

From: tuffmutt@comcast.net
To: [SMP](#)
Subject: Incoming SMP Comment
Date: Saturday, April 18, 2020 3:44:13 PM

Your Name (Optional):

Your email address: tuffmutt@comcast.net

Comment: 19.400.135(A)(3) If the new proposed structure lot currently is heavily forested from the current buffer setback (say 250') to a point X towards the OHMW on the common property line such that the existing primary structure on that side does not currently have ANY view from point X shoreward, then the view line for each adjacent property shall be drawn from it's existing primary structure nearest shoreward corner through it's associated point X. The resulting setback is the buffer+setback if it does not interfere with either adjacent view lines.

This allows a heavily forested lot to have the reduced buffer setbacks that does not impact any adjacent views.

Time: April 18, 2020 at 10:44 pm
IP Address: 73.221.155.217
Contact Form URL: <https://thurstoncomments.org/comment-on-the-proposed-shoreline-code-update/>

Sent by an unverified visitor to your site.

From: tuffmutt@comcast.net
To: [SMP](#)
Subject: Incoming SMP Comment
Date: Saturday, April 18, 2020 3:55:03 PM

Your Name (Optional):

Your email address: tuffmutt@comcast.net

Comment: 19.400.120(B)(4) needs clarification for the added markup that the buffer is only for construction and is no longer required after completion. What does that mean exactly? Once the building is done it's where it is with the 15' setback. How is this added markup helping instead of adding confusion?

Time: April 18, 2020 at 10:54 pm
IP Address: 73.221.155.217
Contact Form URL: <https://thurstoncomments.org/comment-on-the-proposed-shoreline-code-update/>

Sent by an unverified visitor to your site.

From: [Bob Jensen](#)
To: [Andrew Deffobis](#)
Subject: Thurston County Shoreline Master Program Amendment to Limit Toxic Blue-Green Algae Blooms on County Shoreline Lakes
Date: Monday, November 16, 2020 4:23:56 PM
Attachments: [Thurston County Shoreline Master Program Amendment Regarding On-Site Septic Systems.docx](#)

Dear Andrew,

I am enclosing for your review and that of the Thurston County Planning Commission, my proposed amendment to the Shoreline Master Program. It is intended to effectuate my previously expressed concerns and recommendations to reverse the increasing toxic blue-green algae blooms on Pattison Lake, and other County shoreline lakes. It is an addition to the existing provisions at Section 19.600.170 Residential Development. Section B. Development Standards. I will introduce it at the Planning Commission Zoom meeting on Wednesday evening, November 18.

Thank you for your attention.

Respectfully yours,
Bob Jensen

Proposed Amendment to Thurston County Shoreline Master Program

19.600.170 Residential Development

B. Development Standards

2. All sewage disposal and water systems shall be in compliance with state and local health regulations including But not limited to Thurston County Board of Health Article III and IV for on-site sewage and water supply requirements.
 - a. Phosphorous which ends up in lakes and streams can stimulate biological activity beyond normal levels, leading to eutrophication. This often results in overabundant growth of undesirable algae, which is referred to as a harmful algae bloom.
 - b. Phosphorous is generally accepted as the limiting nutrient for eutrophication of freshwater resources.
 - c. Toxic blue-green algae blooms are increasingly occurring in the County shoreline lakes. These have resulted in periodic, temporary closures of some of these lakes to public recreation.
 - d. Phosphorous may be present in dishwashing detergents, hair dyes, toothpastes, mouth washes, liquid hand soaps; as well as in fertilizers. It also occurs in human and animal waste.
 - e. No shoreline owner who is served by an on-site septic system shall use, or authorize the use on their property of any of the products listed in subsection d.
 - f. All on-site septic systems serving shoreline lakefront properties shall be located, designed, constructed, operated, and maintained to not discharge phosphorous in their effluent to the surrounding waters of the state.

From: [Diani Taylor](#)
To: [Andrew Deffobis](#)
Subject: Thurston SMP "fallow"
Date: Tuesday, November 17, 2020 8:15:16 AM
Attachments: [image001.png](#)

Hi Andy,

I attended the last Planning Commission meeting (11/4) and am planning to attend this Wednesday's meeting, as well. I wanted to provide some information based on a couple comments I heard in the last meeting. Also, I noted that there may still be questions about shellfish farming. I will continue to follow meetings and provide information, if it is helpful, and feel free to reach out any time if you have any questions I might be able to answer. We support staff's recommended changes to the SMP pertaining to shellfish farming and have no comments at this time.

Defining "abandoned" and "fallow" in the SMP can provide some helpful clarifications for farmers and planners, even if not used throughout the document. As you know, shellfish farms may be fallow or dormant for many years due to a variety of factors out of the operator's control, including water quality downgrades, environmental conditions, seed availability, etc. Other counties have addressed "fallow" or "dormant" areas for aquaculture in their SMP documents per the [Department of Ecology SMP Handbook Chapter 16: Aquaculture](#) (see pages 13-14, in particular, and copied in part, below, for convenience).

Dormancy

Nonconforming use standards regarding abandonment may apply to aquaculture unless the SMP provides specific abandonment regulations for aquaculture. Ecology recommends local governments address dormancy in order to avoid abandonment provisions from unintentionally applying to ongoing aquaculture operations. Both shellfish and net pen aquaculture undergo periods of dormancy. Periods of dormancy vary with the type of aquaculture and specific situation, and may last from months to many years. Dormancy may occur due to crop rotation or fallowing, state or federal permit requirements, pest infestations, state water quality closures, seed availability, market fluctuations, or other factors beyond the control of the operator. Periods of aquaculture dormancy should not be considered abandonment – the ending of a nonconforming use or occupancy of a nonconforming structure. However, if aquaculture operations become abandoned and not just dormant, any future aquaculture must be consistent with the SMP.

Ecology recommends SMPs require a case-by-case evaluation of dormancy issues that may arise. For example, the SMP could include the following language:

Section XXXXXX [insert reference to general abandonment provisions in the SMP] does not apply to aquaculture operations. The determination of when aquaculture is abandoned shall be made case-by-case in consultation with the operator. In its determination, the City/County shall consider such factors as whether the property was acquired under the Bush or Callow Acts of 1895, the use of crop rotation and fallowing, state or federal permit requirements, pest infestations, seed or juvenile availability, market fluctuations, and pollution of the farm site from other uses or developments.

The reference to the Bush and Callow Acts concerns about 47,000 acres of state-owned aquatic lands that were sold to private parties for shellfish aquaculture [RCW 79.135.010]. (See DNR Bush and Callow Act Aquatic Lands Maps.)

Thank you,

Diani

Diani Taylor E.
General Counsel



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From: [John Woodford](#)
To: [Polly Stoker](#); [Andrew Deffobis](#)
Subject: Coalition comments-SMP Chapters 19.100 thru 400
Date: Tuesday, November 17, 2020 8:27:30 AM
Attachments: [CoalitionLtrCh 100-500.docx](#)

Good morning Polly and Andy,

Polly, I hope that you will be able to get these Coalition comments to the Planning Commissioners today so they will have time to read them in advance of tomorrow's PC meeting.

Andy, thank you for your email late yesterday. Industrial use within Shoreline Residential SEDs is still very much a concern of the Coalition.

Thank you both for all your work,

John Woodford

Thurston County Shoreline Stakeholders Coalition

7541 Holmes Island Rd SE, Olympia, WA 98503-4026

November 16, 2020

To: Thurston County Planning Commissioners

From: John H. Woodford, Chair
Thurston County Shoreline Stakeholders Coalition

Re: October 21, 2020, draft SMP Chapters 19.100 through 400

Commissioners,

During the Public Communications portion of the November 4, 2020, Planning Commission meeting I chose to speak about the SED re-designation of some 2,700 shoreland properties...an extremely critical, yet seemingly almost overlooked matter by the planning staff. No plan to deal with the issue, beyond the mailing of postcards to property owners, has been presented to either you Commissioners or to the public at large. What is staff going to do when hundreds, even thousands, of people reply saying that they don't want to have their property re-designated? This will be huge, and re-designation, back to what it is **now**, must be resolved prior to the SMP Public Hearing. These people cannot be left hanging.

Due to the three-minute time limitation, I had no time left to discuss matters in SMP Chapters 19.100 – 19.400. But Commissioner Doug Karman provided you and staff a very comprehensive list of Comments on those chapters. So, I will address those Chapters below, hopefully complementing without duplicating Mr. Karman's comments.

Chapter 19.100 Introduction

This entire chapter deals with the interaction and layering of various County Codes...and 19.100.125.B (pg. 2) states, *"Should a conflict occur between the provisions of this Program or between this Program and the laws, regulations, codes or rules promulgated by any other authority having jurisdiction within Thurston County, the more restrictive requirements shall apply, except when..."* (my underline). Interesting.

In Chapter 11 of the Department of Ecology SMP Handbook, a document designed to assist local government planners in meeting requirements of the Shoreline Management Act, under the heading, **Critical areas ordinances will not apply** is the statement, *"After the SMP update is approved by Ecology, the Critical Areas Ordinance (CAO) established under the Growth Management Act (GMA) will not apply within shoreline jurisdiction."*

Also, remember Brad Murphy's PowerPoint introduction of this round of the SMP, on June 7, 2017, one of the slides stated, *"A local SMP is essentially a shoreline specific combined comprehensive plan, zoning ordinance, and development permit system all in one."*

So, just how much of Chapter 19.100 is even applicable?

Chapter 19.150 Definitions

19.150.195 Buffer (pg. 7) and **19.150.695 Setback (pg. 17)**: If a buffer is, “a non-clearing area established to protect...,” what are all the lawns that I see extending from shoreline homes to their soft- and/or armored-bulkheads? ...at the vast majority of properties on every lake and on marine waters.

19.150.695 Setback (pg. 17): defines ‘setback’ as “the distance a use or development must be from the edge of a buffer...”

The above two definitions are in total contradiction with those spelled out in Ecology’s SMP Handbook, where two pages in Chapter 11 deal with, “**Distinguishing between buffers and setbacks.**” Content within this heading include, “...buffers typically are naturally vegetated areas adjacent to water bodies...,” “Buffers are generally recognized as a ‘separation zone’ between a water body and a land use activity...” Regarding setbacks, the Handbook states, “Shoreline setbacks are the distances separating two features such as a structure and the water, or a structure and the buffer. Natural native vegetation may or may not exist within a setback.” It goes on to say, “Some local governments with intensively developed shorelines have established only setbacks from the OHWM.”

When Senior Planner Brad Murphy wrote the draft SMP back in early 2017 he chose to define **setback** in the very most narrow manor...by a portion Ecology’s definition, “...setbacks are the distances separating... a structure and the buffer.” The full definition should be incorporated in Thurston County’s definition. Otherwise those existing waterfront lawns are undefined. They are not buffers. They are not part of a setback. So, what are they?

At least two additional terms should be clarified under Definitions. They are used later in the SMP, without certainty of meaning.

1. Letter of exemption:

19.500.100.A.5 (pg. 73), dealing with Permit Applications, states, “A permit or written approval ...for all development within shoreland jurisdiction.” We must assume this written approval is the letter of exemption.

In 19.500.100.F (pg. 79), dealing with development not requiring permits, “*letter of exemption*,” is specifically mentioned without telling us what it is.

In previous Planning Commission meetings, we’ve been told that any “development,” even the replacement of one board on a dock/pier, would require a “letter of exemption.” And, to obtain that “letter of exemption,” an individual would have to go to the Permitting Center and pay a fee to obtain said letter. In other words, a “letter of exemption” is a permit to not get a permit.

2. Water-oriented Industrial Uses: Referenced in Table 19.600.105 (pg. 89) and 19.600.150.A.2 (pg. 110), these industrial uses will be allowed, with a Conditional Use Permit (CUP), in Shoreline Residential SEDs. But, what are Water-oriented Industrial Uses? No one seems to know; Mr. Andrew Deffobis has just recently emailed me; he is looking further into this matter. Also, the Coalition will address this matter in more detail when you get to the discussion of Chapter 19.600.

Chapter 19.200 Shoreline Jurisdiction and Environmental Designation

19.200.100.A.5 (pg.22): In the first SMP draft presented by Brad Murphy in September of 2017 this item read, “5. Shorelands adjacent to these waterbodies...” and makes perfect sense. In the red strike-through/underline, first revision, draft the item read, “5. The flood hazard areas adjacent to these waterbodies...” As revised, this makes no sense; I think this was an inadvertent change. Flood hazards are dealt with in 19.400.150 and this

should revert to “5. Shorelands adjacent to these waterbodies...” which would then relate to the 200-foot shoreline jurisdiction.

Chapter 19.300 General Goals and Policies

19.300.110.B, Policy SH-16 (pg.37): The planning staff has yet to provide a list of acceptable native plants. What if you want to plant something now? ...or have recently planted trees or shrubs?

19.300.130.A, Policy SH-26 (pg. 39): This policy statement ends with, “...where appropriate.” This is a totally subjective position that leaves a loophole big enough to drive a truck through.

19.300.130.B, Policy SH-27 (pg. 39): “Give preference to water-dependent uses and single-family residential uses that are consistent...” This preference for *single-family residential uses* seems to get lost throughout much of the remainder of this document.

19.300.150 South Puget Sound Policies (pg. 43-44): This entire section should be stricken from the SMP. The Alliance for a Healthy South Sound is a non-government organization and is not accountable to the citizens of Thurston County.

Chapter 19.400 General Regulations

19.400.100 Existing Development (pg. 45): This introductory paragraph should be deleted; it was written as a justification for labeling, “*nonconforming*,” homes built in-whole or in-part in what is now defined as the “buffer,” with the introduction of the SMP. The Planning Commissioners are considering labeling options. Those home should be “Conforming.” See my August 31, 2020, letter about Conforming vs. Nonconforming. The staff note, in yellow, following the paragraph states, “The Commission is interested in public comment on this topic.” The Coalition stands for “Conforming” as do many others.

19.400.100.B.1.a and b (pg. 45): In both cases, “*nonconforming*” should change to “*conforming*.”

19.400.100.B.1.d (pg. 46): The limitation of a maximum 500 square foot landward expansion to a home entirely within the buffer is totally arbitrary and is counter to Department of Ecology requirements. This all started with Spokane’s SMP (reasoning unknown) and it has been cut and pasted into other SMPs, including Thurston County's, without any understanding of the reasoning.

This is probably not such a big deal for homes within the Shoreline Residential SED where the buffer is 50-feet...and a creative design solution could link across the remainder of the buffer to a larger out-of-buffer addition if needed. But, what if you have a home in a Rural Conservancy (150-foot buffer) or Natural SED (200-foot buffer)? Your home could set back 100-feet from the OHWM and still be very deep within the buffer. This would be the case for most marine waters (including, for example, all of Coopers Point which is certainly a residential area and not rural); all of Deep Lake; most of Scott Lake; large portions of Offutt Lake, McIntosh Lake, Lake Lawrence, Clear Lake, Elbow Lake and probably several more.

Just thinking, maybe staff should just remove this item.

19.400.115, Critical Areas (pg. 50-53): Just which Ordinance takes precedence? So, please see the first page of this letter where I commented on the Chapter 19.100 Introduction. We feel that the SMP trumps the CAO. Staff may need to re-examine this material.

19.400.120.B.4. (pg. 55): deals with an addition 15-foot setback beyond the buffer. It should be made clear that this only applies if there is a true buffer on the property...*a non-clearing area...with intact native vegetation*. If the property has lawn or other non-native vegetation, this setback should not apply. See my comments on Chapter 19.150 Definitions earlier in this letter.

19.400.120.D.1.b (pg. 57): Decks and Viewing Platforms. Staff has presented this matter as a Public Hearing Option. So, just what does a *Public Hearing Option* mean? What has to happen at the Public Hearing to trigger the change? Or, can you Commissioners initiate this change before the Public Hearing?

19.400.140 Bulk and Dimension Standards (pg.65-66): First, do these standards apply only to new developments? If so, it should be stated. If not (applying to developed property), how does staff designate existing parcels that do not comply with this standard?

Table 19.400.140(A) Development Standards (pg. 65):

Lot Width: Where are Lot Widths measured? **Most** parcels are not perfect rectangles...some are wider at the water line (OHWM) and narrower at the landward end...still other are the opposite.

Footnote 4, Hard Surface thresholds...See Section 19.400.125: Why aren't the applicable hard surface limits not just noted here rather than referring interested parties on to yet another document, Chapter 20.07 TCC?

Thank you for your consideration of these key issues.

Respectfully submitted,

John H. Woodford, AIA

From: [Diani Taylor](#)
To: [Andrew Deffobis](#)
Subject: SMP comment letter
Date: Wednesday, November 25, 2020 2:04:00 PM
Attachments: [image001.png](#)
[Taylor Shellfish.SMP Comments.11.25.2020.pdf](#)

Hi Andy,

Please see the attached comment letter.

I hope you have a wonderful Thanksgiving! Stay well.

Kind regards,

Diani

Diani Taylor E.
General Counsel



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Via Email: Andrew.Deffobis@co.thurston.wa.us

Andrew Deffobis
Thurston County
Community Planning
2000 Lakeridge Dr. SW
Olympia, WA 98502

RE: Shoreline Master Program Comments

Dear Mr. Deffobis:

I appreciate the hard work that you and the Thurston County Planning Commission are dedicating to Thurston County's Shoreline Master Program ("SMP") update.

I am general counsel for Taylor Shellfish Farms and am submitting these comments to address three topics discussed by the Planning Commission during its November 18, 2020 meeting: (1) use of plastics; (2) impacts to native species; and (3) permit compliance. Please feel free to share these comments with the Planning Commission as part of its consideration and development of the SMP update.

1. Plastics

The Planning Commission discussed the use of plastics in aquaculture operations, and there was a suggestion that the SMP include a policy encouraging phasing out plastics and using "more ecologically friendly" products. This suggestion was uniquely focused on aquaculture. There was no suggestion for a policy to phase out the use of plastics for any other type of shoreline use or development.

Shellfish aquaculture is a preferred, water-dependent use that must be planned for and fostered in SMPs. RCW 90.58.020; WAC 173-26-241(3)(b). Use restrictions on aquaculture—such as phasing out the use of plastics—must be supported by the most current, accurate, and complete scientific or technical information available. RCW 90.58.100; WAC 173-26-201(2)(a); *Taylor Shellfish Company, Inc. v. Pierce County and Ecology*, GMHB No. 18-3-0013c, at 12-13 (Final Decision and Order, June 17, 2019). Current scientific and technical information does not demonstrate that plastics used by shellfish farmers in Thurston County have adverse ecological impacts that warrant a phase-out, nor is there credible evidence that there are available alternatives that are "more ecologically friendly." In fact, the Shorelines Hearings Board has on multiple occasions affirmed the use of plastics in shellfish aquaculture operations. *Coalition to Protect Puget Sound Habitat v. Pierce County*, SHB No. 11-019 (July 13, 2012); *Coalition to Protect Puget Sound Habitat v. Thurston County*, SHB No. 13-006c (October 11, 2013); and *Coalition to Protect Puget Sound Habitat v. Pierce County*, SHB No. 14-024 (May 15, 2015). Among other things, the Board has rejected claims that plastics used in geoduck farming degrade into microplastics, SHB No. 11-019 (FF 9); SHB No. 13-006c (FF 41-42 and COL 16); SHB No. 14-024 (FF 44-47 and COL 13, 20), release chemicals, SHB No. 110-019 (FF 11), cause

significant marine debris, SHB No. 11-019 (FF 10 and COL 6, 14); SHB No. 13-006c (FF 36-39 and COL 16); SHB No. 14-024 (FF 39-43, 47 and COL 13, 20), and threaten fish and wildlife, SHB No. 13-006c (FF 40 and COL 42); SHB No. 14-024 (FF 26, 27 and COL 17).

More recently, another local government—the City of Bainbridge Island—proposed a regulation calling for plastics to be phased out in aquaculture operations in a draft SMP amendment. We provided reports to City and Ecology demonstrating that the proposal to phase out plastics was not supported by scientific and technical information. *See Attachments A and B.* Ecology, during its review of the proposed amendment, agreed that this restriction was inappropriate, stating: “The marine grade plastics currently used are specifically designed to resist breaking down in the harsh marine environment. Without evidence of an impact related to marine grade plastics this prohibition is not supported by current science, data, or other technical information.” Attachment C at 3.

Shellfish farming depends on a healthy marine environment, and we believe strongly that all shoreline use and development must utilize environmentally responsible products and employ practices to avoid and minimize potential ecological impacts. To the extent the County believes that plastics pose a risk to the shoreline environment and should be phased out, it must not only base use restrictions on scientific and technical information but also fairly allocate that requirement or policy across all shoreline use and development, rather than uniquely targeting a single use. WAC 173-26-186(8)(d); WAC 173-26-201(d)(iii).

2. Impacts to Native Species

The Planning Commission discussed including a policy in the SMP update stating aquaculture should avoid impacts to native species, and the question arose as to the extent to which the current draft SMP update (Oct. 21, 2020) protects native species. As you are likely aware, the draft SMP update includes numerous provisions that protect native species. SMP update Section 19.600.115.C (development standards for aquaculture) provides, among other things, that: aquaculture shall not be permitted in areas where it would result in a net loss of shoreline ecological functions, or where adverse impacts to critical saltwater and freshwater habitats cannot be mitigated according to the mitigation sequencing requirements of the SMP; applicants proposing to introduce aquatic species that have not previously been cultivated in Washington State are responsible for pursuing required state and federal approvals relating to the introduction of such species, as determined by applicable state and federal agencies; no processing of any aquaculture product, except for the sorting and culling of the cultured organism and the washing or removal of surface materials or organisms after harvest, shall occur in or over the water unless specifically approved by permit; predator exclusion methods shall not be designed to intentionally kill or injure wildlife; and commercial geoduck aquaculture shall only be allowed where sediments, topography, land and water access support geoduck aquaculture operations without significant clearing or grading. Additional, generally applicable policies and regulations provide further protections. For example, Section 19.400.110.A (mitigation sequencing) requires that permitted uses and developments be designed and conducted in a manner that protects the current ecological condition, and prevents or mitigates adverse impacts. Mitigation measures must be applied in a sequence of steps, consisting of avoiding, minimizing, rectifying, reducing, compensating, and monitoring impacts.

As you are also aware, the SMA and guidelines do not contain a no-impact standard. Rather, the SMA guidelines recognize that all activities have some impacts and instead instruct that SMPs contain policies and regulations designed to ensure there will be no net loss of

ecological functions. WAC 173-26-186(8). The SMA guidelines contain specific provisions for the treatment of aquaculture in SMP updates, WAC 173-26-241(3)(b), and the County's current draft update is consistent with these guidelines. We are aware of no scientific and technical information that would warrant additional policies or regulations addressing potential impacts to native species. RCW 90.58.100; WAC 173-26-201(2)(a); *Taylor Shellfish Company*, GMHB No. 18-3-0013c, at 12-13.

Further, as discussed above, the Shorelines Hearings Board has on multiple occasions affirmed SMA permits issued for geoduck aquaculture projects in recent years, determining that these projects would have minimal impacts on the environment and other shoreline uses. *Coalition to Protect Puget Sound Habitat v. Pierce County*, SHB No. 11-019 (July 13, 2012); *Coalition to Protect Puget Sound Habitat v. Thurston County*, SHB No. 13-006c (October 11, 2013); and *Coalition to Protect Puget Sound Habitat v. Pierce County*, SHB No. 14-024 (May 15, 2015). The SHB findings and conclusions in these cases are based largely on research conducted by Washington Sea Grant. In 2007, the Legislature directed Washington Sea Grant to review existing scientific information and commission research studies related to geoduck aquaculture according to six priorities. Washington Sea Grant issued its final report in November 2013, and it concludes geoduck aquaculture has limited disruptions within the range of natural variation experienced by benthic communities in Puget Sound. Highlights from the final report include:

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

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

3. Permit Compliance

The Planning Commission stated that they have heard public comments raising concerns with permit compliance for aquaculture operations and discussed developing policies and regulations addressing this concern.

The County rightfully has a strong interest in ensuring permitting activities are performed in compliance with conditions of approval. Thurston County currently has a code enforcement ordinance, codified at Title 26 of the Thurston County Code (“TCC”), to ensure this occurs. Pursuant to this ordinance, Thurston County’s Compliance Coordinators investigate code or permit complaints and work with property owners to take corrective action when violations occur. The County may in some cases suspend or revoke a permit or approval when a use or building is being maintained in a manner contrary to the terms and conditions of approval. TCC 26.05.070. Section 19.50.1100 (Enforcement and Penalties) of the draft SMP update also addresses the County’s authority to enforce the SMP and require compliance with shoreline permits. This section cross-references Title 26 TCC, stating enforcement actions shall be taken in accordance with this Title, and it provides that penalties may be imposed when individuals fail to conform to the terms of a permit or undertake development without obtaining a required permit.

We are aware of no information that demonstrates the County’s code enforcement ordinance or the draft SMP update provisions addressing permit compliance are inadequate. Like the Planning Commission, we have heard permit compliance comments raised during the SMP update process by a waterfront property owner who resides near a native shellfish farm that was recently installed. This commenter opposed the shellfish farm during the permit process and appealed the shoreline permit. The Thurston County Hearing Examiner rejected the commenter’s claims that the farm would have adverse impacts to the environment and other shoreline uses. The Board of County Commissioners affirmed the Hearing Examiner’s decision, and the Shoreline Hearings Board dismissed the commenter’s subsequent appeal of the permit. The commenter then raised compliance concerns with the farm after it was installed. Those concerns were investigated by the County under Title 26 TCC, and the farm was deemed to be in compliance with the permit conditions. That the commenter is dissatisfied with the results of the investigation and remains opposed to the shellfish farm does not constitute an adequate basis for imposing additional restrictions on aquaculture in the SMP update. RCW 90.58.100; WAC 173-26-201(2)(a). Moreover, imposing unjustified restrictions or compliance monitoring requirements on aquaculture would fail to give preference to and foster this use as required by the SMA and guidelines. RCW 90.58.020; WAC 173-26-241(3)(b). And to the extent the County believes heightened compliance monitoring is required to address cumulative impacts, it must fairly allocate that requirement across all shoreline use and development. WAC 173-26-186(8)(d); WAC 173-26-201(d)(iii).

Thank you for your time and consideration of these comments.

Sincerely,



Diani Taylor E.

General Counsel, Taylor Shellfish Farms

Attachment A

Prepared by
Ramboll Environ US Corporation
Seattle, Washington

Project Number
30-37629A

Date
August 2016

PLASTIC AQUACULTURE GEAR IS NOT A THREAT TO PUGET SOUND

PLASTIC AQUACULTURE GEAR IS NOT A THREAT TO PUGET SOUND

PREPARED BY

A handwritten signature in black ink, reading "Rosalind A. Schoof". The signature is written in a cursive style with a large initial 'R'.

Rosalind A. Schoof, PhD, DABT, Fellow ATS

Principal

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1.1 Plastic aquaculture gear is not a threat to Puget Sound

It is our understanding that the City of Bainbridge Island is considering a ban on the use of nonbiodegradable plastic aquaculture gear. We have been provided with a series of communications from members of the Coalition to Protect Puget Sound (the Coalition) and the Bainbridge Alliance for Puget Sound on this topic, including a white paper by the Coalition submitted June 16, 2016 by Maradel Gale titled "*Washington State Shellfish Aquaculture Overview of Adverse Impacts with Emphasis on Cumulative Impacts*", making assertions regarding adverse impacts of aquaculture operations. Their broad assertions about health hazards associated with the use of plastic aquaculture gear are not supported by available scientific studies or observations in Puget Sound and the Salish Sea. Concerns raised include allegations that aquaculture gear is a major source of plastic debris in Puget Sound, that harmful chemicals may be released from plastic gear, and that gear may rapidly breakdown and form microplastic particles that could harm aquatic organisms. None of these allegations are accurate. Current research regarding the use of plastics and shellfish aquaculture practices indicate that:

- Aquaculture operations are not a significant source of marine plastic debris, and there are procedures in place that limit the loss of plastic gear from aquaculture operations.
- Aquaculture gear does not readily break down to form microplastics, and microplastic concentrations are higher in urban embayments than near aquaculture operations.
- Microplastics have not been shown to affect Puget Sound biota.
- Use of rigid PVC tubes do not pose a toxic hazard.
- HDPE gear also does not pose a toxic hazard.
- Microplastics are not a major source of exposure to persistent organic pollutants (POPs).

Evidence to support each of these statements is presented below.

1.2 Aquaculture operations are not a significant source of marine plastic debris, and there are procedures in place that limit losses of plastic gear

Aquaculture gear is not a primary source of marine plastic debris. Land-based sources provide the largest contribution to marine plastic debris, and numerous marine sources also contribute. A 2009 United Nations Environmental Programme report identifies many sources of plastic debris worldwide:

"The major land-based sources of marine litter include wastes from dumpsites located on the coast or banks of rivers; rivers and floodwaters; industrial outfalls; discharge from storm water drains; untreated municipal sewerage; littering of beaches and coastal picnic and recreation areas; tourism and recreational use of the coasts; fishing industry activities; ship-breaking yards; and natural storm related events. The major sea-based sources of marine litter include shipping (merchant, public transport, pleasure, naval and research vessels) and fishing (vessels, angling and fish farming) activities; offshore mining and extraction (vessels, and oil and gas platforms); legal and illegal dumping at sea; abandoned, lost or otherwise discarded fishing gear; and natural disasters." (UNEP 2009, page 9).

The National Marine Debris Monitoring Program (NMDMP), conducted by Ocean Conservancy, surveyed marine debris on U.S. beaches during a five year period from 2001-2006 (Ocean Conservancy 2007), finding that plastic items dominated debris collected. For debris found (not limited to plastics), land-based debris made up 48.8% of all collected items, with 33.4% of items from general sources (not specifically land- or marine-based) and only 17.7% of items were ocean-based. For the 40 monitoring locations along the west coast, the contribution from ocean-based items was lower, only 11.3%. The west coast items collected are shown in Table 1. None are

Table 1 Total Debris Collected: Regions 6 & 7**(Copied from reference Table 9, Ocean Conservancy 2007)**

The total debris items collected between September 2001 and 2006

Debris Item	Number of Items collected	Percent of Total
Ocean-based Sources		
Gloves	143	0.6%
Debris Item	169	0.7%
Light bulbs/tubes	110	0.4%
Oil/gas containers	65	0.3%
Pipe-thread protectors	203	0.8%
Nets >5 meshes	86	0.3%
Traps/pots	234	0.9%
Fishing Line	404	1.6%
Light sticks	205	0.8%
Rope > 1 meter	842	3.2%
Salt bags	19	0.1%
Fish baskets	46	0.2%
Cruise line logo items	19	0.1%
Floats/Buoys	574	2.2%
Land-based Sources		
Syringes	72	0.3%
Condoms	71	0.3%
Metal beverage cans	1,912	7.4%
Motor oil containers	69	0.3%
Balloons	3,605	13.9%
Six-pack rings	183	0.7%
Straws	7,562	29.1%
Tampon applicators	215	0.8%
Cotton swabs	69	0.3%
General Sources		
Plastic bags with seam <1 meter	2,877	11.1%
Plastic bags with seam >1 meter	264	1.0%
Straps: Open	526	2.0%
Straps: Closed	66	0.3%
Plastic bottles: beverage	3,090	11.9%
Plastic bottles: food	973	3.7%
Plastic bottles: bleach/cleaner	274	1.1%
Other plastic bottles	1,014	3.9%
Total Items	25,961	100.0%

uniquely associated with shellfish aquaculture. Based on these reports, a localized focus on plastic aquaculture gear is unwarranted and will not discernably affect the levels of marine plastic debris in Puget Sound.

Furthermore, loss of plastic aquaculture gear is already minimized. One condition of aquaculture farm approval often includes an action plan to minimize the potential for gear escape. This is accomplished by securing gear in place, removing gear as soon as it is no longer needed, removing gear and equipment when crews are not present, and through regularly patrolling the tidelands for washed up gear and debris. Studies have shown that removal of marine debris is effective at mitigating the potential to create microplastics (Andrady 2011; Heatherington et al. 2005).

1.3 Aquaculture gear does not break down easily to form microplastics, as conditions typically found in the marine environment of the Puget Sound slow the degradation of plastic

Another concern raised in the Coalition white paper is the potential contribution of aquaculture gear to microplastics in sea water. Microplastics are commonly defined as particles less than 5mm in diameter. The Joint Group of Experts on the Scientific Aspects of Marine Environmental Pollution, which advises multiple United Nations agencies, identified four different processes by which microplastics may reach marine water:

- *"Deterioration of larger plastic fragments, cordage and films over time, with or without assistance from UV radiation, mechanical forces in the seas (e.g. wave action, grinding on high energy shorelines), or through biological activity (e.g. boring, shredding and grinding by marine organisms);*
- *Direct release of micro particles (e.g. scrubs and abrasives in household and personal care products, shot-blasting ship hulls and industrial cleaning products respectively, grinding or milling waste) into waterways and via urban wastewater treatment;*
- *Accidental loss of industrial raw materials (e.g. prefabricated plastics in the form of pellets or powders used to make plastic articles), during transport or transshipment, at sea or into surface waterways;*
- *Discharge of macerated wastes, e.g. sewage sludge"* (GESAMP 2010).

Microplastics may reach the marine environment either from breakdown of plastic items that are already in the water or on beaches, or they may wash into the ocean from plastic items on land. Microplastic particles are shed by aging plastic structures such as decks, picnic tables, garbage cans, play structures and numerous other plastic items near rivers, lakes and the oceans, as well as by land-based plastic trash. A major source of marine microplastics in urban areas are discharges from water treatment plants that release huge numbers of plastic fibers from clothing. Browne et al. (2011) report *"An important source of microplastic appears to be through sewage contaminated by fibres from washing clothes. Forensic evaluation of microplastic from sediments showed that the proportions of polyester and acrylic fibres used in clothing resembled those found in habitats that receive sewage-discharges and sewage-effluent itself. Experiments sampling wastewater from domestic washing machines demonstrated that a single garment can produce >1900 fibres per wash."* As can be deduced from these myriad sources of microplastics, aquaculture gear is unlikely to make a large contribution to the microplastic load in Puget Sound.

The Coalition asserts that plastics in the environment *"almost immediately begin shedding microplastic fibers into the water column"*. Despite their claim to present current science with published references, the Coalition presents no scientific evidence to support this claim. In fact fisheries elect to use plastic gear because of its resistance to degradation, and geoduck farmers, typically use and re-use PVC pipe for 10 years or more. In an August 11, 2016 phone conversation, Dr. Jonathan (Joth) Davis stated he has used the same PVC pipe since 1991. He has also been using

and re-using the same shellfish caging purchased 26 years ago. The cages are stored in sunlight when not in use and are still intact and pliable, so clearly they are not degrading or being lost to the environment.

Several conditions must be present for microplastics to be generated. First and foremost, gear must be exposed to sunlight, as solar UV radiation is the number one cause of degradation (GESAMP 2015). Andrady et al. (2003) showed that degradation rates of common plastic materials are extremely slow when found in mid-water and sediment where light is not available and temperature and oxygen levels are low. This retardation is primarily a result of the relatively lower temperatures and oxygen concentration in water environments (Andrady et al. 2003). Additionally, degradation can be effected by foulants (a process in which organisms use the plastic as a habitat) that coat the exterior of the microplastic and have been shown to deflect UV-B radiation and further reduce the photodegradation process (Andrady 2011). In the Puget Sound, conditions and the nature of use of plastic gear both reduce the likelihood of rapid degradation of plastic. Plastic pipes and net bags are almost always covered with water during daylight hours reducing the potential for photodegradation. The Pacific Northwest climate is temperate and there is relatively low annual sunlight. All factors that reduce degradation potential.

Some insights regarding the general origin of micro-debris of all kinds in the Salish Sea are offered in a recent report by Davis and Murphy (2015). They found the lowest regional levels in the beaches of the south Sound, including Tacoma and Hood Canal (as shown in their Figure 5). They also found that most anthropogenic beach debris by count (as opposed to by weight) was expanded polystyrene foam (69% of total), vs plastic fragments and glass (11% each). Their counts include both macro-debris and micro-debris, with 77% of the debris by count (8% by weight) being micro-debris of all kinds (i.e., foam, plastic fragments, glass, film, filaments, pellets, etc.)(<5mm). By weight, plastic fragments were 37% of all debris, but only 3 percent of plastic fragments were microdebris. Debris was higher near urban areas and appeared to be locally generated. These findings indirectly imply that aquaculture sites are not a primary contributor to microplastics on beaches in the Salish Sea.

1.4 Microplastics have not been shown to affect Puget Sound biota

At least a dozen laboratory studies have examined the effects of microplastics on aquatic invertebrates (including mussels, crabs and oysters) and fish. In many cases, these studies used polystyrene spheres, which are a different plastic than used in aquaculture gear. Most of these studies used microplastic concentrations many orders of magnitude greater than concentrations observed in the environment. The article by Lönnstedt and Eklöv (2016) provided by Ms. Gale, is typical of these other studies. Polystyrene particles were used, and the concentrations which were characterized as being “environmentally relevant”, included one concentration of 10,000 particles/m³ and a high concentration of 80,000 particles/m³. The lower concentration was similar to the mean concentrations found in water along the Swedish coast (7,000-10,000 particles/m³). In contrast, a recent survey of waters in Puget Sound and in Nootka Sound in British Columbia found 0-102 particles/ m³ in surface water and 0-44 articles/ m³ in 5 meter deep water. The highest concentration found was 5,300 particles/ m³ at a 10 meter depth in Nootka Sound (Hansen 2016).

Thus, although laboratory studies such as that by Lönnstedt and Eklöv (2016) have found that high concentrations of microplastic particles can have effects on marine biota, these studies do not provide any evidence that ambient concentrations in Puget Sound will harm our marine life. It is a critical tenant of toxicology that “the dose makes the poison”. Any substance can be toxic at a sufficiently high dose, but effects observed at those high doses do not suggest that those effects will occur at much lower doses.

1.5 Use of rigid PVC tubes do not pose a toxic hazard

The Coalition asserts that *“PVC can leach dangerous chemicals into the marine environment.”* This statement is based on the assumption that PVC tubes used in geoduck aquaculture contain

phthalates. This assumption is false. PVC comes in two basic forms, rigid and flexible. Phthalates are often used in flexible PVC products. Phthalates are generally not added to the rigid form used in geoduck aquaculture. As noted by the Coalition, Washington State Department of Ecology reviewed the potential toxic hazard of PVC in marine environments and determined that this rigid PVC does not pose a significant toxic hazard because its hardened form is stable in the marine environment (Johnson 2010). Ecology also conducted a literature search to determine the current body of knowledge addressing the potential for chemical impacts from the use of PVC pipe in the marine environment. Based on this review, they determined that the potential for chemical toxicity to marine organisms from PVC pipe appears to be low (Johnson 2010).

Metal-based stabilizers are used in rigid PVC, but the concentrations are extremely low. In response to concerns raised during the permit process for a Puget Sound geoduck farm, metals were tested in sediment at an active geoduck aquaculture site and, for comparison, at a control site approximately 600 feet updrift of the culture location. The culture site had an active geoduck aquaculture history of more than 10 years and the area sampled was on its second crop rotation. There were no statistically significant differences identified between metals concentrations in sediment from the control site and the culture site, confirming that PVC pipes were not releasing metals to the environment.

The Coalition's allegations about chemical releases from PVC pipes are contradicted by their widespread use for drinking water pipes, as well as to convey water in the Seattle aquarium.

1.6 HDPE gear also does not pose a toxic hazard

HDPE products are expected to degrade slowly, but few studies were found quantifying rates of degradation in marine water. Artham et al. (2009) showed that HDPE sheets 1.5 mm thick cut into 150x100 mm placed in the east coast of the Bay of Bengal India experienced a weight loss of 1.6% over a 12-month period. Low density polyethylene (LDPE) experienced a slightly greater weight loss (1.9%), while polypropylene had a smaller weight loss (0.65%). Using the same methods, a 6-month immersion resulted in weight loss of 1.5-2.5% for LDPE, 0.5-0.8% for HDPE and 0.5-0.6% for polypropylene (Sudhakar et al. 2007). These findings with very thin plastic sheets immersed in warm ocean water would vastly overestimate degradation rates for HDPE gear immersed in Puget Sound's colder water. Particles that are released would be expected to be denser than seawater, and migrate to nearshore sediment. Given the expected slow release rates and the relatively small volume of HDPE gear vs. nearshore sediment volume, it is unlikely that HDPE gear will cause a discernable increase in microplastics in sediment or in shellfish. Lack of degradation of HDPE gear is supported by the decades of use of aquaculture cages reported by Puget Sound growers (see prior description of comments by Dr. Joth Davis).

1.7 Microplastics are not a major source of exposure to persistent organic pollutants (POPs)

The Coalition raises concerns about possible adsorption of chemicals to microplastics, and the potential that these chemicals may be taken up into organisms that ingest the particles. Related to this point, it is important to understand that persistent organic pollutants (POPs) like PCBs and PAHs will already be adsorbed to sediment particles. These chemicals are hydrophobic (i.e., they avoid water). Marine animals are generally exposed to these chemicals from their prey and also by ingesting sediment. There is no evidence that microplastics are an important contributor to exposure to these chemicals in the environment. The bioavailability of ingested POPs across trophic levels are not known, and the potential damage to the marine ecosystem has not been quantified. Current research indirectly suggests that, compared to the natural path-way, microplastics only play a small role in transporting POPs to biota (GESAMP 2015).

1.8 Rolfe White Paper Does Not Support Assertions Harm from Shellfish

In a June 27, 2016 email Maradel Gale submitted a "white paper" titled *"Possible negative health impacts from shellfish consumption"* which she states was drafted by Christine Rolfe. This paper asserts that, *"The shellfish industry introduces tons of plastics into the marine environment in the form of PVC tubes, HDPE mesh tubes, net caps and net covers"*, and references a law review paper by Moore (2014) to support this statement. Moore recounts proceedings before the Washington Shoreline Hearings Board related to appeal of a geoduck farm permit, and reports that an email from Wayne Palsson with the Washington Department of Fish and Wildlife on September 27, 2007 states, 'Bottom Trawl Survey Estimates of Aquaculture Debris in South Sound, based upon our 2005 survey: Netting: 61,600 items, Tubes: 21,600'. The Board denied the appeal, in part because extrapolation was used to obtain the estimates from Wayne Palsson. In other words, data from a much smaller survey was used to estimate the total amount of such gear in the south Sound, an approach that was not found to be scientifically supportable by the hearings board. As a consequence, the reference cited does not support the statement that "tons" of plastics are introduced into the marine environment from the shellfish industry. In fact, as we described above, many studies and surveys have shown that land-based sources such as wastes from dumpsites, and discharges from storm water drains and municipal sewage treatment plants provide the largest contribution to marine plastic debris, and that aquaculture gear is not a primary source of marine plastic debris.

The second concern raised in this white paper is *"Once in the environment, these plastics all begin to shed microplastic fibers into the water column. These fibers and particles are the size of plankton in the water column"*. A 2015 power point presentation by Charles Moore titled *"Bivalve Aquaculture Associated with Plastic Pollution in South Puget Sound"* is cited to support that statement. In the presentation, Moore presents anecdotal evidence to support his argument, such as site pictures, rather than scientific data or studies. As we document above, aquaculture gear does not break down easily to form microplastics, as conditions typically found in the marine environment of the Puget Sound slow the degradation of plastic. In fact fisheries elect to use plastic gear because of its resistance to degradation. As described above, geoduck farm operators typically use and re-use PVC pipe for 10 years or more, and Dr. Joth Davis stated he has used the same PVC pipes and shellfish cages for decades, and that the cages are still intact and pliable, so clearly they are not degrading.

The next white paper statement is *"Persistent organic pollutants (POPs) are in the water column. These are pollutants from Stormwater runoff, industrial operations, agricultural practices. POPs include things like polycyclic aromatic hydrocarbons (PAH), polybrominated diphenyl ethers (PBDE), polychlorinated biphenyls (PCB), DDT and dioxin. There are also heavy metals in the water such as cadmium, lead, zinc and arsenic."* While there is no reference cited to support this statement, it is true that POPs and metals are present in the marine environment. Generally, their concentrations are low, with the highest levels found in urban embayments rather than in areas where shellfish farms are located. It is also true that POPs are generally hydrophobic, however, it is misleading to say that *"when they encounter a plastic microfiber, they adsorb onto the surface of the plastic"*. As we describe above, due to their hydrophobicity, most POPs in the marine environment will already be adsorbed to sediment, and the extent to which these chemicals might then be transferred to microplastic fibers is unclear. It is also true that Desforges et al. (2015) and others have shown that zooplankton may ingest microplastics; however, it is not clear if adverse effects are associated with any POPs that might be adsorbed to the microplastics. In fact, Desforges et al. conclude that although zooplankton do ingest microplastics, their health implications are unclear and the potential impact of food web transfer of microplastics in zooplankton remains *"largely unanswered."*

The further assertion that POPs may desorb from microplastics and remain in the gut of shellfish is not supported by the reference cited in the white paper. In fact, Van Cauwenberghe et al. (2014) conclude that, *"The presence of marine microplastics in seafood could pose a threat to food safety, however, due to the complexity of estimating microplastic toxicity, estimations of the potential risks for human health posed by microplastics in food stuffs is not (yet) possible."* There is currently no

evidence that POPs adsorbed to microplastics in the marine environment result in increased POP concentrations in shellfish.

The white paper asserts that *“Heavy metals are also found in the tissues of shellfish. These are found in shellfish samples from all sites studied in Puget Sound.”* This statement is unrelated to aquaculture gear and is rather nonsensical because “heavy metals” are found in all living things to various degrees. The concentrations of cadmium and other metals have been measured regularly in Puget Sound fish and shellfish, and tend to be higher in urban embayments than in areas where shellfish are grown. There is no evidence that aquaculture has any influence on metal concentrations in Puget Sound water, sediment or biota. In fact, Lankbury et al. (2014) (cited in the white paper) concludes *“Wild and transplanted mussels sampled simultaneously from six sites had similar concentrations of organic contaminants and metals, suggesting that caged mussels behaved similarly to wild-growing mussels”*, while noting that the study was not designed to support such a comparison.

The white paper does not provide a reference for the statement that there are no consumption standards or testing for toxics for shellfish; however, the National Oceanic and Atmospheric Administration (NOAA) has operated a National Mussel Watch Program which monitors the status and trends of toxic contaminants, including the Puget Sound, since 1986. Additionally, the Washington State Department of Health regularly tests molluscan shellfish, and the water they grow in, to ensure it is safe to eat. When conditions are deemed to pose a threat to public health the department responds by issuing recreational and commercial shellfish beach closures, which can be accessed via their website.

The comment that *“Consumption of these heavy metals and POPs can cause reproductive, developmental, behavioral, neurologic, endocrine and immunologic adverse impacts on the shellfish”* is not relevant to plastic aquaculture gear. Metals and POPs are ubiquitous in the environment and in all kinds of food. Their toxicity is a function of dose, and the concentrations in shellfish are not a cause for concern. Furthermore, microplastics are not a major source of exposure to persistent organic pollutants (POPs) when compared to other sources.

Thus, based on a careful review, it is evident that the information in the Rolfe white paper and supporting references does not support a finding that shellfish aquaculture gear poses a threat to the environment.

1.9 Conclusions

Aquaculture operations are not a significant source of marine plastic debris, and there are procedures in place that limit the loss of plastic gear from aquaculture operations. Based on the evidence presented, a localized focus on plastic aquaculture gear is unwarranted and unlikely to discernably affect the levels of marine plastic debris in Puget Sound.

There are a myriad of land-based, general and ocean-based sources of microplastics, and microplastic concentrations are higher in urban embayments than near aquaculture operations. Aquaculture gear does not readily break down to form microplastics, and aquaculture gear makes a negligible contribution to the microplastic load in Puget Sound. On Bainbridge Island, water treatment and failed septic systems are likely to contribute far more plastic fibers to Puget Sound than will aquaculture operations.

Microplastics have not been shown to affect Puget Sound biota. Although laboratory studies such as that by Lönnstedt and Eklöv (2016) have found that high concentrations of microplastic particles can have effects on marine biota, these studies do not provide any evidence that ambient concentrations in Puget Sound will harm our marine life. It is a critical tenant of toxicology that “the dose makes the poison”. Any substance can be toxic at a sufficiently high dose, but effects observed at those high doses do not suggest that those effects will occur at much lower doses.

Use of rigid PVC tubes and HDPE gear do not pose toxic hazards. The Coalition asserts that “PVC can leach dangerous chemicals into the marine environment.” This statement is based on the assumption that PVC tubes used in geoduck aquaculture contain phthalates. This assumption is false. The rigid PVC form used in geoduck aquaculture does not contain phthalates. PVC pipes also do not leach metals into the surrounding water or sediment. Given the expected slow release rates and the relatively small volume of HDPE gear vs. nearshore sediment volume, it is unlikely that HDPE gear will cause a discernable increase in microplastics in sediment or in shellfish.

Microplastics are not a major source of exposure to persistent organic pollutants (POPs) when compared to other sources. A ban on plastic aquaculture gear would not have any of the asserted benefits because the gear is not contributing discernably to marine plastic debris or to the observed low level of microplastics in Puget Sound, and microplastics are not a significant source of exposure to chemicals. There are many other sources of plastic debris and microplastics that could be targeted by the City if there is a strong desire to reduce microplastic loading to the Sound, such as controlling releases from water treatment operations and leaking septic systems, reducing land-based plastic waste, and investigating other sources.

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Attachment B

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**RE: COMMENTS ON THE FEBRUARY 17, 2017 CITY OF BAINBRIDGE
SUBMITTAL FOR A SHORELINE MASTER PROGRAM LIMITED AMENDMEN**

Dear Mr. DeNike:

As you have requested, we provide herein comments on the February 17, 2017 City of Bainbridge submittal for a Shoreline Master Program Limited Amendment for aquaculture that proposes a ban on the use of non-biodegradable plastics in aquaculture operations. The City's submittal letter claims that any aquaculture that uses non-biodegradable plastic materials is not "consistent with control of pollution and prevention of damage to the environment." The City provides no scientific or technical support for this claim in its letter, referring instead to two websites and two attachments, Attachment A listing documents with no associated discussion of their relevance, and Attachment B which is a letter and white paper from the Coalition to Protect Puget Sound submitted June 16, 2016 titled "*Washington State Shellfish Aquaculture Overview of Adverse Impacts with Emphasis on Cumulative Impacts*."¹

The first referenced website in the body of the City's February 17, 2017 submittal (<http://www.algalita.org/plastic-pollution-and-the-aquaculture-industry/>) appears to be a blog entry that contains summary assertions and conclusions regarding plastic pollution. The blog has only one reference to scientific literature regarding concerns with microplastics, Cauwenberghe & Janssen². This article does not provide any insights regarding the sources of microplastics present in the mussels harvested from a German mussel farm in the North Sea. Nor does it suggest that any aquaculture gear, except perhaps ropes, contributes to the microplastics observed, or that banning plastic gear would reduce microplastic concentrations. Further, it is notable that the referenced website does not recommend banning non-biodegradable plastics. Instead, it states governments support aquaculture because they are rightly concerned with depletion of the marine food web by wild capture, and it recommends best management practices include preventing the loss of gear. As discussed in our prior technical report, and in this supplement, commercial shellfish farmers comply with this management practice.

Date June 7, 2017

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¹ On page 12 of the City's submittal, Attachment B is noted to have an index, but in fact, the index is in Attachment A.

² Although the website does not provide the citation for this article, we believe it likely to be the following article: Van Cauwenberghe L, Janssen CR. 2014. Microplastics in bivalves cultured for human consumption. *Environ Pol* 193:65-70.

Neither the applicable documents in Attachment A of the submittal (i.e., documents 113-126) nor the letter and white paper in Attachment B provide valid scientific support for the City's proposed ban on plastic aquaculture gear. As you know, in August 2016 we provided you with a report containing a detailed critique of the arguments put forth by the Coalition to Protect Puget Sound in the white paper included as Attachment B of the City's submittal. Our understanding is that you then provided our report to the City as an enclosure with an August 23, 2016 comment letter. In contrast with the Coalition report, we found that current research regarding the use of plastics and shellfish aquaculture practices indicate that:

- Aquaculture operations are not a significant source of marine plastic debris, and there are procedures in place that limit the loss of plastic gear from aquaculture operations.
- Aquaculture gear does not readily break down to form microplastics, and microplastic concentrations are higher in urban embayments than near aquaculture operations.
- Microplastics have not been shown to affect Puget Sound biota.
- Use of rigid PVC tubes do not pose a toxic hazard.
- HDPE gear also does not pose a toxic hazard.
- Microplastics are not a major source of exposure to persistent organic pollutants (POPs).

Evidence to support each of these statements was included in our report, and is still valid. More detailed documentation is provided in our recent peer-reviewed publication (Schoof and DeNike 2017). It is noteworthy (and egregiously biased) that our August 2016 report is not cited by the City, nor does the City examine or cite the large body of peer-reviewed scientific literature we reference.

We also note that none of the documents cited by the City in their Attachment A contradict the analysis in our report. Document 113 refers to a presentation made by Captain Charles Moore at a Shoreline Hearings Board hearing. Captain Moore's presentation and testimony raised general concerns regarding plastic pollution and included photographs of marine plastic debris in south Puget Sound, but the presentation fails to demonstrate commercial shellfish aquaculture gear in Puget Sound has adverse environmental impacts, and it is noteworthy that Captain Moore's testimony was judged not relevant to the geoduck farm permit by the hearings board. Specifically, the board found Captain 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." (SHB 2012). Similarly, document 120 is an article with anecdotal observations and photographs of apparently abandoned oyster bags, in this case in California, so even less relevant to Puget Sound. Any gear, regardless of composition, will be subject to potential escape, and may pose entanglement risk to wildlife. Farm management practices and permit conditions to ensure that gear is not lost from aquaculture operations, and removed when no longer being used, effectively address the concerns identified in document 120. Requiring gear to be biodegradable, on the other hand, does not address these concerns.

Many of the peer reviewed articles cited are general discussions of all kinds of marine plastic debris (documents 114, 115, 116, 117, and 118) and have nothing to do with aquaculture. As we described previously, the vast majority of debris is from land-based sources, and no credible studies have shown aquaculture gear to be a significant source of marine debris. As described by Schoof and DeNike (217) commercial shellfish growers follow best management practices and permit conditions to avoid and minimize gear escapement, and to retrieve any gear that does escape, and they participate in cleanup efforts that may result in a net withdrawal of marine debris.

Document 126 (Bendell 2015) is titled “Favored use of anti-predator netting (APN) applied for farming of clams leads to little benefits to industry....” Although not stated in the City’s submittal, we assume this article is cited to suggest that there is no need to use anti-predator netting in aquaculture. The article cited by the City is, however, directly contradicted by a much more comprehensive review by Munroe et al. (2015) which states “We provide data based on a review of more than 35 peer-reviewed articles, as well as our own research that demonstrates the efficacy of predator protection for clam farms in various habitats around the world.” The inclusion of only one of these articles by the City provides evidence of the biased and incomplete nature of their submittal.

The City also includes some documents reporting laboratory studies of microplastics (121, 122, and 123) that are not relevant to aquaculture. Lönnstedt and Eklöv (2016, document 121) studied effects of synthetic polystyrene particles on fish larvae in a laboratory. Polystyrene is not used in most aquaculture gear, and this article does not suggest that such gear is a source of such particles. Rochman (2016, document 122) is simply an editorial about the Lönnstedt and Eklöv (2016) article. Oksman (2016, document 123) is a news article that also does not have any tie in with aquaculture gear. None of the documents cited demonstrate aquaculture gear is degrading into microplastics or releasing chemicals to the environment. Document 119 (Weinstein et al. 2016) presents a new study on degradation of high-density polyethylene, polypropylene, and extruded polystyrene, in which strips of plastic were cut from consumer products (pails and extruded foam plates). After 8 weeks in a salt marsh, the plastic strips were noted to have surface erosion after biofilms were pulled off and the surface examined by electron microscopy; however, microplastic release was not documented in the environment. Degradation of aquaculture gear on farms is minimized because the gear is made of durable plastics designed for marine uses and is submerged the majority of the time, and temperature and light levels are low. If the City is committed to reducing introduction of microplastics to Puget Sound, it would be more effective to control known land-based sources.

Documents 114, 116, 117, and 118 raise concerns about potential for releases of persistent organic pollutants (POPs) from marine plastic debris generally. None of these articles address such releases from aquaculture gear. Concerns about release of POPs from marine plastic debris generally were called into question by a report by an international body called the Joint Group of Experts on the Scientific Aspects of Marine Environmental Pollution which concluded that microplastics likely only play a small role in transporting chemicals adsorbed to microplastic to biota, when compared to natural pathways such as sediment (GESAMP 2015).

Recent studies provide further analysis that discounts concerns about impacts of chemicals adsorbed to microplastics. Bakir et al. (2017) conducted analyses and studies to address concerns that the gut environment might enhance desorption of chemicals from microplastic particles and absorption into the animal. They tested for microplastic concentrations in sediment of 1% and 5% (far higher than the concentrations seen in the Salish Sea), and conclude that “ingestion of microplastic does not provide a quantitatively important additional pathway for the transfer of adsorbed chemicals from seawater to biota via the gut.” Beckingham and Ghosh (2017) studied the bioavailability of PCBs from polypropylene microplastics and concluded that uptake of chemicals from microplastics by sediment-dwelling aquatic organisms is likely to be very small compared with uptake from sediment particles. These studies provide strong evidence to support the GESAMP (2015) conclusions, and suggest that there is not significant uncertainty regarding the impacts of chemicals associated with marine microplastics, regardless of the source of the microplastics.

The City's submittal notes that *"interested parties provided examples of alternatives for plastics, including coir, a natural fiber derived from coconuts, as a possible material for oyster bags, and MATER-BI, an innovative family of biodegradable and compostable plastics...."* Documents 124 and 125 are apparently intended to show alternatives to plastic aquaculture gear, however, no evidence is provided that any alternatives are feasible in terms of cost and performance. Document 124 is a newsletter that includes an article about a person who participated in research on use of coir bags, but no results of the research are presented. Furthermore, the newsletter includes an article lauding the use of oyster bags and mesh (presumably plastic) to build reefs from oyster shells. Document 125 is a sales brochure for aquaculture products showing both a polyvinyl chloride (PVC) coated mesh and a copper alloy mesh. The relevance of this article is not clear. Is the City contending that PVC coated mesh is preferable? The website for MATER-BI in the City's submittal does not provide any indication that the materials are applicable to equipment that needs to be durable enough to be used for multiple years. Instead, the proposed uses are for things like plastic packaging and plastic bags. For these kinds of products, rapid degradation in the marine environment is a benefit. Not so for aquaculture gear. The value of biodegradable plastics in general is specifically called into question by GESAMP (2015) which states:

"Plastics such as aliphatic polyesters, bacterial biopolymers and some bio-derived polymers are readily biodegradable in the environment. But often, these are more expensive to produce than commodity plastics. Ideally, biodegradability is desirable only after the useful service life when the product is in litter or marine debris. But, for most applications it is the durability of plastics that is the most sought after property; it is not clear if the existing biodegradable plastics deliver the requisite mechanical integrity and durability needed for most applications during their useful life."

GESAMP (2015) also notes that "In the US, it was found that people litter more when they perceive the item to be biodegradable (Keep Los Angeles Beautiful 2009)." Thus, the feasibility and effectiveness of using biodegradable products is not supported by scientific analysis, nor is it addressed by the City.

Based on our earlier review and recently published scientific studies, we conclude that properly managed use of plastic aquaculture gear is "consistent with control of pollution and prevention of damage to the environment," and there is no scientific basis to support the ban on plastic aquaculture gear proposed by the City of Bainbridge. The City's submittal does not include any scientific analysis, and the documents cited in Attachment A do not provide evidence supporting such a ban. As documented in our August 2016 report, the analysis presented in the white paper included in Attachment B of the City's submittal is deeply flawed and also does not support the proposed ban.

Yours sincerely



Rosalind A. Schoof

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Principal

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References:

- Bakir A, O'Connor IA, Rowland SJ, Hendriks AJ, Thompson RC. 2017. Relative importance of microplastics as a pathway for the transfer of hydrophobic organic chemicals to marine life. *Environmental Pollution* 219:56-65.
- Beckingham B, Ghosh U. 2017. Differential bioavailability of polychlorinated biphenyls associated with environmental particles: Microplastic in comparison to wood, coal and biochar. *Environmental Pollution* 220:150-158.
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http://ec.europa.eu/environment/marine/good-environmental-status/descriptor-10/pdf/GESAMP_microplastics%20full%20study.pdf
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- Schoof RA, DeNike J. 2017. Microplastics in the context of regulation of commercial shellfish aquaculture operations. *Integrated Environmental Assessment and Management* 3:522-527.
- SHB. 2012. Shorelines Hearings Board, SHB No. 13-006c, Findings of Fact, Conclusions of Law, and Order.

Attachment C

Memo

To: Gary Christensen, AICP, Planning and Community Development Director

From: Misty Blair, Senior Regional Shoreline Planner

RE: Ecology concerns with City of Bainbridge Island Aquaculture amendments

Unlike other land use laws, the Legislature established the Shoreline Management Act as a cooperative program that involves both the state and local governments¹. The city has primary responsibility for the planning and administration of the regulatory program while Ecology is responsible for providing assistance to the city and ensuring compliance with the policies and provisions of the Act. Ecology values its partnership with the city and is striving to ensure your master program is consistent with the Act and the Shoreline Guidelines, while also recognizing local circumstances. We are committed to working with the city to ensure adoption of a legally defensible master program.

Ecology has conducted an initial review of the City's proposed aquaculture amendments (Ordinance 2016-6) for consistency with state approval criteria.² We have identified seven proposed amendments that appear to be inconsistent with state laws and rules that Ecology would like to discuss with the City before preparing a formal response. Please let us know if you would like to discuss modifications that could result in Conditional Approval or confirm that you would like us to continue with the full amendment package as was submitted.

[Overarching principles guiding Ecology's review](#)

It is the policy of the state to plan for and foster all reasonable and appropriate uses, while also protecting the environment.³ In determining whether SMP provisions meet the state policy to plan for both use and protection, Ecology is required to consider this policy in light of public comments. In both local and state comment periods on this SMP amendment, public comments were extremely polarized. Ultimately Ecology and the City must find a mutually agreeable approach that balances both interests.

We acknowledge the concerns expressed about potential impacts of aquaculture, including cumulative impacts, and the desire of the city to include more prescriptive application requirements, additional review criteria, and increased monitoring obligations. We also acknowledge the concerns of shellfish farmers, shellfish gardeners, and citizens interested in the potential commercial and recreational aquaculture use of private tidelands.

¹ RCW 90.58.050

² WAC 173-26-201(1)

³ See RCW 90.58.020

Ecology rules recognize that SMA policy goals harbor potential for conflict. “The act recognizes that the shorelines and the waters they encompass are “among the most valuable and fragile” of the state’s natural resources...Thus the policy goals of the act relate to both **utilization** and **protection** of the extremely valuable and vulnerable shoreline resources of the state.”⁴

The rules do not always provide a simple bright line for determining how local governments must balance these goals. However, aquaculture is classified as a water-dependent activity and a preferred use of the shoreline when consistent with the control of pollution and prevention of damage to the environment. Aquaculture is recognized as an activity of statewide interest.⁵ In many cases these activities are located within shorelines of statewide significance.

The Shoreline Guidelines (Chapter 173-26 WAC) allow local governments flexibility to tailor policies and regulations for aquaculture to address local circumstance. The rules grant authority to set limits on potential impacts, e.g., “aquaculture should not be permitted in areas where it would result in a net loss of ecological functions, adversely impact eelgrass or macroalgae, or significantly conflict with navigation and other water-dependent uses.”⁶

However, regulations must be supported by the most current, accurate, and complete scientific and technical information available.⁷ Ecology rules acknowledge potential locations for aquaculture are relatively restricted and the technology associated with some forms of aquaculture are experimental, therefore SMPs “should recognize the necessity to provide some latitude in the development of this use as well as its potential impact on existing uses and natural systems.”⁸

Concerns and questions about 7 specific provisions

BISMP 5.2.2(9) Proposed New Aquaculture Policy

Before permitting commercial aquaculture, the City should first reserve appropriate areas for protecting and restoring ecological functions to the greatest extent feasible while planning for and fostering reasonable and appropriate water-dependent uses (RCW 90.58.020, WAC 173-26-201(2)(d), WAC 173-26-251(2)).

This policy is derived directly from Ecology’s guidelines, but it is not clear how it is intended to be implemented. When developing SMPs and considering preferred uses, local governments are directed by the shoreline guidelines to apply a set a preferences and priorities when “determining allowable uses and resolving use conflicts on

⁴ WAC 173-26-176(2)

⁵ See RCW 90.58.020, WAC 173-26-201(2)(d) and WAC 173-26-241(3)(b)(i)(A)

⁶ WAC 173--26-241(3)(b)(i)(C)

⁷ WAC 173-26-201(2)(a)

⁸ WAC 173--26-241(3)(b)(i)(A) & (B)

shorelines”.⁹ The city completed this planning exercise during its SMP comprehensive update and documented consistency with the requirement to provide shoreline space for future water oriented uses in the record. This is reflected in the City’s Shoreline Use Matrix which prohibits commercial aquaculture in the Natural and Priority Aquatic SEDs. As such, this Ecology guideline should not be construed as a permit review mechanism.

The existing SMP allows commercial aquaculture with a conditional use permit which provides review and approval authority to condition or deny a project as necessary to achieve consistency with the SMA and this SMP.

BISMP 5.2.3(6) Proposed New Aquaculture Regulation

Use of non-biodegradable plastics commencing two years after the effective date of Ordinance 2016-06.

The marine grade plastics currently used are specifically designed to resist breaking down in the harsh marine environment. Without evidence of an impact related to marine grade plastics this prohibition is not supported by current science, data, or other technical information.

BISMP 5.2.3(7) Proposed New Aquaculture Regulation

Operating motorized vehicles, such as trucks, tractors and forklifts, on the shoreline and below the ordinary high water mark.

This provision prohibits an activity related to a water-dependent use while still allowing the activity for other uses including single family residential access, construction and maintenance. BISMP 4.2.6.5(1)(2) allows machinery operations for construction and maintenance within and along marine shorelines when completed in compliance with a hydraulics permit approval (HPA) issued by the Washington State Department of Fish and Wildlife or if no HPA is required, then the activity may be approved by the Administrator. The City could appropriately address motor vehicle operation as a condition of approval if site specific conditions and proposed operations warrant such a condition for consistency with the goals and policies of the SMA and SMP.

BISMP 5.2.3(8) Proposed New Aquaculture Regulation

New commercial aquaculture in or on known forage fish spawning sites and/or essential fish habitat.

The record does not include evidence that commercial aquaculture would adversely impact forage fish spawning and/or essential fish habitat. Pier and dock construction is permitted within this same area provided the project adheres to the fish windows found in WAC 220-100 (See BISMP 6.3.5(10)). Fish windows can be used to manage activities to mitigate potential impacts to forage fish and essential fish habitat. Under BISMP 4.1.5.5(1), water-dependent development and uses within fish and wildlife habitat conservation areas and critical saltwater habitat are allowed provided that in-

⁹ WAC 173-26-201(2)(d)

water activities that would affect herring, sand lance or surf smelt spawning only occur during approved WDFW work windows.

BISMP 4.1.5.5(1)(e) specifically provides that, *“For commercial aquaculture within WDFW documented sand lance and surf smelt spawning locations, no harvesting may occur during the surf smelt or sand lance spawning seasons until a spawning survey is conducted. If surf smelt or sand lance spawn are present in the growing area to be harvested or adjacent tidelands, then no harvest activities may occur until the eggs are hatched. Extreme caution should be taken to avoid impact and minimize disturbance of sand lance and surf smelt larvae that are present.”*

BISMP 5.2.4(1)(d) & BISMP 5.2.4(2)(f) Proposed New General Aquaculture Regulation

Non-commercial aquaculture is limited to a cultivation area of no greater than 200 square feet.

Non-commercial aquaculture is already limited to native or non-reproducing species. It is unclear why the City would want to establish this specific limit on the amount of private tidelands that can be utilized for non-commercial aquaculture using non-reproducing or native species. This traditional activity is relatively common on Bainbridge Island and is a preferred water-dependent use.

Furthermore, regulations must be sufficient in scope and detail to ensure the implementation of the SMA.¹⁰ It is unclear how this area is defined (per parcel, per acre, by ownership) and how the square footage will be calculated (cultivation area, area covered by bags, outer edge of all cultivation areas, direct seed area).

BISMP 5.2.4(5) Proposed New General Aquaculture Regulation

Permit revisions shall proceed in accordance with WAC 173-27-100. A new permit is required when any of the following occurs:

- a. The physical extent of the use or development or associated overwater coverage is expanded by more than ten percent compared to the permitted use or development. If the amount of expansion or change in overwater coverage exceeds ten percent, the revision or sum of the revision and any previously approved revisions shall require the applicant to apply for a new permit;*
- b. The applicant proposes to cultivate a species not included in the original permit; or*
- c. New chemicals not previously approved as part of the existing permit are proposed for use.*

This provision is inconsistent with the permit revision criteria of WAC 173-27-100 which applies to all shoreline permit approvals. The revision criteria are already included in BIMC 2.16.165 Shoreline Master Program Administration.

BISMP 5.2.4(7) Proposed New General Aquaculture Regulation

¹⁰ WAC 173-26-191(2)(ii)(A)

In addition to the minimum application requirements in BIMC 2.16.165, applications for commercial aquaculture operations shall include the submittal requirements provided in the Administrative Manual. Some of these submittal requirements may be waived by the Administrator based on site-specific environmental and ecological conditions.

An administrative manual not incorporated into the SMP should only illustrate submittal requirements included in the SMP or WAC 173-27. This manual cannot impose additional restrictions under the SMA authority if it is not included within the SMP.

BISMP 5.2.5(1)(a) Proposed New Location and Design Standard Aquaculture Regulation

The total area of all permitted commercial aquaculture operations shall not exceed 5 acres. Acreage shall include the area of cultivation and harvest on the tidelands.

The City's record does not include persuasive rationale for this regulation limiting the total area available for commercial aquaculture to 5 acres. Furthermore, it is not clear how the regulations is sufficient in scope and detail to ensure the implementation of the SMA. For example:

- How would the acreage area for each individual operation be calculated?
- Would this be calculated based on permits issued or actual cultivation?
- When would the City start and stop the "acreage" clock? What if an application were to be filed and determined to be complete, then before it was approved a final decision was subsequently issued on another project that pushed the total acreage to the City-wide 5-ac limit? Despite a complete application, would the last one in is denied?
- Is this city-wide cap intended to be a dimensional standard that an applicant can exceed provided they acquire a Variance?

Conclusion

Ecology would like the opportunity to discuss whether the City is amenable to eliminating or revising these seven provisions. Both the current and proposed Bainbridge Island SMP allows commercial aquaculture as a conditional use. The conditional use permit process is an effective way to address cumulative impacts and provides the opportunity to require specially tailored environmental analysis or design criteria to ensure consistency with the SMP or SMA.¹¹

Furthermore, the City has opted to extend most of the geoduck-specific provisions set forth in WAC 173-26-241(3)(b)(ii-iv) to all forms of aquaculture. As such, Ecology believes that the SMP can address many of Ecology's concerns by deleting or modifying the above proposed provisions and many of the city and public comment concerns can be addressed through the use of the existing conditional use permitting mechanism.

¹¹ WAC 173-26-241(2)(b)(i)

From: [John Woodford](#)
To: [Polly Stoker](#)
Cc: [Jennifer Davis](#); [Andrew Deffobis](#)
Subject: Nov. 30th Coalition letter to Planning Commissioners
Date: Monday, November 30, 2020 10:02:05 AM
Attachments: [CoalitionLtrCh 400-500.docx](#)

Good morning Polly,

Polly, will you please forward this Coalition letter to the Planning Commissioners today so they will have time to read it in advance of Wednesday's PC meeting.

Thank you,

John Woodford

Thurston County Shoreline Stakeholders Coalition

7541 Holmes Island Rd SE, Olympia, WA 98503-4026

November 30, 2020

To: Thurston County Planning Commissioners

From: John H. Woodford, Chair
Thurston County Shoreline Stakeholders Coalition

Re: SED re-designation plus comments of October 21, 2020, "pink" SMP Chapters 19.400 and 19.500

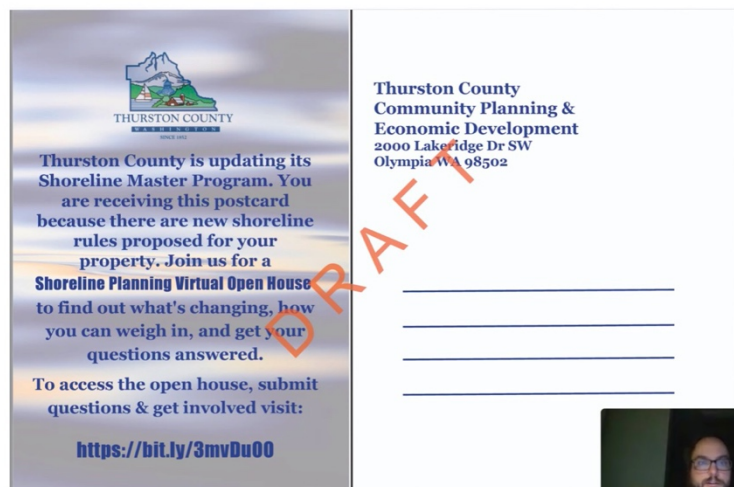
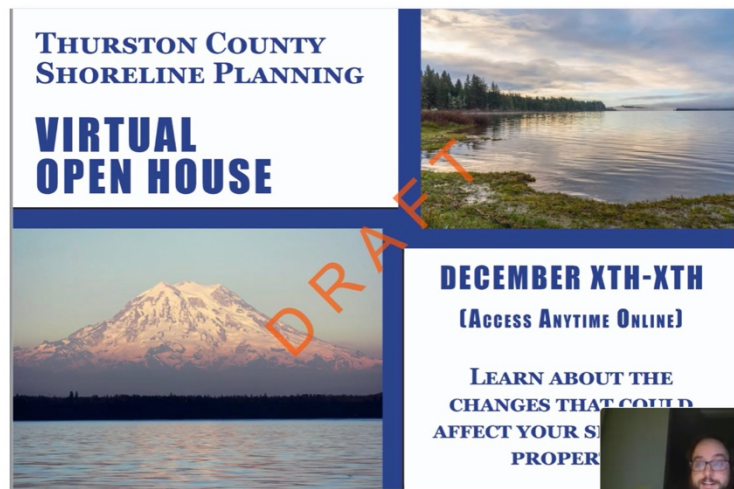
Commissioners,

During the Public Communications portion of the November 4, 2020, Planning Commission meeting I, representing the Coalition, chose to address the SED re-designation of some 2,700 shoreland properties. Following the November 18th PC meeting we see that nothing has changed. Ms. Jennifer Davis has reiterated that staff has a plan moving forward, but we have still heard nothing about how staff will respond to property owners questioning and/or challenging these re-designations.

Do these 2,700 property owners have to wait for release of the actual Public Hearing draft to receive notification of re-designation? Why? Why not right now?

As for the draft postcard that Mr. Andrew Deffobis presented on the 18th, it is totally inappropriate. It says nothing about re-designation. Nothing. Screenshots that I took on the 18th are shown here to the right. This is a postcard that should be sent to every shoreline property owner in the County. There will be "changes that could affect" all of us.

Notification to those 2,700 hundred should specifically spell out the pending re-designation and the consequences if the matter isn't resolved prior to the SMPs adoption...in a manner which provides proof of delivery. Further, this notification should



provide information to guide the property owners to the online sites to see both the existing and proposed SED maps. Comparison of these two SED maps will show them the re-designation impact on their particular property.

Now, back to the October 21, 2020, “pink” SMP draft. Commissioner Doug Karman provided you and staff a very comprehensive list of Comments on 1) Chapters 19.100 through 19.400 for the November 4th Planning Commission meeting and 2) Chapters 19.400 and 19.500 for the November 18th PC meeting.

We, too, submitted a letter to you on November 16, 2020, with the Coalition comments on SMP Chapters 19.100 through 19.400. Now we will address Chapters 19.400 and 19.500 below, hopefully complementing and/or adding to Mr. Karman’s comments without duplicating his observations.

Chapter 19.400 General Regulations

19.400.100 Existing Development (pg. 45): This introductory paragraph should be deleted; it was added to the document in the first “red line/strike-through” revision as a justification for labeling, “*nonconforming*,” homes built in-whole or in-part in what is now defined as the “buffer.” You Planning Commissioners are considering labeling options. Those home should be “*Conforming*.” Please remember our August 31, 2020, letter about Conforming vs. Nonconforming and material presented by others. The new staff note, in yellow, following the paragraph states, “The Commission is interested in public comment on this topic.” The Coalition stands for “*Conforming*” as do many others.

19.400.100.B.1.a. and b. (pg. 45): In both cases, “*nonconforming*” should change to “*conforming*.”

19.400.100.B.1.d (pg. 46): The limitation of a maximum 500 square foot landward expansion to a home entirely within the buffer is totally arbitrary and is counter to the Department of Ecology requirements. Apparently this 500 sq. ft. limitation started with Spokane’s SMP (reasoning unknown) and it has been cut and pasted into other SMPs, including Thurston County's, without any understanding of the reasoning.

This is possibly not such a big deal for homes within the Shoreline Residential SED where the buffer is 50-feet...and a creative design solution could link across the remainder of the buffer to a larger out-of-buffer addition if needed. But what if you have a home in a Rural Conservancy (150-foot buffer) or Natural SED (200-foot buffer)? Your home could set back 100-feet from the OHWM and still be very deep within the buffer. This would be the case for most marine waters (including, for example, all of Coopers Point which is certainly a residential area and not rural); all of Deep Lake; most of Scott Lake; large portions of Offutt Lake, McIntosh Lake, Lake Lawrence, Clear Lake, Elbow Lake and probably several more...including those *Unknown Lakes*, *Unnamed Ponds* and *Unnamed Mines* called out in Table 19.200.107(B).

Just thinking, maybe staff should just remove this limitation.

19.400.115, Critical Areas (pg. 50-53): Just which Ordinance takes precedence? So, please see the first page of my November 16th letter where I commented on the Chapter 19.100 Introduction. We feel that the SMP trumps the CAO. Staff may need to re-examine this material.

19.400.120.B.4. (pg. 55): deals with an addition 15-foot setback beyond the buffer. It should be made clear that this only applies if there is a true buffer on the property...*a non-clearing area...with intact native vegetation*. If the property has lawn or other non-native vegetation, this setback should not apply. See my comments on Chapter 19.150 Definitions earlier in my November 16th letter.

19.400.120.D.1.b. (pg. 57): Decks and Viewing Platforms. Staff has presented this matter as a Public Hearing Option. So, just what does a *Public Hearing Option* mean? What has to happen at the Public Hearing to trigger the change? Or, can you Commissioners initiate this change before the Public Hearing?

19.400.140 Bulk and Dimension Standards (pg.65-66): First, do these standards apply only to new developments? If so, it should be stated. If not (applying to developed property), how does staff designate existing parcels that do not comply with this standard?

Table 19.400.140(A) Development Standards (pg. 65):

Lot Width: Where are Lot Widths measured? **Most** parcels do not have parallel side property lines...some are wider at the water line (OHWM) and narrower at the landward end...other are the opposite. Where and how does staff measure lot width?

Footnote 4, Hard Surface thresholds...See Section 19.400.125: Why aren't the applicable hard surface limits just noted here rather than referring interested parties on to yet another document, Chapter 20.07 TCC?

Chapter 19.500 Permit Provisions, Review and Enforcement

19.500.100.A.5. (pg.73): "A permit or *written approval* is required..." Is a *written approval* a *letter of exemption*? If so, it should be so stated. And, I discussed *letter(s) of exemption* in more detail in my November 16, 2020, letter to you Planning Commissioners...what is it?

19500.100.C.4. (pg.75): "Construction of a dock, including a community dock, *designed for pleasure craft only*, for the private..." Docks associated with single-family homes have uses that go far beyond, "...for pleasure craft only..." Residential docks serve many other uses, like water access for swimming, fishing, just sitting to watch the water and a host of other water-oriented recreation. This is especially true when a water-front yard meets the definition of a *buffer*.

Chapter 12 of Ecology's *SMP Handbook* is titled Piers, Docks and Overwater Structures. We don't see anything that limits dock and pier use to only moorage facilities.

19.500.100.F. (pg. 79): *Letter of exemption* is called for, we believe, the first and only time. What is a *letter of exemption*?

19.500.105.I.1.d. (pg. 84): "This program shall at a minimum be *amended every eight years*, consistent with RCW 90.58.080(4)." ...just pointing out, the SMP will be before you over and over again, forever. Be prepared.

Thank you for your consideration of these key issues.

Respectfully submitted,

John H. Woodford, AIA

From: [Patrick Townsend](#)
To: [PlanningCommission](#)
Cc: [Patrick Townsend](#); [Kathryn Townsend](#)
Subject: SMP comments
Date: Wednesday, December 2, 2020 2:12:27 PM
Attachments: [20201202_Ltr_Thurston_County_PCv3.pdf](#)

Patrick and Kathryn Townsend

7700 Earling Street NE
Olympia, WA 98506

Thurston County Planning Commission

Subject: Comments on proposed SMP

December 2, 2020

Dear Commissioners:

The potential destructive impacts of aquaculture plastics on the ecology of Puget Sound tidelands requires that PVC, HDPE and other plastics be excluded from use under the new SMP regulations. The potential damage caused by plastics has been well documented in the findings of the lawsuit by the Coalition To Protect Puget Sound Habitat and Center for Food Safety against the Army Corps of Engineers. In the final ruling Judge Robert J. Lasnik was clear that these impacts, along with other concerns, were strong enough to fully repeal the NWP 48 aquaculture permitting process and the currently issued permits. Thurston County, through the new SMP, should not repeat the mistakes of other regulatory bodies.

The plastics used in aquaculture operations are not certified for marine use by ASTM or other recognized standards bodies. Several scientific studies of marine plastics have clearly identified the dangers of plastic pollution in marine waters. The danger of plastics to aquatic life and birds is clear.

Ms. Taylor complains that the shellfish industry is unfairly targeted for its use of plastics on Puget Sound tidelands and cites Rosalind A Schoof's paper of August 2016 entitled "Plastic Aquaculture Gear is Not a Threat to Puget Sound." Ms. Schoof compares aquaculture plastics that are purposefully embedded on the tidelands to other plastic debris that unintentionally ends up in public waterways, such as metal beverage cans, light bulbs, straws, fishing lines, condoms and tampon applicators. This comparison is a false equivalence. No one intentionally embeds hundreds of acres of tidelands in Puget Sound with these items. Just because plastic debris from upland use ends up in our waterways does not excuse the INTENTIONAL use of plastics on our tidelands—approximately 7 miles of PVC and/or HDPE

plastics weighing 16 tons PER ACRE for industrial geoduck aquaculture. Though we agree that it is bad business that plastics from upland use end up in our waterways, Ms. Schoof and the shellfish industry are making an illogical and self-serving comparison.

Ms. Taylor discusses at length the issue of Permit Compliance and speaks about “compliance concerns” regarding a specific geoduck operation. If it is the ChangMook Sohn/Taylor Shellfish geoduck operation in Zangle Cove that she is referring to, we are the “commenters” who she is referring to and we continue to document our observations of permit non-compliance of this Taylor Shellfish operation and report it to Thurston County and the Army Corps of Engineers.

Additionally, Ms. Taylor further complains that the shellfish industry is unfairly targeted related to compliance monitoring. The fact of the matter, expressed to us in testimony by Thurston County officials, is that there is NO monitoring by the County of shellfish operations. One Thurston County official told us that the County does not have the personnel to monitor these operations and that the County relies on citizens to perform this duty and report to the County. We have done that and will continue to do that. If the County does not have the personnel to monitor these operations and becomes unwilling to accept the monitoring by the public, then all shellfish operations on Puget Sound tidelands must be terminated. With respect to Ms. Taylor’s complaint, and for the sake of comparison, the extensive monitoring and regulation of shoreline homes and properties is well documented in the Thurston County SMP.

Every precaution should be taken to prevent further degradation of the Puget Sound marine environment. Every effort should be made to use truly sustainable practices in all marine operations. We join with multiple environmental organizations in Thurston County in asking for the exclusion of plastics in aquaculture operations.

Please incorporate the documents and scientific studies included in the folder at this link:

https://www.dropbox.com/sh/kh9bwabyo5l7k3w/AACtpMDD1W6vUjZ_Sr1KDJMma?dl=0

Sincerely,

Patrick and Kathryn Townsend

Patrick Townsend
CEO

From: [PlanningCommission](#)
To: [Andrew Deffobis](#)
Cc: [Polly Stoker](#)
Subject: FW: SMP
Date: Tuesday, January 5, 2021 8:48:30 AM

One more below.

From: hwbranch@aol.com <hwbranch@aol.com>
Sent: Monday, January 04, 2021 7:41 AM
To: SMP <SMP@co.thurston.wa.us>; PlanningCommission
<PlanningCommission@co.thurston.wa.us>
Subject: SMP

Regarding the Shoreline Master Program (SMP)

Dear Thurston County:

The public has become keenly aware of the plight of the Souther Resident Killer Whale and their principal prey Chinook salmon. We're slowly learning about the plight of **Walleye Pollock**, Pacific Herring, Pacific Cod, 15 species of rockfish, chum and sockeye salmon, steelhead, various mollusks and birds, insects and invertebrates. As of December 1, 2015, there were 125 species at risk in the **Salish Sea** and the number continues to grow. Much of the loss has occurred over the past two decades, under current rules, the status quo, the cauldron of 'mitigation banking' 'no net loss,' and the rest of the regulatory stew.

Allowing a water body to remain physically damaged results in degraded water quality which impacts species composition which degrades water quality which impacts species composition and so on spiraling downward. There is an ongoing net loss caused by existing modifications. A stream in a pipe has no phytoplankton. This is why nitrates travel 18 times farther in a buried pipe than one that sees daylight. And why buried streams are low in dissolved oxygen.

The most critical part of any local watershed is its estuary. Estuaries are those places where fresh water coming from land meets the marine environment. Fresh water being lighter flows out on top of salt water creating persistent circulation patterns. In a pipe circulation is restricted. If we have sunlight we have a mix of phytoplankton and zooplankton and the birth of the food web. Without sunlight we have a septic tank. In the SMP, potential is never a consideration. Restoration potential should be part of every equation. The baseline should be that which existed historically.

The high water mark is the point from which setbacks are measured. The high water mark for the two major streams draining into Budd Inlet lies inside long culverts. The tide flows up a long pipe in both Moxlie and Schneider Creeks. In fact, there are 160 miles of stream-in-a-pipe in Olympia. In regulatory terms they don't even exist. To contradict this edict represents a "collateral attack" on City Codes. If you appeal before the Hearing Examiner, you'll also be informed that you lack standing, unless you or your property will be damaged. Birds, fish and marine mammals have no standing.

The most substantive issue brought up by the State in the Shoreline Master Program Periodic Review is the statement "The City's wetland buffers are not current with the State's most recent guidance." The City's response is that recommendations would result in "little change in the City's current buffer widths" and amendments would be made to chapter 18:32 of the Olympia Municipal Code (Critical Areas) rather than the SMP itself. But revisions to Olympia code 18:32 make no substantive changes to

setbacks. It continues to recommend protecting critical areas, aiming at no net loss and providing mitigation for unavoidable impacts through minimizing, rectifying, reducing and compensating for loss.

Priority Riparian Areas are listed as the eastern shore of Budd Inlet, including and north from Priest Point Park, long stretches of western shore of Budd Inlet including West Bay Waterfront Park and the Port Lagoon and much of the shore of Capitol Lake. The priority areas are essentially parks. The prevailing assumption seems to be that humans must destroy any place we reside.

The most glaring unspoken conclusion is that we should simply give up on East Bay, the half-mile long embayment south of Priest Point Park. It's been severely modified and has the worst benthic dioxin contamination and the poorest water quality in Budd Inlet. Although this way of thinking is in some cases justified, in this instance it represents a clear violation of the Clean Water Act, the Endangered Species Act and numerous other State and Federal laws and regulations.

How about some real changes:

(1) Restoration potential should be part of every equation. The potential inherent in a location should never be ignored.

(2) Under City Code once a stream goes into a pipe in Olympia it no longer exists. Likewise if it's ever day-lighted rules don't apply. This makes sense where there's currently a structure but not as justification for new construction. We should change the rule to in such instances recognize the existence of streams.

(4) The best available science should be employed in every study including a clearly stated observation, hypothesis, test and conclusion otherwise the effort can be incomplete, misdirected and conclusions can be buried in data. Sites should be sampled for any contaminants suspected of possibly being at the site, according to established protocols.

(5) We need to take a holistic, ecosystem based approach to our critical areas. The baseline should be that which existed historically. Every effort should be made to determine how physical parameters like structure impact chemical parameters such as dissolved oxygen and biological parameters such as phytoplankton.

(6) We should provide SRKW orcas with legal standing, consistent with the global Rights of Nature movement.

Harry Branch
239 Cushing St NW
Olympia WA 98502
360-943-8508

From: [Thurston County | Send Email](#)
To: [PlanningCommission](#)
Subject: SMP SHORELINE ARMORING
Date: Monday, January 4, 2021 1:42:23 PM

This email was created by the County Internet web server from the email masking system. Someone from the Public has requested to contact you with the following information:

To: **Planning Commission**

Subject:

From: **Phyllis A Farrell**

Email (if provided): **phyllisfarrell681@hotmail.com**

Phone: (if provided): **13607898307**

Message:

Greetings Commissioners, hope you all well and had an enjoyable and restful Holiday Season.

In the event you are unaware of this PBS documentary about Puget Sound Shorelines, I am providing a link to a very informative presentation:

<https://www.pbs.org/video/shorelines-of-stone-wu0kuj/>

In meeting testimony, I have advocated you include language limiting shoreline armoring. It is important that local SMPs address this issue as well as measurements on shoreline ecological function in order to measure and monitor loss (or gain). Please include enforcement of permit requirements in the SMP.

**Respectfully,
Phyllis Farrell**

From: [Jennifer Davis](#)
To: [Andrew Deffobis](#)
Subject: FW: SMP
Date: Monday, January 4, 2021 4:14:14 PM

Do you know who Harry Branch is?

From: Joshua Cummings <joshua.cummings@co.thurston.wa.us>
Sent: Monday, January 4, 2021 3:57 PM
To: Jennifer Davis <jennifer.davis@co.thurston.wa.us>
Subject: FW: SMP

fyi

From: Ramiro Chavez <ramiro.chavez@co.thurston.wa.us>
Sent: Monday, January 4, 2021 3:25 PM
To: Joshua Cummings <joshua.cummings@co.thurston.wa.us>
Subject: FW: SMP

FYI

Ramiro Chavez, PE, PgMP
County Manager
Thurston County
(360) 754-2960
chavezr@co.thurston.wa.us

From: County_Commissioners <county.commissioners@co.thurston.wa.us>
Sent: Monday, January 04, 2021 2:09 PM
To: Robin Campbell <robin.campbell@co.thurston.wa.us>; Robin Courts
<robin.courts@co.thurston.wa.us>; Ramiro Chavez <ramiro.chavez@co.thurston.wa.us>; Kelli Lee
<kelli.lee@co.thurston.wa.us>; John Hutchings <john.hutchings@co.thurston.wa.us>; Gary Edwards
<gary.edwards@co.thurston.wa.us>; Tye Menser <tye.menser@co.thurston.wa.us>; Thomasina
Cooper <thomasina.cooper@co.thurston.wa.us>; Katelyn Johnson
<katelyn.johnson@co.thurston.wa.us>
Subject: FW: SMP

From: Zena Hartung
Sent: Monday, January 4, 2021 10:09:04 PM (UTC+00:00) Monrovia, Reykjavik
To: CityCouncil; County_Commissioners
Subject: SMP

Hi,

I've read and agree with Harry Branch, who has advised both

the City of Olympia and BoCC re: the Shoreline Master
Program.

Please heed his warning and remedy!

Zena Hartung

360-951-8445

From: [Jennifer Davis](#)
To: [Andrew Deffobis](#)
Subject: FW: Important support for realities on the ground....and in the water.
Date: Wednesday, January 6, 2021 9:30:01 AM

Again—these are comments to City of Olympia on their SMP, intended I believe to inform our thinking on the county SMP.

From: Ramiro Chavez <ramiro.chavez@co.thurston.wa.us>
Sent: Wednesday, January 6, 2021 9:15 AM
To: Joshua Cummings <joshua.cummings@co.thurston.wa.us>; Jennifer Davis <jennifer.davis@co.thurston.wa.us>
Subject: FW: Important support for realities on the ground....and in the water.

FYI

Ramiro Chavez, PE, PgMP
County Manager
Thurston County
(360) 754-2960
chavezr@co.thurston.wa.us

From: County_Commissioners <county.commissioners@co.thurston.wa.us>
Sent: Tuesday, January 05, 2021 6:46 PM
To: Robin Campbell <robin.campbell@co.thurston.wa.us>; Robin Courts <robin.courts@co.thurston.wa.us>; Ramiro Chavez <ramiro.chavez@co.thurston.wa.us>; Kelli Lee <kelli.lee@co.thurston.wa.us>; John Hutchings <john.hutchings@co.thurston.wa.us>; Gary Edwards <gary.edwards@co.thurston.wa.us>; Tye Menser <tye.menser@co.thurston.wa.us>; Thomasina Cooper <thomasina.cooper@co.thurston.wa.us>; Katelyn Johnson <katelyn.johnson@co.thurston.wa.us>
Subject: FW: Important support for realities on the ground....and in the water.

From: jhawk@gglbbs.com
Sent: Wednesday, January 6, 2021 2:15:11 AM (UTC+00:00) Monrovia, Reykjavik
To: Citycouncil; Joyce Phillips; County_Commissioners
Subject: Important support for realities on the ground....and in the water.

To all it should concern,

I find Harry Branch's comprehensive and wise commentary here, to be something we should all be considering and acting upon.
I support it, I echo it, and I ask you to address it.

For an interesting example of local action on restoring estuary, please turn your attention to the work on the Shelton harbor waterfront--with the collaboration of multiple partners such as the South Puget Sound Salmon

Enhancement Group, Mason Conservation District, Capitol Land Trust and the Squaxin Island Tribe.

Funding has been provided by the Washington Department of Ecology National Coastal Wetlands Conservation Grant Program (information [here](#)) and the Salmon Recovery Funding Board (SRFB, information [here](#)). All of the Lead Entities present in South Puget Sound contributed to the project enabling the SRFB to increase the amount of money available.

Take a look here:

<https://squaxin-nr.org/2016/06/shelton-harbor-restoration/>

Why can't we have this kind of vision, intention, action and follow through in Olympia??

Is it time we stopped ignoring our buried estuary, freeing the creeks which have been stuffed into pipes?

JJ Lindsey
Olympia, WA

PS....I include his letter below, and since Harry is a scientist--it can take a few readings to really absorb. I recommend y'all do that, please.

Regarding the Shoreline Master Program (SMP)

City of Olympia:

The public has become keenly aware of the plight of the Souther Resident Killer Whale and their principal prey Chinook salmon. We're slowly learning about the plight of Walleye Pollock, Pacific Herring, Pacific Cod, 15 species of rockfish, chum and sockeye salmon, steelhead, various mollusks and birds, insects and invertebrates. As of December 1, 2015, there were 125 species at risk in the Salish Sea and the number continues to grow. Much of the loss has occurred over the past two decades, under current rules, the status quo, the cauldron of 'mitigation banking' 'no net loss,' and the rest of the regulatory stew.

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Harry Branch

From: ops_mgr@comcast.net
To: [Jennifer Davis](#)
Cc: [Andrew Deffobis](#); vicki.larkin@co.thurston.wa.us; jwoodford.aia@gmail.com; [Barry Halverson](#); [James Crandall](#)
Subject: Response letter to Thurston County Planning
Date: Sunday, January 10, 2021 2:19:49 PM
Attachments: [Thurston County - response letter for the Island at LLCC.pdf](#)

Treasa Snider
Operations Manager
Lake Lawrence Community Club

Lake Lawrence Community Club

15735 Topaz Drive SE

Yelm, WA 98597

360.894.0592

January 7th, 2021

Jennifer Davis

Community Planning Manager

Thurston County Community Planning & Economic Development

2000 Lakeridge Dr S.W., Building 1, Top Floor

Olympia, WA 98502

Ms. Davis,

The Lake Lawrence Community Club is extremely concerned about the proposed redesignation of our 5+ acre community park, commonly referred to as "Goat Island" LLA-8. This island has been undesigned since it was made an island in the late 1960's when the developer cut a canal through the west side of their property forming the island to enhance development, provide a recreational opportunity and an oasis for our 300+ community members to enjoy noise and traffic free hiking. The DRAFT Shoreline Master Program shows it is recommended to be redesignated "Natural". The most extreme and restrictive designations possible.

A walking and vehicle bridge were built in the late 1960's for our members to access the island and to help maintain it. Both bridges were removed several years ago for safety reasons. The locations for these bridges can be seen on the attached google earth map (red marks). The walking bridge was located between parcels 58560000900 and 58560000800 and the association maintains that easement for this walking path and bridge. The vehicle bridge was built on our community owned parcel at 45880100000 and the bridge abutments are still in place on both sides of the canal. The association has plans to reconstruct this bridge when funds are available and maintains the parcel, with a new fence around the entire parcel. Let me be clear, the vehicle bridge is not for privately owned vehicles it is for maintenance equipment like mowers and brush hogs to maintain the trails and pasture. This is currently done by ferrying equipment to the island.

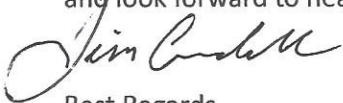
The association has spent considerable funds over the years to maintain the island and the nearly 2+ miles of trails, most of which can be seen on the attached google earth map. We have work parties several times a year to maintain the trails and clear scotch broom, yellow flag iris, purple loosestrife and tansy from the property. All of these invasive plants are recognized by the County as requiring control or eradication.

Currently our community members visit the park via boat and kayak, walk the trails enjoying the tranquility and beauty of the park and during August enjoy picking blackberries. This park is visited not only by our members, but anyone who comes to the lake. It is not off-limits to the general public.

In digging the canal back in the 1960's the dirt removed was placed on the island. In subsequent years, when dredging to maintain the canal has occurred the very rich soil and compost from the canal has been placed on the island. This would be the natural place to deposit it since it comes from the sides of the canal, the decomposing aquatic weeds and leaves from the trees each year. Dredging does not increase the depth or width of the canal, merely removes the composted materials to keep the canal accessible.

We feel that a designation of Natural is inappropriate for at least the largest portion of the island. We have outlined the area (purple line) on the east side of the island that is "wetland" and inaccessible. There are no trails in this area. The lighter and darker intermittent areas around the edges of the island, to the east, are large groups of "cow lily". We would not be opposed to designating the area circled in purple as Natural, but it needs to be understood early in this process that we intend to maintain the island as we have for the past 60 years. That includes reconstructing the bridges when funds come available and maintenance dredging the canal as necessary to keep it open and available to not only our members, but the public at large. Since we own the property, including the ground under the canal we would not expect that either the County or the State would have issue with this or impose conditions, restrictions, permits other than hydraulic permit for doing what is naturally in the best interest of the island and the community/public. If this is going to be an issue, we need to know that now so we can take appropriate action to ensure our community property rights and that of our members is preserved.

As the representative of the Lake Lawrence Community Club, I appreciate your attention to this matter and look forward to hearing from you soon.



Best Regards,
Jim Crandall
President
Lake Lawrence Community Club
360-894-2418

1 Attachments: Google Earth Map of Goat Island

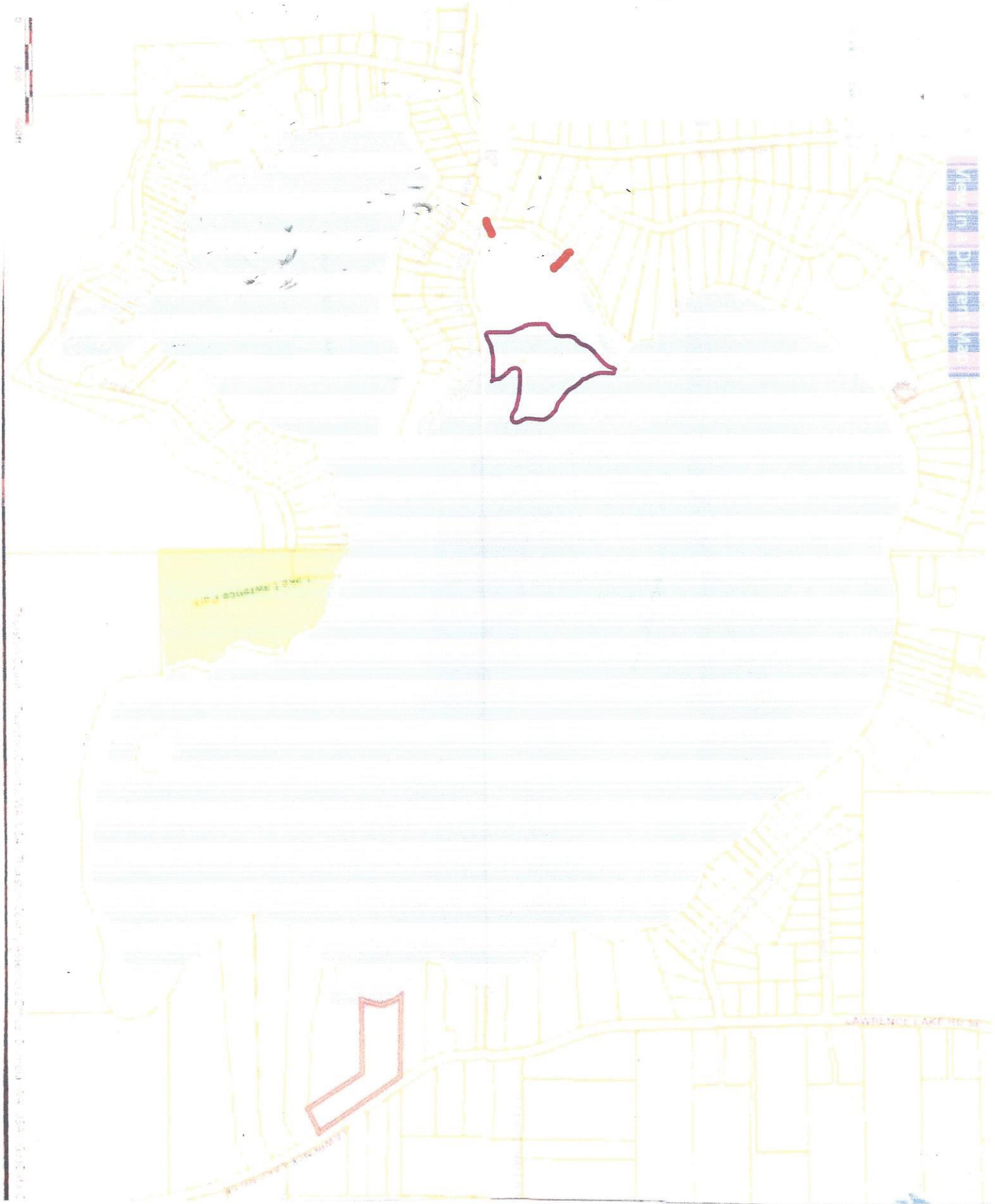
Copy Provided:

Gary Edwards, Commissioner, District 2

Andrew Deffobis, Associate Planner

John Woodford, Chair, Thurston County Shoreline Stakeholders Coalition

Barry Halverson, Lake Lawrence Lake Management District Steering Committee Representative to the
Thurston County Shoreline Stakeholders Coalition



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North Arrow
Scale
1:50,000

LAWRENCE LAKESIDE

From: marymwork@yahoo.com
To: [SMP](#)
Subject: Incoming SMP Comment
Date: Tuesday, January 12, 2021 2:17:29 PM

Your Name (Optional): Mary

Your email address: marymwork@yahoo.com

Comment: If it will be required to get a substantial development permit to maintenance of my bulkhead which may require me to pay engineering, public notice, and hearing examiner review prior to repairs. Perhaps not permitting “wake boats” on Long Lake may be the first step.

The giant waves these boats cause erode the land causing damage to our bulkheads and existing docks. Which the new SMP would require a permit to replace boards on the dock that these boats destroy.

Time: January 12, 2021 at 10:17 pm

IP Address: 73.19.66.251

Contact Form URL: <https://thurstoncomments.org/comment-on-the-proposed-shoreline-code-update/>

Sent by an unverified visitor to your site.

From: [Mark Hancock](#)
To: [Polly Stoker](#)
Cc: [Andrew Deffobis](#)
Subject: SMP - Offut Lake letter and report attached
Date: Friday, January 15, 2021 3:05:17 PM
Attachments: [Olympia Pit - Ltr to Thurston Co RE SMP Designation Executed 12.27.19.pdf](#)

Hello Ms. Stoker –

Attached please find our 12/27/19 letter to Andrew, along with our consultant report dated 12/3/19, regarding our properties alongside Offut Lake.

I am writing to ask you to please make sure these documents have been emailed to the members of the Planning Commission, so that they have time to read them this weekend before their meeting next week.

(I understand you may have already done so, but just want to make sure)

This will be a main topic of that meeting, and is a bit complicated, so we would like them to be able to process this in advance.

Thank you very much for your help,

Mark Hancock

(for Segale Properties)



COMMERCIAL • INDUSTRIAL • AGRICULTURAL • NATURAL RESOURCES

December 27, 2019

Andrew Deffobis
Associate Planner
Community Planning & Economic Development Department
Thurston County
2000 Lakeridge Drive SW
Olympia, WA 98502

RE: SMP Property Designation

Dear Mr. Deffobis,

We are the owners of six land parcels on the west end of Offut Lake (11732320101, 11732320102, 11732320103, 11732320104, 11732320105, 11732320106). They comprise approximately the southern 60% of SMP reach LOF-1 to LOF-2, and all of SMP reach LOF-5 to LOF-1. In the current SMP, they are designated as Conservancy. In the new proposed SMP they have been re-classified to Natural. We see no basis for this change to a more restrictive status and are writing to ask the County to please leave our property as Conservancy (Rural Conservancy in the new SMP).

Attached please find a property survey and report dated 12/3/19, prepared by Carl Hadley of Cedarock Consultants, Inc., a professional aquatic biologist and consultant with 30 years' experience. After visiting the property, considering the existing physical conditions and science, state laws and the County's existing and proposed codes, he concludes that our property does not meet the criteria for Natural and is best designated as Rural Conservancy.

Based on Mr. Hadley's report, we can see no reason for our property to be re-classified to Natural. Almost none of the criteria for Natural apply (and none in full). Our property is largely in compliance with and closely meets the Rural Conservancy criteria, making it the appropriate designation. We do not understand the County's basis for the change to Natural.

Per the report, there is nothing unique or valuable here to protect. The only area with any consistency with Natural is within 100 feet of the lake, which is and will always be protected by the CAO irrespective of the SMP designation.

The entire reach LOF-1 to LOF-2 should not be designated as Natural, considering that within the three properties north of ours, comprising the northern 40% of the reach, are two houses very close to the shoreline, and a parcel that has been logged and cleared to within 100' of the

shoreline. As to the much smaller reach LOF-5 to LOF-1 (all our property), it includes a large wetland off the southwest corner of the lake that is already protected by the CAO, so again there is no need for a change to Natural.

In addition to the SMP code criteria issue above, the change in designation to Natural creates a hardship for our parcels. These parcels have wetlands, wetland buffers, and steep slopes, so pushing the area where a home can be built out beyond 200 feet in the new SMP severely limits the options (if any are left) for placement of a house. While the new code allows for some consideration of that situation through a Conditional Use Permit, it seems unreasonable to add that constraint, the complications, and the expense of that extra process when these parcels should not be designated as Natural in the first place. We also note that DOE guidelines in WAC 173-26-211(5)(a)(ii)(C) which allow single family residential development within the Natural environment have not been carried over into the new County SMP for the Natural designation, which is not in keeping with the County's SMP Fact Sheets #1 and #2 that represent to the public that "regulations have been simplified" to make them more flexible and efficient (and also seemingly in conflict with the County directive to streamline the new SMP, not to make it more restrictive). The new Rural Conservancy buffer is proposed at 150 feet, which is much more reasonable for our situation (and 50 feet greater than that allowed in the current code).

Lastly, it should be noted that being in the rural area of the County our parcels are zoned one house per 5 acres, and these parcels are all 5 acres (or slightly more) in size. They cannot be developed to the density of the other properties around Offut Lake. Each parcel will accommodate only one house – certainly 6 houses across a total of 32.59 acres can be planned carefully without significant impact to the disturbed environment described by Mr. Hadley's report, nor have any impact to the shoreline that will be 150 feet away under a Rural Conservancy designation.

To affirm, based on the facts provided in the attached professional property survey and this letter, we ask the County to please leave our property as Conservancy (Rural Conservancy in the new SMP).

Thank you for your time and consideration of this matter, and are happy to furnish additional information, answer questions, or meet as needed.

Very truly yours,

SEGALE PROPERTIES LLC

A handwritten signature in black ink, appearing to read 'Mark A. Segale', written over the printed name.

Mark A. Segale

CEDAROCK CONSULTANTS, INC.

MEMORANDUM

Date: December 3, 2019
To: Mark Segale – Segale Properties
Subject: Offut Lake Property – Shoreline Designation Review

Preface

In the draft Shoreline Management Program Update, Thurston County has proposed changing shoreline properties along the west side of Offut Lake from an existing designation of **Conservancy** to a more restrictive designation of **Natural**. This change in designation has significant impacts on landowner ability to utilize the land. Because of this, a current landowner in the area (Segale Properties) requested we conduct a site-specific study of current conditions in the area of proposed change (Figure 1) and evaluate those conditions relative to designation criteria for both **Rural Conservancy** and **Natural** in the current draft of the SMP (Tables 1 and 2).



Figure 1. Offut Lake showing area of review.

Methods

The site (Figure 1) was visited on October 18, 2019. The shoreline area consisting of lands extending about 200 feet landward of the lakeshore was walked from south to north. Specific attention was paid to forest condition, shoreline condition, fish and wildlife habitat, evidence of human use, topographic setting, and general setting.

Existing Conditions

The south end of the site contains a large fresh-water forested wetland area surrounded by steep forested hillslopes extending 20 to 25-feet above the forest floor. The wetland is contiguous with the lake. The wetland is a critical area protected under the Thurston County Critical Areas Ordinance and will be permanently protected.

The upland shoreline area adjacent to Offut Lake consists of a 150 to 250-foot wide swathe of second or third growth forest on a moderate to steep slope. The slope extends 25 to 30 feet in elevation above the lake and ranges from 35 to 50 percent in grade. The early successional stage forest appears to be about 70 years old, is dominated by native coniferous trees with some deciduous trees and other non-native vegetation (e.g. English Holly, English ivy, Scott's broom) mixed in. The forest extends steeply down to water's edge. The forest is not particularly dense with numerous areas of open canopy and possibly human-enhanced clearings (see Figures 4-6, 11). On the uphill side (150 to 250 feet from the lake) the forest has been recently harvested with a mix of ground coverage ranging from bare dirt, to low shrub, to 5 to 10-year old trees (see Figures 4, 7-9).

The forest itself is relatively narrow with a lake to one side and a completely cleared landscape to the other (see Figure 1, 4, 7-9). Wildlife use is expected to be typical for a suburban setting and lower and less diverse than larger timberland tracts with greater width and less human traffic.

There is significant evidence of human use throughout the forested area including trails, fire rings, benches, and trash (see Figures 6, 10-11). A road also provides access to the shoreline in this area.

The immediate shoreline of Offut Lake within this area is in a mostly undisturbed condition with almost no improvements noted (see Figure 3). The forest floor extends down to a narrow gravel beach with many of the trees and shrubs overhanging the water. The lakebed appears to drop off slowly with several downed trees noted in the water. The shoreline immediately to the southeast contains moderate density single family residences (see Figures 1 and 5).

The observations made during this survey generally agree with the description found in the Thurston County Shoreline Master Program Update Inventory and Characterization Report (2013) for the reach between LOF(5) and LOF(2) (Figure 12). That is the wetland in the south,

and undeveloped forestry-related uses with steep slopes and no particularly valuable habitat or function along the west.



Figure 2. Typical shoreline condition showing vegetation and steep slope.



Figure 3. Typical lakeshore conditions with gravel beach and overhanging vegetation.



Figure 4. Typical buffer looking landward through shoreline area from lake shore near south end of property.



Figure 5. Looking across shoreline at neighboring houses.



Figure 6. Old fire pit in clearing.



Figure 7. Typical buffer looking landward from lake shore near middle of property.



Figure 8. Typical buffer looking landward from lake shore near north end of property.



Figure 9. Young third growth along outer portion of shoreline.



Figure 10. Park bench in clearing.

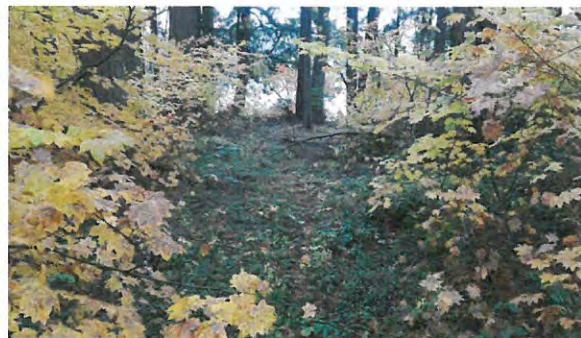


Figure 11. Example of trail system in area.

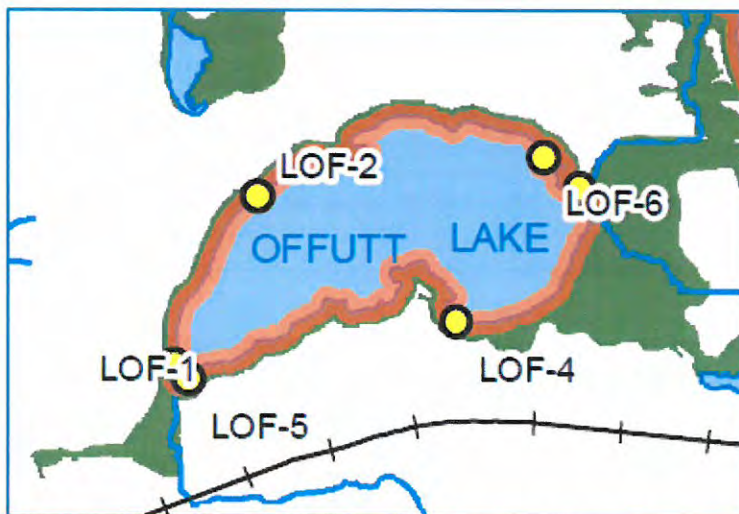


Figure 12. Portion of figure from Thurston Co. SMP Inventory (2013)

Consistency with Designation Criteria

The Draft SMP designation criteria for Rural Conservancy and Natural shoreline designations are provided in Tables 1 and 2 along with relevant observations regarding existing site conditions within the shoreline management area (to 200-feet from ordinary high water).

Table 1. Site Consistency Draft Shoreline Designation Criteria for Rural Conservancy	
Rural Conservancy Criteria	Site Conditions
Currently support lesser-intensity resource-based uses, such as agriculture, aquaculture, forestry, or recreational uses, or are designated agriculture or forest lands;	Consistent - Currently supports forestry with mix of second and third growth trees, and some informal recreational uses.
Currently accommodate residential uses but are subject to environmental limitations, such as properties that include or are adjacent to steep banks, feeder bluffs, or flood plains or other flood-prone areas;	Partially consistent – the land has been used for forestry and contains no residential uses. All properties have environmental limitations including steep banks and wetlands.
Can support low-intensity water-dependent uses without significant adverse impacts to shoreline functions or processes;	Consistent – These large lots could provide water access and maintain the vast majority of the shoreline functions and processes. Informal access already occurs by local residents as witnessed by trails up from water to picnicking areas.
Private and/or publicly owned lands (upland areas landward of OHWM) of high recreational value or with valuable historic or cultural resources or potential for public access;	Consistent – Private land
Does not meet the designation criteria for the Natural environment;	Partially Consistent – very little of the site meets any of the designation criteria for the Natural environment. And only the immediate shoreline area within about 100 feet of the water meets any of the criteria.
Land designated Urban Conservancy and from which a UGA boundary is retracted may be designated as Rural Conservancy, if any of the above characteristics are present.	NA

Shading: Green = Consistent; Yellow = Partially Consistent; Red = Inconsistent

Table 2. Site Consistency Draft Shoreline Designation Criteria for Natural	
Natural Criteria	Site Conditions
The shoreline is ecologically intact and currently performing an important, irreplaceable function or ecosystem-wide process that would be damaged by human activity; or	Not consistent – The entire shoreline has been used for commercial forestry and has been harvested at least once and possibly twice in some areas. The resultant stand of trees is not irreplaceable. Current human activity includes roads, trails, water landings, and picnic areas.
The shoreline is considered to represent ecosystems and geologic types that are of scientific and educational interest;	Not consistent – The shoreline is a typical commercial forestry dominated landscape common throughout western Washington. It has no unusual features that would be of scientific or educational interest.
The shoreline is unable to support new development or uses without adverse impacts to ecological functions or risk to human safety.	Not Consistent – These large lots could provide water access and maintain the vast majority of ecological functions and processes. Informal access already occurs by local residents as witnessed by trails up from water to picnicking areas. There are no unusual safety risks in the area.
The shoreline includes largely undisturbed portions of shoreline areas such as wetlands, estuaries, unstable bluffs, coastal dunes, spits, and ecologically intact shoreline habitats.	Not Consistent – Except for a large wetland that is protected under the Thurston County Critical Areas Ordinance under all circumstances, the entire property has been logged one or more times leaving it best described as disturbed.
Retain the majority of their natural shoreline functions, as evidenced by shoreline configuration and the presence of native vegetation.	Partially Consistent – The entire area has been logged one or more times. However, regrowth nearest the shoreline is around 70 years old and provides wildlife habitat as well as aquatic habitat protection functions. Both native and non-native vegetation is present throughout site.
Generally free of structural shoreline modifications, structures, and intensive human uses	Partially Consistent – the shoreline is generally free of structural modifications and structures, but, has been completely logged one or more times. This is a very intensive land use.

Conclusions

Under the draft SMP regulations a Natural shoreline designation is meant to be applied to *Shorelines having a unique asset or feature considered valuable for its natural or original condition that is relatively intolerant of intensive human use* (19.200.130). The property in question has historically served as private timberland and is neither in natural nor an original condition having been completely logged one or more times. The resulting narrow strip of second and third growth timber has functional value to aquatic habitat along the shoreline (e.g. bank protection, large wood recruitment) but is not pristine, nor high quality wildlife habitat. The stand of trees is not irreplaceable, having been regrown once or twice like any commercial forestland. There are no other natural features (e.g. estuaries, unstable bluffs, coastal dunes, spits) on this land that are irreplaceable once disturbed.

Application of shoreline designation criteria to a parcel of land is not an exact process with many of the criteria being somewhat vague (e.g. “largely undisturbed”, “generally free of”, “considered to”). However, a review of landscape consistency with proposed designation criteria provided in Tables 1 and 2 finds the Segale property fits more closely with the proposed designation as Rural Conservancy than the proposed Natural designation. In fact, existing conditions on the Segale property do not fully meet any of the Natural shoreline designation criteria.

Because most of the larger remaining trees are found on steep slopes, near wetlands, or associated with other critical areas, much of the protection from environmental alteration is unrelated to the SMP. Existing and future Critical Area Ordinances will protect this land as critical area or buffer regardless of any protection that may be afforded by the shoreline designation. Additional protection would come from code details such as allowed uses within the buffer (e.g. trail widths, appurtenances, etc.), ability to buffer average, and from mitigation requirements implemented to protect and enhance shoreline ecological function.

Report Author

This report was prepared by Carl Hadley, a professional aquatic biologist with 30 years of experience evaluating effects of changing land use on aquatic habitat. Mr. Hadley is the principal biologist with Cedarock Consultants, Inc.



COMMERCIAL • INDUSTRIAL • AGRICULTURAL • NATURAL RESOURCES

January 19, 2021

Thurston County Planning Commission
Thurston County
2000 Lakeridge Drive SW
Olympia, WA 98502

RE: SMP – Offut Lake Property Designation

Dear Commissioners,

Looking ahead to the discussion about our Offut Lake properties in your upcoming meeting this Wednesday evening, we wish to summarize our concerns, as outlined more fully and supported by our attached letter dated 12/27/19, and the biologist report dated 12/3/19.

We strongly disagree with the County's proposal in the SMP draft to redesignate our properties from Conservancy to Natural. Our parcels are each 5+ acres in size, which are zoned one house per 5 acres, where currently we can build within 100' of the shoreline. We should remain Conservancy (proposed Rural Conservancy), as Rural Conservancy in the draft SMP will allow a house on each parcel, to within 150' of the lake (up from current Conservancy code at 100'). We can work with Rural Conservancy, but not Natural with all its new restrictions.

The biologist report proves that our land does not meet the State's criteria for Natural but actually qualifies as Rural Conservancy. We should not be redesignated to Natural. This is not an ancient old growth forest. These are second or third growth trees. There is nothing special or unique - if this were not by a lake, it wouldn't get a second look. We feel we are being punished for being good stewards of the land.

As we have testified before you, the County's new definition of Natural includes language that is more strict than the WAC. The WAC allows a house to be built anywhere within the 200' setback (via a CUP), while the County's stricter draft SMP generally does not allow a house at all within 200' (only less than 200' if there is no way to build elsewhere on the lot, beyond 200'). If a house is carefully designed to respect the environment, and there is "no net loss", then why shouldn't it be allowed, especially when it is only one house on a large 5-acre parcel? It is OK with the State, why not the County?

We also request that the Planning Commission and staff change the draft SMP, finding compromises that would protect the land while at the same time allowing landowners to use their land. Please allow the WAC permissions within Natural. Allow a house on parcels 5 acres

or more in size, and inside the 200' setback (back to 150'), where the house is carefully designed to protect the land (e.g. no net loss). Buffer setback requirements should also be flexible in Natural up to 150' when houses are sensitively designed, in all situations (do not limit flexibility in buffers to only when a house cannot be built beyond 200'). The house permit approval could be made administrative, so staff and the landowner can work together for a design that works, and there would be less process hassle and expense. Code flexibility will also make it easier for the County when other landowners file appeals.

We believe the suggestions above will improve the process for the County and landowners and assert that our parcels shall remain Conservancy as they do not meet the criteria for Natural. Thank you very much for your time and consideration of our position.

Very truly yours,

SEGALE PROPERTIES LLC

A handwritten signature in black ink, appearing to read 'M. Segale', with a long horizontal flourish extending to the right.

Mark A. Segale

Cc: Andrew Deffobis

Encls.



COMMERCIAL • INDUSTRIAL • AGRICULTURAL • NATURAL RESOURCES

December 27, 2019

Andrew Deffobis
Associate Planner
Community Planning & Economic Development Department
Thurston County
2000 Lakeridge Drive SW
Olympia, WA 98502

RE: SMP Property Designation

Dear Mr. Deffobis,

We are the owners of six land parcels on the west end of Offut Lake (11732320101, 11732320102, 11732320103, 11732320104, 11732320105, 11732320106). They comprise approximately the southern 60% of SMP reach LOF-1 to LOF-2, and all of SMP reach LOF-5 to LOF-1. In the current SMP, they are designated as Conservancy. In the new proposed SMP they have been re-classified to Natural. We see no basis for this change to a more restrictive status and are writing to ask the County to please leave our property as Conservancy (Rural Conservancy in the new SMP).

Attached please find a property survey and report dated 12/3/19, prepared by Carl Hadley of Cedarock Consultants, Inc., a professional aquatic biologist and consultant with 30 years' experience. After visiting the property, considering the existing physical conditions and science, state laws and the County's existing and proposed codes, he concludes that our property does not meet the criteria for Natural and is best designated as Rural Conservancy.

Based on Mr. Hadley's report, we can see no reason for our property to be re-classified to Natural. Almost none of the criteria for Natural apply (and none in full). Our property is largely in compliance with and closely meets the Rural Conservancy criteria, making it the appropriate designation. We do not understand the County's basis for the change to Natural.

Per the report, there is nothing unique or valuable here to protect. The only area with any consistency with Natural is within 100 feet of the lake, which is and will always be protected by the CAO irrespective of the SMP designation.

The entire reach LOF-1 to LOF-2 should not be designated as Natural, considering that within the three properties north of ours, comprising the northern 40% of the reach, are two houses very close to the shoreline, and a parcel that has been logged and cleared to within 100' of the

shoreline. As to the much smaller reach LOF-5 to LOF-1 (all our property), it includes a large wetland off the southwest corner of the lake that is already protected by the CAO, so again there is no need for a change to Natural.

In addition to the SMP code criteria issue above, the change in designation to Natural creates a hardship for our parcels. These parcels have wetlands, wetland buffers, and steep slopes, so pushing the area where a home can be built out beyond 200 feet in the new SMP severely limits the options (if any are left) for placement of a house. While the new code allows for some consideration of that situation through a Conditional Use Permit, it seems unreasonable to add that constraint, the complications, and the expense of that extra process when these parcels should not be designated as Natural in the first place. We also note that DOE guidelines in WAC 173-26-211(5)(a)(ii)(C) which allow single family residential development within the Natural environment have not been carried over into the new County SMP for the Natural designation, which is not in keeping with the County's SMP Fact Sheets #1 and #2 that represent to the public that "regulations have been simplified" to make them more flexible and efficient (and also seemingly in conflict with the County directive to streamline the new SMP, not to make it more restrictive). The new Rural Conservancy buffer is proposed at 150 feet, which is much more reasonable for our situation (and 50 feet greater than that allowed in the current code).

Lastly, it should be noted that being in the rural area of the County our parcels are zoned one house per 5 acres, and these parcels are all 5 acres (or slightly more) in size. They cannot be developed to the density of the other properties around Offut Lake. Each parcel will accommodate only one house – certainly 6 houses across a total of 32.59 acres can be planned carefully without significant impact to the disturbed environment described by Mr. Hadley's report, nor have any impact to the shoreline that will be 150 feet away under a Rural Conservancy designation.

To affirm, based on the facts provided in the attached professional property survey and this letter, we ask the County to please leave our property as Conservancy (Rural Conservancy in the new SMP).

Thank you for your time and consideration of this matter, and are happy to furnish additional information, answer questions, or meet as needed.

Very truly yours,

SEGALE PROPERTIES LLC

A handwritten signature in black ink, appearing to read 'Mark A. Segale', written over the printed name.

Mark A. Segale

CEDAROCK CONSULTANTS, INC.

MEMORANDUM

Date: December 3, 2019
To: Mark Segale – Segale Properties
Subject: Offut Lake Property – Shoreline Designation Review

Preface

In the draft Shoreline Management Program Update, Thurston County has proposed changing shoreline properties along the west side of Offut Lake from an existing designation of **Conservancy** to a more restrictive designation of **Natural**. This change in designation has significant impacts on landowner ability to utilize the land. Because of this, a current landowner in the area (Segale Properties) requested we conduct a site-specific study of current conditions in the area of proposed change (Figure 1) and evaluate those conditions relative to designation criteria for both **Rural Conservancy** and **Natural** in the current draft of the SMP (Tables 1 and 2).



Figure 1. Offut Lake showing area of review.

Methods

The site (Figure 1) was visited on October 18, 2019. The shoreline area consisting of lands extending about 200 feet landward of the lakeshore was walked from south to north. Specific attention was paid to forest condition, shoreline condition, fish and wildlife habitat, evidence of human use, topographic setting, and general setting.

Existing Conditions

The south end of the site contains a large fresh-water forested wetland area surrounded by steep forested hillslopes extending 20 to 25-feet above the forest floor. The wetland is contiguous with the lake. The wetland is a critical area protected under the Thurston County Critical Areas Ordinance and will be permanently protected.

The upland shoreline area adjacent to Offut Lake consists of a 150 to 250-foot wide swathe of second or third growth forest on a moderate to steep slope. The slope extends 25 to 30 feet in elevation above the lake and ranges from 35 to 50 percent in grade. The early successional stage forest appears to be about 70 years old, is dominated by native coniferous trees with some deciduous trees and other non-native vegetation (e.g. English Holly, English ivy, Scott's broom) mixed in. The forest extends steeply down to water's edge. The forest is not particularly dense with numerous areas of open canopy and possibly human-enhanced clearings (see Figures 4-6, 11). On the uphill side (150 to 250 feet from the lake) the forest has been recently harvested with a mix of ground coverage ranging from bare dirt, to low shrub, to 5 to 10-year old trees (see Figures 4, 7-9).

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There is significant evidence of human use throughout the forested area including trails, fire rings, benches, and trash (see Figures 6, 10-11). A road also provides access to the shoreline in this area.

The immediate shoreline of Offut Lake within this area is in a mostly undisturbed condition with almost no improvements noted (see Figure 3). The forest floor extends down to a narrow gravel beach with many of the trees and shrubs overhanging the water. The lakebed appears to drop off slowly with several downed trees noted in the water. The shoreline immediately to the southeast contains moderate density single family residences (see Figures 1 and 5).

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Figure 4. Typical buffer looking landward through shoreline area from lake shore near south end of property.



Figure 5. Looking across shoreline at neighboring houses.



Figure 6. Old fire pit in clearing.



Figure 7. Typical buffer looking landward from lake shore near middle of property.



Figure 8. Typical buffer looking landward from lake shore near north end of property.



Figure 9. Young third growth along outer portion of shoreline.



Figure 10. Park bench in clearing.

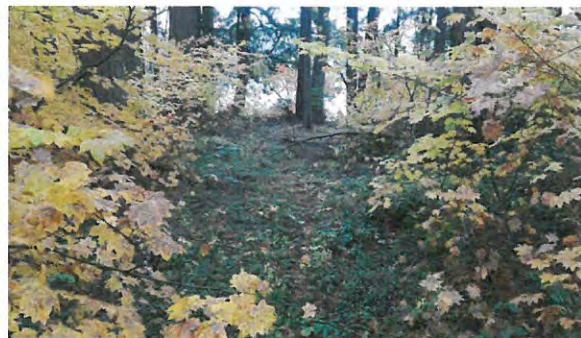


Figure 11. Example of trail system in area.

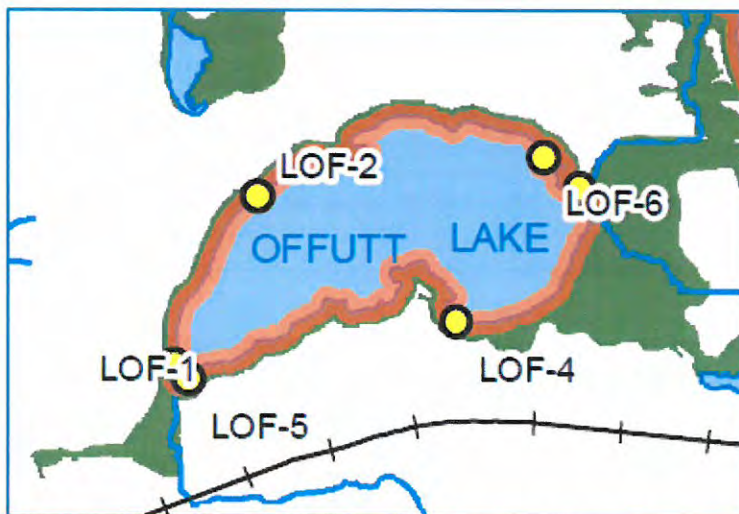


Figure 12. Portion of figure from Thurston Co. SMP Inventory (2013)

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The Draft SMP designation criteria for Rural Conservancy and Natural shoreline designations are provided in Tables 1 and 2 along with relevant observations regarding existing site conditions within the shoreline management area (to 200-feet from ordinary high water).

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Shading: Green = Consistent; Yellow = Partially Consistent; Red = Inconsistent

Table 2. Site Consistency Draft Shoreline Designation Criteria for Natural	
Natural Criteria	Site Conditions
The shoreline is ecologically intact and currently performing an important, irreplaceable function or ecosystem-wide process that would be damaged by human activity; or	Not consistent – The entire shoreline has been used for commercial forestry and has been harvested at least once and possibly twice in some areas. The resultant stand of trees is not irreplaceable. Current human activity includes roads, trails, water landings, and picnic areas.
The shoreline is considered to represent ecosystems and geologic types that are of scientific and educational interest;	Not consistent – The shoreline is a typical commercial forestry dominated landscape common throughout western Washington. It has no unusual features that would be of scientific or educational interest.
The shoreline is unable to support new development or uses without adverse impacts to ecological functions or risk to human safety.	Not Consistent – These large lots could provide water access and maintain the vast majority of ecological functions and processes. Informal access already occurs by local residents as witnessed by trails up from water to picnicking areas. There are no unusual safety risks in the area.
The shoreline includes largely undisturbed portions of shoreline areas such as wetlands, estuaries, unstable bluffs, coastal dunes, spits, and ecologically intact shoreline habitats.	Not Consistent – Except for a large wetland that is protected under the Thurston County Critical Areas Ordinance under all circumstances, the entire property has been logged one or more times leaving it best described as disturbed.
Retain the majority of their natural shoreline functions, as evidenced by shoreline configuration and the presence of native vegetation.	Partially Consistent – The entire area has been logged one or more times. However, regrowth nearest the shoreline is around 70 years old and provides wildlife habitat as well as aquatic habitat protection functions. Both native and non-native vegetation is present throughout site.
Generally free of structural shoreline modifications, structures, and intensive human uses	Partially Consistent – the shoreline is generally free of structural modifications and structures, but, has been completely logged one or more times. This is a very intensive land use.

Conclusions

Under the draft SMP regulations a Natural shoreline designation is meant to be applied to *Shorelines having a unique asset or feature considered valuable for its natural or original condition that is relatively intolerant of intensive human use* (19.200.130). The property in question has historically served as private timberland and is neither in natural nor an original condition having been completely logged one or more times. The resulting narrow strip of second and third growth timber has functional value to aquatic habitat along the shoreline (e.g. bank protection, large wood recruitment) but is not pristine, nor high quality wildlife habitat. The stand of trees is not irreplaceable, having been regrown once or twice like any commercial forestland. There are no other natural features (e.g. estuaries, unstable bluffs, coastal dunes, spits) on this land that are irreplaceable once disturbed.

Application of shoreline designation criteria to a parcel of land is not an exact process with many of the criteria being somewhat vague (e.g. “largely undisturbed”, “generally free of”, “considered to”). However, a review of landscape consistency with proposed designation criteria provided in Tables 1 and 2 finds the Segale property fits more closely with the proposed designation as Rural Conservancy than the proposed Natural designation. In fact, existing conditions on the Segale property do not fully meet any of the Natural shoreline designation criteria.

Because most of the larger remaining trees are found on steep slopes, near wetlands, or associated with other critical areas, much of the protection from environmental alteration is unrelated to the SMP. Existing and future Critical Area Ordinances will protect this land as critical area or buffer regardless of any protection that may be afforded by the shoreline designation. Additional protection would come from code details such as allowed uses within the buffer (e.g. trail widths, appurtenances, etc.), ability to buffer average, and from mitigation requirements implemented to protect and enhance shoreline ecological function.

Report Author

This report was prepared by Carl Hadley, a professional aquatic biologist with 30 years of experience evaluating effects of changing land use on aquatic habitat. Mr. Hadley is the principal biologist with Cedarock Consultants, Inc.

From: [John Woodford](#)
To: [Polly Stoker](#)
Cc: [Andrew Deffobis](#)
Subject: Coalition letter to Planning Commissioners: Ch. 19.600
Date: Tuesday, January 19, 2021 6:44:48 AM
Attachments: [CoalitionPink600.docx](#)

Good morning Polly,

Attached is my letter from the Thurston County Shoreline Stakeholders Coalition addressing a couple of key issues on SMP Chapter 19.600. Thank you for forwarding this letter to the Planning Commissioners ahead of tomorrow's meeting.

Best wishes,

John Woodford

Thurston County Shoreline Stakeholders Coalition

7541 Holmes Island Rd SE, Olympia, WA 98503-4026

January 19, 2021

To: Thurston County Planning Commissioners

From: John H. Woodford, Chair
Thurston County Shoreline Stakeholders Coalition

Re: Coalition comments on October 21, 2020, "pink" SMP Chapter 19.600

Commissioners,

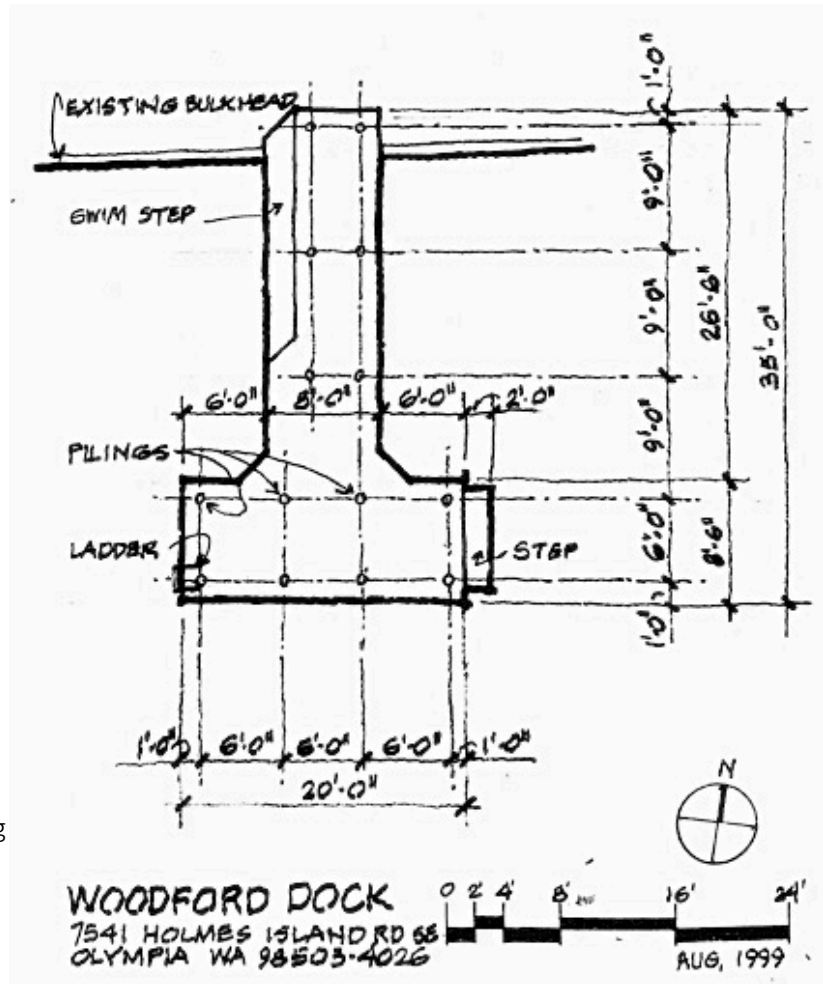
Those of us at the Thurston County Shoreline Stakeholders Coalition (the Coalition) see a plethora of issues in Chapter 19.600. Many of the issues have been footnoted as "Option for Public Hearing." Why not just address these items now, at the Planning Commission? Several more do not recognize the different environmental conditions extant in marine and freshwaters. In the interest of brevity, I will focus on just a couple of these issues.

1. The Coalition is requesting that you Commissioners ask Mr. Deffobis, "Why were Water Oriented Industrial Uses in Shoreline Residential SEDs changed from 'Prohibited' to 'Conditional Use Permit'?" This change occurred in the immediately preceding, "green," edition of the SMP edited by Mr. Deffobis. See **Table 19.600.105...the Matrix** (pg. 89), **19.600.150.A.2** (pg. 110) and **19.600.150.B.3.a** (pg. 111).

Where in a Thurston County Shoreline Residential SED could you find a place where any industrial use would be compatible with residential use? Everyone, please take a close look at the SED map. Other than the Boston Harbor area and a sizable portion the west coast of Eld Inlet (Steamboat Island), all other marine water Shoreline Residential stretches are very limited. The vast majority of Shoreline Residential properties are adjacent the County's freshwater lakes. Allowing any industrial use in an existing residential neighborhood seems counter to any reasonable planning standards.

Mr. Deffobis and I exchanged numerous emails on this subject from April to June of 2020. We do not agree on the interpretation of **WAC 173-26-241**, but he did write, "The draft SMP provision would only apply to areas where zoning allows industrial development." If you find that this Matrix change should stand, please ask staff to add a footnote to the Matrix stating, "...CUP use would only apply to areas where zoning allows industrial development."

2. We have many issues with **19.600.160 Mooring Structures and Activities**. I will address only **19.600.160.c.3 Pilings** at this time. Mr. Deffobis has offered an “Option for Public Hearing: Consider a shorter distance for spacing pilings in lakes, such as 10 feet.” We would suggest the removal of any limitation on dock/pier piling spacing for lakes.



As an example, here is a plan of my dock on Holmes Island, Long Lake. All piling spacing is **under** ten (10) feet.

Thank you for your consideration of these key issues.

Respectfully submitted,

John H. Woodford, Chair
Thurston County Shoreline Stakeholders Coalition

From: [Barry Halverson](#)
To: [Andrew Deffobis](#)
Subject: Lake Lawrence Reach LLA-8 Discussion Documents
Date: Wednesday, January 27, 2021 8:23:56 PM
Attachments: [Reach LLA-8 Argument.docx.pdf](#)
[Table - SED Criteria Comparison.pdf](#)

Andrew, please find attached a letter with attachment from the Lake Lawrence Lake Management District Steering Committee representing 605 LMD members to the Thurston County Planning Commissioners. This letter is in support of the Lake Lawrence Community Club HOA Letter dated 7 January 2021 regarding Goat Island - LLA-8. Request this letter with attachment be provided to every commissioner prior to the Planning Commission meeting next Wednesday along with the LLCC HOA letter which will be essential to their understanding of my discussion of the issue during the 3 minutes I am allotted.

Should you have any questions please feel free to contact me.

Thank you,
Barry Halverson
Lake Lawrence Lake Management District
Steering Committee
253-341-6059

DATE: 27 January 2021

TO: Thurston County Planning Commissioners

FROM: Lake Lawrence Lake Management District Steering Committee

SUBJECT: Environmental Designation for Lake Lawrence LLA-8

References:

1. Letter from President, Lake Lawrence Community Club, dated January 7, 2021.
2. Final Draft, Thurston County Shoreline Master Program Update, Shoreline Environmental Designations Report, dated June 30, 2013.

Facts:

1. Reference 2 above, Table 2, page 4 describes the criteria used for each Shoreline Environmental Designation (SED).
2. Lake Lawrence LLA-8 is currently “Not Designated”.
3. In 2013 County Staff, in reference 2 above, created a new “reach – LLA-8” for Lake Lawrence and designated that reach “Natural”, claiming the criteria in Table 2, Reference 2 was the best match for this area. See below for our assessment of this “best match”. This area is commonly referred to as “Goat Island”.
4. Goat Island has been the property of the Lake Lawrence Community Club, see reference 1 since the canal was cut through the Community Club property over 50 years ago. The material extracted from the canal was deposited on the island side of the canal and has been when maintenance dredging has been required.
5. Until recently there was a vehicle maintenance and walking bridge to the island from parcels owned and/or controlled and maintained by the Community Club. Re-establishment of these bridges is in the long-range plans of the Community Club when funds are available. In the meantime, boats are used to ferry maintenance equipment to the island 2 or more times a year to properly maintain the area.
6. This island has been used, since it’s establishment in the late 1960’s as a community park with over 2 miles of well-established walking trails, blackberry picking areas, and a large 2+ acre pasture/meadow. **NOTE:** This area is widely used by the general public, not just members of the Community Club.
7. The Lake Lawrence Community Club has maintained this island continuously for the past 50+ years by mowing/cutting the pasture/meadow, keeping the hiking trails cleared and trimmed and removing invasive species such as scotch broom, yellow flag iris, purple loosestrife and tansy from the property at considerable expense. The County Noxious Weed Department has acknowledged the need to eradicate and/or control all of these invasive and toxic species of plants that are not native to the island.
8. The Lake Lawrence Lake Management District contributes \$1,000’s of dollars a year for control of Yellow Flag Iris alone.

Assessment of FACTS:

1. Reference 2 defines the purpose of a Natural SED as: Protect those shoreline areas that are relatively free of human influence, and/or that include intact or minimally degraded shoreline functions intolerant of human use. Only very low intensity uses are allowed in order to maintain the ecological functions and ecosystem wide processes. This does not come close to what the island has historically been used for and is currently used for.
2. Reference 2 defines the purpose of a Rural Conservancy SED as: Provide for sustained

resource use, public access, and recreational opportunities while protecting ecological functions, and conserving existing ecological, historical, and cultural resources. This definition of purpose fits Goat Island to a tee and is the best definition/purpose for Reach LLA-8.

3. See Table attached that evaluates Natural vs. Rural Conservancy SED criteria for Reach LLA-8.
 - a. Natural – Meets only one criterion for natural SED.
 - b. Rural Conservancy – Meets 6 of the 7 criteria for Rural Conservancy.

Conclusion: The only reasonable conclusion, based on the facts, is to designate Reach LLA-8 as Rural Conservancy. Although the Lake Lawrence Community Club has offered to designate a portion of Goat Island (the wetland edge of the island) as Natural, this would not be consistent with other SED's on the same lake (i.e., Reach LLA-1 to LLA-2 that is almost entirely wetland and undeveloped county park).

Recommendation: That Reach LLA-8 be designated Rural Conservancy.

Lake Lawrence Lake Management District Representing 605 LMD Members

Steering Committee

Letter Presented on Behalf of:

Barry Halverson

Curtis Cleaveland

Mary Caselnova

Michael Fischer

Jim Musselman

Roberta Allen

Dave & Arvis Olson

Phil Gothro, President Scenic Shores HOA representing 210 members

Skip Meredith

Jim Biehl

Frank Hudik

Danny Thomas

Steven Slater

Orin Brassfield

John & Sharon Gray

John & Anita Baer

Kim Nelson

Evaluation of Lake Lawrence SED's For Reach LLA-8

SED	Designation Criteria	Meets Criteria	Does Not Meet Criteria	Reasoning
Natural	Ecologically intact and therefore currently performing an important, irreplaceable function or ecosystem-wide process that would be damaged by human activity.		X	This area has had human activity since it was developed. Bridges to the island, extensive maintained trails, trimmed trees/bushes, mowing pasture/meadow, etc.
	Considered to represent ecosystems and geologic types that are of particular scientific and educational interest.		X	There is nothing about this area that is of particular scientific and educational interest.
	Unable to support new development or uses without significant adverse impacts to ecological functions or risk to human safety.		X	over 5+ acres of this island has had several uses over the past 50+ years to include sustaining a goat herd.
	Includes largely undisturbed portions of shoreline areas such as wetlands, estuaries, unstable bluffs, coastal dunes, spits, and ecologically intact shoreline habitats.		X	There is only one undisturbed area on this island and that is approximately 2 acres along the far east side of the island. From the northern tip of the island to the southern tip and the entire middle of the island are winding trails all along the canal, through the trees and criscrosses the meadow.
	Retain the majority of their natural shoreline functions, as evidenced by shoreline configuration and the presence of native vegetation.		X	As stated above 3/4 of the perimeter of the island is well maintained trails along the canal with cut and trimmed vegetation.
	Generally free of structural shoreline modifications, structures, and intensive human uses.	X		Could go either way. Free of structural shoreline modifications <u>except</u> a vehicle maintenance and walking bridge at two separate locations for 40 years with the vehicle/maintenance bridge abutments still intact with long range plans to re-establish the bridges.
Rural Conservancy	Outside incorporated municipalities and outside urban growth areas, AND at least one of the following:	X		YES - Meets all but one and you could argue depending on your interpretation of that one criteria that it also meets that one.
	Currently supporting low-intensity resource-based uses such as agriculture, forestry, or recreation.	X		YES - supports moderate recreational use
	Currently accommodating residential uses.		X	NO. It is a community park. Homes will never be built in this area, but depending on your interpretation of residential uses you could say it does accommodate residential uses as it is a park for an HOA that is also open for public use.
	supporting human uses but subject to environmental limitations, such as properties that include or are adjacent to steep banks, feeder bluffs, wetlands, flood plains or other flood prone areas.	X		Currently supports human uses and has a wetland area on one side.
	Can support low-intensity water-dependent uses without significant adverse impacts to shoreline functions or processess.	X		Does support water-dependent uses without significant impact and has for past 50+ years.
	Private and/or publically owned lands (upland areas landward of OHWM) of high recreational value or with valuable historic or cultural resources or potential for public access.	X		Private land with high recreational value and does support public access.
	Does not meet the designation criteria for the Natural environment.	X		Correct - see above.

From: [Phyllis Farrell](#)
To: [Andrew Deffobis](#)
Subject: Re: Written Comments for Feb. 3, 2021 Planning Commission Meeting
Date: Thursday, February 4, 2021 10:00:14 AM
Attachments: [SMPcomments2.3.21.docx](#)

Thanks for the "heads up" Andrew; I sent the comments yesterday afternoon from the County's website....the one that allows one to contact the Commission. I have attached a draft of notes from which I drafted my message...it won't be the message verbatim, but it has the points I wanted to make. Can you please share with the Commission members, Polly, Jennifer etc.?

Thank you for all your work on this challenging task!

Phyllis

On February 4, 2021 at 9:27 AM, Andrew Deffobis <andrew.deffobis@co.thurston.wa.us> wrote:

Hello Phyllis,

During your testimony last night, you referenced written comments you submitted to the Planning Commission. I didn't receive anything from you prior to the meeting, and neither did Polly, who coordinates written comments received for meetings.

Could you check where you sent your written comments, or please re-send to me, and I will provide them to the Planning Commission and add them to the record. Sorry for the mix-up!

Thank you,

Andrew Deffobis, Associate Planner
Thurston County Community Planning and Economic Development Department
2000 Lakeridge Drive SW
Olympia, WA 98502
Cell Phone: (360) 522-2593
Office Phone: (360) 786-5467
Fax: (360) 754-2939

Chapter 19.600 Shoreline Use and Modification Development Standards

19.600.102 General Shoreline Modification Principles

4. Assure that shoreline modifications individually and cumulatively do not result in a net loss of ecological functions. This is to be achieved by giving preference to those types of shoreline modifications that have a lesser impact on ecological functions and requiring mitigation of identified impacts resulting from shoreline modifications. HOW IS THE DRAFT PLAN ASSURING THAT MODIFICATIONS DO NOT RESULT IN NET LOSS OF ECOLOGICAL FUNCTIONS??? WHAT ARE THE METRICS USED? HOW ARE PROJECTS MONITORED? WHAT IS THE ENFORCEMENT STRATEGY IF A PROJECT DOES RESULT IN NET LOSS??

6. Plan for the enhancement of impaired ecological functions where feasible and appropriate while accommodating permitted uses. As shoreline modifications occur, incorporate all feasible measures to protect ecological shoreline functions and ecosystem-wide processes. GIVEN THE DECLINE IN SHORELINE FUNCTIONS, THERE SHOULD BE NO ACCOMMODATING PERMITS ISSUED IF THEY WILL IMPAIR ECOLOGICAL FUNCTION. If a project will impair, it should be denied!

In Section 19.600.160 Mooring Structures and Activities The Puget Sound Partnership and the Orca Task Force recommend reducing shoreline armoring by 25% in order to protect and restore shoreline habitat. In order to reduce armoring to enhance ecological function, I am opposed to the draft recommendation to consider eliminating the requirement to consider alternative mooring prior to allowing piers and docks, or allowing docks in the natural environment, especially marine environments.

The draft should maintain or improve shoreline buffers, reduce armoring and phase out the use of plastics in aquaculture operations. Require reports from aquaculture operations and other shoreline projects with metrics of no net loss.

Does the Plan account for Climate Change and Sea Level rise projections? Current proposed legislation will require this, but it only makes sense to address it now.

From: [Service Portal](#)
To: [Andrew Deffobis](#)
Subject: Thurston County Shoreline Master Program Update Planning Commission Meeting March 3, Wednesday.
Date: Wednesday, March 3, 2021 9:35:49 AM

Dear Andrew,

Prior to tonight's Planning Commission Meeting, because the SMP is on the agenda, I thought it appropriate to remind you of the plight facing many county shoreline lakes due to toxic blue-green algae blooms. I enjoyed reading your recent article regarding the SMP update about Bulkheads. You recognize nitrogen and phosphorous as the limiting factors for these toxic blooms; however you overlook nitrogen is recognized as the limiting factor in salt water bodies, and phosphorous in lakes. Septic systems are the primary cause of these blooms in lakes. I have not yet found any reference in the proposed SMP to these increasing blooms in county lakes.

One of the principle purposes of the Shorelines Management Act is to restore the natural shorelines. Surely given the increasing incidence of these toxic algae blooms in certain lakes, including Pattison; regulation of septic systems and their degree of efficiency at removal of phosphorous from inflow to the lakes, constitutes a major restoration of these lakes.

Please provide confirmation when my proposal for phosphorous removal in the lakes, which I submitted to you on November 18, has been reviewed and considered by the Thurston County Health Department and the Planning Commission.

Blessings,
Bob

From: valerierobz@gmail.com
To: [SMP](#)
Subject: Incoming SMP Comment
Date: Thursday, March 4, 2021 8:28:02 PM

Your Name (Optional): Rob Kirkwood and Valerie Hammett

Your email address: valerierobz@gmail.com

Comment: We have owned our property at 4424 65th Ave NE since 1989. During our 1989 short platting process, the Shoreline set back was established at 200' from OHW. At the time, we thought that was overly restrictive, but accepted it as part of the new environmental awareness. We have left the property much as we found it, other than a trail to the beach that is legally shared with the two upland properties and informally by other neighbors. We have sold our home on the upland parcel, 4426 65th Ave NE, and would now like to build a cabin closer to the beach. During the initial development investigation, we found that the shoreline set back had been increased to 250'. This renders about 2/3's of the property useless and sets our building site back far enough to substantially block any water or western view.

During a short shoreline boat cruise last fall we noted how many of our neighboring properties have bulkheads and they continue to clear cut trees and brush right down to the OHW. We realize that the shoreline structures were built prior to awareness of the environmental damage caused by building so close to the water.

We are not asking to build on the beach. Our bank has been little changed since we purchased the property so a bulkhead is not necessary. We would prefer the setback to be 150' with limbing up of major trees allowed while leaving the brush in place. We realize that the previous set back adjustments were made as an almost emergency reaction to the increasing development and environmental awareness. We hope that now with wisdom gathered over the last 30 years that the setbacks can be reduced to allow us to enjoy our property in a manner more similar to our neighbors.

Time: March 5, 2021 at 4:27 am

IP Address: 73.225.107.170

Contact Form URL: <https://thurstoncomments.org/comment-on-the-proposed-shoreline-code-update/>

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