

Wetland Class Key 2024

Is it a wetland? Mineral or Organic?		
1	Is the area a land that is saturated with water long enough to promote wetland or aquatic processes as indicated by A) poorly drained soils, B) hydrophytic vegetation and C) various kinds of biological activity which are adapted to a wet environment?	Yes – Wetland Go to 2 No – Upland Go to 17
2	Is there a topsoil horizon of organic soil with a depth typically >40 cm? Organic soil: soil containing >30% organic matter by weight (>17% organic carbon). Field tests to determine organic soil: examining colour, texture, weight & malleability.	Yes – Organic Wetland Go to 3 No – Mineral Wetland Go to 9 Not sure – Go to 12
3	Is the dominant organic soil texture in the top 40 cm fibric or mesic? Fibric organic soil texture is defined by: Von Post ranking 1-4. Mesic organic soil texture is defined by: Von Post ranking 5-6. Humic organic soil texture is defined by: Von Post ranking 7-10.	Yes – Peatland Go to 4 No – Humic Organic Wetland Go to 6 Not sure – Go to 12
What type of peatland?		
4	Is the area ombrogenous* AND with a surface level or raised above surrounding terrain AND contains acidic waters where pooling is found (pH<4.8) AND sphagnum moss dominates the ground cover AND with a surficial organic soil horizon >40 cm deep, with a dominant organic soil texture of fibric (Von Post 1-4)? *Ombrogenous: receiving water only from precipitation, fog, snowmelt -- NOT typically connected to surface water, runoff waters or groundwater.	Yes – Bog No – Go to 5
5	Is the area minerogenous* AND with ground cover of mosses and/or graminoids AND with a surficial organic soil horizon >40 cm deep, with a dominant organic soil texture of fibric-mesic (Von Post 1-6)? Nutrient poor to rich. (pH 4.8-5.5+) *Minerogenous: water inputs from streams, runoff, overland flows, ground water connection as well as from precipitation, fog, and snowmelt.	Yes – Fen Go to 5.1 No – Go to 6
5.1	Is the area <25% covered with sphagnum moss AND with uncommon ericaceous shrubs AND nutrient rich with a pH>5.5? If it is not possible to confirm pH/nutrients, classified as 5. Fen.	Yes – Rich Fen No – Go to 5.2
5.2	Does the area have >25% surface area covered with sphagnum moss AND contains ericaceous shrubs/trees, AND is nutrient poor with a pH <4.8-5.5? If it is not possible to confirm pH/nutrients, classified as 5. Fen.	Yes – Poor Fen No – Return to 1
What type of humic organic wetland?		
6	Is the area dominated by trees or shrubs with ≥25% canopy cover? Periodic or persistent surface water may occur with water levels that can fluctuate seasonally and annually.	Yes – Organic Swamp No – Go to 7
7	Is the area dominated by herbaceous vegetation covering > 25% of surface area AND is trees and shrubs cover <25% each? Vegetation can occur randomly or in distinct zones of parallel or concentric patterns. Often periodically inundated by standing or slowing moving water.	Yes – Organic Marsh No – Go to 8



8	<p>Is the area dominated by open water or exposed sediment >25% of surface area AND with <25% surface cover each of trees, shrubs, herbaceous vegetation, bryophytes, or other above-water vegetation?</p> <p>Aquatic vegetation, aquatic algae, hydrophytes, eelgrass, and/or biofilm can be present in any amount. Water when present is typically <2m deep during mid-summer or low tide but can vary.</p>	<p>Yes – Organic Shallow Open Water No – Return to 1</p>
What type of mineral wetland?		
9	<p>Is the area dominated by trees and/or shrubs with ≥25% canopy cover AND does the area contain a surficial organic soil horizon <40cm?</p> <p>Periodic or persistent surface water may occur with water levels that can fluctuate seasonally and annually.</p>	<p>Yes – Mineral Swamp No – Go to 10</p>
10	<p>Is the area dominated by herbaceous vegetation covering > 25% of surface area AND is trees and shrubs cover <25% each AND does the area contain a surficial organic soil horizon <40cm?</p> <p>Vegetation can occur randomly or in distinct zones of parallel or concentric patterns. Often periodically inundated by standing or slowing moving water.</p>	<p>Yes – Mineral Marsh No – Go to 11</p>
11	<p>Is the area dominated by open water or exposed sediment >25% of surface area AND with <25% surface cover each of trees, shrubs, herbaceous vegetation, bryophytes, or other above-water vegetation AND does the area contain a surficial organic soil horizon <40cm?</p> <p>Aquatic vegetation, algae, hydrophytes, eelgrass, and/or biofilm can be present in any amount. Water when present is typically <2m deep during mid summer or low tide but can vary.</p>	<p>Yes – Mineral Shallow Open Water No – Return to 1</p>
When soil type is not known		
12	<p>Is the area a peatland AND ombrogenous AND raised or level with the surrounding terrain AND dominated by sphagnum moss / bryophyte ground cover?</p>	<p>Yes – Bog No – Go to 13</p>
13	<p>Is the area a peatland AND minerogenous AND with ground cover of bryophyte and/or herbaceous graminoid cover? (May contain trees/shrubs)</p>	<p>Yes – Fen No – Go to 14</p>
14	<p>Is the wetland dominated by trees with ≥25% canopy cover or shrubs with ≥25% surface area coverage?</p> <p>Periodic or persistent surface water may occur with water levels that can fluctuate seasonally and annually.</p>	<p>Yes – Swamp No – Go to 15</p>
15	<p>Is the wetland dominated by herbaceous vegetation covering > 25% of surface area and trees and shrubs cover <25% of the surface area?</p> <p>Vegetation can occur randomly or in distinct zones of parallel or concentric patterns. Often periodically inundated by standing or slowing moving water.</p>	<p>Yes - Marsh No – Go to 16</p>
16	<p>Is the wetland dominated by open water or exposed sediment with <25% of the surface cover occupied by above water vegetation such as trees, shrubs, herbaceous vegetation and/or bryophytes?</p> <p>Aquatic vegetation, algae, hydrophytes, eelgrass, and/or biofilm maybe present in any amount. Water when present is typically <2m dep during mid summer or low tide but can vary.</p>	<p>Yes – Shallow Open Water No – Go to 17</p>
When “No” was answered to all		
17	<p>The area is <u>NOT</u> saturated with water long enough to promote wetland or aquatic processes as indicated by A) poorly drained soils, B) hydrophytic vegetation and C) various kinds of biological activity which are adapted to a wet environment.</p>	<p>Upland</p>



Surface Cover Key 2024

Woody Vegetation		
1	<p>Is >25% of the surface area covered by trees? Trees are woody vegetation greater than 5 meters in height.</p> <p>Note: Do not include dwarf/low woody vegetation or woody vines. See CNWI BC Field Guide Appendix D for species list.</p> <p>Note: if unable to discern height; code to “Woody”.</p>	<p>Yes – Treed Go to 1.1 No – Go to 2 Unsure – Go to 3.</p>
1.1	Are the trees composed of >75% conifer species?	<p>Yes – Treed (Conifer) No – Go to 1.2</p>
1.2	Are the trees composed of >75% broad-leaved species?	<p>Yes – Treed (Broadleaf) No – Treed (Mixed)</p>
2	<p>Is >25% of the surface area covered by shrubs? Shrubs are woody vegetation less than 5 meters in height.</p> <p>Note: Do not include dwarf/low woody vegetation or woody vines. See CNWI BC Field Guide Appendix D for species list.</p> <p>Note: if unable to discern height; code to “Woody”.</p>	<p>Yes – Shrub Go to 2.1 No – Go to 3.</p>
2.1	Are the shrubs composed of >75% conifer species?	<p>Yes – Shrub (Conifer) No – Go to 2.2</p>
2.2	Are the shrubs composed of >75% broad-leaved species?	<p>Yes – Shrub (Broadleaf) No – Shrub (Mixed)</p>
3	<p>Is >25% of the surface area covered by woody vegetation with canopy cover?</p> <p>Note: Do not include dwarf/low woody vegetation or woody vines. See CNWI BC Field Guide Appendix D for species list.</p>	<p>Yes – Woody No – Go to 4</p>
Ground Vegetation		
4	Is > 25% of the ground covered by vegetation (i.e., dwarf/low woody vegetation, woody vines, bryophytes, moss, lichen, ferns, graminoids, ferns, and/or herbaceous vegetation)?	<p>Yes – Go to 5 No – Go to 7</p>
5	Is >25% of the ground vegetation covered by herbaceous species? (e.g., grasses, rushes, sedges, reeds, ferns, fern allies, grass-like plants, and forbs)	<p>Yes – Herbaceous – Go to 5.1 No – Go to 6</p>
5.1	Does the herbaceous cover consist of ≥50% forbs?	<p>Yes – Herbaceous (Forb) No – Go to 5.2</p>
5.2	Does the herbaceous cover consist of ≥50% graminoid species? (e.g., reeds, rushes, sedges, grasses, etc.)	<p>Yes – Herbaceous (Graminoid)</p>
5.3	Does the herbaceous cover consist of ≥50% ferns and fern allies?	<p>Yes – Herbaceous (Fern) No – Herbaceous (Mixed)</p>
6	Is >25% ground surface covered by bryophytes (mosses, liverworts, hornworts) and/or lichens?	<p>Yes – Bryophyte No – Got to 7</p>
6.1	Is the bryophyte layer dominated >50% by moss?	<p>Yes – Bryophyte (Moss) No – Go to 6.2</p>
6.2	Is the bryophyte layer dominated >50% by lichens?	<p>Yes – Lichen No – Bryophyte (Mixed)</p>



Aquatic and Exposed		
7	Is >25% of the surface area covered with floating or submerged aquatic vegetation?	Yes – Aquatic vegetation No – Go to 8
8	Is the surface area covered with water or exposed sediment with eelgrass (e.g., <i>Zostera marina</i> , <i>Ruppia maritima</i>) at densities >1 shoot /m ² ?	Yes – Eelgrass No – Go to 10
9	Is >25% of the surface area covered with macro algae?	Yes – Macro Algae No – Go 9
10	Is the surface area dominated with exposed sediment with <25% vegetation cover of any type and no eelgrass? Exposed sediment is sand, silt, clay, gravel, or other particle inorganic substrates. Note: un-vegetated intertidal areas should always be coded to exposed sediment or exposed bedrock as opposed to open water regardless of the high of the tide at the time of survey.	Yes – Exposed Sediment No – Go to 11
11	Is the surface area dominated with exposed bedrock with <25% vegetation cover of any type and no eelgrass? Note: un-vegetated intertidal areas should always be coded to exposed sediment or exposed bedrock as opposed to open water regardless of the high of the tide at the time of survey.	Yes – Exposed Bedrock No – Go to 12
12	Is the surface area dominated with open water with <25% vegetation surface cover, <25% exposed sediment/bedrock cover, and no eelgrass?	Yes – Water No – Go to 13
Other		
13	Is the surface area dominated with snow, ice, glaciers with <25% vegetation/exposed sediment/water surface cover?	Yes – Snow/Ice No – Go to 14
14	Is the surface area in a non-natural state E.g., covered with roads, buildings, structures, resource extraction (mines), parking lots, etc.	Yes – Anthropogenic No – Go to 15
15	Is the surface area covered by other vegetation or ground cover types not explicitly included above?	Yes – Other

