

## Shellfish Industry Routinely Removes Native Vegetation and Species Essential to Nearshore Ecological Functions

**Macrophytes.** While some physical effects of culture practices on macrophytes are indirect (altered nutrient cycling/pathways, increased turbidity or sedimentation) or unintentional (harvesting and personnel traffic), the majority of shellfish growers in some regions, such as the northwestern United States, have traditionally increased local water circulation for bivalve feeding by deliberately removing macrophytes from farm sites (Simenstad and Fresh 1995; Heffernan 1999). With the apparently high prevalence of this practice, it is surprising no studies could be found which have examined the ecological consequences of intentional macrophyte removals for aquacultural purposes. Related studies examining similar disturbances in a limited fashion are available, however. Peterson and Heck (2001) have experimentally demonstrated no significant difference in survival among mussels (*Modiolus americanus*) contained in seagrass (*Thalassia testudinum*) plots that had aboveground growth removed compared to un-manipulated seagrass plots. That being said, these plots measured 0.5m<sup>2</sup> and are barely comparable to the magnitude of disturbance caused by clearing a culture site of many hectares. Further, no published studies could be found which have examined the impacts on changes to other taxa which also rely on seagrass habitat.

Source: Canadian Science Advisory Secretariat, Research Document 2006/011, *Effects of Shellfish Aquaculture on Fish Habitat*.

The bed will be cleared of predators and prepared for planting, much like stripping your property to prepare it for pasture. Except, a buffer will be established around any eel grass beds. The site has been surveyed and the eel grass mapped. There are very few eel grass beds on our mudflats and the few that are there are recent arrivals. Never the less, the ones there will remain unmolested.

Source: Email comments to Pierce County relating to Mayo Cove geoduck application.

### **3.2.1 Experience**

In 1997 Taylor Shellfish and Kent Kingman embarked on a partnership that continues today. We identified a large piece of ground that we leased from a family.

The total plantable ground consists of over 12 acres. Our first harvest was this year. My experience has been from start to finish and I have been involved in every aspect of the process from obtaining the lease to harvest. Our harvest this year is in excess of 100,000 lbs. Analyzing and improving the process has been a keen focus of mine. The following activities are areas that I have been involved in.

- Obtaining the lease.
- Communicating with Diane in the permitting process.
- Working directly with manufacturers for pipe acquisition at a better price and color.
- Working with the crews in all aspects of the business to learn and improve the process. (Ground preparation, sand dollar removal, planting, tube

Source: Certification and Assurances, Request for Offer to Lease State-owned Tidelands for Geoduck Aquaculture GA06-01, Lease area #5, Herron Lake, Case Cove LLC.

### **5.0 Operations Proposal**

**5.1 Schedule of preparation.** The permits will be pursued immediately beginning the fall of 2006. The preparation of the site will be done through the winter. I will have the survey completed in winter. My surveyor (Thornton Land Surveying) already has a control point on the beach and the north and south corners of my 900' of beach marked. It will be a very quick and easy process for them to survey since this spring I had them mark those points in preparation for the DNR lease while they were doing other work on my property.

There will be no rafts used that will have a permanent mooring. I will utilize my uplands as the staging area.

I will utilize my gator to remove all loose rocks on the beach. I will rake up the rocks and shovel them into my gator and then take them and dump them on my uplands. I did this for my manila clams and it works very well. I like a clean beach with just sand for the geoducks. There are not many rocks out there and they are only 1"-2" in diameter.

Source: Certification and Assurances, Request for Offer to Lease State-owned Tidelands for Geoduck Aquaculture GA06-01, Lease area #5, Herron Lake, Case Cove LLC.

Sierra Club has reviewed letters from citizens that have reported these destructive practices in inlets in South Puget Sound.