

October 26, 2006

Kathy Fletcher
People For Puget Sound
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Re: Geoduck Policy

“Just as fiscal honesty demands an accountant to record fiscal debits as well as credits, intellectual honesty demands that evaluation of environmental policies consider both sides of the ledger.” – The Precautionary Principle by Indura M. Goklany, 2001.

Dear Ms. Fletcher,

I am writing you to comment on People For Puget Sound’s (PFPS) “Policy on Geoduck Inter-tidal Farming” which was adopted September 20, 2006. The opening summary of this Policy states that “We support the precautionary principle, which calls for erring on the side of protection when information is uncertain or incomplete.” Hopefully, it’s not too late for you to reconsider your Policy and your methods because my question to you is this: What if your call to limit shellfish aquaculture in general, and inter-tidal geoduck farming in particular, will cause more harm to the environment than good? Or worded differently, “What if growing geoduck clams helps to substantially mitigate the damage that we humans are inflicting on Puget Sound’s marine ecosystem?”

Farmed Shellfish Benefits

It’s long been known that shellfish farming—a practice that pre-dates Washington statehood—is very beneficial for water quality, especially as it relates to nitrogen pollution that is plaguing not only Puget Sound but marine ecosystems everywhere. This is because shellfish, like geoduck clams, are filter feeders that eat algae. As your own web site points out a “nitrogen imbalance leads to excessive algae growth. The algae then dies and decomposes -- a process which uses up oxygen. **Little to no oxygen is left** for other marine life.” The UN has also recently reported on the severity of this same issue, citing a “34 percent increase” in the number of “dead zones” in the world’s oceans. Given the massive fish kill that *once again* recently occurred in Hood Canal due to nutrient overloading as well as the extensive low dissolved oxygen levels found by the Department of Ecology in both Hood Canal and many areas of South Puget Sound, it should be apparent that Puget Sound needs more shellfish beds and shellfish farms to help mitigate the nutrient pollution we’re causing, not less.

In fact, the renowned advocacy group, Environmental Defense, makes this same point, asserting that shellfish “...clarify water by consuming plankton, significantly improving water quality.” In addition, they call attention to the benefits of shellfish farming noting that, “Mussel

farms can remove nitrogen from water at a 70% higher rate than occurs in surrounding waters.” In fact, numerous scientific papers and research call attention to the beneficial effects of filter feeders in dealing with the excessive nutrient pollution occurring in marine waters.

However, it’s not just nutrient pollution where shellfish can help mitigate the harm we humans are inflicting on the environment. In what I am sure is surprising to most people, geoduck farming can even play a role with excess greenhouse gases. The February 2004 issue of *National Geographic*, in an article entitled “The Case of the Missing Carbon,” states that “Oceans have a mighty appetite for swallowing carbon dioxide,” and that “lovely carbon reservoirs-seashells to the layman” are one place the missing carbon goes. As far as seashell “carbon reservoirs” in the Pacific Northwest go, there are none bigger than a geoduck clam shell, where the shell can be as much as 40% of the weight of the clam. These carbon reservoirs are generally permanent in that the clam shells, and the CO₂ they are partially comprised of, usually end up in a landfill.

In fact, I’ve calculated that the amount of CO₂ sequestered in the shells of *farmed raised* shellfish might be as much as 522,000 *tons* per year. Of course, the state of Washington’s share of this effort is much smaller because we are not a big producer of shellfish in the world. This figure would certainly grow if Washington shellfish farmers were allowed to expand, but should PFPS’s call to limit the expansion of geoduck farming onto state tidelands be followed this would be much less likely to happen. There are two reasons behind this. Geoduck farming shows the most promise for expansion because of market demand, therefore this is the species that growers want to grow more of. Additionally, the state still owns a large share of the tidelands and almost all the bedlands where the industry might want to expand, and you’re calling for a moratorium on expansion on to state tidelands. Market demand is so strong that the Canadian’s are farming geoduck, the Mexican’s are thinking about it, and the Chinese, Koreans, and Japanese are all actively engaged in seeing if they can catch up with us. So it’s not like the time frame to expand our shellfish population, thereby mitigating much more of the pollution that humans cause, is unlimited.

SUPPORTING SCIENCE

One of the principles your organization espouses is to “Base regulatory decisions on best available science.” A laudable goal, but in judging your geoduck policy by the facts I would have to say your best available science principle is just rhetoric. The facts are these. There is a great deal of science that supports the case that the net effects of geoduck clam farming are a large benefit to the environment, and that there is little to no science that points to any negative long term effects.

Besides the aforementioned mitigating effects of shellfish, including geoduck clams, filtering algae and CO₂ being sequestered in shells, there is also a great deal of science that has already been done on the effects of farming shellfish in the marine environment as well as harvesting effects. In fact, in 2004 the University of Washington in conjunction with DNR published a “Comprehensive Literature Review and Synopsis of Issues Relating to Geoduck (*Panopea Abrupta*) Ecology and Aquaculture Production.” The list is extensive and I wonder if your policy makers even made an effort to familiarize themselves with this review.

Related to the harvest of geoduck clams, The Puget Sound Nearshore Partnership has defined the critical nearshore area as that area of the Sound that “generally extends from the top of shoreline bluffs to the depth offshore where light penetrating the Sound's water falls below a level supporting plant growth...” This would be an area that extends into waters of 60 to 70 feet deep. As the geoduck fishery is confined to waters from 18 feet to 70 feet this means the geoduck fishery both in Washington and Canada harvest geoduck clams in the same critical nearshore habitat that geoduck clam farmers farm in. More importantly, both WA and BC regulatory authorities have done important environmental impact studies on the effects of the wild geoduck clam harvest.

Because the wild geoduck clam fisheries use the same equipment and harvest techniques in the same critical nearshore habitat as the geoduck farmers, the science that has been done for the fisheries is relevant to geoduck farming. As pointed out in the 2001 Final Supplemental Environmental Impact Statement done by Washington State Department of Natural Resources (DNR), **“Geoduck harvest does not have significant, long-term, adverse impacts on the environment and (non-geoduck) flora and fauna.”**

In addition the three largest geoduck farmers in the Washington have already had a Biological Assessment of inter-tidal geoduck farming done by a nationally recognized environmental consulting company that specializes in environmental risk management. They found no long term effects of our farming methods. In fact, in reading the report one could draw the conclusion that a geoduck tube farm provides many of the same habitat functions as an eel grass meadow.

ONGOING RESEARCH EFFORTS

In spite of the research on geoduck that has been done, there is still much to do, and, fortunately, much that is being done. Canadian and U.S. researchers are both in the process of researching the effects of geoduck harvest in the inter-tidal area of the critical nearshore area. The University of Washington and Washington State University, with \$400,000 in funding from geoduck growers and the Western Regional Aquaculture Center, are entering the fourth year of research on the effects of farming geoduck clams on eelgrass. Growers have also already funded important hatchery and environmental research. In addition, DNR is also requiring extensive research to be performed over the next several years on their just-launched inter-tidal geoduck clam pilot leasing program, including control plots with no geoduck culture.

This is not to say that I do not appreciate your call to the 2007 legislature to “Fund a comprehensive, independently developed scientific study of inter-tidal geoduck farming, addressing community and ecosystem scale impacts and effectiveness of mitigation measures.” However, given all the positive effects of geoduck clam farming and all the other serious problems Puget Sound is faced with, I do question whether that is the best use of the taxpayer’s money.

I also see that your Policy statement suggests that local governments should “Adopt and promote open space taxation programs that provide financial incentives to private tideland owners for leaving their tidelands in a natural state.” Would this same concept apply to wetlands

that have been converted into farmland? For instance, there's probably 50,000 acres of former wetlands alone at the mouth of the Skagit River that you could target. This all makes me wonder if PFPS makes their recommendations in a vacuum without any cost/benefit analysis being done on an issue.

POLITICS

A lack of what seems to be any serious cost/benefit analysis on the geoduck farming issue also makes me think that PFPS might be too driven by politics. Especially NIMBY politics. It's easy to go after shellfish farmers where there's not much of a constituency, rather than homeowners with homes protected by dikes or municipal sewage treatment authorities serving millions.

In the vein of politics, do you realize that the one and a third pages of the Geoduck Intertidal Farming Policy statement uses some form of the word mitigate ten times? Mitigation presupposes some kind of damage. As far as I know, no one has scientifically shown any environmental damage being done by geoduck farming. The fact that you've used this word so extensively creates the impression that geoduck farming is bad for the environment. However, as I've tried to convey to you, the net benefits from geoduck farming are good for Puget Sound. It makes me wonder if your Policy statement is driven by several small but vocal NIMBY opposition groups that like to ask questions implying that there *might be* damage to the environment resulting from geoduck harvesting without having ANY science to back up their implied claims.

The fact that you've spent the time and effort you have on an issue which not only has no scientific evidence suggesting it is harmful, but which also has a very small foot print (less than 150 acres of geoduck farms), makes me ask if PFPS has the political will to tackle the real issues effecting Puget Sound. Have you called for a moratorium on bulkheading which we know is a huge environmental problem... and also effects many wealthy landowners? Or could it be that geoduck farming with its unsightly tubes (viewed by those same wealthy shore based homeowners) was an easy target to tackle? What about the toxics still flowing into Puget Sound through over taxed storm drainage systems?

I'm reminded of a recent National Public Radio interview with the two Seattle Post-Intelligencer reporters who wrote the special report, "The Sound of Broken Promises." According to the reporters, as they researched their story, they were struck by the fact that all the statements of alarm being expressed by government leaders, scientific researchers, tribal habitat managers, and, yes, even environmental advocacy groups sounded just like they did twenty years ago. One of their primary messages was that not only are we losing the battle to save Puget Sound, but that we've known it for over twenty years and nothing has changed.

TACTICS & METHODS OF PEOPLE FOR PUGET SOUND

Given my observations of your methods and tactics, as limited as they are, it is not surprising that we're losing the fight to save Puget Sound.

I am the President of one of the two largest geoduck farm operations in South Puget Sound. It was a little disturbing for me to have to inadvertently stumble across your geoduck policy on the website of a recently formed NIMBY group setup to fight geoduck farming. Given your influence and the effect your Policy might have on our farm operations, I might have thought you would have asked for my thoughts or input before formally adopting such a policy. Common courtesy would even suggest at least a call. As far as I know, I have never spoken to someone from People For Puget Sound.

I say "as far as I know" because based on a recent incident involving Taylor Shellfish, I would say that secrecy and stealth seem to be a tactics embraced by your organization. Even with regards to "investigating" your friends.

In conversations with a couple Taylor beach workers (the Taylors would never raise an issue like the one I'm about to as they are too kind), they shared with me that this past summer several people in your organization were interested in seeing a geoduck and shellfish operation. It might have even been you. According to what I heard, the Taylors, in their usual open manner, said they'd be happy to give you a tour. Instead of taking them up on their offer, you showed up unannounced on one of their Totten Inlet farms. If this wasn't bad enough, your representatives as well as the NIMBY group escorting them through Taylor's private property, proceeded to traipse right across a beach recently seeded with single oyster seed killing who knows how many young oysters.

What makes it ten times worse is that I know the Taylors have been very strong supporters of you and People For Puget Sound. In fact, not only did the Taylors take the lead with the shellfish growers in rallying support for the septic legislation which passed during the last legislative session, I know they've been involved in similar efforts in the past. And I know they are financial contributors of PFPS. So it's amazing to me how shabbily you seem to have treated a loyal supporter of your organization. If I were on your Board I would be embarrassed by this whole episode.

I'm reminded of something I recently heard from United States Senator Barak Obama. When asked about the polarization that seems to be plaguing our country, he said we don't have to be disagreeable when we disagree. What he was talking about was manners and civility. It's something I think can only benefit an organization like yours-an organization which has to appeal to a broad segment of society if it is to accomplish its stated goal of cleaning up Puget Sound.

CONCLUSION

Senator Obama is also fond of quoting Daniel Moynihan who in discourse with a fellow Senator on an issue they were disagreeing on stated that, “You’re entitled to your own opinion, but you’re not entitled to your own facts.” The facts on inter-tidal geoduck farming are as follows:

1. The science indicates that shellfish farming, including geoduck farming, is good for the marine environment, including Puget Sound.
2. There’s even science that suggests that less shellfish in marine waters will be harmful to Puget Sound.
3. There is no science to support the case that geoduck farming is harmful to the environment.
4. People For Puget Sound’s “Policy on Geoduck Inter-tidal Farming” if adopted by regulatory authorities will result in less shellfish in Puget Sound.

To sum, geoduck farming may be unsightly to some, but at least it helps keep Puget Sound healthy and not just “pretty” as some would seem to have it. I hope you will reconsider your current geoduck policy.

Sincerely,

Jim Gibbons
President

Cc: The Board Members of People For Puget Sound
Jay Manning, Washington Department of Ecology
Governor Christine Gregoire
Bill Taylor, Taylor Shellfish
Doug Sutherland, Washington Department of Natural Resources
Dr. Jeffrey Koenings, Washington Department of Fish and Wildlife
Billie Frank, Northwest Indian Fisheries Commission
Brad Ack, Puget Sound Action Team