

Comments received on the draft SMP Chapters since the canceled February 21, 2018 Planning Commission meeting

✓ **TO:** Brad Murphy
Thurston County Planning
Building 1,
2000 Lakeridge Drive, SW.
Olympia, WA. 98502

January 23, 2018

FROM: Kathy Knight
536 Dover Pt. Way NE (Boston Harbor)
Olympia, WA. 98506
360-352-5545

My Concern: Geoduck Farms on residential beaches in front of long time residential homes.

Thurston County Resource Stewardship is asking for input by property owners regarding the new **SMP (Shoreline Master Plan)**. I am a longtime owner on Thurston County salt water beach property.

The SMP PLAN states on the very first page, the need for ,*"habitat for fish and wildlife, economic diversity and recreational opportunities for residents of all ages"* . Further stated, is the need for, "enhancing the quality of life for our County's citizens."

On page 3 of the SMP Document, the statement, *"In order to preclude fragmentation of review and the necessity for individual shoreline permits, a combined shoreline permit is encouraged for proposed activities within the shoreline jurisdiction where feasible."* Weasel words meaning, group or area permitting, *no more individual property permits* required for *farming geoducks on private property*. An overarching permit for a commercial-industrial- industry to cut, dredge, add structures, spread huge predator capturing nets at the same time restricting land owners from cutting foliage, many other activities on the near-shore beach land.

The above statement, on page 3, may have been written by the Industrial Geoduck Farmers who plant, bring in labor crews, dredge, and work in such a way that the whole language of **"no net loss"** to the ecology of the beaches, estuaries, sandy recreational areas, **becomes a farce**. The rhetoric appears to me to be dishonest. You cannot have **"no net loss"** of ecological function when you convert many acres of sandy beach, a nursery for salt water creatures, into a **hard structured plastic/metal** farm covering acres of natural estuarine shore.

I understand that the local rural/urban environment is in a state of flux, (growth, more traffic, more homes). Rule on development in all areas of the shorelines are necessary. Setbacks, drainage, protections are necessary to protect our unique natural environment.

The issue I raise is a different issue. There has been an on-going effort since April 2006 by shoreline homeowners on Zangle Cove (Boston Harbor) to inform County Officials of our concern. WE have a unique shore property laws in Thurston County since individual property ownership may include a beach down to low, low water. The majority of *Beach-side homeowners bought property for view, use of beach, sharing beach, enjoying shellfish, swimming, boating, protecting the ecology of this type of environment* for future generations. We also except the fact that *we are taxed by Thurston County at a higher rate for this environment* than non-shoreline owners for this privilege. Good stewardship by owners protects *ecological function*, which means the same as, *"no net loss"* (your words).

The shellfish industry is a huge industrial Conglomerate, well financed, well lawyered up and eager to purchase, lease and acquire through changes in the laws, as many of these beaches (i.e. our Thurston County SMP, section 600) as they can to lease in order to farm.

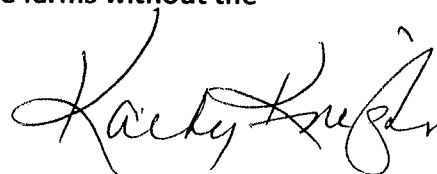
The issue of our beaches being turned into a large seafood-industrial-complex, in effect, Chesapeakeing the South Sound, needs to be more carefully monitored, ***not less***. If you take a closer look, this is not about science, which the rhetoric would like you to believe, but is about politics, money and politics.

This is a very serious concern, one that was not even on the table when the 1991 SMP was put in place. I believe this issue is not taken seriously by Thurston County. The reluctance of the County to include the all Shoreline Stakeholders at the table at this time could result in "net loss" to beaches that are still undeveloped and will need for thousands of dollars in future to clean up the mess and degradation of beaches.

If the "net loss" of beaches continues, the character of our South Sound will change and it will be harder for recreation, boaters, beach-walkers, children to know a salt water estuary with native creatures as something they must help protect for future.

Therefore, back to page 1, paragraph 4 and the reference to ***"a combined shoreline permit is encouraged for proposed activities within the shoreline jurisdiction"***. I understand this to state that Thurston County would proposed to offer a *"blanket permit"* for farming in an area and the adjacent homeowners (shoreline owners) could in future be faced with fragmented and collective farms without the requirement for individual farm permit or any County or State oversight.

Cc: Chairman of Thurston County Planning Commission



Draft of Shoreline management.

What was wrong with original?

It used gobbledygook language. Its was so imprecise it was not enforced the courts, and attorneys could not find an enforceable paragraph. If it was to be understood one had to read all 200 pages. And that continued to repeated itself over and over, without identifying the critical deferences for designations like conservancy and rural.

No one ever created supporting interpretation (white paper) because none could be agreed upon.

I asked three deferent people and got three different answers.

What is a structure? Does it include a hedge row of bushes? The California courts sent that to appeals to establish the standard because the rules did not.

Why? There is no Quality Control in place to determine if the County is obtaining its objectives. Just employees dismissing people like me who are telling them it is not working.

There is no measurement of success. No stated tolerance for risk that it is not achieved. Just platitudes.

The only enforcement power you really have is at the permitting process, and you abuse the citizen with extraordinary cost and capricious demands. The real affect is to exclude the average person and only allows the very rich access.

You have no effective level of enforcement after the fact.

And what are you doing? Replacing it with all the same problems, expecting a different result. Stupid.

Here is how I would write it. I will use only one problem as an example.

Our biggest problem is shit. This has been the biggest problem of humans for all history and before. It is measured by fecal count, but it can be measured other ways. Our stated goal is to make the Sound be no worse than it is now.

Given that, our biggest problem is population growth, more people shitting. The population doubled in the last 40 years and we think it will do so in the next 30. We have a worsening problem, not static.

We having inherent conflicting objectives. We could exclude humans from the shoreline but we chose to make it more accessible, and that means more shit.

So, we have chosen to be very adaptive. And that included implementation of technology; that will be in the future. Things that do not exist at the time of this writing. So we have chosen to be early adopters. We are not the inventors, so we have to entice invention. Anyone who presents a treatment method that is 20% better than the existing standard will be adopted that year. Any system that is proven to be so cost effective that it has a seven year pay back will be required for obsolete systems at the time it is sold.

Change bears risk that it will not work as expected. We will not force that risk on owners. The first 10 owners subject to the change will be called proof on concept owners. If it fails to work

as expected they will be reimbursed in full. We will fund this in a reserve, 60% by us (all taxpayers) and 40% by the inventor/manufacturer. Any other sharing will slow down the pace of adaption.

How do we know if we are accomplishing the goals laid out in this document? We have selected three key performance indicators. If those are not effective we will change them, but not reject the concept. We hold ourselves responsible for achieving them, even as the process holds individual owners responsible performing specific tasks. We understand the difference that owners' performance may be proper and yet not achieve the over all objective which we are responsible for. We have selected one of the three performance measures to be contrary, if the other two improve the other inherently declines; in order to achieve balance.

Example, regulation and its cost goes up exponentially, for a diminishing return. Thus It excludes the common person, and becomes exclusionary. This is commonly called the cost benefit ratio and will be a factor for reporting our effective accomplishments.

We will not solely self evaluate. We will setup a system of Quality Control, and chose a tolerable risk that what we attempt to achieve, will not be achieved. This will create a meaningful basis for the public to determine the level of funding, and adaptive change for the law itself, the government enforcement, and the methods of enforcement.

Here are the specifics of that:

COMMENTS:

Receiving a Draft version of the ~~first~~ whole
~~chapter~~ sooner than later can help
to alleviate concerns over how & what
will be amended.

Polly Stoker

From: Patrick Townsend <patrick.townsend@townsendsecurity.com>
Sent: Thursday, February 22, 2018 9:27 AM
To: Brad Murphy; PlanningCommission
Cc: Doug Karman; Kathryn Townsend; Cynthia Wilson
Subject: Comments for Regulatory Group (please confirm receipt)
Attachments: 20171012_Townsend_Comments_ThursCnty_SMP_Update_Chapt_19.100.pdf; 20171012_Townsend_Comments_ThursCnty_SMP_Update_Chapt_19.200.pdf; 20180125_Townsend_Comments_Def_Shorelines_Statewide_Significance_Discrepancy_With_RCW.pdf; 20180130_Townsend_Comments_ThursCnty_SMP_Shoreline_Designations.pdf; 20180130_Townsend_Vanek_Comments_ThursCnty_SMP_Update_Chapt_19.300.pdf; 20180210_Townsend_Comments_ThursCnty_SMP_Update_Chapt_19.300_PlasticCupDisaster.pdf; 20180222_Townsend_Comments_ThursCnty_SMP_Update_No-Net-Loss_Does_Not_Work.pdf

Dear Brad,

Please find attached comments on section 300 for the next Regulatory Group meeting. I am also including comments for sections 100 and 200 as these have not yet been reviewed by the Regulatory Group.

Although we have not yet had access to the appendix on No Net Loss, it is relevant to sections 100 through 300, and subsequent sections. Related to that subject I am attaching our comments on No Net Loss along with a paper on the failure of the effectiveness of No Net Loss.

"Why bartering biodiversity fails"

Susan Walker, Ann L. Brower, R.T. Theo Stephens, & William G. Lee

Please confirm receipt of this email and attachments.

Patrick Townsend
Protect Zangle Cove

List of attachments:

Section 100

- 1) 20171012_Townsend_Comments_ThursCnty_SMP_Update_Chapt_19.100.pdf
- 2) 20180125_Townsend_Comments_Def_Shorelines_Statewide_Significance_Discrepancy_With_RCW.pdf

Section 200

- 3) 20171012_Townsend_Comments_ThursCnty_SMP_Update_Chapt_19.200.pdf

Sections 200 and 300

4) 20180130_Townsend_Comments_ThursCnty_SMP_Shoreline_Designations.pdf

Section 300

5) 20180130_Townsend_Vanek_Comments_ThursCnty_SMP_Update_Chapt_19.300.pdf

6) 20180210_Townsend_Comments_ThursCnty_SMP_Update_Chapt_19.300_PlasticCupDisaster.pdf

No net loss

7) 20180210_Townsend_Comments_ThursCnty_SMP_Update_No-Net-Loss_Does_Not_Work.pdf

Patrick and Kathryn Townsend
7700 Earling Street NE
Olympia, WA 98506

February 10, 2018

Michael Kain, Thurston County Planning Manager
Brad Murphy, Thurston County Senior Planner
Thurston County Planning Commission
2000 Lakeridge Drive, WA
Olympia, WA 98506

Subject: 19.300.130 SH-31 Policy Allowing Unproven/Unprecedented Aquaculture Methods Should be Stricken from the Thurston County SMP Update

Dear Mr. Kain, Mr. Murphy and Planning Commissioners,

During the discussion at the Thurston County SMP Stakeholders meeting on January 30, 2018, questions were raised regarding SMP Chapter 19.300 topics under Shoreline Uses. Specifically, we questioned the following policy:

Policy 19.300.130 SH-31

Potential locations for aquaculture activities are relatively restricted by water quality, temperature, dissolved oxygen content, currents, adjacent land use, wind protection, commercial navigation, and salinity. The technology associated with some forms of aquaculture is still experimental and in formative states. Therefore, some latitude should be given when implementing the regulations of this section, provided that potential impacts on existing uses and shoreline ecological functions and processes should be given due consideration. However, experimental aquaculture projects in water bodies should include conditions for adaptive management. Experimental aquaculture means an aquaculture activity that uses methods or technologies that are unprecedented or unproven in Washington.

This policy gives carte blanche to the shellfish industry to use unproven and unregulated methods on the sensitive tidelands of Puget Sound. It is both stunning and inexplicable that the County should not only allow but promote the industrialization of our tidelands while placing so many restrictions on other entities and individuals. The policy should be stricken in its entirety from the SMP Update for Thurston County.

Just as the lack of foresight related to net pen farming in Puget Sound resulted in disaster, the concept of pre-approved experimentation with unprecedented and unapproved technologies in Washington State waters is a recipe for disaster.

To support our contention at the meeting that this policy is neither appropriate nor intelligent we cited the example of the 2013-2016 Seattle Shellfish use of "experimental" plastic cups as wildlife exclusion devices on a geoduck operation on the tidelands adjacent to Tolmie State Park on Nisqually Reach.

Protect Zangle Cove was contacted in April of 2016 by a concerned citizen who lives near Tolmie Park. After visiting the site and collecting shards of plastic, we contacted Thurston County Public Health and Social Services Department with photo documentation of this "experimental" practice by Seattle

Patrick and Kathryn Townsend, January 25, 2017

Shellfish. (See attached letters). Bags of plastic shards had been collected by local citizens and by the Tolmie Park Ranger. According to the attached email from the Ranger, this went on for more than two years. A representative from Thurston County Public Health went out to view the tideland to confirm the issue.

Rachel Brooks, our contact at the Thurston County Health and Social Services Department sent correspondence to Chuck Mathews (cmat461@ECY.WA.GOV) at the Department of Ecology stating:

"I contacted Ranger Ross (Tolmie State Park) who stated that this waste has been washing up consistently for about two years, and he tries to remove it as much as possible. When he is unable to pick it up, visitors tend to pick it up and leave large bags of it for him to dispose."

We also learned that ours was not the first complaint about this issue. It was reported by the Coalition to Protect Puget Sound Habitat in 2013 as documented in one of the attached letters. We believe this is an example of the serious problems that will occur if the shellfish industry is given express permission in Thurston County Code to "experiment." This policy does not belong in the SMP update.

There was no acknowledgement of this issue from Mr. Murphy during the January 30, 2018 stakeholder meeting when the topic was brought up, even though Mr. Murphy had been copied on all information provided to Thurston County on this matter in 2016. Neither was there acknowledgment from Mr. Tris Carlson, who is a shellfish industry spokesperson and who is a member of the Regulatory Committee. We know that Mr. Carlson claims he is not representing the industry, but in fact, on his Linked-In account he is listed as working for Seattle Shellfish.

Mr. Carlson did remark at the meeting that the ACOE does an excellent job of monitoring shellfish aquaculture installations. Based on the 2-3 year fiasco with the Seattle Shellfish operation adjacent to Tolmie Park, this is wishful thinking at best. It is our understanding from communication with personnel at the ACOE that they don't monitor geoduck operations at all. However, if there is written documentation of monitoring during the last 10 years with dates, specific sites monitored and personnel, please provide that to us. Based on statements made during our conversation with County Staff at the end of the January 30, 2018 stakeholder meeting, Thurston County does not go out to a shellfish operation site unless there is a reported incident. "Monitoring" is entirely different from "incident response."

We respectfully request that Policy SH 31 allowing unregulated experimentation by the shellfish industry be stricken from the SMP update. It is obvious that the County and the ACOE have no means of obtaining knowledge of such "experimentation" much less means of oversight. It is also obvious from the example above that the shellfish industry does not regulate itself.

As we suggested in our Comments on Chapter 19.300 and in conversation with staff, it would make more sense ecologically to follow the lead of the Chinese company in British Columbia that is in the process of creating an upland facility to grow geoducks and other shellfish.
<http://vancouverun.com/business/local-business/chinese-firm-to-open-massive-land-based-shellfish-hatchery-on-sunshine-coast>

Sincerely,

Patrick and Kathryn Townsend

Patrick and Kathryn Townsend, January 25, 2017

Cc: Cindy Wilson, Thurston County Planning Director
Jeremy Davis, Thurston County Senior Planner
Phyllis Farrell, South Sound Sierra Club

Attachments regarding this specific issue:

2016 Townsend Letters to Thurston County Public Health and Response

2016 Public Records Request of Email Correspondence with Thurston County



Protect Zangle Cove

Post Office Box 1786
Olympia, WA 98507
Email: protectzanglecove@gmail.com
Web: <http://protectzanglecove.org>

In coalition with:
Coalition to Protect Puget Sound Habitat
APHETI
Washington Sierra Club - Aquaculture
Friends of Anderson Island Shoreline
Friends of Burley Lagoon
Case Inlet Shoreline Association
Citizens of Harstine Island and Shine Beach

April 8, 2016

Rachel Brooks
Thurston County Health Department
412 Lilly Rd. NE
Olympia, WA 98506-5132

Subject: Plastics found on Tolmie Park and adjacent beaches from Jim Gibbons Geoduck Farm on Sandy Point.

Dear Rachel,

This is a follow-up to our conversation of March 21, 2016 regarding the plastics found at Tolmie Park Beach. On Sunday, March 27, 2016, my wife, Kathryn, and I visited the Sandy Point tideland area just to the north of Tolmie Park where there is a large area of commercial geoduck aquaculture with PVC tubes, individual netting on the tubes and large canopy netting over tube areas and also over non-tube areas. This farm is owned by Jim Gibbons of Seattle Shellfish.

According to a neighbor, Mr. Gibbons confirmed his use of the plastic cups on the farm. Based on public concern about the plastics on the beach, Mr. Gibbons's personnel have been removing plastics from the beach. Our walk on Sunday at a .9 tidal elevation, clearly revealed the geoduck farm with extensive use of PVC pipe, but we did not find the source of the plastic cup pollution. Because the extensive plastic litter was reported to the Ranger at Tolmie Park, it may be that all that type of plastic has since been removed. However, we did find shards of the plastic cups on the beach on the landward side of the farm.¹ On a previous visit to Tolmie Park after the clean-up had supposedly taken place, we collected a bag of these plastic shards from the Tolmie Beach.²

This type of plastic, according to our research, does not easily biodegrade³ as was initially asserted by Mr. Gibbons. According to a recent article, "...corn PLA, made mainly by Minnesota-based Natureworks, composts only in high-temperature commercial composting systems, not backyards. It's difficult to distinguish from regular plastics in the recycling mix. And a small amount can foul recycling of conventional plastic..."⁴

There is no way of knowing how many shards of plastic escaped into Puget Sound prior to the cleanup or how much remains under water or buried in the top layer of the sand. The amount found on the beach at Tolmie Park prior to the cleanup was extensive. After the cleanup, we still collected a bag full of this plastic cup debris. The plastic cups appear to be extremely brittle, break apart easily and the pieces lodge in the sand. We did not find any whole cups but rather halves and smaller pieces. It may be that Mr. Gibbons is using these plastic cups on a lower tidal elevation that was not visible on March 28, 2016. We will return to the area when we have a much lower tide. We will let you know what we find after that visit.

Additionally, we found shards of PVC pipe and evidence that the PVC pipe being used is subject to corrosion--there were pipe edges that were disintegrating.⁵ We believe these types of PVC are simply drain pipe and not rated for marine use.

¹ Attachment A: Photos of shards of plastics and PVC on the beach at Tolmie Park and Sandy Point Beach

² Ibid.

³ <http://www.calrecycle.ca.gov/publications/Documents/1435%5C20121435.pdf>

⁴ http://www.oregonlive.com/environment/index.ssf/2008/10/pla_corn_plastic_problems.html

⁵ Attachment A: Photos of shards of Plastics and PVC on the beach at Tolmie Park and Sandy Point Beach

We would appreciate information on Thurston County regulations related to the use of plastics, both PVC and plastic cups, in the Puget Sound marine environment. Additionally we request information about how activities using plastics that can escape and break down or disintegrate into small shards are regulated or monitored and whether or not it is actually allowed. For example, have there been any directives to the shellfish aquaculture industry regarding these materials and are there penalties for use of materials that break up on the tideland.

The activity described in this letter has been reported to the Coast Guard and was given the following number in the 2016 spill report database: 1142446.⁶ We were shocked to find that local, state and national authorities claimed they had no responsibility for oversight of this issue. Therefore, we very much appreciate your attention to this matter, as it goes against everything we are told by authorities about the importance of the restoration of Puget Sound

We request that the Thurston County Department of Health require that at the termination of the current lease of the Seattle Shellfish commercial geoduck farm on Sandy Point Beach, no new permit is granted without a full and complete environmental impact study regarding plastics and PVC in the marine environment.

Sincerely,

Patrick and Kathryn Townsend
Protect Zangle Cove

Cc:

Jessica Jensen, Attorney at Law
Cindy Wilson, Thurston County Planning Director
Jeremy Davis, Thurston County Senior Planner
Brad Murphy, Thurston County Senior Planner
Robert Smith, Thurston County Senior Planner
Michael Kain, Thurston County Planning Manager
Scott McCormick, Thurston County Associate Planner
Cathy Wolfe, Thurston County Commissioner
Bud Blake, Thurston County Commissioner
Sandra Romero, Thurston County Commissioner
Maia Bellon, Director, Department of Ecology
Sally Toteff, Southwest Regional Manager, Department of Ecology
Pamela Sanguinetti, Army Corps of Engineers, Seattle Regional Office
Puget Sound Partnership
South Sound Estuary Association
Audubon Society
Sierra Club

⁶ <http://www.nrc.uscg.mil/>

ATTACHMENT A: Protect Zangle Cove photos of Seattle Shellfish plastic debris on Sandy Pt. Beach and Tolmie Park

Plastics from the Jim Gibbons, Seattle Shellfish, Sandy Point Beach commercial geoduck farm found on the Tolmie Park Beach, February 20, 2016. We have many additional photos of the pastics in situ. These were collected after the "clean-up" of the beach by Seattle Shellfish personnel. Clean up occurred as a result of a letter to the editor by a neighbor. Prior to this, beach walkers were collecting bags of plastic debris.



The above plastics were found Tolmie Park Beach 2/20/16 after "cleanup."



2/20/16 Tolmie Park Beach, plastic shard from Gibbons geoduck farm

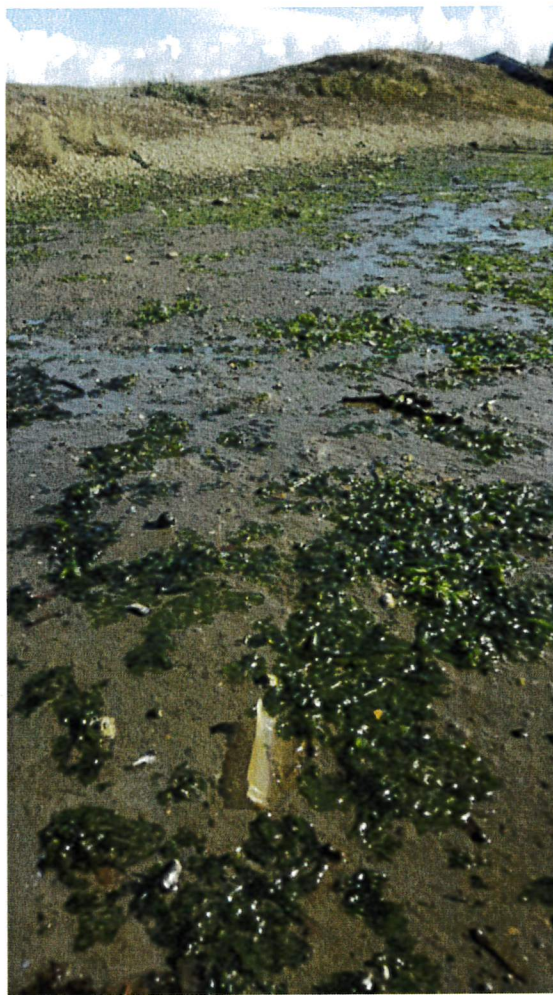
ATTACHMENT A: Protect Zangle Cove photos of Seattle Shellfish plastic debris on Sandy Pt. Beach and Tolmie Park



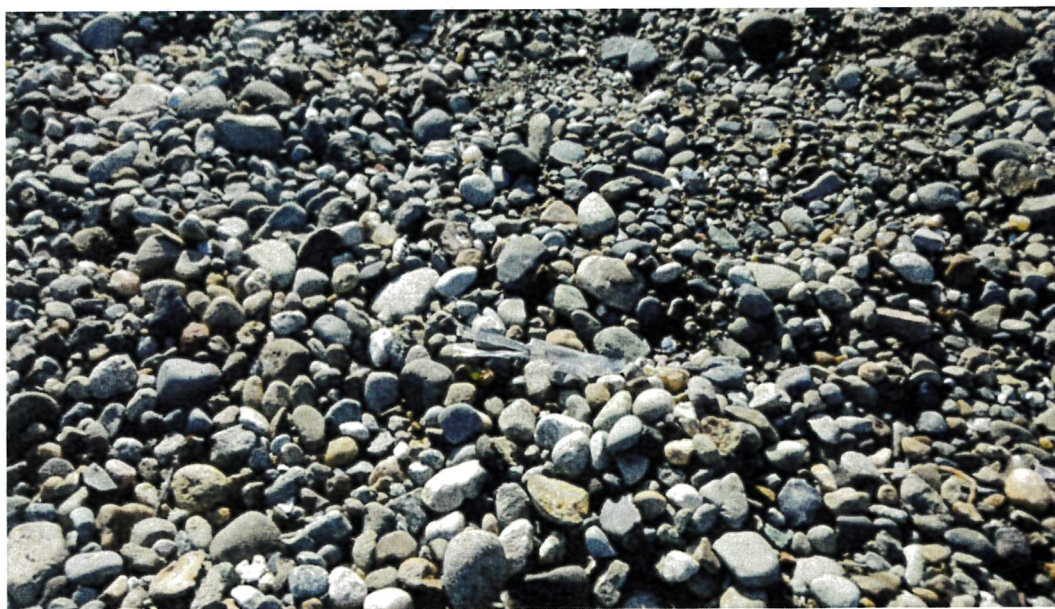
2/20/16 Tolmie Park Beach, plastic shard from Gibbons geoduck farm



2/20/16 Tolmie Park Beach, plastic shard from Gibbons geoduck farm



2/20/16 Tolmie Park Beach, plastic shards from Gibbons geoduck farm



2/20/16 Tolmie Park Beach, plastic shard from Gibbons geoduck farm

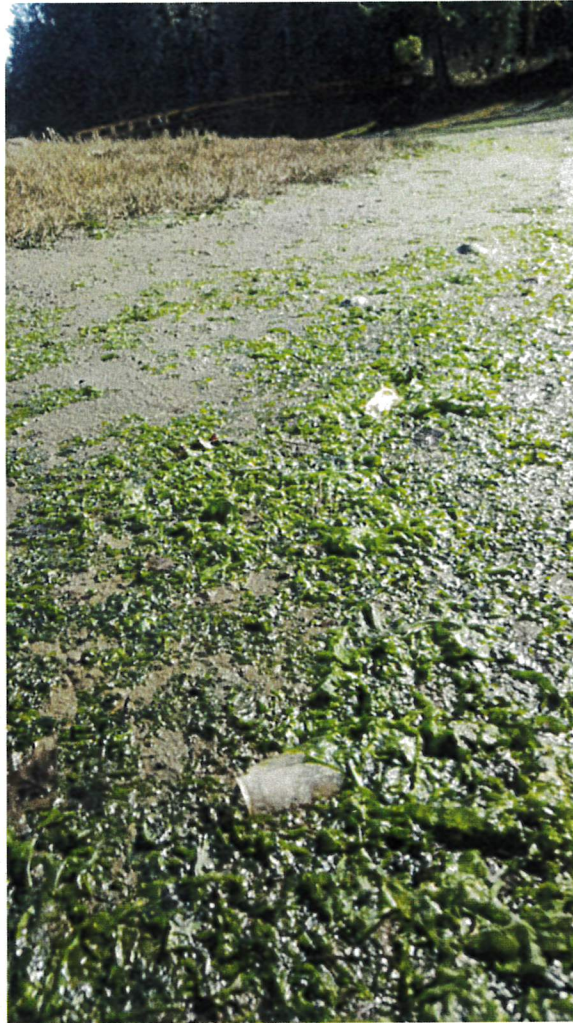
ATTACHMENT A: Protect Zangle Cove photos of Seattle Shellfish plastic debris on Sandy Pt. Beach and Tolmie Park



2/20/16 Tolmie Park Beach, plastic shards from Gibbons geoduck farm



2/20/16 Tolmie Park Beach, plastic shards from Gibbons geoduck farm



2/20/16 Tolmie Park Beach, plastic shards from Gibbons geoduck farm



2/20/16 Tolmie Park Beach, plastic shards from Gibbons geoduck farm



2/20/16 Tolmie Park Beach, plastic shards from Gibbons geoduck farm

ATTACHMENT A: Protect Zangle Cove photos of Seattle Shellfish plastic debris on Sandy Pt. Beach and Tolmie Park

3/27/16 Photos of Jim Gibbon's geoduck farm.



3/27/16 Partial photo of Jim Gibbons, Seattle Shellfish, commercial geoduck farm on the Sandy Point beach tideland



3/27/16 Jim Gibbons geoduck farm on Sandy Point Beach at +.9 tidal elevation. On the left, PVC tubes are covered by nets. It is unclear why the section on the right is also covered by a large canopy net.



3/27/16 Jim Gibbons geoduck farm on Sandy Point Beach at +.9 tidal elevation. On the left, PVC tubes are covered by nets. It is unclear why the section on the right is also covered by a large canopy net.



3/27/16 Jim Gibbons geoduck farm on Sandy Point Beach at +.9 tidal elevation. It is unclear why this section on is covered by a large canopy net.



3/27/16 Jim Gibbons geoduck farm on Sandy Point Beach at +.9 tidal elevation—plastic cup shard



3/27/16 Jim Gibbons geoduck farm on Sandy Point Beach at +.9 tidal elevation—plastic cup shard



3/27/16 Jim Gibbons geoduck farm on Sandy Point Beach at +.9 tidal elevation—broken rebar



3/27/16 Jim Gibbons geoduck farm on Sandy Point Beach at +.9 tidal elevation—plastic cup shard



3/27/16 Jim Gibbons geoduck farm on Sandy Point Beach at +.9 tidal elevation—PVC pipe shard



3/27/16 Jim Gibbons geoduck farm on Sandy Point Beach at +.9 tidal elevation—PVC pipe shard



3/27/16 Jim Gibbons geoduck farm on Sandy Point Beach at +.9 tidal elevation—plastic cup shard



3/27/16 Jim Gibbons geoduck farm on Sandy Point Beach at +.9 tidal elevation—plastic cup shard



3/27/16 Jim Gibbons geoduck farm on Sandy Point Beach at +.9 tidal elevation—disintegrating PVC pipe.



3/27/16 Jim Gibbons geoduck farm on Sandy Point Beach at +.9 tidal elevation—disintegrating PVC pipe

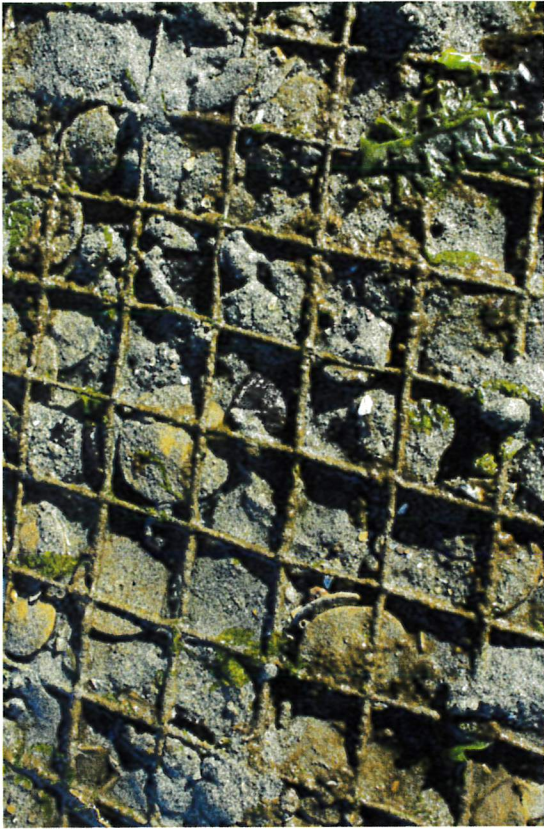
ATTACHMENT A: Protect Zangle Cove photos of Seattle Shellfish plastic debris on Sandy Pt. Beach and Tolmie Park



3/27/16 Jim Gibbons geoduck farm on Sandy Point Beach at +.9 tidal elevation—mesh tops gone missing.



3/27/16 Jim Gibbons geoduck farm on Sandy Point Beach at +.9 tidal elevation—PVC shard and rubber band that holds plastic mesh top on PVC tube



3/27/16 Jim Gibbons geoduck farm on Sandy Point Beach at +.9 tidal elevation
—large canopy net covering sand dollars.

ATTACHMENT A: Protect Zangle Cove photos of Seattle Shellfish plastic debris on Sandy Pt. Beach and Tolmie Park



3/27/16 Jim Gibbons geoduck farm on Sandy Point Beach. These items were found landward of the farm on the beach and include a rubber band, plastic cup shards and fragments of PVC plastics (the 3 items at the bottom).



COUNTY COMMISSIONERS

Cathy Wolfe
District One

Sandra Romero
District Two

Bud Blake
District Three

**PUBLIC HEALTH AND
SOCIAL SERVICES DEPARTMENT**

Tom Stuebner, MSPH
Director

Rachel C. Wood, MD, MPH
Health Officer

April 19, 2016

Patrick & Kathryn Townsend
PO Box 1786
Olympia, WA 98507
protectzanglecove@gmail.com

Dear Patrick & Kathryn,

The Thurston County Public Health & Social Services' Solid and Hazardous Waste Section communicated with the Washington State Department of Health (Shellfish Program – Laura Johnson), the Washington State Department of Ecology (Waste 2 Resources – Chuck Matthews & Wetland Program – Perry Lund), Tolmie State Park (Ranger, Ross), and Seattle Shellfish (Jim Gibbons, owner) to review your complaint.

It was concluded that both Article V of the Thurston County Sanitary Code (Section 6.1 & 6.2) and state regulations (including RCW 70.95.240(1)) could apply to the plastic cup waste identified in this complaint. Specifically, the Thurston County Ordinance requires the proper disposal of solid waste and therefore asks that businesses use materials that are durable enough to remain whole throughout their intended use in the environment. In addition, materials being used should be actively monitored so broken or unsecured parts can be efficiently removed.

Thurston County understands that aquaculture must evolve in order to meet both their needs and the requests of the public. Therefore new practices may be tried and then discarded, while other new practices may become standard practice. Seattle Shellfish stated that the corn-based cups were used in an attempt to identify alternatives to the traditional PVC piping predator rings that have raised public concern in the past. However, these cups were not as durable as needed and degraded while in use. Seattle Shellfish has confirmed in writing that they have stopped installing these plastic cups and are actively monitoring and removing the degraded cups both on their land and on the neighboring state park (Tolmie).

As Seattle Shellfish has confirmed that they have changed their practices and are also monitoring and properly disposing of any associated wastes, Thurston County is satisfied with their response. If you have any more questions or concerns, please feel free to contact me.

PUBLIC HEALTH AND
SOCIAL SERVICES DEPARTMENT

Respectfully,



Rachel Brooks
Environmental Health Specialist
Solid & Hazardous Waste Section
360-867-2584
brooksr@co.thurston.wa.us

CC: Laura Johnson, DOH, Laura.Johnson@doh.wa.gov
Chuck Matthews, DOE, cmat461@ECY.WA.GOV
Perry Lund, DOE, perry.lund@ecy.wa.gov
Tolmie State Park, Ranger, 7730 61st Ave. N.E. Olympia, WA 98506 (first class)
Jim Gibbons, Seattle Shellfish, jlgibbons@seattleshellfish.com
Art Starry, Thurston County Environmental Health, starrya@co.thurston.wa.us



Protect Zangle Cove

Post Office Box 1786
Olympia, WA 98507
Email: protectzanglecove@gmail.com
Web: <http://protectzanglecove.org>

In coalition with:
Coalition to Protect Puget Sound Habitat
APHETI
Washington Sierra Club - Aquaculture
Friends of Anderson Island Shoreline
Friends of Burley Lagoon
Case Inlet Shoreline Association
Citizens of Harstine Island and Shine Beach

May 4, 2016

Rachel Brooks
Thurston County Health Department
412 Lilly Rd. NE
Olympia, WA 98506-5132

Subject: Plastics found on Tolmie Park and adjacent beaches from Jim Gibbons Geoduck Farm on Sandy Point.

Dear Rachel,

Thank you for your continued attention to the issue of broken and splintered plastic cups from the Seattle Shellfish commercial geoduck farm on Sandy Point beach.

We have learned that the issue with the plastic cups used by Mr. Gibbons on his commercial geoduck farm, adjacent to Tolmie State Park, is not a new issue. Photos were taken of these plastics on 5/26/13.¹ These photos were included in a PowerPoint presentation to Thurston County from the Coalition to Protect Puget Sound Habitat.² We have not yet been able to ascertain the specific date the PowerPoint was sent to Thurston County, but clearly the information was sent to the County some time ago. We believe from our conversations with residents of the Tolmie Park area and the Ranger at Tolmie Park, that this use of plastics has been going on for a long time.

Thank you also for your description of the pertinent code that this activity is governed by: Article V of Thurston County Sanitary Code (Section 6.1 and 6.2) and state regulations including RCW 70.95.240(1).

We very much appreciate the attention of the Thurston County Health Department on this matter. Citizens who live on the shoreline and recreational users of the State Parks, such as Tolmie State Park, care enormously about the health of Puget Sound tidelands and all the critters who call these tidelands home.

Sincerely,

Patrick and Kathryn Townsend
Protect Zangle Cove

Cc:
Jessica Jensen, Attorney at Law
Cindy Wilson, Thurston County Planning Director
Jeremy Davis, Thurston County Senior Planner
Brad Murphy, Thurston County Senior Planner
Robert Smith, Thurston County Senior Planner
Michael Kain, Thurston County Planning Manager
Scott McCormick, Thurston County Associate Planner
Cathy Wolfe, Thurston County Commissioner

¹ Attachment A: Photos of plastic cups in place on the Gibbons commercial geoduck farm on Sandy Point Beach

² Attachment B: Coalition to Protect Puget Sound Habitat PowerPoint
http://protectzanglecove.org/assets/20150228_Coalition_To_Protect_Puget_Sound_Habitat_PowerPoint.pdf

Protect Zangle Cove, Letter to Rachel Brooks, Thurston County Health Department, May 4, 2016

Bud Blake, Thurston County Commissioner
Sandra Romero, Thurston County Commissioner
Maia Bellon, Director, Department of Ecology
Sally Toteff, Southwest Regional Manager, Department of Ecology
Pamela Sanguinetti, Army Corps of Engineers, Seattle Regional Office
Puget Sound Partnership
South Sound Estuary Association
Audubon Society
Sierra Club

ATTACHMENT A: Protect Zangle Cove -- Photos from 5/26/13 of Plastic Cups at Sandy Point Beach

In our previous letters we supplied the Thurston County Health Department with many photos of the broken plastic cups and PVC debris from the Seattle Shellfish geoduck farm on Nisqually Reach. The photos were taken in February-April of 2016. Subsequently it came to our attention that previous attempts to alert Thurston County of this problem were made by members of the Coalition to Protect Puget Sound Habitat some time ago. In this current document we submit photos taken by that organization on May 26, 2013.

The plastic cup debris comes from an extensive commercial geoduck farm owned by Jim Gibbons, at Sandy Point Beach, just north of Tolmie State Park on the Nisqually Reach. The 5/26/13 photos were submitted with a Powerpoint to Thurston County, but no action was taken until the letter to the editor of the Olympian at the beginning of 2016 about the broken plastics from the Gibbons farm covering the beaches.

Beach walkers at Tolmie Park have been picking up this debris for 2-3 years and leaving bags of it with the ranger at the park. It was only the letter to the editor of the Olympian and the subsequent tracking down of authority over this issue that caused Mr. Gibbons to make the effort to remedy the situation. We recommend the installation of a hot line for citizens to report these types of activities. It was not easy to find anyone in State or County government who was willing to take responsibility. We commend the Thurston County Health Department for dealing with it.

Use of plastic cups on commercial geoduck farm – Sandy Point Beach



5/26/13 Plastic cups used as geoduck incubators on the Seattle Shellfish commercial geoduck farm on the Sandy Point Beach.

ATTACHMENT A: Protect Zangle Cove -- Photos from 5/26/13 of Plastic Cups at Sandy Point Beach



5/26/13 Plastic cups loose on the beach from the Jim Gibbons commercial geoduck farm, Sandy Point Beach.



5/26/13 Plastic cups found loose on the beach from the Jim Gibbons commercial geoduck farm.

Rachel Brooks

From: Patrick Townsend <patrick.townsend@townsendsecurity.com>
Sent: Friday, April 08, 2016 9:58 AM
To: Rachel Brooks
Subject: Re: Plastic pollution

That's great, I'll see you at 1pm.
Patrick

Patrick Townsend
CEO

On Fri, Apr 8, 2016 at 8:54 AM, Rachel Brooks <brooksr@co.thurston.wa.us> wrote:

Hi Patrick –

Yes, that sounds good. Let me know what time you will be here, and I will make sure I am in the office. You can ask for me at the front desk and we can chat.

Rachel

RACHEL BROOKS | ENVIRONMENTAL HEALTH SPECIALIST 1

Thurston County Public Health and Social Services Department

412 Lilly Road NE, Olympia, WA 98506 www.co.thurston.wa.us/health/ehadm

brooksr@co.thurston.wa.us 360-867-2584

From: Patrick Townsend [mailto:patrick.townsend@townsendsecurity.com]
Sent: Friday, April 08, 2016 8:50 AM
To: Rachel Brooks <brooksr@co.thurston.wa.us>
Subject: Re: Plastic pollution

Hi Rachel,

I have the source information for the plastic pollution and some samples to give you. Would it be possible to bring these by your office today at 12pm or 1pm?

Patrick

Patrick Townsend
CEO

On Tue, Mar 22, 2016 at 7:58 AM, Rachel Brooks <brooksr@co.thurston.wa.us> wrote:

Thank you Patrick – I look forward to assisting. Remember that without a clear source, our enforcement options are very limited.

Best, Rachel

RACHEL BROOKS | ENVIRONMENTAL HEALTH SPECIALIST 1

Thurston County Public Health and Social Services Department

412 Lilly Road NE, Olympia, WA 98506 www.co.thurston.wa.us/health/ehadm

brooksr@co.thurston.wa.us 360-867-2584

From: Patrick Townsend [mailto:patrick.townsend@townsendsecurity.com]

Sent: Monday, March 21, 2016 10:13 AM

To: Rachel Brooks <brooksr@co.thurston.wa.us>

Cc: Kathryn Townsend <kath.townsend@gmail.com>

Subject: Plastic pollution

Hi Rachel,

My wife Kathryn talked to a friend who lives near Tolmie State Park. We are going over there this next weekend when there is a low tide. I should be able to provide you with pictures and samples of the plastic after we go over. Thanks for your help on the phone!

Patrick

Patrick Townsend
CEO

Rachel Brooks

From: Johnson, Laura W (DOH) <Laura.Johnson@DOH.WA.GOV>
Sent: Monday, April 11, 2016 11:01 AM
To: Rachel Brooks
Subject: RE: Unknown Plastic

Thanks Rachel, I spoke briefly with Jim Gibbons at Seattle Shellfish this morning and gave him your contact info. Hopefully the issue can be resolved and please let me know if there is anything else we can do.
Best, Laura

From: Rachel Brooks [mailto:brooks@co.thurston.wa.us]
Sent: Monday, April 11, 2016 7:47 AM
To: Johnson, Laura W (DOH) <Laura.Johnson@DOH.WA.GOV>
Subject: RE: Unknown Plastic

Thank you Laura,

I talked to the Tolmie State Park Ranger, and he said the clear plastic cups with punched holes have been washing up on the beach for about two years. It is an on-going problem as they wash ashore almost continuously. He says when he doesn't have a chance to pick them up, visitors of the park will do it and leave bags full of it for him to dispose of.

That gives me a good timeframe, but still no clear source. I'll be interested to hear what you find out. If there are no clear leads, I will try to schedule a sit visit with Seattle Shellfish and walk Tolmie beach to see if I can get any more information.

I am out in the field for the next three days, but will be checking my email/voicemail in the morning and before leaving.

Best, Rachel

RACHEL BROOKS | ENVIRONMENTAL HEALTH SPECIALIST 1
Thurston County Public Health and Social Services Department
412 Lilly Road NE, Olympia, WA 98506 www.co.thurston.wa.us/health/ehadm
brooks@co.thurston.wa.us 360-867-2584

From: Johnson, Laura W (DOH) [mailto:Laura.Johnson@DOH.WA.GOV]
Sent: Friday, April 08, 2016 2:35 PM

To: Rachel Brooks <brooksr@co.thurston.wa.us>
Subject: RE: Unknown Plastic

Hi Rachel,

Thanks for sending the pictures and the letter. I haven't heard of farms using plastic cups for aquaculture, but from the photos it does look like plastic cups with the bottoms cut off. The PVC tubes and netting are commonly used for geoduck aquaculture while the clams are small. When the clams get bigger and are less subject to predation they remove the tubes and netting. Nearly all of the parcels with shellfish harvest north of Tolmie State Park are certified to Seattle Shellfish for harvest. I can check in with their shellfish inspector on Monday to see if she is aware of using plastic cups on the farm.

Our external map doesn't show who is operating on the parcel, but this still may be a useful map for you to bookmark: <https://fortress.wa.gov/doh/eh/maps/OSWPViewer/index.html>. It shows the shellfish growing areas, our water quality sampling stations, parcels, and where active harvest sites are located (among other things). You can show more/less data using the check boxes in the "more data" tab at the top right-hand side of the map.

I'll let you know what I find out.

Best, Laura

Laura Wigand Johnson
Manager, Shellfish Licensing and Certification Section
Office of Environmental Health and Safety
Division of Environmental Public Health
Washington State Department of Health
PO Box 47824
Olympia, WA 98504-7824
Laura.Johnson@doh.wa.gov
360-236-3333

Public Health - Always Working for a Safer and Healthier Washington

From: Rachel Brooks [<mailto:brooksr@co.thurston.wa.us>]
Sent: Friday, April 08, 2016 1:34 PM
To: Johnson, Laura W (DOH) <Laura.Johnson@DOH.WA.GOV>
Subject: Unknown Plastic

Hi Laura,

I took a picture of the plastic I was given and scanned the letter I was provided. I requested that Mr. Townsend send me an electronic version of the letter so the images are clearer than what our scanner can do (I will FWD when I receive it). Let me know what your thoughts are.

Thank you,

Rachel

RACHEL BROOKS | ENVIRONMENTAL HEALTH SPECIALIST 1
Thurston County Public Health and Social Services Department
412 Lilly Road NE, Olympia, WA 98506 www.co.thurston.wa.us/health/ehadm
brooksr@co.thurston.wa.us 360-867-2584

Rachel Brooks

From: Rachel Brooks
Sent: Tuesday, April 12, 2016 7:20 AM
To: 'Kathryn Townsend'
Subject: RE: Protect Zangle Cove Letter re: Aquaculture Plastics on Tolmie Park Beach

Kathryn and Patrick,

Thank you for the electronic copy. I am following up with both the WA State Department of Health who regulates the industry and the industry itself. We will respond formally when enough information is gathered to both summarize our findings and determine our next steps. In the meantime, please feel free to contact me for an update.

Best, Rachel

RACHEL BROOKS | ENVIRONMENTAL HEALTH SPECIALIST 1
Thurston County Public Health and Social Services Department
412 Lilly Road NE, Olympia, WA 98506 www.co.thurston.wa.us/health/ehadm
brooksr@co.thurston.wa.us 360-867-2584

From: Kathryn Townsend [mailto:kath.townsend@gmail.com]
Sent: Monday, April 11, 2016 2:01 PM
To: Rachel Brooks <brooksr@co.thurston.wa.us>
Subject: Protect Zangle Cove Letter re: Aquaculture Plastics on Tolmie Park Beach

Dear Rachel,

Thank you for your attention to the issue of the aquaculture plastics found on the beach at and adjacent to Tolme State Park in Thurston County. We have attached a pdf copy of the letter delivered to your office on April 8, 2016. The letter includes photo documentation of the plastics.

Sincerely,
Kathryn and Patrick Townsend
Protect Zangle Cove

Rachel Brooks

From: Rachel Brooks
Sent: Thursday, April 14, 2016 9:16 AM
To: 'cmat461@ECY.WA.GOV'
Subject: Plastic Waste from Commercial Shellfish Complaint
Attachments: 20160408_PZC_LtrToThurstonCountyHealth_wAttach.pdf

Hi Chuck:

Here is a brief summary of what we discussed on the phone:

- I received this complaint both on the phone and then in the attached letter after I requested more information. I also was provided with a sample of the plastic.
- I contacted Ranger Ross (Tolmie State Park) who stated that this waste has been washing up consistently for about two years, and he tries to remove it as much as possible. When he is unable to pick it up, visitors tend to pick it up and leave large bags of it for him to dispose.
- Discussed with Laura Johnson (DOE Commercial Shellfish Licensing Section Manager) who was unaware of materials matching the waste description being used in commercial shellfish operations. She reviewed her maps and determined that Seattle Shellfish owns the majority of the sites located to the north of Tolmie State Park. She passed my information on to the owner, Jim Gibbons, who has since left me a voicemail with a call back number to discuss a complaint (she did not give him any details).
- Seattle Shellfish's DOH License number is WA-1281-SS.

I am happy to coordinate with you or formally pass on the complaint, depending on how we decide to proceed. I have a message into our Attorney to help us determine what we can and cannot do. I would like to respond to Jim Gibbons as soon as possible, once I determine in what direction we would like to move.

Best,

Rachel

RACHEL BROOKS | ENVIRONMENTAL HEALTH SPECIALIST 1
Thurston County Public Health and Social Services Department
412 Lilly Road NE, Olympia, WA 98506 www.co.thurston.wa.us/health/ehadm
brooksr@co.thurston.wa.us 360-867-2584

Rachel Brooks

From: Jim Gibbons <jlgibbons@seattleshellfish.com>
Sent: Tuesday, April 19, 2016 5:12 PM
To: Rachel Brooks
Cc: Johnson, Laura W (DOH); cmat461@ECY.WA.GOV; perry.lund@ecy.wa.gov; Art Starry
Subject: RE: Seattle Shellfish Solid Waste Complaint Response

Rachel-Very nice letter which I think captured well everything you and I have discussed with regards to what has occurred and what will occur moving forward. I even liked your effort of portraying our efforts of finding a better method than PVC to plant geoduck as a laudatory thing. At least I got a sense of that. Alas, PVC it will be. Nice job on the letter.

Jim

From: Rachel Brooks [mailto:brooksr@co.thurston.wa.us]
Sent: Tuesday, April 19, 2016 3:22 PM
To: Kathryn Townsend; Patrick Townsend
Cc: Johnson, Laura W (DOH); cmat461@ECY.WA.GOV; perry.lund@ecy.wa.gov; Jim Gibbons; Art Starry
Subject: Seattle Shellfish Solid Waste Complaint Response

Good Afternoon Patrick & Kathryn Townsend,

As requested, I have put together a formal response to your complaint regarding solid waste generated by a local shellfish company. Both our response and your original complaint are attached to this email. In addition, our response is being mailed first class to your PO Box.

Please let me know if you have any additional questions or concerns. Respectfully,

Rachel

RACHEL BROOKS | ENVIRONMENTAL HEALTH SPECIALIST 1
Thurston County Public Health and Social Services Department
412 Lilly Road NE, Olympia, WA 98506 www.co.thurston.wa.us/health/ehadm
brooksr@co.thurston.wa.us 360-867-2584

From: Kathryn Townsend [mailto:kath.townsend@gmail.com]
Sent: Monday, April 11, 2016 2:01 PM

To: Rachel Brooks <brooks@co.thurston.wa.us>

Subject: Protect Zangle Cove Letter re: Aquaculture Plastics on Tolmie Park Beach

Dear Rachel,

Thank you for your attention to the issue of the aquaculture plastics found on the beach at and adjacent to Tolmie State Park in Thurston County. We have attached a pdf copy of the letter delivered to your office on April 8, 2016. The letter includes photo documentation of the plastics.

Sincerely,
Kathryn and Patrick Townsend
Protect Zangle Cove

Rachel Brooks

From: Art Starry
Sent: Wednesday, April 20, 2016 7:20 AM
To: Rachel Brooks
Cc: Gerald Tousley
Subject: RE: Seattle Shellfish Solid Waste Complaint Response

Hi Rachel,

Thanks for working with all the involved parties to resolve this and responding the complainants. Now I know who I can turn to when I need a ghost writer!

Art

From: Rachel Brooks
Sent: Tuesday, April 19, 2016 3:22 PM
To: Kathryn Townsend <kath.townsend@gmail.com>; Patrick Townsend <patrick.townsend@townsendsecurity.com>
Cc: Johnson, Laura W (DOH) <Laura.Johnson@DOH.WA.GOV>; cmat461@ECY.WA.GOV; perry.lund@ecy.wa.gov; Jim Gibbons <jlgibbons@seattleshellfish.com>; Art Starry <starrya@co.thurston.wa.us>
Subject: Seattle Shellfish Solid Waste Complaint Response

Good Afternoon Patrick & Kathryn Townsend,

As requested, I have put together a formal response to your complaint regarding solid waste generated by a local shellfish company. Both our response and your original complaint are attached to this email. In addition, our response is being mailed first class to your PO Box.

Please let me know if you have any additional questions or concerns. Respectfully,

Rachel

RACHEL BROOKS | ENVIRONMENTAL HEALTH SPECIALIST 1
Thurston County Public Health and Social Services Department
412 Lilly Road NE, Olympia, WA 98506 www.co.thurston.wa.us/health/ehadm
brooksr@co.thurston.wa.us 360-867-2584

From: Kathryn Townsend [<mailto:kath.townsend@gmail.com>]
Sent: Monday, April 11, 2016 2:01 PM

To: Rachel Brooks <brooksr@co.thurston.wa.us>

Subject: Protect Zangle Cove Letter re: Aquaculture Plastics on Tolmie Park Beach

Dear Rachel,

Thank you for your attention to the issue of the aquaculture plastics found on the beach at and adjacent to Tolmie State Park in Thurston County. We have attached a pdf copy of the letter delivered to your office on April 8, 2016. The letter includes photo documentation of the plastics.

Sincerely,
Kathryn and Patrick Townsend
Protect Zangle Cove

Rachel Brooks

From: Lund, Perry (ECY) <plun461@ECY.WA.GOV>
Sent: Friday, April 15, 2016 1:02 PM
To: Rachel Brooks
Subject: RE: Phone call follow up

Thank you.

Perry J Lund
360-407-7260

From: Rachel Brooks [mailto:brooksr@co.thurston.wa.us]
Sent: Friday, April 15, 2016 12:07 PM
To: jlgibbons@seattleshellfish.com
Cc: Lund, Perry (ECY) <plun461@ECY.WA.GOV>
Subject: Phone call follow up

Hello Jim Gibbons,

Thank you for following up with me this morning. I appreciate that you are trying out a diversity of materials in your shellfish business to find processes that work for both you and the community. As we discussed, Thurston County requires proper disposal of solid waste, and requests that you use materials that are durable enough to remain whole throughout their intended use. For example, as you test out different predator exclusion techniques, we ask that you move towards materials that will remain whole and secure throughout their two years in the tidal flats. In addition, we ask that you monitor and remove any materials that become broken or unsecured.

It appears that the plastic cups (the type that are the focus of the complaint) are not durable enough for their current use, as they are breaking and becoming a solid waste. Can you please confirm that these plastic cups are no longer being installed as predator exclusions. I understand that there may already be some of these installed, but am asking about future installations. Please let me know if my understanding of this current status is correct.

I also just talked again to Perry Lunds from Ecology, and it might be helpful for both of us to complete a site visit, just so we are all on the same page.

I look forward to hearing from you. Best,

Rachel

RACHEL BROOKS | ENVIRONMENTAL HEALTH SPECIALIST 1
Thurston County Public Health and Social Services Department
412 Lilly Road NE, Olympia, WA 98506 www.co.thurston.wa.us/health/ehadm
brooksr@co.thurston.wa.us 360-867-2584

Rachel Brooks

From: Lund, Perry (ECY) <plun461@ECY.WA.GOV>
Sent: Thursday, April 21, 2016 2:56 PM
To: Jim Gibbons; Rachel Brooks; Callender, Alexander (ECY)
Cc: Kevin Golden (Kevingolden68@gmail.com); Paul Harris
Subject: RE: Phone call follow up

Thanks, that should work for Alex and me, too. See you then.

Perry J Lund
360-407-7260

From: Jim Gibbons [mailto:jl gibbons@seattleshellfish.com]
Sent: Wednesday, April 20, 2016 7:36 PM
To: Rachel Brooks <brooksr@co.thurston.wa.us>; Callender, Alexander (ECY) <acal461@ECY.WA.GOV>; Lund, Perry (ECY) <plun461@ECY.WA.GOV>
Cc: Kevin Golden (Kevingolden68@gmail.com) <Kevingolden68@gmail.com>; Paul Harris <pcharris@seattleshellfish.com>
Subject: RE: Phone call follow up

Rachel,

No time like the present I guess in terms of notification. How about we meet at 3PM with details as to address and parking to follow.

Melody Mayer got all the latest information from Kathryn Townsend regarding yours/ours latest correspondence. Melody wanted me to know that she had no part in that and also that she sees no problem out at Tolmie anymore. You should give her a call. Or even go check things out yourself.

Jim

From: Rachel Brooks [mailto:brooksr@co.thurston.wa.us]
Sent: Wednesday, April 20, 2016 4:02 PM
To: Jim Gibbons; Callender, Alexander (ECY); Lund, Perry (ECY)
Cc: Kevin Golden (Kevingolden68@gmail.com); Paul Harris
Subject: RE: Phone call follow up

Sounds great, it is on my calendar. Just let me know when you would like us to show up that day. Rachel

RACHEL BROOKS | ENVIRONMENTAL HEALTH SPECIALIST 1

Thurston County Public Health and Social Services Department
412 Lilly Road NE, Olympia, WA 98506 www.co.thurston.wa.us/health/ehadm
brooksr@co.thurston.wa.us 360-867-2584

From: Jim Gibbons [<mailto:jlgibbons@seattleshellfish.com>]
Sent: Tuesday, April 19, 2016 5:15 PM
To: Rachel Brooks <brooksr@co.thurston.wa.us>; Callender, Alexander (ECY) <aca461@ECY.WA.GOV>; Lund, Perry (ECY) <plun461@ECY.WA.GOV>
Cc: Kevin Golden (Kevingolden68@gmail.com) <Kevingolden68@gmail.com>; Paul Harris <pcharris@seattleshellfish.com>
Subject: RE: Phone call follow up

If both those dates work, then let's shoot for the 11th. If that somehow ends up not working, we still have 3 months of summer. And judging by the weather and the forecast it looks like it will be beautiful weather this summer, too.

Jim

From: Rachel Brooks [<mailto:brooksr@co.thurston.wa.us>]
Sent: Tuesday, April 19, 2016 11:22 AM
To: Callender, Alexander (ECY); Jim Gibbons; Lund, Perry (ECY)
Cc: Kevin Golden (Kevingolden68@gmail.com); Paul Harris
Subject: RE: Phone call follow up

The 10th or the 11th work for me also. Rachel

RACHEL BROOKS | ENVIRONMENTAL HEALTH SPECIALIST 1
Thurston County Public Health and Social Services Department
412 Lilly Road NE, Olympia, WA 98506 www.co.thurston.wa.us/health/ehadm
brooksr@co.thurston.wa.us 360-867-2584

From: Callender, Alexander (ECY) [<mailto:aca461@ECY.WA.GOV>]
Sent: Tuesday, April 19, 2016 9:30 AM
To: Jim Gibbons <jlgibbons@seattleshellfish.com>; Rachel Brooks <brooksr@co.thurston.wa.us>; Lund, Perry (ECY) <plun461@ECY.WA.GOV>
Cc: Kevin Golden (Kevingolden68@gmail.com) <Kevingolden68@gmail.com>; Paul Harris <pcharris@seattleshellfish.com>
Subject: RE: Phone call follow up

The 10th or 11th both work for us.

Alex Callender, MS, PWS

Wetland/Shoreland Specialist for Lewis, Thurston, and Pierce Counties
Shorelands and Environmental Assistance Program
WA Department of Ecology
acal461@ecy.wa.gov
360-407-6167

I figured that would be a busy time for you.

From: Jim Gibbons [<mailto:jlgibbons@seattleshellfish.com>]
Sent: Tuesday, April 19, 2016 9:06 AM
To: Rachel Brooks <brooksr@co.thurston.wa.us>; Callender, Alexander (ECY) <acal461@ECY.WA.GOV>; Lund, Perry (ECY) <plun461@ECY.WA.GOV>
Cc: Kevin Golden (Kevingolden68@gmail.com) <Kevingolden68@gmail.com>; Paul Harris <pcharris@seattleshellfish.com>
Subject: RE: Phone call follow up

All,

This is our first big daylight low tide series of the year, so unfortunately that day won't work for me or the rest of us as we have long timed tours planned and numerous tasks to accomplish to get started on our summer planning season. How would Tuesday the 10th, a -2.2 tide @ 3:17PM, or Wednesday the 11th, a 4:07PM tide, work for everyone?

Jim

From: Rachel Brooks [<mailto:brooksr@co.thurston.wa.us>]
Sent: Tuesday, April 19, 2016 8:55 AM
To: Callender, Alexander (ECY); Jim Gibbons; Lund, Perry (ECY)
Cc: Kevin Golden (Kevingolden68@gmail.com); Paul Harris
Subject: RE: Phone call follow up

Looks good to me. Rachel

RACHEL BROOKS | ENVIRONMENTAL HEALTH SPECIALIST 1
Thurston County Public Health and Social Services Department
412 Lilly Road NE, Olympia, WA 98506 www.co.thurston.wa.us/health/ehadm
brooksr@co.thurston.wa.us 360-867-2584

From: Callender, Alexander (ECY) [<mailto:acal461@ECY.WA.GOV>]
Sent: Tuesday, April 19, 2016 8:51 AM
To: Rachel Brooks <brooksr@co.thurston.wa.us>; Jim Gibbons <jlgibbons@seattleshellfish.com>; Lund, Perry (ECY) <plun461@ECY.WA.GOV>
Cc: Kevin Golden (Kevingolden68@gmail.com) <Kevingolden68@gmail.com>; Paul Harris <pcharris@seattleshellfish.com>
Subject: RE: Phone call follow up

Hi Everyone,

Sorry for the delay. Although we would like to get out there, I think it would be ok for us to wait for a good tide so we can easily view on site conditions.

Why don't we take a look at the tides and see when we can optimize our visit. It looks like on Friday the 6th of May there is a -1.9 at Budd Inlet at 12:19PM. Would that work?

Sincerely,

Alex Callender, MS, PWS
Wetland/Shoreland Specialist for Lewis, Thurston, and Pierce Counties
Shorelands and Environmental Assistance Program
WA Department of Ecology
acal461@ecy.wa.gov
360-407-6167

From: Rachel Brooks [<mailto:brooksr@co.thurston.wa.us>]
Sent: Tuesday, April 19, 2016 8:33 AM
To: Jim Gibbons <jlgibbons@seattleshellfish.com>; Lund, Perry (ECY) <plun461@ECY.WA.GOV>
Cc: Callender, Alexander (ECY) <acal461@ECY.WA.GOV>; Kevin Golden (Kevingolden68@gmail.com) <Kevingolden68@gmail.com>; Paul Harris <pcharris@seattleshellfish.com>
Subject: RE: Phone call follow up

Hello Jim,

I will wait to see what Perry or Alex have to say. I am available the end of this week, but will be out of the office for all of next week. However, I have already obtained enough information to respond to the complaint, and believe that a site visit would just ensure that everyone is on the same page for any future discussions, so there is no rush if a time in the next month or so works better for everyone.

Best, Rachel

RACHEL BROOKS | ENVIRONMENTAL HEALTH SPECIALIST 1
Thurston County Public Health and Social Services Department
412 Lilly Road NE, Olympia, WA 98506 www.co.thurston.wa.us/health/ehadm
brooksr@co.thurston.wa.us 360-867-2584

From: Jim Gibbons [<mailto:jlgibbons@seattleshellfish.com>]
Sent: Monday, April 18, 2016 9:58 AM
To: Rachel Brooks <brooksr@co.thurston.wa.us>; Lund, Perry (ECY) <plun461@ECY.WA.GOV>
Cc: Callender, Alexander (ECY) <acal461@ECY.WA.GOV>; Kevin Golden (Kevingolden68@gmail.com) <Kevingolden68@gmail.com>; Paul Harris <pcharris@seattleshellfish.com>
Subject: RE: Phone call follow up

Rachel,

Geoduck is planted in the very low intertidal zone from about a +3' to -2 or -2.5' in some cases, so the tides this week are not that "decent" in terms of viewing geoduck farming. But we could take you out and look at some of our upper plants/beaches in the Sandy Pt. area if you wanted to get out this week. Next week will also work.

I won't be able to take you out this week myself as I will be visiting my daughter's college for the first time on Thursday and Friday (Wednesday is out for an Army Corps meeting for shellfish farmers in Seattle—hopefully someone from Ecology is planning on going to this meeting, too). Katie graduates in June from Denver University so I guess it's about time I visit. Our Operations Manager, Paul Harris, is also not around this week as he's on vacation, but our farm manager, Kevin Golden, could show you around this week. Or I'll be back on Tuesday and I could do a tour on any of the remaining days next week. And if none of that works there's always May or even June.

As I briefly said in my last email last week your understanding of where we were/are on these devices was correct. We have been actively monitoring and removing the devices as the original complainant (Melody Mayer 438-6750) can attest. Also, these devices/cups are no longer being installed, the last ones having been put out two years ago. But we can show you where they were installed in the upper plant and then do a beach walk on the upper beach down into Tolmie if that makes sense to you.

Let me know what works for you. And we can also hear back from Perry or Alex about what their thoughts are. I've included Kevin and Paul in this email message

Jim

From: Rachel Brooks [<mailto:brooksr@co.thurston.wa.us>]
Sent: Monday, April 18, 2016 8:22 AM
To: Lund, Perry (ECY); Jim Gibbons
Cc: Callender, Alexander (ECY)
Subject: RE: Phone call follow up

Jim,

Thank you for your reply.

My schedule is usually very flexible. I see that there are some decent tides at the end of this week (12:00 on Wed @ 1.6 ft, 12:30 on Thursday @ 0.9 ft, 1:00 on Friday @ 0.4). Would any of those times work for everyone?

Rachel

RACHEL BROOKS | ENVIRONMENTAL HEALTH SPECIALIST 1
Thurston County Public Health and Social Services Department
412 Lilly Road NE, Olympia, WA 98506 www.co.thurston.wa.us/health/ehadm
brooksr@co.thurston.wa.us 360-867-2584

From: Lund, Perry (ECY) [<mailto:plun461@ECY.WA.GOV>]
Sent: Monday, April 18, 2016 7:01 AM
To: Jim Gibbons <jlgibbons@seattleshellfish.com>; Rachel Brooks <brooksr@co.thurston.wa.us>
Cc: Callender, Alexander (ECY) <acal461@ECY.WA.GOV>
Subject: RE: Phone call follow up

Thanks, Jim.

It would be helpful to be able to see these in use. We'll work with you and Rachael to set up a time to visit. It will be me and/or Alex Callender, our Shoreline Specialist for Thurston County.

take care

Perry J Lund
360-407-7260

From: Jim Gibbons [jlgibbons@seattleshellfish.com]
Sent: Friday, April 15, 2016 4:23 PM
To: Rachel Brooks

Cc: Lund, Perry (ECY)
Subject: RE: Phone call follow up

Brenda,

Your understanding is correct. Let me know when you'd like to do a site visit.

Jim

From: Rachel Brooks [<mailto:brooksr@co.thurston.wa.us>]
Sent: Friday, April 15, 2016 12:07 PM
To: Jim Gibbons
Cc: perry.lund@ecy.wa.gov
Subject: Phone call follow up

Hello Jim Gibbons,

Thank you for following up with me this morning. I appreciate that you are trying out a diversity of materials in your shellfish business to find processes that work for both you and the community. As we discussed, Thurston County requires proper disposal of solid waste, and requests that you use materials that are durable enough to remain whole throughout their intended use. For example, as you test out different predator exclusion techniques, we ask that you move towards materials that will remain whole and secure throughout their two years in the tidal flats. In addition, we ask that you monitor and remove any materials that become broken or unsecured.

It appears that the plastic cups (the type that are the focus of the complaint) are not durable enough for their current use, as they are breaking and becoming a solid waste. Can you please confirm that these plastic cups are no longer being installed as predator exclusions. I understand that there may already be some of these installed, but am asking about future installations. Please let me know if my understanding of this current status is correct.

I also just talked again to Perry Lunds from Ecology, and it might be helpful for both of us to complete a site visit, just so we are all on the same page.

I look forward to hearing from you. Best,

Rachel

RACHEL BROOKS | ENVIRONMENTAL HEALTH SPECIALIST 1
Thurston County Public Health and Social Services Department
412 Lilly Road NE, Olympia, WA 98506 www.co.thurston.wa.us/health/ehadm
brooksr@co.thurston.wa.us 360-867-2584

Rachel Brooks

From: Rachel Brooks
Sent: Tuesday, May 10, 2016 10:09 AM
To: 'Callender, Alexander (ECY)'; Jim Gibbons; Lund, Perry (ECY)
Cc: Kevin Golden (Kevingolden68@gmail.com); Paul Harris
Subject: RE: Phone call follow up

Thank you. See you tomorrow. Rachel

RACHEL BROOKS | ENVIRONMENTAL HEALTH SPECIALIST 1
Thurston County Public Health and Social Services Department
412 Lilly Road NE, Olympia, WA 98506 www.co.thurston.wa.us/health/ehadm
brooksr@co.thurston.wa.us 360-867-2584

From: Callender, Alexander (ECY) [mailto:acal461@ECY.WA.GOV]
Sent: Tuesday, May 10, 2016 8:29 AM
To: Jim Gibbons <jlgibbons@seattleshellfish.com>; Rachel Brooks <brooksr@co.thurston.wa.us>; Lund, Perry (ECY) <plun461@ECY.WA.GOV>
Cc: Kevin Golden (Kevingolden68@gmail.com) <Kevingolden68@gmail.com>; Paul Harris <pcharris@seattleshellfish.com>
Subject: RE: Phone call follow up

Thank you Jim. Look forward to meeting with you.

Alex Callender, MS, PWS
Wetland/Shoreland Specialist for Lewis, Thurston, and Pierce Counties
Shorelands and Environmental Assistance Program
WA Department of Ecology
acal461@ecy.wa.gov
360-407-6167

From: Jim Gibbons [mailto:jlgibbons@seattleshellfish.com]
Sent: Tuesday, May 10, 2016 8:28 AM

To: Callender, Alexander (ECY) <acal461@ECY.WA.GOV>; Rachel Brooks <brooks@co.thurston.wa.us>; Lund, Perry (ECY) <plun461@ECY.WA.GOV>
Cc: Kevin Golden (Kevingolden68@gmail.com) <Kevingolden68@gmail.com>; Paul Harris <pcharris@seattleshellfish.com>
Subject: RE: Phone call follow up

<https://www.google.com/maps/place/7304+Sandy+Point+Rd+NE,+Olympia,+WA+98516/@47.1255669,-122.7861887,17z/data=!3m1!4b1!4m5!3m4!1s0x5491a759f3b7f1c3:0xb10f4c77104f0405!8m2!3d47.1255669!4d-122.784>

If there's no parking in front of house (see picture in link) then you should park next to the pond just to the west of the site. My cell phone is 360-701-0844.

Jim

From: Callender, Alexander (ECY) [<mailto:acal461@ECY.WA.GOV>]
Sent: Tuesday, May 10, 2016 8:20 AM
To: Jim Gibbons; Rachel Brooks; Lund, Perry (ECY)
Cc: Kevin Golden (Kevingolden68@gmail.com); Paul Harris
Subject: RE: Phone call follow up

Hello,

I was wondering if we could get directions today?

Please let me know.

Sincerely,

Alex Callender
360-407-6167

From: Jim Gibbons [<mailto:jlgibbons@seattleshellfish.com>]
Sent: Wednesday, April 20, 2016 7:36 PM
To: Rachel Brooks <brooks@co.thurston.wa.us>; Callender, Alexander (ECY) <acal461@ECY.WA.GOV>; Lund, Perry (ECY) <plun461@ECY.WA.GOV>
Cc: Kevin Golden (Kevingolden68@gmail.com) <Kevingolden68@gmail.com>; Paul Harris <pcharris@seattleshellfish.com>
Subject: RE: Phone call follow up

Rachel,

No time like the present I guess in terms of notification. How about we meet at 3PM with details as to address and parking to follow.

Melody Mayer got all the latest information from Kathryn Townsend regarding yours/ours latest correspondence. Melody wanted me to know that she had no part in that and also that she sees no problem out at Tolmie anymore. You should give her a call. Or even go check things out yourself.

Jim

From: Rachel Brooks [<mailto:brooksr@co.thurston.wa.us>]
Sent: Wednesday, April 20, 2016 4:02 PM
To: Jim Gibbons; Callender, Alexander (ECY); Lund, Perry (ECY)
Cc: Kevin Golden (Kevingolden68@gmail.com); Paul Harris
Subject: RE: Phone call follow up

Sounds great, it is on my calendar. Just let me know when you would like us to show up that day. Rachel

RACHEL BROOKS | ENVIRONMENTAL HEALTH SPECIALIST 1
Thurston County Public Health and Social Services Department
412 Lilly Road NE, Olympia, WA 98506 www.co.thurston.wa.us/health/ehadm
brooksr@co.thurston.wa.us 360-867-2584

From: Jim Gibbons [<mailto:jlgibbons@seattleshellfish.com>]
Sent: Tuesday, April 19, 2016 5:15 PM
To: Rachel Brooks <brooksr@co.thurston.wa.us>; Callender, Alexander (ECY) <acal461@ECY.WA.GOV>; Lund, Perry (ECY) <plun461@ECY.WA.GOV>
Cc: Kevin Golden (Kevingolden68@gmail.com) <Kevingolden68@gmail.com>; Paul Harris <pcharris@seattleshellfish.com>
Subject: RE: Phone call follow up

If both those dates work, then let's shoot for the 11th. If that somehow ends up not working, we still have 3 months of summer. And judging by the weather and the forecast it looks like it will be beautiful weather this summer, too.

Jim

From: Rachel Brooks [<mailto:brooksr@co.thurston.wa.us>]
Sent: Tuesday, April 19, 2016 11:22 AM
To: Callender, Alexander (ECY); Jim Gibbons; Lund, Perry (ECY)
Cc: Kevin Golden (Kevingolden68@gmail.com); Paul Harris
Subject: RE: Phone call follow up

The 10th or the 11th work for me also. Rachel

RACHEL BROOKS | ENVIRONMENTAL HEALTH SPECIALIST 1
Thurston County Public Health and Social Services Department
412 Lilly Road NE, Olympia, WA 98506 www.co.thurston.wa.us/health/ehadm
brooksr@co.thurston.wa.us 360-867-2584

From: Callender, Alexander (ECY) [<mailto:acal461@ECY.WA.GOV>]
Sent: Tuesday, April 19, 2016 9:30 AM
To: Jim Gibbons <jlgibbons@seattleshellfish.com>; Rachel Brooks <brooksr@co.thurston.wa.us>; Lund, Perry (ECY) <plun461@ECY.WA.GOV>
Cc: Kevin Golden (Kevingolden68@gmail.com) <Kevingolden68@gmail.com>; Paul Harris <pcharris@seattleshellfish.com>
Subject: RE: Phone call follow up

The 10th or 11th both work for us.

Alex Callender, MS, PWS
Wetland/Shoreland Specialist for Lewis, Thurston, and Pierce Counties
Shorelands and Environmental Assistance Program
WA Department of Ecology
acal461@ecy.wa.gov
360-407-6167

I figured that would be a busy time for you.

From: Jim Gibbons [<mailto:jlgibbons@seattleshellfish.com>]
Sent: Tuesday, April 19, 2016 9:06 AM
To: Rachel Brooks <brooksr@co.thurston.wa.us>; Callender, Alexander (ECY) <acal461@ECY.WA.GOV>; Lund, Perry (ECY) <plun461@ECY.WA.GOV>
Cc: Kevin Golden (Kevingolden68@gmail.com) <Kevingolden68@gmail.com>; Paul Harris <pcharris@seattleshellfish.com>
Subject: RE: Phone call follow up

All,

This is our first big daylight low tide series of the year, so unfortunately that day won't work for me or the rest of us as we have long timed tours planned and numerous tasks to accomplish to get started on our summer planning season. How would Tuesday the 10th, a -2.2 tide @ 3:17PM, or Wednesday the 11th, a 4:07PM tide, work for everyone?

Jim

From: Rachel Brooks [<mailto:brooksr@co.thurston.wa.us>]
Sent: Tuesday, April 19, 2016 8:55 AM
To: Callender, Alexander (ECY); Jim Gibbons; Lund, Perry (ECY)
Cc: Kevin Golden (Kevingolden68@gmail.com); Paul Harris
Subject: RE: Phone call follow up

Looks good to me. Rachel

RACHEL BROOKS | ENVIRONMENTAL HEALTH SPECIALIST 1
Thurston County Public Health and Social Services Department
412 Lilly Road NE, Olympia, WA 98506 www.co.thurston.wa.us/health/ehadm
brooksr@co.thurston.wa.us 360-867-2584

From: Callender, Alexander (ECY) [<mailto:acal461@ECY.WA.GOV>]
Sent: Tuesday, April 19, 2016 8:51 AM
To: Rachel Brooks <brooksr@co.thurston.wa.us>; Jim Gibbons <jlgibbons@seattleshellfish.com>; Lund, Perry (ECY) <plun461@ECY.WA.GOV>
Cc: Kevin Golden (Kevingolden68@gmail.com) <Kevingolden68@gmail.com>; Paul Harris <pcharris@seattleshellfish.com>
Subject: RE: Phone call follow up

Hi Everyone,

Sorry for the delay. Although we would like to get out there, I think it would be ok for us to wait for a good tide so we can easily view on site conditions.

Why don't we take a look at the tides and see when we can optimize our visit. It looks like on Friday the 6th of May there is a -1.9 at Budd Inlet at 12:19PM. Would that work?

Sincerely,

Alex Callender, MS, PWS
Wetland/Shoreland Specialist for Lewis, Thurston, and Pierce Counties
Shorelands and Environmental Assistance Program
WA Department of Ecology
acal461@ecy.wa.gov
360-407-6167

From: Rachel Brooks [<mailto:brooksr@co.thurston.wa.us>]

Sent: Tuesday, April 19, 2016 8:33 AM

To: Jim Gibbons <jlgibbons@seattleshellfish.com>; Lund, Perry (ECY) <plun461@ECY.WA.GOV>

Cc: Callender, Alexander (ECY) <acal461@ECY.WA.GOV>; Kevin Golden (Kevingolden68@gmail.com) <Kevingolden68@gmail.com>; Paul Harris <pcharris@seattleshellfish.com>

Subject: RE: Phone call follow up

Hello Jim,

I will wait to see what Perry or Alex have to say. I am available the end of this week, but will be out of the office for all of next week. However, I have already obtained enough information to respond to the complaint, and believe that a site visit would just ensure that everyone is on the same page for any future discussions, so there is no rush if a time in the next month or so works better for everyone.

Best, Rachel

RACHEL BROOKS | ENVIRONMENTAL HEALTH SPECIALIST 1

Thurston County Public Health and Social Services Department

412 Lilly Road NE, Olympia, WA 98506 www.co.thurston.wa.us/health/ehadm

brooksr@co.thurston.wa.us 360-867-2584

From: Jim Gibbons [<mailto:jlgibbons@seattleshellfish.com>]

Sent: Monday, April 18, 2016 9:58 AM

To: Rachel Brooks <brooksr@co.thurston.wa.us>; Lund, Perry (ECY) <plun461@ECY.WA.GOV>

Cc: Callender, Alexander (ECY) <acal461@ECY.WA.GOV>; Kevin Golden (Kevingolden68@gmail.com) <Kevingolden68@gmail.com>; Paul Harris <pcharris@seattleshellfish.com>

Subject: RE: Phone call follow up

Rachel,

Geoduck is planted in the very low intertidal zone from about a +3' to -2 or -2.5' in some cases, so the tides this week are not that "decent" in terms of viewing geoduck farming. But we could take you out and look at some of our upper plants/beaches in the Sandy Pt. area if you wanted to get out this week. Next week will also work.

I won't be able to take you out this week myself as I will be visiting my daughter's college for the first time on Thursday and Friday (Wednesday is out for an Army Corps meeting for shellfish farmers in Seattle—hopefully someone from Ecology is planning on going to this meeting, too). Katie graduates in June from

Denver University so I guess it's about time I visit. Our Operations Manager, Paul Harris, is also not around this week as he's on vacation, but our farm manager, Kevin Golden, could show you around this week. Or I'll be back on Tuesday and I could do a tour on any of the remaining days next week. And if none of that works there's always May or even June.

As I briefly said in my last email last week your understanding of where we were/are on these devices was correct. We have been actively monitoring and removing the devices as the original complainant (Melody Mayer 438-6750) can attest. Also, these devices/cups are no longer being installed, the last ones having been put out two years ago. But we can show you where they were installed in the upper plant and then do a beach walk on the upper beach down into Tolmie if that makes sense to you.

Let me know what works for you. And we can also hear back from Perry or Alex about what their thoughts are. I've included Kevin and Paul in this email message

Jim

From: Rachel Brooks [<mailto:brooksr@co.thurston.wa.us>]
Sent: Monday, April 18, 2016 8:22 AM
To: Lund, Perry (ECY); Jim Gibbons
Cc: Callender, Alexander (ECY)
Subject: RE: Phone call follow up

Jim,

Thank you for your reply.

My schedule is usually very flexible. I see that there are some decent tides at the end of this week (12:00 on Wed @ 1.6 ft, 12:30 on Thursday @ 0.9 ft, 1:00 on Friday @ 0.4). Would any of those times work for everyone?

Rachel

RACHEL BROOKS | ENVIRONMENTAL HEALTH SPECIALIST 1
Thurston County Public Health and Social Services Department
412 Lilly Road NE, Olympia, WA 98506 www.co.thurston.wa.us/health/ehadm
brooksr@co.thurston.wa.us 360-867-2584

From: Lund, Perry (ECY) [<mailto:plun461@ECY.WA.GOV>]
Sent: Monday, April 18, 2016 7:01 AM
To: Jim Gibbons <jlgibbons@seattleshellfish.com>; Rachel Brooks <brooksr@co.thurston.wa.us>
Cc: Callender, Alexander (ECY) <acal461@ECY.WA.GOV>
Subject: RE: Phone call follow up

Thanks, Jim.

It would be helpful to be able to see these in use. We'll work with you and Rachael to set up a time to visit. It will be me and/or Alex Callender, our Shoreline Specialist for Thurston County.

take care

Perry J Lund
360-407-7260

From: Jim Gibbons [jlgibbons@seattleshellfish.com]
Sent: Friday, April 15, 2016 4:23 PM
To: Rachel Brooks
Cc: Lund, Perry (ECY)
Subject: RE: Phone call follow up

Brenda,

Your understanding is correct. Let me know when you'd like to do a site visit.

Jim

From: Rachel Brooks [mailto:brooksr@co.thurston.wa.us]
Sent: Friday, April 15, 2016 12:07 PM
To: Jim Gibbons
Cc: perry.lund@ecy.wa.gov
Subject: Phone call follow up

Hello Jim Gibbons,

Thank you for following up with me this morning. I appreciate that you are trying out a diversity of materials in your shellfish business to find processes that work for both you and the community. As we discussed, Thurston County requires proper disposal of solid waste, and requests that you use materials that are durable enough to remain whole throughout their intended use. For example, as you test out different predator exclusion techniques, we ask that you move towards materials that will remain whole and secure throughout their two years in the tidal flats. In addition, we ask that you monitor and remove any materials that become broken or unsecured.

It appears that the plastic cups (the type that are the focus of the complaint) are not durable enough for their current use, as they are breaking and becoming a solid waste. Can you please confirm that these plastic cups are no longer being installed as predator exclusions. I understand that there may already be some of these installed, but am asking about future installations. Please let me know if my understanding of this current status is correct.

I also just talked again to Perry Lunds from Ecology, and it might be helpful for both of us to complete a site visit, just so we are all on the same page.

I look forward to hearing from you. Best,

Rachel

RACHEL BROOKS | ENVIRONMENTAL HEALTH SPECIALIST 1
Thurston County Public Health and Social Services Department
412 Lilly Road NE, Olympia, WA 98506 www.co.thurston.wa.us/health/ehadm
brooksr@co.thurston.wa.us 360-867-2584

Patrick and Kathryn Townsend
7700 Earling Street NE
Olympia, WA 98506

January 30, 2018

Thurston County Planning Commissioners
Brad Murphy, Thurston County Planning Department
2000 Lakeridge Drive SW
Olympia, WA 98506

Subject: Discrepancies in Chapters 19.200 and 19.300 in Draft SMP Update

Dear Thurston County Planning Commissioners and Mr. Murphy,

In reviewing Chapters 19.200 and 19.300 of the Draft Thurston County SMP Update (Draft SMP Update), we found discrepancies that need to be rectified. Unfortunately, the current chapters of the Draft SMP Update that we have reviewed have been altered so dramatically from the last version (1990 SMP), that it is impossible to make a side-by-side comparison. Following is a detailed description of two issues (out of many) we have found. We provide preliminary background information.

Overview of Shoreline Environmental Designations

1. 1990 Thurston County SMP (1990 SMP) Shoreline Designations

In the 1990 SMP, Section Two, General Goals and Policies, VII, the Shoreline Environments were clearly described and defined, including Purpose, Definition and 8 Goal Statements for each Environment:

- | | |
|-------------------------------------------------------------------------------|---------------|
| • Urban (characterized by definition as “high-intensity land and water use.”) | • Rural |
| • Suburban | • Conservancy |
| | • Natural |

The Eight Goal Statements were: (1) Economic Development, (2) Public Access, (3) Circulation, (4) Recreation, (5) Shoreline Use, (6) Conservation, (7) Historic and (8) Cultural Values and Restoration.

2. 2017 Department of Ecology SMP Handbook (ECY SMP Handbook) Shoreline Designations

In the ECY SMP Handbook, (12/2017 update), Chapter 13, the Recommended Environment Designations are:

- | | |
|-------------------------|---------------------|
| • High Intensity | • Rural Conservancy |
| • Shoreline Residential | • Natural |
| • Urban Conservancy | • Aquatic |

These Designations are basically equivalent to the 1990 SMP Designations with “High Intensity” apparently an expansion of the “Urban” designation.

The Department of Ecology recommends individual goal statements for each individual shoreline designation.

3. 2017 Thurston County Draft SMP Update (Draft SMP Update) Shoreline Designations

The DRAFT SMP Update, Chapter 19.200.105 Shoreline Environment Designations are:

- Shoreline Residential
- Urban Conservancy
- Rural Conservancy
- Natural
- Aquatic
- Mining

Goal Statements for Shoreline Designations Have Been Generalized In the Current Draft SMP Update

One general issue we find with the current Draft SMP Update is that Thurston County has chosen to eliminate the individual goal statements for each Shoreline Designation in Chapter 19.200 and instead has defined them generally in Chapter 19.300.

The following chart shows how uniquely described items in the 1990 SMP are generalized in the current SMP update.

1990 SMP – these Goal Statements are listed under each individual Shoreline Designation, describing the unique characteristics for each Designation	Chapter 19.300 – these items are listed as general items and do NOT describe the unique characteristics of each Designation
	19.300.005. Critical Areas and Ecological Protection
1990 – Conservation	19.300.110. Vegetation Conservation
	19.300.115. Water Quality and Quantity
1990 – Economic Development	19.300.120. Economic Development
1990 – Historical and Cultural Values	19.300.125 Historic, Archeological, Cultural, Scientific and Educational Resources
1990 – Shoreline Use	19.300.130. Shoreline Use and Planning
1990 – Public Access/1990 – Recreation	19.300.135. Public Access and Recreation
1990 – Restoration	19.300.140. Restoration and Enhancement
1990 – Circulation	19.300.145. Transportation and Utilities

In generalizing these goal statements, the nuances that were part of the definition of each Shoreline Environment have been lost and at least in one case, completely misstated.

We suggest that the writers of the Draft SMP update return the Goal Statements/Policies to their rightful place as thoughtfully constructed by the original writers of the 1990 SMP.

Economic Development Goals Are Unique for Different Shoreline Designations

In the 1990 SMP and the ECY SMP Handbook, economic and commercial uses are defined uniquely for each shoreline designation.

- 1. In the 1990 SMP, Goal Statements for “Economic Development” under the individual Shoreline Environmental Designations vary considerably. For example**
 - Under the Natural Environment, the Economic Development Goal states: “Economic development is not a goal of the Natural Environment.”
 - Under the Rural Environment, the Economic Development Goal states: “Available resources should be utilized consistent with the definition and purpose of the Rural Environment.”
 - Under the Urban Environment, the Economic Development Goal states: “The goal of this element is to utilize most efficiently the limited shoreline for industry, transportation facilities, commercial and other developments that are particularly dependent upon their location on or use of the shoreline.
- 2. Likewise, in Chapter 13 of the SMP Handbook, the Department of Ecology recommends different Economic Policies for different Shoreline Designations, for example:**
 - Under the Natural Environment: “Commercial, industrial, and nonwater-oriented uses should not be allowed.”
 - Under the Rural Conservancy Environment: “Commercial and industrial uses generally should not be allowed.”
 - Under High Intensity Environment: “Full utilization of existing urban area before further expansion is allowed.”

Economic Development Goals Are Mischaracterized in the Draft SMP Update

In the Draft SMP Update, as we mention above, the authors have taken the Goal Statements/Policies out of context from Chapter 19.200 and placed them in Chapter 19.300 as Goals applying across the board to all the five Shoreline Environments. Without understanding how it was previously (and thoughtfully) organized in the 1990 SMP, no one will be the wiser. However, it has created at least one significant misinterpretation—that of the Economic Goal.

Although Thurston County claims it has no jurisdiction over the “High Intensity” Shoreline Environment (i.e., “Urban”), the authors have nonetheless inexplicably chosen the Goal Statement for the “High Intensity” Shoreline to express the Economic Goal for ALL Shoreline Designations in

Thurston County, including the Natural Environment.

Chapter 19.300.12, Economic Development states: **Provide for the location and design of industries, transportation, port and tourist facilities, commerce and other developments that are particularly dependent upon a shoreline location and/or use, when the shoreline can accommodate such development.**

This definition applies to all shoreline designations, including Natural, Rural Conservancy, Urban Conservancy and Shoreline Residential.

Are the Thurston County Planners envisioning new ports, industries, transportation, commerce, etc. along all the shorelines of South Puget Sound as “High Intensity” use? **The use of the term “when” indicates that if not this year, then maybe next year the Natural Shoreline will be able to “accommodate such development.”**

This description has no place in the Draft SMP Update and should be stricken.

Conclusions

If Thurston County does not have jurisdiction over any “High Intensity” shoreline areas, then Policy 19.300.120 should be stricken in its entirety because it refers to “High Intensity” shoreline areas.

Breaking up the definitions of the Goal Statements of the Shoreline Designations, placing some in a separate chapter and generalizing them, is not in the interest of clarity and understanding.

Adding new, ill-defined policies under the Goal statements in Chapter 19.300 is not in the interest of clarity of purpose.

Our Request

We request that the 19.300.105 to 19.300.145 goals be placed back in Chapter 19.200 of the DRAFT SMP Update and defined under each of the Shoreline Designations based on the unique characteristics of that Shoreline Designation. It is confusing to find these items in Chapter 19.300 where their relevance to individual Shoreline Designations is obscure. The 1990 SMP was exceptionally clear in its formatting and description of Shoreline Designations and Goals of each individual designation.

Many of the Policies described under the Policy Statements in Chapter 19.300 are poorly written, vague and ambiguous. Some are superfluous and some, like the Goal under Economic Development (as described above), are inappropriate and misleading.

Sincerely,
Patrick and Kathryn Townsend

Cc: Cindy Wilson, Thurston County Senior Planner
Doug Karman, Thurston County Shoreline Stakeholders Coalition

Patrick and Kathryn Townsend
7700 Earling Street NE
Olympia, WA 98506

February 22, 2018

Michael Kain, Thurston County Planning Manager
Brad Murphy, Thurston County Senior Planner
Thurston County Planning Commission
2000 Lakeridge Drive, WA
Olympia, WA 98506

Subject: Thurston County SMP Update: No Net Loss Policy Does Not Work

Dear Mr. Kain, Mr. Murphy and Planning Commissioners,

At the first Boston Harbor stakeholder meeting in October of 2017, we questioned the policy of No Net Loss. Brad Murphy explained that No Net Loss involves two aspects:

- Project No Net Loss. Mr. Murphy described "mitigations" as providing No Net Loss on specific projects, such as an industrial geoduck aquaculture operation.
- Programmatic No Net Loss. Mr. Murphy described trading one development project in one part of the County for a restoration project in another part of the County as providing overall No Net Loss.

It was obvious at the time that Mr. Murphy described this concept that it is unworkable. We have consistently commented on this.

(1) First, the contention that "mitigations" for geoduck operations achieve "no net loss" lacks common sense at best. Installing approximately 7 miles/16 tons of PVC pipe on an acre of tideland, planting a monoculture of approximately 130,000 geoduck seeds per acre and harvesting all existing geoduck (they can live up to 168 years) along with planted geoduck using water jets up to 3 feet in depth, dramatically changes the ecology of the tideland. Any attempt to say that "mitigations" make up for this defies both logic and intelligence.

(2) Second, this policy means that development interests receive financial benefit for their impacts while taxpayers must fund the restoration. Restoration projects are lauded by the public, but this is because the public believes the rhetoric about "restoring" Puget Sound, when under No Net Loss, there is no actual gain through restoration, there is simply an attempt to compensate for the impacts elsewhere.

We have now been made aware of a body of literature that confirms that the policy of No Net Loss doesn't work and that compensating through biodiversity/development barter is an illusion that works politically, but not actually.

We suggest that County personnel, the Planning Commissioners and members of the Regulatory group all read the attached 2009 Walker paper, "Why bartering biodiversity fails."

Following are quotes from the Walker paper that go to the point:

"Regulatory biodiversity trading (or biodiversity "offsets") is increasingly promoted as a way to enable both conservation and development while achieving "no net loss" or even "net gain" in biodiversity, but to date has facilitated development while perpetuating biodiversity loss."

"Our review examines ecological and political science theories that suggest protecting biodiversity in trading is neither technically realistic nor administratively probable."

"Biodiversity—the variety of living organisms—is hierarchical, with levels of organization from genes to ecosystems, an extraordinary number of elements at each level that vary in time and space, and diverse interactions within and between levels. Such complexity makes it exceptionally difficult to measure biodiversity and to estimate an element's contribution to the whole."

"...the biodiversity data needed to inform exchange restrictions usually exceed those that governments, developers, or habitat bankers have been willing to fund."

"...researching developing exchange restrictions at project scales often overlook cumulative negative effects of multiple nonequivalent exchanges in type, space, or time."

"Time and again, researchers report procedural and enforcement failures in biodiversity trading programs..."

"...(the) administrative playing field of biodiversity barter tilted toward development. We propose that classic theories of politics predict this tilt, and that biodiversity's poor measurability and non-interchangeability exacerbate it."

"Precautionary exchange is...unlikely because of the unequal power and different goals of participants...public choice theory predicts private interests—such as developers—will often defeat public interests—such as biodiversity protection—and reap most policy benefits."

"...public choice theory predicts that officials often have motivations that are different from their statutory mandates, and that given freedom to choose, officials will often pursue their own self-interest."

"In environmental regulation, incentives on officials often coincide more strongly with development than environmental interests."

"...governments rarely fund full enforcement, and sometimes directly discourage officials from frustrating powerful vested interests...officials can and sometimes do reduce their financial or political costs by offering development interests more palatable and less environmentally demanding options."

"The playing field on which these interests compete is far from level; the "default settings" predicted by Olson (1965) is that development will defeat biodiversity."

"...biodiversity trading (is) especially vulnerable to *information asymmetry*—the situation in which insiders (traders and officials) know more than outsiders (biodiversity protection interests and the public), who are unable to measure the quality of biodiversity deals."

"When officials and developers' interests coincide in negotiation permits, a pattern of informal and less-than-transparent deals can result...thus, information asymmetry will systematically favor development over protection."

Patrick and Kathryn Townsend, 2/22/2018
Subject: No Net Loss Doesn't Work

"...bartering (biodiversity) focuses parties' attention on immediate steps, rather than stimulating them to proceed 'according to some larger progressive principle."

"...no net loss and net gain slogans themselves may be effective political diversions...no net biodiversity loss through barter is an illusion that crumbles under scrutiny from ecological and political science."

"...some policies are never intended by politicians to be more than hollow promises."

"In attaching the slogan "ne net loss" to biodiversity barter, politicians can appear to take action while continuing to serve development interests, and ignoring or perhaps exacerbating biodiversity loss. In engaging ecologists' collaboration in a symbolic but illusory goal, biodiversity barter may succeed by "keeping friends close and enemies closer."

This paper concludes that:

"...viable biodiversity barter and meaningful biodiversity protection seem mutually exclusive. We can achieve one or the other, but not both...bartering us likely to accomplish more harm than good for biodiversity.

"...there is no simple currency to measure fairness of exchange..."

"...political theory predicts that biodiversity exchange polities...will be more vulnerable to the institutional failings that undermine environment protection than simple (albeit imperfectly enforced) prohibitions.

"...officials and traders have more incentive to facilitate barter than to ensure biodiversity protection...given the option of saying to developers "yes, with conditions" rather than "no," officials will prefer "yes, with conditions"... (and) thus create a policy situation "obscure enough to please all parties...and so ill-defined that failures...will be difficult to detect and impossible to litigate.

Since Thurston County has not provided the Appendix to the draft SMP Update that contains the County's description of No Net Loss, and because of the body of knowledge that says "No Net Loss doesn't work," we respectfully suggest that the County eliminate this concept from the draft SMP Update as unworkable and with a coalitions of parties that include the public and environmental specialists, re-design its method of ensuring protection of biodiversity in the County based on actual protection rather than bartering development and biodiversity.

Sincerely,

Patrick and Kathryn Townsend

Cc: Cindy Wilson, Thurston County Planning Director
Jeremy Davis, Thurston County Senior Planner
Phyllis Farrell, South Sound Sierra Club

Attachments:

Susan Walker, et. al., "Why bartering biodiversity fails," Conservation Letters (2009), Wiley Periodicals, Inc.

Why bartering biodiversity fails

Susan Walker¹, Ann L. Brower², R.T. Theo Stephens³, & William G. Lee¹

¹ Landcare Research, Private Bag 1930, Dunedin 9054, New Zealand

² Division of Environment, Society, and Design, PO Box 84, Lincoln University, Lincoln 7647, Canterbury, New Zealand

³ Research and Development Division, Department of Conservation, Private Bag 1930, Dunedin 9054, New Zealand

Keywords

Biodiversity offsets; environmental compensation; environmental mitigation; environmental trading markets, market-based instruments, no net loss; public choice theory.

Correspondence

Susan Walker, Landcare Research, Private Bag 1930, Dunedin 9054, New Zealand.
Tel: +64 3 470 7211; fax: +64 470 7201.
E-mail: walkers@landcareresearch.co.nz

Received: 7 December 2008; accepted 4 May 2009.

doi: 10.1111/j.1755-263X.2009.00061.x

Abstract

Regulatory biodiversity trading (or biodiversity “offsets”) is increasingly promoted as a way to enable both conservation and development while achieving “no net loss” or even “net gain” in biodiversity, but to date has facilitated development while perpetuating biodiversity loss. Ecologists seeking improved biodiversity outcomes are developing better assessment tools and recommending more rigorous restrictions and enforcement. We explain why such recommendations overlook and cannot correct key causes of failure to protect biodiversity. Viable trading requires simple, measurable, and interchangeable commodities, but the currencies, restrictions, and oversight needed to protect complex, difficult-to-measure, and noninterchangeable resources like biodiversity are costly and intractable. These safeguards compromise trading viability and benefit neither traders nor regulatory officials. Political theory predicts that (1) biodiversity protection interests will fail to counter motivations for officials to resist and relax safeguards to facilitate exchanges and resource development at cost to biodiversity, and (2) trading is more vulnerable than pure administrative mechanisms to institutional dynamics that undermine environmental protection. Delivery of no net loss or net gain through biodiversity trading is thus administratively improbable and technically unrealistic. Their proliferation without credible solutions suggests biodiversity offset programs are successful “symbolic policies,” potentially obscuring biodiversity loss and dissipating impetus for action.

Introduction

Biodiversity trading programs (which include biodiversity compensation, offsets, banking, and biobanking) have proliferated internationally, and are promoted by policy makers and developers as facilitating both conservation and development. Like programs developed for simpler environmental commodities such as air pollutants (Pedersen 1994), most biodiversity trading has a regulatory or statutory basis that prohibits an activity (e.g., indigenous vegetation clearance, species habitat destruction, filling of wetlands) and later permits it conditionally (Salzman & Ruhl 2000).

As a regulatory incentive mechanism (Figure 1), environmental trading relies on developers’ self-interest and resources in addition to administrative enforcement

(Gustafsson 1998:268). Compared with pure administrative mechanisms (e.g., rules, standards), such market mechanisms are often purported to (1) allocate natural resources more efficiently, (2) satisfy developers better (increase access to resources, reduce compliance costs, and/or enhance green credentials; ten Kate *et al.* 2004), and (3) provide improved environmental protection (see Gustafsson 1998; Kroeger & Casey 2007). In trading biodiversity, some programs aim to reduce rates of biodiversity loss (e.g., Lueck & Michael 2003; Chomitz 2004). Others, perhaps increasingly, propose to achieve no net loss or a net gain in biodiversity (e.g., WHOEP 1993; VDNRE 2002; WA EPA 2006).

So far, evaluations suggest that biodiversity trading has not produced its promised biodiversity outcomes. Typically, development proceeds while offsets fall short

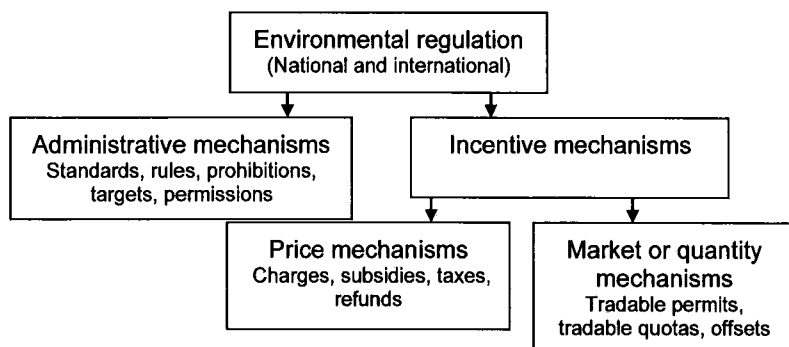


Figure 1 A taxonomy of environmental policy instruments (after Gustafsson 1998).

of goals or are never implemented (for some primary sources see Race 1985; Gardner 1996; Race & Fonseca 1996; NRC 2001; Brown & Veneman 2001; Quigley & Harper 2005a, b; Mack & Micacchion 2006; Gibbons & Lindenmayer 2007; Matthews & Endress 2008; Appendix S1). Such evaluations usually blame failure on inadequate assessment currencies, disregard for exchange restrictions, and poor enforcement. Their authors regularly recommend better currencies, more or different restrictions on exchanges, and better audit and compliance procedures.

We posit that weak technical design and lax enforcement are predictable features of regulatory biodiversity trading, and that sound and well-intentioned ecological advice is unlikely to correct this. We use three insights of Salzman & Ruhl (2000), who (1) provided a three-part analytical framework—currency, exchange restrictions, and review—to predict whether a trading program is likely to protect the environmental goods concerned; (2) recognized that simplicity, measurability, and interchangeability (also called *fungibility* or *substitutability*) determine whether environmental goods can be traded and protected simultaneously; and (3) predicted that in trading a complex, noninterchangeable and poorly measurable resource such as biodiversity, ecological realities, and political factors would combine to ensure inadequate currency, exchange restrictions, and review, to the detriment of that resource.

Our review examines ecological and political science theories that suggest protecting biodiversity in trading is neither technically realistic nor administratively probable. We first consider ecological aspects of recent biodiversity trading practice, using Salzman & Ruhl's framework. We assess the adequacy of currencies, exchange restrictions, and oversight to protect biodiversity, and identify issues ecologists have yet to consider. Next, we use public choice theory to extend Salzman & Ruhl's insights into problems of biodiversity trading administration. While biodiversity trading programs proliferate and advance optimistic promises to protect biodiversity,

core impediments to improved biodiversity outcomes remain largely unrecognized and unaddressed. We consider whether this trend is explained by the effectiveness of "symbolic policies," (Edelman 1964), and suggest both ecological and political science are relevant for the assessment of biodiversity trading programs and potential alternative policy tools.

Inadequate biodiversity currencies

The test of a currency's adequacy is "... can [it] capture the significant values exchanged or do some important features remain external to the trades?" (Salzman & Ruhl 2000:614, Table 1). Simple environmental goods are easiest to commodify in currency: for example, a kilogram of sulfur dioxide provides a simple, relatively measurable, and adequate exchange currency for a unit of air pollution. But for biodiversity, there is no simple currency that adequately "... capture[s] what we care about" (Salzman & Ruhl 2000:623) (see also Robertson 2000). Biodiversity—the variety of living organisms—is hierarchical, with levels of organization from genes to ecosystems, an extraordinary number of elements at each level that vary in time and space, and diverse interactions within and between levels (e.g., Gaston 2000). Such complexity makes it exceptionally difficult to measure biodiversity, and to estimate an element's contribution to the whole.

Furthermore, if "what we care about" is persistence of the full variety of life, contributions of different biodiversity elements are noninterchangeable. This noninterchangeability can be conceived of in three different dimensions (Salzman & Ruhl 2000): *type* (e.g., endangered frog habitat is neither equivalent to nor exchangeable for endangered tree habitat; captive-bred subpopulations do not replicate a diverse population gene pool); *space* (e.g., isolated and contiguous habitat patches are not equivalent); and *time* (e.g., genetic bottlenecks alter population characteristics irreversibly; early and late seral stages of an ecosystem type support different species suites).

Table 1 Assessment framework adapted from Salzman & Ruhl (2000) for biodiversity trading, and examples of pertinent questions

Component 1. Currency adequacy

"Does the chosen metric fully capture the valued characteristics of the biodiversity exchanged, or do some important features remain external to the trades?" or, "Does the currency 'capture what we care about'?"

Component 2. Exchange adequacy

"Are market rules (exchange restrictions) adequate to ensure trades do not enable biodiversity loss?"

a. Type restrictions

"Are like communities, species or processes replaced with like?" and if not

"Is this a trade-up (and what is a trade-up)?"

b. Space restrictions

"Is the offset situated so ecological interactions and processes are maintained?"

"Are existing biological communities and ecosystems displaced by the location of the offset?"

c. Time restrictions

"Will there be a temporal gap? And will it compromise biodiversity persistence?"

"What is the risk and cost of offset failure and permanent loss, and who bears that risk?"

"Are biodiversity platforms in place and is biodiversity information sufficient to inform exchange restrictions (and if not, who should pay for their development)?"

"What is the logic behind offset ratios? Do ratios ensure replacement of like ecosystems with like, restoration of spatially dependent processes, and/or that risks and costs of biodiversity loss are fairly apportioned?"

"What will be the cumulative effects on biodiversity of multiple exchanges and/or offset program(s)?"

Component 3. Review adequacy

"Do review provisions:

a) Ensure robust valuation of the goods exchanged?

b) Ensure fair apportioning of costs and risks (given who stands to gain from the exchange)?

c) Effectively counteract agencies' and trading parties' incentives to transact trades that compromise biodiversity?"

Incomplete measurement, imprecise valuation, and noninterchangeability mean biodiversity exchange is strictly not commodity trading, but barter: "individuals haggling over goods and services with unique attributes" (Salzman & Ruhl 2000:614). But unlike barter in private goods, exchanges in environmental goods affect interests beyond direct participants; trading can erode the public's interest in public resources (Gustafsson 1998; Salzman & Ruhl 2000; Kroeger & Casey 2007). Unavoidably, simple biodiversity currencies are inadequate; they facilitate nominal biodiversity accounting, but omit, obscure, or conceal biodiversity features and noninterchangeabilities (Robertson 2000; Salzman & Ruhl 2000; e.g., see Stein *et al.* 2000; McCarthy *et al.* 2004; Fox & Nino-Murcia 2005). And in any exchange, a characteristic not counted is protected only by chance, which facilitates its loss. Simple currencies simultaneously enable poor accountability for biodiversity outcomes and provide opportunity for damage to biodiversity, bringing a need for restrictions on exchanges if public interests are to be protected (Salzman & Ruhl 2000).

Exchange restrictions to compensate for currency inadequacy

The literature describes many restrictions on biodiversity exchange intended to compensate for currency inadequacies in the three noninterchangeability dimensions.

In each case, a test of adequacy asks: "is this restriction adequate to ensure against biodiversity loss?" (Table 1).

(1) *Type*. Exchanges of dissimilar biodiversity risk loss of biodiversity components and functions (Salzman & Ruhl 2000; ten Kate *et al.* 2004). To counter this problem, some trading programs propose no-go areas to prohibit trading of critical assets (e.g., WA EPA 2006) but permit exchanges of noncritical biodiversity. Others limit exchanges to the same species, communities, or ecosystem type (e.g., VDNRE 2002; Brownlie *et al.* 2007), relying on simplified biodiversity classification tools. Some suggest out-of-kind exchanges ("like for like or better" or "trading up"; ten Kate *et al.* 2004:61; WA EPA 2006:10; Brownlie *et al.* 2007:6) might offer greater value if affected biodiversity is secure and more imperilled biodiversity is protected, although credible guidelines based on measures of complementarity (Justus & Sarkar 2002) have been slow to emerge.

(2) *Space*. The location of individuals, populations, and communities profoundly influences ecological interactions and biodiversity persistence (Hanski 1998); and ecosystems in different locations serve dissimilar functions (e.g., Mitsch 1998). To maintain biodiversity, exchanges must replace ecological interactions and functions lost in development, and restoration projects must not displace other natural ecosystems. Yet quantifying spatial dependency is data demanding, even for single species (e.g., Ovaskainen & Hanski 2004), and adverse effects of spatial displacement are poorly recognized and

rarely remedied in biodiversity trading. Some programs use a rule-of-thumb preference for nearby replacements over distant ones (ten Kate *et al.* 2004). Others restrict trades to within geographic zones (e.g., wetland service areas; Salzman & Ruhl 2000), or concentrate replacements in aggregated sites, intending to overcome fragmentation (e.g., Fox & Nino-Murcia 2005). Still others apparently ignore the problem (see Burgin 2008).

(3) *Time*. Development is usually permanent, life cycles of companies are finite, and ecosystem reconstruction seldom, if ever, succeeds in structure, composition, or function (e.g., Zedler & Callaway 1999; Hilderbrand *et al.* 2005; Quigley & Harper 2005a, b; Morris *et al.* 2006; Gibbons & Lindenmayer 2007; Matthews & Endress 2008). Even temporary losses may permanently damage populations and engender or aggravate cumulative effects. To provide certainty that development will not cause biodiversity loss, new, equivalent habitat must be created before existing habitat is destroyed or modified (Veltman 1995; Crooks & Ledoux 2002). This would restrict exchanges to a few, simple, predictable, quickly maturing ecosystem types (Morris *et al.* 2006). In biodiversity trading practice, time noninterchangeability is dealt with in three ways. First, *permanent drawdown* trading overlooks it, and exchanges destruction of existing ecosystems or species habitats for improved protection of other, existing ecosystems or habitats (as in USA's conservation banking) (Fox & Nino-Murcia 2005; Carroll *et al.* 2008) and Brazil's forest set-aside trading (Chomitz 2004)). Second, *interim drawdown* programs permit ecosystem or species habitat destruction before reconstruction (e.g., Australian states; VDNRE 2002; Gibbons & Lindenmayer 2007). Such programs generate immediate ecosystem or habitat loss, interrupt ecological processes (see Fig. 4 of Gibbons & Lindenmayer 2007:30), and risk permanent loss through restoration failure (Moilanen *et al.* 2008). Third, *true banking* programs nominally address time noninterchangeability by requiring biodiversity replacement before development occurs. This eliminates interim biodiversity loss and risk of restoration failure (though such requirements appear to be seldom enforced; see Salzman & Ruhl 2000; Mack & Micacchion 2006).

Further ecological problems

The above scan reveals persistent deficiencies in information and practice that facilitate net biodiversity loss through nonequivalent exchanges. Further problems span all three noninterchangeability dimensions. For example, the biodiversity data needed to inform exchange restrictions usually exceed those that governments, developers, or habitat bankers have been willing to fund.

Less comprehensive data bring greater uncertainty about biodiversity characteristics and hence increase potential for biodiversity loss. Also, researchers developing exchange restrictions at project scales often overlook cumulative (often nonlinear, synergistic, and indirect) negative effects of multiple nonequivalent exchanges in type, space, or time (Bedford & Preston 1988; Quigley & Harper 2005a; Mack & Micacchion 2006; but see Brownlie *et al.* 2007; Vesik *et al.* 2008). Another problem concerns ratios (or multipliers) applied to compensate for noninterchangeability in type, space, or time. Some have a statistical or ecological basis. For example, high offset ratios are needed to avoid risk of unfavorable biodiversity outcomes when restoration effectiveness is uncertain, failure is correlated among sites, or restoration is delayed (Moilanen *et al.* 2008). Brownlie *et al.* (2007) recommend multipliers to protect specified minimum areas, addressing the question "what ratio will achieve the biodiversity outcome sought?". Elsewhere, the basis for multipliers seems unsound: providing several times something different cannot replace a lost species or unique ecosystem; restoring something to higher abundance later may not compensate for consequences of a loss now. Similarly, financial insurance can neither restore the unrestorable nor remedy permanent loss.

Oversight of biodiversity barter

The currency and exchange inadequacies that beset biodiversity barter place a heavy burden on precautionary oversight (a review mechanism) to control exchanges sufficiently to protect biodiversity. Salzman & Ruhl (2000) suggest adequate oversight should ensure meaningful valuation of the public goods exchanged and fair apportioning of costs and risks, and counteract the agencies' and trading parties' incentives to transact bad deals (Table 1). Time and again, researchers report procedural and enforcement failures in biodiversity trading programs, and urge improvement, through more or better frameworks, resourcing, or insurance (e.g., Gibbons & Lindenmayer 2007; Matthews & Endress 2008; Norton 2008). But these suggestions do not address the political and administrative causes of inadequate review.

Administrative problems

Salzman & Ruhl (2000) observed an administrative playing field of biodiversity barter tilted toward development. We propose that classic theories of politics predict this tilt, and that biodiversity's poor measurability and noninterchangeability exacerbate it. Together, political, and

ecological factors create two fundamental problems for public administration of biodiversity barter:

(1) *Thin markets.* For a viable trading program to operate in practice, currencies must be simple, review cannot be onerous, and restrictions must be straightforward and few (Pedersen 1994; Salzman & Ruhl 2000). But to protect biodiversity, high-quality data must inform precautionary exchange restrictions. Such restrictions create transaction costs and allow few exchanges, constraining an otherwise well-supplied trading market (Salzman & Ruhl 2000; see e.g., Chomitz 2004).

(2) *Inequality, divergence, and coincidence of interests.* Precautionary exchange is also unlikely because of the unequal power and different goals of participants. This is foreseen by the public choice theory of politics, which predicts that rational actors act in their own self-interest, and that some actors are more powerful than others (e.g., see McCubbins *et al.* 1987; Eskridge 1988). Specifically, the motivated few will be more powerful than the disorganized many (Olson 1965); so public choice theory predicts private interests—such as developers—will often defeat public interests—such as biodiversity protection—and reap most policy benefits. As Eskridge (1988:294) observed, “[t]he legislative market is one that works badly. The public goods that government ought to be providing ... are seldom passed by the legislature, because demand for them is usually not strong and legislators gain too little from sponsoring them ... Conversely, rent-seeking statutes—primarily, concentrated benefit, distributed cost measures—seem inevitable.”

Three interests compete in biodiversity barter:

(a) *Traders* (developers and restoration/offset providers) have a financial, or vested, interest in obtaining permits to conduct business. Such traders in environmental goods need not be conscious of the quality of environmental outcomes if a permit is forthcoming (Gustafsson 1998; Floumoy 2000; Salzman & Ruhl 2000; Kroeger & Casey 2007). This encourages developers seeking permits to underestimate (perhaps unintentionally) environmental impacts, and restoration providers to exaggerate (maybe unwittingly) the value of biodiversity goods offered in exchange. Neither trader profits from investment in data to support independent assessment, robust exchange restrictions, and meaningful review. Instead, they benefit from simple currencies that are inexpensive to measure, plentiful trading options with few exchange restrictions, and limited review to minimize risk that a permit will be overturned.

(b) *Biodiversity protection interests* usually have no vested interest in biodiversity barter. They benefit from exchanges that are fully measured, exchange restrictions that are robust and upheld, and review mechanisms that are meaningful and effective in protecting biodiversity.

(c) *Regulatory officials* are those appointed to enforce trading conditions, and are both referee and representative of the public's interest in biodiversity. Because traders have little incentive to control quality, officials shoulder the full burden of enforcement. But officials are not disinterested “billiard balls,” faithfully implementing democratically determined rules (Wilson 1989:88). Without inferring corruption or malfeasance, public choice theory predicts that officials often have motivations that are different from their statutory mandates, and that, given freedom to choose, officials will often pursue their own self interest (e.g., Niskanen 1971; McCubbins *et al.* 1987; O'Toole 1988). In environmental regulation, incentives on officials often coincide more strongly with development than environmental interests: Winter (1985) even suggests that governments rarely fund full enforcement, and sometimes directly discourage officials from frustrating powerful vested interests. Therefore, officials can and sometimes do reduce their financial or political costs by offering development interests more palatable and less environmentally demanding options (Winter 1985; Salzman & Ruhl 2000:648–665; Brower 2008:20–22; 84–108). Simple inexpensive biodiversity currencies, weak or ambiguous exchange restrictions, and limited review benefit both officials and traders because they are cheap and offer flexibility, or utility (see Pedersen 1994; Parkes *et al.* 2004). Coincidentally, they also facilitate development at the expense of biodiversity.

The playing field on which these interests compete is far from level; the “default setting” (Brower 2008:14) predicted by Olson (1965) is that development will defeat biodiversity. To address biodiversity decline, policy instruments must level this playing field. But theory predicts biodiversity barter will reinforce, rather than correct, this default setting.

First, mandates to barter biodiversity weaken existing statutory constraints on biodiversity harm by allowing officials discretion to circumvent them; for example, the Habitat Conservation Plan provision of the USA's Endangered Species Act erodes its absolute prohibition on

species take (Ruhl 1999). Even in situations of routine noncompliance, legitimizing barter may produce worse environmental outcomes than policy regimes in which officials barter with developers "outside the shadow of the law" (Ellickson 1991:52), but the existence of a clear statute constrains their bartering leeway (see Winter 1985:240). More generally, in giving officials discretion to work toward unspecified outcomes, barter increases opportunity for officials already motivated to "skip rather lightly past avoidance and minimization and proceed instead directly to compensation" (Bean & Dwyer 2000:10537), while reducing public power to specify rules and goals through democratic processes (see Salzman & Ruhl 2000:683).

Second, the case-by-case decision making inherent in biodiversity barter reinforces dominance of vested development interests by constraining the effectiveness of biodiversity protection interests. Case-by-case decision making keeps biodiversity loss off the national radar and limits its importance, hence weakening the environmental voice (see Schattschneider 1960; Pralle 2006). It is more costly and less feasible for environmental interests to marshal the resources to challenge proposals case-by-case than through high-level orchestrated campaigns (Brower 2008:57).

Third, problematic measurement and case-by-case barter each render biodiversity trading especially vulnerable to *information asymmetry*—the situation in which insiders (traders and officials) know more than outsiders (biodiversity protection interests and the public), who are unable to measure the quality of biodiversity deals. Information asymmetry creates slack, or "a zone of freedom of action for regulators...in which they can operate with lessened fear of punishment by the polity for decisions that deviate from those the polity would adopt on its own" (Levine 1998:269). When officials' and developers' interests coincide in negotiating permits, a pattern of informal and less-than-transparent deals can result (Winter 1985; Freeman 2000; Brower 2008) with norms of behavior and standards of fairness that benefit insiders, but deviate from statutes and ideas of fairness held to protect outsiders—the public (Ellickson 1991). Thus, information asymmetry will systematically favor development over protection.

No net loss as symbolic policy

Absence of opportunity for public input in case-by-case decisions often renders ecological scientists the most vocal critics of biodiversity trading. But scientists appear reluctant to abandon hope that biodiversity offsets might yet deliver no net loss (see Gibbons & Lindenmayer 2007;

Burgin 2008; Norton 2008). We see compelling reasons for skepticism.

Some ecologists insist biodiversity barter could achieve no net loss—if only there were better currencies, informed exchange restrictions, and attention to review (e.g., ten Kate *et al.* 2004; Gibbons & Lindenmayer 2007). They assume that if improved information and measures were available, and rules were clear and transparently defensible on ecological grounds, officials would use and implement them. Empirical evidence shows that officials have repeatedly failed to do so (e.g., Salzman & Ruhl 2000; Fox & Nino-Murcia 2005; Burgin 2008); and public choice theory predicts this failure. Others might see opportunities to leverage funds for improved biodiversity data and measurement; developers, agencies, and governments are likely to resist this. Those recognizing the primacy of administrative problems posit carefully designed review might counter motivations of traders and officials (Salzman & Ruhl 2000:693). But this would constrain exchanges to the detriment of developers and officials, and no such review institution has emerged. In the absence of credible solutions to these problems, biodiversity trading is likely to continue to facilitate development at the expense of biodiversity.

In addition, biodiversity exchange has potential to postpone social and legislative changes needed to address the basic problem of biodiversity loss (see Pedersen 1994; Gustafsson 1998:271). We see two reasons. First, bartering focuses parties' attention on immediate steps, rather than stimulating them to proceed "according to some larger progressive principle" (Winter 1985:246). This resembles displacement behavior in which "organizational means become transformed into ends-in-themselves and displace the principal goals of the organization" (Merton 1957). Conservation programs with a preference for near-term, achievable, procedural goals can deflect attention from long-term, more difficult goals for ecological outcomes (Brower *et al.* 2001).

Second, no net loss and net gain slogans themselves may be effective political diversions. We have argued that achieving no net biodiversity loss through barter is an illusion that crumbles under scrutiny from ecological and political science. But Edelman (1960, 1964) suggests that some policies are never intended by politicians to be more than hollow promises. Such symbolic policies promise much but guarantee little, and allow the motivated few to reap most of a policy's benefits while leaving the disorganized many unaware, or lulled into "political quiescence" (Edelman 1964). No environmentalist will disagree with the goal of no net biodiversity loss. In attaching the slogan "no net loss" to biodiversity barter, politicians can appear to take action while continuing to serve development interests, and ignoring or perhaps

exacerbating biodiversity loss. In engaging ecologists' collaboration in a symbolic but illusory goal, biodiversity barter may succeed by "keeping friends close and enemies closer" (Brower 2008:58) thus defusing potential opposition (Robertson 2000). Developers, politicians, and officials embrace biodiversity barter under "no net loss" or "net gain" flags (Robertson 2000; Salzman & Ruhl 2000; Burgin 2008) because it benefits them to do so. Support from ecological scientists, whether tacit or active, sustains and authenticates the illusion.

Conclusions

Viable biodiversity barter and meaningful biodiversity protection seem mutually exclusive. We can achieve one or the other, but not both. Although compensation and no net loss are laudable ideals, ecological and political problems appear intractable, and mean that bartering is likely to accomplish more harm than good for biodiversity.

Ecological and political factors combine in bartering biodiversity to produce currencies, exchange restrictions, and oversight that are inadequate to protect biodiversity. Because biodiversity is complex and its elements noninterchangeable, there is no simple currency to measure fairness of exchange, and restrictive exchange rules and robust review institutions are needed to protect it. But a functioning exchange program requires simple currencies, few restrictions, and undemanding review. This gulf between market and ecological viability seems to render biodiversity trading doomed to fail—more specifically, to fail biodiversity. Indeed, the simplistic currencies, lax exchange restrictions and inadequate review that benefit both traders and officials are predicted by political theory and observed in practice. All come at a cost to biodiversity.

We further conclude that inequalities, divergence, and coincidence among interests in biodiversity barter mean that improved biodiversity measures and exchange restrictions recommended by ecologists will rarely be adopted. Few academics and practitioners have understood and tried to address these nonecological causes of failure (Salzman & Ruhl 2000:693).

The administrative playing field described in this article shapes the outcomes of not only biodiversity trading, but also all environmental policy. However, political theory predicts that biodiversity exchange policies—because of biodiversity's complexity, poor measurability, and noninterchangeability—will be more vulnerable to the institutional failings that undermine environmental protection than simple (albeit imperfectly enforced) prohibitions. Public choice theory suggests officials and

traders have more incentive to facilitate barter than to ensure biodiversity protection. Thus, given the option of saying to developers "yes, with conditions" rather than "no," officials will prefer "yes, with conditions"—particularly when compliance with conditions cannot be credibly measured and officials can avoid accountability for outcomes. Legitimized bartering can thus create a policy situation "obscure enough to please all parties . . . and so ill-defined that failures . . . will be difficult to detect and impossible to litigate" (Walker *et al.* 2008:226; see also Winter 1985).

Furthermore, recent proliferation of offset programs, with the promise of no net loss or net gain, is consistent with effective use of symbolic policy to "give the rhetoric to one side and the decision to the other" (Edelman 1960:703). Symbolic policy may cost conservation by obscuring biodiversity loss and dissipating impetus for social activism and forthright conservation planning.

In sum, while compensation and no net loss are worthy goals, and bartering biodiversity might appear more promising than simple and weakly enforced prohibitions, this article suggests policies that enable biodiversity trading may perversely yield worse biodiversity outcomes. All theoretical predictions point to further biodiversity loss paving the way for development in any biodiversity trading program, while a no net loss tag-line defuses potential opposition and impetus for change.

Acknowledgments

The authors acknowledge funding from New Zealand's Ministry of Research, Science and Technology, Lincoln University, and in-kind support from the Department of Conservation. We thank C. Bezar for technical editing and four anonymous reviewers for comments that improved the manuscript. We drew on the ideas of many colleagues, especially J. Overton (Landcare Research), B. Napp (Department of Conservation), and S. Bekessey, B. Langford, A. Moilanen, H. Possingham, and R. Pressey (the Applied Environmental Decision Analysis hub).

Supporting Information

Additional Supporting Information may be found in the online version of this article:

Appendix S1: Major regulatory biodiversity trading programs and references given in the manuscript.

Please note: Wiley-Blackwell is not responsible for the content or functionality of any supporting materials supplied by the authors. Any queries (other than missing

material) should be directed to the corresponding author for the article.

References

- Bean, M.J., Dwyer L.E. (2000). Mitigation banking as an endangered species conservation tool. *Environ Law Reporter* **7**, 10537–10556.
- Bedford, B.L., Preston E.M. (1988) Developing the scientific basis for assessing cumulative effects of wetland loss and degradation on landscape functions: status, perspectives, and prospects. *Environ Manage* **12**, 751–771.
- Brower, A.L. (2008) *Who owns the high country?* Craig Potton Publishing, Nelson, New Zealand.
- Brower, A.L., Reedy C., Yelin-Kefer J. (2001) Consensus vs. conservation in the Upper Colorado River Recovery Implementation Program. *Conserv Biol* **15**, 1001–1007.
- Brown, S., Veneman L.M. (2001) Effectiveness of compensatory wetland mitigation in Massachusetts, USA. *Wetlands* **21**, 508–518.
- Brownlie, S., Botha M., Helme N., van Zyl H. (2007) *Provincial guidelines on biodiversity offsets*. Revised draft – March 2007 Edition 2. Republic of South Africa, Provincial Government of the Western Cape, Department of Environmental Affairs & Development Planning, Cape Town, South Africa.
- Burgin, S. (2008) Biobanking: an environmental scientist's view of the role of biodiversity banking offsets in conservation. *Biodivers Conserv* **17**, 807–816.
- Carroll, N., Fox J., Bayon R. (2008) (ed). *Conservation and biodiversity banking: a guide to setting up and running biodiversity credit systems*. Earthscan, London.
- Chomitz, K.M. (2004) Transferable development rights and forest protection: an exploratory analysis. *Int Reg Sci Rev* **27**, 348–73.
- Crooks, S., Ledoux, L. (2002) *Mitigation banking as a tool for strategic coastal zone management: a UK perspective*. Centre for Social and Economic Research on the Global Environment Working Paper GEC 99–02.
- Edelman, M. (1960) Symbols and political quiescence. *Am Pol Sci Rev* **54**, 695–704.
- Edelman, M. (1964) *The symbolic uses of politics*. University of Illinois Press, Urbana, IL.
- Ellickson, R.C. (1991) *Order without law: how neighbours settle disputes*. Harvard University Press, Cambridge, MA.
- Eskridge, W. (1988). Politics without romance: implications of public choice theory for statutory interpretation. *Virginia Law Rev* **74**, 275–338.
- Floumoy, A.C. (2000) Restoration Rx: an evaluation and prescription. *Arizona Law Rev* **7**, 187–213.
- Fox, J., Nino-Murcia, A. (2005) Status of species conservation banking in the United States. *Conserv Biol* **19**, 996–1007.
- Freeman, J. (2000) The contracting state. *Fl State Univ Law Rev* **28**, 155–214.
- Gardner, R.C. (1996) Banking on entrepreneurs. *Iowa Law Rev* **81**, 527–587.
- Gaston, K.J. (2000). Global patterns in biodiversity. *Nature* **405**, 220–227.
- Gibbons, P., Lindenmayer D.B. (2007) Offsets for land clearing: no net loss or the tail wagging the dog? *Ecol Manage Restor* **8**, 26–31.
- Gustafsson, B. (1998) Scope and limits of the market mechanism in environmental management. *Ecol Econ* **24**, 259–274.
- Hanski, I. (1998) Metapopulation dynamics. *Nature* **396**, 41–49.
- Hilderbrand, R.H., Watts A.C., Randle A.M. (2005) The myths of restoration ecology. *Ecol Soc* **10**, 19 [online].
- Justus, J., Sarkar S. (2002) The principle of complementarity in the design of reserve networks to conserve biodiversity: a preliminary history. *J Biosci* **27**, 421–435.
- Kroeger, T., Casey F. (2007) An assessment of market-based approaches to providing ecosystem services on agricultural lands. *Ecol Econ* **64**, 321–332.
- Levine, M.E. (1998) Regulatory capture. Pages 267–269 in *New Palgrave dictionary of economics and the law* (3d ed. 1999). Macmillan Reference, London, UK.
- Lueck, D., Michael J.A. (2003) Preemptive habitat destruction under the Endangered Species Act. *J Law Econ* **46**, 27–60.
- Mack, J.J., Micacchion M. (2006) An ecological assessment of Ohio mitigation banks: vegetation, amphibians, hydrology, and soils. *Ohio EPA Technical Report WET/2006–1*. Ohio Environmental Protection Agency, Division of Surface Water, Wetland Ecology Group, Columbus, OH.
- Matthews, J.W., Endress A.G. (2008) Performance criteria, compliance success, and vegetation development in compensatory mitigation wetlands. *Environ Manage* **41**, 130–141.
- McCarthy, M.A., Parris K.M., van der Ree R. et al. (2004) The habitat hectares approach to vegetation assessment: an evaluation and suggestions for improvement. *Ecol Manage Restor* **5**, 24–27.
- McCubbins, M., Noll R., Weingast B. (1987) Administrative procedures as instruments of political control. *J Law Econ Org* **3**, 243–277.
- Merton, R.K. (1957) *Social theory and social structure*. The Free Press, Glencoe, IL.
- Mitsch, W.J. (1998) The value of wetlands: the importance of landscape setting and scale. Pages 17–30 in T. Soderqvist, editor. *Wetlands: Landscape and institutional perspectives*, Proceedings of the 4th Workshop of the Global Wetlands Economics Network, Beijer Occasional Paper.
- Moilanen, A., van Teeffelen A., Ben-Haim Y., Ferrier S. (2008) How much compensation is enough? Explicit incorporation of uncertainty and time discounting when calculating offset ratios for impacted habitat. *Restor Ecol* **16**, in press. (<http://www3.interscience.wiley.com/cgi-bin/fulltext/120124288/PDFSTART>)
- Morris, R.K.A., Alonso I., Jefferson R.G., Kirby, K.J. (2006) The creation of compensatory habitat-can it secure sustainable development? *J Nature Conserv* **14**, 106–16.

- Niskanen, W.A. Jr. 1971. *Bureaucracy and representative government*. Aldine-Atherton, Chicago.
- Norton, D.A. (2008) Biodiversity offsets: two New Zealand case studies and an assessment framework. *Environ Manage* **43**, 698–706.
- NRC (National Research Council) (2001) *Compensating for wetland losses under the Clean Water Act*. National Academy Press, Washington, D.C.
- Olson, M. (1965) *The logic of collective action: public goods and the theory of groups*. Harvard University Press, Cambridge, MA.
- O'Toole, R. (1988) *Reforming the forest service*. Island Press, Washington, D.C.
- Ovaskainen, O., Hanski I. (2004) From individual behavior to metapopulation dynamics: unifying the patchy population and classic metapopulation models. *Am Nat* **164**, 364–377.
- Parkes, D., Newell G., Cheal D. (2004) The development and raison d'être of 'habitat hectares': a response to McCarthy et al. (2004). *Ecol Manage Restor* **5**, 28–29.
- Pedersen, W.F. Jr. (1994) The limits of market-based approaches to environmental protection. *Environ Law Reporter* **10**, 173–174.
- Pralle, S.B. (2006) *Branching out, digging in: environmental advocacy and agenda setting*. Georgetown University Press, Washington, D.C.
- Quigley, J.T., Harper D.J. (2005a) Effectiveness of fish habitat compensation in Canada in achieving no net loss. *Environ Manage* **37**, 351–366.
- Quigley, J.T., Harper D.J. (2005b) Compliance with Canada's Fisheries Act: a field audit of habitat compensation projects. *Environ Manage* **37**, 336–350.
- Race, M.S. (1985) Critique of present wetland mitigation policies in the United States based on analysis of past restoration projects in San Francisco Bay. *Environ Manage* **9**, 71–82.
- Race, M.S., Fonseca M.S. (1996) Fixing compensatory mitigation – what will it take? *Ecol Appl* **6**, 94–101.
- Robertson, M.M. (2000). No net loss: wetland restoration and the incomplete capitalisation of nature. *Antipode* **32**, 463–493.
- Ruhl, J.B. (1999). How to kill endangered species, legally: the nuts and bolts of Endangered Species Act "HCP" permits for real estate development. *Environ Lawyer* **5**, 345–405.
- Salzman, J., Ruhl J. B. (2000) Currencies and the commodification of Environmental Law. *Stanford Law Rev* **53**, 607–694.
- Schattschneider, E.B. (1960) *The semisovereign people: a realist's view of democracy in America*. Dryden Press, Hinsdale, IL.
- Stein, E.D., Tabatabai F., Ambrose R.F. (2000) Wetland mitigation banking: a framework for crediting and debiting. *Environ Manage* **26**, 233–250.
- ten Kate, K., Bishop J., Bayon R. (2004) *Biodiversity offsets, views, experience and the business case*. IUCN, Gland, Switzerland and Cambridge, UK and Insight Investment, London, UK.
- VDNRE (Victoria Department of Natural Resources and Environment) (2002) *Victoria's native vegetation management – a framework for action*. Department of Natural Resources and Environment, Melbourne, Victoria, Australia.
- Veltman, V.C. (1995) Banking on the future of wetlands using federal law. *Northwestern Univ Law Rev* **89**, 654–689.
- Vesk, P.A., Nolan R., Thomson J.R., Dorrough J.W., Mac Nally R. (2008) Time lags in provision of habitat resources through revegetation. *Biol Conserv* **141**, 174–186.
- Walker, S., Brower, A.L., Clarkson, B.D. et al. (2008) Halting indigenous biodiversity decline: ambiguity, equity, and outcomes in RMA assessment of significance. *NZ J Ecol* **32**, 225–237.
- WA EPA (Government of Western Australia Environmental Protection Agency) (2006) *Environmental offsets: Position statement No. 9*.
- WHOEP (White House Office on Environmental Policy) (1993) *Protecting America's wetlands: a fair, flexible, and effective approach*. Available from: <http://www.wetlands.com/fed/aug93wet.htm>. Accessed 2 June 2009.
- Wilson, J.Q. (1989) *Bureaucracy: what government agencies do and why they do it*. Basic Books, New York.
- Winter, G. (1985) Bartering rationality in regulation. *Law Soc Rev* **19**, 219–250.
- Zedler, J.B., Callaway J.C. (1999) Tracking wetland restoration: do mitigation sites follow desired trajectories? *Restor Ecol* **7**, 69–73.

Editor: Dr. James Aronson

Copyright of Conservation Letters is the property of Blackwell Publishing Limited and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.

Patrick and Kathryn Townsend
7700 Earling Street NE
Olympia, WA 98506

January 25, 2018

Brad Murphy, Thurston County Senior Planner
Thurston County Planning Commission
2000 Lakeridge Drive, WA
Olympia, WA 98506

Subject: Chapter 19.100 Discrepancy in Definition of Shorelines of Statewide Significance vs. RCW

Dear Mr. Murphy and Planning Commissioners,

We have reviewed definitions in Chapter 19-100 of the Thurston County Shoreline Master Plan (SMP) Update and find that there is a significant discrepancy between the definition of "Shorelines of Statewide Significance" in Chapter 19-100 of the SMP Update and the relevant RCW 90.58.030 (2)(f).

19.50.740 (E) of the draft SMP Update should be corrected to comply with RCW 90.58.030 to exclude marine shorelands and tidelands from Shorelines of Statewide Significance as follows:

Under the definition **19.150.740 Shorelines of Statewide Significance**, the term:

E. Shorelands and wetlands associated with A-D

Should read:

E. Shorelands and wetlands associated with A, C and D above.

For Dept. of Ecology's explanation of the Shorelines of Statewide Significance, which confirms this correction, see: http://198.239.150.195/programs/sea/sma/st_guide/jurisdiction/ssws.html

For a detailed explanation of this error in the draft Thurston County SMP Update, please see Notes below.

Sincerely,
Patrick and Kathryn Townsend

Cc: Cindy Wilson, Doug Karman, Meredith Rafferty

Notes on the definition 19.150.740 Shorelines of Statewide Significance

The relevant term definition:

19.150.710 Shorelands: those lands extending landward for two hundred feet in all directions as measured on a horizontal plane from the ordinary high water mark; floodways and contiguous floodplain areas landward two hundred feet from such floodways; and all wetlands and river deltas associated with the streams, lakes, and tidal waters which are subject to the provisions of this chapter; the same to be designated as to location by the department of ecology. *(Basically the same as the RCW (2)(d))*

Draft wording in Thurston County SMP update:

19.150.740 Shorelines of Statewide Significance: shorelines in Thurston County designated as shorelines of statewide significance are:

- A. Nisqually Delta – from DeWolf Bight to Tatsolo Point, between the ordinary high water mark and the line of extreme low tide, together with shorelands associated therewith per RCW 90.58.030(2)(f)(vi).
- B. Puget Sound – seaward from the line of extreme low tide.
- C. Lakes, whether natural or artificial, or a combination thereof, with a surface acreage of one thousand acres or more measured at the ordinary high water mark.
- D. Natural rivers or segments thereof downstream of a point where the mean annual flow is measured at one thousand cubic feet per second or more.
- E. Shorelands and wetlands associated with A through D above.

Wording in RCW (2)(f):

RCW Definitions and Concepts: Shorelines of Statewide Significance) (2)(f)

(ii) Those areas of Puget Sound and adjacent salt waters and the Strait of Juan de Fuca between the ordinary high water mark and the line of extreme low tide as follows:

(A) Nisqually Delta—from DeWolf Bight to Tatsolo Point,

(iii) Those areas of Puget Sound and the Strait of Juan de Fuca and adjacent salt waters north to the Canadian line and lying seaward from the line of extreme low tide;

(iv) Those lakes, whether natural, artificial, or a combination thereof, with a surface acreage of one thousand acres or more measured at the ordinary high water mark;

(v) Those natural rivers or segments thereof as follows: (A) Any west of the crest of the Cascade range downstream of a point where the mean annual flow is measured at one thousand cubic feet per second or more,

(vi) Those shorelands associated with (f)(i), (ii), (iv), and (v) of this subsection (2); (*Our note: does not include (iii) Puget Sound.*)

The discrepancy is as follows:

- RCW (2)(f)(vi) ***excludes*** shorelands associated with Puget Sound (other than the Nisqually Delta) as Shorelines of Statewide Significance.
- Thurston County SMP update 19.150.740 ***includes*** Shorelands and Wetlands associated with Puget Sound as Shorelines of Statewide Significance (*This erroneously designates all shorelands along Puget Sound waters as Shorelines of Statewide Significance.*)

This discrepancy did not exist in the 1990 Thurston County SMP definition of Shorelines of Statewide Significance.

1990 Thurston County SMP

SHORELINES OF STATE-WIDE SIGNIFICANCE. Areas identified by the Shoreline Management Act as having more than local interest. The following areas in Thurston County were designated as shorelines of state-wide significance:

1. *All portions of Puget Sound lying seaward from the line of extreme low tide.*
2. *The area on Nisqually Delta from DeWolf Bight to Pierce County that lies between the ordinary high-water mark and the line of extreme low tide.*
3. *Alder Lake.*
4. *The Nisqually River.*
5. *The Chehalis River.*
6. *Wetlands associated with 2, 3, 4 and 5 above. (Does not include 1 – Puget Sound)*

For Reference see RCW 90.58.030 below:

Definitions and concepts.

As used in this chapter, unless the context otherwise requires, the following definitions and concepts apply:

- (1) Administration:
 - (a) "Department" means the department of ecology;
 - (b) "Director" means the director of the department of ecology;
 - (c) "Hearings board" means the shorelines hearings board established by this chapter;
 - (d) "Local government" means any county, incorporated city, or town which contains within its boundaries any lands or waters subject to this chapter;
 - (e) "Person" means an individual, partnership, corporation, association, organization, cooperative, public or municipal corporation, or agency of the state or local governmental unit however designated.
- (2) Geographical:
 - (a) "Extreme low tide" means the lowest line on the land reached by a receding tide;
 - (b) "Floodway" means the area, as identified in a master program, that either: (i) Has been established in federal emergency management agency flood insurance rate maps or floodway maps; or (ii) consists of those portions of a river valley lying streamward from the outer limits of a watercourse upon which flood waters are carried during periods of flooding that occur with reasonable regularity, although not necessarily annually, said floodway being identified, under normal condition, by changes in surface soil conditions or changes in types or quality of vegetative ground cover condition, topography, or other indicators of flooding that occurs with reasonable regularity, although not necessarily annually. Regardless of the method used to identify the floodway, the floodway shall not include those lands that can reasonably be expected to be protected from flood waters by flood control devices maintained by or maintained under license from the federal government, the state, or a political subdivision of the state;
 - (c) "Ordinary high water mark" on all lakes, streams, and tidal water is that mark that will be found by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland, in respect to vegetation as that condition exists on June 1, 1971, as it may naturally change thereafter, or as it may change thereafter in accordance with permits issued by a local government or the department: PROVIDED, That in any area where the ordinary high water mark cannot be found, the ordinary high water mark adjoining salt water shall be the line of mean higher high tide and the ordinary high water mark adjoining fresh water shall be the line of mean high water;
 - (d) "Shorelands" or "shoreland areas" means those lands extending landward for two hundred feet in all directions as measured on a horizontal plane from the ordinary high water mark; floodways and contiguous floodplain areas landward two hundred feet from such floodways; and all wetlands and river deltas associated with the streams, lakes, and tidal waters which are subject to the provisions of this chapter; the same to be designated as to location by the department of ecology.
 - (i) Any county or city may determine that portion of a one-hundred-year-flood plain to be included in its master program as long as such portion includes, as a minimum, the floodway and the adjacent land extending landward two hundred feet therefrom.

(ii) Any city or county may also include in its master program land necessary for buffers for critical areas, as defined in chapter 36.70A RCW, that occur within shorelines of the state, provided that forest practices regulated under chapter 76.09 RCW, except conversions to nonforestland use, on lands subject to the provisions of this subsection (2)(d)(ii) are not subject to additional regulations under this chapter;

(e) "Shorelines" means all of the water areas of the state, including reservoirs, and their associated shorelands, together with the lands underlying them; except (i) shorelines of statewide significance; (ii) shorelines on segments of streams upstream of a point where the mean annual flow is twenty cubic feet per second or less and the wetlands associated with such upstream segments; and (iii) shorelines on lakes less than twenty acres in size and wetlands associated with such small lakes;

(f) "Shorelines of statewide significance" means the following shorelines of the state:

(i) The area between the ordinary high water mark and the western boundary of the state from Cape Disappointment on the south to Cape Flattery on the north, including harbors, bays, estuaries, and inlets;

(ii) Those areas of Puget Sound and adjacent salt waters and the Strait of Juan de Fuca between the ordinary high water mark and the line of extreme low tide as follows:

(A) Nisqually Delta—from DeWolf Bight to Tatsolo Point,

(B) Birch Bay—from Point Whitehorn to Birch Point,

(C) Hood Canal—from Tala Point to Foulweather Bluff,

(D) Skagit Bay and adjacent area—from Brown Point to Yokeko Point, and

(E) Padilla Bay—from March Point to William Point;

(iii) Those areas of Puget Sound and the Strait of Juan de Fuca and adjacent salt waters north to the Canadian line and lying seaward from the line of extreme low tide;

(iv) Those lakes, whether natural, artificial, or a combination thereof, with a surface acreage of one thousand acres or more measured at the ordinary high water mark;

(v) Those natural rivers or segments thereof as follows:

(A) Any west of the crest of the Cascade range downstream of a point where the mean annual flow is measured at one thousand cubic feet per second or more,

(B) Any east of the crest of the Cascade range downstream of a point where the annual flow is measured at two hundred cubic feet per second or more, or those portions of rivers east of the crest of the Cascade range downstream from the first three hundred square miles of drainage area, whichever is longer;

(vi) Those shorelands associated with (f)(i), (ii), (iv), and (v) of this subsection (2);

(g) "Shorelines of the state" are the total of all "shorelines" and "shorelines of statewide significance" within the state;

Preliminary Comments
on the
Draft Thurston County Master Program Update
Chapter 19.100
By
Patrick and Kathryn Townsend
Kathy Knight
Other Boston Harbor Residents
November 30, 2017

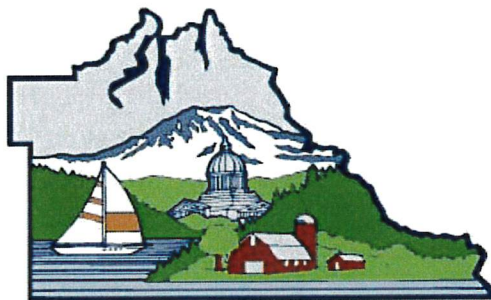
THURSTON COUNTY SHORELINE MASTER PROGRAM

PREPARED FOR:

Thurston County Board of County Commissioners

PREPARED BY:

Thurston County Resource Stewardship



THURSTON COUNTY
WASHINGTON
SINCE 1852

_____, 2017

Chapters:

19.100	Introduction
19.150	Definitions
19.200	Shoreline Jurisdiction and Environment Designation
19.300	General Goals and Policies
19.400	General Regulations
19.500	Permit Provisions, Review and Enforcement
19.600	Shoreline Use and Modification Development Standards
19.700	Special Reports
Appendix A	Shoreline Environment Designations Map
Appendix B	Mitigation Options to Achieve No Net Loss for New or Re-Development Activities
Appendix C	Shoreline Restoration Plan
Appendix D	Channel Migration Zone Maps
Appendix E	Critical Area Regulations Incorporated By Reference

Acknowledgements:

Chapter 19.100 Introduction

19.100.105 Title

The goals, policies and regulations herein shall be known as the Thurston County Shoreline Master Program, and may be referred to as the “Master Program”, “Program”, or the “SMP”.

19.100.110 Purpose and Intent

The Thurston County Comprehensive Plan explains that Thurston County’s shorelines provide valuable habitat for fish and wildlife, economic diversity, and recreational opportunities used by residents of all ages. Shorelines play an important role in enhancing the quality of life for our County’s citizens.

Therefore, the purpose of the Master Program is to guide the future development of the shorelines in Thurston County in a manner consistent with the Shoreline Management Act of 1971, hereinafter the “Act.” The Act and this Program comprise the basic state and county law regulating use of shorelines in the county and is the regulating document for critical areas within shoreline jurisdiction.

Thurston County utilizes a variety of other regulations, policies, plans, and programs to supplement the goals and regulations contained within the Shoreline Master Program, and to manage shoreline resources and regulate development near the shoreline. All development projects are reviewed for compliance with the Thurston County Code (TCC) including but not limited to: Thurston County Comprehensive Plan, Zoning Ordinance (TCC 20, 21, 22, and 23); Critical Areas Ordinance (TCC 24); Thurston County Stormwater Standards (TCC 15.05); Platting and Subdivisions (TCC 18); and the State Environmental Policy Act (SEPA) Ordinance (TCC 17.09.). The County works with other entities such as the Thurston Conservation District, Stream Team, South Sound Salmon Recovery Group and watershed lead entities to promote awareness of shoreline issues. In addition, the County has developed Shellfish Protection Districts, Basin Plans, and Capital Facilities Plans to further the goals and the policies of the Shoreline Master Program and promote wise shoreline usage.

Although critical areas in shoreline jurisdiction are identified and designated under the Growth Management Act (GMA), they must also be protected under the Shoreline Management Act (SMA). The Washington State Legislature has determined that local governments must adopt Programs that protect critical areas within shorelines at a level that assures no net loss of shoreline ecological functions (ESHB 1653 Sec. 2(4)). Although Washington’s shorelines may contain critical areas, the shorelines themselves are not critical areas by default as defined by GMA.

Please provide a link to ESHB 1653. Critical Areas Act. 1990

The provisions of this title for regulating critical areas shall apply to all land, all water areas and all structures, and all uses irrespective of lot lines in the unincorporated territory of Thurston County, Washington, except for existing and on-going agricultural activities. Agricultural activities meeting the requirements of TCC Section 17.15.110 shall be regulated by Chapter 17.15 TCC (as updated) or by the Voluntary Stewardship Program (VSP) once a VSP Workplan is adopted.

Add “upslope”. Should read: “...except for existing *upslope* ongoing agricultural activities.”

Existing aquaculture, but fin fish aquaculture and shellfish aquaculture should **not be exempt.**

19.100.115 Adoption Authority

This Master Program is adopted pursuant to the authority granted under the Shoreline Management Act of 1971, Chapter 90.58 Revised Code of Washington (RCW) and Chapter 173-26 of the Washington Administrative Code (WAC).

19.100.120 Applicability

- A. Unless specifically exempted by statute, all proposed uses and development occurring within shoreline jurisdiction must conform to Chapter 90.58 RCW, the Act, this Master Program and Thurston County Code (TCC), whether or not a permit is required. This Master Program applies to every person, firm, corporation, government agency, or department who or which:
 - 1. Proposes any new use, activity, development or structure within the unincorporated area of Thurston County subject to the Act, as now or hereafter amended; or
 - 2. Proposes a change, modification, addition or alteration to a legally existing use, activity, development or structure within the unincorporated area of Thurston County subject to the Act, as now or hereafter amended.
- B. Direct federal agency activities affecting the uses or resources subject to the Act must be consistent to the maximum extent practicable with the enforceable provisions of the Act and with this Master Program as required by WAC 173-27-060.
- C. The Act and this Program, including the permit system, shall apply to all non-federal developments and uses undertaken on federal lands and on lands subject to non-federal ownership, lease or agreement, even though such lands may fall within the external boundaries of a federal ownership.
- D. This Master Program shall apply to all unincorporated rural and urban lands until such time as a city incorporates land into their city boundaries through annexation.

19.100.125 Relationship to Other Plans and Regulations

- A. Uses, developments, and activities regulated by the Master Program may be independently subject to the Thurston County Comprehensive Plan, the Washington State Environmental Policy Act, the Thurston County Code (TCC) Zoning (Title 20, 21, 22, and 23), Platting and Subdivisions (Title 18), Environment (Title 17), the Critical Areas Ordinance (Title 24), and various other provisions of federal, state, and county laws. The applicant must comply with all applicable laws prior to commencing any use, development, or activity.
- B. 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 constrained by federal or state law, or where specifically provided otherwise in this Program.
- C. When achieved in accordance with Title 20, 21, 22, or 23 TCC (Zoning), building and lot dimension flexibility may be allowed on shorelines within Urban areas or Limited Areas of More Intensive Rural Development (LAMIRDs) when consistent with the Act and all other applicable requirements of this Program, including the requirement to achieve no net loss of shoreline ecological functions.

Further, in order to preclude fragmentation of review and the necessity for individual shoreline permits, a combined shoreline permit is encouraged for proposed activities within the shoreline jurisdiction where feasible.

Please give citations for the source of this paragraph.

Please give examples of a "combined shoreline permit."

Please define the term "where feasible."

Please define when a combined permit would not be allowed. For example, are there proximity restrictions to the combined permit?

The language of this paragraph appears to be vague. Examples of potential problems: One lot has a salmon bearing stream, another combined lot does not. One shoreline lot has migrating salmon, another does not. One shoreline plot has strong tidal flows, the other does not. All shoreline lots vary to a smaller or greater degree. A shoreline permit should be based on the unique individual characteristics of the site.

We strongly disagree with the issuance of aquaculture permits by type of use for multiple properties/land owners. Because of varying conditions, individual permit applications must be required.

- D. Consistent with RCW 36.70A.480, the goals and policies of this Master Program approved under Chapter 90.58 RCW shall be considered an element of the County's comprehensive plan, including Chapter 19.300 (General Goals and Policies). All regulatory elements of this Program, including, but not limited to Chapter 19.100 (Introduction), Chapter 19.150 (Definitions), Chapter 19.200 (Shoreline Jurisdiction and Environment Designations), Chapter 19.400 (General Regulations), Chapter 19.500 (Permit Provisions, Review and Enforcement), Chapter 19.600 (Shoreline Use and Modification Development Standards), Chapter 19.700 (Special Reports), Appendix A (Shoreline Environment Designations Map), Appendix B (Mitigation Options to Achieve No Net Loss for New or Re-Development Activities), and Appendix D (Channel Migration Zone Maps) shall be considered a part of the County's development regulations. Certain non-regulatory elements of this Master Program, including, but not limited to Appendix C (Shoreline Restoration Plan), may be updated and amended at any time without requiring a formal Master Program amendment.

As of 11/29/17, the Appendices C and B are still not available on the County SMP website. Full comment cannot be made until these are available to the public.

- E. Where this Program makes reference to RCW, WAC, or other state or federal law or regulation, the most recent amendment or version shall apply.
- F. This Program will be applied consistent with all applicable federal, state and local laws affecting tribal rights.
- G. Coastal Zone Management Act Consistency reviews for sites within federal jurisdiction shall apply the Environment Designation criteria in Chapter 19.200 that most closely correspond to the project site in order to determine applicable Program policies.

19.100.130 Governing Principles

The following governing principals, along with the policy statement of RCW 90.58.020, the principles of WAC 173-26, and purpose statements in Title 24.01.010 & 24.01.015 TCC, establish the basic concepts of this Program.

- A. Any inconsistencies between this Program and the Act must be resolved in accordance with the Act.
- B. The policies of this Program may be achieved by diverse means, one of which is regulation. Other means authorized by the Act include, but are not limited to: acquisition of lands and/or easements by purchase or gift, incentive programs, and implementation of capital facility and/or non-structural programs.
- C. Protecting the shoreline environment is an essential statewide policy goal. Permitted and/or exempt development, actions taken prior to the Act's adoption, and/or unregulated activities can impair shoreline ecological processes and functions. This Program protects shoreline ecology from such impairments in the following ways:
 - 1. By using a process that identifies, inventories, and ensures meaningful understanding of current and potential ecological functions provided by shorelines.
 - 2. By including policies and regulations that require mitigation of all adverse impacts in a manner that ensures no net loss of shoreline ecological functions. The required mitigation shall include avoidance, minimization, and compensation of impacts in accordance with the policies and regulations for mitigation sequencing. This Program and any future amendment hereto shall ensure no net loss of shoreline ecological functions and processes on a programmatic basis in accordance with the baseline functions present as of the date of adoption of this Program.

A clear definition of "no net loss on a programmatic basis" is required to make full comment. This definition would be in Appendix B, which is still not available.

- 3. By including policies and regulations that ensure that the cumulative effect of exempt development will not cause a net loss of shoreline ecological functions, and by fairly allocating the burden of addressing such impacts among development opportunities.

(1) Thurston County cannot implement this policy when the county does not have knowledge of the current aquaculture projects. The fact that Thurston County does not have knowledge of all aquaculture operations in the County was provided in recent testimony by Thurston County planner, Tony Kantas, during the Jensen/Townsend vs. Sohn hearing before the Hearing Examiner.

(2) If Thurston County does not have knowledge of all aquaculture operation, we question the County's grasp and/or knowledge of other types of operations within the County that would impact ecological function.

(3) To implement this policy, a complete written accounting, including but not limited to start date of operation, whether the operation is ongoing, whether the operation has a permit, who runs the operation, what types of structures are used, etc. would be required.

(4) Description/definition of "exempt development" along with specific examples of "exempt development" is needed.

(5) A detailed description of the existing baselines on which the County measures cumulative impact for each type of project is needed.

(6) The term “development opportunities” needs definition. If there is a definition related to this term it should be cited or, preferably, re-stated within the context of this paragraph including examples.

(7) This paragraph is basically “gobbledygook, i.e., “inflated, jargon-cluttered prose that fails to communicate clearly.”

4. By including regulations and regulatory incentives designed to protect shoreline ecological functions, and restore impaired ecological functions where such opportunities have been identified, consistent with the Shoreline Restoration Plan (Appendix C) developed by Thurston County.

Please provide Appendix C so that we can provide comment.

- D. Regulation of private property to implement Program goals, such as public access and protection of ecological functions and processes, must be consistent with all relevant constitutional and other legal limitations. These include, but are not limited to the protections afforded by the federal and state constitutions, and federal, state and local laws.

Please provide detailed information/references to the relevant federal, state, local laws and other “protections.”

- E. Regulatory or administrative actions contained herein must be implemented with consideration to the Public Trust Doctrine, regulatory takings, and other applicable legal principles as appropriate.

Please provide examples of how the Public Trust Doctrine applies to regulatory or administrative actions. Public Trust Doctrine: <https://fortress.wa.gov/ecy/publications/documents/93054.pdf>

- F. Regulatory provisions of this Program are limited to Shorelines of the State, whereas the planning functions of this Program may extend beyond the designated shoreline boundaries.
- G. Consistent with the policy and use preferences of RCW 90.58.020, Thurston County should balance the various policy goals of this Program along with giving consideration to other relevant local, state, and federal regulatory and non-regulatory programs.

19.100.135 Liberal Construction

As provided for in RCW 90.58.900, the Act is exempted from the rule of strict construction. Therefore, the Act and this Program shall be liberally construed to give full effect to the purposes, goals, objectives, and policies for which the Act and this Program were enacted and adopted, respectively.

Please provide the County’s definitions of “strict construction: and “liberal construction.”

19.100.140 Severability

Should any section or provision of this Program be declared invalid, such decision shall not affect the validity of this Program as a whole.

Chapter 19.150 Definitions

Where terms, phrases and words are not defined, they shall have their ordinary accepted meanings within the context with which they are used. The most current version of the English Webster's Dictionary shall be considered as providing ordinary accepted meanings. In addition, where available, the definitions provided in WAC 173-26-020, WAC 173-27-030, Chapter 90.58 RCW, TCC 20.03, or TCC Title 24.03 shall be applied in the interpretation and administration of this Program. The definition of various terms as presented in this section does not necessarily represent the same definitions as may be found for the same terms in other chapters of the Thurston County Code.

19.150.100 Abandonment: cessation or vacation of a permitted use or structure through non-action for a period of one year or longer.

Please provide reference to the "one-year" baseline requirement. Please provide the definition of "cessation" as it relates to upland and shoreline permits.

19.150.105 Accessory use or accessory structure - any use or structure customarily incidental and accessory to the principal use of a site or a building or other structure located upon the same lot.

19.150.110 Accessory Structure -View Blockage: as it relates to view blockage, buildings and other structures encompassing less than 200 square feet and less than twelve feet in height from grade level, and fences which are six feet, or less in height from grade level do not constitute view blockage.

There should be a "view degradation" definition for activities that are not defined under 19.150.110 but nevertheless cause view degradation to properties, such as waterfront properties, that pay taxes based in part on the "view." Commercial operations on the tidelands would fall under this definition.

19.150.115 Accretion: the growth of a beach by the addition of material transported by wind and/or water. Included are such shore forms as barrier beaches, points, spits, and hooks.

PT: Accretion can occur due to activities other than wind and/or water. This should include accretion due to development activities, including commercial activities on the tidelands as well as the uplands, etc.

19.150.120 Adaptive Management: a process of evaluating data acquired through project monitoring relative to a developed plan with goals or benchmarks, and taking action based on the results in order to reduce uncertainty with regard to adverse ecological impacts and improve outcomes over time.

How would "adaptive management" be implemented once permits are given for aquaculture activities or other activities on the shoreline? How would "adaptive management" be implemented if tideland/shoreline activities are allowed without a permit? Please give examples (including but not limited to) of activities/operations that are subject to "adaptive management."

19.150.125 Adjacent Principle Building: a principle building on a lot abutting the applicant's lot.

19.150.130 Agriculture: uses and practices, primarily commercial in nature, which are in support of agricultural activities, agricultural products, agricultural equipment and facilities, and agricultural land, as defined in WAC 173-26-020(3). This excludes activities typically associated with single-family residences, such as gardening activities primarily for on-site consumption. Such uses may still be subject to other provisions of this Program, Title 24 TCC, or Title 17.15 TCC.

19.150.135 Amendment: a revision, update, addition, deletion, and/or reenactment to an existing shoreline master program.

19.150.140 Anchor: a device used to secure a vessel

19.150.145 Appurtenance: structures and development necessarily connected to the use of a single family residence, and located within contiguous ownership of the primary residential use: Common appurtenances include a garage, deck, driveway, fences, utilities, septic tanks and drain-fields, officially registered historic structures, and grading which does not exceed two hundred fifty cubic yards and which does not involve placement of fill in any wetland or waterward of the OHWM. Appurtenances do not include bulkheads and other shoreline modifications or over-water structures, including tower stairs with landings at or below the ordinary high water line.

RCW 90.58.030 states development is "substantial development" and thus subject to "substantial development" scrutiny except for normal repair and maintenance of residences and their appurtenance, and repair and maintenance of bulkheads.

The question is, what is regarded as "normal repair and maintenance" and who decides what is "normal repair and maintenance?" If what a homeowner needs to do is not considered "normal," then a full-blown Substantial Development Permit process with a hearings examiner, appeal so the SHB, may be triggered.

RCW 90.58.030 (e) "Substantial development" means any development of which the total cost or fair market value exceeds five thousand dollars, or any development which materially interferes with the normal public use of the water or shorelines of the state. The dollar threshold established in this subsection (3)(e) must be adjusted for inflation by the office of financial management every five years, beginning July 1, 2007, based upon changes in the consumer price index during that time period. "Consumer price index" means, for any calendar year, that year's annual average consumer price index, Seattle, Washington area, for urban wage earners and clerical workers, all items, compiled by the bureau of labor and statistics, United States department of labor. The office of financial management must calculate the new dollar threshold and transmit it to the office of the code reviser for publication in the Washington State Register at least one month before the new dollar threshold is to take effect. The following shall not be considered substantial developments for the purpose of this chapter:

- (i) Normal maintenance or repair of existing structures or developments, including damage by accident, fire, or elements;
- (ii) Construction of the normal protective bulkhead common to single-family residences;

19.150.150 Aquaculture: the culture or farming of fish, shellfish, or other aquatic plants and animals. Aquaculture does not include the harvest of wild geoduck associated with the state and tribal co-managed wild-stock geoduck fishery.

Does aquaculture include net pens? Does aquaculture include floating rafts or similar methods?

The phrase, "and tribal co-managed," was inserted by Thurston County into the Ecology WAC definition. This needs an explanation.

19.150.155 Aquatic Lands: the bed-lands (submerged at all times) and tidelands (submerged lands and beaches that are exposed and submerged with the ebb and flow of the tides) beneath the waters of lakes, rivers and marine waters and along their shores.

19.150.160 Associated Wetlands: those wetlands which are in proximity to and either influence or are influenced by tidal waters or a lake or stream subject to the Act.

19.150.165 Barrier Structure: any shoreline or in-water structure that has the primary purpose of diverting, capturing or altering the natural flow or transport of water or sediment. These include breakwaters, jetties, groins and weirs.

19.150.170 Best Management Practices: those practices determined to be the most efficient, practical and cost-effective measures identified to reduce or control impacts to water bodies from a particular activity, most commonly by reducing the loading of pollutants from such sources into stormwater and water bodies.

Reference should be made to the source(s) of the definition of “best management practices.” Where specifically are “best management practices defined?”

19.150.175 Boat House: a structure built for and with a continued primary purpose to store aquatic vessels and usually associated with a single-family residence.

19.150.180 Boat Launch or Ramp: a solid ramp, usually made of concrete, used for the purpose of placing watercraft in and out of the water.

19.150.185 Boating Facilities: public and private mooring structures and related services serving five or more boats, including piers, docks, buoys, floats, marinas, and facilities for the use of boat launching, boat storage, or for the service and maintenance of pleasure or commercial craft.

19.150.190 Breakwater: a protective structure usually built off-shore to protect beaches, bluffs, or harbor areas from wave action.

19.150.195 Buffer: a non-clearing area established to protect the integrity, functions and values of the affected critical area or shoreline, so that no net loss of critical area or shoreline ecological functions occurs. Under optimal conditions, buffers are composed of intact native vegetation. Buffer widths are measured horizontally.

What “buffers” will be required around aquaculture installations? The issue of “buffers” around aquaculture installations need to be specifically detailed in this SMP document because aquaculture installations are subject to tides, currents and lack of obvious boundaries such as fences.

How will aquaculture operators guarantee that vegetation/sea life in buffers around aquaculture installations remain intact? Unlike upland areas that can be fenced, the tides and the current inevitably cause sediments from, for example, geoduck harvesting, to fall on neighboring tidelands. Since there are no fences, workers, barges, PVC pipes, netting will inevitably encroach on neighboring tidelands. This has happened in the past in Totten Inlet (Taylor Shellfish encroaching on state-owned tidelands) and lawsuits ensued.

19.150.200 Building: any structure used or intended for supporting or sheltering any use or occupancy.

19.150.205 Building Line: the perimeter or that portion of a building closest to the ordinary high water mark (OHWM), including (but not limited to) decks, balconies, open steps, architectural features (such as cornices), utilities, and roof overhangs.

19.150.210 Bulkhead: a “normal protective” bulkhead includes those structural and nonstructural developments installed at or near, and parallel to, the OHWM for the sole purpose of protecting an existing single-family residence and appurtenant structures from loss or damage by erosion.

19.150.215 Buoy: an anchoring device with a float used to secure a vessel. For the purposes of this program, the term “buoy field” refers to more than one buoy per parcel.

19.150.220 Census-defined Urban Areas: Territories that consist of areas of high population density and urban land use resulting in a representation of “urban footprint”. The territories include residential, commercial and other non-residential urban land uses. Defined by U.S. Department of Commerce and the U.S. Census Bureau Tigerline Shapefile 2012:

<http://www.census.gov/geo/www/ua/2010urbanruralclass.html>.

19.150.225 Certified Local Government: a local government that establishes a historic preservation program meeting federal and state standards, and is eligible to apply to the State Historic Preservation Officer (SHPO) and the National Park Service for certification.

19.150.230 Clearing: the destruction, removal, or disposal of vegetation by manual, mechanical, or chemical methods. Clearing includes logging, even when the understory of vegetation is not being removed.

This definition must include “clearing” the tideland of unwanted native sea life and creatures for commercial geoduck, clam and oyster operations.

19.150.235 Commercial, Commercial Development: a use that involves wholesale or retail trade, or the provision of services.

19.150.240 Compensatory Mitigation: compensatory mitigation is the stage of mitigation sequencing where unavoidable impacts to shoreline ecological functions are offset by restoring, creating, enhancing, or preserving critical habitat within a specific watershed or geographic area.

How does this encourage overall recovery of Puget Sound? Compensatory mitigation appears to undermine recovery of ecological conditions.

Please provide citations within the WAC’s that define all elements of compensatory mitigation and “no net loss.”

Commercial aquaculture operations on the tidelands, which cannot be mitigated on their own, are not “unavoidable” activities. Please provide citations within the WAC’s that define “commercial aquaculture” as an “unavoidable” activity.

19.150.245 Conditional Use Permit (CUP): a permit for a use, development, or substantial development that is classified as a conditional use or is not a listed use in the Use and Modifications Matrix in Chapter 19.600.

CUP’s will be applied at the County to aquaculture installations and approved by ECY per this draft. The ruling by Judge Bjorgen in 2011 defines a geoduck operation, because of the tubes/nets, as a “structure” and the operations are deemed “developments” under the SMA. Does this not require a substantial development permit?

19.150.250 Critical Areas: As defined in Title 24 (Critical Areas) of the Thurston County Code which is adopted by reference as though set forth herein in full, (as amended) provided that the reasonable use provisions set forth in TCC 24.45, and 24.17, shall not be available within the shoreline jurisdiction. Instead, applicants may apply for a shoreline variance when seeking relief from critical areas regulations within shorelines.

Please provide citations from TCC 24.45, and 24.17 and from the Critical Areas Ordinance (CAO) that refer to and/or describe any rules, exclusions and/or the relationship of commercial/industrial shellfish aquaculture and/or net pen aquaculture to Critical Areas.

19.150.255 Critical Habitat: Habitat areas within which endangered, threatened, sensitive or monitored plant, fish, or wildlife species have a primary association (e.g., feeding, breeding, rearing of young, migrating). Such areas are identified herein with reference to lists, categories, and definitions promulgated by the Washington Department of Fish and Wildlife as identified in WAC 232 12 011 or WAC 232 12 014; in the Priority Habitat and Species (PHS) program by the Department of Fish and Wildlife; or by rules and regulations adopted by the U.S. Fish and Wildlife Service, National Marine Fisheries Service, or other agency with jurisdiction for such designations.

Please provide reference to any discussion in the SMP Update regarding Critical Habitat areas, as identified in WAC 232-12-011 and WAC 232-12-014, regarding rules, regulations and in general the relationship of "Critical Habitat" to commercial/industrial shellfish aquaculture and net pen aquaculture.

19.150.260 Critical Freshwater Habitats: includes those portions of streams, rivers, wetlands, lakes and their associated channel migration zones and flood plains that provide habitat for priority species at any stage in their life cycles, and provide critical ecosystem-wide processes, as established in WAC 173-26-221(2)(c)(iv). This is distinguished from the term "Critical Habitat" as utilized in relation to the Endangered Species Act.

19.150.265 Critical Saltwater Habitats: as defined in WAC 173-26-221(2)(c)(iii), include all kelp beds; eelgrass beds; spawning and holding areas for forage fish, such as herring, smelt and sand lance; subsistence, commercial and recreational shellfish beds; mudflats; intertidal habitats with vascular plants; and areas with which priority species have a primary association. See this chapter for definitions of each type of critical saltwater habitat. This is distinguished from the term "Critical Habitat" as utilized in relation to the Endangered Species Act.

Commercial shellfish beds are an industrial use of aquatic habitat and are not a "Critical Saltwater Habitat," however they have previously been defined. We believe any definition including commercial shellfish beds" as critical saltwater habitat were developed before the advent of commercial/industrial geoduck aquaculture and aquaculture that utilizes plastic tubs, bags or any other man-made structures.

We believe this document must distinguish the harvesting from "natural shellfish beds," from "commercial shellfish beds" that are planted. Commercially planted shellfish beds devastate critical saltwater habitats (and certainly over-harvesting does as well).

19.150.270 Cumulative impacts or cumulative effects: the impact on the environment or other shoreline functions or uses which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a long period of time. See WAC 173 26 186(8)(d).

Please provide a citation to the definition of "cumulative impacts" in ECY materials and to baseline information regarding cumulative impacts.

Cumulative impacts can only be determined when there is a clear baseline. The Thurston County baseline should be included in this description, but as Thurston County does not have knowledge of all aquaculture activities (testimony by Thurston County in the Sohn hearing), it obviously has no means of determining cumulative impacts.

19.150.275 Department: for the purposes of this program, means the Thurston County Resource Stewardship Department (or as amended).

19.150.280 Development: means any human-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, clearing, paving, excavation or drilling operations, storage of equipment or materials, bulkheading, driving of piling, placing of obstructions, or any project of a permanent or temporary nature which interferes with the normal public use of the surface waters overlying lands subject to the Act at any stage of water level.

19.150.285 Development Regulation Standards: controls placed on development or land uses, including, but not limited to, zoning ordinances, critical areas ordinances, all portions of a shoreline master program other than goals and policies approved or adopted under Chapter 90.58 RCW, planned unit development ordinances, subdivision ordinances, and binding site plan ordinances together with any amendments thereto.

19.150.290 Dock: the collective term for a moorage structure that typically consists of a nearshore fixed-pile pier, a ramp (or gangway), and a float that is used as a landing place for marine transport or for recreational purposes. It does not include recreational decks, storage facilities or other accessory structures.

19.150.295 Dredge: the removal of earth, gravel, sand or other mineral substances from the bottom of a stream, river, lake, bay, or other waterbody, including wetlands.

The commercial/industrial shellfish industry not only frequently scrapes the beach before planting, but at harvest dredges the entire areas to 3 feet in depth. However “nicely” this has been worded, the impact exists.

19.150.300 Ecological Functions: the work performed or role played by the physical, chemical, and biological processes that contribute to the maintenance of the aquatic and terrestrial environments that constitute the shoreline's natural ecosystem.

19.150.305 Ecologically Intact: those shoreline areas that retain the majority of their natural shoreline functions, as evidenced by the shoreline configuration and the presence of native vegetation. Generally, but not necessarily, ecologically intact shorelines are free of structural shoreline modifications, structures, and intensive human uses. In forested areas, they generally include native vegetation with diverse plant communities, multiple canopy layers, and the presence of large woody debris available for recruitment to adjacent water bodies. Recognizing that there is a continuum of ecological conditions ranging from near natural conditions to totally degraded and contaminated sites, this term is intended to delineate those shoreline areas that provide valuable functions for the larger aquatic and terrestrial environments which could be lost or significantly reduced by human development. Whether or not a shoreline is ecologically intact is determined on a case-by-case basis.

In the first sentence, in addition to vegetation this sentence should include the presence of native vertebrate and invertebrate wildlife. Vegetation is only one aspect of the ecology of the shoreline.

19.150.310 Eelgrass: a flowering plant adapted to the marine environment that roots in sand or mud in shallow waters where waves and currents are not too severe. Eelgrass beds require high ambient light levels. Where eelgrass beds are disputed as a critical saltwater habitat, appropriate state agencies and co-managing tribes shall be consulted in order to assist with the determination.

19.150.315 Emergency: an unanticipated and imminent threat to public health, safety, or the environment which requires immediate action within a time too short to allow full compliance with this program. All emergency construction is construed narrowly and shall be consistent with the SMA and this Program (RCW 90.58.030 (3eiii)). See also emergency exemption procedures in WAC 173-27-040(2)(d).

19.150.320 Endangered Species Act (ESA) - a federal law intended to protect any fish or wildlife species that are threatened with extinction throughout all or a significant portion of its range.

19.150.325 Enhancement: to improve the ecological functions at the site or landscape scale. This includes physical, biological and chemical processes which contribute to the maintenance of the aquatic and terrestrial environments.

This should be “improve the *natural* ecological functions, if any still exist, or to attempt to recreate natural ecological functions”

19.150.330 Environmental Limitations: limiting factors to new modifications or development, such as floodplains or unstable slopes.

19.150.335 Excavation: the mechanical removal of earthen material.

19.150.340 Exemptions: uses and development, set forth in WAC 173-27-040 and RCW 90.58.030 (3)(e), 90.58.140(9), 90.58.147, 90.58.355, and 90.58.515, that are not required to obtain a Substantial Development Permit, but which must otherwise comply with applicable provisions of the Act and this Program. Certain exemption developments must obtain a letter of exemption (see Section 19.500.100(C)(4)).

19.150.345 Existing Lots: lots, tracts, parcels, sites or other fractional part of divided land that was legally established in accordance with local and state subdivision requirements prior to the effective date of this Program.

19.150.350 Existing Structures: structures that were legally constructed prior to the effective date of this Program in accordance with the requirements in effect at the time of construction.

19.150.355 Existing Uses: uses that were legally established prior to the effective date of this Program in accordance with the applicable regulations at the time established.

19.150.360 Facilities: defined per 19.600.115(3)

19.150.365 Feasible: an action, such as a development project, mitigation, or preservation requirement, that meets all of the following conditions:

- A. The action can be accomplished with technologies and methods that have been used in the past in similar circumstances, or studies or tests have demonstrated in similar circumstances that such approaches are currently available and likely to achieve the intended results;
- B. The action provides a reasonable likelihood of achieving its intended purpose; and
- C. The action does not physically preclude achieving the project's primary intended legal use.

The burden of proving infeasibility is on the applicant. In determining infeasibility, the reviewing agency may weigh the action's relative public costs and public benefits, considered in the short- and long-term

time frames.

19.150.370 Fill: the addition or redistribution of soil, sand, rock, gravel, sediment, earth retaining structure, or other material to an area waterward of the OHWM, within a one-hundred year floodplain; or within an important habitat, lake, pond, stream, wetlands, or shorelands (and their associated buffers) in a manner that changes the elevation or creates dry land. Large woody debris or other native materials approved as a part of a habitat restoration project shall not be considered fill.

Based on aerial photos of sediment flow from geoduck harvest operations, there should be a definition of "sediment dispersal" from aquaculture operations such as geoduck harvesting. Sediment so disrupted cannot be kept off of adjoining neighbor tidelands. This would be unacceptable for upland properties.

19.150.375 Float: an anchored (not directly to the shore) floating platform THAT IS FREE TO RISE AND FALL WITH WATER LEVELS AND IS USED for water-dependent recreational activities such as boat mooring, swimming or diving. Floats may stand alone with no over-water connection to shore or may be located at the end of a pier or ramp.

19.150.380 Forage Fish: small, schooling fishes that are key prey items for larger predatory fish and wildlife in a marine food web. Puget Sound species include, but are not limited to, Pacific herring, surf smelt, Pacific sand lance and northern anchovy. Each species has specific habitat requirements for spawning, such as sediment grain size, tidal heights, or vegetation types. Known spawning and holding areas have been mapped by the Department of Fish and Wildlife.

19.150.385 Forest Practices: any activity conducted on or directly pertaining to forestland and relating to growing, harvesting or processing timber, including, but not limited to:

- A. Road and trail construction;
- B. Harvesting, final and intermediate;
- C. Pre-commercial thinning;
- D. Reforestation;
- E. Fertilization;
- F. Prevention and suppression of diseases and insects;
- G. Salvage of trees; and
- H. Brush control.

Forest practices shall not include preparatory work such as tree marking, surveying and road flagging; or removal or harvest of incidental vegetation from forest lands such as berries, ferns, greenery, mistletoe, herbs, mushrooms and other products which cannot normally be expected to result in damage to forest soils, timber or public resources.

19.150.390 Groin: barrier-type structures extending waterward from the back shore across the beach to interrupt and trap sand movement.

19.150.395 Guidelines (WAC): those standards adopted by the Department of Ecology pursuant to

RCW 90.58.200 to assist in the implementation of Chapter 90.58 RCW for the regulation of shorelines of the state. The standards may be referenced at WAC 173-26 and 173-27.

19.150.400 Hard Surface: An impervious surface, a permeable pavement, or a vegetated roof.

19.150.405 Impervious Surface: A non-vegetated surface area which either prevents or retards the entry of water into the soil mantle as under natural conditions prior to development. A non-vegetated surface area which causes water to run off the surface in greater quantities or at an increased rate of flow from the flow present under natural conditions prior to development. Common impervious surfaces include, but are not limited to, roof tops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and oiled, macadam or other surfaces which similarly impede the natural infiltration of stormwater.

19.150.410 Industrial, Industrial Development: facilities for processing, manufacturing, and storing finished or partially finished goods; heavy vehicle dispatch and maintenance facilities; and similar facilities.

This definition should be labeled “Industrial Facilities” rather than “Industrial Development” which has an entirely different meaning than “Facilities.”

If this topic is indeed about “Industrial Development,” it should include commercial aquaculture, which is an industrial development on the tidelands.

19.150.415 In-lieu Fee (Fee In-Lieu): a fee paid to a sponsor (e.g., Thurston County,) to satisfy compensatory mitigation requirements when mitigation is precluded from being completed on-site due to site development or physical constraints, is part of a habitat conservation plan, or when the permitting agencies determine that ILF is more environmentally preferable over proposed permittee responsible mitigation.

This should include references to “no net loss” on a site-specific basis. Some examples here are needed. There needs to be a definition of what is “preferable.” This provision seems particularly susceptible to corrupt practices.

19.150.420 Invasive exotics/non-native vegetation: see Chapters 17.10.010 RCW and WAC 16-750-003

19.150.425 In-stream Structure: structure placed by humans within a stream or river waterward of the ordinary high water mark that either causes or has the potential to cause water impoundment or the diversion, obstruction, or modification of water flow. In-stream structures may include those for hydroelectric generation, irrigation, water supply, flood control, transportation, utility service transmission, fish habitat enhancement, or other purpose.

19.150.430 Jetty: barrier-type structures designed to modify or control sand movement and usually placed at inlets to improve a navigable channel.

19.150.435 Kelp: a plant generally attaching to bedrock or cobbles in shallow waters, especially in areas with moderate to high waves or currents. Kelp beds generally require high ambient light levels. Kelp includes both floating and non-floating species. Where kelp beds are disputed as a critical saltwater habitat, appropriate state agencies and co-managing tribes shall be consulted in order to assist with the determination.

A clear definition related to “disputed kelp bed” is needed.

19.150.440 Landscaping/Landscape materials:

11/30/2017 Comments from Kathryn and Patrick Townsend, Kathy Knight and other Boston Harbor residents.

19.150.445 Land-disturbing Activity: Any activity that results in a change in the existing soil cover (both vegetative and non-vegetative) and/or the existing soil topography. Land disturbing activities include, but are not limited to clearing, grading, filling, and excavation. Compaction that is associated with stabilization of structures and road construction shall also be considered a land disturbing activity. Vegetation maintenance practices, including landscape maintenance and gardening, are not considered land-disturbing activity. Stormwater facility maintenance is not considered land disturbing activity if conducted according to established standards and procedures.

Land disturbance examples should include commercial geoduck and other aquaculture on the tidelands that utilizes unnatural structures, such as PVC tubes (43,500 per acre equaling about 7 miles of PVC weighing approximately 16 tons) as well as non-natural oyster and clam bags.

19.150.505 Limited Area of More Intense Rural Development (LAMIRD): locally designated rural areas authorized to accept more intense, urban-like development under RCW 36.70A.070(5)(d) and Title 20 TCC.

19.150.510 Live Aboard: use of a vessel as a residence, meaning full time occupancy in a single location, for an uninterrupted period exceeding 60 days in any calendar year.

19.150.515 Lot: a fractional part of divided lands having fixed boundaries, being of sufficient area and dimension to meet minimum zoning requirements for width and area. The term shall include tracts, or parcels. Where the context so indicates, lots, tracts or parcels may refer to subdivided lands not conforming to, or in violation of, zoning or subdivision regulations.

19.150.520 Lot Coverage: the percent or square footage of a lot that will be covered by a modification to impervious or hardened surfaces.

19.150.525 Low Impact Development (LID): a stormwater management strategy that that strives to mimic pre-disturbance hydrologic processes of infiltration, filtration, storage, evaporation, and transpiration by emphasizing conservation, use of on-site natural features, site planning, and distributed stormwater management practices that are integrated into a project design.

19.150.530 Low-intensity: activities which do not adversely alter natural ecosystem functions.

Examples should be given.

19.150.535 Macroalgae: Marine algae visible to the naked eye, such as kelp or other seaweeds.

19.150.540 Marina: a public or private water dependent wet moorage and/or dry boat storage facility for 10 or more pleasure craft and/or 10 or more commercial craft, and generally including goods or services related to boating. Marinas also include wet moorage facilities where boat moorage slips may be leased or rented to individuals who are not a member owner of an associated residential development.

Launching facilities may also be provided. Marinas may be open to the general public or restricted on the basis of property ownership or membership.

19.150.545 Marine rail system: a pair of sloping tracks which extends into the tidelands, used for the purpose of placing watercraft in and out of the water.

19.150.550 May: a permissive term that means the action is acceptable, provided it satisfies all other provisions of this Program.

19.150.555 Mining: the removal of sand, soil, minerals, and other naturally occurring materials from the earth for commercial or economic use.

19.150.560 Mitigation Sequencing: Mitigation actions associated with development proposals impacting critical areas shall adhere to the following mitigation sequence:

- A. Avoiding the impact altogether by not taking a certain action or parts of an action;
- B. Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts;
- C. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- D. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;
- E. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and/or

Compensatory mitigation seems to allow for a “no net gain” in ecological function of the marine and shoreline environment. What areas would be included or excluded in the definition of “environments”? Where does this language come from?

Does the County have a plan for actual improvement of the shoreline environment and if so, where is it articulated?

The “Shoreline Restoration Plan” is Appendix C which is not yet published to our knowledge.

- F. Monitoring the impact and taking appropriate corrective measures.

Please define “monitoring the impact” and give examples of “appropriate corrective measures.”

19.150.565 Modification: those actions that modify the physical configuration or qualities of the shoreline area, usually through the construction of a physical element such as a dike, breakwater, pier, weir, dredged basin, fill, bulkhead, or other structure. They can include other actions, such as clearing, grading, or application of chemicals.

The PVC pipes and nets used in geoduck aquaculture have been defined as “structures.” This should be included in the examples of “modification.”

https://protectourshoreline.org/thurston/SDP/110121_ThurstonCnty_HearingExaminer_Order_SDP.pdf

MR: Will look up 1990 plan definition of “modification.”

19.150.570 Mooring Structures: includes piers, docks, floats and buoys and their associated pilings, ramps, lifts and railways, as well as modifications that support boating facilities and marinas. Any mooring structure or grouping of structures that provide docking space for 10 or more boats is considered

11/30/2017 Comments from Kathryn and Patrick Townsend, Kathy Knight and other Boston Harbor residents.

a marina.

19.150.575 Mudflats: a low-lying land of fine sediments and silt that is exposed at low tide and covered at high tide.

19.150.580 Must: a mandatory term that means an action is required.

19.150.585 Natural hydrographic conditions: the natural conditions for a particular time of year of water delivery and movement through a system.

19.150.590 No Net Loss: the maintenance of the aggregate total of the County's shoreline ecological functions. The no net loss standard requires that the impacts of shoreline development and/or use, whether permitted or exempt, be identified and prevented or mitigated such that there are no resulting adverse impacts on ecological functions or processes. Each project shall be evaluated based on its ability to meet the no net loss requirement. The no net loss standard applies at multiple scales, starting at the project site. Compensatory mitigation standards include sequencing guidelines to ensure the most appropriate mitigation type and site are selected, as close to the impacted location as possible.

This definition of "No Net Loss" seems to be an actual "No Net Gain" provision. The definition of "Compensatory mitigation" allows for mitigation in unrelated areas. For example, I want to do development on an acre of tideland. The owner of an unrelated tideland removes a bulkhead as compensatory mitigation. There is no gain in ecological function as the benefits of the bulkhead removal are lost to the new development.

If one of the main compensatory mitigation strategies is restoration in an area of Puget Sound in Thurston County, this would mean that taxpayers would be paying for "No net loss." While the shoreline development is for someone's financial or personal benefit, taxpayers would be subsidizing that financial or person benefit. This is an example of "robbing Peter to pay Paul."

19.150.595 Normal Maintenance: those usual acts necessary to prevent a decline, lapse or cessation from a lawfully established condition.

19.150.600 Normal Repair: to restore a development to a state comparable to its original condition, including, but not limited to, its size, shape, configuration, location and external appearance, within a reasonable period after decay or partial destruction, except where repair causes substantial adverse effects to a shoreline resource or environment. Replacement of a structure or development may be authorized as repair where such replacement is the common method of repair for the type of structure or development and the replacement structure or development is comparable to the original structure or development including but not limited to its size, shape, configuration, location and external appearance and the replacement does not cause substantial adverse effects to shoreline resources or environment.

19.150.605 Noxious Weeds: see Chapters 17.10.010 RCW and WAC 16-750-003.

19.150.610 Ordinary High Water Mark (OHWM): the mark that will be found by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland, in respect to vegetation as that condition existed on June 1, 1971, as it may naturally change thereafter, or as it may change thereafter in accordance with permits issued by the County or Ecology provided, that in any area where the OHWM cannot be found, the OHWM adjoining salt water shall be the line of mean higher high tide and the OHWM adjoining fresh water shall be the line of mean high water.

19.150.615 Pervious Surface: Any surface material that allows stormwater to infiltrate into the ground.

Examples include lawn, landscape, pasture, native vegetation areas, and permeable pavements.

19.150.620 Pier: a rigid structure built over the water and typically constructed on piles, attached to the shore and used as a landing place for marine transport or for recreational purposes.

19.150.625 Platted: land that has been divided following the applicable laws for divisions of land under Title 18 TCC, including land subject to a current application for such division.

19.150.630 Predator Exclusion: an object or activity used to implement pest management in aquaculture practices with the intent of deterring or excluding predators such as moon snails, sea star, crabs, diving ducks, burrowing shrimp or sand dollars. Common methods include, but are not limited to, large canopy nets, mesh, PVC tubes with net caps, flexar plastic tunnels, oyster bags and suspended culture systems.

“Predator Exclusion” is shellfish industry concept. “Predator exclusion” is an environmentally disruptive process of excluding wildlife from certain aquaculture installations. Such an industry definition has no place in a governmental regulation that is specifically designed to protect and preserve natural ecological conditions. It should also be noted that “predator exclusion” almost certainly includes endangered, sensitive, and/or threatened species.

Further, the use of language including “Predator Exclusion” is a way of normalizing concepts that are abnormal and favors the viewpoint of a specific industry rather than the citizens of Thurston County. Are we to take our children down to the beach and see starfish and crabs and explain to them that they are “bad” because they are predators of the commercially grown geoduck? Enshrining this in county documents is unacceptable and counter-productive.

“Predator Exclusion” is not a term that ordinary people use. It is a term that comes directly from the shellfish industry. It does not belong in the Thurston County SMP that is presumably written for the citizens of Thurston County and not simply to benefit the shellfish industry.

The term should be changed to “Wildlife Exclusion.” This more accurately defines the meaning.

19.150.635 Principle Building: the primary structure on a lot closest to the ordinary high water mark excluding accessory structures.

19.150.640 Priority Species: species requiring protective measures and/or management guidelines to ensure their persistence at genetically viable population levels. Priority species are those that meet any of the criteria listed below.

- A. State-listed or state proposed species. State-listed species are those native fish and wildlife species legally designated as endangered (WAC 232-12-014), threatened [WAC 232-12-011(1)], or sensitive (WAC 232-12-011). State proposed species are those fish and wildlife species that will be reviewed by the Washington Department of Fish and Wildlife (POL-M 6001) for possible listing as endangered, threatened, or sensitive according to the process and criteria defined in WAC 232-12-297.
- B. Vulnerable aggregations. Vulnerable aggregations include those species or groups of animals susceptible to significant population declines, within a specific area or statewide, by virtue of their inclination to congregate. Examples include heron colonies, seabird concentrations, and marine mammal congregations.

Examples should include wild salmon and orca whales.

Please provide references to the meaning of this term in WAC's, RCW's, Handbooks, etc.

- C. Species of recreational, commercial, and/or tribal importance. Native and nonnative fish, shellfish, and wildlife species of recreational or commercial importance and recognized species used for tribal ceremonial and subsistence purposes that are vulnerable to habitat loss or degradation.

Species of "commercial" importance should not be included in this list because there is frequently a habitat conflict between "commercial" species and native species. Changing the balance of native species (such as in Willapa Bay and Grays Harbor) by introducing non-native species will inevitably lead to disruption of the ecosystem.

Non-native fish and shellfish should not be included in this list. For example, would non-native Atlantic salmon be included in this list? An argument could be made that they are commercially important. But another argument can be made that allowing Atlantic salmon is a flawed strategy, outlawed in California and Alaska.

- D. Species listed by the National Marine Fisheries Service or the U.S. Fish and Wildlife Service under the federal Endangered Species Act as either proposed, threatened, or endangered.

19.150.645 Prohibited: not permitted to occur in a particular designation.

19.150.650 Public Access: the ability of the general public or, in some cases, a specific community, to reach, touch, and enjoy the water's edge, to travel on the waters of the state, and to view the water and the shoreline from adjacent locations.

19.150.655 Qualified Professional or Qualified Consultant: in accordance with WAC 365-195-905(4), a qualified professional must have obtained a B.S. or B.A. or equivalent degree in biology, soil science, engineering, environmental studies, fisheries, geology, geomorphology or related and relevant field to the subject in question, have related work experience and meet the following criteria:

- A. A qualified professional for wetlands must have a degree in biology, ecology, soil science, botany, or a closely related field and a minimum of five years of professional experience in wetland identification and assessment associated with wetland ecology in the Pacific Northwest or comparable systems.
- B. A qualified professional for habitat management plans or shoreline mitigation plans must have a degree in wildlife biology, ecology, fisheries, or closely related field and a minimum of five years professional experience related to the subject species/habitat type.

Shoreline mitigation requires professional expertise in marine biology independent from industry interests.

MR: In ECY Guidelines – WACs.

- C. A qualified professional for geologically hazardous areas, geotechnical and hydrogeological reports must be a professional engineering geologist or geotechnical engineer, licensed in the state of Washington. In designing soft armoring techniques, a qualified professional may also have similar qualifications as that required for habitat management plans.

- D. A qualified professional for critical aquifer recharge areas means a Washington State licensed hydrogeologist, geologist, or an engineer qualified in experience and training in aquifer recharge.

There should be disclosure requirements for any possible conflict of interest. This would include taking compensation from an interested party to render an opinion, or working for a company or organization which has taken compensation for an affected project or similar projects.

19.150.660 Ramp (or gangway): a structure between a pier and float which adjusts its angle based on the tidal elevation, allowing access to the float at all times.

19.150.665 Recreation: the use and enjoyment of the shoreline by the public, including but not limited to fishing, hiking, swimming and viewing.

19.150.670 Recreational Development: development that provides opportunities for the use and enjoyment of the shoreline by the public, including but not limited to fishing, hiking, swimming and viewing. This includes both commercial and public recreational facilities.

19.150.675 Residential Development: development for the purpose of human habitation. Residential development includes the construction or modification of one- and two-family detached structures, multi-family structures, condominiums, townhouses, mobile home parks, and other similar group housing, together with accessory dwelling units, accessory uses and structures common to residential uses. Residential development also includes the creation of new residential lots through the subdivision of land. Residential development does not include hotels, motels, bed and breakfasts, or any other type of overnight or transient housing or camping facilities.

19.150.680 Resource-based Uses: low-intensity uses, which may include agriculture, aquaculture, forestry, recreation and designated open-space.

The term “low-intensity” is not defined. Aquaculture, particularly geoduck aquaculture using tons of PVC along with nets on the tideland is not “low intensity.” The tidelands are the “nurseries” of Puget Sound and industrial aquaculture on the tidelands has a high intensity impact.

19.150.685 Restoration: the reestablishment or upgrading of impaired ecological shoreline processes and functions. This may be accomplished through measures including, but not limited to, revegetation, removal of intrusive shoreline structures and removal or treatment of toxic materials. Restoration does not imply a requirement for returning the shoreline area to aboriginal or pre-European settlement conditions.

There should be a more comprehensive definition of “restoration”. For example, activities which negatively impact native wildlife species should not be included as a restoration activity. Additional restoration activity in one area should be the basis for justifying development in another location. Restoration should stand alone as just that—restoration.

19.150.690 Revision: the modification or change to a permit authorized under this Program.

19.150.695 Setback: the distance a use or development must be from the edge of a buffer to prevent construction and other activities from intruding into the buffer.

19.150.700 Shall: a mandatory term that means an action is required.

19.150.705 Shellfish Beds: a general area of shoreline, both intertidal and subtidal, where shellfish

congregate. This includes natural subsistence, recreational and commercial beds. Shellfish include, but are not limited to, abalone, hardshell clam, subtidal clam, dungeness crab, geoduck clam, manila clam, oysters, razor clam, pandalid shrimp and red urchin. Where disputed as a critical saltwater habitat, appropriate state agencies and affected tribes shall be consulted in order to assist with the determination.

In the case of disputed critical saltwater habitat, wouldn't the Army Corps of Engineers also be consulted? Also EPA, NMFS and other federal agencies?

Definition of "shellfish beds" should not combine definitions of natural and commercial shellfish beds. There should be two separate definitions: "shellfish beds natural" and "shellfish beds commercial." Commercial/industrial shellfish and net-pen aquaculture cannot be equated with natural processes.

This definition does not appear to be in any WAC's.

19.150.710 Shorelands: those lands extending landward for two hundred feet in all directions as measured on a horizontal plane from the ordinary high water mark; floodways and contiguous floodplain areas landward two hundred feet from such floodways; and all wetlands and river deltas associated with the streams, lakes, and tidal waters which are subject to the provisions of this chapter; the same to be designated as to location by the department of ecology.

19.150.715 Shoreline Management Act (Act): the Washington State Shoreline Management Act, Chapter 90.58 RCW.

19.150.720 Shoreline Stabilization: actions taken to address erosion impacts to property and dwellings, businesses, or structures caused by natural processes, such as current, flood, tides, wind or wave action.

These actions include structural and nonstructural methods. Nonstructural methods, for example, include approaches such as building setbacks, structure relocation, groundwater management, and land use planning. Structural methods can be "hard" or "soft". "Hard" structural stabilization measures refer to those with solid, hard surfaces, such as concrete bulkheads, while "soft" structural measures rely on less rigid materials, such as bioengineering vegetation measures or beach enhancement. "Hybrid" structures are a composite of both soft and hard elements along the length of the armoring. Generally, the harder the construction measure, the greater the impact on shoreline processes including sediment transport, geomorphology, and biological functions.

It is important to note that the harder the construction measure, the more impact on the environment and biological functions. This principle should also be applied to development and structures applied to the tidelands.

For example, 16 tons of PVC pipe per acre, shellfish industry tractors on the tidelands are "hard" structural methods on the tidelands.

There are a range of measures for shoreline stabilization, varying from soft to hard that include, but are not limited to:

A. Soft

1. Vegetation enhancement;
2. Beach enhancement;
3. Bioengineering measures;
4. Anchor logs and stumps; and

5. Gravel placement/beach nourishment.

B. Hard

1. Rock revetments;
2. Gabions;
3. Groins;
4. Bulkheads; and
5. Seawalls.

19.150.725 Shoreline Structure Setback Line: the closest distance measured on a horizontal plane between the ordinary high water mark and the building line.

19.150.730 Shorelines of the State: includes all “shorelines” and “shorelines of statewide significance” within the state, as defined in RCW 90.58.030.

19.150.735 Shorelines: means all of the water areas of the state, including reservoirs, and their associated shorelands, together with the lands underlying them; except (i) shorelines of statewide significance; (ii) shorelines on segments of streams upstream of a point where the mean annual flow is twenty cubic feet per second or less and the wetlands associated with such upstream segments; and (iii) shorelines on lakes less than twenty acres in size and wetlands associated with such small lakes;

19.150.740 Shorelines of Statewide Significance: shorelines in Thurston County designated as shorelines of statewide significance are:

- A. Nisqually Delta – from DeWolf Bight to Tatsolo Point, between the ordinary high water mark and the line of extreme low tide, together with shorelands associated therewith per RCW 90.58.030(2)(f)(vi).
- B. Puget Sound – seaward from the line of extreme low tide.
- C. Lakes, whether natural or artificial, or a combination thereof, with a surface acreage of one thousand acres or more measured at the ordinary high water mark.
- D. Natural rivers or segments thereof downstream of a point where the mean annual flow is measured at one thousand cubic feet per second or more.
- E. Shorelands and wetlands associated with A through D above.

19.150.745 Should: a term that means a particular action is required unless there is a demonstrated, sufficient reason, based on a policy of the Act or this Program, for not taking the action.

19.150.750 State Environmental Policy Act (SEPA): An environmental review process designed to work with other regulations to provide a comprehensive review of a proposal. Most regulations focus on particular aspects of a proposal, while SEPA requires the identification and evaluation of probable impacts for all elements of the environment. See Chapter 197-11WAC.

19.150.755 Streams: means those areas of Thurston County where surface waters flow sufficiently to produce a defined channel or bed. A "defined channel or bed" is an area which demonstrates clear evidence of the passage of water and includes but is not limited to bedrock channels, gravel beds, sand and silt beds and defined-channel swales. The channel or bed need not contain water year-round. This

definition is not meant to include irrigation ditches, canals, storm or surface water runoff devices or other entirely artificial watercourses unless they are used by salmon or used to convey streams naturally occurring prior to construction.

"Stream and water body types" means as follows:

1. **Type S waters** include all aquatic areas inventoried as "shorelines of the state," in accordance with Chapter 90.58 RCW, including segments of streams where the mean annual flow is more than twenty cubic feet per second, marine shorelines and lakes twenty acres in size or greater.
2. **Type F waters** include all segments of aquatic areas that are not type S waters and that contain fish or fish habitat including waters diverted for use by a federal, state or tribal fish hatchery from the point of diversion for one thousand five-hundred feet or the entire tributary if the tributary is highly significant for protection of downstream water quality.
3. **Type N waters** include all segments of aquatic areas that are not type S or F waters and that are physically connected by an above-ground channel system, stream or wetland to type S or F waters.

19.150.760 Stormwater Facility: A constructed component of a stormwater drainage system designed or constructed to perform a particular function, or multiple functions. Stormwater facilities include, but are not limited to, pipes, swales, ditches, culverts, street gutters, detention ponds, retention ponds, constructed wetlands, infiltration devices, catch basins, oil/water separators, and biofiltration swales. An engineered or natural dispersion area that is dedicated to stormwater use is also considered a stormwater facility for purposes of this Program.

19.150.765 Structure: a permanent or temporary edifice or building, or any piece of work artificially built or composed of parts joined together in some definite manner, whether installed on, above, or below the surface of the ground or water, except vessels.

Permanently moored vessels would meet this criteria, so we question the purpose of the exclusion of vessels. The definition of vessels should be modified to "except vessels moored or anchored less than seven days."

PVC pipes with nets for geoduck aquaculture have been defined as a "structure." See 2011 ruling of Judge Thomas Bjorgen which defines a geoduck operation as a "structure" and a development under the SMA.

https://protectourshoreline.org/thurston/SDP/110121_ThurstonCnty_HearingExaminer_Order_SDP.pdf

19.150.770 Substantial Development: any development of which the total cost or fair market value exceeds five thousand dollars, or any development which materially interferes with the normal public use of the water or shorelines of the state. The dollar threshold must be adjusted for inflation every five years, as defined in WAC 173-27-040(2). On September 15, 2012, the amount was increased to six thousand four hundred and sixteen dollars (\$6,416).

See 2011 ruling of Judge Thomas Bjorgen which defines a geoduck operation as a "structure" and a development under the SMA.

https://protectourshoreline.org/thurston/SDP/110121_ThurstonCnty_HearingExaminer_Order_SDP.pdf

Please include a definition for the term, "materially interferes."

19.150.775 Substantial Development Permit: a permit for any substantial development.

11/30/2017 Comments from Kathryn and Patrick Townsend, Kathy Knight and other Boston Harbor residents.

19.150.780 Transportation: systems for automobiles, public transportation, pedestrians, and bicycles. This includes, but is not limited to, roads, parking facilities, bridges, sidewalks and railroads.

19.150.785 Urban Growth Area (UGA): those areas designated by Thurston County pursuant to RCW 36.70A.110 for urban development.

19.150.790 Use: the end to which a land or water area is ultimately employed.

19.150.795 Utilities: services and facilities that produce, convey, store or process electric power, gas, sewage, water, communications, oil, stormwater, and waste. This includes drainage conveyances and swales.

19.150.800 Variance: granting relief from specific bulk, dimensional or performance standards set forth in this Master Program and not a means to vary a use of a shoreline.

19.150.805 Vascular Plants: all seed-bearing plants that have vascular tissue (xylem and phloem).

19.150.810 Vegetation, Native: Vegetation comprised of plant species, other than noxious weeds, that are indigenous to the coastal region of the Pacific Northwest and which reasonably could have been expected to naturally occur on the site. Examples include, but are not limited to, trees such as Douglas Fir, western hemlock, western red cedar, alder, big-leaf maple, and vine maple; shrubs such as willow, elderberry, salmonberry, and salal; and herbaceous plants such as sword fern, foam flower, and fireweed.

What is the time frame for the definition of “indigenous”?

19.150.815 WAC: Washington Administrative Code.

19.150.820 Water-Dependent Use: a use or portion of a use that cannot exist in a location that is not adjacent to the water and that is dependent on the water by reason of the intrinsic nature of its operations.

19.150.825 Water-Enjoyment Use: a recreational use or other use that facilitates public access to the shoreline as a primary characteristic of the use; or a use that provides for recreational use or aesthetic enjoyment of the shoreline for a substantial number of people as a general characteristic of the use and which through location, design, and operation ensures the public's ability to enjoy the physical and aesthetic qualities of the shoreline. In order to qualify as a water-enjoyment use, the use must be open to the general public and the shoreline-oriented space within the project must be devoted to the specific aspects of the use that fosters shoreline enjoyment.

The last sentence is overly restrictive. A boat launch may have a primary use of allowing recreational boats to launch on Puget Sound waters, but may have a secondary use of allowing kayakers, paddle-boarders, canoers, and others to also access the sound.

19.150.830 Water-Oriented Use: a use that is water dependent, water-related, or water-enjoyment, or a combination of such uses.

19.150.835 Water-Related Use: a use or portion of a use that is not intrinsically dependent on a waterfront location, but whose economic viability is dependent upon a waterfront location because:

- A. The use has a functional requirement for a waterfront location such as the arrival or shipment of materials by water or the need for large quantities of water; or

- B. The use provides a necessary service supportive of the water-dependent uses and the proximity of the use to its customers makes its services less expensive and/or more convenient.

19.150.840 Weir: a structure that impounds, diverts or uses water for hydraulic generation and transmission, flood control, irrigation, water supply, recreational or fisheries enhancement.

19.150.845 Wetlands: areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. Wetlands do not include those artificial wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from non-wetland areas to mitigate the conversion of wetlands.

**Preliminary Comments
on the
Draft Thurston County Master Program Update
Chapter 19.200
By
Patrick and Kathryn Townsend
Kathy Knight
Other Boston Harbor Residents
November 30, 2017**

Chapter 19.200 Shoreline Jurisdiction and Environment Designation

19.200.100 Shoreline Jurisdiction

- A. The Shoreline Master Program jurisdiction applies to all shorelines of the state in Thurston County and their associated shorelands. This includes:
1. All marine waters;
 2. Rivers and streams with more than 20 cubic feet per second (cfs) mean annual flow;
 3. Lakes and reservoirs 20 acres and greater in area;
 4. Associated wetlands;
 5. Shorelands adjacent to these waterbodies, typically within 200 feet of the ordinary high water mark (OHWM);
 6. Buffers necessary to protect critical areas that are located within shoreline jurisdiction as described in this program.*
- *- optional jurisdiction*

There is no mention of "buffers necessary to protect critical areas" in any section except the Mining section as cited in the following:

19.200.100 Shoreline Jurisdiction

Buffers necessary to protect critical areas that are located within shoreline jurisdiction as described in this program.*

**- optional jurisdiction*

There is no mention of "buffers" on the tidelands related to commercial/industrial shellfish aquaculture and the consequent worker trampling, sediment transport, moorage of boats and barges on neighboring tidelands and on the tideland in question.

- B. Associated estuarine wetlands: the jurisdictional boundary shall extend 200 feet landward of the delineated edge of the wetland.
- C. Associated wetlands that extend greater than 200 feet landward of the OHWM of the shoreline: the jurisdictional boundary shall extend to the delineated edge of the wetland.
- D. Critical areas designated pursuant to Chapter 36.70A RCW and located within shoreline jurisdiction shall be subject to the regulations of this Program.

Overall, in this document, there is an emphasis on the shoreline as a resource. "Resource," as defined by the Oxford Dictionary, means, "a stock or supply of money, materials, staff, and other assets that can be drawn on by a person or organization in order to function effectively," or "local authorities complained that they lacked resources". *Synonyms*: assets, funds, wealth, money, capital.

We would hope that the emphasis related to the Thurston County SMP update would be on preservation of the natural character and ecology of the shoreline, not on the shoreline as a resource. Words do matter, and anyone reading this draft document could easily take the meaning to be a deference to utilization of the shoreline for profit rather than to protect it. At odds with this utilization of the shoreline are the new restrictions on upland shoreline home owners in order to "protect" the shoreline. We would therefore

suggest caution in using the word “resource” to make sure whatever meaning is intended is perfectly clear and is not misconstrued. And we would suggest making protection of the tidelands as restrictive as the rules for the uplands. In other words, re-think your policy of unlimited commercial/industrial aquaculture development on the tidelands. There is an obvious double-standard that is insupportable.

19.200.105 Shoreline Environment Designations

In order to plan and manage shoreline resources effectively and to provide a uniform basis for applying policies and regulations within distinctively different shoreline areas, a system of categorizing shoreline areas is necessary. Under the following system, shoreline environment designations are given to specific areas based on the existing development pattern, the biophysical capabilities and limitations of the shoreline being considered for development, the provisions of WAC 173-26-211 and the goals and aspirations of the citizens of Thurston County as expressed in the Comprehensive Plan. The existing development pattern and the biophysical information of the shoreline was compiled in a *Thurston County Shoreline Master Program Update Inventory and Characterization Report* (Thurston County 2013) and was included as the basis for the environment designations.

The term “resources” related to the shoreline is inadequate because “resources” in this context implies a commodity to be used for personal or corporate financial gain. The SMA specifically states that we must protect the resources and ecology of the shoreline.

RCW 90.58.020 states:

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

Change the sentence “Uses should be limited to those which sustain the shoreline area’s physical and biological resources” to “Uses should be limited to those which preserve the natural character and ecology of the shoreline.”

Environment designation assignment to shoreline reaches must assure the protection of existing shoreline ecological functions with the proposed pattern and intensity of development as well as be consistent with policies for restoration of degraded shorelines [WAC 173-26-211 (4) (b)].

Please define the phrase “assure the protection of existing shoreline ecological functions.”

Thurston County is using five of the six Ecology recommended Shoreline Environment Designations (SED’s) and criteria consistent with Ecology’s provided criteria for each of the environment designations:

Aquatic, Natural, Urban Conservancy, Rural Conservancy, and Shoreline Residential [WAC 173-26-211(5)]. Thurston County does not have any “High Intensity” shorelines within its jurisdiction. In addition to the five Ecology recommended SEDs, Thurston County is proposing to use one additional SED: Mining (*Shoreline and Environmental Designations Report*, Thurston County 2013). A map of the environment designations can be found in Appendix A.

This Program is designed to encourage, in each environment, uses which enhance the character of that environment. At the same time, the Program imposes reasonable standards and restrictions on development so that such development does not disrupt or destroy the character of the environment or result in a net loss of shoreline ecosystem functions.

In fact, this program apparently allows in many if not most areas, commercial/industrial shellfish aquaculture on the tidelands without restriction, particularly in the most sensitive areas—estuaries.

Estuaries are the nurseries of Puget Sound. Scraping the beach/estuary to get rid of sand dollars, crabs and other species (this is photo documented) that interfere with the commercial/industrial geoduck monoculture, as well as harvesting old time geoducks which live up to 168 years (since before statehood) and thus changing the balance of species, along with 43,560 PVC tubes (approximately 7 miles/16 tons), covered with plastic nets and utilizing rebar, DOES disrupt/destroy "the character of the environment" and DOES "result in a net loss of shoreline ecosystem functions." Any idea that this can be mitigated with a few rules is fallacious.

The shoreline environment designations are not intended to be land use designations. They do not imply development densities, nor are they intended to mirror the Comprehensive Plan designations. The system of categorizing shoreline environment designations is derived from Chapter 173-26 WAC.

The basic intent of this system is to utilize performance standards that regulate activities in accordance with goals and objectives defined locally rather than to exclude any use from any one environment. Thus, the particular use or type of developments placed in each environment must be designed and located so that there are no effects detrimental to achieving the objectives of the shoreline environment designations and local development criteria.

This approach provides an "umbrella" environment class over local planning and zoning on the shorelines. Since every area is endowed with different resources, has different intensities of development and attaches different social values to these physical and economic characteristics, the environment designations should not be regarded as a substitute for local planning and land-use regulations.

We assume that "local planning" involves citizen/neighborhood collaboration as to "land-use regulations." This is currently lacking and the involvement of the public should be spelled out related to implementation of the approach in this section.

In the phrase "Since every area is endowed with different resources," the word "resources" should be changed to "characteristics." The term "resources" applied to "every area" implies that every area is primarily for utilization for financial gain.

The Oxford Dictionary: Resource(s)

plural noun: **resources**

Main definition:

1. A stock or supply of money, materials, staff, and other assets that can be drawn on by a person or organization in order to function effectively. "local authorities complained that they lacked resources". *Synonyms:* assets, funds, wealth, money, capital;

See also:

<http://www.learnersdictionary.com/definition/resource>

19.200.110 Mining

- A. Purpose. To protect shoreline ecological functions in areas with mining activities within shoreline jurisdiction. To provide sustained resource use, and protect the economic base of those lands and limit incompatible uses.

Mining should be defined as to all types of mining that this section refers to, i.e., coal, oil, sand and gravel, etc.

- B. Designation Criteria.

1. Outside incorporated municipalities and outside urban growth areas, AND:

2. Contains shorelines created from mining activity in areas where no previous naturally occurring SMA shoreline existed.

C. Management Policies.

1. First priority should be given to water-dependent uses. Second priority should be given to water-related and water-enjoyment uses.

Examples of mining related to water-dependent, water-related and water-enjoyment uses need to be stated. Is this in reference to pools of water caused by mining that kids may swim in? Is this in reference to hazards created by mining on the shorelines? This section requires more explanation about what it is specifically referring to. As it is now, it is simply a words without context.

2. Non-water-oriented uses should not be allowed except:
 - a. As part of mixed used development;
 - b. In limited situations where they do not conflict with or limit opportunities for water-oriented uses; or
 - c. On sites where there is no direct access to the shoreline.

Same problem as in #1. Examples of mining related to water-dependent, water-related and water-enjoyment uses need to be stated.

3. Policies and regulations shall assure no net loss of shoreline ecological functions as a result of new development. Where applicable, new development shall include environmental cleanup and restoration of the shoreline to comply with any relevant state and federal law.
4. Where feasible, visual and physical public access should be required.

Visual and physical public access to what? Old mines? Or is this meant to say that mining should not interfere with visual and physical public access to lakes, rivers, streams and salt water? This needs to be clearly stated.

5. Aesthetic objectives should be implemented by means such as sign control regulations, appropriate development siting, screening and architectural standards, and maintenance of natural vegetative buffers.

- What are the specific “aesthetic objectives?” This need to be defined.
- How will “sign control regulations” help to implement “aesthetic objectives?”
- What would be an example of “appropriate development siting and screening?”
- What are the “architectural standards?”
- Define more clearly the meaning of “maintenance of natural vegetative buffers.” What is the definition of “maintenance” in this context and who will provide the “maintenance?”

6. Full utilization of existing urban areas should be achieved before further expansion of intensive development is allowed. Consideration should be given to the potential for displacement of non-water-oriented uses with water-oriented uses when analyzing full utilization of urban waterfronts and before considering expansion of such areas.

This paragraph is gobbledygook, i.e., "language that is meaningless or is made unintelligible by excessive use of abstruse technical terms; nonsense."

<https://en.oxforddictionaries.com/definition/gobbledygook>

Please rephrase.

19.200.115 Shoreline Residential

Industrial/commercial aquaculture should be limited/restricted in residential and natural shorelines.

"Water enjoyment uses" must be distinguished from industrial/commercial development such as industrial/commercial aquaculture.

Throughout Chapter 19.200, water enjoyment uses are lumped in with broad water related uses. Water related uses include aquaculture which in fact competes with water enjoyment uses. "Water related" should be separated out from "water enjoyment" as aquaculture is a competing use that has significant impacts to the shoreline, both recreationally and aesthetically.

No fence can preclude the impacts of commercial/industrial shellfish operations on neighboring tideland properties. It would not be acceptable for one upland neighbor to dump a load of sediment on his/her neighbor's yard.

Following is for informational purposes for anyone reading this document and our comments:

Definitions for water enjoyment, water related, water dependent are found in:

<http://apps.leg.wa.gov/WAC/default.aspx?cite=173-26-020>

(41) "Water-dependent use" means a use or portion of a use which cannot exist in a location that is not adjacent to the water and which is dependent on the water by reason of the intrinsic nature of its operations.

(42) "Water-enjoyment use" means a recreational use or other use that facilitates public access to the shoreline as a primary characteristic of the use; or a use that provides for recreational use or aesthetic enjoyment of the shoreline for a substantial number of people as a general characteristic of the use and which through location, design, and operation ensures the public's ability to enjoy the physical and aesthetic qualities of the shoreline. In order to qualify as a water-enjoyment use, the use must be open to the general public and the shoreline-oriented space within the project must be devoted to the specific aspects of the use that fosters shoreline enjoyment.

(43) "Water-oriented use" means a use that is water-dependent, water-related, or water-enjoyment, or a combination of such uses.

(45) "Water-related use" means a use or portion of a use which is not intrinsically dependent on a waterfront location but whose economic viability is dependent upon a waterfront location because:

(a) The use has a functional requirement for a waterfront location such as the arrival or shipment of materials by water or the need for large quantities of water; or

(b) The use provides a necessary service supportive of the water-dependent uses and the proximity of the use to its customers makes its services less expensive and/or more convenient.

- A. Purpose. To accommodate residential development and appurtenant structures that are consistent with this Program, and to provide appropriate public access and recreational uses.

B. Designation Criteria.

1. Does not meet the criteria for the Natural or Rural Conservancy Environments.
2. Predominantly single-family or multifamily residential development or are planned and platted for residential development.
3. Majority of the lot area is within the shoreline jurisdiction.
4. Ecological functions have been impacted by more intense modification and use.

C. Management Policies.

1. Standards for buffers, shoreline stabilization, vegetation conservation, critical area protection, and water quality should be set to assure no net loss of shoreline ecological functions.

The term “no net loss” occurs frequently in the SMP update draft. Since “no net loss” is defined in Appendix B and the County has not provided us with a copy of Appendix B, it is impossible to fully comment on this.

However, “No Net Loss”, based on Chapter 100 and usage in this document, is actually a euphemism for “No Net Gain.” The definition of “compensatory mitigation” allows for mitigation in unrelated areas. For example, a development on an acre of tideland is mitigated by a restoration project in another part of the County. There is no gain in ecological function

Additionally, if one of the main compensatory mitigation strategies is restoration in an area of Puget Sound in Thurston County, this would mean that taxpayers would be paying for “No net loss.” While the shoreline development that causes impact is for an individual/entity’s financial or personal benefit, taxpayers would be subsidizing that financial or personal benefit. “No Net Loss” is a technical term for the long understood expression: “Robbing Peter to pay Paul.” This aspect of “No Net Loss” should be specifically detailed. The public and environmental organizations have a right to complete clarity on the concept of “No Net Loss,” especially when they are funding restoration projects with the idea of “improving and restoring” Puget Sound. The County must be “up-front” about the facts of “No Net Loss” (robbing Peter to pay Paul), so that individuals and groups who willingly give funds for restoration projects for Puget Sound are not misled and are made aware of the fact that they are not donating to improve Puget Sound but to maintain the status quo for someone else’s financial or personal benefit.

We would advocate for an overarching “Net Gain” policy rather than a “No Net Loss” policy.

2. Multi-family and multi-lot residential and recreational developments should provide public access and joint use for community recreational facilities. If public access is not feasible on site, off-site options such as an in-lieu fee may be recommended.
3. Access, utilities, and public services should be available and adequate to serve existing needs and/or planned future development.
4. Commercial development should be limited to water-oriented uses. Water-oriented includes water-dependent, water-related and water-enjoyment uses.

We suggest this policy be re-worded to be in compliance with the Shoreline Management Act. This policy is an over-simplification that appears to distort the meaning of the Act.

RCW 90.58.020 The Shoreline Management Act

The legislature declares that the interest of all of the people shall be paramount in the management of shorelines of statewide significance. The department, in adopting guidelines for shorelines of statewide significance, and local government, in developing master programs for shorelines of statewide significance, shall give preference to uses in the following order of preference which:

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

RCW 90.58.100 deemed appropriate or necessary.

In the implementation of this policy the public's opportunity to enjoy the physical and aesthetic qualities of natural shorelines of the state shall be preserved to the greatest extent feasible consistent with the overall best interest of the state and the people generally. To this end uses shall be preferred which are consistent with control of pollution and prevention of damage to the natural environment, or are unique to or dependent upon use of the state's shoreline. Alterations of the natural condition of the shorelines of the state, in those limited instances when authorized, shall be given priority for single-family residences and their appurtenant structures, ports, shoreline recreational uses including but not limited to parks, marinas, piers, and other improvements facilitating public access to shorelines of the state, industrial and commercial developments which are particularly dependent on their location on or use of the shorelines of the state and other development that will provide an opportunity for substantial numbers of the people to enjoy the shorelines of the state. Alterations of the natural condition of the shorelines and shorelands of the state shall be recognized by the department. Shorelines and shorelands of the state shall be appropriately classified and these classifications shall be revised when circumstances warrant regardless of whether the change in circumstances occurs through man-made causes or natural causes. Any areas resulting from alterations of the natural condition of the shorelines and shorelands of the state no longer meeting the definition of "shorelines of the state" shall not be subject to the provisions of chapter 90.58 RCW.

Thus the SMA (Shoreline Management Act) includes a list of activities that involve "alterations of the natural condition of the shorelines of the state," from "single-family residences and their appurtenant structures" to "industrial and commercial developments which are particularly dependent on their location on or use of the shorelines of the state". Both are, according to the SMP, activities that cause "alterations of the natural condition of the shorelines of the state."

So without question, based on the SMA itself, commercial/industrial shellfish aquaculture "alters the natural condition of the shorelines of the state." Although this is obvious to anyone who observes commercial/industrial shellfish aquaculture on the tidelands, there appears to be resistance on the part of the County to acknowledge this.

Rule #4 appears to be an open door for commercial/industrial development in shoreline residential areas.

19.200.120 Urban Conservancy

- A. Purpose. To protect and restore ecological functions of open space, floodplain and other sensitive lands where they exist in urban and developed settings, while allowing a variety of compatible uses.
- B. Designation Criteria. Shoreline areas within UGAs or LAMIRDs that are appropriate and planned for development that is compatible with maintaining or restoring of the ecological functions of the area and generally are not suitable for water-dependent uses. Such areas must also have any of the following characteristics:

“LAMIRD” (Limited Areas of More Intensive Rural Development) is an acronym defined in Chapter 100. Each acronym should be restated using the full terminology with the first instance in each subsequent Chapter.

“UGA” (Urban Growth Area) is acronym defined in Chapter 100. It should be restated using the full terminology with the first instance in each subsequent Chapter.

Every acronym and abbreviation in this document should follow the same re-statement in all chapters. See the following link for rationale for doing this.

https://books.google.com/books?id=MOVxIFO_jqIC&pg=PA41&lpg=PA41&dq=acronyms+repeat+definition&source=bl&ots=pCg3kPl0CY&sig=h0sULKePzMeTv4OmEanH-R4fx3g&hl=en&sa=X&ved=0ahUKEwi36ev28dzXAhWowlQKHQFsAwwQ6AEIZTAJ#v=onepage&q=acronyms%20repeat%20definition&f=false

Area suitable for low-intensity water-related or water-enjoyment uses without significant adverse impacts to shoreline functions or processes;

1. Open space, flood plain or other sensitive areas that should not be more intensively developed or supporting resource-based uses;
3. Potential for ecological restoration;
4. Retained important ecological functions, even though partially developed; or
5. Potential for development that is compatible with ecological restoration or Low Impact Development techniques.
6. Does not meet the designation criteria for the Natural Environment.
7. Land having any of the above characteristics and currently supporting residential development may be Urban Conservancy, as may those areas into which a UGA boundary is expanded and thus has any of the above characteristics.

- C. Management Policies.

1. Uses that preserve the natural character of the area or promote preservation of open space, floodplain or other sensitive lands either directly or over the long term should be the primary allowed uses. Uses that result in restoration or preservation of ecological functions should be allowed if the use is otherwise compatible with the purpose of the environment and the setting.
2. Standards for shoreline stabilization measures, vegetation conservation, water quality, and shoreline modifications shall ensure that new development does not result in a net loss of shoreline ecological functions, or further degrade other shoreline values.
3. Public access and public recreation objectives should be implemented whenever feasible and ecological impacts can be mitigated.
4. Water-oriented uses should be given priority over non-water oriented uses. For shoreline

areas adjacent to commercially navigable waters, water-dependent uses should be given highest priority.

5. Any development in the Urban Conservancy designation should implement Low Impact Development techniques, as much as is feasible, in order to maintain ecological functions.

19.200.125 Rural Conservancy

- A. Purpose. Provide for sustained resource use, public access, and recreational opportunities while protecting ecological functions, and conserving existing ecological, historical, and cultural resources.

- B. Designation Criteria. Shorelines outside the UGA or LAMIRD that have any of the following characteristics:

1. Currently support lesser-intensity resource-based uses, such as agriculture, aquaculture, forestry, or recreational uses, or are designated agriculture or forest lands;

We disagree that commercial/industrial aquaculture is a "lesser-intensity" use.

Commercial/industrial aquaculture is also antithetical to recreational uses.

The term "lesser-intensity" is not adequately defined.

2. 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;
3. Can support low-intensity water-dependent uses without significant adverse impacts to shoreline functions or processes;

The term "low-intensity" is not adequately defined.

The term "significant adverse impacts" to the shoreline is not adequately defined.

4. 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;
5. Does not meet the designation criteria for the Natural environment;
6. 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.

- C. Management Policies.

1. Uses should be limited to those which sustain the shoreline area's physical and biological resources, and those of a non-permanent nature that do not substantially degrade ecological functions or the rural or natural character of the shoreline area. Developments or uses that would substantially degrade or permanently deplete the physical and biological resources of the area should not be allowed.

Change the phrase: "should not be allowed"

To: "must not be allowed"

Please define "uses of a non-permanent nature." We can infer that this refers to commercial/industrial geoduck aquaculture, which utilizes 43,560 PVC tubes

(approximately 7 miles/16 tons) per acre, in the first 2-3 years of a planting cycle that lasts 5-7 years. However it would be dishonest and unethical to categorize this as a use “of a non-permanent nature” because the cycle is repeated indefinitely. Once the native geoducks, some alive since statehood, are harvested, that alone represents a permanent alteration to the tideland, just as clear-cutting a forest is a permanent alteration of the ecosystem (give or take several centuries.) See http://www.oregonwild.org/oregon_forests/old_growth_protection/what-is-an-old-growth-forest. Since the County is issuing permits with no term of lease, when the harvest occurs, the tideland will go through the same cycle for an indefinite period of time, making commercial/industrial geoduck aquaculture a “permanent” event.

The term “physical and biological resources” is inadequate because “resources” in this context implies a commodity to be used for personal or corporate financial gain. The SMA specifically states that we must protect the resources and ecology of the shoreline.

RCW 90.58.020 states:

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

Change the sentence “Uses should be limited to those which sustain the shoreline area’s physical and biological resources” to “Uses should be limited to those which preserve the natural character and ecology of the shoreline.”

The term “substantially degrade” is vague, nebulous and unclear.

2. New development should be designed and located to preclude the need for shoreline stabilization. New shoreline stabilization or flood control measures should only be allowed where there is a documented need to protect an existing structure or ecological functions and mitigation is applied.

How is “mitigation” defined and who decides if “mitigation” is appropriate or adequate?

3. Residential development standards shall ensure no net loss of shoreline ecological functions and should preserve the existing character of the shoreline consistent with the purpose of the “Rural Conservancy” environment.
4. Low-intensity, water-oriented commercial uses may be permitted in the limited instances where those uses have been located in the past or at unique sites in rural communities that possess shoreline conditions and services to support the development.

What are “low-intensive, water-oriented commercial uses”? For example, industrial/commercial aquaculture is not a “low-intensive” use.

The commercial/industrial shellfish industry has falsely claimed “past use” in areas where there has been no “past use.” An example of this was in the Zangle Cove permit appeal. The historian of Boston Harbor stated under oath during that appeal that there has been no historic commercial aquaculture in Zangle Cove.

5. Water-dependent and water-enjoyment recreation facilities that do not deplete the resource over time, such as boating facilities, angling, hunting, wildlife viewing trails and swimming beaches, are preferred uses, provided significant adverse impacts to the shoreline area are mitigated.

What is the meaning of “deplete the resource?” The term “resource” implies a commodity to be used for personal or corporate financial gain. See the above comment under the Shoreline Jurisdiction heading.

6. Agriculture, commercial forestry and aquaculture, when consistent with the Program, may be allowed.

“Aquaculture” is not defined. If what is meant is “commercial/industrial scale aquaculture,” we do not agree that this is consistent with the Program.

19.200.130 Natural

Areas designated as “Natural” should not allow the commercial/industrial shellfish industry. These areas have significant limitations as to upland shoreline property usage – specifically to protect the shoreline areas from human influence. The implementation of commercial/industrial shellfish aquaculture greatly impacts the natural state of these areas. The industry should be restricted from Natural areas.

- A. Purpose. To 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. Restoration of degraded shorelines should be planned within this environment.
- B. Designation Criteria. Shorelines having a unique asset or feature considered valuable for its natural or original condition that is relatively intolerant of intensive human use. This includes shorelines both in and out of the UGA or LAMIRD when any of the following characteristics apply:
 1. The shoreline is ecologically intact and currently performing an important, irreplaceable function or ecosystem-wide process that would be damaged by human activity; or
 2. The shoreline is considered to represent ecosystems and geologic types that are of scientific and educational interest;
 3. The shoreline is unable to support new development or uses without adverse impacts to ecological functions or risk to human safety.
 4. The shoreline includes largely undisturbed portions of shoreline areas such as wetlands, estuaries, unstable bluffs, coastal dunes, spits, and ecologically intact shoreline habitats.
 5. Retain the majority of their natural shoreline functions, as evidenced by shoreline configuration and the presence of native vegetation.
 6. Generally free of structural shoreline modifications, structures, and intensive human uses.

The presence of endangered or threatened species should also be a part of this designation criteria. For example, a shoreline with spawning or migrating endangered, threatened or protected (herring, sand lance, etc.) species should be included.

- C. Management Policies.

1. Any use that would substantially degrade or result in a net loss of ecological functions or natural character of the shoreline area should not be allowed. The following new uses should not be allowed: commercial, industrial and non-water-oriented recreation.

Commercial/industrial geoduck operations and other intensive aquaculture methods using artificial bags and/or using 43,560 PVC tubes per acre along with canopy netting and dredging to 3 foot depth at harvest is a substantial degradation and net loss of ecological

functions. It also dramatically changes the character of the shoreline. It is a commercial/industrial use. It should thus not be allowed.

2. Any alteration should be designed with low impact development methods, or be capable of restoration to the natural condition, where feasible. New development or significant vegetation removal that would reduce the capability of vegetation to perform normal ecological functions should not be allowed.

The harvest of geoducks on a commercial/industrial geoduck operation (43,560 PVC pipes planted with over 130,000 geoduck seeds per acre constitutes alteration of the said tideland because it includes harvest of any natively growing geoducks, which can live up to 168 years, before Washington statehood. These areas cannot be restored to their natural condition just as a clear-cut forest cannot be restored to its natural condition.

3. Single-family residences, roads, parking areas and utility corridors may be allowed as a conditional use only if they cannot be located outside the Natural Designation or shoreline jurisdiction, provided that the density and intensity of such use is limited to protect ecological functions and is consistent with the purpose of the designation.

Almost all shoreline areas already have single-family residences which were built according to County land use rules in force at the time of building. This paragraph must be changed to acknowledge, allow and grandfather in existing single-family residences thus built.

4. Low-intensity, water-oriented recreational access, scientific, historical, cultural, educational research uses may be allowed provided that no significant ecological impact on the area will result.

The restrictions on low intensity uses in the above paragraph, that "may be allowed" rather than simply "allowed," are in complete contradiction to the unlimited use of the tidelands granted to the commercial shellfish aquaculture industry (dredging, plowing, rebar insertion, use of plastics, etc). Please understand what this looks like to the public, i.e., collusion, bias, preferential treatment, duplicity, etc. with and for the commercial shellfish industry. This is not in keeping with the meaning of the SMA, which was written before the advent of commercial/industrial geoduck operations and/or other shellfish operations that dramatically alter the tidelands and introduce literally tons of man-made plastics and monoculture into the environment. To borrow a phrase, "this isn't your grandfather's oyster farm." <http://coalitiontoprotectpugetsoundhabitat.org/wp-content/uploads/2013/02/not-your-grandfathers-oyster-farm.pdf>

19.200.135 Aquatic

- A. Purpose. To protect, restore, and manage the unique characteristics and resources of the areas waterward of the ordinary high-water mark (OHWM).

The terms "protect" and "restore" are not defined.

See Clallam County Aquatic Designation (2.3) for a slightly more definitive "purpose." "Purpose: The purpose of the Aquatic designation is to protect and restore the quality and health of marine and fresh waters and the species that depend upon them, while allowing for limited modification for water-dependent uses and public access when located in appropriate areas and developed to avoid a net loss of shoreline functions."

The term "manage the unique characteristics" is illogical. "Preserve the unique characteristics"

should be used.

The term “manage resources” implies a financial interest in the aquatic areas—that the aquatic areas are for commercial purposes. This appears to be an oblique reference to commercial/industrial aquaculture based on promotion of commercial/industrial aquaculture in this document.

Specifically what “resources” need to be “managed? The tideland, in its natural state, does not need to be “managed” by state agencies except for monitoring of illegal use. In this context the term “protect” is more appropriate than “manage.”

There is no mention of “limited modification” (as in the Clallam County SMP draft) of the aquatic area and/or under what circumstances “limited modification” would be allowed.

There is no mention of “buffers” in the Aquatic section as required by **19.200.100 Shoreline Jurisdiction**

Buffers necessary to protect critical areas that are located within shoreline jurisdiction as described in this program.*

*- optional jurisdiction

There is no mention of “buffers” on the tidelands related to commercial/industrial shellfish aquaculture and the consequent worker trampling, sediment transport, moorage of boats and barges on neighboring tidelands and on the tideland in question.

- B. Designation Criteria. Lands waterward of the OHWM, which include tidelands, bedlands, and lands beneath freshwater shorelines of the state (may also include wetlands).
- C. Management Policies.

This section should contain the same “management policy” found under Urban Conservancy. “Uses that preserve the natural character of the area or promote preservation of open space, floodplain or other sensitive lands either directly or over the long term should be the primary allowed uses.” Commercial/Industrial aquaculture utilizing 43,560 PVC pipes (approximately 7 miles/16 tons of PVC) per acre along with canopy netting, barges, boats, workers, etc. does NOT “preserve the natural character of the area or promote preservation of open space.)

1. New over-water structures and development on navigable waters and their beds should be allowed only for water-dependent uses, public access or ecological restoration, and when:
 - a. They do not preclude attainment of ecological restoration; and
 - b. The size of the new over-water structure is limited to the minimum necessary to support the structure’s intended use; and
 - c. Multiple use of the over-water facility has been encouraged; and
 - d. The structure or use is located and designed to minimize interference with surface navigation, to consider impacts to public views, to allow for the safe, unobstructed passage of fish and wildlife, particularly those species dependent on migration and to ensure that the project does not conflict with existing water dependent uses; and
 - e. The use or modification is designed and managed to prevent degradation of water quality and alteration of natural hydrographic conditions.
2. When new over-water structures are proposed for residential development of two or more dwellings, joint use or community dock facilities should be utilized rather than single-use facilities.
3. Development should be compatible with the adjoining upland designation.
4. Existing over-water residences may continue through normal maintenance and repair, but

should not be enlarged or expanded. New over-water residences should be prohibited.

5. Applicants for any use or modification should schedule a staff consult to review the site conditions, and potential habitats and species. This consult should result in a general understanding of applicable development standards for the proposal.
6. Development over or in critical freshwater or saltwater habitats should be limited to those which mitigate impacts according to mitigation sequencing, and development standards for that development activity.

This section addresses over-water structures and development, but does not address under-water or periodic under-water structures and development. There should be clear constraints or prohibition on new under-water structures and development especially in areas where endangered or threatened species are present. This would include any commercial/industrial aquaculture that utilizes PVC tubes, plastic mesh tubes or any other plastic and canopy nets that are on a daily basis under water and it also include uses of barges, tractors, etc. on the tidelands.

19.200.140 Official Shoreline Map

- A. As part of this Program, there is one official Thurston County Shoreline Environment Designations Map, which shall be in the custody of the Department of Resource Stewardship and available for public inspection during normal business hours and on the Thurston County website. Unofficial copies of the official map or portions thereof may be included or distributed with copies of this Program (see Appendix A).
- B. The purpose of the official Shoreline Environment Designations Map is to depict graphically those areas of Thurston County falling under the jurisdiction of this Program, and the shoreline environment designations of those areas.

19.200.145 Map Boundaries and Errors

- A. Mapping Boundaries. Where the exact location of a jurisdiction or environment designation boundary line is uncertain, the official Shoreline Environment Designations Map will be used to determine the location of such line. When resorting to the Shoreline Environment Designations Map does not resolve the conflict, the following rules will apply:
 1. Boundaries indicated as approximately following the center lines of streets, highways, alleys or other roadways shall be construed to follow such center lines;
 2. Boundaries indicated as approximately following lot, fractional section or other subdivision lines shall be construed as following such subdivision lines;
 3. Boundaries indicated as approximately following any lines of corporate limits or other local government jurisdictional lines shall be construed as following such lines;
 4. Boundaries indicated as following railroad lines shall be construed as following the center line of the railroad right-of-way;
 5. Boundaries indicated as parallel to or extensions of features identified in subsections 1. through 4. above shall be so construed;
 6. Boundaries between parallel environment designations shall be construed as the top of the bluff or vegetation line that distinguishes existing development from the critical area abutting the shoreline;
 7. When not specifically indicated on the Shoreline Environment Designations Map, distances shall be determined by the scale of the map;
 8. Where existing physical or cultural features are at variance with those shown on the

Shoreline Environment Designations Map and cannot be determined with certainty by applying subsections one through six above, the Director shall determine the location or existence of such feature utilizing the provisions of WAC 173-27-211, the policies of RCW 90.58.020, TCC 24.01.040, and the corresponding Master Program provisions herein; and

9. Where a parcel within the shoreline jurisdiction is separated from the water by an existing developed road or an additional parcel that serves to create a distinct break in connectivity to the shoreline, the parcel on the landward side may not be required to meet certain development regulations for that designation (such as public access, water-oriented use, or vegetation conservation standards), provided all other applicable provisions of this Program are met, including no net loss of shoreline ecological functions.

B. Mapping Errors. Some mapping errors may be adjusted prior to a Master Program amendment to assign the appropriate designation to that area by the following methods:

1. The common boundary descriptions and the criteria in RCW 90.58.030(2) and Chapter 173-22 WAC supersede the map when there are mapping error conflicts, other than those with a solution provided in this section.
2. In the event that a jurisdictional area is not mapped, it will automatically be assigned a "Rural Conservancy" or "Urban Conservancy" designation depending on its location outside or inside of a UGA or LAMIRD. Such designation will apply until a Master Program amendment is approved that assigns the appropriate designation to the subject area.
3. In the event that a parcel was inadvertently assigned more than one designation, the more restrictive designation shall apply.
4. In the event that a parcel on the boundary between two designations appears to be a mapping error based on the criteria in this section, the County shall apply the most appropriate of the two designations, until such time as the map can be formally corrected consistent with WAC 173-26-100 and Section 19.500.105(I) (Shoreline Master Program Amendment).
5. In the event of an environment designation mapping error where the Master Program update or amendment record, including the public hearing process, is unclear in term of the correct environment designation to apply to a property, the County shall apply the environment designation approved through the Master Program Update or Amendment process and correct the map.
6. If the environment designation criteria were misapplied, but the update or amendment record, including the public hearing process, does not clearly show that a different designation was intended to be shown on the map, a Master Program amendment may be obtained consistent with WAC 173-26-100 and Section 19.500.105(I) (Shoreline Master Program Amendment). This process is intended to allow for reasonable corrections to the Shoreline Environment Designation process. Such process shall include early consultation with the Department of Ecology and other agencies with jurisdiction, affected tribes, and appropriate public notification prior to local approval. Current designations are reflected in the Shoreline Environment Designations Map (Appendix A).

Preliminary Comments
on the
Draft Thurston County Master Plan Update
Chapter 19.300
By
Patrick and Kathryn Townsend
Jean Vanek
January 30, 2018

Chapter 19.300 General Goals and Policies

Following are comments from Patrick and Kathryn Townsend and Jean Vanek, residents of Boston Harbor, regarding Chapter 19.300 of the Thurston County Draft SMP Update.

Townsend comments are in Yellow

Vanek comments are in Blue

PT/KT: The Draft SMP Update, including Chapter 19.300, is often vague, self-contradictory, and borders on incoherent. Many of the terms used in the Draft SMP Update are not defined, which will certainly lead to inconsistent implementation and possibly legal challenges. There is no clear map on the changes between the 1990 SMP and the Draft SMP Update which makes it difficult to evaluate additions and deletions of terms and policies or to understand what is new. Since this document will be in effect for some 25 or more years, we respectfully request that the author(s) of this document be identified (as they are in the 1990 SMP) and that the County engage policy experts and professional writers to go back to the 1990 SMP and start from scratch in updating it. Citizen stakeholders should be included in this process from the beginning. This document will have an impact on property owners, the shoreline environment, recreational use as well as economic use for years to come and it is not a good sign that it appears to be so garbled.

PT/KT: In Section Two (General Goals and Policies) of the previous 1990 version of the SMP, "Purpose", "Definition" and "goal statements" were delineated for each of the five specific shoreline environments. The current SMP Update lumps all the shoreline environments together related to goals. We would suggest going back to the topic format of the 1990 SMP, which delineates "Goal Statements" for each shoreline environment, because that would be more accurate, cleaner and more understandable. If there are policies that cover all the shoreline environments with nuances, those policies can be in a "general" section.

PT/KT: In the 1990 SMP, overarching goal, purpose and statement of policy are stated at the beginning of this Chapter (Section Two). Though some re-wording may be appropriate, having this section in the document gives a sense of the broad objectives of the Shoreline Management Plan and we question why it was completely removed from the current version. The SMP must give a sense of the larger vision and values related to our shorelines and the use of our shorelines. This section should go back in.

19.300.00 NEW: (Actually this is from the 1990 Version of the Thurston County SMP--it should be put back in.)

I. Goal

The goal of this Master Program is to preserve to the fullest possible extent the scenic, aesthetic and ecological qualities of the Shorelines of the Thurston Region in harmony with those uses which are deemed essential to the life and well-being of its citizens.

II. Purpose

The local governments of Thurston County recognize that the Shorelines of the State and the

Region are among the most valuable and fragile of our natural resources. There is great concern regarding their utilization, protection, restoration and preservation. In addition, these local governments find that the ever-increasing pressures to accommodate additional uses on the shoreline necessitates increased management coordination in the development of the Shorelines. These local governments further find that much of the Shorelines of the Region and the uplands adjacent thereto are in private ownership; that unrestricted construction on the privately-owned or publicly-owned Shorelines of the State is not in the best public interest; and therefore, coordinated planning necessary in order to protect the public interest associated with the Shorelines of the State while, at the same time, recognizing and protecting private property rights consistent with the public interest. There is, therefore, a clear and urgent demand for a planned, rational and concerted effort, jointly performed by federal, state and local governments, to prevent the inherent harm in an uncoordinated and piecemeal development of the Shorelines of the State and Region.

III. Policies

It shall be the policy of the local governments of Thurston County to provide for the management of the Shorelines of the State and Region by planning for and fostering all reasonable and appropriate uses. This policy is designed to insure the development of these shorelines in a manner which, while allowing for limited reduction of rights of the public in the navigable waters, will promote and enhance the public interest. This policy contemplates protecting against adverse effects to the public health, the land and its vegetation and wildlife, and the waters of the State and their aquatic life, while protecting generally public rights of navigation and corollary rights incidental thereto.

To implement this document, the public's opportunity to enjoy the physical and aesthetic qualities of natural Shorelines of the State and Region shall be preserved to the greatest extent feasible consistent with the overall best interest of the people generally. To this end, uses shall be preferred which are consistent with control of pollution and prevention of damage to the natural environment or are unique to or dependent upon use of the State's shoreline. Alterations of the natural condition of the shorelines, in those limited instances when authorized, shall be given priority for single-family residences, ports, shoreline recreation uses including but not limited to parks, marinas, piers and other improvements facilitating public access to shorelines of the Region; industrial and commercial developments which are particularly dependent on their location, or use of, the shorelines of the Region; and other development that will provide an opportunity for substantial numbers of the people to enjoy the shorelines of the Region. Permitted uses of the Shorelines of the State and Region shall be designed and conducted in a manner to minimize, to the extent feasible, any resultant damage to the ecology and environment of the shoreline area and interference with the public's use of the water.

19.300.050 Applicability

- A. The general goals and policies of this chapter apply to all use and development activities within the Program's jurisdiction, regardless of environment designation. As provided in WAC 173-26-191, these policies are the basis for regulations that govern use and development along the shoreline. Some Program policies may not be fully achievable by regulatory means but may be pursued by other means as provided in RCW 90.58.240.

PT/KT: This statement is in contradiction to the 1990 SMP "goals and policies" which gave "Purpose," "Definition" and 8 "Goal Statements" for each of four categories of shoreline

environment: “Natural, Conservancy, Rural and Urban.” We question why, in terms of goals, these are all now being lumped together. For example, in the “Natural Environment” the 1990 SMP states: **“Economic development is not a goal of the Natural Environment.”** However, in the SMP Update, the Goal for **all** shoreline environments is: *“Provide for the location and design of industries, transportation, port and tourist facilities, commerce and other developments that are particularly dependent upon a shoreline location and/or use, **when the shoreline can accommodate such development.**”*

Who decides “when the shoreline can accommodate such development”? If it cannot accommodate this year, then maybe next year?? Again, we strongly suggest going back to the topic format of the 1990 SMP, delineating each shoreline environment separately, because it is much cleaner and more readable and understandable. ***If there are policies that cover all the shoreline environments, those policies can be in a “general” section.***

- B. Regulation of administrative actions contained herein must be implemented with consideration to the Public Trust Doctrine, regulatory takings, and other applicable legal principles as appropriate.

19.300.100 Shorelines of Statewide Significance

A. Designation

The Shoreline Management Act designated certain shoreline areas as shorelines of statewide significance. Shorelines thus designated are important to the entire state. Because these shorelines are major resources from which all people of the state derive benefit, the statewide interest should be recognized and protected over the local interest.

Those areas that have been designated as shorelines of statewide significance (RCW 90.58.030) in Thurston County are:

1. *Puget Sound* - those areas lying seaward from the line of extreme low tide.
2. *Nisqually Delta* - From DeWolf Bight to Thurston County line, from the line of extreme low tide to the OHWM.
3. *Chehalis River* - From Lewis-Thurston County line downstream to the Thurston-Grays Harbor County line, excluding all federal lands. The flow exceeds 1,000 cubic feet per second (cfs) mean annual flow (MAF) at Lewis County line.
4. *Nisqually River* - From the Pierce-Thurston County line in Alder Reservoir downstream along left shore only, (exclude area from LaGrande Dam downstream to powerhouse due to use of aqueduct; also exclude all federal lands) to the Nisqually Indian Reservation boundary. The flow exceeds 1,000 cfs MAF at Pierce County line in Alder Reservoir.
5. *Alder Lake* – That portion of the lake from the Pierce County line up to the OHWM.
6. Shorelands and wetlands associated with 1 through 5 above.

KT: As described in our letter to Brad Murphy and the Thurston County Planners on 1/25/2018 regarding the definition of “Shorelines of Statewide Significance” in Chapter 19.150.740,

number 6 of this paragraph is not in compliance with RCW 90.58.030 (2)(f). It should read:
Shorelands and wetlands associated with 2 through 5 above.

See Dept. of Ecology's explanation of the Shorelines of Statewide Significance, which confirms this correction,

http://198.239.150.195/programs/sea/sma/st_guide/jurisdiction/ssws.html

See: RCW Definitions and Concepts: Shorelines of Statewide Significance) (2)(f)

Goal: To ensure that the statewide interest is recognized and protected over the local interest in shorelines of statewide significance, the County shall review all development proposals within shorelines of statewide significance for consistency with RCW 90.58.020 and the following policies (in order of preference):

B. County-Wide Policies

1. Policy SH-1 Recognize and protect the statewide interest over local interest.

PT/KT: What was the specific criteria used for determining statewide interest over local interest? The primary considerations that are stated in Policy SH3-2 relate to economic interest. What happened to the concept that “the public’s opportunity to enjoy the physical and aesthetic qualities of natural Shorelines of the State and Region shall be preserved to the greatest extent feasible consistent with the overall best interest of the people generally.” (See Policies, above, from the 1990 Thurston County SMP.)

- a. The Washington Departments of Fish and Wildlife and Ecology, affected tribes, other resources agencies, and interest groups should be consulted for development proposals that could affect anadromous fisheries or **other priority species** or habitats.

PT: “other priority species” should be defined, or the relevant source for defining priority species should be identified.

- b. Recognize and take into account state agencies’ policies, programs and recommendations in developing and administering use regulations.

2. Policy SH-2 Preserve the natural character of the shoreline.

- a. Administer shoreline environments and regulations to minimize damage to the unique character and ecology of shorelines of statewide significance.

KT: What “regulations” are being referred to? What is the meaning of “administer shoreline environments?” These terms are not defined.

- b. Where natural resources of statewide importance are being diminished over time by human activities, restoration of those resources should be facilitated.

KT: Comments:

- The term “natural resources of statewide importance” is not defined.
- The term “diminished” is not defined.
- The term “facilitated” is not define. Who should “facilitate” and how? Does this mean the County will step in? Is the County going to pay for “facilitation” and “restoration”?

- c. In order to reduce adverse impacts to the environment while accommodating future growth, new intensive development activities should upgrade and redevelop those areas where intensive development already occurs, rather than allowing high intensity uses, **such as shellfish aquaculture**, to extend into low intensity use or underdeveloped areas.

JV: The phrase “rather than allowing high intensity uses to extend into low intensive use” seems to be applicable to commercial aquaculture, which is a high intensity use introduced in an area of low intensity (i.e., residential) use.

PT: Insert “such as shellfish aquaculture,”

3. Policy SH-3 Result in the long term over short term benefit.

- a. Preserve sufficient shorelands and submerged lands to accommodate current and projected demand for economic resources, such as shellfish beds and navigable harbors.

PT/KT: This item should be deleted as it is nonsensical under “Shorelines of Statewide Significance.”

- The term “demand for economic resources” is not defined.
- The term “sufficient,” is not defined.
- The term “Shellfish beds” is not defined as to natural shellfish beds, commercial shellfish beds and recreational shellfish beds.
- The public is not required to “preserve” land for economic use.
- We question if new “navigable harbors” would be allowed on “Shorelines of Statewide Significance.” The only marine “Shorelines of Statewide Significance” in Thurston County are Puget Sound itself and the tideland/shorelands of Nisqually Reach.
- Is Thurston County contemplating a new “navigable harbor” in Nisqually Reach or the middle of South Puget Sound? The public has a right to know.

- b. Actions that would convert resources into irreversible uses or detrimentally alter natural conditions that are characteristic of shorelines of statewide significance should be severely limited.

KT: Comments

- Please define “resources.”
- Please define and/or give examples of “irreversible uses.”
- One example of “irreversible uses” is geoduck aquaculture, because the tideland is “clear-cut” at harvest.

- Please tell us if industrial/commercial aquaculture is allowed on “Shorelines of Statewide Significance”, because again, the only marine “Shorelines of Statewide Significance are Puget Sound itself and Nisqually Reach.
- c. Evaluate the short-term economic gain or convenience of developments in relationship to long-term and potentially costly impairments to the natural environment.

PT/KT: Please define terms and concepts:

- Give a specific example of “short-term economic gain”
 - Define “short term economic gain” and explain how it is measured.
 - Define “convenience of developments?”
 - There appears to be a specific idea of what this item is about, but the meaning is obscure. Please explain.
 - One example we can think of is geoduck aquaculture, which has a short term economic gain for a few companies with potentially costly clean-up and restoration efforts if the geoduck market collapses.
- d. Actively promote aesthetic considerations when contemplating new development, redevelopment of existing facilities, or for the general enhancement of shoreline areas.

JV: SMP Emphasis here is to “actively promote aesthetic considerations when contemplating new development..., etc.)

PT/KT: Please define “existing facilities.”

- e. NEW: Actively support programs which recognize the stewardship role of shoreline residential owners and promote their voluntary management of their shorelines.

PT/KT: We agree with Thurston County Shoreline Stakeholder’s Coalition that thousands of home owners are on their properties for the long-term and support sound ecological practices.

4. Policy SH-4 Protect the resources and ecology of the shoreline.

- a. Projects shall be required to consider incremental and cumulative impacts while ensuring no net loss of shoreline ecosystem processes and functions.

PT: Define “projects” or type of projects. Point to information that qualifies which projects “are required to consider incremental and cumulative impacts, etc.”

KT: “No net loss” is simply maintaining the status quo and is a dishonest concept when officials promote taxpayer funded restoration projects to offset impacts by specific individuals or other entities.

JV: The concept that should be used is “net gain” rather than “no net loss.”

- b. In order to ensure the long-term protection of ecological resources of statewide importance, activities impacting anadromous fish habitats, forage fish spawning and rearing areas, shellfish beds and other unique environments should be severely limited.

PT/KT: NEW/REWORD to: Ensure the long-term protection of ecological resources of statewide importance, such as anadromous fish habitats, forage fish spawning and rearing areas, natural shellfish beds, bird nesting and migration area, eelgrass, tideland sea life, and unique environments.

PT: Section 4-b is not broad enough.

- Use the inserted NEW replacement wording.
- Distinguish "shellfish beds" as "natural shellfish beds."
Commercial shellfish beds are not unique.

KT: Commercial shellfish beds should not be given protection in law. Commercial shellfish beds cannot logically or honestly be labeled as "unique environments."

JV: Zangle Cove should be treated as a "unique environment."

- c. Limit public access where improvements would result in a loss of shoreline ecological functions, such as in priority or sensitive habitats.

PT/KT: The meaning of the entire item is incomprehensible.

- Define the term "public access."
- The term "improvements" appears to be an error in word choice.

- d. PT/KT: NEW: Limit commercial access where such access, such as shellfish industry tractors, barges, workers, PVC tubes, nets, plastic bags, etc. would result in a loss of shoreline ecological functions, such as in priority or sensitive habitats.

5. Policy SH-5 Increase public access to publicly owned areas of the shorelines.

- a. Preserve and encourage public access with special scenic or cultural qualities.
- b. Give priority to developing paths and trails to shoreline areas and linear access along the shorelines, where appropriate.

KT: Define term "appropriate" in the context of this policy.

- c. Locate development, including parking, as far inland from the OHWM as is feasible so that access is enhanced.

- d. NEW (PT): Support as feasible the potential enhancement of existing publicly owned and publicly assessable areas of the shorelines.

- e. NEW (PT): Partner with other entities as feasible to increase public access to publicly owned areas of shorelines.

6. Policy SH-6 Increase recreational opportunities for the public in the shoreline.

- a. Public access and recreation requirements should take into account the activities of state agencies and the interests of the citizens of the state to visit public shorelines.

PT/KT: Using state owned tidelands for commercial industrial aquaculture is not in the interest of public access and recreation or the interests of citizens of the state to visit public shorelines.

- b. Plan for and encourage development of facilities for recreational use of the shorelines, but reserve areas for lodging and related facilities on uplands well away from the shoreline, with provisions for non-motorized access to the shorelines.

KT: What exactly is this policy about?

- Is it referring to public or private facilities?
- What is meant by “facilities for recreation use”? Give examples.
- What type of “lodging” is meant?
- What is being referred to as “lodging and related facilities on uplands?” (public or private hotels, private homes, retirement communities, shops, gas stations, etc)
- The term “well-away” from the shoreline is so ill-defined and meaningless, that is subject to contention.

19.300.105 Critical Areas and Ecological Protection

Goal: Protect and conserve shoreline natural resources, including protection of critical areas (Title 24 TCC), while accommodating reasonable and appropriate uses which will assure, at a minimum, no net loss to shoreline ecological functions and processes.

KT: “No Net Loss” is a concept that maintains the status quo with the undefined hope of not going backwards. The concept of “Net Gain” should be used instead and well-defined as to meaning so that stakeholders understand that the goal is to not only protect our shoreline but to restore it. Stakeholders, such as environmental organizations, should be made fully aware that their efforts are meant to balance out impacts to Puget Sound under No Net Loss, not to make significant headway in the recovery of Puget Sound.

JV: “Net Gain” should be used rather than “No Net Loss.”

- A. Policy SH-7 Protect and conserve shoreline areas that are ecologically intact and minimally developed or degraded. Develop incentives and regulations for privately owned shorelines that will protect and conserve these areas while allowing reasonable and appropriate development.

KT: Define “reasonable and appropriate development.” Is this referring to tideland or upland areas or both? We can reasonably say that almost all upland areas on the marine shoreline and lake shoreline have already been developed in terms of private homes. So, what is being referred to as “reasonable and appropriate development and who decides the meaning of the term? If this policy refers to tideland areas, then the term “protect and conserve” is not compatible with “reasonable and appropriate development.”

- B. Policy SH-8 Recognize that nearly all shorelines, even substantially developed or degraded areas, retain important ecological functions.
- C. Policy SH-9 Utilize transfer of development rights as allowed by Chapter 20.62 TCC, or as now or hereafter amended, as an option to protect ecological functions.

JV: This is the transfer of developments (TDR) section of the county code – this concept alarms me especially when coupled with a “no net loss” philosophy.

KT: The policy is further alarming because it appears to say than any amendment now or after the fact will apply. What is the point of having a policy if it can be changed willy-nilly and who is able to effect that change?

- D. Policy SH-10 Permitted uses and developments should be designed and conducted in a manner that protects the current ecological condition, and prevents or mitigates adverse impacts. Mitigation measures shall be applied in the following sequence of steps listed in order of priority:
 1. Avoid the impact altogether by not taking a certain action or parts of an action;
 2. Minimize impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology or by taking affirmative steps to avoid or reduce impacts;
 3. Rectify the impact by repairing, rehabilitating or restoring the affected environment;
 4. Reduce or eliminate the impact over time by preservation and maintenance operations;
 5. Compensate for the impact by replacing, enhancing, or providing substitute resources or environments, including utilization of the in-lieu-fee process where appropriate; and

JV: This provision extends the “no net loss” philosophy beyond the impacted area to create an “offset” practice that seems to be a slippery slope.

KT: Who administers the ILF process, what is definition of “where appropriate,” and who decides appropriateness?

KT: The true meaning of this provision is that an individual, individual company or entity may benefit financially or otherwise from an allowed impact in one area to be offset by a restoration project in another area or by paying a fee. This means that benefit to that one individual or entity is being funded by taxpayers.

6. Monitor the impact and the mitigation projects and take appropriate corrective measures.

JV: This provision needs to be significantly strengthened with far more specificity. Who will monitor? What are the consequences/penalties for non-compliance?

KT: Specifically, which state or county department will be responsible for monitoring, who do they report to, how will citizens make reports, will the state or county be responsible for addressing and remedying complaints of non-compliance rather than leaving it up to citizens to bring lawsuits—a costly and disruptive process.

PT: I agree with the above. Further, it would be important to have a baseline measurement of the area before impacts and mitigations occur. Monitoring without a good baseline would not be meaningful or effective.

E. Policy SH-11 Shoreline ecological functions that should be protected include, but are not limited to:

1. Habitat (space or conditions for reproduction; resting, hiding and migration; and food production and delivery);
2. Water quality maintenance; and
3. Water quantity maintenance.
4. NEW (PT): Species that are present in the project area.
5. NEW (PT): Adjacent areas that provide primary and secondary ecological functions.

F. Policy SH-12 Shoreline processes, both freshwater and marine, that should be protected to support the above functions include, but are not limited to the delivery, loss and movement of:

KT: This Policy need re-wording as it is contradictory. “Toxins” and “Pathogens” belong in a different paragraph because they do not need protection, but rather protected against. Also, “Sediments” can contain contaminants and “Nutrients” can be beneficial or harmful, depending on what they are. So, we are not “protecting” all of these.

1. Sediment,
2. Water,
3. Nutrients,
4. Toxins,
5. Pathogens, and
6. Large woody material.
7. NEW(PT): Resident species and their interactions.
8. NEW(PT): Migratory species and their interactions.
9. NEW(PT): Shoreline structure

G. Policy SH-13 In assessing the potential for new uses and developments to impact ecological functions and processes, the following should be taken into account:

1. On-site and off-site impacts;
2. Immediate and long-term impacts;
3. Cumulative impacts, from both current and reasonably foreseeable future actions, resulting from the project; and
4. Any mitigation measures or beneficial effects of established regulatory programs to offset impacts.

5. NEW (PT): The availability of baseline measurements of ecological functions and processes.

KT: Who or what Thurston County Department makes the assessment of immediate and long-term impacts, cumulative impacts, mitigations, etc.

KT: Change the phrase "should be taken into account" to "will be taken into account." Under Policy SH-13 as written, there is no obligation for anything to actually be taken into account and no indication of who is responsible for taking these items into account.

H. Policy SH-14 Critical areas in the shoreline jurisdiction shall be protected in a manner that results in no net loss to shoreline ecological functions. Pursuant to RCW 36.70A.030(5) and 24.01.020 TCC, critical areas include:

JV: The concept "no net loss to shoreline ecological function" should be replaced by the concept of "net gain" to shoreline ecological function."

KT: Since the wording in the SMP Update will impact our shorelines for perhaps 20-50 years into the future, the concept of "no net loss" is weak and cowardly. It promotes the status quo by allowing individuals and/or entities to benefit financially from impacts to the shoreline.

KT: Since the wording in the SMP Update will impact our shorelines for perhaps 20-50 years into the future, the concept of "no net loss" is weak and cowardly.

- It promotes the status quo by allowing individuals and/or entities to benefit financially from impacts to one area and have their impacts compensated for by taxpayer funded restoration projects in another area.
- This mitigation offset was described by Brad Murphy, Thurston County Planner, at the public comment meetings.
- Tax-payers have the right to know that their dollars are not actually going toward "Net gain" for Puget Sound but are simply compensating for someone else's impacts, including entities which are benefitting financially from their impacts.

1. Critical Aquifer Recharge Areas
2. Fish and Wildlife Habitat Conservation Areas

PT: What are the current shoreline areas designated as "Fish and Wildlife Habitat Conservation Areas"?

- RCW 36.70A.030(5) and WAC 365-190-130 require counties to establish these areas.
- Certainly, most of Thurston County tidelands would fall into the definition of this type of area due to the presence of threatened, endangered, or sensitive species exist.
- See WAC section (2) and (3) which requires use of best available science.

3. Frequently Flooded Areas
4. Geologically Hazardous Areas
5. Wetlands

19.300.110 Vegetation Conservation

Goal: Conserve, protect and restore native shoreline vegetation to provide for ecological and habitat functions as well as human health and safety. These functions include, but are not limited to, variable shading of the nearshore, food and shelter for terrestrial and aquatic organisms, and slope/soil stabilization.

- A. Policy SH-15 Preserve native plant communities on marine, river, lake and wetland shorelines. In order to maintain shoreline ecological functions and processes, development along the shoreline should result in minimal direct, indirect, or cumulative impacts. This includes:

PT: This section should include the shoreline tidal areas. There are native kelp, eelgrass, and other plant communities on tidelands that provide critical ecological functions and processes. These shoreline plant communities are also affected by changes to landside plant communities.

1. Keeping overhanging vegetation intact along the shoreline edge to provide shading and other ecological functions;
2. Preserving established areas of native plants and minimizing clearing and grading near bluff edges and other erosion or landslide-prone areas in order to maintain slope stability and prevent excess surface erosion and stormwater runoff; and
3. Designing and placing structures and associated development in areas that avoid disturbance of established native plants, especially trees and shrubs; and
4. Removal of noxious weeds in accordance with WAC 16-750-020.

- B. Policy SH-16 Shoreline landowners are encouraged to preserve and enhance native woody vegetation and native groundcovers to stabilize soils and provide habitat. When shoreline uses or modifications require a planting plan, maintaining native plant communities, replacing noxious weeds and avoiding installation of ornamental plants are preferred. Unless approved by the Director or their designee, non-native vegetation is prohibited.

PT: Since the goal of this policy is to protect and preserve shoreline ecological functions, it should also apply to shorelines and tidelands.

JV: "Unless approved by the Director or their designee, non-native vegetation is prohibited." This seems extreme. Would prefer that it read "native plants are strongly preferred."

KT: Most shoreline properties have been established as residential properties for decades. Will the monitors required in 19.300.105 D-6 also be the "vegetation monitors?" This could be interpreted as an "ivory-tower" ignorance toward shoreline property owners, most of whom are sincerely interested in the protection of the shoreline and the tideland.

- C. Policy SH-17 Maintaining native or ecologically functional vegetation is preferred over clearing to provide views or lawns. Limited and selective clearing may be allowed when slope stability and ecological functions are not compromised. Limited trimming and pruning is preferred over removal of native vegetation.

KT: Will the monitors required in 19.300.105 D-6 also be the “vegetation monitors?” How will this prohibition be enforced? There is something irrational and vindictive, possibly motivated by cultural envy, about a prohibition related to properties that have been established as residential properties for decades.

19.300.115 Water Quality and Quantity

Goal: Provide regulations and voluntary incentives to encourage practices which protect water quality and reduce stormwater runoff and erosion in order to protect against adverse impacts to the public health, to the land and its vegetation and wildlife, and to the waters of the state and its aquatic life.

- A. Policy SH-18 Shoreline and tideland use and development, including use by aquaculture, should minimize impacts that contaminate surface or ground water, cause adverse effects on shoreline ecological functions, or impact aesthetic qualities and recreational opportunities, including healthy shellfish harvest.

KT: REWORD LAST SENTENCE TO READ; “...recreational opportunities such as recreational shellfish harvest, recreational fishing, bird and wildlife viewing, swimming, and recreational boating and all types of navigation.”

KT: There must be a distinction defined related to recreation harvest of native shellfish and commercial/industrial harvest of planted shellfish. Mention of commercial shellfish should be stricken.

PT: Should read: “Shoreline and tideland use and development, including use by aquaculture...” Shorelines are used from the waterward side as well as the upland side.

PT: What is the definition of “healthy shellfish harvest”? Does this relate to the previous clause on “recreational opportunities”? If so it should be clarified. It is probably not needed here at all. Recommend striking “, including healthy shellfish harvest.”

- B. Policy SH-19 Ensure mutual consistency with other regulations that address water quality and stormwater quantity, including standards as provided for in TCC Title 15.05 (Thurston County Storm Water Standards) and Chapter 173-201A WAC (Water Quality Standards).

KT: Define and address hazardous waste drained on the shoreline from roads and storm water drains.

- C. Policy SH-20 Utilize pervious materials and other appropriate low impact development techniques where soils and geologic conditions are suitable and where such practices could reduce stormwater runoff.
- D. Policy SH-21 All shoreline use and development shall be conducted in accordance with Chapter 24.20 TCC (Frequently Flooded Areas). The subdivision of land should not be established when it

would be reasonably foreseeable that the development or use would require structural flood hazard reduction measures within the channel migration zone or floodway. When evaluating alternate flood control measures or floodplain restoration opportunities, consider the removal or relocation of structures in flood-prone areas.

PT: There needs to be a policy statement related to water quality and commercial development of the tidelands. Commercial development of tidelands should not degrade aquatic water quality through siltation, release of toxics, disturbance and distribution of organic matter due to installation of structures or dredging, and so forth. The previous policies in the section assume water quality is only affected by upland activities which leaves a large gap.

19.300.120 Economic Development

Goal: Provide for the location and design of industries, transportation, port and tourist facilities, commerce and other developments that are particularly dependent upon a shoreline location and/or use, when the shoreline can accommodate such development.

PT: The use of the phrase “when the Shoreline can accommodate such development” in this goal as stated conflicts with previous goal statements. Replace “when the shoreline can accommodate such development.” With “when such development represents no net loss of ecological function and processes.”

KT: The use of the phrase “**when** the Shoreline can accommodate such development” also indicates that “High Intensity” development is allowed on Natural and Residential shorelines.

KT: Policy SH-22 and SH-23 as stated for all shoreline environments are in contradiction to and obfuscate the long-held goals of the original SMP, in which, this new goal for “economic development” was ONLY for the URBAN SHORELINE ENVIRONMENT. To understand clearly how this rule has been dramatically re-invented, please see inserts below from the 1990 SMP.

In Chapter 19.200.105 Shoreline Environment Designations, the SMP update claims that “Thurston County does not have any “High Intensity” shorelines within its jurisdiction, presumably because the City of Olympia is authoring its own SMP update.

So, if Thurston County does not have any “High Intensity” shoreline areas then **this Goal related to “High Intensity” economic development should be stricken.**

This Policy Goal allows for “High Intensity” shoreline use elsewhere in Thurston County. If it is the goal of Thurston County to allow and/or encourage “High Intensity” use in the Natural, Rural Conservancy, Urban Conservancy and Shoreline Residential shorelines, then the County should be explicit about that.

This Goal should be stricken. Goals for the individual Shoreline Environmental Designations should be stated under each shoreline designation, as the goals are unique to the designation.

PT/KT: Below are the economic “Goal Statements” for each shoreline designation from the 1990 SMP. The economic goals for B., C., and D. are NOT the same as goals in the “urban” (“high intensity”) shoreline environment. In the Natural Environment Economic Development IS NOT A GOAL. The definition for the Urban (High Intensity) Environment is the definition that is being used in the current SMP Update for ALL the shoreline environments, including the “Natural Environment”. We do not agree that “high intensity” economic development is appropriate for any shoreline environment other than “Urban/High Intensity.”

1990 Shoreline Master Plan Thurston County, Section Two, General Goals and Policies, VII. Shoreline Environments (Please read this section in its entirety to understand the Purposes, Definitions and Goal Statements of each of the Shoreline Environments. In the current SMP update, these are all lumped together.

- A. Natural Environment, Goal Statement 1: Economic Development. Economic development is not a goal of the Natural Environment.**
- B. Conservancy Environment, Goal Statement 1: Economic Development. The goal for this element is to reach a high level of renewable resource utilization on a sustained yield basis.**
- C. Rural Environment, Goal Statement 1: Economic Development. Available resources should be utilized consistent with the definition and purpose of the Rural Environment.**
- D. Suburban Environment, Goal Statement 1: Economic Development. Available resources should be utilized consistent with the purpose and definition of this environment.**
- E. Urban Environment, Goal Statement 1: Economic Development. The goal of this element is to utilize most efficiently the limited shoreline for industry, transportation facilities, commercial and other developments that are particularly dependent upon their location on, or use of, the shoreline.**

- A. Policy SH-22 Accommodate and promote, in priority order, water-dependent, water-related and water-enjoyment economic development. Such development should occur in those areas already partially developed with similar uses consistent with this Program, areas already zoned for such uses consistent with the Thurston County Comprehensive Plan, or areas appropriate for water-oriented recreation.

PT: We question the “priority order” of water-dependent, water-related, water-enjoyment economic development. Where, specifically, did this come from and/or who determined this priority?

KT: This may be a useful practice for upland development, but it is not useful for shoreline development. We do not believe the saltwater Shorelines of Statewide Significance, should allow commercial aquaculture. Current commercial aquaculture installations on any Shorelines of Statewide Significance should be phased out. Commercial aquaculture is not consistent with protection of the most sensitive areas of tidelands.

JV: The existing use of our shorelands in Zangle Cove is for residential and recreation use – not for commercial use.

- B. Policy SH-23 Water-oriented economic development, such as those aquaculture activities encouraged under the Washington Shellfish Initiative, should be encouraged and shall be carried out in such a way as to minimize adverse effects and mitigate unavoidable adverse impacts to achieve no net loss of shoreline ecological functions.

PT: The Washington Shellfish Initiative is a political initiative and not law. It is inappropriate to include references to the WSI in the SMP. This policy statement should be deleted.

JV: Remove the words “should be encouraged.” Change to “Should be permitted only after careful review...”

JV: “No net loss of shoreline ecological functions” should be change to “net gain of shoreline ecological functions” with full definition of the meaning of “net gain.”

19.300.125 Historic, Archeological, Cultural, Scientific and Educational Resources

Goal: Protect shoreline features of historic, archaeological, cultural, scientific and educational value or significance through coordination and consultation with the appropriate local, state and federal authorities, affected Indian tribes, and property owners.

JV: “Property owners” are included in this section. As property owners, we are seen as equal stakeholders in the process, along with government entities and tribes. This is justification for inclusion on the STAG or Regulatory Committee.

PT: How does this goal translate into regulatory action? There does not seem to be any implementation of this goal in subsequent chapters. There needs to be a definition of “coordination and consultation”. How are disputes resolved related to value or significance?

- A. Policy SH-24 Prevent damage or destruction of historic, archaeological, cultural, scientific and educational (HASCE) sites through coordinated identification, protection and management with the appropriate local, state and federal authorities and registrars, affected Indian tribes, and property owners.

PT: How does this goal translate into regulatory action? There does not seem to be any implementation of this goal in subsequent chapters. There needs to be a definition of “coordination and consultation”. How are disputes resolved related to value or significance?

- B. Policy SH-25 Provide opportunities for education and appreciation related to HASCE features where appropriate and where maximum protection of the resource can be achieved.

PT: What is the definition of “maximum protection”?

19.300.130 Shoreline Use and Site Planning

PT/KT: Of the 13 Policies listed under this heading, 8 Policies, well over half, are for the benefit or related to one industry—shellfish aquaculture industry. This is not appropriate. We question if this SMP update gives such preference/benefit to any other commercial industry and if not, where should they go to get inline? The obvious preference/benefit to the shellfish industry appears biased, especially as the other 5 policies are restrictive of upland use, and none of the policies speaks to recreational use of the shorelines.

Goal: Preserve and develop shorelines in a manner that allows for an orderly balance of uses by considering the public and private use, along with the development of shorelines and adjacent land areas with respect to the general distribution, location and extent of such uses and development.

PT/KT: This goal is vague and contradictory and in conflict with previous goals. You can preserve, or you can develop, but you can't do both. What is the definition of "orderly balance of uses"? The sentence has no meaning.

PT/KT: The Goal of this policy speaks of the "orderly balance of uses." But the only specific uses mentioned are single family residential use (SH-27), non-forming structures (SH-38) and shellfish aquaculture, (SH-30, SH-31, SH-32, SH-33, SH-34, SH-35, SH-36, Sh-37) It begins to look significantly unbalanced.

- A. Policy SH-26 For shoreline use and development activities, including plats and subdivisions at full build-out, employ innovative development features to achieve no net loss of ecological functions, such as sustainable and low impact development practices where appropriate.

JV: "No net loss" should be replaced with "Net Gain" and with full definition of "Net Gain."

PT/KT: Since most upland parcels on the shorelines of Thurston County are single-family homes which have existed for decades, we question what this Policy is about. If it is talking about inland "plats and subdivisions," that are not on the shoreline itself, the policy should state that explicitly.

PT/KT: There needs to be a definition of "sustainable and low impact development practices". What characterizes these types of development?

- B. Policy SH-27 Give preference to water-dependent uses and single-family residential uses that are consistent with preservation of shoreline ecological functions and processes. Secondary preference should be given to water-related and water-enjoyment uses. Non-water-oriented uses should be limited to those locations where the above-described uses are inappropriate or where non-water-oriented uses demonstrably contribute to the objectives of the Act. For use preference within shorelines of statewide significance, see Section 19.300.100(B) above.

JV: Preference is to "water-dependent uses and single family residential uses..."

PT: Why are water-enjoyment uses secondary? The recreational use of aquatic waters has a high economic value and attraction to more people in Puget Sound.

- C. Policy SH-28 Designate and maintain appropriate areas for protecting and restoring shoreline ecological functions and processes to control pollution and prevent damage to the shoreline environment and/or public health.

JV: Questions

- Who designates “appropriate area for protecting and restoring shoreline ecological functions, etc. and on what basis?
- Who maintains “appropriate areas for protecting and restoring shoreline ecological functions,” etc.?
- Does this apply to public land/tidelands only?
- Is private property subject to designation?

PT: Water and tides do not stop at arbitrary boundaries. How will cumulative and secondary impacts be accounted for in this policy?

- D. Policy SH-29 Through appropriate site planning and use of the most current, accurate and complete scientific and technical information available, shoreline use and development shall be located and designed to avoid the need for shoreline stabilization or actions that would result in a net loss of shoreline ecological functions.

PT: According to recent studies, the ability to determine and monitor for loss of shoreline ecological functions requires detailed analysis of existing ecological functions (a baseline), and regular monitoring. As Thurston County has acknowledged in testimony, it does not know how many aquaculture operations are currently active, they have no ability or resource to monitor activities. How will this policy be implemented? Baseline analysis must be required.

KT: Shoreline stabilization” and “Shoreline ecological functions” are very different concepts. The term “Shoreline stabilization” is explanatory. “Shoreline ecological function” is vague and needs to be defined.

- E. Policy SH-30 Aquaculture is of statewide interest. Properly managed, it can result in long-term, over short-term, benefit and can protect the resources and ecology of the shoreline. Aquaculture is dependent on the use of the water area and, when consistent with the control of pollution and prevention of damage to the environment, is a preferred use of the water area.

JV: Property managed, it (aquaculture) can result in long-term, over short-term benefit and can protect the resources and ecology of the shoreline.” I don’t believe this is a scientifically defensible position.

JV: “Aquaculture...is a preferred use...” Should read: “Aquaculture...is a **permitted** use...”

KT: Please cite where these statements come from--WAC’s, RCW’s, etc. The statement that “Aquaculture is of statewide interest” is readily found in documents put out by the shellfish industry. It sounds like a case of “if you say it often enough, it becomes true.” This is a strategy of politicians and should not be a strategy for creating common-sense rules related to protection of State shorelines.

PT: In addition to Jean’s comments, I would like to understand the basis in law for the statement that “Aquaculture is of statewide interest.” I would like to see the science behind the statement that it can provide long term benefits. Current practices have only been in use for a short period of time. The

economic benefits of aquaculture in Thurston County are of minimal economic benefit (about \$20M a year for geoduck farming, according to industry estimates. This is about the economic impact of 4 MacDonald's restaurants. According to Earth Economics the recreational value of the tidelands is far higher. I see no basis for this being a part of the SMP policy structure.

- F. Policy SH-31 Potential locations for aquaculture activities are relatively restricted by water quality, temperature, dissolved oxygen content, currents, adjacent land use, wind protection, commercial navigation, and salinity. The technology associated with some forms of aquaculture is still experimental and in formative states. Therefore, some latitude should be given when implementing the regulations of this section, provided that potential impacts on existing uses and shoreline ecological functions and processes should be given due consideration. However, experimental aquaculture projects in water bodies should include conditions for adaptive management. Experimental aquaculture means an aquaculture activity that uses methods or technologies that are unprecedented or unproven in Washington.

PT: These facts are an argument for less flexibility, more caution, and more monitoring, not less. Experimental aquaculture technology using technologies that are "unprecedented or unproven" is an argument for caution as unexpected impacts can be devastating on endangered and threatened species. This policy statement has no place in the SMP.

JV: The term "adjacent land use" should be defined. Which "adjacent lands" cause restriction for aquaculture?

KT: **This Policy should be stricken as it is counter to the goals of the SMP. This policy is a disaster waiting to happen.** Please recall the 2015 Seattle Shellfish disastrous use of plastic cups as wild-life exclusion devices next to Tolmie Park. The owners of Seattle Shellfish only cleaned up this mess (thousands of pieces of plastic shards from the cups) when he was reported by a neighbor to the Thurston County Health Department. Thurston County should assess if this is still a problem two years later. This was "experimental technology" if you wish to call it that, but it should have been obvious to the operator that flimsy clear plastic cups, the type that are a dime a dozen at the grocery store, are not appropriate to be used to protect geoduck seeds on Puget Sound tidelands, with tides, waves and current. "Due Consideration" is obviously not something that can be counted on to be performed in thought or deed by a shellfish industry operator. The County must be liable for the permit that it gives to the operator, and so it must have a record of the method used and would wisely be cautious about "experimental methods." Permission to "experiment" on our "fragile tidelands" should NOT be granted by law. Somebody needs to wake up here.

- G. Policy SH-32 Aquaculture activities should be located, designed and operated in a manner that supports long-term beneficial use of the shoreline and protects and maintains shoreline ecological functions and processes.

JV: "Long-term beneficial use of the shoreline" should be defined. Does it mean "public benefit" or "private economic gain?"

PT: This policy is contradictory. Aquaculture by its nature changes and disrupts the shoreline ecological functions and processes. **This should be changed, or the entire policy eliminated.**

KT: The phrase "maintains shoreline ecological functions and processes" should be defined.

- H. Policy SH-33 Aquaculture should not be permitted where it would result in a net loss of shoreline ecological functions and processes, adversely impact eelgrass and macroalgae, or significantly

conflict with navigation and other water-dependent uses. Aquaculture is not required to protect state-listed noxious weed species when control methods are conducted within applicable agency standards. In general, the following preferences apply when considering new aquaculture activities:

PT: In above sections kelp is included as well as eelgrass. This should be consistent.

PT: In addition to water-dependent uses this should also include water-related and water-enjoyment uses.

PT: Why is the sentence starting "Aquaculture is not required to protect state-listed noxious ..." in this policy? That would be regulatory in nature, and best left to state agencies, not local specification.

PT/KT: Comments:

- What are "applicable agency standards?"
- Who defines "applicable agency standards?"
- What agency oversees the use of pesticides in Puget Sound and lakes?
- How will the County monitor use of pesticides and who will monitor?
- This policy gives County permission to the Shellfish Industry to spray pesticides on Puget Sound waters. Does this include Imidacloprid, the bee-killing pesticide banned in other countries?
- The phrase "Aquaculture is not required to protect state-listed noxious weed species" is covert way of saying that the Shellfish industry can spray whatever it wants on weeds and critters (ex. Native burrowing shrimp).
- This type of phrasing is dishonest. The County should say directly what it means. Otherwise, it is obvious the County is attempting to hide the truth.

1. Projects that are not likely to negatively impact critical saltwater habitats.

KT: Change to "Project that will not negatively impact critical saltwater habitat." Science should be applied here, not guesswork based on "not likely." Who decides what is "not likely?"

2. Projects that involve little or no substrate modification.

KT: This would rule out geoduck operations.

PT: Define the term "little"

3. Projects that involve little or no supplemental food sources, pesticides, herbicides or antibiotic application.

KT: Any project that involves supplemental food sources, pesticides, herbicides or antibiotics applications should be banned. We are in the 21st century guys. We've used enough of this stuff to fill every human being to the brim. We don't need any more. Operators who are not smart enough to figure out how to grow their product without pesticides, herbicides and antibiotics should find another job. They are helping to ruin our planet and the County should reject this. The County and the State should be ashamed to even consider this in their rules that will be in effect for the next 25-40 years.

Supplemental food sources, pesticides, herbicides, anti-biotics must be banned from use in Thurston County waterways.

I. Policy SH-34 Aquaculture facilities should be designed and located to avoid:

- A. the spread of disease to native aquatic life;

PT: Due to the sensitive nature of shorelines and tidelands, aquaculture facilities should be located in upland facilities with appropriate water quality controls.

- B. the establishment of new non-native species, which cause significant ecological impacts; and

KT: Non-native species should be banned. Any operator who inadvertently introduces non-native species should have permit removed.

PT: The introduction and establishment of non-native species is not allowed.

KT: The term "significant ecological impact" should be defined.

KT: How is "significant ecological impact" determined in a permit process and who monitors "significant ecological impact?"

- C. significant impact to the aesthetic qualities of the shoreline.

KT: Remove the word "significant." The County cannot assume to be arbiters of significance of aesthetic impact, especially when they are charging property owners the highest of property taxes because of aesthetics.

JV: Who decides what is a "significant impact to the aesthetic qualities of the shoreline? How is this determined?

J. Policy SH-35 Upland uses and modifications should be properly managed to avoid degradation of water quality of existing shellfish areas.

KT: The term "Existing shellfish areas" must be defined. Does it mean "native shellfish areas" or "commercial/industrial shellfish areas."

KT: The term "properly managed" must be defined. There are already rules in place for sewer systems and septic systems for upland properties. What else is required here? This policy should be restated if the meaning is for taxpayers to subsidize a single industry. That would be precedent setting for other industrial uses to take priority over family homes and properties

PT: This is far too broad. This policy could lead to a cessation of all residential and commercial development activity in Thurston County. Where is this policy required by the SMA or relevant RCWs and WACs? This looks like a lobbyist's dream to transfer water quality recovery costs to the public. This policy should be deleted.

K. Policy SH-36 Planting and harvesting by boat shall be preferred over low-tide harvest methods

where feasible.

PT: This is regulation and not policy. It does not belong in this section. It also looks like the work of a lobbyist and is not appropriate here.

JV: Should read "Planting and harvesting by boat shall be required..." It already says, "where feasible."

PT: Harvesting by boat shall take place only during daylight hours when the operation is within 2,500 feet of a residence or residential neighborhood.

- L. Policy SH-37 Non-commercial and small-scale aquaculture projects should be encouraged through the shoreline exemption process [Section 19.500.100(C)].

KT: "Non-commercial and small-scale aquaculture projects" are not the same. All commercial aquaculture operations, big or small, must be required to go through the same permitting process. They should NOT BE EXEMPT FROM PERMITTING." This policy is a "slippery slope", no doubt purposefully promoted by the shellfish industry, to slip through an exemption clause for commercial shellfish aquaculture permits.

PT: It would appear that this policy and other policies in this section related to shellfish aquaculture are politically motivated policies from the commercial aquaculture industry and/or their representatives, proposed as a means to avoid permitting requirements. Any such policy should be eliminated from the Draft SMP Update.

- M. Policy SH-38 In order to facilitate more conforming uses in the shoreline environment provide an administrative Type I permit option to permit reconstruction or remodels of non-conforming structures that propose to make the structures and uses more conforming using innovative design techniques and/or by moving structures further landward of critical areas, their buffers and setbacks or, to the maximum extent possible, remove the structures completely from critical areas, their buffers, and setbacks.

KT: Sounds like war on the single-family dwelling. It conflicts with giving preference to single family dwellings. What is the basis for this type of permit? If it is a current policy, where specifically is it defined. Or is this intended to be a new policy, and if so who is responsible for defining it?

JV: "...to the maximum extent possible, remove the structures completely from critical areas, their buffers, and setbacks." The strength of this statement is of real concern.

PT: Since geoduck PVC plastic and netting is recognized in regulation as a "structure" they should be included in the category of "non-conforming" and subject to the same regulations

19.300.135 Public Access and Recreation

Goal: Provide physical and visual public access opportunities and space for diverse forms of water-oriented recreation in such a way that private property

rights, public safety, and shoreline ecological functions and processes are protected in accordance with existing laws and statutes.

JV: Change "...processes are protected..." to "...processes are **balanced and protected...**"

- A. Policy SH-39 Protect the public's opportunity to enjoy the physical and visual qualities of the shoreline by balancing shoreline use and development in such a way that minimizes interference with the public's use or enjoyment of the water. This may be achieved through regulatory provisions, incentives or other cooperative agreements.

KT: Industrial/commercial aquaculture interferes with the public's use and enjoyment of the water.

KT: A portion of the verbiage from policy SH-39 comes from the 1990 SMP. However, in the 1990 document this verbiage was part of the over-all policy statement regarding the SMP, the "Bigger-Picture" as it were. It was not limited to public access and recreation. It was part of a larger statement regarding the management of the Shorelines.

So, although they used some of the words from the 1990 SMP, the authors of the Draft SMP Update have taken this verbiage out of context and changed the meaning.

While the original version placed an emphasis on preserving the public's rights, the new policy places emphasis on "balancing shoreline use and development" and "minimizing" interference with the public's rights." Since this is a change in the over-arching goals of the SMP, it needs to be specifically clarified as to intent.

You can see the words that were taken out of context from the following:

1990 SMP, Section Two, General Goals and Policies, III Policies:

"To implement this document, the public's opportunity to enjoy the physical and aesthetic qualities of natural Shorelines of the State and Region shall be preserved to the greatest extent feasible consistent with the overall best interest of the people generally. To this end, uses shall be preferred which are consistent with control of pollution and prevention of damage to the natural environment or are unique to or dependent upon use of the State's shoreline. Alterations of the natural condition of the shorelines, in those limited instances when authorized, shall be given priority for single-family residences, ports, shoreline recreational uses including but not limited to parks, marinas, piers and other improvements facilitating public access to shorelines of the Region; industrial and commercial developments which are particularly dependent on their location on, or use of, the shorelines of the Region; and other development that will provide an opportunity for substantial numbers of the people to enjoy the shorelines of the Region. Permitted uses of the Shorelines of the State and Region shall be designed and conducted in a manner to minimize, to the extent feasible, any resultant damage to the ecology and environment of the shoreline area and any interference with the public's use of the water.

- B. Policy SH-40 Evaluate site-appropriate types and methods of required public access when reviewing all public shoreline development projects and private subdivision of land into more

than four parcels. Based on project-specific circumstances, this may include physical or visual access on or off site.

KT: What specifically is this referring to. The language in this policy is vague and ill-defined.

PT: This should extend to require access buffers in commercial shellfish areas.

- C. Policy SH-41 Acquire, maintain and improve diverse physical and visual shoreline access through public and private efforts. This should be accomplished in a comprehensive and prioritized manner through the use of existing plans and programs, including those that address population growth and shoreline access demands such as the Thurston County Comprehensive Plan, the Thurston County Parks, Recreation, Trails and Natural Resource Preserve Plan (2013) Plan, and other port and state park plans.

KT: What specifically does this policy mean. The language in this policy is general, vague and ill-defined.

KT: What is meant by “comprehensive and prioritized manner?” This is general, vague and ill-defined.

- D. Policy SH- 42 Publically owned, undeveloped road-ends, tax-title lands and rights-of-way adjacent to salt and freshwater shorelines should be evaluated for use as public access points. These lands may be developed for access by a community organization, consistent with Chapter 13.56 TCC as now or hereafter amended.

KT: “Publically” is misspelled. There is a fair amount of mis-spelling in this document that could be easily remedied by using the spell-checker function in Microsoft Word.

KT: This sounds nice, but the first step is a list of such “publicly owned, undeveloped road-ends, tax-title lands and rights-of-way.”

- E. Policy SH-43 Use shoreline public access points to enhance the public’s understanding and appreciation of shoreline ecology, cultural history, maritime heritage, and location specific rules and boundaries by incorporating educational and interpretive signage and other tools into public access facilities.

19.300.140 Restoration and Enhancement

Goal: Re-establish, rehabilitate and/or otherwise improve impaired shoreline ecological functions and processes through voluntary and incentive-based public and private programs and actions that are consistent with the *Shoreline Restoration Plan* (Appendix C). (Note: this section does not address required mitigation sequencing related to specific development proposals; see Section 19.400.110(A) for mitigation standards.)

KT: In many instances, it would be far more effective and less costly to simply not degrade the shoreline, particularly the tidelands, in the first place. To this end, the permitting of geoduck aquaculture and other forms of commercial industrial aquaculture that uses some 43,560 PVC

pipes per acre, about 7 miles of PVC weighing some 16 tons, many of which escape from their location, or otherwise use plastic nets and bags should be banned.

- A. Policy SH-44 Integrate and facilitate voluntary and incentive-based cooperative restoration and enhancement programs between local, state, and federal public agencies, tribes, non-profit organizations, and landowners to address shorelines with impaired ecological functions and/or processes.

KT: We agree that we should embark on restoration and enhancement programs for our shorelines. But if this is an aspect of the “no net loss of ecological function” or even an adjunct to the “no net loss” policy, it is critical that those participating in these programs should be advised of this policy and what it means—that their efforts are in effect making up for impacts of others who impact for financial gain.

PT: All shorelines restored under an incentive program should be placed into conservation status and any development of the tidelands should be prohibited.

- B. Policy SH-45 Identify restoration opportunities through sources such as the *Thurston County Shoreline Master Program Update Inventory and Characterization Report*, salmon recovery plans, local watershed plans, Puget Sound Nearshore Ecosystem Restoration Project (PSNERP), and the Salmon Recovery Lead Entity Habitat Work Schedule, and authorize, coordinate and facilitate appropriate publicly and privately initiated restoration projects. This shall be accomplished through the *Shoreline Restoration Plan* (Appendix C), which addresses the following:

KT: We agree that we should embark on restoration and enhancement programs for our shorelines. But if this is an aspect of the “no net loss of ecological function” or even an adjunct to the “no net loss” policy, it is critical that those participating in these programs should be advised of this policy and what it means—that their efforts are in effect making up for impacts of others who may impact for financial gain. If it is not part of the “no net loss” policy, then where does it fit into the scheme of “no net loss” policy?

1. Identification of degraded areas and sites with potential for ecological restoration;
2. Restoration goals and priorities;
3. Existing and on-going projects and programs;
4. Additional projects and programs to achieve the restoration goals;
5. Funding sources, timelines and benchmarks for implementation; and
6. Monitoring effectiveness of restoration projects.

- C. Test Policy SH-46 Encourage and facilitate restoration and enhancement projects for Priority Habitats and Species. (Washington Department of Fish and Wildlife, PHS Program).

KT: This is a well-meaning goal that is contradicted by allowing industrial shellfish aquaculture on the tidelands using approximately 7 miles/16 tons of PVC and plastic netting to create a monoculture. Citizens who aware of the contradictions of the County policies are less likely to support restoration projects, as restoration projects often use taxpayer money.

- D. Policy SH-47 Shoreline ecosystem protection and restoration projects shall be prioritized, located and designed utilizing the most current, accurate and complete scientific and technical information available to promote resiliency of habitats and species.

PT: Define “resiliency of habitats and species”. What is the relevant section of SMA, RCWs, WACs, or TCCs? How does this relate to no net loss of ecological functions and processes?

19.300.145 **Transportation and Utilities**

Goal: Plan, locate and design transportation systems and essential utility facilities in shoreline areas where they will have the least possible adverse effect on shoreline ecological functions and/or processes and existing or planned water-dependent uses.

- A. Policy SH-48 Plan, locate and design proposed transportation, parking facilities, and utility facilities where routes will avoid a net loss of shoreline ecological functions or will not adversely impact existing or planned water-dependent uses.
- B. Policy SH-49 Parking facilities in shorelines are not a preferred use. Such facilities shall only be allowed as necessary to support an authorized use and only when environmental and visual impacts are avoided and minimized.

KT: This Policy is not clearly written. Define “Parking facilities” and “in shorelines.”

- C. Policy SH-50 New or expanded transportation routes and essential utility facilities shall, to the extent feasible:
 - 1. Be located in areas that do not require shoreline stabilization, dredging, extensive cut/fill and other forms of shoreline alteration;
 - 2. Be limited to local access and public shoreline access routes;
 - 3. Be located in existing rights of way and corridors; and
 - 4. Not be built within shoreline jurisdiction when other options are available.
- D. Policy SH-51 Transportation and utility projects shall be consistent with the public access policies and plans of this Program.
- E. Policy SH-52 Provide for alternate modes of travel, including pedestrian, bicycle and public transportation, where appropriate.
- F. Policy SH-53 Maintenance of existing transportation corridors and utility facilities shall be carried out in a manner that:
 - 1. will avoid a net loss of shoreline ecological functions; and
 - 2. where feasible and appropriate, improve shoreline ecological functions.

KT: Define what types of “existing transportation corridors and utility facilities” that “improve shoreline ecological functions.” Give an example, as this seems completely contradictory. Maybe the writer has something in his/her mind, but the reader is not a “mind reader.”

Unavoidable adverse impacts shall be mitigated.

KT: How or in what manner will “transportation corridors and utility facilities that cause impacts to the shoreline be mitigated? This is another case of contradictory policy that needs explanation. Looks like somebody just threw this in there.

C. South Puget Sound Policies

1. Policy SH-54 Thurston County recognizes that South Puget Sound is a unique and significant marine resource. As such, Thurston County should work to minimize use conflicts, exercise responsibility toward the South Sound’s resources, and require commitment to water-quality preservation.

PT: There are many aspects to protecting the marine resource. Water quality is an important aspect, but it is one of many. Protection of endangered, threatened and sensitive species, preservation of native tideland vegetation, preservation of tideland structure, and so forth, should be added to this section.

2. Policy SH-55 In planning for the future development of South Puget Sound, the statewide interest should be protected over the local interest.

KT: What specifically is the meaning of “statewide interest vs. local interest?”

3. Policy SH-56 The Alliance for a Health South Sound (AHSS) is a regional organization comprised of Thurston, Kitsap, Pierce and Mason County governments, and the Squaxin Island, Nisqually, and Puyallup tribes. The AHSS has been recognized by the State, including the Puget Sound Partnership, and the counties as having an important role in protecting, enhancing, and restoring the resources of South Puget Sound. As such, the AHSS has developed the South Sound Strategy, incorporated herein by reference, which should be consulted for guidance when reviewing new shoreline projects in South Puget Sound.

PT: The AHSS lacks representation from mid-sound, upper-sound, and island counties. Puget Sound is connected across all of these areas. Additionally, AHSS lacks representation of environmental organizations, citizen groups, recreational groups, shoreline property owners, and other stakeholders. It is an inappropriate resource for policy guidance.

KT: The AHSS may be a reputable organization, but it does not seem wise to name any non-governmental organization in a set of rules that may be in effect for 30-40 year

4. Policy SH-57 The public interest in South Puget Sound concerns the natural character and the future development. The scope of the public interest concerning the future development of South Puget Sound includes all residents of the state, tribes, the four county governments, and federal- and State-owned lands.

PT: The scope of public interest far exceeds this defined group. This policy should be more expansive and inclusive, or eliminated.

KT/PT: Comment:

- “Natural character” of what?

- “Future development” of what?
- What specific policy are you attempting to convey?
- This “policy” appears to be an opinion regarding public interest rather than a policy.
- Are you using the term “public interest” to describe a generic group of people that include “all residents of the state, tribes, the four county governments, and federal and State-owned lands.”? If so, the “federal and State-owned lands” are not people.

OR

Are you trying to say that the public is interested in “all residents of the state, tribes, the four county governments, and federal and State-owned lands,” in which case “federal and State-owned lands” works, but nothing else does in the sentence?

Policy SH-57 is both ill-defined and contradictory. It says that “the public interest in South Puget Sound concerns the natural character and the future development.” **This is not a policy, but an ill-defined opinion.**

If the County is trying to say its policy is to preserve the natural character of the shoreline related to future development then it cannot, at the same time, promote policies that encourage industrial activity on the tidelands that use approximately 7 miles/16 tons of PVC along with plastic netting per acre of tideland along with dredging of the entire acre at harvest.

We request that this “policy” be clarified. There must be consistency of policy statements and assertions of “concern” if the County wants this Draft SMP Update to be accepted as credible.

