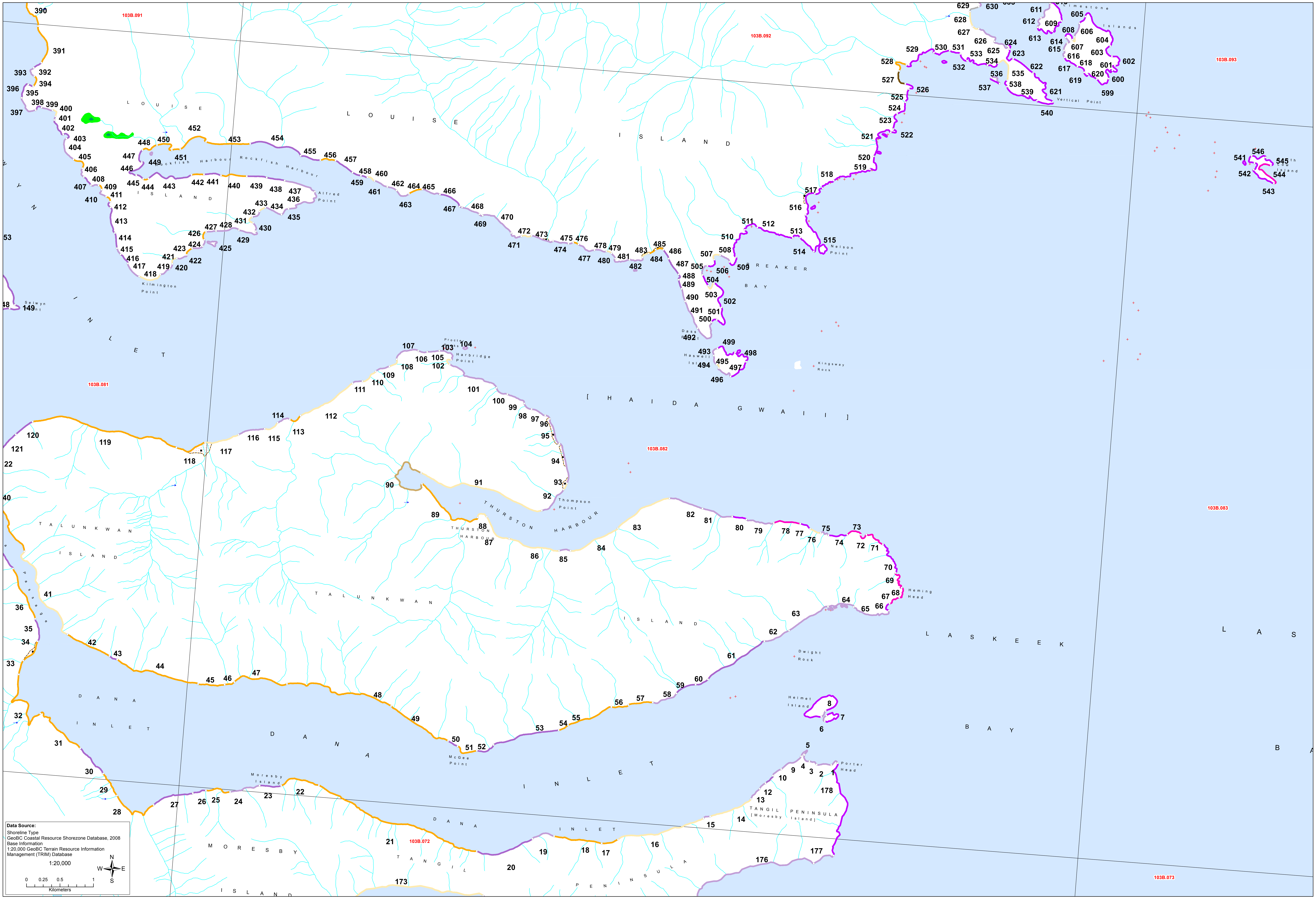
103B.082



Data Source:
Shoreline Type
GeoBC Coastal Resource Shorezone Database, 2008
Base Information
1:20,000 GeoBC Terrain Resource Information Management (TRIM) Database

1:20,000

0 0.25 0.5 1
Kilometers

Legend

○ Unit Break Points

Undefined

Immobile Substrates

1 - Bedrock - CC 1-20 - VE

2 - Bedrock - CC 1-20 - E

3 - Bedrock/Boulder - CC 1-23, 32, 33 - SE

4 - Bedrock/Gravel - CC 1-23, 33 - SP

5 - Bedrock/Gravel - CC 1-23,33 - P/VP

Mobile/Partially Mobile Substrates

6 - Sand & Gravel - CC 24-26, 32 -SP

7 - Sand & Gravel - CC 24-26,32 - VP/P

8 - Estuary or Sand/Mud - CC 27-31 - VP/P/SP

9 - Sediment - CC 21 - 30 - SE/E

Current Dominated

10 - Bedrock or Sediment - CC 34 - VP/P/SP

CC	Type	CC	Type
Rock Shore Types - characterized by a lack of clastic sediments such as gravel or sand.		**Sediment Shore Types - have substrates that have little or no bedcrock cropping out**	
1	Rock Ramp, Wide	21	Gravel Flat, Wide
2	Rock Platform Wide	22	Gravel Beach
3	Rock Cliff Narrow	23	Gravel Flat or Fan
4	Rock Ramp, Narrow	24	Sand and Gravel Flat or Fan, Wide
5	Rock Platform Narrow	25	Sand and Gravel Beach
Rock and Sediment Shore Types - rock and pockets of clastic sediments		26	Sand and Gravel Flat or Fan, Narrow
6	Ramp with Gravel Beach, Wide	27	Sand Beach, Wide
7	Platform with Gravel Beach, Wide	28	Sand Flat
8	Cliff with Gravel Beach	29	Mud Flat
9	Ramp with Gravel Beach, Narrow	30	Sand Beach, Narrow
10	Platform with Gravel Beach, Narrow	31	Estuaries
11	Ramp with Sand and Gravel Beach, Wide	**Man-Made Materials**	
12	Platform with Sand and Gravel Beach, Wide	32	Man-made, permeable
13	Cliff with Sand and Gravel Beach	33	Man-made, impermeable
14	Ramp with Sand and Gravel Beach, Narrow	**Current Dominated**	
15	Platform with Sand and Gravel Beach, Narrow	34	Channel
16	Ramp with Sand Beach, Wide	35	Tidal Lagoon
17	Platform with Sand Beach, Wide		
18	Cliff with Sand Beach		
19	Ramp with Sand Beach, Narrow		
20	Platform with Sand Beach, Narrow		

Shoreline Habitat

The Habitat Type provides a simplified picture of the "look" of the unit overall, based on the detailed biophysical attributes that have been mapped. The Habitat Type category is a summary of the observations of both the unit's biologial and geomorphological features.
Each Habitat Type has a definition that includes the typical substrate, wave exposure and biobands. For example, for the Semi-exposed, Immobile substrate Habitat Type, part of the definition of that class is a certain combination of the most likely biobands and indictor species present at a bedrock shoreline with no mobile sediment present.

How is Habitat Type determined?
Each Habitat Type has typical biological features (including both an indicator species list and typical associated biobands).
To determine the Habitat Type, the biomapper looks at the along-shore Units as designated and described by the physical mapper, and
1. records the observations of the biobands in the unit and looks for indicator species,
2. assigns a bio-(wave) exposure category,
3. reviews the physical mapped information, and
4. assigns the Habitat Type that best describes the unit.

The Habitat Type is based on the whole unit and is similar to the physical mappers use of the ‘Coastal Class’ category, in that the detailed across-shore data are summarized into one attribute. The simplified category describes the features of the whole unit.

Habitat Type is a summary of the biophysical classification of the whole shore unit, based on:
- the biobands observed,
- the wave exposure as indicated by the bands, and
- the substrate types in the unit.

Legend Definitions
CC - Coastal Classification number

Wave Exposure
E - Exposed - Very high wave exposure, open ocean swellsm usually fetches >500km
VE - Very Exposed - Extreme high wave exposure
SE - Semi Exposed - High wave exposure, open shorelines, areas between fully exposed and more sheltered, usually fetches 50 to 500km
P - Protected - Low wave expsoure, sheltered inlets, usually fetches less than 10km
SP - Semi Protected - Moderate wave expsoure, partly sheltered, usually fetches 10-50km
VP - Very Protected - Very low wave exposure, fethces < 1km, sheltered anchorages at heads of bays and inletes

Table QCI/GH. Original spp/hab table from Gwaii Haanas
Habitat Classification Based on Visible Macro-Biota Assemblages for the Queen Charlotte shoreline

SUBSTRATE STABILITY	IMMOBILE SUBSTRATES					MOBILE OR PARTIALLY MOBILE SUBSTRATES				CURRENT-DOMI-NATED
MAJOR SUBSTRATE	BEDROCK	BEDROCK	BEDROCK/BOULDER	BEDROCK/GRAVEL	BEDROCK/GRAVEL	SAND & GRAVEL	SAND & GRAVEL	ESTUARY or SAND/MUD	SEDIMENT	BEDROCK OR SEDIMENT
COASTAL CLASSES	**1-20**	**1-20**	**1-23, 32, 33**	**1-23, 33**	**1-23, 33**	**24, 25, 26, 32**	**24, 25, 26, 32**	**27, 28, 29, 30, 31**	**21-30**	**34**
EXPOSURE (EXP BIO)	**VE**	**E**	**SE**	**SP**	**VP, P**	**SP**	**VP, P**	**VP, P, SP**	**SE, E**	**VP, P, SP**
COMMUNITY CODE (HAB_OBS)	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
upper	*Verrucaria* *Balanus glandula*	*Verrucaria* *Balanus glandula*	*Verrucaria* *Enteromorpha* *Balanus glandula* *Fucus distichus*	*Verrucaria* *Enteromorpha* *Balanus glandula* *Fucus distichus*	*Verrucaria* *Enteromorpha* *Balanus glandula* *Fucus distichus*	*Verrucaria* *Enteromorpha* *Balanus glandula* *Fucus distichus*	*Verrucaria* *Enteromorpha* *Balanus glandula* *Fucus distichus*	**grasses & rushes** ***Salicornia virginica*** *Balanus glandula* *Fucus distichus*	no visible intertidal macrobiota due to sediment mobility	tidal current dominated; may be a protected wave exposure but shows an assemblage of indicator species from higher wave exposures. Assemblage observed is ‘anomalous’ for the wave energy of the site.
middle	***Pollicipes polymerus*** *Mytilus californianus* *[Semibalanus carriosus]*	***Pollicipes polymerus*** *Mytilus californianus* *Semibalanus carriosus*	*Mytilus californianus* *Semibalanus carriosus*	*Mytilus trossulus* *Semibalanus carriosus* ***Ulva/ Ulvaria spp.***	*Mytilus trossulus* ***Ulva/ Ulvaria spp.***	*Mytilus trossulus* *Semibalanus carriosus* ***Ulva/ Ulvaria spp.***	*Mytilus trossulus* ***Ulva/Ulvaria spp.***	*Mytilus trossulus* *Ulva/ Ulvaria*		
mid/low	*[Alaria ‘nana’* morph*]*	*Alaria ‘nana’* morph	*Halosaccion glandiforme* ***Hedophyllum sessile*** *Codium fragile* ***Phyllospadix scouleri*** ***Egregia menziesii***	*Halosaccion glandiforme* *Codium fragile*	*Halosaccion glandiforme*	*Halosaccion glandiforme* *Codium fragile*	*Halosaccion glandiforme*			
lower	***Lessoniopsis littoralis*** *[Laminaria setchelli]* **lush foliose coralline reds:** *Bossiella/ Calliarthron/ Corallina* *Lithothamnion*	***Lessoniopsis littoralis*** *Laminaria setchelli* **foliose coralline reds** *Lithothamnion*	*Laminaria setchelli* *Laminaria groenlandica* diverse mixed red algae *Alaria ‘marginata’* morph *Lithothamnion*	*Laminaria groenlandica* ***Laminaria saccharina*** *Alaria ‘marginata’* morph *Lithothamnion*	***Laminaria saccharina***	*Laminaria groenlandica* ***Laminaria saccharina*** *Alaria ‘marginata’* morph *Lithothamnion*	***Laminaria saccharina***			
subtidal	*Nereocystis luetkeana*	*Nereocystis luetkeana*	*Nereocystis luetkeana* ***Macrocystis integrifolia*** *Agarum spp.* ***Strongylocentrotus franciscanus***	*Nereocystis luetkeana* *Macrocystis integrifolia* *Agarum spp.* ***Strongylocentrotus franciscanus*** ***Zostera marina***	*Macrocystis integrifolia* *Agarum spp.* ***Zostera marina***	*Nereocystis luetkeana* *Macrocystis integrifolia* *Agarum spp.* ***Strongylocentrotus franciscanus*** ***Zostera marina***	*Macrocystis integrifolia* *Agarum spp.* ***Zostera marina***	***Zostera marina***		

* Bolding indicates diagnostic species used to distinguish “communities”. Square brackets [ ] enclose species at VE AB_OBS 1 which may be present but are in reduced abundance and size. Note that the absence of species assemblages are as diagnostic as species’ presence. Community Code type 1 (VE – very exposed) occurs only on the southwest coast of Moresby Island.