic macroinvertebrates, resulted in an increased abundance of some transient macrofauna and decreased abundance of others, and that impacts did not persist after the gear was removed. A second Sea Grant study, also published in 2014, looked at the effect of geoduck aquaculture on the Pacific staghorn sculpin. This study concluded that the structured phase of geoduck aquaculture initiated some changes to staghorn

sculpin ecology, however the general food web function of sculpin remained unchanged. Ex. R-36. While both studies were narrow in focus, did identify some changes, and contained limitations and suggestions for areas of future research, the Sea Grant study on the effects of geoduck gear is the most specific and relevant scientific information currently available on this subject. Monroe Testimony, Exs. R-23, R-35, R-36.

C.3. Harvest activities

16.

An additional area of potential near-shore impact identified by Petitioner's expert Mr. Brennan relates to harvest activities. Mr. Brennan offered his opinion that harvest activities will have a multitude of impacts including beach liquefaction, crushing of infauna/epifauna on the beach, changes in benthic community composition and soil structure, and siltation and impacts on water quality. Again, Mr. Brennan relies on older studies such as Willner 2006 and a Final Supplemental Environmental Impact Statement dated May 23, 2001, for a Washington commercial wild geoduck fishery to support his opinions. Brennan Testimony, Exs. P-135.

17.

A third Sea Grant study published in 2014 specifically evaluated ecological effects of the harvest phase of geoduck clam aquaculture on infaunal communities in South Puget Sound. Ex. R-34. The authors of the study concluded that there was scant evidence of effects on the community structure associated with geoduck harvest disturbances within cultured plots, and no indication of significant spillover effects of harvest on uncultured adjacent habitat. They also concluded that there was little evidence of harvest effects on infaunal biodiversity and

indications of modest effects on populations of individual infaunal taxa. While this study does not address all of the potential impacts Mr. Brennan testifies to, and contains limitations expressly stated by the authors, it is the most specific and relevant scientific information currently available on this subject. Munroe Testimony, Exs. R-23, R-34.

18.

The Board finds, based on the weight of the evidence, that the Petitioner failed to prove that the proposed Haley Farm, as conditioned by the approved SSDP, will cause adverse impacts on the nearshore environment as a result of beach clearing activities, use of aquaculture gear, or harvest activities.

D. Impacts to fish, birds, and from clam densities and parasites

D.1. Impacts to fish

19.

Petitioner offered testimony from Mr. Brennan to support its contention that the Haley Farm will impact fish. Mr. Brennan offers very general opinions that because nearshore fishes utilize nearshore habitats for feeding, reproduction, refuge and migration, alteration of these nearshore habitats can impact them. Further, he opines that, to the extent that fish use the areas for nurseries, the addition of structure could increase the risk of predation to juvenile fishes. Based on this general analysis he concludes that negative impacts to fish are likely. Brennan Testimony, Ex. P-135.

20.

A Biological Evaluation was prepared for the Haley Farm in August 2013, by Environ for the purposes of the federal consultation regarding listed species. Cziesla Testimony, Ex. R-13. There are seven federally listed species of fish that are found in Pierce County that potentially occur in the action area. Of the seven, only two are likely to occur. The evaluation considers potential impacts to federally-listed species and forage fish. With regard to forage fish, only Surf Smelt have documented spawning habitat adjacent to the Haley Farm. Based on the tidal height where surf smelt spawning occurs, however, there is unlikely to be any spatial overlap between spawning and geoduck operations. In contrast, Pacific herring spawn within the tidal elevation at which the area of geoduck harvesting occurs. The closest documented herring spawning area, however, is almost 1 mile from the Haley Farm. Because there is a remote possibility that herring could spawn on aquaculture gear, the Biological Evaluation imposes a condition on the proposal that a Pacific Herring spawn survey must be conducted prior to specified activities during an approved work window. Ex. R-13, p. 49, Condition 8.2(1); Cziesla Testimony.

21.

Based on a review of the Biological Evaluation, United States Fish and Wildlife (USFW) issued a letter to the Army Corp of Engineers (Corps) stating that the Haley Farm proposal is not likely to have an adverse effect on threatened or endangered species or critical habitats, as defined under the Endangered Species Act (ESA). The letter states that the project should be re-analyzed if new information reveals effects of the action on threatened or endangered species that were not considered. Cziesla Testimony, Ex. R-6.

22.

National Marine Fisheries Services (NMFS) also reviewed the proposal for potential effects on essential fish habitat (EFH) pursuant to the Magnuson-Stevens Fishery Conversation and Management Act (MSA). Chris Cziesla, Environ, who has had experience with preparation of Biological Evaluation's for the Services review, testified that under the MSA, NMFS is charged with identifying "any impact" which reduces either the quality or quantity of EFH. Once an impact is identified, NMFS must make EFH recommendations. However, NMFS does have the authority to issue terms and conditions or disagree with the Biological Evaluation and call for a formal consultation if they think there will be significant impacts. Here, NMFS identified an impact, but not a significant one, and included conservation recommendations. NMFS, like USFW, also requires a new consultation if new information becomes available that affects the basis for NMFS's conservation recommendations. Cziesla Testimony, Ex. R-5, pp. 4-5.

23.

The impact identified by NMFS, as stated in its letter, was:

> [T]he proposed action would adversely affect EFH by periodic small impacts to the benthic community, alteration to the substrate in the form of tubes and canopy netting, and increases in suspended sediments.

R-6, p. 4.

NMFS recommended the following conservation measure:[2]

[2] NMFS made two recommendations, but the second was not the subject of testimony at the hearing.

> Altered Substrates- Minimize alteration to the substrate as much as practical (e.g. use predator exclusion nets that attach to individual tubes instead of canopy netting to reduce alteration of the intertidal substrate and habitat; use flow-through mesh style tubing.

Ex. R-5, p. 5.

24.

In response to this recommendation, the Shellfish Companies modified their proposal to include smaller areas of canopy netting, more use of PVC tubes with individual net caps, and some areas of mesh tubes which completely replace the PVC tubes and canopy netting. The Shellfish Companies explained that they did not completely substitute mesh tubes for PVC tubes or canopy netting on the entire site because the efficacy of mesh tubes has not been fully confirmed. In Mr. Cziesla's opinion, the project now meets the goals of NMFS's recommendation. Cziesla Testimony; Phipps Testimony; Exs. R-1, p. 9, R-9.

25.

The County's Environmental Biologist David Risvold also considered the question of impacts to fish from the Haley Farm. He testified that he had exchanged e-mails and had conversations with Washington State Department of Fish and Wildlife (WDFW) in the past regarding a different proposal for clams and oysters in Dutcher's Cove, which is north of the Haley Farm. On that proposal, the WDFW habitat biologist had expressed concerns regarding the use of canopy netting and harvesting activities that could impact migrating salmon at that site. Mr. Risvold testified that he considered those comments in relation to the Haley Farm. He concluded that the reduction in the area to be covered in canopy netting mitigated WDFW's

concerns with netting. Furthermore, because the Haley Farm is on an exposed shoreline and not in an enclosed area like Dutcher's Cove, the concerns regarding potential impact from harvest activities on migrating salmon were not present. Risvold Testimony, Ex. P-39.

D.2. Impacts to birds and wildlife

26.

Petitioner contends that the Haley Farm will negatively impact birds and wildlife. While near-shore expert Mr. Brennan considered impacts to birds and marine mammals and concluded that there would be impacts, he also concluded that the impacts would not be significant. The general impacts he identified were risk of entanglement from nets, beach disturbance and changes to prey species abundance. Anecdotal evidence was presented demonstrating occasional incidents of entanglement of birds. Exs. P-40, P-135, P-137. A representative from Pierce County Audubon Society (Audubon) also testified that Audubon had concerns regarding the Haley Farm's potential impacts to birds. Kirkland Testimony. These potential impacts included entanglement, ingestion of plastics, impacts on prey availability, and beach preparation activities. Both the Audubon representative and the Shellfish Companies' wildlife and bird specialist Chris Hanson, testified regarding a 2013 study on impacts of geoduck farms on sea ducks. The Audubon representative stated that the study supported the conclusion that the geoduck industry adversely impacts seaducks. However, the Shellfish companies' expert testified that the study evaluated four species of seaducks, and only one demonstrated a statistically significant decline in abundance near "large farms" which were defined as farms greater than 25 acres. The study

showed that two of the species benefited from the geoduck farms. Kirkland Testimony, Hansen Testimony, Brennan Testimony.

27.

The Shellfish Companies presented the testimony of Craig Hansen from Environ, and an expert report prepared by Environ on behalf of the Shellfish Companies addressing bird interactions with geoduck gear and operations. Both the report and Mr. Hansen acknowledge that risk of entanglement is identified in the scientific literature; however there are only rare examples of this occurring with netting used in geoduck operations. One study conducted from 2001 to 2005 in Baynes Sound, an estuary that contains 152 acres of predatory netting, resulted in no reports of entanglement by diving ducks. Most net entanglement incidents involve fishing nets, which have a greater risk of causing entanglement because they hang vertical in the water column, and are typically made of clear, thin plastic. Scientific literature also supports the conclusion that disturbance is a negative factor for certain species. For species that avoid structure, the temporary placement of geoduck gear for two to three years out of a seven year cycle would likely result in temporary displacement. However, given the generally large range of birds' foraging habitat (a bald eagle has an average territory radius of 1.6 miles from nest sites), and the scale of the proposed Haley Farm, the displacement would not be considered significant. Hansen Testimony, Ex. R-19.

28.

The Biological Evaluation that was performed for the Haley Farm considered possible impacts to marbled murrelets, bald eagles, and marine mammals. Both the Biological Evaluation

and the subsequent review by NMFS concluded that potential impacts to these species were not significant. Hansen Testimony, Exs. R-6, R-13.

D.3 Impacts from clam density, genetics, diseases and parasites

29.

Petitioner's near-shore expert Mr. Brennan identified potential risks from the Haley Farm based on clam density, genetic risks, diseases, and parasites. He also identified a high risk to water quality from biodeposition of feces and pseudofeces and release of cysts. He also testified that the clam densities on the Haley Farm do not occur naturally, and that this creates competition for food and space resources and increased risk of disease and parasite transmission. He also stated that the selection of brood stock for farmed geoduck is not the same as natural selection, and is likely to result in lower genetic variability, and that there is a risk that the farmed geoduck will breed with wild stocks. There is little, if any, literature on these topics specific to geoduck farming. Mr. Brennan indicated that while he identified these risks as causing impact, he concluded that the impacts were, at most, "possibly significant." Brennan Testimony, Ex. P-135.

30.

The Shellfish Companies presented the testimony of Dr. Davis, the fisheries biologist in charge of the TSF hatchery and broodstock programs, to respond to Mr. Brennan's testimony. He testified that geoducks, despite their large body size, filter water at low rates; that they are filter feeders that eat plankton, although they can occasionally ingest zooplankton; and that they are cultivated in relatively low densities compared to other shellfish. Therefore, he maintains they will

not deplete food resources. He also testified that concerns regarding genetics are addressed through careful hatchery practices regarding brood stock. TSF uses brood stock that comes from the wild animals in the area. TSF also focuses on achieving wide genetic variability. Finally, Dr. Davis testified that with regard to disease and parasites, the industry is highly regulated by the Department of Health and WDFW to ensure public health and safety. Dr. Davis testified that in his opinion, water quality would be enhanced by geoduck farming because geoducks remove excess nutrients from the water. Davis Testimony, Exs. R-71, R-48.

31.

The Board finds, based on the weight of the evidence, that the Petitioner has failed to prove that the Haley Farm proposal, as conditioned in the SSDP, will have an adverse impact on fish, birds, and wildlife.

E. Impacts to sediments

32.

Petitioner, through its coastal geologist Jim Johannessen, raised concerns regarding impacts from potential sediment transport and compaction caused by geoduck aquaculture at the Haley Farm. These concerns were countered by geomorphologist Dr. Osborne, the Shellfish Companies expert. Both scientists had visited the site and performed sediment sampling, and concluded that the intertidal area of the Haley Beach consists of fine sands, with a component of very fine sands and fines. Both scientists agree that the strongest winds at Haley Beach come from the south and therefore stronger wave action is to the north. They also agree that some sediment will be released during removal of PVC tubes and harvest. The primary disagreements between these two experts are how much sediment will be released, how significant the amount is in the overall site sediment

budget, and how far the sediment will travel. Johannessen Testimony, Osborne Testimony, Exs. P-133, R-22.

33.

Mr. Johannessen opined that the Polyvinyl chloride (PVC) tubes and netting could cause an accumulation of sediment that would be released when the gear is removed and during harvest. He testified that major sediment events occur at these times, with harvest having the larger sediment impact. In support of this conclusion he provided aerial photography showing sediment plumes following geoduck harvests. Mr. Johannessen estimated that 975 cubic yards of sediment (approximately 201 cubic yards/acre[3] based on a 5.5 acre area of tubes and a 4.5 acre area under nets and between tubes) would be released when the tubes and nets are removed, and another 22,183 cubic yards (approximately 4,033 cubic yards per acre based on an area of 5.5 acres) during harvest.[4] He concludes that some amount of sediment would be transported north and could reach Haley Lagoon, which is located one-fourth of a mile to the north of the Haley Farm, and even Dutcher's Cove, which is located one mile north. Mr. Johannessen does not offer any specifics regarding how much sediment would reach these areas. Johannessen Testimony, Ex. P-133.

34.

Dr. Osborne also calculated the amount of sediment to be released and arrived at significantly smaller numbers than Mr. Johannessen, 72 cubic yards (55 cubic meters per acre) for tubes and nets, and 790 cubic yards (604 cubic meters per acre) for harvest.[5] He testified that Mr. Johannessen's

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[3] The Board calculated the "per acre" number from Mr. Johannessen's total number and the number of acres it was based on, to facilitate comparison with Dr. Osborne's calculations.
[4] Mr. Johannessen also includes an additional amount for sorting and resuspension.
[5] The Board provided the equivalent United States measurement system number to facilitate comparison with Mr. Johannessen's numbers.

numbers were much larger because Mr. Johannessen failed to take into account sediment bed porosity when performing sediment transport calculations, and over-estimated the area of disturbance during harvest. Osborne Testimony, Ex. R-22.

35.

Dr. Osborne compared his numbers to the overall baseline sediment transport regime at the Haley Site, which he estimated through the use of modeling to be 17,940 cubic yards (13,716 cubic meters) for 4,921 feet (1500 meters) of beach. This number represents the amount of sediment mobilized on an annual basis on this beach. Dr. Osborne also compared his numbers regarding sediment release during harvest to the amount of sediment mobilized during a one-year storm event. He arrived at the one-year storm event number through modeling using site specific bathymetry, measured water levels, currents, waves, and turbidity and sediment characterization. His conclusion is that the amount of sediment transported during a one-year storm event is more than four times greater than that caused by a geoduck harvest, and occurs over a much larger area. Osborne Testimony, Ex. R-22.

36.

Dr. Osborne also disagreed with Mr. Johannessen's conclusion that sufficient sediment would reach Haley Lagoon and Dutcher's Cove to cause adverse impacts. Dr. Osborne modeled sediment transport at the Haley site and concluded that sediment plumes remain close to the site. He testified that while it was conceivable that some particles of sediment from harvest could move to Haley Lagoon and Dutcher's Cove, there was no reason to believe that the amount would be significant. Osborne Testimony, Ex. R-22.

37.

Another area of potential impact identified by Mr. Johannessen is loss of compaction of sediment during harvest caused by use of the water jet, which could make the sediments more subject to erosion. Mr. Johannessen's scientific support for this theory rests on studies of dredging literature, not literature related to geoduck harvesting. Dr. Osborne and Mr. Phipps both testified that fluidization caused by water jet harvest is temporary and fills in over a couple of tide cycles. Mr. Johannessen acknowledged that he had never been to a geoduck site during or after a harvest. Johannessen Testimony, Osborne Testimony, Phipps Testimony, Exs. P-133, R-22.

38.

The Board finds, based on the weight of the evidence, that Petitioner has failed to prove that the proposed Haley Farm, as conditioned by its applicable SSDP, will cause other than temporary impacts from sediment transport.

F. Plastics

39.

The potential impacts raised by Petitioner from plastics as a result of geoduck aquaculture fall into two categories: (1) marine debris[6] and (2) microplastics. On the topic of marine debris, Petitioner presented testimony from Captain Charles James Moore, an expert through experience and independent research, on plastic marine debris. His evidence included testimony regarding the growing problem of marine debris in the world oceans, the role that plastics play in marine debris, and the characteristics of different types of plastics. As to the

[6] Entanglement in nets is addressed in Findings of Fact Numbers 14, 15, and 27, *supra*.

characteristics of different types of plastics, he testified that polyvinyl chloride (PVC), which is the plastic used in the rigid geoduck tubes, tends to sink, whereas high density polyethylene (HDPE), the plastic used in geoduck mesh nets, tubes and canopy nets, tends to float. Moore Testimony, Ex. P-137. Capt. Moore also presented data in the form of an e-mail from a WDFW research scientist relating to estimates of aquaculture debris. The data was based on a bottom trawl survey conducted in 2005 in South Puget Sound. Ex. P-137. The e-mail stated that bottom trawl survey estimates of aquaculture debris in South Puget Sound indicate that there are 61,600 items of netting and 21,600 tubes in the South Puget Sound. Ex. P-137. In addition, Petitioner presented an activity log from another TSF geoduck farm ("Stratford Meyer") documenting that in April of 2012, 307 tubes were recovered that had been released in a storm event. Ex. P-119, p. 4. Moore Testimony.

40.

The Shellfish Companies responded to the e-mail from WDFW with testimony from their fish expert Chris Cziesla. He opined that the data relied upon by Capt. Moore is misleading. The WDFW survey conducted 48 trawls and found only 12 tubes total. His opinion is that this data was extrapolated inappropriately across the entire south Puget Sound, explaining the large numbers. Mr. Cziesla also presented data from a more recent WDFW trawl that found only one tube total. Cziesla Testimony, Ex. P-137.

41.

The Shellfish Companies presented testimony pertaining to the aquaculture practices that will be used on the Haley Farm to minimize the creation of marine debris. The Haley Farm will

use a combination of PVC tubes and flexible mesh tubes. TSF geoduck division manager Brian Phipps testified that flexible mesh tubes almost never come loose. PVC tubes will be covered with canopy nets or have individual net caps. Canopy nets have proven effective in containing loose tubes. Tubes with individual net caps will be pulled as soon as any net caps start to loosen. Additionally, the SSDP contains a special condition requiring gear to be secured and tubes and nets to be removed as soon as geoducks are not vulnerable to predators. Phipps Testimony, Ex. P-148, p. 31 (Condition 1.F).

42.

Mr. Phipps testified that storm events that cause tube loss such as that documented at the Stratford Meyer Farm are rare, and that most tubes wash up next to the planting area where the grower can collect them. He testified that the April 2012 log demonstrates that the growers patrol for released gear and comply with permit conditions to minimize marine debris. He did not provide evidence regarding how many tubes in total had escaped from the Stratford Meyer Farm. The Haley Farm SSDP contains a special condition requiring weekly patrols of tidelands within a half mile of the farm, subject to the land owner's permission. During those patrols, all geoduck debris must be collected regardless of its source. Patrols to search for and collect geoduck debris must also be conducted within a day following a severe storm event. Phipps Testimony, Ex. P-148, p. 31 (Condition 1.I).

43.

Mr. Phipps also testified that data from biannual cleanups of garbage from south sound beaches indicates that there is a not a current debris problem in Puget Sound from the shellfish

industry. The shellfish industry started these cleanups in approximately 2005. In 2006, they collected approximately 55 cubic yards of debris, with about 15 percent coming from the shellfish industry. Last year, they collected 42 yards of debris, and found only one geoduck tube. All forms of marine debris are removed during these cleanups, and the vast majority of the debris is not from aquaculture. Phipps Testimony, Exs. R-46, R-67.

44.

Petitioner also raises concerns regarding microplastic pollution from geoduck gear. Microplastics are any piece of plastic less than 5 millimeters in size. Schoof Testimony. Mr. Moore opined that geoduck gear will break in pieces and the pieces will be released into the environment as microplastic pollution. He relied on a published scientific article that concluded that HDPE, the material used to make geoduck nets and mesh tubes, degrades when exposed to sunlight on land. The article also states that HDPE degrades more slowly when only exposed to sunlight in surface sea water. He also relied on pictures of PVC tubes in place on geoduck farms that are cracked, covered with barnacles, or have plastic slivers on their edges; pictures of various types of aquaculture gear with frayed edges; and scientific articles and pictures related to ingestion of plastics by various types of sea life. Moore Testimony, Ex. P-137.

45.

In response, the Shellfish Companies presented the testimony of Dr. Schoof, an expert toxicologist. She testified that while the Haley Farm may release small amounts of microplastics, the impact would be insignificant. She based her opinion in part on a sediment study from the Foss geoduck farm conducted in 2011. The Foss Farm is a 12-acre ten-year-old

geoduck farm. The sediment study found no plastics in the farm sediments tested. Ex. R-69. In her expert opinion, the exposure pathway is extremely limited. Ex. R-79. Geoduck gear poses a minor risk because it is not heavily exposed to ultraviolet degradation, which both Captain Moore and Dr. Schoof agree is the primary mechanism to create microplastics. Geoduck gear is exposed for only about 13 percent of daylight hours and is removed when it is no longer needed. Schoof Testimony, Ex. R-89. Geoduck gear is also surrounded by a layer of organic material that provides additional protection from ultraviolet degradation. Cziesla Testimony. Overall, Dr. Schoof concludes that aquaculture is a very small potential contributor to microplastics in comparison to land based sources. Schoof Testimony, Ex. P-137.

46.

The Board finds that the condition on the SSDP requiring the Shellfish Companies to patrol the tidelands for plastic partly mitigates for the potential impacts from plastic debris. However, in light of the Stratford Meyer Farm log indicating the escapement of at least 307 PVC tubes after a storm event, the Board finds that for the Shellfish Companies to ensure they are fully mitigating the potential impacts of plastic debris, the Shellfish Companies must keep a record of the total number of PVC tubes, net caps, mesh tubes, and canopy nets they place on the Haley Farm site, and how many of those pieces of geoduck gear they remove through farming practices or collect from beach patrols.

47.

The Board finds based on the weight of the evidence that the Petitioner has failed to prove that the SSDP, as conditioned including an additional condition requiring an inventory of gear, will cause impacts due to plastic debris or microplastic pollution.

G. Aesthetics, public access, and property values

48.

Both Petitioner and the Shellfish Companies presented evidence from experienced real estate agents concerning the potential for geoduck aquaculture to impact property values. The real estate agents frequently handle sales of waterfront property, and they offered contradictory opinions regarding whether the presence of geoduck aquaculture in the vicinity of a house affects its sale value. Neither agent had done any formal market analysis. Jensen Testimony, Macfarlane Testimony. One owner of property about 1/3 mile southwest of the Haley Farm also testified regarding his concerns regarding impacts to his property value from the Farm. Smith Testimony.

49.

There were a number of reasons offered for why geoduck aquaculture may not have an impact on property values near Haley Farm. For four years out of a six-year farming cycle, geoduck gear will not be present on the Haley Farm. Even when the gear is present, it is completely submerged and invisible for the vast majority of daylight hours. Phipps Testimony, Cooper Testimony. The uplands adjacent to the Haley Farm are heavily forested, and primarily owned by the state and the Shellfish Companies. The residential parcels to the south of the

Haley Farm are high bank, and therefore do not afford views of the Haley Farm. Macfarlane Testimony.

50.

The Petitioner's lay witnesses expressed concerns that geoduck farming at the Haley Farm would interfere with the public's access to the beach and neighboring land owned by state parks in the vicinity of the Farm. The land owned by state parks has not been formally opened as a park and has limited public access and use. One witness testified that his family owns property adjacent to the Haley Farm, and that he walks the beach in that area. TSF spokesperson Diane Cooper testified that TSF allows the public to access its tidelands when it is the owner. However, if TSF is not the owner, the owner can choose to prohibit public access. Here, the Shellfish companies do not intend to exclude members of the public from accessing the Haley Farm site for recreational activities consistent with their farming operations. Cooper Testimony, Smith Testimony, Booth Testimony.

51.

The Board finds based on the weight of the evidence that the Petitioner has not proven that the Haley Farm will have an adverse impact on aesthetics, public access, and property values.

H. Cumulative Impacts

52.

There are several aquaculture farms along the west shore of Key Peninsula. The closest in the County to the proposed Haley Farm is a manila clam/oyster farm 4300 feet to the north in

Dutcher's Cove. The closest geoduck farm is the Taylor Stratford Farm. Pierce County has no pending aquaculture applications between the County line to the north and Herron Island to the south. The closest Washington State Wildstock Geoduck fishery is 358 acres in size and is located between Dutcher's cove and Herron Island. The fishery involves the harvest of wild geoducks with harvest jets, but does not involve gear. Aquaculture also occurs on the west shore of Case Inlet outside of Pierce County including Stretch and Harstine Island. Overall, in 2013, when the Biological Evaluation was prepared for the Haley Farm, there were 35 shellfish leases in Case Inlet. Case Inlet is long, and approximately 2 miles wide in the area of the Haley Farm. Booth Testimony, Exs. R-4, R-13.

53.

The Corps in consultation with the USFWS took a broader look at impacts from shellfish aquaculture in Washington State in 2007 and 2012 when it issued Nationwide Permit (NWP) 48. NWP 48 is a permit applicable to the entire United States issued under Section 404 of the federal Clean Water Act. Nationwide permits are used to authorize activities that have minimal individual and cumulative adverse effects on the aquatic environment. 77 Fed. Reg. 10184. The current NWP 48 issued in 2012 expires March 18, 2018. After that time, additional authorization will be required to continue farming activities authorized under that permit. Cziesla Testimony, Exs. R-13, R-38, R-39, P-128.

54.

As part of NWP 48's initial issuance, NMFS and USFW (the Services) issued programmatic biological opinions for all shellfish aquaculture activities in 2009. Exs. R-38, 39.

The Services concluded that the authorized activities were not likely to adversely affect listed species. A supplement was prepared by the Corps, Seattle District in 2012 which is specific to Washington. In this document the Corps concludes that the terms of the NWP 48 and the regional conditions added by the Seattle District ensure that activities authorized under the NWP 48 permit will not have an individual and cumulative adverse effect on the aquatic environment. The Haley Farm must comply with NWP 48 and the additional regional conditions. Cziesla Testimony, Exs. P-128, R-38, R-39.

55.

The Petitioner presented maps based on information that was obtained from 2012 through 2014 data from the Corps showing proposed shellfish farms in Case Inlet. Based on this information Mr. Johannessen concluded that there were 23 proposed aquaculture farms in Case Inlet. He did not have any information beyond what was provided by the Corps. TSF spokesperson Ms. Cooper testified based on past experience that this mapping information from the Corps tends to be inaccurate. The Petitioner also presented an e-mail from the Corps dated December 10, 2013, in which the Corps stated they had only two pending applications in all of Pierce County for geoduck farms. Cooper Testimony, Johannessen Testimony, Exs. P-160, P-133.

56.

The Board finds that the testimony from Pierce County that they have no pending aquaculture applications between the County line to the north and Herron Island to the south to

be the most reliable information regarding foreseeable future aquaculture farming in Case Inlet in the vicinity of the proposed Haley Farm.

57.

All of Petitioner's experts opined generally that, in addition to the individual impacts they perceived from the Haley Farm, the Farm in combination with other aquaculture farms would either likely cause cumulative impacts to the environment, or at least raise enough of a question regarding such impacts, that the potential for cumulative impacts should be studied further. Johannessen Testimony, Brennan Testimony, Moore Testimony, Exs. P-137, P-135, P-133. Petitioner's experts expressed concern that because the SSDP does not contain an expiration date it allows for repeated cycles of geoduck farming activity, and that these repeated cycles will result in additive or synergistic effects. Brennan Testimony, Ex. P-135. The Petitioner also relies on the South Puget Sound Salmon Recovery Plan (Plan), which was prepared by the South Sound Puget Sound Recovery Group, a technical advisory group. Petitioner's expert Jim Brennan testified that the plan was submitted to NMFS in 2005. The Plan, Draft Version Two,[7] dated May 2005 identifies shellfish aquaculture as a "human-induced stressor" for Puget Sound, and the Plan's authors hypothesize that "shellfish aquaculture reduces productivity, abundance, spatial structure, and diversity of salmon populations." Brennan Testimony, Exs. P-135, P-158.

58.

The County, in its SEPA process, had most, if not all, of the information that was presented to the Board regarding impacts from the proposed Haley Farm individually and

[7] The final version of the Plan is not in the record.

cumulatively with other aquaculture in the vicinity of the farm. In its MDNS, the County recognized that the cultivation process on the farm will be "repeated indefinitely." Ex. R-4, p. 4. In a summary of its analysis, the County stated:

> [D]etailed studies have been conducted regarding geoduck and/or geoduck related issues. More studies would be extremely valuable including, but not limited to, topics such as long term impacts, cumulative impacts of multiple abutting farms, and farms in smaller water bodies. However, at this point, it appears that many impacts from geoduck farms are temporary, insignificant, and/or indistinguishable from natural levels of disturbance.

Ex. R-4, p 4.

59.

The Board finds, based on the weight of the evidence in the record that the Petitioner has failed to prove that there will be adverse impacts from the Haley Farm, along with other existing aquaculture and reasonably foreseeable aquaculture in the vicinity of the Haley Farm.

60.

Any Conclusion of Law deemed to be a Finding of Fact is hereby adopted as such.

CONCLUSIONS OF LAW

1.

The Board has jurisdiction over the parties and the subject matter in this case pursuant to RCW 90.58.180. The Board considers the scope and standard of review of the appealed action de novo, unless otherwise required by law. WAC 461-08-500(1). The Petitioner has the burden of proof. WAC 461-08-500(3).

2.

The Petitioner appealed the County's approval of this SSDP to the Board. The pre-hearing order entered in this case identified the following issues for hearing:

> 1. Is the approved SSDP consistent with the Shoreline Management Act, Ch. 90.58, WAC Ch. 173-27, the State Environmental Policy Act (SEPA) and SEPA rules, and the goals and policies of the Pierce County Shoreline Master Program (PCC Title 20)?
>
> 2. Has the Pierce County comprehensive plan and/or the County's zoning ordinances been incorporated into the SMP, such that the Shoreline Hearings Board has jurisdiction over whether the approved SSDP is consistent with the Pierce County's comprehensive plan and its zoning ordinances? If so, is the SSDP consistent with the incorporated provisions?
>
> 3. Does the approved SSDP adequately protect private property rights? (The Petitioner is not basing this argument on any constitutional theory, since the board lacks jurisdiction over constitutional arguments.)
>
> 4. Was the County Hearing Examiner impartial despite having a son that works in the shellfish industry? (This issue is stated in the list of issues to preserve the issue on appeal. Evidence and argument will not be taken on this issue before the SHB.)

3.

The Shellfish Companies filed a motion to dismiss individual petitioners and to dismiss Issue 2, which was granted by the Board. Order Granting Motion to Dismiss Clayton Smith and Steve Beard as Parties, and to Dismiss Issue 2 (Jan. 30, 2015). The appeals then proceeded to a four day evidentiary hearing on the remaining issues for hearing (Issues 1 and 3), in which the Board heard testimony from 21 witnesses, including 12 experts.

4.

Shoreline development in Washington must be consistent with the policies and procedures of the SMA, its associated regulations, and the applicable local SMP. RCW

90.58.140(1); WAC 173-27-150. The Petitioner, as the appealing party, has the burden to prove the SSDP issued for the Haley Farm, with all of its conditions, is inconsistent with the SMA and the County's SMP adopted under the SMA.

5

Aquaculture is encouraged in Washington in numerous ways. The Washington Shellfish Initiative announced on December 9, 2011, states that "Shellfish are critical to the health of Washington's marine waters and the state's economy." Ex. R-43. The SMA and Ecology's shoreline rules identify a preference for water-dependent uses of the shoreline, with aquaculture being a "desired and preferred water-dependent use of the shoreline." RCW 90.58.020, WAC 173-26-241(3)(b). The Board has upheld various permits for aquaculture involving geoducks as consistent with this standard. *See Coalition to Protect Puget Sound Habitat v. Thurston County,* SHB No. 13-006c, p. 30, CL 6 (*citing Longbranch*, p. 23, CL 12).

6

The SMP encourages use of shoreline areas for aquaculture. PCC 20.24.020(A)(1). The SMP gives priority for aquaculture uses to shoreline areas that have the prerequisite qualities in order to protect the county's aquaculture potential. PCC 20.24.020(A)(10). The proposed Haley Farm is located in the Rural-Residential shoreline environment. Aquaculture is allowed in this shoreline environment, with geoduck aquaculture "permitted outright" subject to obtaining a SSDP. PCC 20.24.030.

7

There is a balance inherent in the SMA, its associated regulations, and the PCC that, while seeking to encourage aquaculture, also seeks to prevent damage to the shoreline environment, and avoid interference with recreational use. The SMA "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." RCW 90.58.020.

8.

The PCC specifically requires protection for the shoreline environment from aquaculture as follows:

> Aquaculture development shall not cause extensive erosion or accretion along adjacent shorelands.

PCC 20.24.020.A.2.

> Aquaculture operations shall be conducted in a manner which precludes damage to specific fragile areas and existing aquatic resources. These operations shall maintain the highest possible levels of environmental quality and compatibility with native flora and fauna.

PCC 20.24.020.A.3.

The PCC also recognizes that impacts on navigation and recreation can be minimized:

> Conflicts between the aquaculture use and the navigational access of current upland residents, and intense recreational boating, commercial fishing, and other commercial traffic can be minimized.

PCC 20.24.020.A.5.

9.

In a previous case concerning a permit for a geoduck farm in Pierce County, the Board discussed the balance in the SMA between allowing for aquaculture and protecting the environment:

> The SMA does not prohibit development of the shorelines but instead provides for permitted uses that are "designed and constructed in a manner to minimize, insofar as practical, any resultant damage to the ecology and environment of the shoreline area and any interference with the public's use of the water." RCW 90.58.020; *Jarvis v. Kitsap County*, SHB No. 08-001 (Findings of Fact and Conclusions of Law and Order, July 7, 2008) at 22. The importance of geoduck aquaculture to the State was recently restated in the Washington Shellfish Initiative announced on December 9, 2011. Absent substantial evidence to support Petitioners' assertions of negative impacts, the Board concludes that Petitioners failed to meet their burden of showing that the SDP is inconsistent with either the SMA or the Pierce County SMP.

Coalition to Protect Puget Sound Habitat v. Longbranch Shellfish, LLC, SHB No. 11-019, CL 16 (2012).

10.

In a more recent appeal involving a geoduck farm permit in Pierce County the Board denied an SSDP due to a lack of sufficient environmental protections and noted that there were key differences between the proposed farm and prior approved geoduck farms in Pierce County. *Coalition to Protect Puget Sound Habitat v. de Tienne,* SHB No. 13-016c (Findings of Fact, Conclusions of Law, and Order, January 22, 2014). Key factors for the Board were that the de Tienne Farm was proposed to be located over a continuous swath of eelgrass, it was in proximity to known herring spawning grounds, and there was specialized recreational use of the area for windsurfing. *Id.* at FF 13. The proposed de Tienne Farm would also have been the first subtidal

commercial geoduck farm in Pierce County and the first geoduck farm in Henderson Bay. Finally, the location of the geoduck farm would have been on a shoreline of statewide significance. The Board reversed the County's approval of the SSDP on the basis of lack of adequate protection for eelgrass. *Id.* at CL 14, 15.

11.

Each shoreline appeal must be based on its own merits. *De Tienne,* SHB No. 13-016c, at FF 13. The Haley Farm is intertidal, not subtidal; it is not the first geoduck farm in the area; it is not located on a shoreline of significance; and it does not have eel grass. The most unique feature regarding the Haley Farm is its size. The Haley Farm is 11 acres, which is the largest geoduck farm that has been reviewed by the Board. To mitigate potential impacts related to farm size, the Shellfish Company will plant only one half of the site each year and will employ multiple types of tubes to protect the baby geoducks. This approach will result in portions of the farm being in different stages of planting, growing, and harvesting throughout the life of the farm, and portions of the site having different combinations of PVC tubes with individual nets, PVC tubes with canopy netting, and mesh tubes with no netting.

A. Petitioner failed to prove that the SSDP violates the SMA and SMP or will impact property values (Issues 1 and 3)

12.

Issue 1 is a broadly stated issue that alleges the proposed Haley Farm, as approved by the County, violates SEPA, the SMA, and the SMP. For sake of clarity, the Board has divided this

issue into two parts. This section, Part A, will analyze the Petitioner's claims under the SMA and SMP. The Petitioner's claims based on SEPA will be analyzed in Part B, *infra*.

13.

The Petitioner contends that the Haley Farm will cause adverse impacts from beach clearing, use of aquaculture gear, harvest activities, sediment disturbance, plastic debris and microplastics pollution in violation of the SMA and SMP. The Petitioner asserts that clam density associated with geoduck farming and the genetics of farm-raised geoducks will result in diseases and parasites, and that fish, birds, wildlife, aesthetics values, public access, and property values will all be adversely impacted in violation of the SMA and SMP. The Petitioner also claims that the Haley Farm will cause cumulative impacts in violation of the SMA. As noted in the findings of fact, the Board has found that the petitioner has failed to meet its burden of proof factually on all of these claims.

14.

The Board concludes that the Haley Farm SSDP is appropriately conditioned to restrict beach clearing activities that would cause impacts in violation of the SMA and SMP. While some individual sand dollars may be damaged or killed, the only scientific analysis presented at the hearing supports the conclusion that impacts to the sand dollar population at Haley Beach will be temporary and insignificant.

15.

There was little new or site specific evidence presented to the Board pertaining to impacts from geoduck gear and harvest in this hearing. Both of these topics have been extensively

covered in prior cases. See *Longbranch Shellfish, LLC*, SHB No. 11-019 (2012); *Taylor Shellfish*, SHB No. 13-006c (2013); *de Tienne*, SHB No. 13-016 (2014). The only unique issue for the Haley Farm pertaining to gear and harvest is the Farm's 11-acre size. The approach being proposed for use on the Haley Farm, which is to split the farm in half and plant only 5.5 acres at a time, and in the 5.5 acres planted at one time to use a combination of types of gear so that the amount of area covered in canopy nets is reduced, appropriately addresses the potential for additional impacts caused by the Farm's larger area. This approach also reduces the size of the area harvested at any one time. The Board concludes that the Petitioner has failed to prove that the proposed use of gear and harvest activities on the Haley Farm violate the SMA and SMP.

16.

The most site specific evidence presented to the Board pertaining to impacts on fish from the Haley Farm supports the conclusion that the Farm will not violate the SMA and SMP because of impacts to fish. The Biological Evaluation supports this conclusion, as do the letters from the services. The proposed planting approach, which reduces the amount of canopy netting used, also supports this conclusion. Finally, the setting of the Haley Farm, in a wide area of Case Inlet, as contrasted to enclosed area like Dutcher's Cove, supports this conclusion. The Board concludes that the Petitioner has failed to prove that the Haley Farm will violate the SMA and the SMP.

17.

The weight of the evidence presented at the hearing supports the conclusion that the Haley Farm will not violate the SMA and SMP because of impacts to birds and wildlife. While

the scientific literature identifies a risk of entanglement from nets generally, the evidence presented does not support the conclusion that geoduck nets specifically present a significant risk. Furthermore, the proposed planting approach, which reduces the amount of canopy netting used, mitigates for the size of the farm. The SSDP is appropriately conditioned to preclude any potential for impacts to Herring stock. The Board concludes that the Petitioner has failed to prove that the Haley Farm will violate the SMA and SMP because of impacts to birds and wildlife.

18.

The site specific evidence presented to the Board regarding potential impacts from clam density, genetics, diseases, and parasites did not demonstrate that the Haley Farm will violate the SMA and SMP. Here again, the only unique issue for the Haley Farm pertaining to these impacts stems from its 11-acre size, which is mitigated by the planting and harvest regime. The petitioner failed to meet its burden of proof regarding impacts from clam density, genetics, diseases, and parasites caused by the Haley Farm. The lack of evidence presented to the Board on this point by the Petitioner, coupled with the presence of a separate regulatory scheme aimed at addressing health impacts from aquaculture, supports a conclusion that the Haley Farm will not violate the SMA and SMP because of potential impacts of this type.

19.

The Board is persuaded by the testimony of Dr. Osborne that the sediment likely to be released as a result of operations at the Haley Farm would not be significant when compared to the baseline sediment transport regime at the Haley Site. The Board is also persuaded that the

amount of sediment potentially transported to Haley Lagoon and Dutcher's Cove would not be enough to cause adverse impacts. The Board is not persuaded by the Petitioner's evidence that the use of water jets during harvest will cause any lasting changes in beach sediment. Therefore, the Board concludes that the Petitioner has failed to meet its burden of proof that impacts from sediment from the Haley Farm will cause violations of the SMA and SMP.

20.

The weight of the scientific evidence presented on microplastics does not support the petitioner's contention that microplastics pollution from the gear proposed on the Haley Farm will cause violations of the SMA and SMP. However, like the County, the Board is concerned about the problem of geoduck gear escaping the Haley Farm and becoming marine debris. Given the escapement level documented by the Stratford Meyer Farm log, the Board concludes that in addition to the condition requiring the Shellfish Companies to patrol the tidelands, the evidence supports the need to add a further condition to the SSDP that requires the Shellfish Companies to do an inventory of gear that is placed and subsequently recovered on the Haley Farm. This will help ensure that marine debris associated with the Haley Farm is minimized and will provide much better information regarding the actual level of escapement of geoduck gear into the environment.

Condition 22(O) of the SSDP requires the Shellfish companies to maintain a log of farming activities. Ex. P-148, p.36. An inventory of gear that is placed and recovered should be completed as a part of maintaining the already required log of farming activities. With this

additional condition, the Board concludes that the Petitioner has failed to meet its burden of proof that the SSDP violates the SMA and SMP because of impacts from plastics.

21.

The Board concludes that the weight of the evidence presented at the hearing does not support the petitioner's contention that the Haley Farm will impact property values. Moreover, the Petitioner has failed to provide a legal argument that connects this assertion with a violation of the SMA or SMP. Therefore, the Board concludes that the Petitioner has failed to meet its burden of proof that the SSDP violates the SMA and SMP because of impacts to property values. Additionally, the Petitioner has failed to present any legal analysis on Issue number 3 (protection of private property rights) and therefore the Board concludes that the Petitioner has waived this issue.

22.

The Petitioner has provided scant evidence and even less legal argument regarding the impact of the Haley Farm on public access. The Washington Supreme Court has held that shellfish growers farming on private tidelands, whether owned or leased, are entitled to exclusive possession and control of such tidelands and the shellfish grown on them. *State v. Longshore,* 141 Wn.2d 414, 424-429, 5 P.3d. 1256 (2000). A shellfish grower's right to exclusive possession includes the right to exclude the public from such tidelands when they are not submerged. *Wilbur v. Gallagher,* 77 Wn.2d 306, 314, 462 P.2nd 232 (1996). However, the evidence in the record supports the conclusion that the Shellfish Companies intend to allow access to their tidelands at Haley Farm for recreational purposes, consistent with their farming

activities. The Board concludes that the Haley Farm will have little impact on the current legal access to the beach in the area, and therefore does not violate the SMA or SMP.

23.

The Board has held in past cases that it may consider cumulative impacts resulting from the approval of an SSDP pursuant to the SMA and local SMP, separate from SEPA. The Board has established factors to consider in making the determination of whether a cumulative impacts analysis is appropriate. *De Tienne*, SHB No. 13-016, pp. 54, 55. These factors are:

1. Whether a shoreline of statewide significance is involved;
2. Whether there is potential harm to habitat, loss of community use, or a significant degradation of views and aesthetic values;
3. Whether a project would be a "first of its kind" in the area;
4. Whether there is some indication of additional applications for similar activities in the area;
5. Whether the local SMP requires a cumulative impacts analysis be completed prior to the approval of an SSDP;
6. The type of use being proposed, and whether it is a favored or disfavored use.

Based on the Board's findings of fact, and the conclusions it has reached herein, none of these factors are present in this appeal. Therefore the Board concludes that a cumulative impacts analysis was not necessary under the SMA and SMP.

B. <u>Petitioner failed to prove that County erred in issuing an MDNS under SEPA for the Haley Farm (Issue 1)</u>

24.

When challenging a County's SEPA decision, the appealing party has the burden to show that the County's threshold determination is clearly erroneous. In the present case, the Board can invalidate the County's decision to issue an MDNS only if it is firmly convinced that the County

has made a mistake. *Sisley v. San Juan County*, 89 Wn.2d 78, 84, 569 P.2d 712 (1977); *Moss v. City of Bellingham*, 109 Wn. App. 6, 13, 31 P.3d 703 (2001), *rev. denied* 146 Wn. 2d 1017(2002). SEPA requires an environmental impact statement (EIS) only for "major actions having a probable significant, adverse environmental impact." *Boehm v. City of Vancouver*, 111 Wn. App. 711, 718, 47 P.3d 137 (2002); RCW 43.21C.031(1). The Board must accord substantial weight to the county's decision to issue a negative threshold determination and not require an EIS. 111 Wn. App at 718; RCW 43.21C. 090.

25.

An impact is "probable" if it is likely or reasonably likely to occur. It is distinct from impacts that "merely have a possibility of occurring, but are remote or speculative." WAC 197-11-782. In reviewing whether an impact is "significant," it must have a reasonable likelihood of more than a moderate adverse impact on environmental quality. Significance involves both context and intensity. WAC 197-11-794.

26.

To establish the inadequacy of conditions imposed by the County on a project under SEPA, the Petitioner must present actual evidence of a probable significant adverse impact from the project that has not been adequately addressed by the County's negative threshold determination. See *McQuarrie v. Seattle*, SHB No. 08-033 (Order on Summary Judgment, April 27, 2009, at 15). For the MDNS to survive judicial scrutiny, the record must demonstrate that environmental factors were considered in a manner sufficient to amount to prima facie compliance with the procedural requirements of SEPA and that the County's decision to issue

the MDNS was based on information sufficient to evaluate the proposal's environmental impact. *Wenatchee Sportsmen Ass'n v. Chelan County*, 141 Wn.2d 169, 176, 4 P.3d 123 (2000); *Anderson v. Pierce County*, 86 Wn. App. 290, 302, 936 P.2d 432 (1997). Furthermore, the mitigation measures must be reasonable and capable of being accomplished. *Anderson* at 302; RCW 43.21C.060.

27.

Petitioner's primary SEPA challenge is that the County failed to consider cumulative impacts under SEPA.[8] The SEPA statute and the Department of Ecology's (Ecology) SEPA rules require consideration of cumulative impacts. See *Quinault Indian Nation v. City of Hoquiam,* SHB No. 13-012c (Amended Order on Summary Judgment, Dec. 9, 2013). The more difficult legal question, however, is what are the "cumulative impacts" that should be considered. The SEPA statute and Ecology rules do not contain a definition of "cumulative impacts." In the absence of a definition, the Board has concluded that it is appropriate to look to the federal definition for guidance. *Id.* p. 21 n. 10, citing *Pub. Util. Dist. No. 1 of Clark Cnty. v. Pollution Control Hearings Bd.*, 137 Wn. App. 150, 158, 151 P.3d 1067, 1070 (2007). The regulations interpreting the federal counterpart to SEPA, the National Environmental Policy Act define cumulative impact as:

[8] The Board has already addressed Petitioner's contention that a cumulative impacts analysis was required under the SMA. *See* Section A, *supra*. It is important to recognize the distinction between the cumulative impacts analysis that may be required for an SSDP under the SMA and SMP based on a specific list of factors, *See Longbranch Shellfish, LLC*, SHB No. 11-019 (2012); *Taylor Shellfish Company, Inc. v. Thurston County,* SHB No. 12-012 (2013); *Taylor Shellfish*, SHB No. 13-006c (2013); *de Tienne*, SHB No. 13-016 (2014), and the consideration of cumulative impacts under SEPA, which is always required when making a SEPA threshold determination.

> [T]he impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

40 C.F.R. § 1508.7. This definition, referred to as the "reasonably foreseeable" standard, has been construed and applied in several federal court cases. *N. Plains Res. Council, Inc. v. Surface Transp. Bd.*, 668 F.3d 1067, 1078 (9th Cir. 2011); *Envtl. Prot. Info. Ctr. v. U.S. Forest Serv.*, 451 F.3d 1005, 1014 (9th Cir. 2006). Use of the reasonably foreseeable standard is consistent with the SEPA statute and rules. *See* RCW 43.21C.031 (mandating preparation of an EIS for major actions having a *probable* significant environmental impact), WAC 197-11-782 (defining "probable" to mean "reasonably likely to occur" as opposed to being "remote or speculative").

28.

The Board does not agree with the County and the Shellfish Companies that "impacts of future proposals must be cumulatively assessed only when the subject project would be a necessary antecedent for future projects." Shellfish Companies Response Brief, p. 22, lines 13-16. *See also*, County closing brief, p. 1, 2. The Board has previously rejected this same analysis, holding that it muddies the distinction between "cumulative impacts" and "connected actions." *See Quinault Indian Nation v. City of Hoquiam,* SHB No. 13-012c, pp. 19-23 (Amended Order on Summary Judgment, Dec. 9, 2013). The Board declines to revisit its holding in *Quinault* in this case. Therefore, the Board concludes that the County's SEPA MDNS must ensure that impacts from the Haley Farm, when added to the existing aquaculture activities in the area and

reasonably foreseeable future activities, will not cause probable significant adverse environmental impacts.

29.

Despite the County's assertions that it did not do a formal "cumulative impacts analysis," based on the evidence before it the Board concludes that the County did consider cumulative impacts from the proposed Haley Farm, when added to other past, present, and reasonably foreseeable future actions. The County considered other existing aquaculture sites along the west shore of Key Peninsula. It took note of the closest sites to the proposed Haley Farm. It considered the fact that it had no pending aquaculture applications between the County line to the north and Herron Island to the south. The county reviewed the Biological Evaluation, which contains an assessment of "cumulative, interrelated, and interdependent effects." Ex. R-13, pp. 43-47. It also had the information from the Services pertaining to NWP 48's issuance and reissuance. Based on this evidence, the Board concludes that the County considered cumulative impacts from the Haley Farm, when added to other past, present, and reasonably foreseeable future actions.

30.

The Petitioner has a high burden to show that the County's MDNS was clearly erroneous. The Board must be firmly convinced that the County made a mistake when it issued the MDNS, before the Board can overturn it. In reviewing all of the evidence in the record from this hearing including the ten page MDNS, with its 11 conditions; the SSDP, with 11 more additional conditions; the process of review undertaken by the County including presentations to the KPAC

and an open record hearing before the HEX; the federal agencies' review under the ESA and MSA; and the evidence presented by the Petitioner at this hearing, the Board is not convinced that the MDNS was clearly erroneous. With regard to consideration of cumulative impacts, the Board concludes that the County did the minimum necessary to meet the requirements of SEPA. The County could have required a carrying capacity analysis for aquaculture in Case Inlet, as suggested in the Biological Evaluation. *See* Ex. R-13, pp. 43-45. It could have required "extremely valuable" studies on topics such as long term impacts, cumulative impacts of multiple abutting farms, and farms in smaller water bodies, to enable it to make a more thorough consideration of the potential for cumulative impacts from aquaculture in Case Inlet. *See* Ex. R-4, p. 4. However, in the face of the County's decision to issue the MDNS without this additional information, and considering all of the other information it had, the Board is not firmly convinced that the County made a mistake in issuing its MDNS without requiring this additional information. See WAC 197-11-335 ("The lead agency shall make its threshold determination based upon information reasonably sufficient to evaluate the environmental impact of a proposal (WAC 197-11-055(2) and 197-11-060(3))"). Therefore, the Board affirms the County's MDNS and denies Petitioner's SEPA claims.

C. Duration of the SSDP

31.

An issue was raised at the hearing regarding the County's authority to limit the duration of an SSDP. Ecology's shoreline rules state that authorization to conduct development activities

shall terminate five years after the effective date of a shoreline permit. WAC 173-27-090(3). However, the rules also provide that:

> Upon a finding of good cause, based on the requirements and circumstances of the project proposed and consistent with the policy and provisions of the master program and this chapter, local government may adopt different time limits from those set forth in subsections (2) and (3) of this section as a part of action on a substantial development permit.

WAC 197-11-090(1).

32.

The County HEX has the authority pursuant to PCC 18.150.060 to impose an expiration date on a permit. County staff recommended, however, that no expiration date be imposed. Based on past experience staff have found that imposing an expiration date on an SSDP for a geoduck farm is problematic because even one cycle of geoduck cultivation can require more than the typical 5 year period. The County's decision not to impose an expiration date is consistent with rules from Ecology, which are applicable to updated shoreline master programs.[9] These rules state that while new geoduck farms must be permitted through a conditional use permit, subsequent cycles of planting and harvest shall not require a new conditional use permit. WAC 173-26-241(3)(b)(iv)(B).

33.

The Board concludes that because of the length of the cultivation cycle for geoduck farms, the County's decision not to impose an expiration date on the Haley Farm SSDP complies with the SMA and the PCC, and it is consistent with Ecology's rules that apply to other SMPs.

[9] The SMP applicable to the Haley Farm has not yet been updated.

Further, the Board notes that just because the SSDP does not contain an expiration date does not mean the County lacks authority to revisit the permit.

The County has authority to revoke or modify an SSDP based on non-compliance with the conditions of the permit, or if the use under the permit is being exercised in a manner that is detrimental to the public health or safety, or constitutes a nuisance. PCC 18.150.050.D, E. The County should have sufficient information concerning the operation of Haley Farm to determine whether additional measures are required concerning the operation of Haley Farm.

The Shellfish Companies are required to provide the County with a status report every two years as to all actions taken to comply with each condition in the SSDP. Ex. P-148, Condition 1(A), p.30. The Shellfish Companies are also required to maintain and provide the County with a log of all complaints received by the Shellfish Companies concerning their operations. *Id.*, Condition 1(L), p. 31. The Shellfish Companies are required to maintain a log of farming activities. *Id.,* Condition 22(O), p. 36. The Shellfish Companies will also be required to maintain an inventory of gear that is placed on-site for farming activities and recovered from the site. All of these conditions should provide useful information for the County when reviewing the Haley Farm SSDP in light of its authority to revoke or modify permits.

34.

As conditioned, the SSDP for Haley Farm meets the balance inherent in the SMA, its associated regulations, and the PCC that seek to encourage aquaculture while preventing damage to the shoreline environment. As scientific knowledge pertaining to geoduck aquaculture improves, the Board is hopeful that this knowledge will provide additional benefits to the

environment and will be applied to the Haley Farm operation either voluntarily by the Shellfish Companies; through new ESA consultations required based on new information pertaining to the Farm's impact on listed species or critical habitat; through applicable Department of Health or WDFW regulations for the protection of health; or, if necessary, through the County's enforcement authority under PCC 18.150.050.E.

35.

Any finding of fact deemed to be a conclusion of law is hereby adopted as such. Based upon the foregoing Findings of Fact and Conclusions of Law, the Board enters the following:

ORDER

Pierce County's MDNS for the Haley Farm is affirmed. The County's decision approving the SSDP for the Haley Farm is affirmed with the following additional condition:

> Aquaculture gear placed on the Haley Farm shall be inventoried by the Shellfish Companies prior to its placement into use on the farm, and at the time of removal from use on the Haley Farm. This reporting shall include the total quantity and type of gear installed during planting, the quantity and type of any gear collected during the required weekly beach patrols, and the type and quantity of gear removed by the Shellfish Companies during the cultivation cycle. This log shall be made available to the County every two years, and at any other time upon request.

SO ORDERED this 15th day of May, 2015.

SHORELINES HEARINGS BOARD

KAY M. BROWN, Presiding

JOAN M. MARCHIORO, Chair

TOM C. MORRILL, Member

JENNIFER GREGERSON, Member

LILY SMITH, Member

Appendix I

SHORELINES HEARINGS BOARD
STATE OF WASHINGTON

TAYLOR SHELLFISH COMPANY, INC., Petitioner, v. THURSTON COUNTY, Respondent. and ASSOCIATION FOR THE PROTECTION OF HAMMERSLY, ELD AND TOTTEN INLETS, Respondent Intervenor.	SHB No. 12-012 FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER

The Shorelines Hearings Board (Board) held a hearing in this matter on April 22, 2013, at the Board's office in Tumwater, Washington.

The Board was comprised of Board Members Kathleen D. Mix, Chair; Tom McDonald; Pamela Krueger; Grant Beck; and Peter Philley.[1] Administrative Appeals Judge Kay M. Brown presided for the Board. The petitioner and applicant, Taylor Shellfish Company, Inc. (TSF) was represented by Attorneys Samuel W. Plauché and Michael P. Witek. Respondent Thurston County (County) was represented by Senior Deputy Prosecuting Attorney Elizabeth Petrich. Respondent Intervenor Association for the Protection of Hammersly, Eld, and Totten Inlets (APHETI) was represented by Attorney David S. Mann.

[1] The 6th member of the Board, William H. Lynch, recused himself.

The Board received sworn testimony of witnesses, exhibits, and arguments on behalf of the parties. Having fully considered this record, the Board enters the following:

FINDINGS OF FACT

A. Procedural Background

1.

TSF's application for a shoreline substantial development permit (SSDP) for the establishment of a new mussel farm in North Totten Inlet (NTI Farm) has a long and complicated history. TSF applied on November 13, 1996, for an expansion of its existing mussel farm in Gallagher Cove in North Totten Inlet, and also to develop a new mussel farm (108 mussel rafts) in North Totten Inlet. After County review, including a number of public meetings, TSF eliminated the proposal to expand the farm at Gallagher Cove and reduced its proposal for the NTI Farm to 58 rafts. *Ex. P-1*, pp. 18, 19; *Ex. P-3*, pp. 1-1 through 1-3.

2.

The SSDP for the proposed NTI Farm was subject to review under the State Environmental Policy Act (SEPA). On September 14, 1998, the County issued a determination of significance (DS) and required preparation of an Environmental Impact Statement (EIS) to address impacts to bottom-dwelling organisms (benthic community), the surrounding water column, the phytoplankton resource, and marine navigation, as well as to consider the consequences from the potential escapement of mussels. TSF appealed the County's DS to the County Hearing Examiner. The Hearing Examiner affirmed the DS on June 18, 1999. *Ex. P-1*, pp. 19, 20; *Ex. P-3*, pp. 1-1 through 1-3.

3.

The County and TSF spent the years between 1999 and 2010 gathering scientific information on the identified environmental issues for the proposal, and preparing a Draft Environmental Impact Statement (DEIS). As part of that process, after an extensive search and with input from TSF and APHETI, the County selected an Independent Technical Review Committee (ITRC) to review and comment on all technical documents and reports prepared by TSF's consultants. The members of the ITRC were all recognized experts in their respective fields, and they operated independently from TSF. The ITRC identified topics for scientific review and reviewed TSF consultants' technical reports. As a result, the Hearing Examiner described the TSF proposal as ". . . one of the most thoroughly reviewed proposals that has been presented to Thurston County. The presence of an expert and independent technical review panel is unique in this Hearing Examiner's experience." *Ex. P- 1*, p. 20; *P-3*, pp. 1-1 through 1-4; *P-6*, p. 1-6.

4.

On May 26, 2010, the County issued the DEIS. *Ex. P-3*. The DEIS and the final Technical Reports prepared for the NTI Farm were circulated for a 45-day comment period, after which the County held a public hearing. The County received numerous comments. *Ex. P-3,* Cover memo; *Ex. P-6,* Cover memo.

5.

On November 7, 2011, the County issued a Final EIS (FEIS). The FEIS contained a chapter summarizing comments on the DEIS and responding to them. Responses to technical or

scientific comments were written by the ITRC. *Ex. P-6,* Cover Memo and Chapter 2. The County concluded in both the DEIS and FEIS[2] that TSF's NTI Farm would not result in significant unavoidable adverse impacts to bottom-dwelling organisms (benthic community), the surrounding water column, the phytoplankton resource, and marine navigation, nor adverse impacts from the escapement of mussels. *Ex. P-3*, p. 1-14; *Ex. P-6,* pp. 1-15 through 1-22. The FEIS also contained additional analysis on the "carrying capacity" of North Totten Inlet for shellfish aquaculture. The "carrying capacity" analysis is a cumulative impacts analysis that studied the chemical and biological water column in Totten Inlet over a period of several years to determine effects from aquaculture. The County concluded in the FEIS that no significant unavoidable adverse impacts to the carrying capacity of Totten Inlet from aquaculture were identified. The FEIS states "[T]here is no scientific basis that the alleged cumulative water quality impact of shellfish aquaculture in Totten Inlet will result in a cumulative impact to forage fish or general water quality in Totten Inlet." *Ex. P-6,* pp. 1-23 through 1-30.

6.

Subsequently, the Hearing Examiner held hearings on February 13 and 17, 2012. At the hearing, the Hearing Examiner admitted 55 exhibits and heard the testimony of 35 witnesses. *Ex. P-1*, p. 1-12. As part of the hearing process, the Thurston County Resource Stewardship Department (Stewardship Department) recommended to the Hearing Examiner that he approve the SSDP with conditions. *Ex. P-11*, pp. 10, 11. The Hearing Examiner issued a decision on

[2] The FEIS states that the DEIS is a companion document to the FEIS, and is not replaced by the FEIS. *Ex. P-6,* Cover Memo. Therefore, in the remainder of this decision, the Board refers to either the FEIS or the DEIS, or both documents, depending on the location of the specific analysis the Board is referencing.

July 19, 2012, concluding that the analysis of cumulative impacts in three areas (dissolved oxygen, the benthic community, and the potential spreading of Gallo Mussels) was inadequate with respect to the requirements of the Shoreline Management Act (SMA) and Thurston County Shoreline Master Program (SMP). He also concluded that the County needed additional information to determine whether the proposal's effect on benthic life and the potential for spreading of Gallo Mussels was consistent with the SMP. *Ex. P-1,* pp. 89-91. The Hearing Examiner concluded that:

> In all other areas, the proposal complies with the standards noted above. The evidence properly considers cumulative impacts in these other areas and no further analysis of cumulative impacts is required for them.

Ex. P-1, p. 91. The Hearing Examiner then gave TSF the option of either providing the additional information to show compliance with the SMP, or declining to provide it and receiving a denial of the SSDP. TSF chose not to provide the additional information, and on September 14, 2012, the Hearing Examiner denied the SSDP. *Ex. P-2.*[3]

7.

TSF appealed the Hearing Examiner's decision to the Thurston County Board of Commissioners, which issued a decision on November 16, 2012, denying TSF's appeal and affirming the Hearing Examiner's decision. *Ex. R-1.* On December 17, 2012, TSF appealed the County's decision to this Board. APHETI moved to intervene into the case. The Board's presiding officer conducted a pre-hearing conference in which APHETI participated. At the

[3] P-2 was identified as an exhibit for the hearing, but not offered or admitted. The Board notes that it is attached to the petition for review, and is the decision being appealed from, and therefore the Board takes official notice of this document. WAC 461-08-520.

conference, the parties stipulated to intervention by APHETI and agreed to the establishment of three issues for the appeal. These issues were limited to the areas of deficiency identified by the Hearing Examiner and do not include a challenge to the DEIS and FEIS.[4]

B. The NTI Farm and other TSF farms in Totten Inlet.

8.

TSF proposes to construct the NTI Farm in the northern portion of Totten Inlet on 1.36 acres within an aquatic area leased from Washington State Department of Natural Resources (DNR). TSF plans to cultivate the *Mytilus edulis galloprovincialis* (Western Gallo mussel). The NTI Farm will consist of 58 separate rafts grouped together in rows and anchored to the sea floor. Each raft will be 30 feet by 34 feet in size. The rafts will be attached end to end, with two feet in between, in two lines of eight rafts each and six lines of seven rafts each. There will be approximately 720 grow-out lines per unit. TSF seeds the grow-out lines with immature mussels that require approximately 14 to 18 months to reach harvestable size. Full development of the NTI Farm will occur over a period of 5 years. *Ex. P-11*, p. 2; *Ex. P-1,* pp. 12-13, 15; *Ex. P-3*, pp. 1-1 through 1-4.

9.

TSF has two existing mussel farms within Totten Inlet. Both cultivate the Western Gallo Mussel. *Ex. P-3*, p. 1-1. Both are located farther from the mouth of Totten Inlet than the proposed NTI Farm. Gallagher Cove Farm, which is the existing farm closest to the proposed NTI Farm, is approximately 1 mile to the south and west. *Ex. P-3,* Figure 2-3*; Ex. P-26,* p. 14.

[4] The issues are set out in full in Conclusion of Law 2. *See infra*, CL 2, p. 22

It is located within a cove and therefore has reduced circulation. *Ex. P-26,* p. 27. The second TSF mussel farm, Deepwater Point, is located in Southern Totten Inlet, and is 3.8 miles from the proposed NTI Farm. *Ex. P-3, Figure 2-3; Ex. P-26,* pp. 2, 14. Southern Totten Inlet is mostly shallow, warm, subject to lower dissolved oxygen conditions, and has less active circulation than Northern Totten Inlet. Deepwater Point has a raft configuration that is very similar to the proposed NTI Farm, with 8 rafts of 6 units and 720 lines per unit. The total length of line harvested at the proposed NTI Farm will be comparable to the lines at Deepwater Point. *Ex. P-5, No. 9,* p. 4.

10.

Totten Inlet is home to a significant amount of commercial aquaculture. Approximately 85% of Totten shorelines are under commercial aquaculture lease. The amount of acreage put into and taken out of geoduck culture in the Inlet has remained relatively stable since 2003. There are no pending applications for floating aquaculture facilities in Thurston, Mason or Pierce Counties. *Ex. P-1*, p. 18, *Ex. P-6,* pp. 1-24 to 1-30.

C. Spread of Gallo Mussels

11.

The NTI Mussel Farm presents the risk of escapement and propagation of the cultivated mussel, resulting in a negative environmental impact. This potential impact was extensively analyzed in the DEIS (pp. 3-36 to 3-38); the FEIS (pp. 1-19, 2-5 to 2-7), and in an additional expert report prepared by Kenneth Brooks, entitled *The Frequency of Mytilus Edulis Galloprovincialis Alleles in Washington State Marine Waters Where the Species is*

Commercially Cultivated, which was used in the preparation of the DEIS and FEIS. *Exs. P-3; P-5,* No. 5; *P-6.* The Hearing Examiner made extensive factual findings in his decision on the issue of the possible spreading and/or hybridization of Gallo mussels, based on the exhibits and testimony at the hearings before him, and also entered related conclusions of law. *Ex. P-1*, pp. 46-50, 86-87. At the hearing before this Board, TSF presented the testimony of Ralph A. Elston, Ph.D., a recognized expert in shellfish biology, and introduced into evidence a report Dr. Elston prepared specifically addressing the concerns raised by the Hearing Examiner regarding the potential for dissemination of the cultivated mussel. *Elston Testimony*; *Exs. P-21* and *P-22.*

12.

The native mussel in Puget Sound is the *Mytilus edulis Trossulus* (Trossulus Mussel). The mussel TSF will cultivate at NTI is the Western Gallo Mussel. The origin of the Western Gallo Mussel TSF will cultivate is unknown, but its presence in Puget Sound predated aquaculture production here. The scientific evidence supports the conclusion that the Western Gallo Mussel was established on the Pacific coast of North America hundreds to thousands of years ago. It has been a resident of the Pacific coast of North America for a long period of time, and has coexisted with the Trossulus Mussel over that time period. *Elston Testimony; Ex. P-22*, pp. 4-5.

13.

Mytilus galloprovincialis (Mediterranean Gallo Mussel) is considered an invasive species, at least in South Africa. The Mediterranean Gallo Mussel is genetically significantly different from the Western Gallo Mussel, and therefore the fact that the Mediterranean Gallo

Mussel can be invasive in some geographic locations is not relevant to the behavior of the Western Gallo Mussel. A letter, written by United States Fish and Wildlife (USFW) to the Army Corp of Engineers, and quoted in a comment on the DEIS, expresses concern that the cultivation of Mediterranean Gallo Mussel in the Puget Sound could lead to the displacement of the Trossulus mussel. However, TSF will be cultivating the Western Gallo Mussel (*Mytilus Edulis Galloprovincialis*) and not the Mediterranean Gallo Mussel (*Mytilus galloprovincialis*).[5] Based on the testimony of Dr. Elston, the Board finds that the Western Gallo Mussel is distinct from the Mediterranean Gallo Mussel, and therefore USFW's comment does not identify a risk posed by TSF's proposed NTI Farm. *Elston Testimony; Ex. P-22.*

14.

Several studies have been conducted on hybrid mussels in the Puget Sound. These studies have arrived at a wide range of hybridization rates. After reviewing all of these studies, Dr. Elston concludes that the variation in rates can be accounted for by differences in sampling methods and analysis methods. For example, some studies relied on non-random samples. Another study relied on visual inspection of mussels, which is not a reliable method. Dr. Elston concludes that these studies do not establish that there is a trend in increasing hybridization. This is true even in areas of intensive aquaculture activities. *Elston Testimony*; *Ex. P-22,* pp. 8-10. Dr. Elston's opinion is consistent with the determination reached by the authors of the DEIS that:

[5] The confusion regarding what mussel would be cultivated is due in part to the description of the *Mytilus Edulis Galloprovincialis* as the "Mediterranean" mussel in the FEIS, *Ex P-6,* pp. i and 1-1.

> Based on the studies described above, the risk of *M.e. galloprovincialis* to displace or 'genetically pollute' *M. e. trossulus* stocks in Puget Sound is low, and it is unlikely that the proposed project will have a significant adverse effect.

Ex. P-3, p. 3-38.

D. Dissolved Oxygen

15.

The Hearing Examiner raised another area of potential impact from the proposed NTI Mussel Farm: impact to dissolved oxygen (DO) levels. This potential impact was extensively analyzed in the DEIS (pp. 3-14 to 3-17); the FEIS (p. 1-15); and an additional expert report prepared by William Gardiner entitled *Assessment of Potential Water Column Impacts of Mussel Raft Culture in Totten Inlet* (NewFields report), which was used in the preparation of the DEIS and FEIS. *Exs. P-3; P-5,* No. 9*; P-6.* The Hearing Examiner made extensive factual findings on DO levels at and around the project site, based on the exhibits and testimony at the hearings before him, and entered related conclusions of law. *Ex. P-1,* pp. 27-31, 73. At the hearing before this Board, TSF presented the testimony of William Gardiner, an expert in the assessment of marine communities and toxicology, and introduced into evidence a report which Mr. Gardiner helped prepare that specifically addressed the concerns raised by the Hearing Examiner regarding dissolved oxygen levels at the project site and cumulatively within Totten Inlet. *Gardiner Testimony; Exs. P-24, P-26.*

16.

The DEIS evaluated DO concentrations in Totten Inlet using direct measurements at the proposed NTI Farm, as well as studies at the existing Deepwater Point mussel rafts. DO

concentrations at the Deepwater Point site ranged from 4.5 to greater than 10 mg/L ppm. DO concentrations at the proposed NTI site, as well as from the west side of the Inlet, ranged from 7.1 to 14.7 ppm at the surface and 5.9 to 13.0 ppm at the maximum depth sampled. The lowest DO concentrations were observed during the months of August to November. The biological stress concentration benchmark for DO begins at 5.0 ppm. This means that as DO drops below about 5.0 ppm, organisms become more stressed. Higher DO concentrations allow organisms to thrive. In general, Totten Inlet, especially Northern Totten Inlet, has the best conditions in all of South Puget Sound for near-bottom DO. *Ex. P-3,* pp. 3-14, 3-15.

17.

As water moves through a mussel raft, DO decreases because of respiration by mussels and associated epifauna. The lowest DO concentrations occur at the center portion of the raft. *Ex. P-5,* No. 9, pp. 21-23. Once the water exits the raft, it will likely recover to ambient DO concentrations. The DEIS used existing data and predictive modeling to conclude that "although DO may be significantly reduced within the proposed 58-raft mussel farm, it will generally remain above the biological stress concentration of 5.0 milligrams per liter (mg/L)(parts per million [ppm])." *Ex. P-3,* p. 3-15. The DEIS goes on to state:

> During periods of low ambient DO (late August and early September), dissolved oxygen concentrations below 5.0 mg/L (ppm) would be expected to persist some distance down-current from the raft edge. However, once the water exits the raft, it will likely recover to ambient DO concentrations within 70 to 200 m (230 to 656 ft.) or less, due to entrainment of surrounding waters and from increased mixing caused by turbulence from the presence of the raft structure (NewFields 2009).

Id. The DEIS concludes that "[t]here would be no significant unavoidable adverse impacts to dissolved oxygen as a result of the proposed project . . . ." *Ex. P-3,* p. 3-17.

18.

The Hearing Examiner disagreed with the conclusion reached in the DEIS. The Board observes that questioning the adequacy of the EIS (under SEPA) was beyond the scope of the Examiner's jurisdiction on the hearing of the SSDP because the EIS was at that point final and had not been appealed. He reasoned that the data from the Deepwater Point Farm established that in August ambient, incoming water at flood tide at Deepwater Point would have an average DO ranging from 9.5 to over 10 mg/L, with a minimum DO level of 4.5. Then, still using the Deepwater Point data, the Hearing Examiner concluded that at the center of the raft array at flood tide, there would be an average decrease in DO of 44% and a maximum decrease of 70%. To arrive at a potential worst case scenario at the proposed NTI Farm, the Hearing Examiner performed a mathematical calculation and applied the average 44% reduction found at Deepwater Point under the rafts to the minimum incoming DO of 4.5 at Deepwater Point, and concluded that the DO leaving the proposed rafts at the proposed NTI Farm could be as low as 2.52. The Hearing Examiner also concluded that the low DO conditions at NTI could persist for a full tidal cycle (up to 6 hours) and that it could extend up to 656 feet from the raft. *Ex. P-1,* p. 28-29; *P-26,* pp. 2-3.

19.

The expert testimony of William Gardiner, and the report authored by Dr. Jack Rensel in collaboration with William Gardiner and Jack Word, refute the Hearing Examiner's analysis.

These experts opined that "while it is possible that DO levels inside the proposed mussel raft could fall slightly below 5 mg/L for short periods of time in an infrequent, worst case condition, the spatial and temporal extent of the decline at a comparison mussel raft at Deepwater Point were demonstrably minor." *Ex. P-26,* p. 2. The experts concluded that there were several scientific flaws in the Hearing Examiner's worst case scenario.

20.

First, the experts felt that while the proposed raft configuration at NTI Farm is similar to the existing raft configuration at Deepwater Point and therefore data from Deepwater Point is useful for analysis at NTI Farm, it is scientifically incorrect to directly extrapolate the data from Deepwater Point to the NTI Farm. This is because there are major differences in DO, water temperature, sediment quality, and tidal current velocity between the two locations. *Id.*, p. 2. The North Totten Inlet where the proposed NTI Farm is to be located is the most well oxygenated of all of the South Puget Sound Inlets, with DO levels rarely dropping below 9.0 mg/L. *Id.*, p. 7. A close analysis of the best available data from the proposed NTI site indicate that persistently high DO concentrations occur in the critical September period, when low DO values tend to occur in other deep water areas of Puget Sound. *Id.*, p. 10. *Gardiner Testimony.*

21.

Second, based on a re-evaluation of the data used in the NewFields report from Deepwater Point, the experts concluded that DO consumption in the rafts was directly related to ambient DO. From this relationship, the experts predicted that a large percentage consumption of DO in the rafts will occur only when the ambient DO concentrations are already high.

Therefore, it is scientifically incorrect to apply a large percent consumption rate to low ambient DO conditions, as the Hearing Examiner did in his worst case scenario analysis. *Gardiner Testimony; Ex. P-26,* pp. 5-6.

22.

Third, the experts concluded that the temporal and spatial dimensions of the Hearing Examiner's worst case scenario are scientifically incorrect. The majority of the data from Deepwater Point support the conclusion that the DO concentrations rebound to background concentrations within 230 feet. While there is a single measurement from Deepwater Point where the DO measurement did not rebound within 230 feet, the experts conferred and agreed that use of this data point was scientifically invalid because water measured at this distance from the raft may or may not have passed through the mussel rafts or could have been flowing in laterally from another direction. *Id.*, pp. 11-12. Further, the experts clarified based on analysis of meter data from the proposed NTI Farm, that slack tides are extremely rare at this site and average only 40.3 minutes per day, or 10 minutes per tidal change. *Id.*, p. 12. Therefore the experts contradicted the conclusion of the Hearing Examiner that areas of depressed DO from the NTI proposal could extend for 656 feet and could last up to 6 hours. *Id.; Gardiner Testimony.*

23.

Another area of the Hearing Examiner's findings disputed by the experts involved the possibility of areas of low DO from the proposed NTI Farm overlapping with areas of low DO from other existing farms, and the impacts this could have on fish. *Ex. P-1,* p. 57-58. The experts explained that the 5 mg/L stress level cited in the FEIS is a "'threshold' gradual, gradient

effect level that increases in severity with both increasing time of exposure and numerical departure to values less than the 5.0 mg/L threshold." *Ex. P-26,* p. 13. The nature of exposure to low DO from a mussel raft, however, is not a chronic occurrence, but instead is an ephemeral condition which fish can swim around. *Id.* pp. 13-14. Further, the experts disagreed with the Hearing Examiner's contention that pockets of low DO were a risk at the proposed NTI Farm. As stated in the expert report "There is no risk of dissolved oxygen reduction interactions among sites nor is it possible for the effect to reemerge at some distance in a remote location (i.e. the 'pockets' hypotheses of the Examiner)." *Id.*, p. 14. As further explained by the experts:

> Dissolved oxygen in seawater is highly dynamic due to oxygen diffusion, dispersion, atmospheric oxygen pressure, and oxygen production by marine plants and algae and respiration by aquatic animals. So low DO zones in surface waters (the so called 'mixed layer' of the sea) do not persist in Puget Sound or create 'pockets' of low DO surface water as does occur occasionally along the Oregon Coast, from upwelling of deep oceanic waters.

Id., p. 14; *Gardiner Testimony.*

24.

A final area of concern raised by the Hearing Examiner involves potential impacts to forage fish spawning from low DO concentrations. The Hearing Examiner concluded that the evidence he was presented did not address the proximity of the proposed NTI Farm to sand lance and surf smelt spawning areas. *Ex. P-1,* p. 73. In response, the experts performed additional analysis from existing data and concluded based on the current direction in the area and the distance to sand lance and surf smelt spawning areas that:

> It is hard to envision a situation where spawning forage fish could be significantly or even marginally influenced by low dissolved oxygen from the proposed facility operation.

Ex. P-2, p. 17; *Gardiner Testimony*.

E. Benthic Community

25.

A third area of potential impact from the proposed NTI Farm that the Hearing Examiner raised was to the benthic community[6] beneath the proposed site. This potential impact was extensively analyzed in the DEIS (pp. 3-32 to 3-36); the FEIS (pp. 1-18, 1-19), and three additional expert reports prepared by Kenneth Brooks which were used in the preparation of the DEIS and FEIS. *Exs. P-3; P-5,* Nos. 2, 3, and 4*; P-6.* The Hearing Examiner made extensive factual findings on the question of potential harm to the benthic community, based on the exhibits and testimony at the hearings before him, and entered related conclusions of law. *Ex. P-1,* pp. 35-39 and 73-74. At the hearing before this Board, TSF presented the testimony of Dr. Jack Word, an expert marine scientist and sediment toxicologist, and introduced into evidence a report which Dr. Word helped prepare that specifically addressed the concerns raised by the Hearing Examiner regarding the potential for impacts on the benthic community. *Word Testimony*; *Exs. P-23, P-26.*

26.

The DEIS concluded that:

[6] The benthic community consists of the macroinvertebrates living on the bottom of the ocean. *Ex. P-1,* p. 19; *Ex. P-3,* p. G-1.

> The environmental response of benthic organisms to intensive aquaculture, such as the proposed additional mussel farm in North Totten Inlet, depends on numerous factors such as the depth of water, local currents (direction and speed), sediment grain size, dissolved oxygen concentrations in the benthic boundary layer, and other currently recognized factors.

Ex. P-3, p. 3-34.

To characterize likely effects at the proposed NTI Farm, the drafters of the DEIS and FEIS considered sampling information from the Deepwater Point Mussel Farm and the Gallagher Cover Mussel Farm. The experts considered the Deepwater Point Mussel Farm to be similar, but not identical, to the proposed NTI farm. *Word Testimony. Ex. P-3,* p. 3-34 and 3-35; *Ex. P-26,* p. 26.

27.

Dr. Brooks studied the Deepwater Point site in 2002 using a sampling program and video recordings. He concluded that there were minor benthic effects associated with the intensive mussel farming activities. He reached this conclusion based on the moderately high concentrations of sulfide observed in July 2002, and the very high sulfide concentrations observed in November 2002. These elevated levels were observed up to 148 feet from the perimeter of the raft in July 2002, and 197 feet from the perimeter of the raft in November 2002. However, low sulfide concentrations were measured under the rafts in March of 2002, which was the beginning of the 2002 mussel production cycle, suggesting that chemical remediation was essentially completed during the three month fallow period following the previous harvest. From this, Dr. Brooks concluded that any adverse effects arising from the proposed NTI Mussel Farm would not be long-term. *Ex. P-3,* pp. 3-34, 3-35; *Ex. P-26,* pp. 26, 27.

28.

Dr. Brooks also observed that diverse and abundant surface-living megafauna dominated the benthic community under the Deepwater Point rafts. He concluded that the megafaunal community was likely enhanced by the residual organic material present in the particulate waste released from the mussel cultures. Dr. Word further elaborated in testimony at the hearing about the significance of the presence of a diverse and flourishing benthic community along with elevated sulfide concentrations. He explained that sulfide is a generic term, and that there are many different types of sulfides, some of which are toxic and some not. The presence of a diverse benthic community despite the high level of sulfide concentrations means that the organisms that were surviving were not "seeing" (i.e., not being detrimentally impacted by) the type of sulfides that were present. *Word Testimony, Ex. P-3,* p. 3-34, 3-35. *Ex. P-26*; p. 26-27.

29.

The FEIS, which relied on the Brooks studies, concluded:

> Low sulfide and total volatile solids concentrations observed at Deepwater Point indicate that natural attenuation of substrate chemistry toward baseline conditions occurred very quickly with no evidence of cumulative effects. This suggests there would not be an adverse long-term effect on benthic invertebrates arising from the North Totten Inlet mussel farm.

Ex. P-6, p. 1-18.

30.

The Hearing Examiner questioned this conclusion, primarily because of evidence of the discovery of a white bacterial mat of Beggiatoa under the Gallagher Cove mussel rafts in November 2006. *Ex. P-1,* p. 35. The Hearing Examiner considered the development of

Beggiatoa under the Gallagher Cove mussel rafts an indication that Beggiatoa mats could develop under the rafts at the proposed NTI Farm. He concluded that the County and TSF had presented inadequate evidence at the County hearing because the area under other raft facilities in Totten Inlet had not been examined for Beggiatoa. He was also concerned about the high levels of sulfide concentrations measured at the Deepwater Point Mussel Farm. *Ex. P-1,* pp. 35-39, 58-59, 83.

31.

Beggiatoa mats are composed of proteobacteria, a type of anaerobic bacteria. Both aerobic and anaerobic bacteria are present at all times in all seabed sediments but their relative abundance shifts with organic carbon input rates. Beggiatoa mats occur when there is excess deposition of organic carbon beyond what the normally present aerobic bacteria can process. Development of Beggiatoa indicates a decrease in biodiversity of the species in the benthic community, which is considered an adverse impact. *Ex. P-26,* pp. 20, 21, 24-26.

32.

The expert testimony of Dr. Word, along with the expert report authored by Dr. Jack Rensel in collaboration with Dr. Word, refutes the Hearing Examiner's conclusion that the presence of Beggiatoa mats under mussel rafts in Gallagher Cove means they are likely to develop under the proposed NTI Farm rafts. These experts, along with the other members of the ITRC, did not consider impacts at the Gallagher Cove Farm to be indicative of the probable effects of the proposed NTI Farm because the two sites are very different. *Word Testimony, Ex. P-26,* p. 24. Instead, the ITRC team concluded that the Deepwater Point location more closely

resembled the proposed NTI Farm. *Id.,* p. 26. When Dr. Brooks examined the Deepwater Point location on July 7, 2002, there were no Beggiatoa mats under the Deepwater Point rafts. As Dr. Rensel observed in his report, this is the time of year when the mussels are near maximum size, and Beggiatoa mats would occur if they were going to occur. *Id.*

33.

Dr. Word acknowledged that mussel rafts can have either positive or adverse impacts on the underlying benthic community. In response to the Hearing Examiner's concerns, Dr. Word performed additional modeling addressing the likely effect of the proposed NTI Farm on the benthic community beneath the proposed raft. His modeling takes into account the amount of organic material that will be produced by the mussels, the existing benthic conditions at the proposed NTI Farm, and the near bottom current conditions at NTI. Based on this model, he concluded that the proposed NTI Farm is an optimal location for mussel rafts, and that it will likely increase the biomass and diversity of species in the benthic community. Dr. Word also relied on conclusions drawn by Dr. Brooks, which were based on studies done on currents at the proposed NTI Farm, that "the North Totten Inlet site is very well flushed . . ." and that "waste will be well dispersed. . . ." *Ex. P-5,* No. 4, p. 3. Dr. Brooks concluded that "assuming that Taylor Resources continues to intercept mussel fall-off in horizontal nets, these results suggest that any benthic effects would be ephemeral at peak biomass and minor in nature." *Id.* Based on his experience, Dr. Word does not expect that Beggiatoa mats will occur at or anywhere near the proposed NTI site as a result of the proposed mussel rafts. *Word Testimony, P-26,* p. 20-23, 26; *P-5,* No. 4, p. 3.

34.

There is information in other reports by Dr. Brooks that appears inconsistent with the conclusion that the proposed NTI site is well flushed. In one report, Dr. Brooks describes the subtidal areas of the NTI site as a "muddy bowl." *See Ex. P-5,* No. 4, p. 2. In another, Dr. Brooks characterizes sediment under the proposed NTI Farm as between 37.94 and 56.91 percent fines, which seems inconsistent with the conclusion that the proposed NTI Farm is well flushed. *Ex. P-5,* No. 2, p. 7. Dr. Word explained, however, that these numbers are not inconsistent, but merely reflect samples at individual locations. The overall mean percentage of fines at the NTI Farm based on an average of 24 locations was determined to be approximately 22 percent. *Ex. P-5, No. 4,* p. 3. Further, current speeds at the proposed NTI Farm site were measured in the 2006 Evans Hamilton report. Peak currents were measured from 25 to 50 cm/sec, with the depth averaged velocity generally ranging from 5 cm/sec to 25 cm/sec. *Ex. P-5,* No. 9, *p. 8*; *Word Testimony.* Weight is given to Dr. Word's analysis and hearing testimony, and the Board finds it sufficient to address the apparent inconsistencies raised by Dr. Brooks' analysis.

F. Cumulative impacts

35.

The Hearing Examiner identified a final area of concern--the potential for cumulative impacts from the proposed NTI Farm, along with other aquaculture operations in Totten Inlet on DO, benthic life, and from the spread of Gallo Mussels. *Ex. P-1*, p. 89. While the FEIS did not contain a separate cumulative impacts analysis section, it did consider cumulative impacts through a "carrying capacity" analysis of Totten Inlet. *Ex. P-6,* pp. 1-24 through 1-30.

36.

The carrying capacity analysis of Totten Inlet for shellfish aquaculture involved studying the chemical and biological water column effects over a period of several years to identify the anticipated effects of the addition of the proposed NTI Farm to existing environmental parameters within Totten Inlet. The ITRC peer reviewed the results of this analysis. *Ex. P-6,* p. 1-24. The FEIS concluded that no significant unavoidable adverse impacts to the carrying capacity of Totten Inlet were identified. The experts opined that when the NTI Farm is at full production, Totten Inlet will be at approximately 10 percent of its predicted carrying capacity for suspension feeders. *Id.,* p. 1-29. Further, the experts concluded that water quality in Totten Inlet has not declined in the last 10 years, and in 2008 it achieved the highest water quality rating from the Department of Ecology. *Id.* pp. 1-27, 1-28. The FEIS concluded "[t]here is no scientific basis that the alleged cumulative water quality impact of shellfish aquaculture in Totten Inlet will result in a cumulative impact to forage fish or general water quality in Totten Inlet." *Id.*, p. 1-30.

37.

The DO demands of other aquaculture practices in Totten Inlet were also considered because the DO data that was collected and analyzed for the proposed NTI Farm included the DO affects from all aquaculture ongoing at that time. As stated by the experts, "[i]n this manner, the cumulative effects of all aquatic animal respiration was necessarily considered." *Ex. P-26,* p. 15; *Gardiner Testimony.*

38.

Any Conclusion of Law deemed to be a Finding of Fact is hereby adopted as such.

CONCLUSIONS OF LAW

1.

The Board has jurisdiction over this matter pursuant to RCW 90.58.180. TSF has the burden of proof. RCW 90.58.140(7). The scope and standard of review for this matter is *de novo*. WAC 461-08-500(1).

2.

The parties have identified three narrowly drawn, technical issues for the Board to address.

1. Did Thurston County err in denying a shoreline substantial development permit for the proposed Taylor Shellfish North Totten Inlet Mussel Farm on the basis that a formal cumulative impacts analysis should have been performed pursuant to the Shoreline Management Act, specifically regarding dissolved oxygen, the effects on benthic life of Beggiatoa and sulfide levels, and the spreading of or genetic pollution by Gallo mussels, particularly considering an Environmental Impact Statement prepared for the mussel farm concluded the mussel farm would not result in any significant adverse environmental impacts?

2. Did Thurston County err in denying a shoreline substantial development permit for the proposed Taylor Shellfish North Totten Inlet Mussel Farm on the basis that additional information regarding the mussel farm's potential effects on benthic life through sulfide levels, deposition of organic material and generation of Beggiatoa was required, particularly considering an Environmental Impact Statement prepared for the mussel farm concluded the mussel farm would not result in any significant adverse environmental impacts?

3. Did Thurston County err in denying a shoreline substantial development permit for the proposed Taylor Shellfish North Totten Inlet Mussel Farm on the basis that additional information regarding the mussel farm's potential spread or hybridization of Gallo mussels was required, particularly considering an Environmental Impact Statement prepared for the mussel farm concluded the mussel farm would not result in any significant adverse environmental impacts?

A. Issue No. 1: Cumulative Impacts

3.

Thurston County denied the SSDP on the basis that the County had not properly considered cumulative impacts of this project and other projects on DO, benthic life, and the potential for the spread of Gallo Mussels. TSF challenges this decision.

4.

While processing the SSDP for the NTI Farm proposal, the County conducted a SEPA review, which resulted in the preparation of a DEIS and FEIS. These documents analyzed, among other questions, the potential environmental impacts from the proposed NTI Farm on DO, benthic life, and the potential for the spread of Gallo Mussels. The DEIS and FEIS reached conclusions in all of these areas that the proposal would not cause significant unavoidable adverse impacts.

5.

The FEIS also addressed whether a cumulative impacts analysis was legally required under SEPA for this proposal. WAC 197-11-060(4)(d)-(e)(noting the impacts to be analyzed in an EIS include, direct, indirect, and cumulative impacts). Under SEPA, the scope of any required cumulative impacts analysis has been found to be bounded by the interrelationship of the proposal with other existing or future proposals that are not hypothetical or speculative. See, e.g., *Gebbers v. Okanogan County Public Utility District No. 1*, 144 Wn. App. 371, 380, 183 P.3d 324 (2008); *Boehm v. City of Vancouver*, 111 Wn. App. 711, 720, 47 P.3d 137 (2002). Applying this limitation, and based on the fact that the NTI Farm proposal was not in an area

affected by any other existing or planned proposal nor was any other proposal dependent on the NTI Farm, the County concluded that there were no cumulative impacts to evaluate under SEPA related to the proposed mussel farm. *Id.*

6.

While the scope of the formal cumulative impacts in the FEIS was based only on meeting the requirements of SEPA, the DEIS and FEIS did consider cumulative impacts more broadly in other parts of the analysis. For example, the DEIS and FEIS specifically addressed the carrying capacity of Totten Inlet for shellfish aquaculture. The purpose of this inquiry was to provide decision makers with information about the Inlet's overall capacity "given the large number of existing shellfish operations in North Totten Inlet and the potential for shellfish aquaculture uses to increase." *Ex. P-6,* p. 1-24. The FEIS concluded there were no significant unavoidable adverse impacts to the carrying capacity of Totten Inlet. The FEIS also concludes that "there is no scientific basis that the alleged cumulative water quality impact of shellfish aquaculture in Totten Inlet will result in a cumulative impact to forage fish or general water quality in Totten Inlet." *Ex. P-6,* p. 1-30.

7.

The adequacy of the DEIS and FEIS, and therefore its analysis and assumptions regarding potential impacts and the proper scope of cumulative impacts analysis under SEPA, were not appealed by any party and therefore must be accepted by the Board for purposes of the SEPA analysis in this case. *See* WAC 197-11-680(3)(a)(v) (Challenge to the adequacy of an FEIS must be raised at the same time as the administrative appeal of the underlying

governmental action). However, this does not limit the Board's authority to grant or deny the SSDP "based on environmental impacts reviewed under legislation other than SEPA." *Bellevue Farm Owners Association v. SHB*, 100 Wn. App 341, 352, 353. 997 P.2d 380 (2000), *rev. denied,* 142 Wn. 2d 1014 (2000). As the SHB clarified in another case involving noise impacts:

> [T]he adequacy of noise analysis under SEPA and whether the noise impacts of a project complies with a shoreline master program and SMA are different questions. SEPA review does not preclude environmental review under different statutory schemes, and should not be used as a substitute for other land use planning and environmental requirements. *See Bellevue Farm Owners Association v. Shorelines Hearings Board*, 100 Wn. App. 341, 354-355 (2000).

Preserve our Islands v. King County, SHB No. 04-009, 04-010 (2004)(CL 15).

8.

The parties raised the issue of cumulative impacts in this case (Issue No. 1) under the Shoreline Management Act (SMA) and not under SEPA. Therefore, the conclusions in the DEIS and FEIS documents are not binding on the Board for purposes of its analysis of cumulative impacts under the SMA. However, the Board cannot ignore as an evidentiary matter that the DEIS and FEIS contain a wealth of peer-reviewed scientific analysis focused specifically on the expected impacts from the NTI Farm. Therefore this information must be considered, along with other scientific evidence offered at the hearing, to analyze the question of cumulative impacts under the SMA.

9.

Consideration of cumulative impacts is not a listed requirement for review of an SSDP as it is for shoreline conditional use permits and variances. *See* WAC 173-27-150, -160, -170.

Further, the Board has stated that a cumulative impacts analysis is not required for an SSDP approval under the SMA. *Coalition to Protect Puget Sound Habitat v. Pierce County,* SHB No. 11-019 (2012)(CL 15). However, the Board has also held that it is not precluded from considering cumulative impacts in its review of an SSDP in some circumstances. *Fladseth v. Mason County,* SHB No. 05-026 (2007)(CL 13).

10.

Some of the factors the Board has considered in determining whether a cumulative impacts analysis is warranted include whether a shoreline of statewide significance is involved, and whether there is potential harm to habitat, loss of community use, or a significant degradation of views and aesthetic values. *Coalition,* at CL 15. In other cases, the Board has considered whether a project would be a "first of its kind" in the area (*Roller v. Pierce County,* SHB No. 06-016 (2006)(CL 9)); and whether there is some indication of additional applications for similar activities in the area (*Franzen v. Snohomish Co.,* SHB Nos. 87-5 & 87-6(1988)(CL 16)). In a recent geoduck aquaculture case, the Board concluded that "each separate geoduck aquaculture proposal will need to be reviewed on its own particular site characteristics" and then rejected the need for a cumulative impacts analysis under the SMA, given the circumstances of the particular site, which was not a shoreline of statewide significance, and where there was no evidence that similar projects would be proposed or approved near the farm in that case. *Coalition* at FF 21, CL 15.

11.

In this case, the proposed NTI Farm is in a shoreline of statewide significance because it is seaward of the line of extreme low tide. RCW 90.58.030. There is little evidence in the record, however, to support a showing that there is a risk of harm to habitat. The bulk of the scientific evidence in the record comes from the DEIS and FEIS, which reached the conclusion that there would not be significant adverse environmental impacts. In addition to the DEIS and FEIS, the Board heard testimony from three well qualified experts addressing the potential for both singular and cumulative effects based on impacts on DO, benthic life, and the potential for Gallo dissemination. These experts all refuted concerns regarding adverse environmental impacts from the mussel rafts, including adverse cumulative effects based on other shellfish aquaculture in Totten Inlet. The DEIS, the FEIS, and the testimony of the experts does not support a conclusion that there is a risk of harm to habitat. Further, the NTI Farm is not the first of its kind in this area because there are two existing mussel rafts in Totten Inlet and Totten Inlet hosts various other aquaculture facilities. There are also no other pending applications for floating aquaculture facilities in the surrounding three-county area. Therefore, none of these criteria the Board has considered in past decisions, with the exception of the fact that this is a shoreline of statewide significance, points to the need for further cumulative impacts analysis under the SMA.

12.

The Board also considers whether the local SMP requires a cumulative impacts analysis be completed prior to the approval of an SSDP. In *Fladseth*, the Board found that the Mason

County SMP required a cumulative effects analysis as part of an SSDP for a pier or dock. *Fladseth, at* CL 14. In this case, the Thurston County SMP Section 2, Chapter V, Regional Criterion B (Criterion B) states:

> Protection of water quality and aquatic habitat is recognized as a primary goal. All applications for development of shorelines and use of public waters shall be closely analyzed for their effect on the aquatic environment. Of particular concern will be the preservation of the larger ecological system when a change is proposed to a lesser part of the system, like a marshland or tideland.

This policy requires proposals in Thurston County to be analyzed for their effects on the aquatic environment. If there had not been the type of analysis done in the DEIS and FEIS of carrying capacity and dissolved oxygen, and the use of data which included existing environmental parameters, the Board would have questions regarding whether Criterion B had been met. However, the record before the Board contains extensive analysis of the potential for impacts on water quality and aquatic habitat.

13.

Another consideration for the Board is the type of use being proposed, and whether it is a favored or disfavored use. Here, aquaculture is a desired and preferred water-dependent use. In the recent *Coalition* decision, the Board stated:

> Aquaculture is a desired and preferred water-dependent use of the shoreline. *Cruver v. San Juan County and Webb*, SHB No. 202 (1976). Aquaculture is of statewide interest and benefit, and when properly designed and managed, does not impose on navigation or recreational uses of nearshore waters and does not interfere with shoreline and upland residential uses. *Penn Cove Seafarms v. Island County*, SHB No. 84-4 (1984) at 9. The State identifies aquaculture as an activity of statewide interest, and when properly managed, an activity that can result in long term over short-term benefit and protection of the resources and ecology of the shoreline. *Marnin and Cook v. Mason County and Ecology*, SHB

No. 07-021 (Modified Findings of Fact, Conclusions of Law, and Order, Feb. 6, 2008) (referencing WAC 173-27-241(3)(b)).

Coalition at CL 12.

14.

In this case there is a large quantity of scientific evidence contained in the unchallenged DEIS and FEIS; an analysis in the DEIS and FEIS of the carrying capacity of the Inlet, which took into account existing environmental parameters in the Inlet; and several expert opinions in the record that there will not be significant impacts to DO, the benthic community, or to the native Trossulus mussel from the mussel raft itself or on a cumulative basis, considering other shellfish aquaculture in Totten Inlet. In contrast, there is no evidence including expert opinion to support the need for a formal cumulative impacts analysis. Given these factors, and the preferred water-dependent use at issue, the Board concludes that there is no need for additional cumulative impacts analysis to comply with the requirements of the SMA.[7]

B. Issue No. 2: Benthic impacts

15.

Thurston County denied the SSDP on the basis that the evidence was insufficient to show that the proposed NTI Farm would not have adverse impacts on the benthic community. Therefore, the Hearing Examiner concluded that the proposal did not satisfy Criterion B, which requires protection of water quality and aquatic habitat. TSF challenges this decision. The evidence in the record supports TSF's position on this issue.

[7] APHETI contends that the EIS predicts that the NTI Farm will violate water quality standards. The issue of compliance with water quality standards, however, is not one of the designated issues before the Board in this appeal.

16.

Mussel rafts can have either positive or adverse impacts on the benthic community beneath the raft. The nature of the impact depends on how numerous factors such as the depth of water, local currents (direction and speed), sediment grain size, and DO concentrations in the benthic boundary layer. The evidence before the Board establishes that this issue was thoroughly considered by qualified experts, and that they concluded there would not be adverse impacts to the benthic community. In their opinion, the NTI Farm is in a well flushed area of North Totten Inlet that is well suited for use as a mussel farm. No other experts refuted those conclusions.

17.

The development of Beggiatoa mats under the mussel raft at Gallagher Cove is cause for concern. While all of the expert opinion in the record supports a conclusion that the Gallagher Cove location is different in significant ways from the proposed NTI Farm, and that because of these differences, the proposed NTI Farm should not have an adverse impact on the benthic community, there are comments and data in the record about the NTI Farm that are troubling. For example, Dr. Brooks describes the subtidal areas of the NTI site as a "muddy bowl." FF 34, *supra.* There is also evidence that at least in some specific locations under the proposed NTI Farm there is a high percentage of fines (37.94 to 56.91 percent) indicating slower currents. *Id.* Other evidence in the record of concern is the high levels of sulfides reported under the Deepwater Point mussel rafts, a site that is more similar to the proposed NTI Farm than the Gallagher Cove site. FF 27, *supra.* These high sulfide levels at Deepwater Point were observed

when the mussels were near the end of the growing season, and the levels had dropped by the start of the next mussel production cycle, which indicates that a natural chemical remediation process has occurred. Further, there was still a diverse and abundant surface-living megafauna dominating the benthic community under the Deepwater Point rafts. The Board gives weight to Dr. Word's testimony explaining the concerns raised by Dr. Brooks' analysis while also concluding that an additional condition that requires monitoring will best protect the shoreline environment surrounding the mussel farm. Imposing such a condition is consistent with properly protecting the shorelines in question under the SMA and SMP.

C. Mussel Genetics

18.

Thurston County denied the SSDP on the basis that the evidence was insufficient to show that the proposed NTI Farm would not have adverse impacts on the native mussel by causing the spread of the cultivated mussel. Therefore, the Hearing Examiner concluded that the proposal did not satisfy Criterion B, which requires protection of water quality and aquatic habitat. TSF challenges this decision.

19.

The Board concludes that the Western Gallo Mussel, which is the mussel TSF plans to cultivate at the NTI Farm, is not an invasive species in Totten Inlet. The letter written by USFW expressed concerns about the cultivation of the Mediterranean Gallo Mussel, which is genetically different from the Western Gallo Mussel and is considered an invasive species in some places. The letter, therefore, is not relevant to the NTI Farm. The Board concludes based on unrefuted

expert testimony that the proposed NTI Farm will not cause impacts due to dissemination of the cultivated mussel.

20.

Any Finding of Fact deemed to be properly considered a Conclusion of Law is hereby adopted as such.

Based upon the foregoing Findings of Fact and Conclusions of Law, the Board enters the following:

ORDER

1. Thurston County's denial of the SSDP for the NTI Farm is reversed. The SSDP is remanded to Thurston County for approval and issuance, with all conditions imposed by the Thurston County Hearings Examiner at pp. 92 through 93 of his July 19, 2012 decision. *See P-1*, pp. 92-93.

2. An additional condition shall be added to the approved SSDP as follows:

> Prior to operation of the NTI Farm, the permittee shall submit to Thurston County for approval a monitoring plan consistent with the Taylor Shellfish Farms Environmental Code of Practice (which needs to be incorporated into and attached to the permit issuance). The plan, at a minimum, shall include:
>
> A. Annual benthic sampling under the mussel farm rafts to determine whether any impacts to the benthic flora and fauna in excess of those anticipated in the EIS have occurred.
> B. Annual vertical profiles of the water column adjacent to mussel farms to measure potential changes in dissolved oxygen concentrations for an extended period in excess of those anticipated in the EIS.
> C. Provisions for the periodic inspection and removal of mussel fall-offs and all unnatural and non-biodegradable materials that accidently fall from rafts and work areas onto the seafloor, as well as periodic inspection and immediate removal of any Beggiatoa that forms around any of the mussel rafts.

D. The plan shall also include specific measures designed to remediate unanticipated impacts to the benthic community identified through the implementation of the monitoring plan.
E. Monitoring shall include surveys that measure at a minimum the following parameters: sulfides, REDOX potential, total volatile solids, sediment grain size, presence or absence of gas bubbles, Beggiatoa, pseudofeces, feces, farm litter, and benthic and infaunal biotic samples.
F. The monitoring plan shall address what actions TSF will be required to take to minimize risks to aquatic life and habitat in excess of those anticipated in the EIS.

All required monitoring shall be conducted by TSF or its consultants consistently with accepted scientific standards and at a scientifically appropriate number of sites to be determined in the approved monitoring plan that are located directly underneath, adjacent to NTI Farms, and at least 1 km away from the actual NTI site.

TSF shall provide the results from the annual monitoring and surveys to Thurston County Resource Stewardship Department (TCRSD) within 10 days of completion. Thurston County shall review the information, and if it determines that the aquatic habitat of Totten Inlet may be at substantial risk of adverse impacts on the benthic community in the vicinity of the mussel farm or with respect to changes in dissolved oxygen concentrations in excess of those anticipated in the EIS, based on the surveys or other reports and analysis, Thurston County may impose additional conditions on the operation of the NTI Farm. If the County determines that the annual reports indicate no adverse impacts with respect to the monitored parameters and conditions for five or more consecutive monitoring years, it may allow TSF to modify the plan to allow for monitoring once every five years, rather than annually.

SO ORDERED this 17th day of June, 2013.

SHORELINES HEARINGS BOARD

KATHLEEN D. MIX, Chair

TOM MCDONALD, Member

PAMELA KRUEGER, Member

See Concurring Opinion
GRANT BECK, Member

PETER PHILLEY, Member

Kay M. Brown
Administrative Appeals Judge

Appendix J

BEFORE THE SHORELINES HEARINGS BOARD
STATE OF WASHINGTON

DAVID and CYNTHIA HOLLEY,	)	
	)	
Petitioners,	)	SHB 00-001
	)	
v.	)	FINAL FINDINGS OF FACT,
	)	CONCLUSIONS OF LAW AND
SAN JUAN COUNTY,	)	ORDER
	)	
Respondent.	)	
	)	

David and Cynthia Holley ("Holleys") filed with the Shorelines Hearings Board ("board") a petition for review of San Juan County's ("County") denial of their application for a shoreline substantial development permit to build a recreational dock, approximately one mile southeast of Friday Harbor, on San Juan Island. The board heard the appeal in a conference room at the Bank of America in Friday Harbor, Washington, on June 12, 2000.

The board was comprised of Robert V. Jensen, presiding; Ann Daley, Chair, James A. Tupper, Jr., Dean Foster, Dave Somers and Judith Barbour. Attorney William J. Weissenger represented the Holleys. Deputy Prosecuting Attorney Karen E. Vedder represented the County. Betty J. Koharski, court reporter, affiliated with Gene Barker & Associates recorded the proceedings.

The board heard sworn testimony, reviewed exhibits, took a site visit to better understand the evidence, and heard closing arguments. Members Tupper and Foster were unable to attend the hearing, but heard the tapes of the hearing and reviewed the exhibits.

DISCUSSION

We conclude the County correctly denied the substantial development permit application for the proposed dock. We conclude alternative moorage, at the marina at Friday Harbor is adequate and feasible for the Holleys and Mr. Griffith. Having reached this conclusion, which is dispositive of this matter, we need not reach a conclusion on the other two issues in the case. These are 1) would the alternative of mooring buoys be adequate and feasible; and 2) would the proposed dock have a significant adverse impact on the extensive eel grass beds in the vicinity of the proposed dock?

We note the Holleys are in a less favorable position, to utilize a mooring buoy, being located on the point at the northerly end of the small cove, than Mr. Griffith, who is inside the cove. However, the water area to the west of the promontory has the features of an acceptable location for a mooring buoy.

Based on the current state of knowledge, the proposed mitigation measures that would be applied to the dock, if constructed, appear insufficient to protect against adverse impacts to the eelgrass habitat. We commend the Department of Fish and Wildlife ("DF&W") for studying the impact of docks on eelgrass habitat. However, the evidence causes us to conclude the WD&F study contains significant limitations.

FINDINGS OF FACT

I

Dr. David Holley and his wife own property on San Juan Island. They are shopping for a pleasure boat of 30 to 35 feet in length. They hope to moor the boat at a dock they have proposed to build off a rocky promontory, located in and above the tidelands adjacent to their property, about one-mile east of the town of Friday Harbor. They applied to San Juan County for a shoreline substantial development permit for the dock. Along the way, their neighbor to the south, Mr. Griffith, who spends summers on the island with his family, entered into a joint-use agreement with them for the dock. Mr. Griffith owns a 41 to 42-foot pleasure boat, which he presently moors in Seattle in the winter, and in LaConner in the summer.

II

The proposal before the board is a residential, joint-use dock. The structure would consist of a 50 by 4-foot aluminum pier, a 44 by 3-foot aluminum ramp, and a 40 by 10-foot float, with 6 feet of metal grating for a total length of 125 feet. The dock would extend out to the –10-foot tidal elevation. Extreme low tide is at–4.5 feet, which is the point at which shorelines of state wide significance begin in the area. RCW 90.58.030(1)(e)(iii).

III

Most of the shoreline in front of the Holleys' lot is a low-lying outcrop of rocks that are exposed for a considerable distance at lower tides. On the eastern side of the property, these rocks give way to a gradually sloping gravel beach which extends up to a low bank near the house. There is a smaller beach on the west side of the lot. Due east of the property is a small

cove, upon which there are several residences, two docks with ramps and floats and four mooring buoys. Neither the Holleys, nor Mr. Griffith own the tidelands waterward of their properties.

IV

The beach in front of the Holley property and the properties in the cove are covered extensively by eelgrass. Below the –2-foot tidal elevation, the dock would cover the existing eelgrass.

V

Eelgrass has been described as the bread and butter of the marine environment. It serves as important habitat for Pacific herring, juvenile salmon and Dungeness crab. It provides shelter, spawning and foraging habitat for many finfish and shellfish species, and is directly consumed by migratory waterfowl. It acts as a substratum to which organisms attach. It exports detritus to the marine environment. It is light sensitive.

VI

Shoreline development has led to substantial losses of eelgrass in some parts of Puget Sound. The survival of plants in this region is threatened by reductions in sub-surface light. Most impacts to the sub-surface light environment in Puget Sound are caused by overwater structures. Reducing the amount of light can affect the plant density, vigor and size of eelgrass. If the light reduction is long enough, eelgrass can be eliminated.

VII

The Department of Fish and Wildlife ("DF&W") issued an Hydraulic Project Approval ("HPA") for the proposed dock on July 29, 1999. Because DF&W is concerned about the potential adverse impact of docks on the environment, it determined to allow the project with conditions. That agency required the dock float to contain "light permeable grating equivalent to 60% of its surface area." In addition, the agency mandated a 3-year monitoring program. The purpose of these conditions was to protect the eelgrass habitat. DF&W, at the time it issued the HPA, did not require seasonal removal of the float.[1] The permit specified, if after three years of monitoring, the DF&W finds, through the monitoring of the density of eelgrass, eelgrass habitat has been significantly impacted, the applicant would be required to modify the dock. At the hearing, Mr. Griffith offered to enter into an additional condition, as follows:

> The dock shall be removed if, at the conclusion of three years from the construction of the dock, qualified scientific personnel selected by the Department of Fish and Wildlife reasonably determine that (i) the float has had a significant adverse impact on the adjacent eelgrass, and (ii) mitigation measures proposed by DFW and implemented by Appellants fail to reverse such adverse impacts.

VIII

Brian Williams, DF&W's area habitat biologist, in conjunction with other ecologists, has participated in a study to assess the impact of light-permeable grating on residential floats that cover eelgrass habitat. The purpose of the study was to test the hypothesis that such grating would prevent the loss of eelgrass adjacent to and around the floats. Phase 1 of the study tested

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[1] That requirement is apparently a condition of inclusion of the Holleys' proposal in phase 2 of the DR&W study described in Finding of Fact IX, below.

light-permeable grating on docks in northern Puget Sound. Ten docks were included, located on nine sites. The research suggests grating of up to 50% of the float deck was insufficient to insure "no net loss" of eelgrass. The study evaluated the effect of 20 attributes associated with the structure and the surrounding landscape, on the shoot density of eelgrass under the floats. Each float was monitored for three years during the period between 1991 and 1999. Two of the floats were removed each year between approximately October and April. Also, two of the floats had a predominantly north/south orientation. The study concludes orientation of the float in a northerly/southerly direction, coupled with seasonal (winter) removal of the float had an important influence on reducing changes in the eelgrass density under the float. The study authors believe requiring more than 50% grating, in combination with seasonal removal and north/south orientation "can provide a successful formula for avoiding eelgrass impacts." However, the authors conclude "further research is needed to better define how to mitigate the impact of floats on eelgrass." Based on this conclusion, they recommend further study.

IX

The authors recognize the limitations of the results obtained from phase 1 of the study. They candidly admit the only way presently to "ensure that a float will not impact eelgrass is not to build the float or avoid the site with eelgrass." Phase I has not been peer-reviewed, nor have the policy recommendations from phase I or phase 2 been approved by the agency managers.

X

We find, based on the evidence before us, the Holleys have attempted to mitigate the potential environmental impact of their proposed float to the surrounding eelgrass habitat in three ways. First, by agreeing to place more than 50% penetration grating on more than 50% open space of the deck; second, by seasonally removing the float; and third by orienting it principally in a north/south direction. However, the evidence in the record does not support a conclusion that these proposed mitigation measures would result in no net loss of eelgrass from the site.

XI

The Port of Friday Harbor has recently expanded its public marina. It is located within a five-minute drive of the Holley property. Currently, after September 15th, applicants for slips from 20 to 60 feet long would expect a winter slip. More likely than not, these same applicants would receive permanent moorage before May 15th of the following year. Last winter the marina had empty slips. It advertised in local and Seattle newspapers to fill those slips. During the last two years, everyone on the seasonal moorage list (winter moorage) has been offered a permanent slip, in the form of a month-to-month tenancy, by May 15th. The San Juan County Shoreline Master Program ("SJCSMP") requires all applicants for single-family residential docks to show that alternative moorage is not adequate and feasible. SJCSMP, § 5.5.4(g)(5)(ii). We find the Holleys and Mr. Griffith would more likely than not be able to obtain temporary moorage in September of this year, with the expectation they would be able to receive permanent moorage by mid-May of the year 2001.

XII

The Holleys' property lies east of the entrance to Friday Harbor. To the northwest lies Brown Island. San Juan Channel is to the north. Although the ferries rarely pass between Brown Island and the mainland, the channel between Brown Island and the mainland receives heavy boat traffic. Because of the rocks near the Holleys' property, boats tend to swing north of that area to avoid damage.

XIII

The existence of mooring buoys lying in the cove, strongly suggests mooring buoys are a viable option for mooring boats in the area. There is conflicting evidence as to the extent mooring buoys would pose a risk to navigation past the property. The Holley property may be less suitable for the placement of a mooring buoy than that of Mr. Griffith, or the other landowners in the cove. This is due to the proximity of the rocks, as well as the closer exposure to the entrance of Friday Harbor. The Department of Natural Resources ("DNR") is empowered to authorize the placement of such buoys in the waters over publicly owned beds of navigable waters. It may do so by either a license or a lease. The application form used by DNR states the area within 350 feet of the mooring buoy (for boats from 31 to 60-feet long) "should be free from all obstacles (buoys, docks or other hazards). . ." The 350 foot circle has a built-in buffer of 50 feet for the 60-foot boat. DNR may authorize the placement of a mooring buoy on publicly owned beds of navigable waters, to a person who does not own the adjacent upland. Locations in the vicinity of the Holley property, both to the west and east of the rocky promontory, are

similar to the locations of many mooring buoys in Puget Sound. However, these locations may be less than ideal.

XIV

The County staff recommended denial of the dock proposal. The Hearing Examiner subsequently conducted a public hearing. At the conclusion, he prepared written findings, conclusions and a decision, denying the application. The Holleys timely appealed the denial to the board.

XV

Any conclusion of law deemed to be a finding of fact is adopted as such. Based on these findings, the board makes the following:

CONCLUSIONS OF LAW

I

The board has jurisdiction over this matter and the parties. RCW 90.58.180(1).

II

The Holleys have the burden of proving, by the preponderance of the evidence, the proposed substantial development is consistent with the provisions of the Shoreline Management Act ("SMA") and the SJCSMP.

III

The appeal focuses on the following three issues: 1) Do the Holleys have available alternative moorage which is adequate and feasible? 2) Does the mooring buoy preference in the SJCSMP warrant rejection of the Holleys' application? And 3) Would the Holleys' proposal adversely impact the eelgrass habitat underneath and in the vicinity of the proposed structure?

IV

We conclude the Holleys and Mr. Griffith have available alternative moorage, which is adequate and feasible, at the Friday Harbor Marina. Because this conclusion is dispositive of the appeal, it is not necessary for us to reach conclusions on the other two issues.

V

The Holleys and Mr. Griffith are within a five-minute drive of the Friday Harbor Marina. If they were to apply to that entity for moorage, more likely than not, they would be able to obtain seasonal (winter moorage) after September 15th of this year, and permanent moorage by May 15th of the following year. Mr. Griffith appears concerned about paying for winter moorage at Friday Harbor, which he would not use; however, he now presumably pays for winter moorage in Seattle, and summer moorage in LaConner. In any event, the amount of cost for moorage is not controlling. The issue is availability of moorage. No evidence was offered to the effect either the Holleys or Mr. Griffith cannot afford the moorage that is available to them.

VI

This case differs significantly from those previous shoreline cases relied upon by the Holleys. The most recent of these, Inskeep v. San Juan County, SHB 98-33 (1999), relied upon the County's general determination noted in Slaughter v. San Juan County, SHB 96-38, at 7 (1997). In the latter case, the County had determined that commercial moorage was generally unavailable and over-subscribed on San Juan Island. Since then, both the Friday Harbor and the Roche Harbor Marinas have constructed new moorage facilities. In this case, the County did not rely upon the previous generalization, but rather based its decision upon the availability of alternative moorage following a reasonable waiting period. We conclude that reliance is justified under the facts of this case.

VII

The primary purpose of the SMA is to protect the state's shorelines as fully as possible. Lund v. Department of Ecology, 93 Wn. App. 329, 337, 969 P.2d 1072 (1998), citing Buechel v. Department of Ecology, 125 Wn.2d 196, at 203, 884 P.2d 910 (1994). The County's shoreline regulation requiring applicants for single-family residential docks to prove alternative moorage is not adequate or feasible, is consistent with that purpose, and the requirement the SMA be liberally construed on behalf of its purposes. RCW 90.58.900.

VIII

We do not decide here whether the alternative of mooring buoys is adequate and feasible. We note mooring buoys are common throughout Puget Sound, and the San Juan Islands. Many similar locations in San Juan County have mooring buoys. There would be some increased risk

to navigation from placing mooring buoys at these properties. However, because of the almost random presence of such buoys, we presume prudent boaters navigate to avoid them. We are not convinced a requirement ships moored at night be lit, would justify not requiring buoys in this location. No evidence was presented such requirement could not be satisfied with a battery operated light. Mooring buoys are preferred over docks and piers under the SJCSMP. SJCSMP, § 5.5.4(c)(2). The location of the Holley property and its rocky coast, compared to the more protected location of Mr. Griffith's property on the cove, suggests the Holleys' property is less ideally suited to mooring buoys than that of Mr. Griffith. However, the water area west of the promontory has the features of an acceptable location.

IX

We conclude the County has fairly interpreted its master program to require site-specific eelgrass assessments by applicants for proposals with the potential to impact that valuable resource. Eelgrass location is subject to the forces of nature, and as the DF&W study suggest, increasingly, man's activities and development. The master program contemplates mapping of sensitive areas, including fish and wildlife habitat areas. However, the maps do not cause the area to become sensitive. At best, such mapping can only be general, subject to site specific verification in the field. This is made clear in the master program at §3.6.2(b), which states:

> The ESA maps are provided only as a general guide to alert the viewer to possible location and extent of environmentally sensitive areas. <u>The maps may not be relied on to establish the existence or boundaries of a sensitive area, nor to establish whether all of the elements necessary to identify an area as an ESA actually exist</u>. Conditions in the field are controlling: in the event of a conflict between the information shown on the maps and information shown as a result of the field investigation, the latter shall prevail. (Emphasis added.).

X

We conclude the County correctly identified the eelgrass area in front of the Holley property and adjacent cove as a fish and wildlife habitat area, under the SJCSMP, in response to the Holleys' shoreline permit application.

XI

We further conclude, because the Holleys and Mr. Griffith have an available alternative, they have met the first preferred mitigation for significant impact upon the eelgrass; namely, avoidance. SJCSMP, §3.6.9(b)(i)(A). Because they can avoid the impact, we need not reach the issue of whether, based upon the evidence presented in this case, they have adequately mitigated for such impact, under the SMA and the SJCSMP.

XII

Any finding of fact which is deemed a conclusion of law is hereby adopted as such.

From these conclusions, the board enters the following:

ORDER

San Juan County's denial of a shoreline substantial development permit application of David and Cynthia Holley, for the construction of a residential dock for the use of two neighboring waterfront properties is affirmed.

DONE this 31st day of July 2000.

SHORELINES HEARINGS BOARD

ROBERT V. JENSEN, Presiding

ANN DALEY, Chair

JAMES A. TUPPER, JR., Member

DEAN R. FOSTER, Member

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PLAUCHE & CARR LLP

October 26, 2015 - 4:23 PM

Transmittal Letter

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Court of Appeals Case Number: 47717-3

Is this a Personal Restraint Petition? Yes ■ No

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Appellants' Opening Brief with Appendices coming in 4 parts

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