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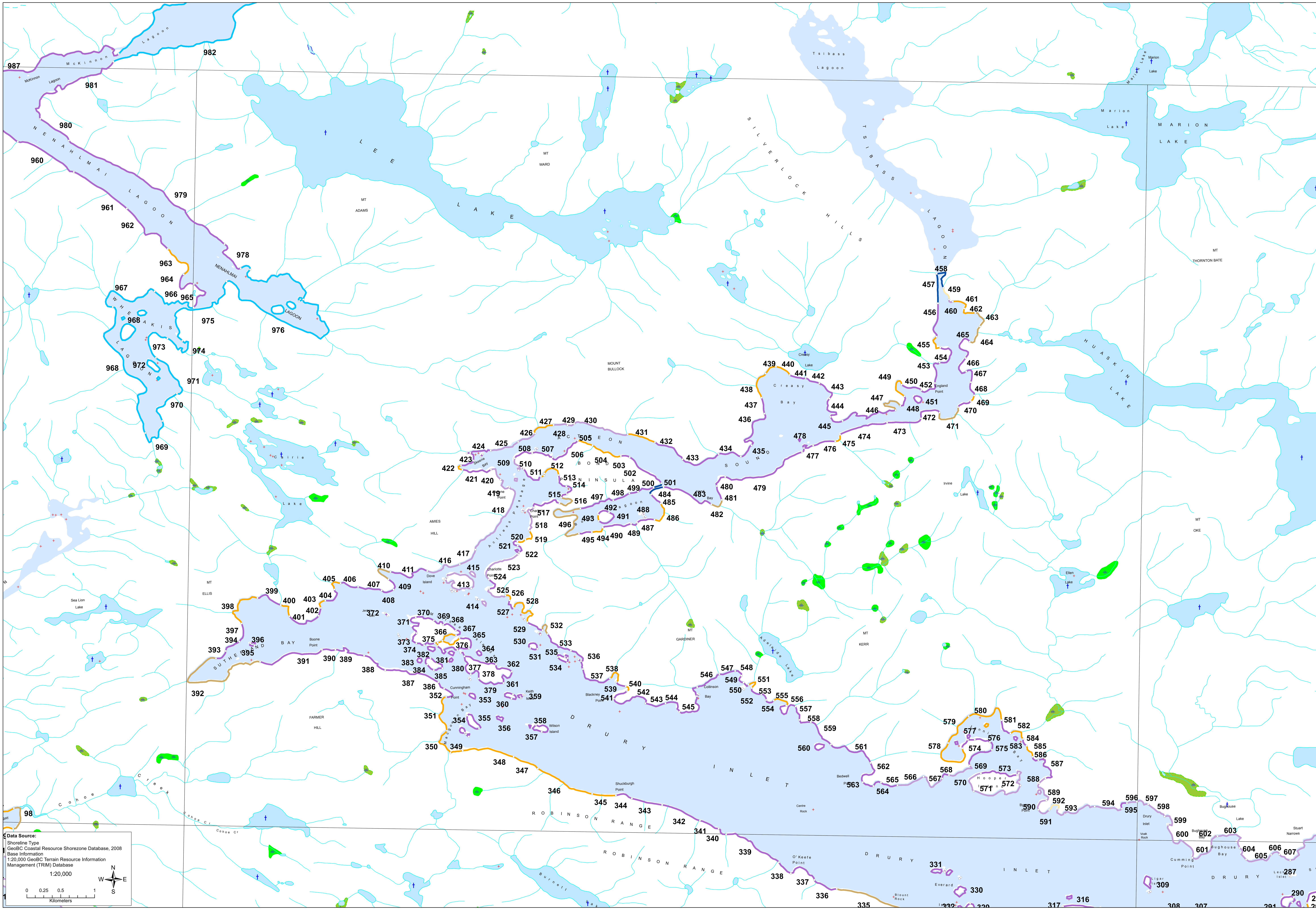


Legend

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

Tidal Lagoon

11 - Bedrock or Sediment - CC 35 - 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.

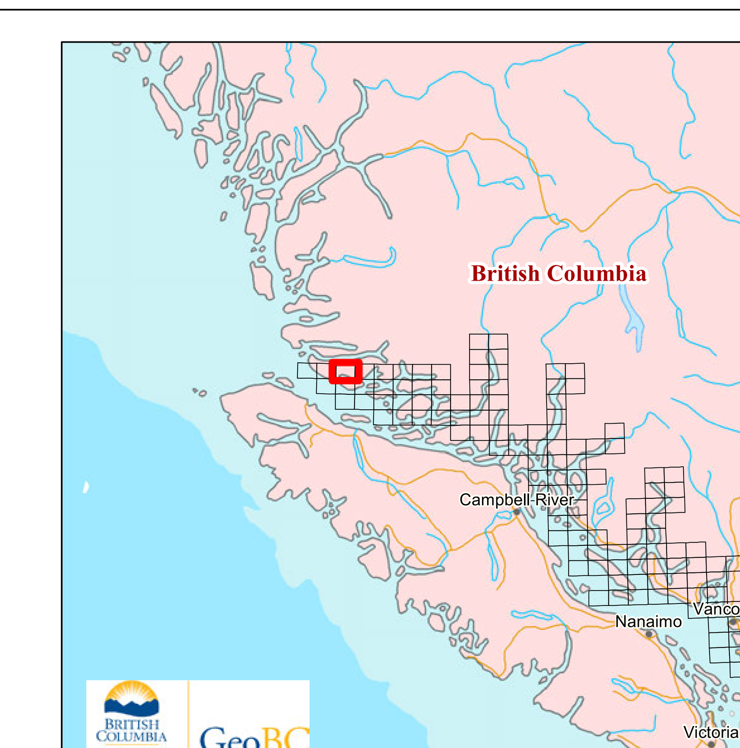
The Habitat Type is based on the whole unit and is similar to the physical mappers use of the 'Coastal Class' category, in that the detailed across-shore data are summarized into one attribute. The simplified category describes the features of the whole unit.

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 SOG. GOES WITH SSOG AND NSOG, part of CR
Habitat Classification for "Exposure Bio" (EXP_BIO) and "Habitat Observed" (HAB_OBS) based on visible macro-biota assemblages for the Georgia Basin. Species assemblages revised according to analysis of field observations. See summary in Table 5 and Table 6.

MAJOR SUBSTRATE	BEDROCK/BOULDER	BEDROCK/BOULDER	BEDROCK/BOULDER	SAND & GRAVEL	SAND & GRAVEL	SAND/MUD	SEDIMENT	BEDROCK OR SEDIMENT
COASTAL CLASSES	1-20	1-23, 32, 33	1-23, 33	24, 25, 26, 32	24, 25, 26, 32	27, 28, 29, 30, 31	24 - 30	
EXPOSURE (EXP_BIO)	SE	SP	P, VP	SP	P, VP	SP, P, VP	SE, E	VP, P, SP
HABITAT OBSERVED (HAB_OBS)	3 *	4	5	6	7	8	9	10
upper	*Verrucaria*	*Verrucaria*	*Verrucaria*			marsh grasses & rushes	no visible 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.
						Salicornia virginica		
	Balanus glandula	*Balanus glandula*	*Balanus glandula*	*Balanus glandula*	*Balanus glandula*	*Balanus glandula*		
	Fucus distichus	*Fucus distichus*	*Fucus distichus*	*Fucus distichus*	*Fucus distichus*	*Fucus distichus*		
middle								
	Semibalanus carriosus	*Semibalanus carriosus*		*Semibalanus carriosus*				
		Mytilus trossulus	*Mytilus trossulus*	*Mytilus trossulus*	*Mytilus trossulus*	*Mytilus trossulus*		
		Ulva/ Ulvaria spp.	*Ulva/ Ulvaria spp.*	*Ulva/ Ulvaria spp.*	*Ulva/ Ulvaria spp.*	*Ulva/ Ulvaria spp.*		
mid/low	*Anthopleura elegantissima*	*Anthopleura elegantissima*						
	Gelidium/Gastroclonium/ Leathesia/ Prionitis/ other bleached reds	*Gelidium/Gastroclonium/ Leathesia/ Prionitis/* other bleached reds		*Gelidium/Gastroclonium/ Leathesia/ Prionitis/* other bleached reds				
		Crassostrea gigas	*Crassostrea gigas*	*Crassostrea gigas*	*Crassostrea gigas*			
		Pisaster ochraceous		*Pisaster ochraceous*				
lower	bleached coralline reds	bleached coralline reds						
		Agarum sp.		*Agarum sp.*				
		Laminaria saccharina	*Laminaria saccharina*	*Laminaria saccharina*	*Laminaria saccharina*			
	Alaria spp.							
	Sargassum muticum	*Sargassum muticum*	*Sargassum muticum* **	*Sargassum muticum*	*Sargassum muticum* **			
		Microcladia/ Iridaea type mixed filamentous and foliose reds		*Microcladia/ Iridaea* type mixed filamentous and foliose reds				
	Lithothamnion							
subtidal	*Nereocystis luetkeana*	*Nereocystis luetkeana*		*Nereocystis luetkeana*				
	Strongylocentrotus franciscanus	*Strongylocentrotus franciscanus*		*Strongylocentrotus franciscanus*				
		Zostera marina	*Zostera marina*	*Zostera marina*	*Zostera marina*	*Zostera marina*		

* The SE (Semi-exposed) shoreline 'Habitat Observed' in the Strait of Georgia was observed to have the same species assemblage as typical species assemblages found in high SP (semi-protected).
** *Sargassum* does not occur in Very-protected (VP)