



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 - PNP
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
	11 - Bedrock or Sediment - CC 35 - VP/P/SP
Tidal Lagoon	
	Tidal Lagoon
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	
N	
W	
E	
S	
CC Type	
Rock Shore Types - characterized by a lack of classic sediments such as gravel or sand.	
1 - Rock Ramp, Wide	
2 - Rock Platform, Wide	
3 - Rock Cliff, Narrow	
4 - Rock Ramp, Narrow	
5 - Rock Platform, Narrow	
Rock and Sediment Shore Types - rock and pockets of classic sediments	
6 - Beach with Gravel Beach, Wide	
7 - Platform with Gravel Beach, Wide	
8 - Cliff with Gravel Beach	
9 - Beach with Gravel Beach, Narrow	
10 - Platform with Gravel Beach, Narrow	
11 - Beach with Sand and Gravel Beach, Wide	
12 - Platform with Sand and Gravel Beach, Wide	
13 - Cliff with Sand and Gravel Beach	
14 - Beach with Sand and Gravel Beach, Narrow	
15 - Platform with Sand and Gravel Beach, Narrow	
16 - Beach with Sand Beach, Wide	
17 - Platform with Sand Beach, Wide	
18 - Cliff with Sand Beach	
19 - Beach with Sand Beach, Narrow	
20 - Platform with Sand Beach, Narrow	
CC Code	
Sediment Shore Types - have substrates that have little or no bedrock cropping out.	
21 - Gravel Flat, Wide	
22 - Gravel Beach	
23 - Gravel Flat or Fan	
24 - Sand and Gravel Flat or Fan, Wide	
25 - Sand and Gravel Beach	
26 - Sand and Gravel Flat or Fan, Narrow	
27 - Sand Beach, Wide	
28 - Sand Beach	
29 - Mud Flat	
30 - Mud Flat, Narrow	
31 - Estuary	
32 - Main Material	
33 - Main Material, permeable	
34 - Main Material, impermeable	
35 - Current Dominated	
36 - Channel	
37 - Tidal Lagoon	

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 biological 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 indicator 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 swells 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 exposure, sheltered inlets, usually fetches less than 10km

SP - Semi Protected - Moderate wave exposure, partly sheltered, usually fetches 10-50km

VP - Very Protected - Very low wave exposure, fetches < 1km, sheltered anchorages at heads of bays and inlets

Table MIDCOAST and NORTH COAST project area which includes BIO AREAS CC, JS and NC. The Species/wave exposure/ substrate table for Habitat Classification (HAB, OBS), for the Mid-coast BC study area, from Johnstone Strait/Central Coast Mapping Regions 5, 6 and 7.

SUBSTRATE STABILITY	IMMOBILE SUBSTRATES								MOBILE OR PARTIALLY MOBILE SUBSTRATES				CURRENT-DOMINATED	TIDAL LAGOON
	BEDECK	BEDECK/BOULDER	BEDECK/GRAVEL	BEDECK/GRAVEL	SAND & GRAVEL 24-30, 32 no SAL band	SAND & GRAVEL 24-30, 32 no SAL band	SAND/MUD 24-30, 31 has SAL band	SEDIMENT	BEDECK OR SEDIMENT	BEDECK OR SEDIMENT				
MAJOR SUBSTRATE CLASSES	1-20	1-23, 32, 33	1-23, 33	1-23, 33	24-30, 32 no SAL band	24-30, 32 no SAL band	24-30, 31 has SAL band	24-30	34	35				
EXPOSURE	E	SE	SP	VP, P	SP	VP, P	VP, P, SP	SE, E	VP, P, SP	VP, P, SP				
COMMUNITY CODE (OBS OBS)	2	3	4	5	6	7	8	9	10	11				
upper	<i>Verrucaria</i>	<i>Verrucaria</i> <i>Enteromorpha</i>	<i>Verrucaria</i> <i>Enteromorpha</i>	<i>Verrucaria</i> <i>Enteromorpha</i>	<i>Verrucaria</i> <i>Enteromorpha</i>	<i>Verrucaria</i> <i>Enteromorpha</i>	<i>grasses & rushes</i> <i>Salicornia</i> <i>virginica</i>			<i>Balanus glandula</i> <i>Puccinellia</i>				
middle	<i>Balanus glandula</i>	<i>Balanus glandula</i> <i>Puccinellia</i>	<i>Balanus glandula</i> <i>Puccinellia</i>	<i>Balanus glandula</i> <i>Puccinellia</i>	<i>Balanus glandula</i> <i>Puccinellia</i>	<i>Balanus glandula</i> <i>Puccinellia</i>	<i>Balanus glandula</i> <i>Puccinellia</i>	no visible macrofauna but below an assemblage of indicator species from higher water exposures.	tidal current dominated, may be exposed but down an assemblage of indicator species from higher water exposures.	<i>Balanus glandula</i> <i>Puccinellia</i>				
middle	<i>Polysiphonia</i>	<i>Polysiphonia</i>	<i>Polysiphonia</i>	<i>Polysiphonia</i>	<i>Polysiphonia</i>	<i>Polysiphonia</i>	<i>Polysiphonia</i>							
middle	<i>Mytilus californianus</i>	<i>Mytilus californianus</i>	<i>Mytilus californianus</i>	<i>Mytilus californianus</i>	<i>Mytilus californianus</i>	<i>Mytilus californianus</i>	<i>Mytilus californianus</i>							
middle	<i>Semibalanus cariosus</i>	<i>Semibalanus cariosus</i>	<i>Semibalanus cariosus</i>	<i>Semibalanus cariosus</i>	<i>Semibalanus cariosus</i>	<i>Semibalanus cariosus</i>	<i>Semibalanus cariosus</i>							
lower	<i>Alaria</i>	<i>Alaria</i>	<i>Alaria</i>	<i>Alaria</i>	<i>Alaria</i>	<i>Alaria</i>	<i>Alaria</i>							
lower	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>							
lower	<i>Ulva</i>	<i>Ulva</i>	<i>Ulva</i>	<i>Ulva</i>	<i>Ulva</i>	<i>Ulva</i>	<i>Ulva</i>							
lower	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>							
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lower	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>							
lower	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>							
lower	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>							
lower	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>							
lower	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>	<i>Enteromorpha</i>							
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