



Transport  
Canada

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Canada

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# **AUTHORIZATION**

**PURSUANT TO**

# **NAVIGABLE WATERS PROTECTION ACT**

**R.S.C., 1985, CHAPTER N-22**

**PART 1**

Pacific Region  
Navigable Waters Protection Division  
200 - 401 Burrard St.  
Vancouver, BC V6C 3S4  
Tel: (604) 775-5486 Fax: (604) 775-8828

Your file Votre référence  
Lands # 2402982  
Our file Notre référence  
8200-03-8189.1

PRIORITY POST

Dan McDermid  
1525 West 29th Avenue  
Vancouver, BC V6S 2Z1

Attn Dan McDermid:

Re: **Navigable Waters Protection Act Sec 5(1) application by Dan McDermid for approval to construct an Aquaculture Facility (Shellfish), Hardy Island, Unsurveyed foreshore being part of Jervis Inlet, Group 1, New Westminster District, British Columbia**

**APPROVAL**

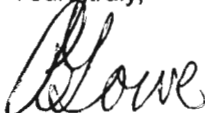
Enclosed herewith is a formal document dated **MAY 19 2004** and signed on behalf of the Minister of Transport.

This application has been screened under the *Canadian Environmental Assessment Act* (CEAA). The implementation of the mitigation measures (copy attached) designed to reduce the environmental impact of the work is the responsibility of the owner(s) or person(s) in possession.

Please advise this office attention Jim Naylor of the following:

- receipt of this documentation
- commencement of the works
- completion of the works.

Yours truly,



Bob Gowe  
Regional Superintendent  
Navigable Waters Protection Division  
Transport Canada  
Pacific Region

BG/gg

Enclosures

Land & Water British Columbia Inc., Vancouver Island Regional Office, Suite 501,  
345 Wallace Street, Nanaimo, BC V9R 5B6 Attn: Duncan Williams

Fisheries and Oceans, Institute of Ocean Sciences, Box 6000, 9860 W. Saanich Road,  
Sidney, BC V8L 4B2 Attn: Hydrographic Data Centre

Department of Fisheries & Oceans, Habitat Management Unit (S/C), 3225 Stephenson Point Road,  
Nanaimo, BC, V9T 1K3. Attn: March Klaver (Shellfish)

Department of Fisheries and Oceans, Fish Management S/C Branch, 60 Front Street,  
Nanaimo, BC V9R 5H7. Attn: Kerry Marcus (Shellfish)

Department of Fisheries and Oceans, Regional Aquaculture Officer, 13<sup>th</sup> Floor - 401 Burrard Street,  
Vancouver, BC V6C 3S4 Attn: Shelley Meadows

## Addendum

### Mitigation Measures

#### 11.2 Fisheries and Oceans Canada – Habitat and Enhancement Branch

The proponent has agreed to undertake the following mitigation measures:

1. All work associated with the project (setup and operation) is to comply with the requirements of the *Fisheries Act*, and all other applicable legislation, guidelines, and best management practices.
2. Deepwater rafts/lines are not to be sited over habitat that sustains vegetation (algae, kelp and eelgrass) and not come to rest on the seafloor during all tide stages.
3. Herring spawn on in-water structures must be left until eggs hatch and larvae emerge.
4. To prevent impacts to lingcod and herring spawning, no harvest of geoducks shall occur in January through April.
5. Anchor blocks are not to be sited or placed in areas that sustain sensitive fish habitat including kelp and geoduck beds.
6. As presented in an amendment to the Shellfish Development Plan, predator netting (car cover or plastic mesh secured to the seafloor), is not to be used during the operation of this site. Predator control must be non-lethal. Predators should be hand picked and returned to the water column at a different area with suitable habitat.
7. The lines and markings for the existing geoduck clams should not impact sensitive marine habitat. Geoducks should not be removed from sensitive areas (areas not inventoried during the habitat survey).
8. The proponent should adhere to the established mitigation methods for the geoduck fishery.
9. No harvesting shall occur in areas sustaining kelp.
10. Fuels, lubricants and hydraulic fluids are not to be stored on the foreshore.
11. Equipment and materials are not to be stored in intertidal areas.

#### 11.3 Fisheries and Oceans Canada – Fisheries Management Branch

1. Prior to commencing a pre-seed harvest, a site specific protocol must be established between DFO, the proponent and the UHA detailing crew requirements tenure marking and site set-up, harvest procedures, data records and reporting, and other issues deemed appropriate by the parties.
2. Pre-seed harvest of wild geoducks are recommended between May and September, the timeframe during geoducks are most visible to divers. Pre-seed harvests may be permitted between October and April subject to the establishment of "show factor plots".
3. Fish Management recommends that geoduck be approved for culture at this site as the next step in experimental culture development provided:

- An updated shellfish development plan is received from the proponent via LWBC.
- The CEAA screening is positive
- A purge fishery protocol is agreed to with the proponent and the fishing conducted between May and September according to Scientific Licence and conditions.
- That aquaculture licence provisos are negotiated with MAFF to accommodate purge fishing, chain of custody and other concerns.
- Senior Management is aware and approves of the departure from regional policy, i.e. the moratorium on new subtidal geoduck aquaculture sites.

#### **11.4 Environment Canada**

1. The Canadian Wildlife Service advises that the operation may attract birds, which prey on small fish or shellfish. If a predation problem develops, the crop should be protected by methods other than destruction of the birds (e.g., no shooting and the mesh of any predator nets should be of such a size and type that predatory birds will not become entangled and drown).
2. Care should be taken to ensure that sewage disposal is adequate to prevent contamination of the marine environment, especially during high rainfall periods which can have an adverse effect on the performance of land based sewage disposal systems. However, Environment Canada strongly advocates Land disposal of sewage as the preferred option. Land disposal methods include chemical/incinerator toilets, pit privies and septic tank and tile field, well removed from the foreshore.
3. Please be advised that under the *Fisheries Act*, Management of Contaminated Fisheries Regulations, the harvesting of bivalve molluscs, (oysters, clams, mussels) is prohibited within 125 metres of any wharf, dock, platform or other structure, including float homes, barges, platforms and vessels.
4. The use of organotin (or tributyltin) anti-foulant paints on salmon farm nets poses a considerable threat to marine life, particularly oysters, due to the occurrence of toxic effects at extremely low concentrations. Present federal legislation prohibits the use of tributyltin based anti-foulants for use in aquaculture operations. Should you have any questions regarding the use of anti-foulant paints please contact Stan Liu at 666-2104 at 201-400 Burrard, Vancouver, BC V6C 3S4.
5. Any timber preservatives are to be applied in a manner consistent with current Best Management Practices (BMP). Documentation regarding BMP is available directly from several member agencies, including Environment Canada.
6. No dredging or filling of the foreshore is to be involved.
7. The facility shall be designed and located so as to preclude tidal grounding of any floating component of the foreshore.
8. Any fuel stored or used on the site is to be contained and transferred as required in a manner that minimizes the risk of accidental spillage of fuel into the aquatic environment and appropriate clean-up materials are to be kept on hand to allow clean-up of any spillage which may occur.
9. All of Fisheries and Oceans Canada concerns are to be fully addressed.

#### **Canadian Wildlife Service**

- 10. Avoid use of horizontal surface netting. Diving birds may surface underneath them and become entangled. Alternative approaches to aerial barriers include: brightly coloured net fences, which are least partially effective providing they can be maintained on a regular basis; extending rope, to which are attached brightly coloured strips, at 10-15 cm intervals around the perimeter of rafts; constructing rafts such that they sit 0.5-1.0 meter above the surface of the water; and use of floatation buoys within pen areas.**
- 11. Vertical predator netting should extend down far enough so that birds are unable to enter up inside them. Appropriate depth will depend on the species. From the few sources I have reviewed, recommended depths range between 10 - 20 metres (minimum). Preferably, bottom nets can be used in conjunction with vertical nets to prevent bird access.**
- 12. Recommended mesh size for vertical and bottom nets should be 10 cm or less to avoid entanglement.**

# Approval

**APPLICANT:** Dan McDermid  
1525 West 29th Avenue  
Vancouver, BC V6S 2Z1

**WORK:** Aquaculture Facility (Shellfish)

**SITE-LOCATION:** Hardy Island, Unsurveyed foreshore  
being part of Jervis Inlet, Group 1, New  
Westminster District, British Columbia

**IMPORTANT NOTICE:** This document authorizes the work in terms of its effect on marine navigation. It is the applicant's responsibility to obtain any other forms of approval, including building permits.

**WHEREAS** the above-named applicant has made application to the Minister of Transport under the *Navigable Waters Protection Act* for approval of the above-described work at the above-referred to site in accordance with the attached plan(s); (5)

**WHEREAS** it is considered advisable to approve the said work at the said site and plan(s) thereof for a period of 5 years, subject to the following term(s) and condition(s):

See attached NWPA conditions

**THEREFORE**, the Minister of Transport, pursuant to the provisions of the *Navigable Waters Protection Act*, Revised Statutes of Canada, 1985, chapter N-22, hereby approves the said work at the said site and plan(s) thereof for the period of time aforesaid providing:

- (a) the construction of the work is commenced within six (6) months and completed within three (3) years of the date hereof;
- (b) the work is built, placed and maintained in accordance with the plan(s) the Navigable Waters Works Regulations and the aforesaid term(s) and condition(s).

Vancouver, BC

**MAY 19 2004**



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Bob Gowe  
Superintendent  
Navigable Waters Protection Division  
Transport Canada – Pacific Region

## ANNEX

**NWPA CONDITIONS****11.1 Transport Canada – Navigable Waters Protection Division**

**The owners or person(s) in possession is required to ensure that:**

1. Any materials or equipment used in construction or other operations are to be marked in accordance with the Collision Regulations of the Canada Shipping Act if located in or on the waterway.
2. Ensure that equipment used in construction or in other operations does not interfere with navigation, and that all materials, equipment, temporary structures and debris are removed from the waterway upon completion of the work.
3. Construction material, netting, and similar debris are not allowed to become waterborne.
4. Predator netting is to be firmly attached to the substrate to prevent it from floating, or otherwise coming adrift. Should netting come adrift, it is the responsibility of the proponent to ensure that it is recovered in a timely manner.
5. In the event that use of the facility is no longer required, it will be your responsibility to maintain or remove the works and associated equipment in its entirety.
6. Yellow cautionary buoys are to be placed and maintained along the outside perimeter of the works. These buoys are to be no more than 60 meters apart, no less than 0.6 meters in diameter. A horizontal band of yellow reflective tape no less than 4 inches in width should be placed around the circumference of the buoy.
7. A yellow flashing light shall be placed on the rafts occupying positions on the four outside corners of the facility showing 0.5 second flash every 4 seconds, visible on a clear dark night for not less than 2 nautical miles.
8. All shore ties and mooring lines are to be of fabricated non-buoyant material, and counterweighted to prevent them from floating, or otherwise obstructing vessel passage at low water.
9. The proponent shall provide unimpeded access to the Minister or his/her representative.
10. The Navigable Waters Works Regulations apply.
11. The site/work shall be adequately marked/lit during all phases of construction/operation to safeguard marine navigation.



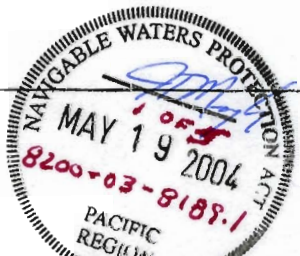


2000-03-01 2000-03-01

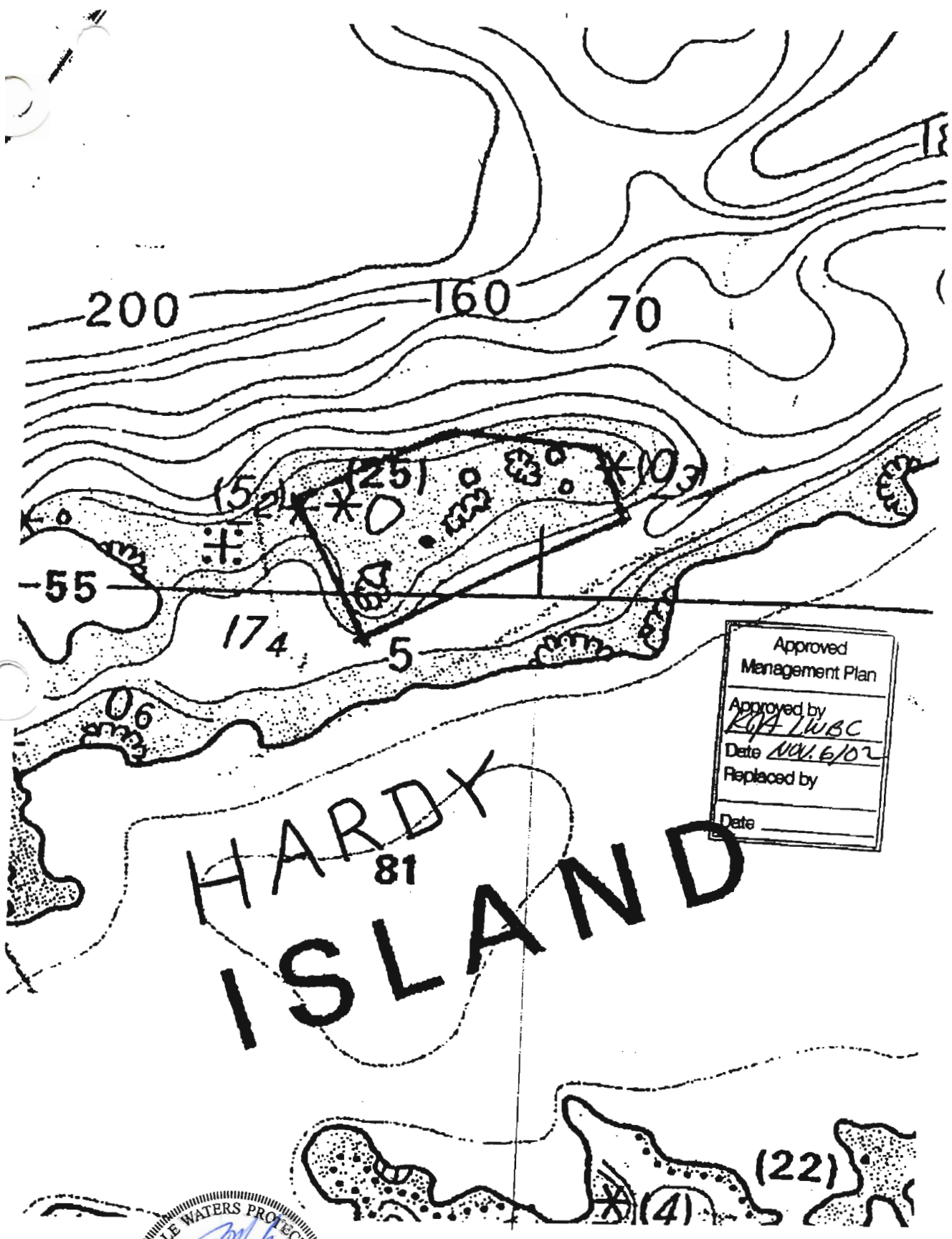
Legal Description

All the contents of this plan are hereby approved for registration in the Land Title Office and the Registrar shall register the same as if they were a validly executed instrument.

Approved Management Plan
Approved by: <i>[Signature]</i>
Date: 2006/02
Replaced by:
Date:

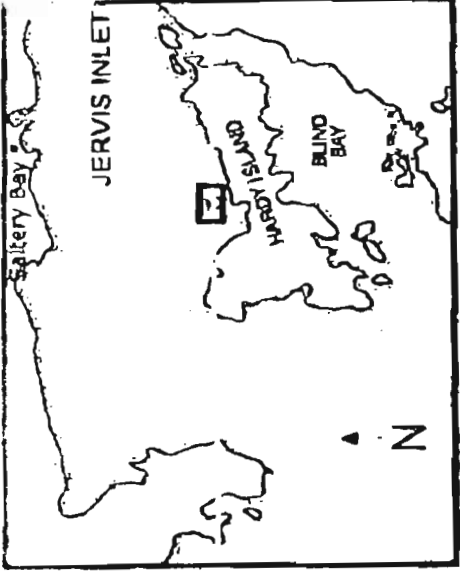






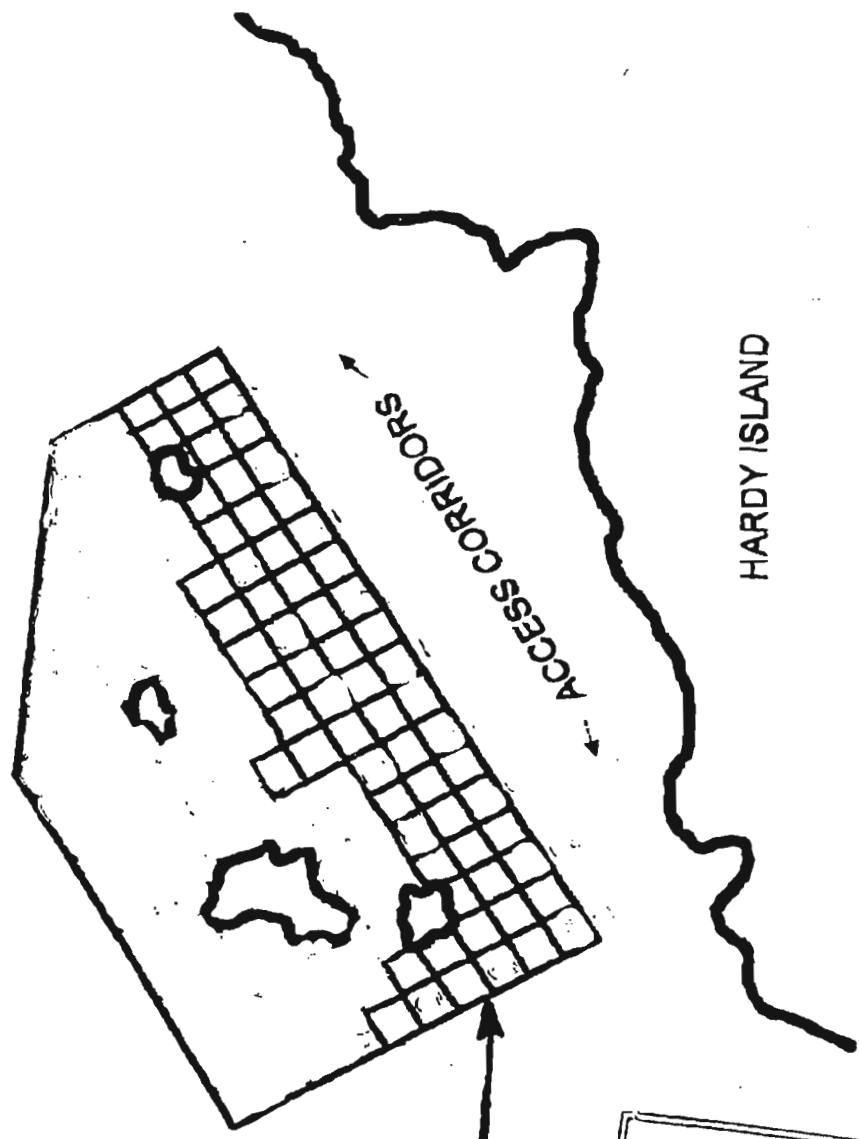
Approved Management Plan	
Approved by	<i>RQA / WBC</i>
Date	<i>NOV. 6/02</i>
Replaced by	
Date	

NAVIGABLE WATERS PROTECTION ACT  
 2005  
 MAY 19 2004  
 8200-03-8189  
 PACIFIC REGION



VICINITY MAP

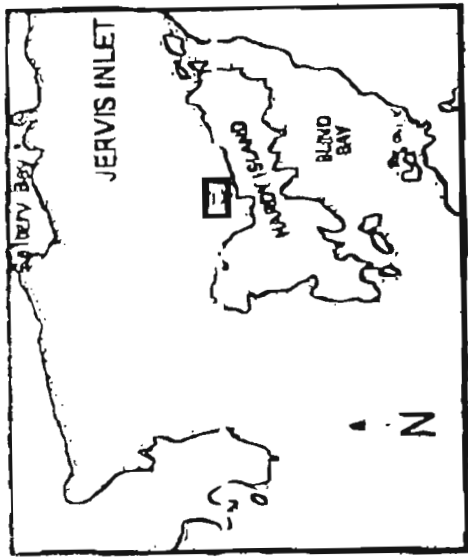
PROPOSED AMENDMENT TO EXISTING  
 AQUACULTURE TENURE #2402982  
 FOR CONVERSION TO SUBTIDAL GEODUCK CULTURE  
 JERVIS INLET, U.F. GROUP 1  
 NEW WESTMINSTER DISTRICT



Location of proposed subtidal  
 Geoduck is indicated as  
 squares on map.

Approved Management Plan	
Approved by	<i>[Signature]</i>
Date	<i>MAR 27/04</i>
Replaced by	
Date	





**VICINITY MAP**

Approved Management Plan

Approved by *KOA JA MAFF*

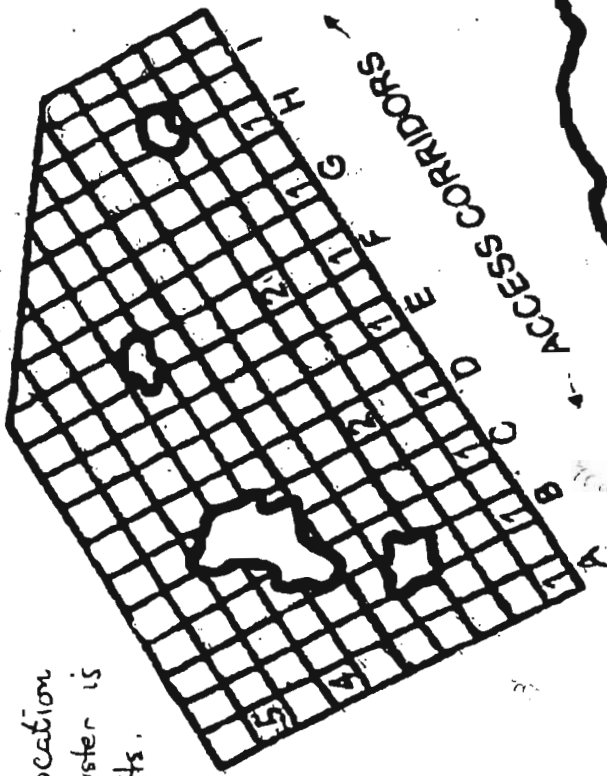
Date *MAR. 24/04*

Replaced by \_\_\_\_\_

Date \_\_\_\_\_

**PROPOSED AMENDMENT TO EXISTING OYSTER AQUACULTURE TENURE #2402982 FOR CONVERSION TO MUSSEL CULTURE JERVIS INLET, UF, GROUP 1 NEW WESTMINSTER DISTRICT**

**LETTERS INDICATE PROPOSED RAFT CORRIDORS  
NUMBERS INDICATE PROPOSED RAFT CLUSTERS**



\* The numbers represent the location of raft clusters only. Each cluster is comprised of 3-10 x 10m rafts. There are 12 raft clusters for a total of 36 rafts.

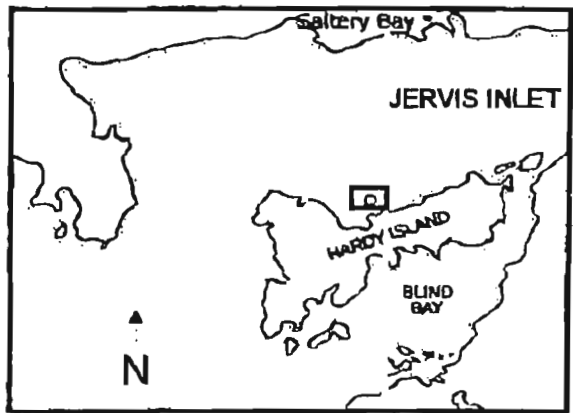
100 M

**MOT APPROVED  
FLOATS & SPACING**

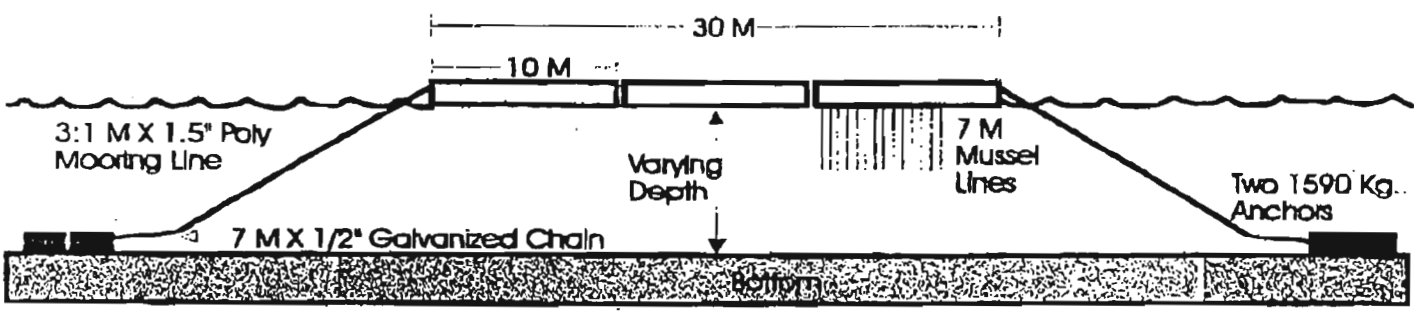


# EXHIBIT 'A'

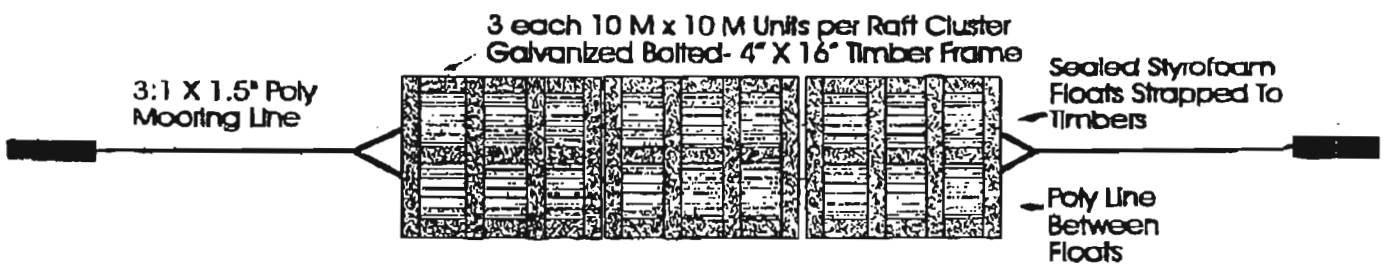
## MUSSEL RAFT CLUSTERS (SIDE + TOP VIEWS)



VICINITY MAP



RAFT CROSS SECTIONAL DETAIL



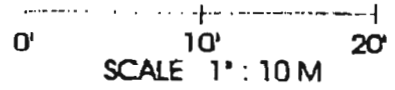
TOP VIEW

### DETAIL PLAN FOR MUSSEL RAFTS IN JERVIS INLET, NEAR HARDY ISLAND

### EXHIBIT 'A'

PROPOSED AMENDMENT OF EXISTING SHELLFISH AQUACULTURE TENURE #2402982

IN: JERVIS INLET, UF, GROUP 1 DISTRICT: NEW WESTMINSTER BRITISH COLUMBIA



Approved Management Plan

Approved by *[Signature]*

Date *MAR 21/04*

Replaced by \_\_\_\_\_

Date \_\_\_\_\_

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