

INTERIM
**Information Regarding the Amendment of an Existing Subtidal Shellfish Licence
to Include Geoduck Aquaculture**

1. Background

The Federal (Fisheries and Oceans Canada or DFO) and Provincial governments (Ministry of Agriculture and Lands or MAL, Integrated Land Management Bureau or ILMB) are working co-operatively to foster the development of geoduck aquaculture in British Columbia. Because of some unique challenges associated with geoduck aquaculture, a number of special requirements will affect aquaculturists wishing to pursue culture of this species. This document explains the special requirements associated with the amendment of an **existing subtidal** shellfish licence to include geoduck aquaculture.

2. Tenures Eligible for Amendment to Include Geoduck Aquaculture

The coastal waters of British Columbia support a successful geoduck fishery. The Provincial and Federal governments wish to ensure that the development of the geoduck aquaculture sector does not result in undue impacts to this important fishery or to the health and genetics of geoduck wild stocks. As a result, applications to amend the aquaculture licence of existing subtidal aquaculture sites, (where the existing site is defined as the boundary of the tenure issued before June 28, 2005), are limited to those in the Strait of Georgia transfer zone (DFO Areas 13 to 19-4, inclusive and areas 28 and 29).

Requests to amend existing tenures outside of the Strait of Georgia transfer zone will be considered in a subsequent phase of industry development as genetics and disease work advances, when there is hatchery capacity in other zones, or hatchery capacity is developed with isolation and quarantine facilities.

3. Fish Habitat, Navigation and Environmental Concerns

All aquaculture proposals, including those contemplating geoduck aquaculture, are subject to a Navigable Waters Protection review in order to assess potential conflicts with navigation (for detailed information requirements contact Transport Canada Navigable Water Protection Division at 604-775-5486).

Geoduck proposals will require a federal *Fisheries Act* Section 35 review to assess potential impacts of the farming operation on fish and fish habitat. Fisheries and Oceans Canada - Oceans Habitat and Enhancement Branch (DFO-OHEB) is responsible for the protection and management of fish habitat under the authority of the federal *Fisheries Act*. Like other types of development taking place in and around water, geoduck aquaculture projects have the potential to affect fish and fish habitat. In order for the local area Habitat Biologist to be able to complete a thorough review, site specific Habitat Information Requirements for shellfish (HIR) may be required. Please contact your local area Habitat Biologist for further details.

4. Tenure Marking Requirements

Tenure marking on the sea floor is required as condition of licence at subtidal geoduck sites. Both wild and aquaculture geoduck harvesters must be able to clearly and visually determine underwater where the tenure boundaries are located to ensure that harvesting and farm activities are conducted in the appropriate areas. A clear boundary line will benefit both user groups in an enforcement investigation. Evidence of harvest with a stinger is visible for several days.

Methods used to date are 25 lb cement blocks placed 50 m apart and connected with sinking ground lines. Other marking methodology may be acceptable depending on habitat mitigation, however sinking and not floating line is required.

5. Pre-seeding Harvest

Where significant wild stocks of geoducks are known to exist on a tenure **and** where these stocks can be harvested without undue disruption of currently licensed culture activities, a one-time pre-seeding harvest of these existing stocks will be required before the site will be licensed for geoduck aquaculture. The site boundaries must be clearly identified and marked on the sea floor. Whether any particular pre-seeding fishery will be conducted will be decided by DFO in consultation with the MAL.

Aquaculturists will not be allowed to conduct a pre-seeding harvest on their own site. If a pre-seeding fishery is required, it will be conducted by a research, non-profit, or co-management organization selected by DFO and according to national and regional policy initiatives. The fishery shall be conducted as per the conditions of a licence issued by DFO to the organization. Every effort will be made to ensure the fishery does not impact ongoing culture activities on the tenure.

Pre-seeding fisheries will generally be conducted in one season between the months of March to September, the optimum time for geoduck “shows”.

6. Residual Geoduck on a Tenure

Following a pre-seed harvest (or if assessment deems a pre-seed harvest unsuitable), residual geoduck remaining on a licensed geoduck tenure become accessible to the aquaculturist, to be harvested and retained as by-catch along with the harvest of cultured geoduck.

A harvest plan for residual geoduck, deemed acceptable to MAL in consultation with DFO, must be submitted prior to harvest. The special harvest reporting requirements described below will apply to all harvests.

7. Baseline Genetic Sample Requirements

Recent research work in British Columbia indicates genetic differences exist in geoduck between areas of the coast, and has raised concerns about potential risks to the genetic health of geoduck wild stock. In order to assess and mitigate potential genetic impacts

of hatchery raised geoduck on surrounding wild populations, baseline genetic sampling may be required depending on the geographic location of your site and the residual stock present. Tissue samples from 100 individual geoducks may be required prior to introducing seed to the site. Tissue samples may be collected from geoduck harvested for brood stock, or during the pre-seeding harvest, or from un-harvested animals.

8. Brood Stock and Seed Transplants

While geoduck brood stock collection outside the tenure boundaries is recommended by DFO as preferable in order to maintain genetic fitness of cultured and surrounding wild stocks, it is not an absolute requirement. Brood stock collections off tenure may be conducted under Scientific Licence issued by DFO. Brood stock collections on tenure are subject to an approved harvest plan (as per section 6 above).

Aquaculturists are required to obtain a Transplant Permit issued by the Introductions and Transfers Committee before transporting brood stock from their tenure or from a wild stock collection to a hatchery, and before bringing geoduck seed from a hatchery to their tenure. In order to avoid negative genetic interactions and disease transference impacts, the Introductions and Transfers Committee will only allow “within zone” transfers of geoduck seed. This means that you can collect broodstock and out plant seed from that brood only in the originating zone. The five transfer zones are generally identified as the Strait of Georgia, Johnstone Strait to Queen Charlotte Sound, the west coast of Vancouver Island, the northern coast of B.C. and the Queen Charlotte Islands.

Use of “out of zone” hatcheries will only be approved for brood stock or progeny where isolation holding and quarantine procedures can be met by the hatchery facility. Full health and genetic testing of brood stock and defined sample lot testing of progeny will be required to confirm parentage prior to out planting. Testing costs will be the responsibility of the aquaculturist.

9. Special Harvest Reporting Requirements

Because of the high value of geoduck, there is concern that illegally harvested wild geoduck may enter the commercial market as aquaculture product. Therefore special harvest reporting procedures will be required of geoduck aquaculturists to help ensure product traceability objectives are met (also known as chain of custody requirements). The harvest reporting requirements for aquaculture geoduck are designed to meet equivalent and not identical requirements to the wild commercial fishery for geoduck.

Specifically, aquaculturists licensed to culture geoduck (Licencees) will be required to do the following;

- 1) Notify MAL and DFO 72 hrs prior to any geoduck harvest. A completed Geoduck Aquaculture Harvest Notification form is to be used for this purpose. All contacts identified on the notification form are to receive a facsimile or electronic mail copy of the notification. Licencees must submit an amended Notification form if their harvest plans change.

- 2) Attach a completed Serial Numbered Tag to each container of harvested geoducks on the vessel or beach where harvested, prior to movement off the licensed area. Serial Numbered Tags are to be obtained in advance of harvest from MAL. The tags are to be visible and remain in the containers of harvested geoducks until delivered to a registered shellfish processing plant. Disposition of tag numbers must be recorded on a Geoduck Tag Inventory Record. Geoduck Tag Inventory Records must be kept up to date and are to be made available for inspection by Fisheries Inspectors or Fishery Officers upon request. Lost or stolen tags are to be reported to MAL immediately.

- 3) Complete an approved Geoduck Aquaculture Landing Logbook form for each shipment landed. A copy of the completed landing log must accompany each shipment of harvested geoducks from the vessel or beach landing site, to the processing plant. Licencees are responsible for ensuring a scale, legal for trade, is used to obtain accurate weights of geoducks landed. A copy of each day's Landing Logbook form must be faxed to Ministry of Environment's Statistics Unit in Victoria within 24 hrs of product landing. Hardcopies of Landing Logbook forms are to be submitted to MAL quarterly as per Logbook instructions.

Aquaculturists are advised that all information contained on Serial Numbered Tags, the Geoduck Tag Inventory Records, or the Geoduck Aquaculture Landing Logbooks may be shared with DFO and used for enforcement purposes. Tags and logbooks will be supplied to aquaculturists by MAL upon receipt of a harvest plan deemed acceptable by MAL and DFO.

Contacts Summary:

Action	Agency	Contact	Phone
Land tenure application	ILMB-MAL	Tom Hilborn	250-741-5679
Shellfish Management Plan, Aquaculture Licence conditions and harvest forms	MAL	Jim Russell	250-897-7515
Navigation review	Transport Canada	Jim Naylor	604-775-5486
Habitat review	DFO	Rob Russell	250-756-7284
Introductions and Transfers permit	DFO	Brian Anderson	604-666-3958
Pre-seed fishery planning	DFO	Kerry Marcus	250-754-0210

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