

## Referral Memo

**Date:** January 18<sup>th</sup>, 2013

**To:** SQCRD Board

**From:** Joan Merrick, CAO

**Regarding:** Crown Land Application Request # 61614574-006

**Location:** Near Legace Island

**Deadline for response:** APC – January 9<sup>th</sup>, 2013 for APC to respond to the Regional District  
RD – January 17<sup>th</sup>, 2013 to respond to Province (extension to January 21<sup>st</sup> requested)  
Request Received by RD – December 17, 2012

**Summary of the Referral:**

Applicant: Haida Enterprises Corporation

Tenure Type: License of Occupation

Purpose: Shellfish Aquaculture – Deep water and suspended

Size: 96.97 HA +/-

Term: 5 years

**Comments from APC or Other Agencies:** The GIAPC did not provide any comment, however one member comment that he did not personally have any concerns.

**Staff Comments:**

There are now two provincial foreshore applications from Haida Ent. to allow for shellfish aquaculture, one outside of Sandspit and one Kagan Bay.

**Zoning and OCP:** In order to comply with the Graham Island OCP, an application for rezoning is required (See Consultants comments as attached)

**Attachments:**

1. Application 21 pages
2. Maps 2 page
3. Other 5 pages

## **Pacific Shellfish Aquaculture Application – Referral # 61614574**

Applicant: Haida Enterprise Corporation

Location: Skidegate Inlet, Legace Island, Kagen Bay – 96 hectares – to the east are Burnt and Claudet Islands

Affected by Graham Island OCP – Schedule B: OCP Planning Area shows the boundaries extending into the water to take in this area.

Policy 12 on page 29 (under Marine and Shoreline Ecosystems) states that Shellfish farming for moluscs (mariculture) is supported where it can be demonstrated that there will be no adverse environmental impact. Any proposal to establish mariculture rearing and harvesting operation in the planning area shall be subject to rezoning and shall not be permitted in areas that are:

- a. traditionally used for recreation or for moorage of local vessels or for the landing of seaplanes;
- b. in front of a residential neighborhood; or
- c. environmentally sensitive to such development.

The zoning boundary for the foreshore adjacent to Graham Island does not appear to extend to include this area. There does not appear to be any default provisions for zoning for unmapped areas – therefore unmapped areas are not zoned for any use, and any use could be possible.

However, given Policy 12 in the OCP, a rezoning should occur for compliance with the OCP. On page 8 of the application to the Government of Canada, the applicant indicates that the proposal complies with approved local government bylaws for land use planning and zoning. *The applicant should be advised that to comply with the Graham Island OCP, an application for a rezoning is required.*

The Resource Conservation District – the RS-1 zone applies to other Graham Island foreshore areas and could be used for the subject application. The RS-1 zone permits agriculture, and the definition of agriculture was amended in 2000 by Bylaw 397 to include mariculture which is defined to be the culture or controlled growing of marine (saltwater) organisms, excluding finfish.

FOR INTERNAL USE	
Project Number: <i>103892</i>	Client Number:

## PACIFIC SHELLFISH AQUACULTURE APPLICATION

Ministry of Forests, Lands and Natural Resource Operations  
Fisheries and Oceans Canada  
Transport Canada

### PART I – GENERAL APPLICANT INFORMATION

#### SECTION A: APPLICANT AND GENERAL INFORMATION

1. Applicant Name(s) (Full Legal Name(s) or Registered Company Name) <i>Haida Enterprise Corporation</i>		Applicant Business Information: Telephone: ( <i>778</i> ) <i>260-0043</i> Cell: ( <i>604</i> ) <i>763-1844</i> Fax: ( <i>800</i> ) <i>930-2118</i> Email: <i>info@haico.ca</i>	
2. Applicant Business Mailing Address: <i>PO Box 1384, Unit 3, Commercial Center, Skidegate, BC</i>		Postal Code: <i>V0T 1S1</i>	
3. Doing Business as: <i>Haida Enterprise Corporation</i>	4. BC Inc #, BC Registration # or BC Society #		
5. Physical Business Address (if different from above):			
6. Contact Name (if different from above): <i>Blake Barton</i>		Contact Business Information: Telephone: ( <i>778</i> ) <i>260-0044</i> Cell: ( <i>778</i> ) <i>260-0044</i> Fax: ( ) Email: <i>blake.barton@haico.ca</i>	
7. Agent/ Representative (if applicable):		Agent/Representative Business Information: Telephone: ( ) Cell: ( ) Fax: ( ) Email:	
8. Business Mailing Address of Agent/Representative:		Postal Code:	
		Letter of Authorization: <input type="checkbox"/> Yes <input type="checkbox"/> No	



9. Type of Application:		
<input checked="" type="checkbox"/> New site      Tenure Type: <input checked="" type="checkbox"/> Licence of Occupation <input type="checkbox"/> Lease <input type="checkbox"/> Investigative Permit		
<input type="checkbox"/> Amendment  Amendment Type:  <input type="checkbox"/> Tenure Area  <input type="checkbox"/> Infrastructure  <input type="checkbox"/> Production  <input type="checkbox"/> Species  <input type="checkbox"/> Other (Describe)	<u>Currently Approved</u> (required only for type of amendment applied for, attach additional page if necessary)	<u>Proposed</u>
<input type="checkbox"/> Licence Holder Change	Current Licence Holder Name:	
10. Government Reference Numbers		
BC Land File # (Crown land)	DFO Aquaculture Licence #	NWPA #
OR	AND	
Park Use Permit # (Park/Protected land)	Site Reference #	Parcel Identification # (Private land)



## SECTION B: SITE AND INFRASTRUCTURE INFORMATION

### 1. Site Category

<input checked="" type="checkbox"/> Provincial Crown Land	<input type="checkbox"/> Provincial Park	<input type="checkbox"/> Private Land
<input type="checkbox"/> Federal Land	<input type="checkbox"/> First Nation Reserve	<input type="checkbox"/> Other

2. Geographic location of site: Skidegate Inlet, Haida Gwaii, BC

3. Site Common Name: Legace Island, Kagen Bay

4. DFO Area: 2 Sub Area: 1

5. Canadian Hydrographic Service Chart (CHS) Marine Chart Number: 389101

Topographical Map Number: 103F01

6. If the site is surveyed, give legal description of site (e.g., Land District and Lot Number):

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7. If the site is not surveyed, provide metes and bounds description from a surveyed point or geographic coordinate:

Rectangle extending 1200m Southeast and 800m Southwest from corner point:  
N 53-12-59.52, W 132-11-28.06

8. Provide GPS coordinates for the center of the application area/tenure:

Latitude: N 53 deg. 12.7 min.

Longitude: W 132 deg. 11.03 min.

9. Total Area of site (Hectares): 96  
(Please provide a shape file if available)

10. Culture Type (indicate all that apply):

- ☐ Intertidal Beach culture – culture activities take place between the high water mark and the low water mark (chart datum).
- ☐ Subtidal on/in bottom culture – culture activity takes place on the sea floor below chart datum. See Part III, Section G.

- ☒ Deepwater Suspended culture – culture activity takes place on the surface or within the water column.
- ☐ Nursery Operation – culture activity includes juvenile rearing

**NOTE:** For a **Hatchery Operation** where the culture activity includes spawning adults and larval rearing other than natural setting of spat or juveniles at the application site, use the application for **PACIFIC FRESH WATER and LAND BASED AQUACULTURE**

11. Physical Structures (Improvements): Complete table below by checking all applicable structures, existing and proposed, the number, dimensions and estimated area of the application site that will be covered all existing and planned structures. Specific infrastructure and maintenance details are provided in the guide to this application.

DESCRIPTION OF STRUCTURES	EXISTING AT THE SITE	NEW PROPOSED	TOTAL NUMBER	DIMENSIONS (m or M <sup>2</sup> ) OF EACH STRUCTURE	ESTIMATED TOTAL AREA (m <sup>2</sup> ) of Coverage
<b>Predator Protection:</b>					
Predator netting (intertidal beach)	<input type="checkbox"/>	<input type="checkbox"/>			
Predator netting (subtidal sea bottom)	<input type="checkbox"/>	<input type="checkbox"/>			
Predator netting (suspended culture vertical netting)	<input type="checkbox"/>	<input type="checkbox"/>			
Tubes	<input type="checkbox"/>	<input type="checkbox"/>			
Other (describe):	<input type="checkbox"/>	<input type="checkbox"/>			
<b>Intertidal Beach Modification:</b>					
Rock Walls	<input type="checkbox"/>	<input type="checkbox"/> <sup>1</sup>			
Trenches	<input type="checkbox"/>	<input type="checkbox"/> <sup>1</sup>			
Berms	<input type="checkbox"/>	<input type="checkbox"/> <sup>1</sup>			
Vexar fencing	<input type="checkbox"/>	<input type="checkbox"/>			
Rack and Bag systems <sup>1</sup>	<input type="checkbox"/>	<input type="checkbox"/> <sup>1</sup>			
Redistribution or removal of natural substrates <sup>1</sup>	<input type="checkbox"/>	<input type="checkbox"/> <sup>1</sup>			
Addition of substrate <sup>1</sup>	<input type="checkbox"/>	<input type="checkbox"/> <sup>1</sup>			
<b>Nursery Infrastructure:</b>					
FLUPSY	<input type="checkbox"/>	<input type="checkbox"/>			
Bouncy buckets	<input type="checkbox"/>	<input type="checkbox"/>			
Intertidal remote setting	<input type="checkbox"/>	<input type="checkbox"/> <sup>1</sup>			



DESCRIPTION OF STRUCTURES	EXISTING AT THE SITE	NEW PROPOSED	TOTAL NUMBER	DIMENSIONS (m or M <sup>2</sup> ) OF EACH STRUCTURE	ESTIMATED TOTAL AREA (m <sup>2</sup> ) of Coverage
Other (describe):	<input type="checkbox"/>	<input type="checkbox"/> <sup>1</sup>			
<b>Suspended Culture Gear:</b> Rafts	<input type="checkbox"/>	<input type="checkbox"/> <sup>1</sup>			ESTIMATED TOTAL AREA (m <sup>2</sup> ) OF COVERAGE:
Longlines	<input type="checkbox"/>	<input checked="" type="checkbox"/> <sup>1</sup>	160	240	ESTIMATED TOTAL LENGTH (M): 38,400
Trays	<input type="checkbox"/>	<input type="checkbox"/>			
Strings	<input type="checkbox"/>	<input type="checkbox"/>			
Socks	<input type="checkbox"/>	<input type="checkbox"/>			
Lantern Nets	<input type="checkbox"/>	<input checked="" type="checkbox"/>	32,000	50mm diameter, 1.5m height	0.400
Pearl Nets	<input type="checkbox"/>	<input type="checkbox"/>			
Other (describe):	<input type="checkbox"/>	<input type="checkbox"/>			
<b>On/In bottom Subtidal Culture Gear:</b> Containment structure(s) for adults or juveniles	<input type="checkbox"/>	<input type="checkbox"/> <sup>1</sup>			
Addition of substrate	<input type="checkbox"/>	<input type="checkbox"/> <sup>1</sup>			
Other (describe):	<input type="checkbox"/>	<input type="checkbox"/> <sup>1</sup>			
<b>Work Floats:</b> Product handling	<input type="checkbox"/>	<input type="checkbox"/>			
Living accommodations	<input type="checkbox"/>	<input type="checkbox"/>			
Other (describe):	<input type="checkbox"/>	<input type="checkbox"/>			
<b>Site Marking:</b> Blocks	<input type="checkbox"/>	<input type="checkbox"/>			
Sinking groundline	<input type="checkbox"/>	<input type="checkbox"/> <sup>1</sup>			
Other (describe):	<input type="checkbox"/>	<input type="checkbox"/>			
<b>Navigational Markers</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4		
<b>Mooring lines</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	320	40m length	
<b>Anchor blocks</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/> <sup>2</sup>	320	DEPTH (m):	14-20



<sup>1</sup> Note that certain physical structures may require redesign, relocation, mitigation and/or a fish habitat information survey review and approval **prior** to installation. See Part III, Section G.

<sup>2</sup> Note that if anchor blocks are located in waters between chart datum and -10 m see note 1.

12. Inspection and Maintenance: Describe the measures that you will take to prevent the loss of culture gear (including lines, floats, rafts, netting, trays and any other equipment) or structures from the tenured area.

Daily and weekly inspections of all PP ropes, ropes replaced where worn, Diver of lift checks of anchor lines every 6 months (lines replaced where worn also)

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13. Gear Loss Recovery: Describe your lost gear recovery plan.

Flotation to be marked with return info, recovery using farm vessels or divers if necessary, diver surveys of seabed (during anchor line inspections)

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## **SECTION C: MAPS AND DIAGRAMS \***

Attach the following maps and diagrams. They must be submitted to scale and be consistent with the other information in this application. Please refer to the Guide for details and sample diagrams.

*\*Please refer to Application Attachment 1: Management Plan & Operational Diagrams*

- a. **Location Map:** A photocopy of Canadian Hydrographic Service (CHS) Marine Chart, Cadastral map, or Topographical map of a scale between 1:20,000 and 1:40,000, showing the general location of the area under application.
- b. **Operational Diagrams**
  - i. A 1:5000 scale hydrographic chart (with all measurements in meters) showing the boundaries of the application area, the high and low water marks, all physical structures (improvements) associated with the proposed operation, including any existing substrate modifications (trenches, berms), as indicated in Section B, Table 15.
  - ii. A 1:2000 schematic diagram showing a side view of the proposed operation, which at minimum must illustrate and itemize all structures above the surface. Include all intertidal and underwater structures from the surface of the water at chart datum to the sea bed at the most shallow point of the site that contains or will contain the deepest hanging structures (i.e. where culture gear will hang nearest to the subtidal sea floor).

Note: If drawings are larger than 11" x 17", Transport Canada requires that you enclose five (5) copies. For drawings 11" x 17" or smaller, one (1) copy will be sufficient.



## **SECTION D: WATER USE**

1. Will fresh water be used at this facility? ☐ Yes ☒ No
2. If yes, and the source is a stream or lake, please provide name:  

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3. If you already have a water licence at this site, please provide licence number, or provide date of submission of an application:  

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## **SECTION E: FIRST NATIONS CONSIDERATION**

Please describe any contact you may have had, including the name of the First Nation(s) and individuals contacted. Provide copies of, or a description of any information you may have acquired from or provided to the First Nation(s), and any archaeological resources and areas of cultural significance you are aware of in the vicinity of the proposed project. Consult the consultative Area Database (CAD) Public Map Service for First Nations contact information instructions and supporting information -

[ftp://ftp.geobc.gov.bc.ca/pub/outgoing/CAD/CAD\\_Public\\_Map\\_Service-User\\_Guidance-Technical\\_Instructions.pdf](ftp://ftp.geobc.gov.bc.ca/pub/outgoing/CAD/CAD_Public_Map_Service-User_Guidance-Technical_Instructions.pdf).

[Haida Enterprise Corporation \(HEC\) is the economic development corporation of the Council of the Haida Nation \(CHN\). In this capacity HEC has been authorised by the CHN to apply for shellfish tenure to be developed on behalf of the nation.](#)

[Any research in archeological and cultural resources will be undertaken with the nation where required.](#)

## ***PART II – INFORMATION FOR THE BC MINISTRY OF FORESTS, LANDS AND NATURAL RESOURCE OPERATIONS***

The following information, along with Part I and Part V, is required for the adjudication of the Provincial Crown Land Tenure application under the BC *Land Act*.

### **SECTION A: SITING CONSIDERATIONS**

Applicants must respond to each consideration and may be required to provide additional information in some situations.

**YES NO**

☒ ☐ Is the upland property Crown land?

If no, is the site situated in a manner whereby it does not infringe on the riparian rights of an upland owner? ☐ Yes ☐ No

If no, has the owner provided written consent for you to occupy the site for the term of the tenure? ☐ Yes ☐ No If yes, include a copy of the written consent.

☐ ☒ To the best of your knowledge, based on information received, is this site situated in an area of cultural or heritage significance as determined in the *Heritage Conservation Act*?

If yes, have you contacted the Heritage and Conservation Branch to discuss your application? ☐ Yes ☐ No If yes, provide details: \_\_\_\_\_

☒ ☐ Is the intended use consistent with approved local government bylaws for land use planning and zoning?

Provide the name of the Regional District or Municipality for the area: Queen Charlotte, BC

If no, have you discussed your application with local government and have you initiated a re-zoning process? ☐ Yes ☐ No Please provide details: \_\_\_\_\_

### **SECTION B: ADDITIONAL CROWN LANDS INFORMATION**





### **PART III - INFORMATION FOR FISHERIES AND OCEANS CANADA**

The following information is required as part of the Federal aquaculture licence application to make a decision for licensing under the *Pacific Aquaculture Regulations*.

Parts I, III, and V must be submitted to apply for your Federal aquaculture licence or to amend an existing licence. In addition to applicant name, DFO requires the applicant(s), if an individual or a proprietorship or a person 'doing business as'

Applicant 1: Date of Birth (yyyy/mm/dd):

Applicant 2: Date of Birth (yyyy/mm/dd):

This completed document, when approved, will form the Site Management Plan on which your aquaculture licence conditions will be based.

#### **SECTION A: SANITARY GROWING WATER STATUS – BIVALVES ONLY**

1. Is the application site or **any portion of it** located in marine waters that are classified as:

- ☐ Approved or Conditionally Approved for direct harvest of bivalve shellfish
- ☐ Restricted or Conditionally Restricted (no direct harvest of bivalve shellfish is permitted - depuration or relay may be permitted depending of the water quality sample results)
- ☐ Closed / Prohibited to the harvest of bivalve shellfish
- ☒ Unknown

2. Is the application site or **any portion of it** located in marine waters that are classified as:

- ☐ Prohibited – within 125 meters of fin fish net pens
- ☐ Prohibited – within 125 metres of a marina
- ☐ Prohibited - within 125 meters of floating living accommodation

**SECTION B: INTERTIDAL BEACH CULTURE**

1. Estimated Intertidal culture area \_\_\_\_\_ hectares (culture area located between high tide and chart datum)

2. Intertidal Area Details by Species:

Check all that apply	Species Common Name	Species Scientific Name	First year that production (sale) is anticipated to occur	Annual Production Estimate (MT)	Source of Stock by species for Culture at this Site (check all that apply) <sup>1</sup>		
					Hatchery	Natural Sets on Site	Other Stock Source
<input type="checkbox"/>	Butter Clam	<i>Saxidomus giganteus</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Geoduck Clam	<i>Panopea generosa</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Kumamoto Oyster	<i>Crassostrea sikamea</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Manila Clam	<i>Venerupis philippinarum</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Littleneck Clam	<i>Protothaca staminea</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Nuttall's Cockle	<i>Clinocardium nuttallii</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Olympia Oyster	<i>Ostrea conchaphila</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Pacific Oyster	<i>Crassostrea gigas</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Varnish Clam	<i>Nuttallia obscurata</i>			N/A	<input type="checkbox"/>	N/A
<input type="checkbox"/>	Other:				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Total Annual Production estimate:</b>					<b>(MT)</b>		

<sup>1</sup> Note: The source of stock for the licensed site may require additional authority to harvest wild fish for use as brood stock or for on-growing as well as appropriate transfer and/or import licences from CFIA and the Introductions and Transfers Committee.

3. If the planned source of stock for the culture species for your site is from an import, a hatchery, natural set seed or spat collection from **off** your site, wild harvest relayed to your site, or from a cross zone transfer, please provide details (Source location, life stage, etc.).

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4. Do you intend to use a Mechanical Clam Harvesting machine or 'stinger' harvest gear at this site?

☐ Yes

☐ No

If yes, see Section G.

5. Do you intend to use a motorized vehicle (i.e. truck or ATV) on an intertidal portion of your licensed area?

☐ Yes

☐ No

If yes, see Section G.

### **SECTION C: SUBTIDAL ON/IN BOTTOM CULTURE**

**Note: All subtidal on/in bottom culture operations must refer to Section H.**

1. Estimated subtidal on/in bottom culture area \_\_\_\_\_ hectares (for the area of the sea floor below chart datum)

2. Subtidal On/In Culture Area Details by Species :

Check all that apply	Species Common Name	Species Latin Name	First year that production (sale) is anticipated to occur	Annual Production Estimate (MT)	Source of Stock by species for Culture at this Site (check all that apply) <sup>1</sup>		
					Hatchery	Natural Sets on Site	Other Stock Source
<input type="checkbox"/>	California Sea Cucumber	<i>Parastichopus californicus</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Nuttall's Cockle	<i>Clinocardium nuttallii</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Manila Clam	<i>Venerupis philippinarum</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Geoduck Clam	<i>Panope generosa</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Red Sea Urchin	<i>Strongylocentrotus droebachiensis</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Green Sea Urchin	<i>Strongylocentrotus droebachiensis</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Other:				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total Annual Production Estimate:					(MT)		

<sup>1</sup> Note: The source of stock for the licensed site may require additional authority to harvest wild fish for use as brood stock or for on-going growing as well as appropriate transfer and/or import licences from CFIA and the Introductions and Transfers Committee.



3. If the planned source of stock for the culture species for your site is from an import, a hatchery, natural set seed or spat collection from **off** your site, wild harvest relayed to your site, or from a cross zone transfer, please provide details (Source location, life stage, etc.).

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4. Describe any supplemental feeding plans, if applicable:

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#### **SECTION D: DEEPWATER SUSPENDED CULTURE**

1. For deepwater suspended culture sites:

Estimated suspended structures culture area 96 hectares

Minimum Depth below Structures at chart datum: 10 meters, as measured from the deepest hanging trays, lines, etc to the sea floor.

2. Deep water suspended culture area details by species:

Check all that apply	Species Common Name	Species Latin Name	First year that production (sale) is anticipated to occur	Annual Production Estimate (MT)	Source of Stocking by species for Culture at this Site (check all that apply) <sup>1</sup>		
					Hatchery	Natural Set on Site	Other Stocking
<input type="checkbox"/>	Eastern Blue Mussel	<i>Mytilus edulis</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Gallo Mussel	<i>Mytilus galloprovincialis</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Western Blue Mussel	<i>Mytilus trossulus</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Pacific Oyster	<i>Crassostrea gigas</i>			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Eastern	<i>Crassostrea</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>





Check all that apply	Species Common Name	Species Latin Name	First year that production (sale) is anticipated to occur	Annual Production Estimate (MT)	Source of Stocking by species for Culture at this Site (check all that apply) <sup>1</sup>		
					Hatchery	Natural Set on Site	Other Stocking
	Oyster	<i>virginica</i>					
<input type="checkbox"/>	European Oyster	<i>Ostrea edulis</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Kumamoto Oyster	<i>Crassostrea sikamea</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Geoduck Clam	<i>Panope generosa</i>					
<input type="checkbox"/>	Giant Rock Scallop	<i>Crassadoma gigantea</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Japanese Scallop	<i>Mizuhopecten yessoensis</i>		400	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Pacific Scallop (hybrid)	<i>Patinopecten x.</i>		400	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Pink Scallop	<i>Chlamys rubida</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Spiny Scallop	<i>Chlamys hastata</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Weathervane Scallop	<i>Patinopecten caurinus</i>		400	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Red Sea Urchin	<i>Strongylocentrotus franciscanus</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Green Sea Urchin	<i>Strongylocentrotus droebachiensis</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	California Sea Cucumber	<i>Parastichopus californicus</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Spot Prawn	<i>Pandalus platyceros</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Other:				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Total Annual Production Estimate:</b>				1200	<b>(MT)</b>		

<sup>1</sup> Note: The source of stock for the licensed site may require additional authority to harvest wild fish for use as brood stock or for on-going growing as well as appropriate transfer and/or import licences from CFIA and the Introductions and Transfers Committee.



3. If the planned source of stock for the culture species for your site is from an import, a hatchery, natural set seed or spat collection from off your site, wild harvest relayed to your site, or from a cross zone transfer, please provide details (Source location, life stage, etc.)

Seed scallops are expected to be purchased and transferred from BC hatcheries. Seed may be transferred at 1-3 months of age (1-8mm shell height) or 9-10 months of age (25-30mm shell height). All seed transfers to the site will be undertaken in line with DFO procedures and protocols.

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## **SECTION E: INFRASTRUCTURE INSPECTION AND MAINTENANCE**

### **1. Infrastructure Inspection and Maintenance Log**

An infrastructure Inspection and Maintenance Log must be maintained and be available for inspection upon request. Describe how and what you will inspect, i.e. the structures, anchors, lines, etc., the planned frequency of inspection, and what records you will keep of inspection and maintenance of the physical structures.

All PP rope lines will be inspected weekly and replaced where worn. Anchor lines and blocks be checked (by diver or lifted) every 6 months and replaced where worn. All inspection will be logged clearly with: Data - Line Inspected - State - Alterations made - Gear changed etc.

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### **2. Biofouling Management**

Biofouling or biological fouling is the undesirable accumulation of micro-organisms, plants, algae, and animals on marine infrastructure. Describe your planned methods and/or process for management, removal and disposal of biofouling in your aquaculture operation.

Bio-fouling of nets and lines will be kept to a minimum through regular cleaning using pressure washers on board farm vessels. Algae and other set fouling will be returned directly to the natural environment. Any accumulation on farm vessels and equipment will be transferred and released in areas of the tenure where tidal exchange is at its greatest.

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## **SECTION F: DOMESTIC WASTE MANAGEMENT**

NOTE: Bivalve shellfish (clams, oysters, mussels, scallops) shall not be cultivated, stored, or harvested within 125 m of any floating living accommodation unless:

- the cultivated bivalves are seed and <http://www.inspection.gc.ca/english/fssa/fispoi/man/cssppccsm/define.shtml>
- a licence under the Management of Contaminated Fisheries Regulations (<http://www.pac.dfo-mpo.gc.ca/fm-gp/licence-permis/ShellfishFishingApplication.pdf> ) has been obtained for the licensed area to harvest seed from a prohibited area; or
- an approved Zero-Discharge Management Plan is in place that reduces the prohibited harvest area to 25m.

1. Is there is floating living accommodation within the marine waters of the application area?

☐ Yes ☒ No

2. If yes, is there an approved zero waste discharge management plan in effect for this site?

☐ Yes ☐ No ☒ Not applicable

3. Please provide description and location of sanitary facilities for your own and staff needs.

Sanitation facilities will be provided for staff on board farm vessels or at on shore facilities locally.

4. Please provide the method(s) for storage and disposal of your other waste materials. (e.g., the location of an approved landfill for disposal of your waste materials)

Non-biological waste materials will be transported to shore and transferred to the approved waste disposal site at Sandspit (Moresby Island)

## **SECTION G: Fish Habitat Impacts**

Fisheries and Oceans Canada – Aquaculture Management Division (DFO - AMD) is responsible for the sustainable management of aquaculture in British Columbia.

Like other types of industrial development taking place in and around water, aquaculture projects have the potential to affect fish<sup>1</sup> and fish habitat<sup>2</sup>.



You are completing this section because you have identified that you will be undertaking an activity that may result in a harmful alteration, disruption or destruction of fish habitat. Please note: if you are referred to an Application Guide section or to contact the Aquaculture Environmental Operations group (AEO), habitat mitigation, relocation, redesign and/or biophysical assessments may be required.

Please note aquaculture activities may not occur in salt marsh habitat. Aquaculture activities must not result in harm to a Species at Risk Act (SARA) listed species, their residence, or their critical habitat, as defined in the associated Recovery Strategy, or Action Plan.

## 1. Intertidal Culture Operations

- a) Are you proposing to undertake: substrate modifications (i.e. constructing rock walls, trenches, berm or other substrate addition, redistribution or removal); or remote setting on your licenced area?

☐ Yes - please see Application Guide or contact AEO (see contact information)  
☒ No - no additional information is required.

- b) Are you proposing to: use rack and bag structures; use a mechanical clam harvester; and/or use a motorized vehicle (i.e. truck or ATV) or a 'stinger' (high pressure water wand harvesting gear) on your licenced area in any of the following habitats?

- (1) intertidal stream channels
- (2) eelgrass beds (*Zostera* sp.)
- (3) fish spawning areas

☐ Yes - please see Application Guide or contact AEO (see contact information)  
☒ No - no additional information is required.

- c) Are you planning to access your licensed area through a marine riparian area?

☐ Yes - please see Application Guide or contact AEO (see contact information)  
☒ No - no additional information is required.

## 2. Suspended Culture Operations

- a) Are you proposing to install any aquaculture structures or conduct aquaculture activities (including anchor system placement) in waters shallower than -10m (measured from chart datum)?

☐ Yes - please see Application Guide or contact AEO (see contact information)  
☒ No - no additional information is required.





- b) Are you proposing to install any aquaculture structures or conduct aquaculture activities (including anchor system placement) in waters deeper than 10m (measured from chart datum) and over any of the following habitats?

1. rocky reefs
2. kelp beds
3. fish spawning areas

- ☐ Yes - please see Application Guide or contact AEO (see contact information)  
☒ No - no additional information is required.

### **3. Subtidal On / In-Bottom Culture Operations**

- a) Are you proposing to install any temporary or permanent in- or on-bottom aquaculture structures (e.g. bags on bottom, cages, nursery structures, etc.) other than site boundary markers?

- ☐ Yes - please see Application Guide or contact AEO (see contact information)  
☒ No - no additional information is required.

- b) Are you proposing to use harvesting methods other than hand picking or using a stinger (high pressure water wand gear)?

- ☐ Yes - please see Application Guide or contact AEO (see contact information)  
☒ No - no additional information is required.

### **SECTION H: Additional Supporting Information**

A separate application may be required to access fish, import species, or to introduce or transfer some species within British Columbia. See Reference guide for details.



## ***PART IV – INFORMATION FOR TRANSPORT CANADA***

The following information, along with Part I and Part V, is required for the adjudication of the NWPA approval under the *Navigable Waters Protection Act*.

### **SECTION A: SITING CONSIDERATIONS**

Applicants must respond to each consideration and may be required to provide additional information in some situations.

YES NO

☒ ☐ Is the site situated greater than 30 m from the edge of the approach channel to a small craft harbour, federal wharf or dock?

### **SECTION B: ADDITIONAL TRANSPORT CANADA INFORMATION**

1.a) Waterway Name: Skidegate Channel

b) Width(m): 800m c) Depth Range(m): 14-21

2. Nearest Community: Queen Charlotte

3. Is this Work: ☒ Proposed ☐ Existing ☐ Modification of Existing Work

4. To help with the review process, please include the following:

☒ Photographs at the site of the proposed/existing work and surrounding area \*

☐ Environmental Assessment documents (if any)

\*Please see Application Attachment 2: Photos of Site, Surrounds and Proposed Works



## PART V – INFORMATION FOR ALL AGENCIES

**All applicable components of this application package must be complete. Incomplete applications will be returned to applicant. Applicable fees must be submitted at time of application.**

### Provincial Fees:

Note that the current [fee schedule](#) does not include the taxes that apply.

### Forms of Payment:

- Cheques or Money orders must be in Canadian Funds to **Minister of Finance**
- Debit Card (in-person only)
- Visa and MasterCard payments are accepted in-person or over the telephone. To locate a FrontCounter BC office, visit the website at <http://www.frontcounterbc.gov.bc.ca/contact/> or call the toll free number 1-877-855-3222.

FrontCounter BC will not accept personal cheques drawn on US banks, regardless of what currency. Payment will not be accepted even if it has "CDN Funds" handwritten on the cheque.

**PLEASE NOTE:** Additional items may be required (eg. Advertising, Security Deposit, Proof of Insurance, Letter of Consent). Some items may have additional associated costs or require additional processing time.

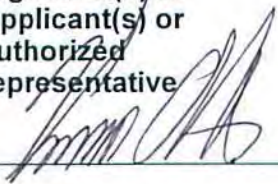
As the management of this fishery program is both a federal and provincial government responsibility, the information you provide may be subject to the following legislation: British Columbia *Freedom of Information and Protection of Privacy Act* (FOIPP Act); the federal *Access to Information Act*; and the federal *Privacy Act*. The personal information collected by the Government of BC is collected under the authority of section 26 (c) of the FOIPP Act and will be used to process your application(s) and will be shared only with the necessary government agencies needed to provide you with the service that you have requested. If you have any questions regarding the handling of your personal information, please contact FrontCounter BC at 1-877-855-3222 or by writing to Manager, Provincial Operations, FrontCounter BC at 441 Columbia Street, Kamloops, BC V2C 2T3 and/or the Director, Access to Information and Privacy Secretariat at the Department of Fisheries and Oceans Canada and Transport Canada.

The Province of British Columbia, Fisheries and Oceans Canada, and Transport Canada do not consider the information submitted in this form to be confidential unless it is subject to the privacy protection of the *Freedom of Information and Protection of Privacy Act* or the *Access to Information Act*. I understand that the information supplied will be used to review my applications under the *BC Land Act*, *BC Fisheries Act* (until such time as it is amended) *Federal Fisheries Act* and the *Navigable Waters Protection Act* and information will be shared amongst the other agencies, First Nations and/or with the public.

Signature(s) of  
Applicant(s) or  
authorized  
representative

Name(s) of Applicant(s)  
or authorized  
representative\*

Date

	KEVIN AINSWORTH	Nov 5/12
_____	_____	_____
_____	_____	_____
_____	_____	_____

\*If signature is by an authorized representative please supply a letter granting authorization to act on behalf of the applicant.

**Submit completed application, and additional supporting information (if applicable) to:**

**In Person: Any FrontCounter BC office.**

**Visit <http://www.frontcounterbc.gov.bc.ca> for the location nearest you.**

**By Mail: FrontCounter BC, 2080a Labieux Road, Nanaimo, BC V9T 6J9**

**By Email: [frontcounterbc@gov.bc.ca](mailto:frontcounterbc@gov.bc.ca)**

**(NOTE: IF FEES ARE APPLICABLE, CLIENT MUST CONTACT FRONTCOUNTER BC BY TELEPHONE WITH CREDIT CARD INFORMATION PRIOR TO SUBMITTING THE APPLICATION ELECTRONICALLY. DO NOT INCLUDE PAYMENT (CREDIT CARD) INFORMATION VIA EMAIL OR FAX.)**

**PLEASE RETAIN A COPY OF THIS APPLICATION FOR YOUR RECORDS**

**APPLICATIONS ARE NOT TRANSFERABLE**

**THE SUBMISSION OF THIS FORM DOES NOT IN ANY MANNER CONVEY ANY RIGHTS TO USE OR OCCUPY CROWN LAND AND/OR CONDUCT REQUESTED ACTIVITIES**





Government  
of Canada

Gouvernement  
du Canada

## **Legace Island Site Application: Attachment 1**

### **Management Plan and Operational Diagrams**

#### **Longline Installation:**

Longlines will be installed in a graduated fashion in line with production in 4 blocks of 40 X 240m, totaling 160 lines. This lay out can be seen displayed in operational diagram (i) within the tenure application area. The spacing between longlines will be 20m and between longline blocks 40m.

The lines will be submerged at a depth of 2.5m as seen to scale in operational diagram (ii).

Longlines will be set Northwest to Southeast along the tide with 4000kg concrete anchor blocks at either end. A spring will be introduced to the anchor lines in the form of a 150kg concrete weight placed approximately 15m from the anchor at each end. The longlines will be made from 18-22mm polypropylene rope along their length from one anchor block to the other. Anchor marker lines will also be made from 18-22mm polypropylene rope and will be used to set anchors and move them accordingly (see Operational diagram (b) (iii) for schematic).

Floation will be attached at surface level every 10m along the workable longline (150m) in the form of cylindrical roto molded polyethylene buoys (250l, 60cm diameter). These will be of a gray, environmental aesthetically sensitive coloration. Additional Polyvinyl marker buoys (46cm diameter) will be attached at either end of the longline and at the top of the anchor marker lines. All floatation will be attached to longlines using 8-10mm polypropylene rope.

The corners of the longline blocks will be clearly marked with 75cm yellow navigational buoys and navigation lights added wherever required by Transport Canada.

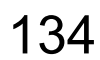
#### **Seeding of Longlines and Stock Management:**

Longlines will be sown along their operating length (200m) with 200 X 50cm diameter lantern nets. These lanterns will have between 10-15 layers (with an approximate depth of 15cm per layer) each. Lantern nets of 4mm and 12-15mm mesh size will be utilised for different growth stages of the stock.

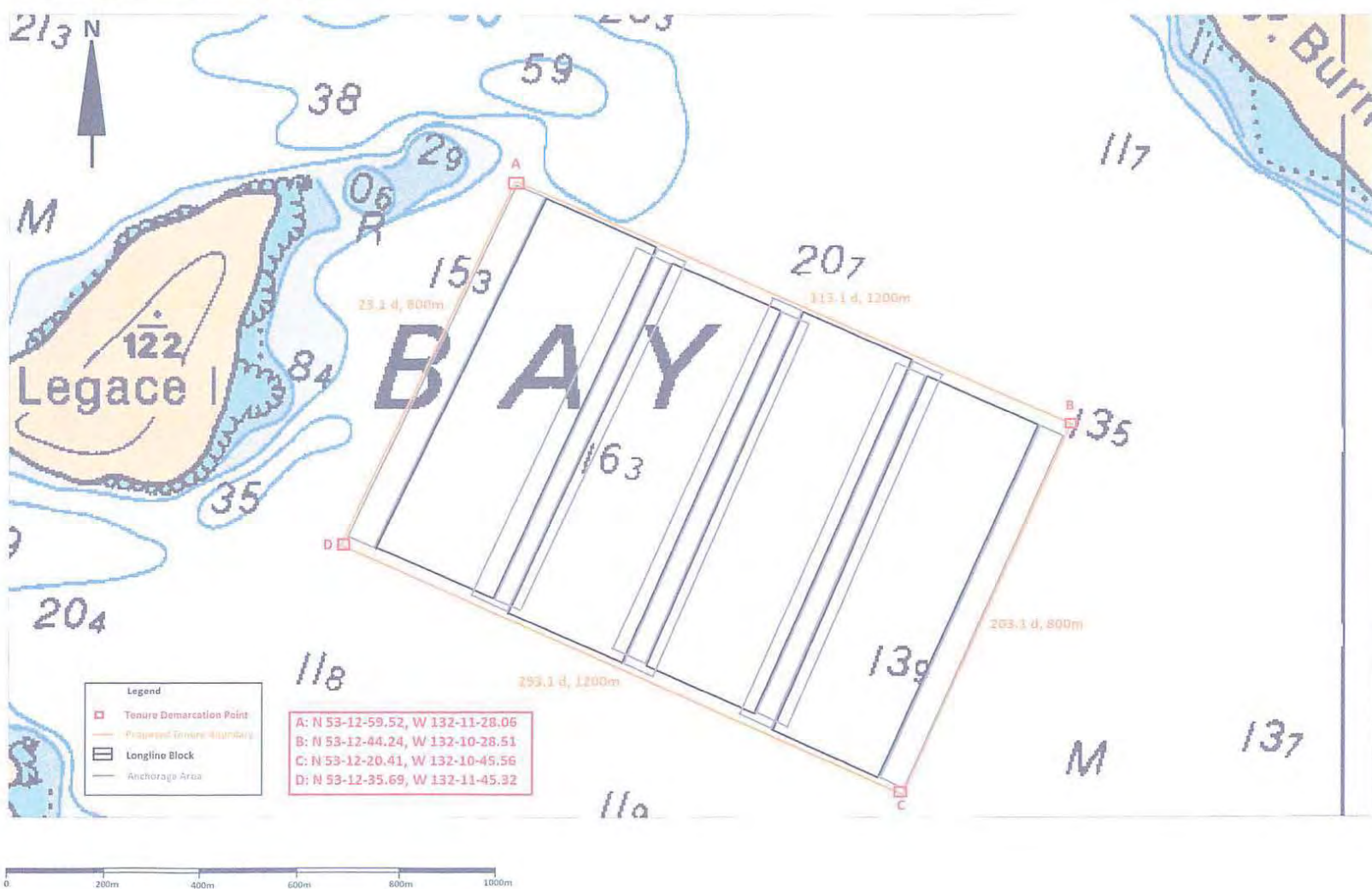
Scallop seed through to juvenile size scallops will be seeded at 200-250 pieces per layer gradually being thinned to a final density of 10-12 pieces during the second year in production. Market size scallops should attain a whole shell weight of 0.2-0.25kg per piece. Therefore maximum biomass per lantern net will be 37.5kg equating to 7.5MT of production per longline installed. Up to 2 year classes of scallops may be cultured on the lines at any point in time.

Once all longlines are established and producing at capacity estimated total annual production will be around 1200MT.



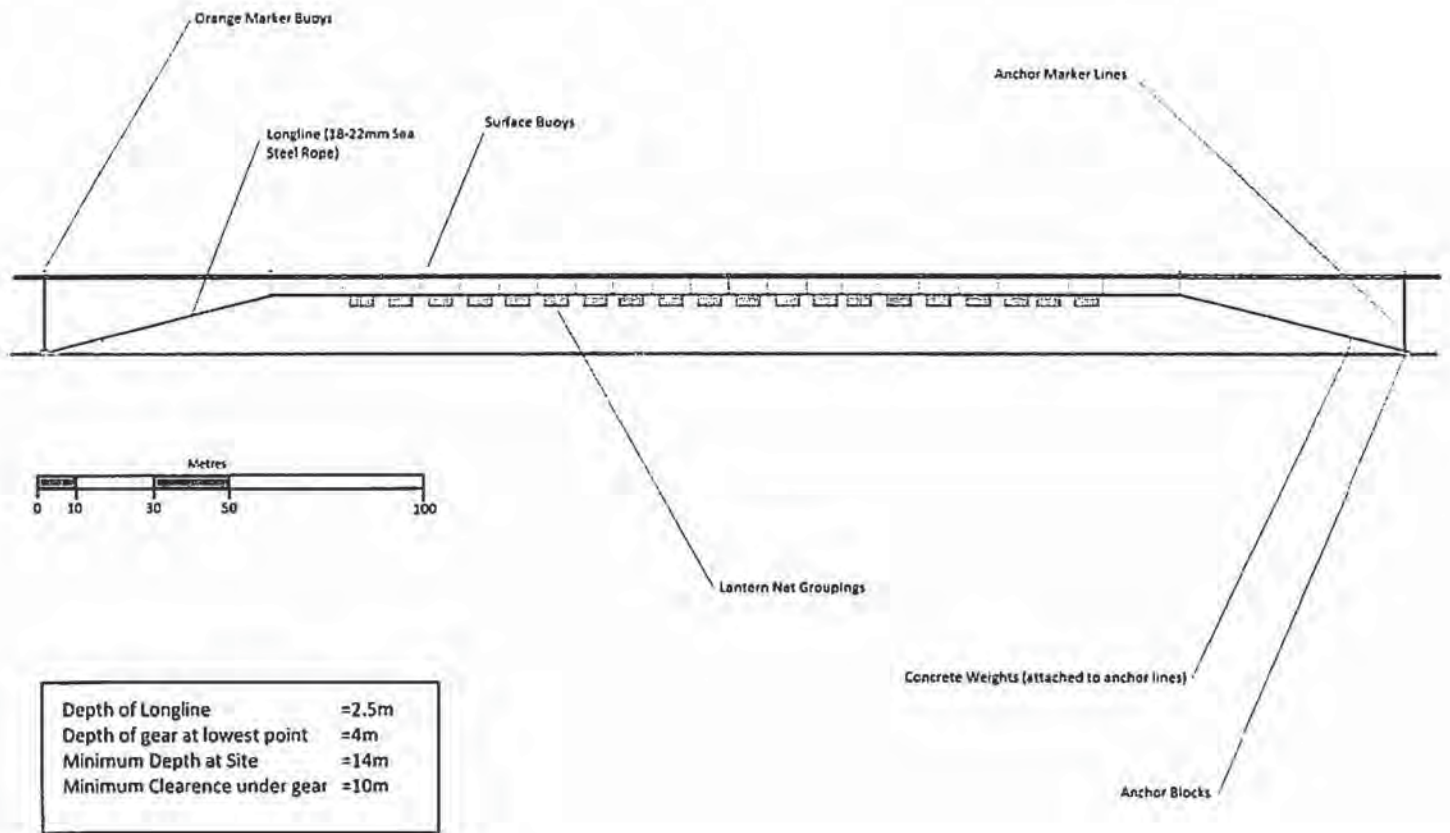


Legace Island Application Site: (b) Operational  
Diagram (i), Charted Physical Structures

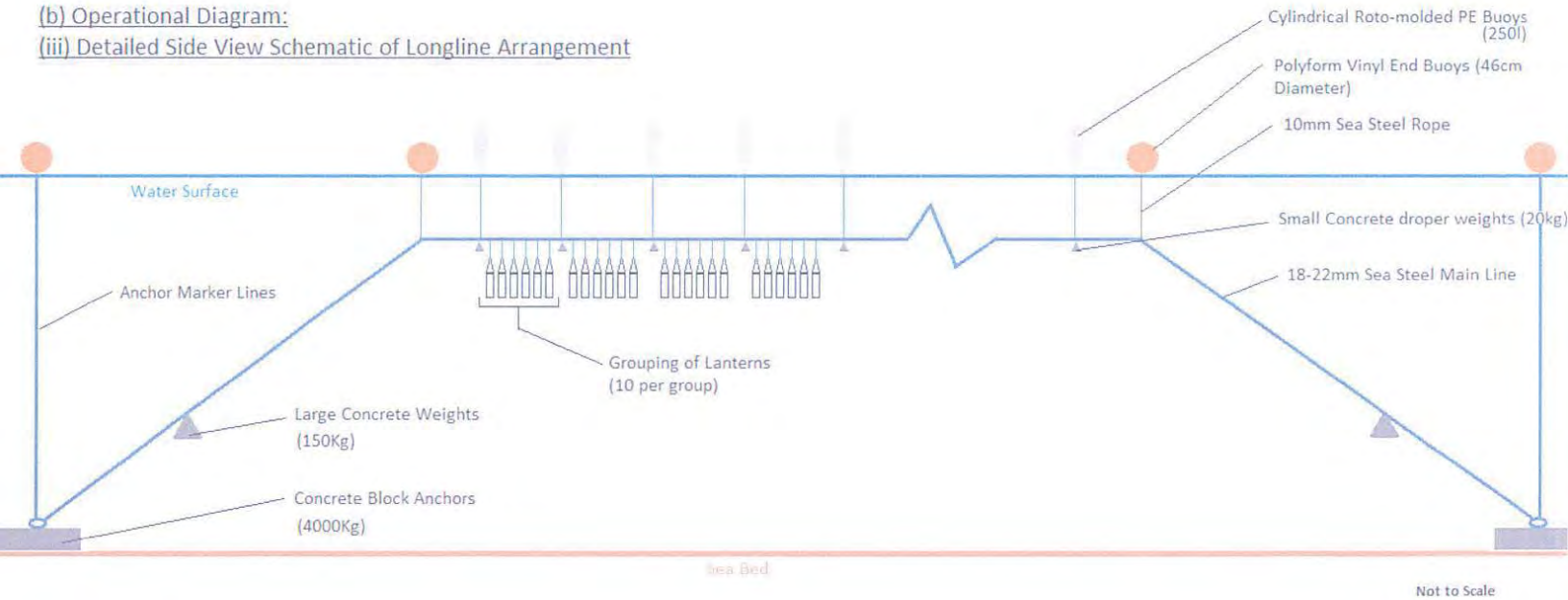




Legace Island Application Site: (b) Operational Diagram (ii)  
1:2000 Side view Schematic of Longline Arrangement



(b) Operational Diagram:  
(iii) Detailed Side View Schematic of Longline Arrangement





**Legace Island Site Application**

**Attachment 2: Photos of Site, Surrounds and Proposed Works**

