

From: robertc@harpub.com

Sent: Thursday, February 12, 2015 3:00 PM

To: zSMP

Subject: A comment on the proposed geoduck farm that also applies to the SMP

Regarding the proposed Goeduck Farm at the mouth of the Dungeness River.

Ever since the disaster at Fukushima, Japan, radioactive water has been released into the Pacific Ocean from that facility. It has, then, been carried by ocean currents across the North Pacific Ocean to the West Coast of North America. In August, 2014, a research vessel detected the leading edge of that plume of contaminated water approximately 650 miles West of Vancouver Island. That result was reported at ENENEWS.com) That plume of water was subsequently carried further towards the coast, but it was also dispersed by the coastal processes and carried southwards towards California. The author of that first, paper reported these later observations at a scientific meeting in India. I have not seen his full report. However, his general results have gradually filtered through to me.

Unfortunately, No government agency appears to have taken responsibility for monitoring the status of this radioactive contamination, either in the USA or in Canada, nor so far as I know, is any State agency doing that. So, one is forced to rely on the reports that appear in the alternative news media to find the information is available. In particular. Rense.com and ENE NEWS.com have done a fairly good job of covering the various reports that have come out.

The source of the radioactive contamination in Japan remains unabated and more radioactively contaminated water continues being discharged into the ocean in Japan, on a daily basis. It is carried across the Pacific Ocean to the West Coast of North America. That takes about three years.

So, we should expect it to continuously arrive at least until approximately three years after they stop releasing it from in Japan. However, the ocean currents are subject to turbulence processes. So we should also expect random variation in the timing of its arrival and in the North-South position of the plume. It appears to have reached the coast of North America near the north end of Vancouver Island, the first time it was detected, but we should expect that to vary. We should also not assume that it will be affected by the coastal processes always the same way as it was that time.

In addition, there is also another mechanism for the movement of radiation from Fukushima to the West Coast of North America. That is that radioactive fallout is carried by the atmosphere. For the first few years, after the disaster in Fukushima, I measured the radiation levels on the Olympic Peninsula. I reported them in an article in the *Port of Call News* (A copy of that article is attached.) Radioactive fallout is a fine dust and it settled effectively everywhere through out this region. However, rain washes it off and can carry the radioactive particles to the nearshore, marine environment, for example by way of the Dungeness River.

Thus, the proposed geoduck farm at the mouth of the Dungeness River may get radioactive contamination both from the contaminated water that was carried across the North Pacific Ocean by the ocean currents, and from fallout that had fallen on the peninsula but was washed off by rain and carried by rivers to the nearshore environment. Radiation is particularly taken up by plankton and geoducks are filter-feeders that filter the plankton from the water and consume it. They can be expected to be subject to both of these sources of radiation and they can be expected to accumulate it. There is no way, that I know of to cleanse them of it. The intention of the

proposed farm is that the goeducks be grown, harvested and sold, as a food product or to be made into one. As one should reasonably expect that they may accumulate radioactive poisons, this business model may involve a criminal act: Specifically, RCW9A.46.021 says that a person is guilty of assault in the second degree if he or she, administers to or causes to be taken by another, poison or any other destructive or noxious substance. There also appears to have been disregard of whether there is radioactive contamination in the environment despite readily available evidence that there is such contamination. Please ask the County Prosecutor whether that is the right law to prosecute this offense under, as that might also be done under reckless endangerment, or possibly some other law. And also ask whether the County, County staff or County elected officials may have a liability due to permitting the goeduck farm. I have also not heard any plans for monitoring either the environment or for testing the safety of the shellfish produced by the farm. The first is essential to demonstrating whether a geoduck farm is feasible, whereas, the second should be required of them, for them to be allowed to sell their product. --- These issues associated with radioactive contamination seem not to have reached the level of consciousness for the people planning this venture but they are essential issues that need to be addressed.

A goeduck farm also provides an opportunity to monitor the amount of radiation in the environment, by periodically sampling the clams and measuring how much radiation they have accumulated. If a government agency, such as the Department of Ecology or the Office of the Governor, has been requiring the County to allow and permit operations such as a goeduck farm, in the shoreline area. As part of the Shorelines Master Program, they may have also acquired a liability to provide or fund the necessary monitoring and testing programs.

Sincerely
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