To: Sharon Rice, Hearing Examiner

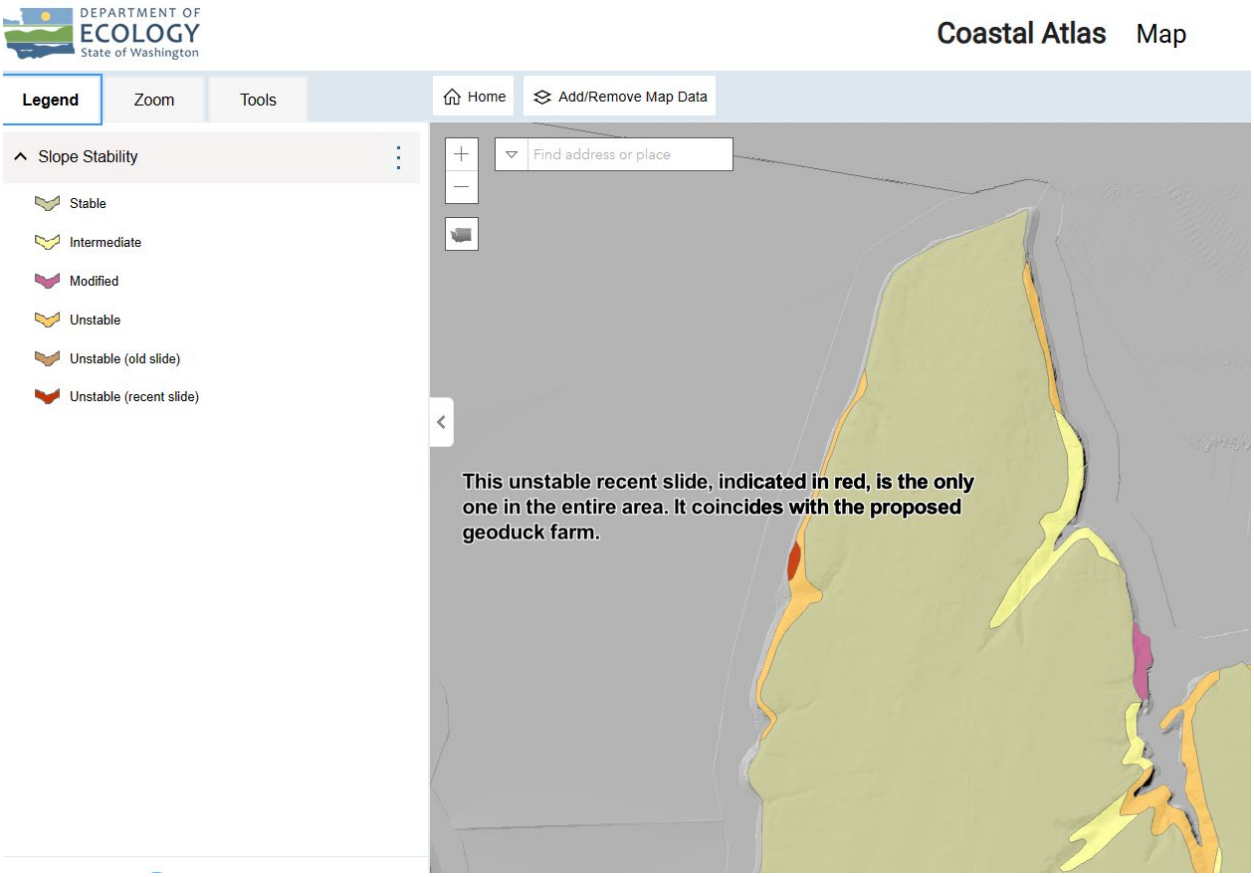
From: Tonni Johnston, Thurston County Citizen

RE: Opposition to Project 2022103702

- Project 2022103702 should not be placed adjacent to the unstable slope and recent landslide on Johnson Point.
- Project 2022103702 should not be allowed where there are rooted grasses and attached macroalgae such as kelp.

As your decision whether to allow this project weighs in the balance, I wish to submit information concerning the slope stability and recent landslide at properties adjoining the proposed Mazanti/Taylor Geoduck farm in Thurston County and to express my opinion that disturbing the rooted grasses and attached macroalgae such as kelp at that site would bring a net loss of ecologic function which is not allowed in our SMP.

The following state of Washington map denotes one slide along an unstable bluff on Johnson Point in Thurston County. It is marked in red. If viewed in black and white, the recent slide is adjacent to the proposed geoduck farm at Johnson Point Loop (Coastal Atlas - Map (wa.gov)).



It stands to reason that protecting the shore plays an essential role in protecting the slope. Beach scour is an erosion of the substrate at the base of the shore. Anything that might contribute to beach scouring should be avoided in sensitive areas. Sea Grant findings (Resilience of Soft-Sediment Communities after Geoduck Harvest in Samish Bay, Washington – Washington Sea Grant) confirm that geoduck aquaculture increases beach scouring (note the last two sentences of this page of the report).

Sea Grant WASHINGTON

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GEODUCK-EELGRASS INTERACTIONS IN SAMISH BAY

Resilience of Soft-Sediment Communities after Geoduck Harvest in Samish Bay, Washington

Researchers documented environmental effects of geoduck aquaculture on eelgrass meadows and associated soft-sediment habitat as part of the Geoduck Aquaculture Research Program.

Principal Investigator

Jennifer Ruesink, University of Washington, Department of Biology

Co-Principal Investigators

Micah Horwith, University of Washington, Department of Biology

Project

Under legislative mandate, Washington Sea Grant undertook a large-scale, six-year multidisciplinary study of the ecological and biochemical effects of geoduck planting and harvest. Washington Sea Grant-supported researchers conducted 15 surveys of adjacent farmed and unfarmed areas, comparing sediment, eelgrass, and faunal characteristics at various stages in the growth and culture cycles.

Research Updates

Background

Puget Sound's eelgrass provides many ecological services: anchoring and enriching substrates, removing acidifying carbon dioxide, and feeding and sheltering a wide range of fauna. Washington State considers it critical habitat and permits no shellfish culture in established meadows. But eelgrass and aquaculture inevitably interact, particularly when eelgrass colonizes geoduck beds. An instance of such colonization in Samish Bay offered a large-scale natural experiment in geoduck aquaculture's previously unstudied impacts.

Results

Results show evidence that geoduck harvest decreases sediment elevation within the farm, with recovery on the order of one year. Harvest activity and the biofouling of predator-exclusion nets led to the elimination eelgrass from the geoduck farm. Installation of PVC tubes to protect young geoducks increased local scour, reduced sediment elevation, and increased the rate of mortality for eelgrass seedlings. In all, results suggest that geoduck aquaculture decreases organic content of sediment within the farm; sediment loss was greater around the PVC tubes, possibly suggesting increased scouring. Eelgrass began recolonizing the farm one year after net removal.

Project Information

Project #: R/GD-3
Started: April 2008
Completed: July 2011
Funded under: Geoduck Aquaculture Research Program

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Relevant Links

Jennifer Ruesink
UW Department of Biology

Below are two December 29, 2023 photos from the location in question at beach level to help prove that the unstable slope here with recent slides is an inappropriate placement for adjacent commercial geoduck aquaculture.

Additionally, in the photo above (which includes Mr. David Hall's pilings which mark a near-center point in the proposed project), we see debris which would be beneficial to leave to help shore up the cliff and mitigate water flow, even though it would be in the way of any shellfish farmer. For no net loss of ecologic function, according to our SMP, all the material should remain undisturbed by people.

Let us also consider what grows on the nearshore beach here. I believe a natural buffer in the form of kelp beds exists in the vicinity for which no protection from the proposed geoduck farm has been granted. Kelp and eelgrasses are known to help prevent beach erosion, besides providing many other benefits.

Supposedly there is no eelgrass here, but how can we be sure when the person doing the audit is an employee of the company who stands to lose the project if even one blade is found? The audit is undeniably sloppy in that the photos describe north as they point south and vice versa.

It has been documented that there is a lot of macroalgae in the vicinity including costaria costada and desmarestia. Several of these are kelp which we are told has protections, yet there is no kelp study included to learn from.

The county photo below indicates a lot of seagrass and/or attached kelp in the area (please note David Hall's famous pilings for reference), though I do not personally know what kind. A

thorough, skilled, comprehensive, unbiased study should tell us, which would be a starting place to determine ecologic functions and whether the proposed permit would bring net loss of ecologic function.

Tonni Johnston's credentials include that she is a

Henderson Inlet and Johnson Point Resident at 9105 Otis Beach St NE, Olympia, WA 98516.

Her BMUS degree is from WWU. Her MA degree is from UW. She taught in our public schools for 30 years. She is a member of SPSCC Orchestra. She is a past board member of NTEF and currently serves on ProtectHendersonInlet.org. She can be contacted at tgjohnston80@gmail.com