

## 2 Ecoregion Summary

Natural Resources Canada (NRCan) has developed a hierarchical classification of ecosystems to identify Canada's ecological zones. The system incorporates variables such as landforms, climate, relief, soil, flora and fauna, and distinct human activities. Ecozones are the simplest grouping – these represent large ecological zones having characteristic landforms and climate. Each of the ecozones are divided into ecoprovinces. These are characterized by major assemblages of structural or surface forms, faunal realms and vegetation, hydrological, soil and climatic zones. Ecoprovinces are then further stratified into ecoregions, characterized by ecological reactions particular to climate, soil, flora, fauna, water, etc. As displayed in Map 2-1, there are 15 unique terrestrial ecozones within Canada, three of which are present in the Kivalliq Region:

- **Northern Arctic:** Encompasses most of the arctic islands. The landscape consists of low rolling plains covered by permanent frozen ground (permafrost) and by glacial rock debris. The vegetation is generally sparse and stunted. Daylight variations over the course of a year are considerable. The summers are very short and very cool with mean temperatures reaching only just above freezing. Winters are extremely cold with mean temperatures ranging from -25°C to -29°C. Precipitation rates are very low, ranging from 100 to 300 millimetres per year.
- **Southern Arctic:** Bounded to the south by the treeline, a broad ecological division between the taiga forest and the treeless arctic tundra. The terrain is undulating, with many lakes and ponds that have been formed by the melting glaciers of the last glaciation. Permafrost covers the whole ecozone. The summers are short, cool and moist with typical mean temperatures ranging from 3°C to 6°C. The winters are long and extremely cold (mean winter temperatures range from -24°C in the Maguse River Upland to -27°C in the Queen Maud Gulf Lowland). Total annual precipitation is less than 250 millimetres in the western part of the ecozone and there is rarely more than 400 millimetres in the southern-most ecoregion (Maguse River Upland). The low precipitation and extremely low winter temperatures stunt tree growth in this ecozone.
- **Taiga Shield:** The relief of this ecozone is composed of massive rolling hills, formed by the rock of the Canadian Shield. Summers are short and cool with mean temperatures of approximately 10°C. The winters long and cold with mean temperatures ranging from -21.5°C to -24.5°C. Snow covers the ground for six to eight months a year. Precipitation is low to moderate, typically ranging from 200 to 400 millimetres per year. Low temperatures, a short growing season, thin acidic soils, permafrost and frequent forest fires result in an open stunted forest dominated by a few, highly adaptable tree species.

Nested within each of the three Ecozones found in the Kivalliq are the ecoregions listed in Table 1. In some areas, the Ecological Land Classification (ELC) mapping extends slightly beyond the border of the Kivalliq region, encompassing additional ecoregions (Map 2-2). These ecoregions have also been included in the table and detailed descriptions for each are provided in the following sections.

**Table 1. Ecozones and Ecoregions in the Kivalliq Region**

Ecozone	Ecoregions
Northern Arctic	Melville Peninsula Plateau
	Wager Bay Plateau
	Gulf of Boothia Plain
Southern Arctic	Maguse River Upland
	Dubwnt Lake Plain/Upland
	Back River Plain
	Garry Lake Lowland
	Queen Maud Gulf Lowland
	Chantrey Inlet Lowland
	Southampton Island Plain
Taiga Shield	Kazan River Upland
	Selwyn Lake Upland











---

The ecoregions of the central Kivalliq area are characterized by a cover of shrub vegetation consisting of dwarf birch (*Betula glandulosa*), willow (*Salix spp.*), and alder on warm, dry sites. Poorly drained sites are dominated by willow, Sphagnum spp., and sedge. The regions are associated with areas of continuous permafrost and Turbic Cryosolic soils, but unfrozen organic (Mesisol) and Regosolic soils also occur. Bedrock forms broad, sloping uplands and lowlands. Hummocky bedrock outcrops covered with till are dominant, and prominent esker ridges occur in some parts of the area. Twenty-five to fifty percent of the Maguse River Upland ecoregion consists of wetlands that are characteristically lowland low- and high-centered polygon fens (Environment Canada 2001). Sandy flats, sparsely covered with vegetation, characterize the Dubawnt Lake Plain/Upland ecoregion, and the southwestern portion is characterized by rolling terrain, forming broad sloping uplands and lowlands where small and medium-sized lakes are common. Soils in most of the southern portions of the region are Turbic and Static Cryosols on level to undulating discontinuous veneers of sandy morainal and fluvioglacial deposits. The small portion of the central Kivalliq that falls within the Northern Arctic ecozone is characterized by discontinuous cover of tundra vegetation, including: dwarf birch; willow, Labrador tea; *Dryas spp.*; and *Vaccinium spp.* Lichen-covered rock outcroppings are common (Environment Canada 2001).

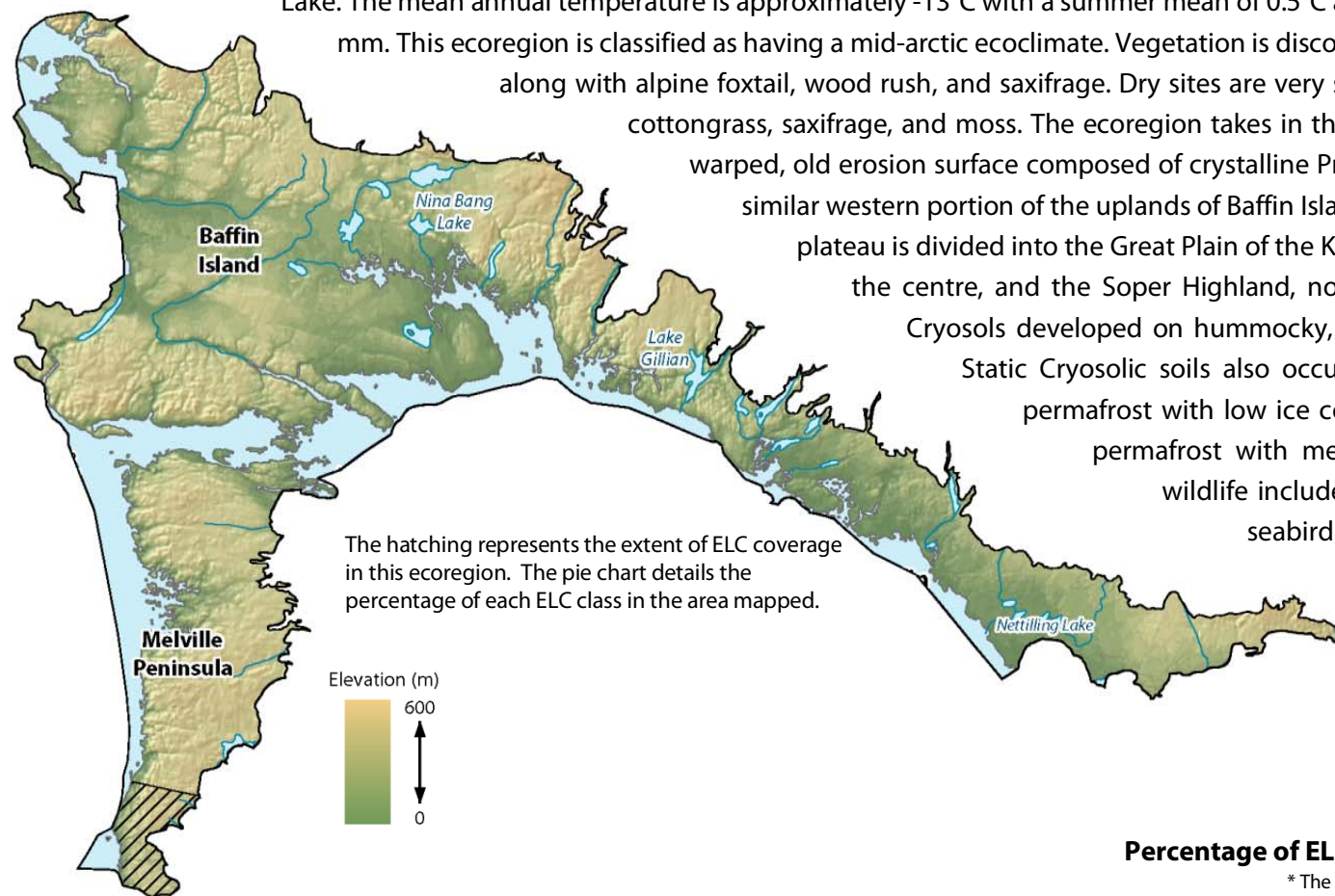
The Southern Arctic ecozone portion of the northern Kivalliq is characterized by large areas of exposed, sparsely vegetated bedrock in association with shrub tundra vegetation consisting of dwarf birch, willow, Labrador tea, *Dryas spp.* and *Vaccinium spp.* Wet sites are dominated by Sphagnum spp. and sedge tussocks. In the Queen Maud Gulf Lowland ecoregion, bedrock forms broad sloping uplands that reach up to an elevation of 300 metres in the south, with subdued undulating plains near the coast. In these coastal areas, the surface is covered by silts and clay of postglacial marine overlap with level to undulating terrain. Marine deposits are the dominant soils in the region and exposed bedrock is common (Environment Canada 2001). The Northern Arctic ecozone portion of the northern study area is characterized by discontinuous cover of tundra vegetation including dwarf birch, willow, Labrador tea, *Dryas spp.*, and *Vaccinium spp.* Lichen-covered rock outcroppings are common. Upland habitat of the Victoria Island Lowlands ecoregion is characterized by discontinuous vegetation, including: purple saxifrage; *Dryas spp.* and willow along with alpine foxtail; wood rush; and other saxifrage.

The ecozone and the following ecoregion descriptions have been taken directly from NRCan's website. Some descriptions have been updated to reflect current wildlife distributions and resource development initiatives. Additional information related to each ecosystem can be found at:

<http://atlas.nrcan.gc.ca/auth/english/maps/environment/forest/forestcanada/terrestrialecozones/1>.

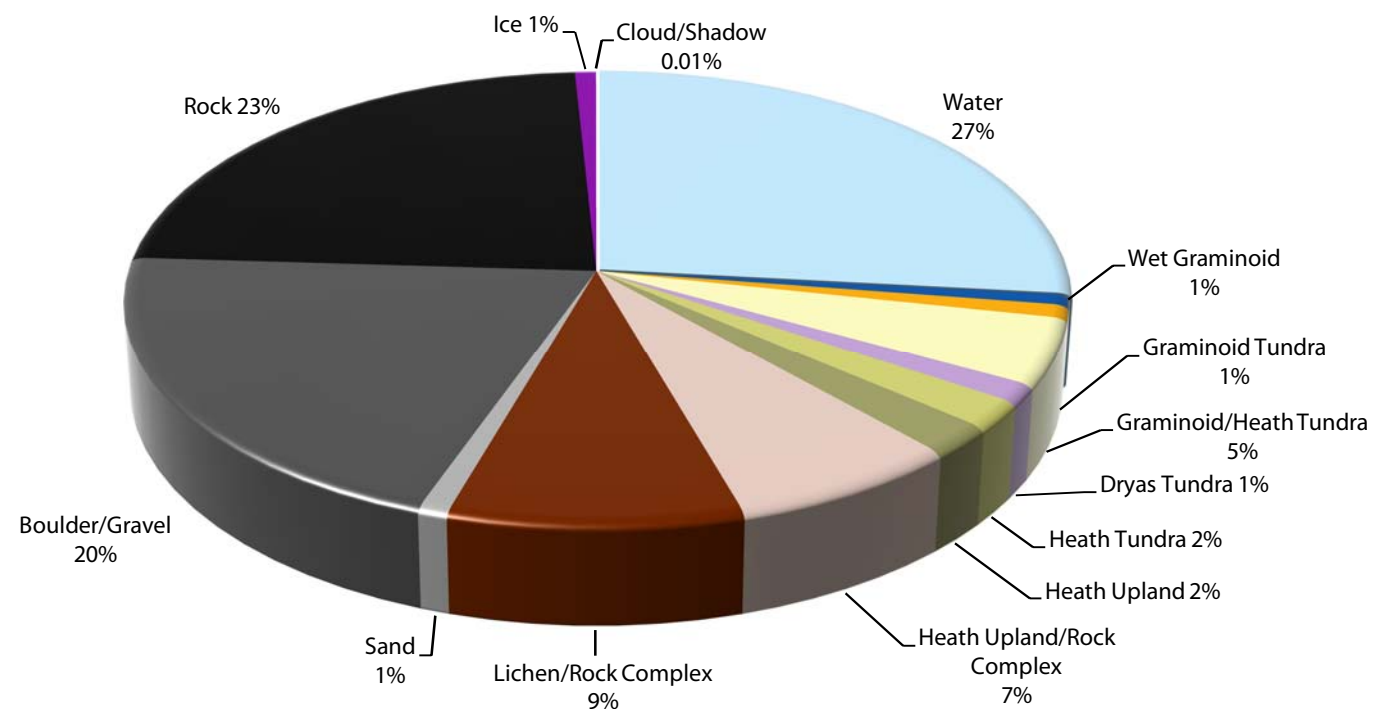
## MELVILLE PENINSULA PLATEAU

The Melville Peninsula Plateau is a large ecoregion that includes the western half of Melville Peninsula and much of northwestern coastal Baffin Island as far south as Nettilling Lake. The mean annual temperature is approximately -13°C with a summer mean of 0.5°C and a winter mean of -25°C. The mean annual precipitation ranges 100-200 mm. This ecoregion is classified as having a mid-arctic ecoclimate. Vegetation is discontinuous, and dominated by purple saxifrage, *Dryas spp.*, and arctic willow, along with alpine foxtail, wood rush, and saxifrage. Dry sites are very sparsely vegetated, whereas wet areas have a continuous cover of sedge, cottongrass, saxifrage, and moss. The ecoregion takes in the mainland part of Melville Plateau physiographic region, a broad, gently warped, old erosion surface composed of crystalline Precambrian rocks that rise to about 460-610 m asl. It also takes in the very similar western portion of the uplands of Baffin Island where drainage begins to flow southwestward towards Foxe Basin. The plateau is divided into the Great Plain of the Koukdjuak with its broad belt of emerged, north-south-trending beaches in the centre, and the Soper Highland, north of Koukdjuak River. Bedrock outcroppings are common, and Turbic Cryosols developed on hummocky, thin, discontinuous sandy moraine are the dominant soils. Organic and Static Cryosolic soils also occur in this ecoregion. Most of the ecoregion is underlain by continuous permafrost with low ice content, although, in the area between Foxe Basin and Borden Peninsula, permafrost with medium ice content bisects the ecoregion north to south. Characteristic wildlife includes caribou, arctic hare, arctic fox, snowy owl, polar bear, seal, whale, and seabirds. Land uses include trapping, hunting, fishing, and mineral exploration and extraction.



**Percentage of ELC Classes in the Melville Peninsula Plateau\***

\* The ELC mapping covers 2% of this ecoregion.

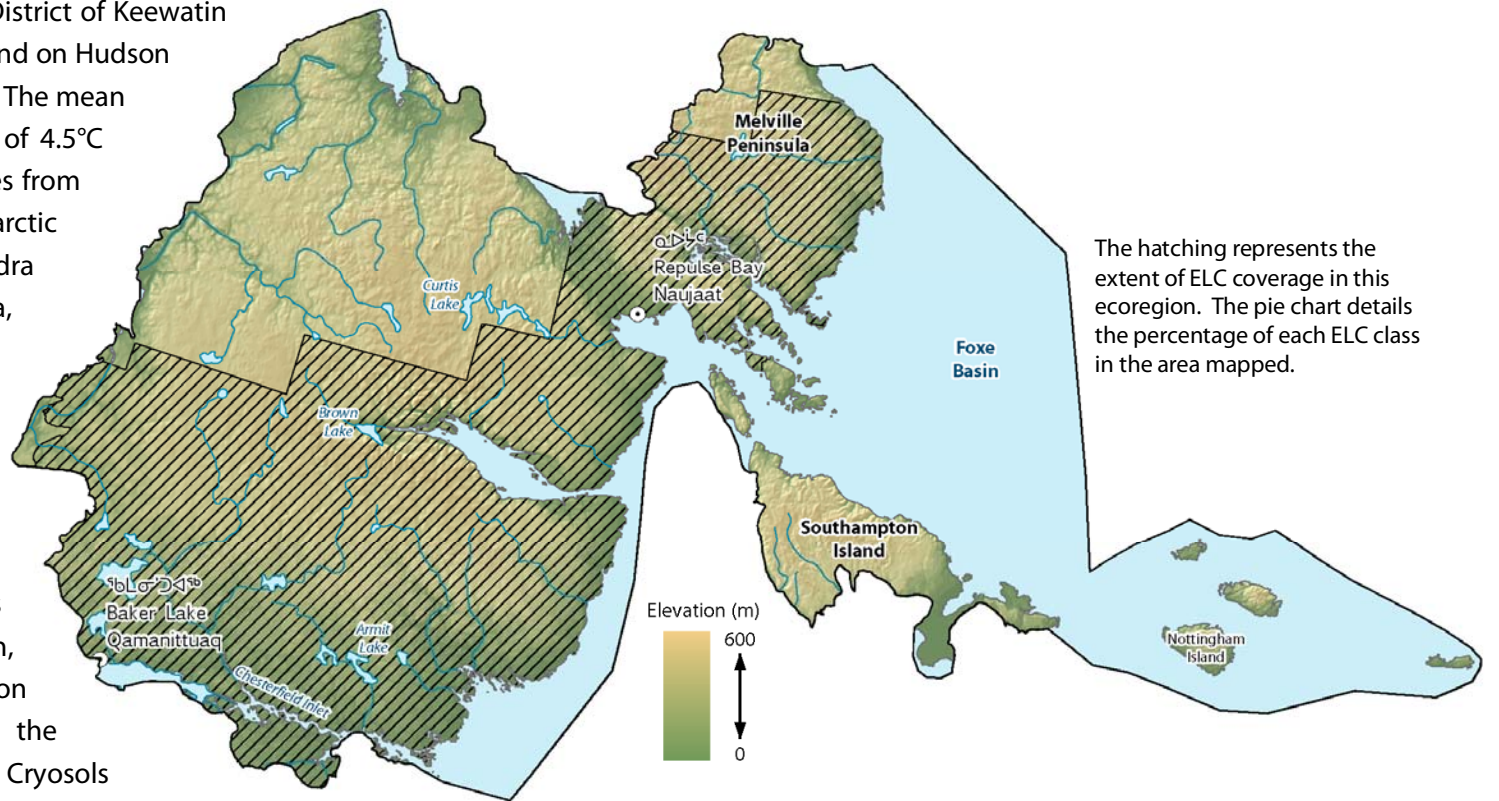




### WAGER BAY PLATEAU

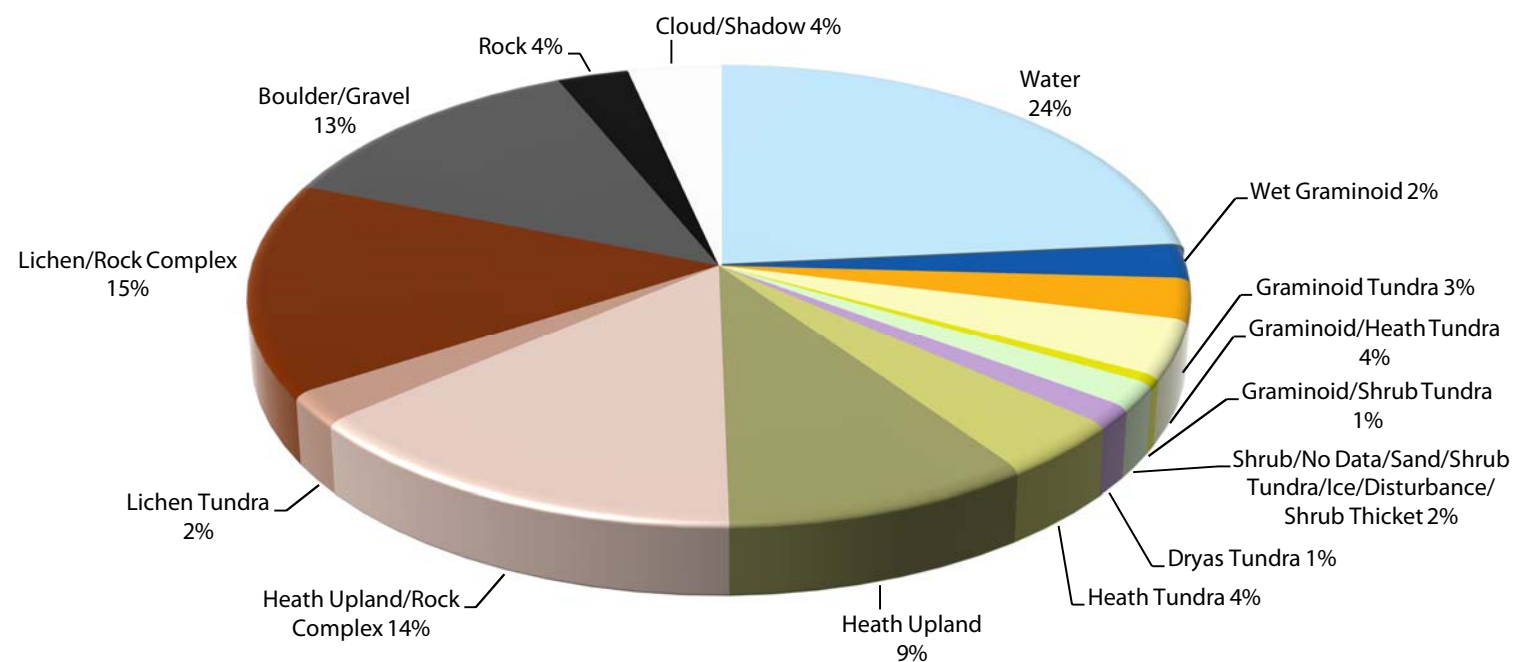


Wager Bay Plateau is a large ecoregion covering the northeastern District of Keewatin extending westward from the northern portion of Southampton Island on Hudson Strait to Chesterfield Inlet in the south, and as far west as Back River. The mean annual temperature is approximately -11°C with a summer mean of 4.5°C and a winter mean of -26.5°C. The mean annual precipitation ranges from 200-300 mm. This ecoregion is classified as having a low arctic ecoclimate. It is characterized by a discontinuous cover of tundra vegetation, consisting of dwarf birch, willow, northern Labrador tea, *Dryas spp.*, and *Vaccinium spp.* Taller dwarf birch, willow, and alder occur on warm sites; wet sites are dominated by willow and sedge. Lichen-covered rock outcroppings are prominent throughout the ecoregion, and towards the south the vegetation becomes a mix of tundra vegetation and open, dwarf coniferous forest. This ecoregion is composed of massive Archean rocks of the Canadian Shield that form broad, sloping uplands, plains, and valleys. It rises gradually westward from Chesterfield Inlet to 600 m asl elevation, where it is deeply dissected. Turbic and Static Cryosols developed on discontinuous, thin, sandy moraine and alluvial deposits are the dominant soils in the ecoregion, while large areas of Regosolic Static Cryosols are associated with marine deposits along the coast. Permafrost is continuous with low ice content. Characteristic wildlife includes caribou, muskox, wolverine, Arctic hare, fox, walrus, seal, whale, polar bear, raptors, shorebirds, and waterfowl. Land uses include trapping, hunting, fishing, and mineral exploration and extraction. Repulse Bay and Baker Lake are the main settlements. The population of the ecoregion is approximately 1,700.



**Percentage of ELC Classes in the Wager Bay Plateau\***

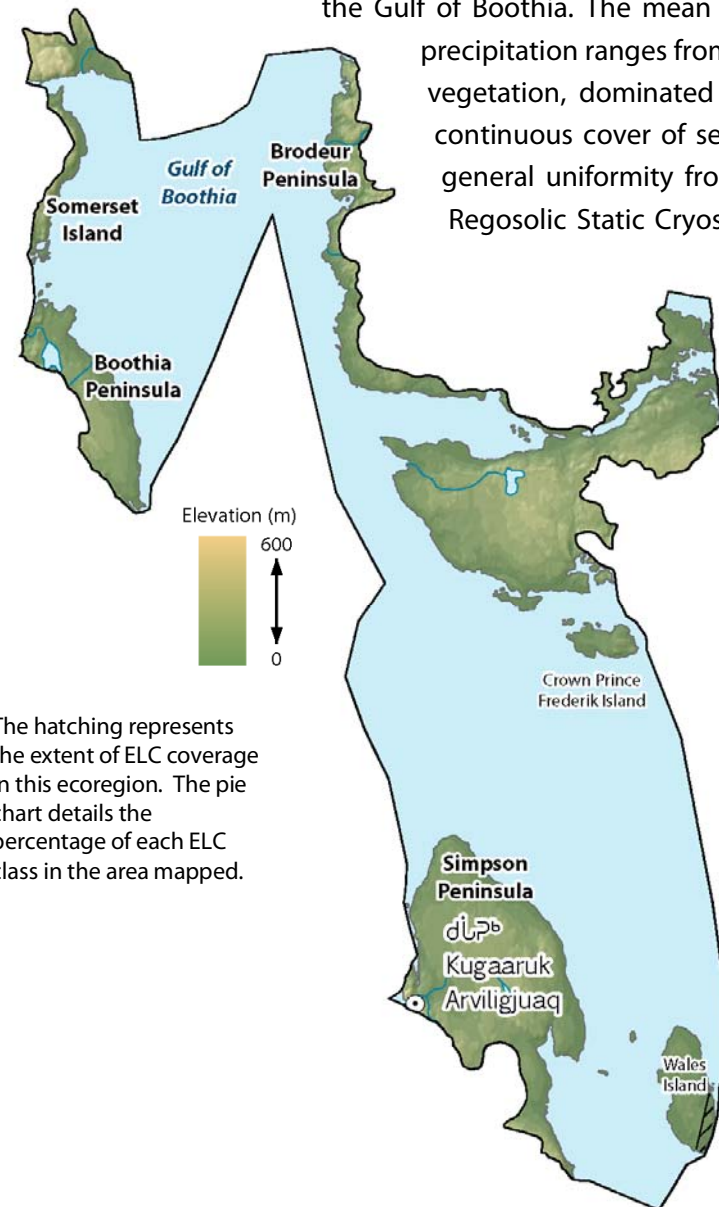
\* The ELC mapping covers 47% of this ecoregion.





## GULF OF BOOTHIA PLAIN

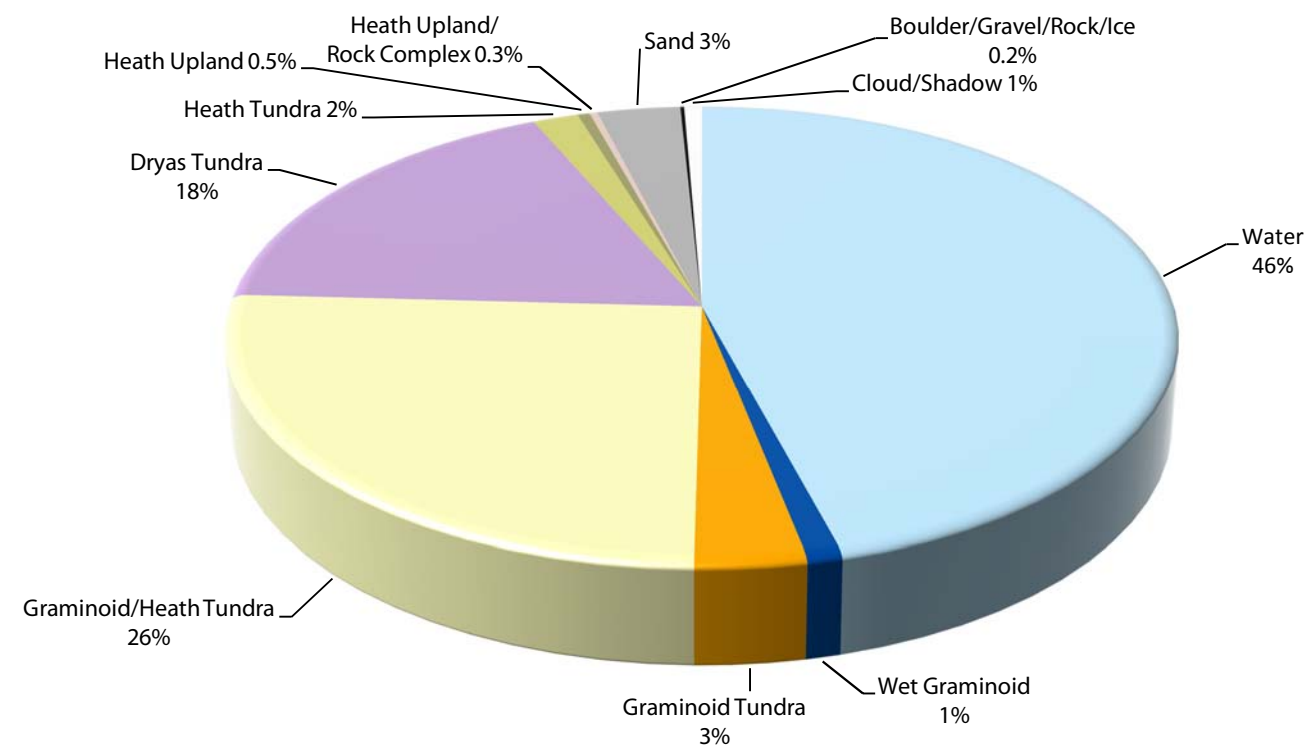
The Gulf of Boothia Plain is a mid-arctic ecoregion that covers the lowland coastal fringes of Somerset Island, Wales Island and the Boothia, Simpson, and Brodeur peninsulas surrounding the Gulf of Boothia. The mean annual temperature is approximately -15°C with a summer mean of 0.5°C and a winter mean of -29°C. The mean annual precipitation ranges from 100-200 mm. This ecoregion is classified as having a mid-arctic ecoclimate. It is characterized by discontinuous upland tundra vegetation, dominated by purple saxifrage, *Dryas spp.*, and arctic willow, along with alpine foxtail, wood rush, and saxifrage. Wet areas have a continuous cover of sedge, cottongrass, saxifrage, and moss. The region slopes gently southward, ranging from sea level to about 300 m asl. Its general uniformity from southern Somerset Island to Wales Island is continuous across the wide Gulf of Boothia. Regosolic Turbic Cryosols with Regosolic Static Cryosols are dominant soils that have developed on morainal and marine sediments. Permafrost is continuous with medium ice content and abundant ice wedges. Characteristic wildlife includes caribou, polar bear, muskox, arctic fox, ptarmigan, seabirds, seal, whale, and walrus. Land uses include trapping, hunting, and fishing. The main settlement is Kugaaruk, with a population of over 700 people.



The hatching represents the extent of ELC coverage in this ecoregion. The pie chart details the percentage of each ELC class in the area mapped.

**Percentage of ELC Classes in the Gulf of Boothia Plain\***

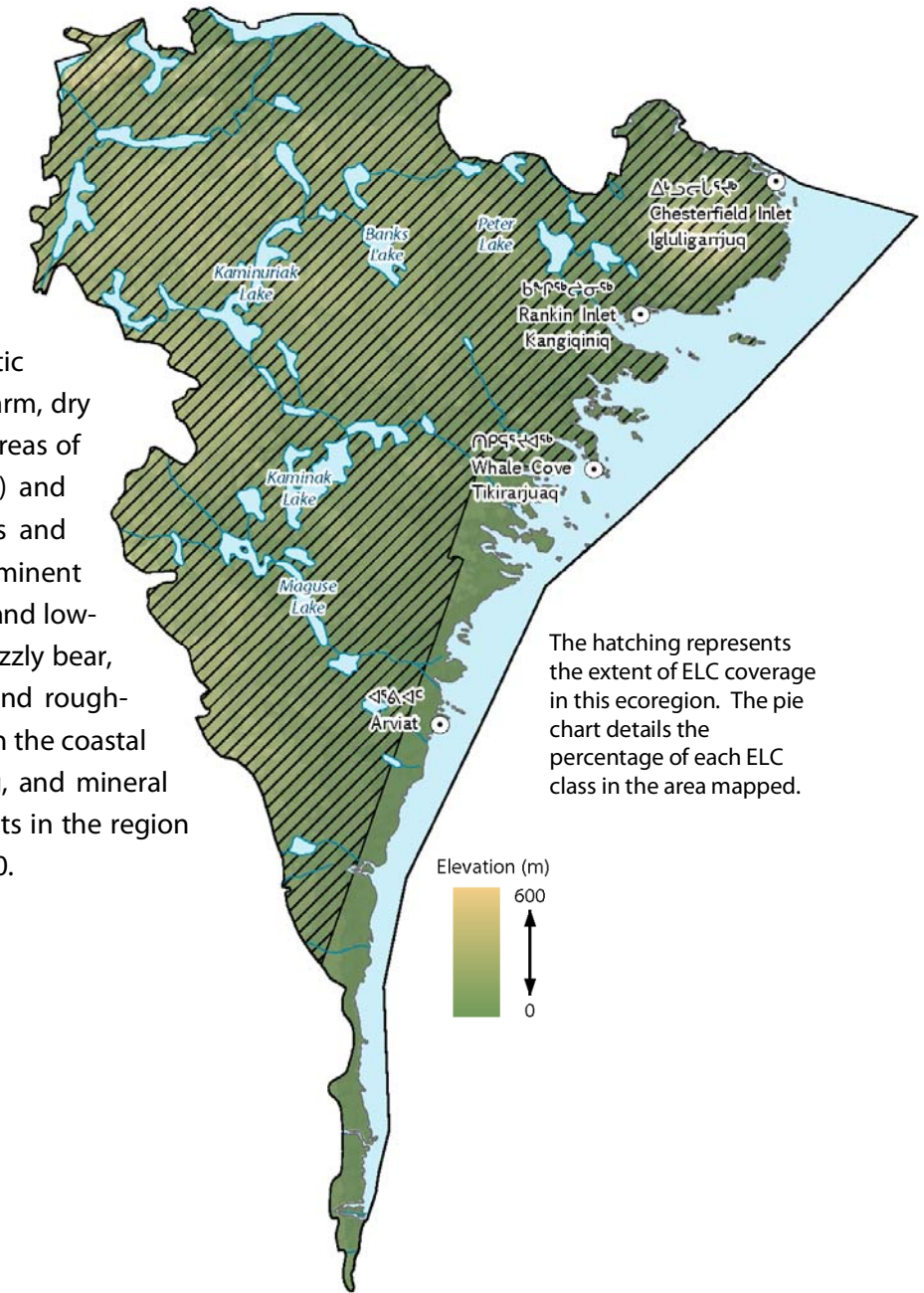
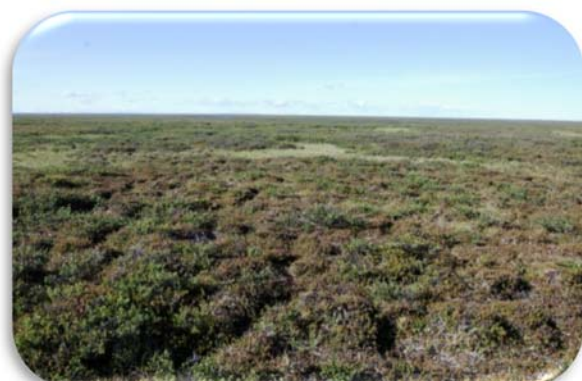
\* The ELC mapping covers <1% of this ecoregion.



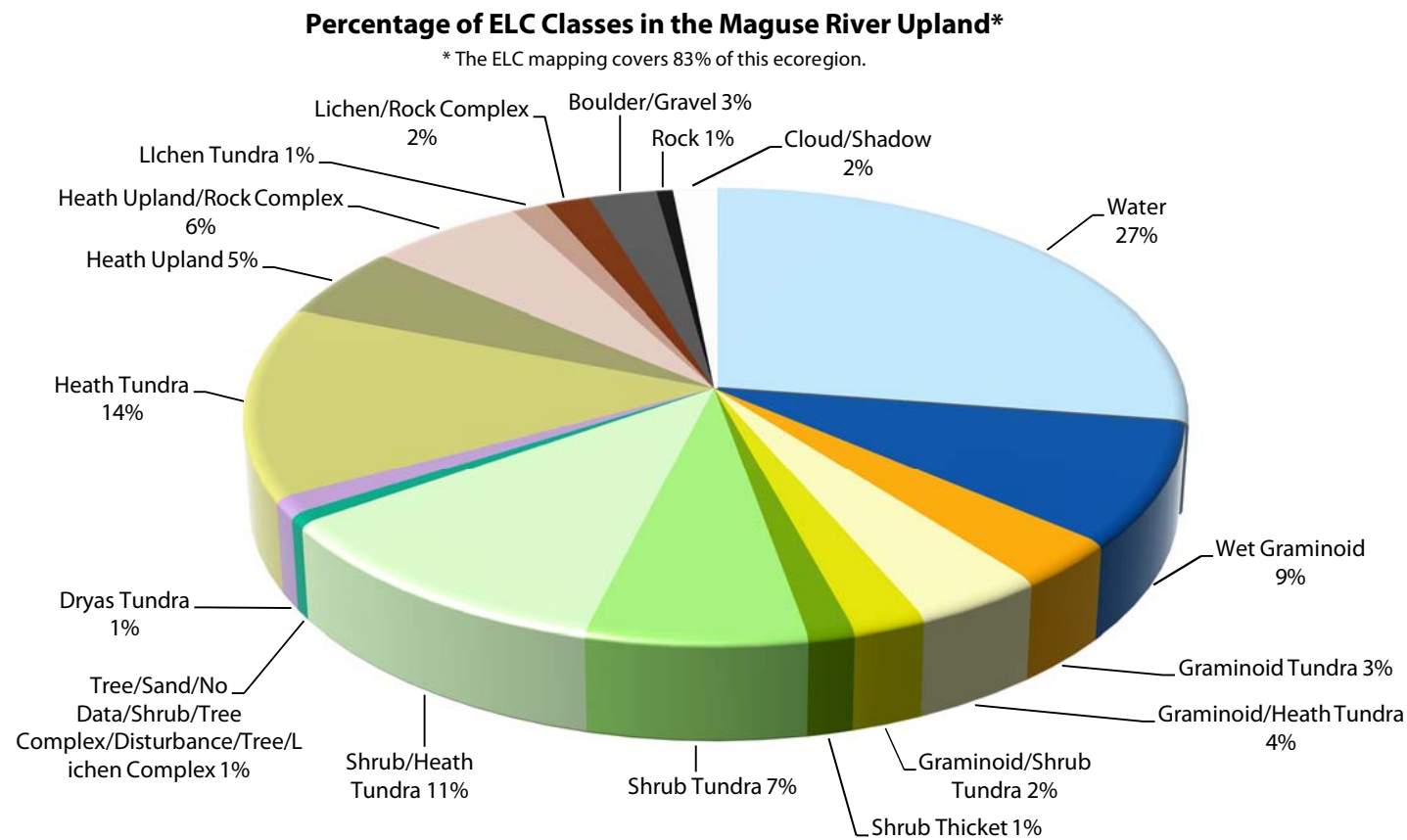


### MAGUSE RIVER UPLAND

The Maguse River Upland is a large ecoregion that covers the uplands south of Chesterfield Inlet and extends as far south as Churchill and includes much of the northwest coast of Hudson Bay. The mean annual temperature ranges from approximately -8°C in the south to -11°C in the north. A mean summer temperature of 6°C and mean winter temperature of -24°C occur for the entire ecoregion. The mean annual precipitation ranges 250-400 mm with more than 400 mm occurring south of Arviat. Temperature and precipitation increase to the south of the ecoregion. Coastal climate is moderated by the open waters of Hudson Bay during the late summer and early fall prior to freeze-up when damp foggy weather is common. The ecoregion is classified as having a low arctic ecoclimate. It is characterized by a cover of shrub tundra vegetation. Dwarf birch, willow, and alder occur on warm, dry sites; poorly drained sites are dominated by willow, Sphagnum spp., and sedge. The region is associated with areas of continuous permafrost with medium ice content and with Turbic Cryosolic soils. Unfrozen Organic (Mesisol) and Regosolic soils also occur in this ecoregion. Crystalline Archean massive rocks form broad, sloping uplands and lowlands. Hummocky bedrock outcrops covered with discontinuous acidic, sandy, granitic tills are dominant. Prominent fluvioglacial ridges (eskers) also occur. Wetlands make up 25-50% of the land area and are characteristically lowland low- and high-centred polygon fens. Wildlife includes barren-ground caribou, muskox, moose, wolves, polar bear, grizzly bear, arctic fox, weasel, arctic ground squirrel, and lemming. Bird species include willow ptarmigan, snowy owl, and rough-legged hawk. Waterfowl, particularly sea ducks, snow geese, swans, Canada geese and shorebirds are common in the coastal areas. White whale and seals inhabit coastal waters. Land uses include subsistence fishing, trapping, hunting, and mineral exploration and extraction. Most of the human population and land use is along the coast. The main settlements in the region are Chesterfield Inlet, Rankin Inlet, Whale Cove and Arviat. The population of the ecoregion is approximately 3,600.



The hatching represents the extent of ELC coverage in this ecoregion. The pie chart details the percentage of each ELC class in the area mapped.

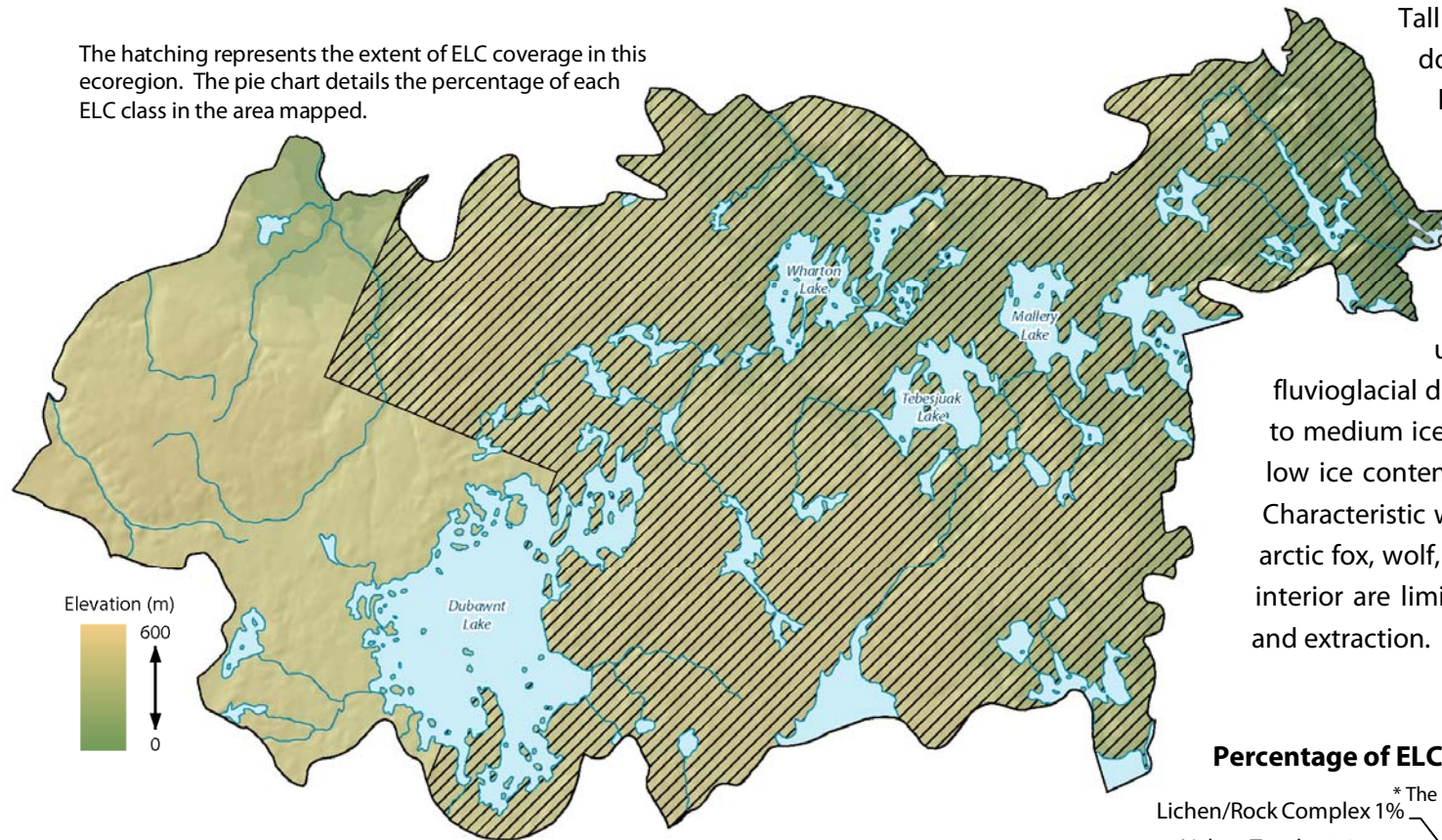




### DUBAWNT LAKE PLAIN/UPLAND

The Dubawnt Lake Plain/Upland ecoregion lies south and west of Chesterfield Inlet and incorporates the terrain around Mallery, Wharton and Dubawnt lakes. The mean annual temperature is approximately -10.5°C with a summer mean of 6°C and a winter mean of -26.5°C. The mean annual precipitation ranges 225-300 mm. This ecoregion is classified as having a low arctic ecoclimate. It is characterized by a nearly continuous cover of shrub tundra vegetation, consisting of dwarf birch, willow, northern Labrador tea, *Dryas spp.*, and *Vaccinium spp.*

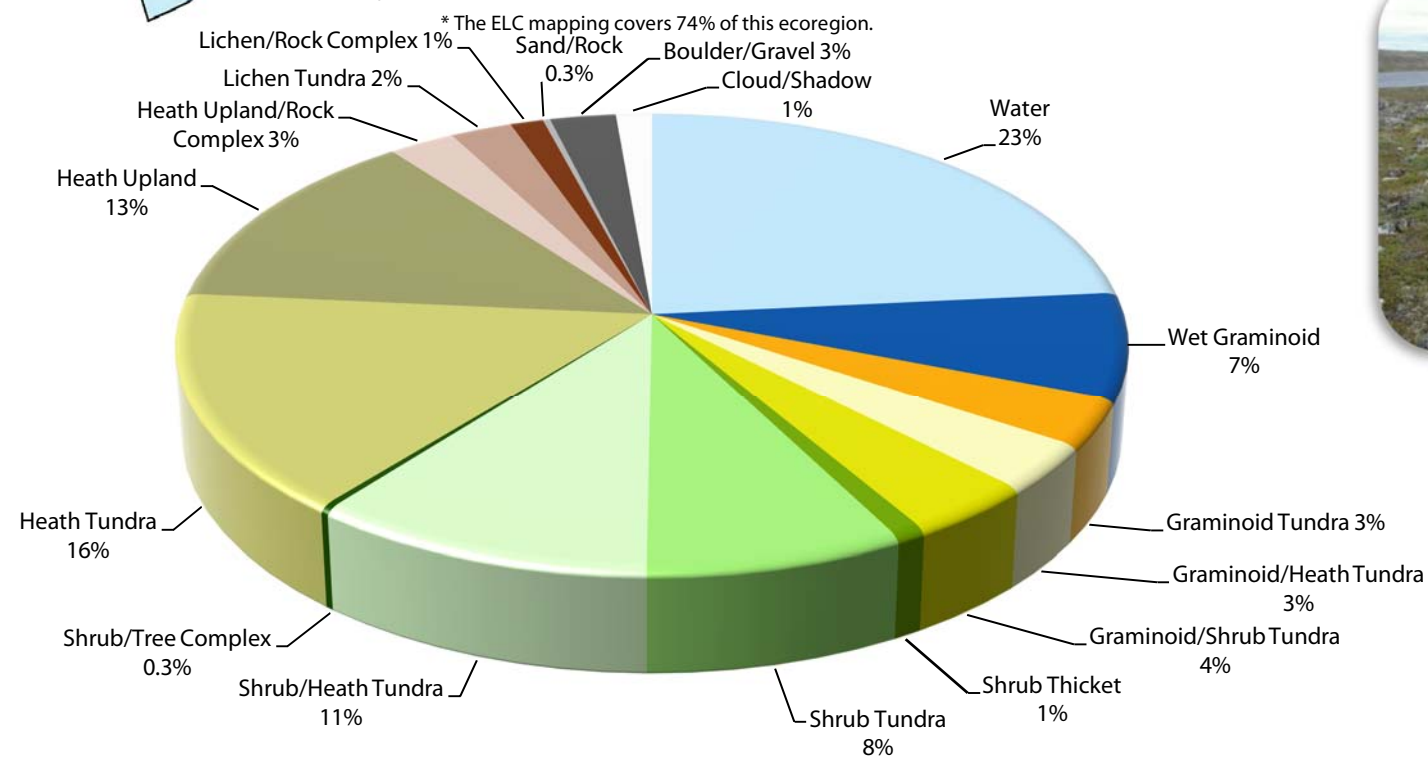
The hatching represents the extent of ELC coverage in this ecoregion. The pie chart details the percentage of each ELC class in the area mapped.



Tall dwarf birch, willow, and alder occur on warm sites; wet sites are dominated by willow, sedge, and moss. Composed of nearly flat-lying sandstones and volcanic rocks, most of the surface of the ecoregion is characterized by sandy flats sparsely covered with vegetation. Its southwestern section consists of rolling terrain composed of massive Archean rocks forming broad, sloping uplands and lowlands, where small and medium sized lakes are common. Turbic and Static Cryosols developed on level to undulating discontinuous veneers of sandy morainal and fluvioglacial deposits are the dominant soils. Permafrost is continuous with low to medium ice content in the eastern half of the region, and continuous with a low ice content in the western half. The ecoregion has high mineral potential. Characteristic wildlife includes caribou, grizzly bear, muskox, moose, arctic hare, arctic fox, wolf, wolverine, weasel, otter, raptors, and waterfowl. Land uses in the interior are limited to some trapping, hunting, fishing, and mineral exploration and extraction.



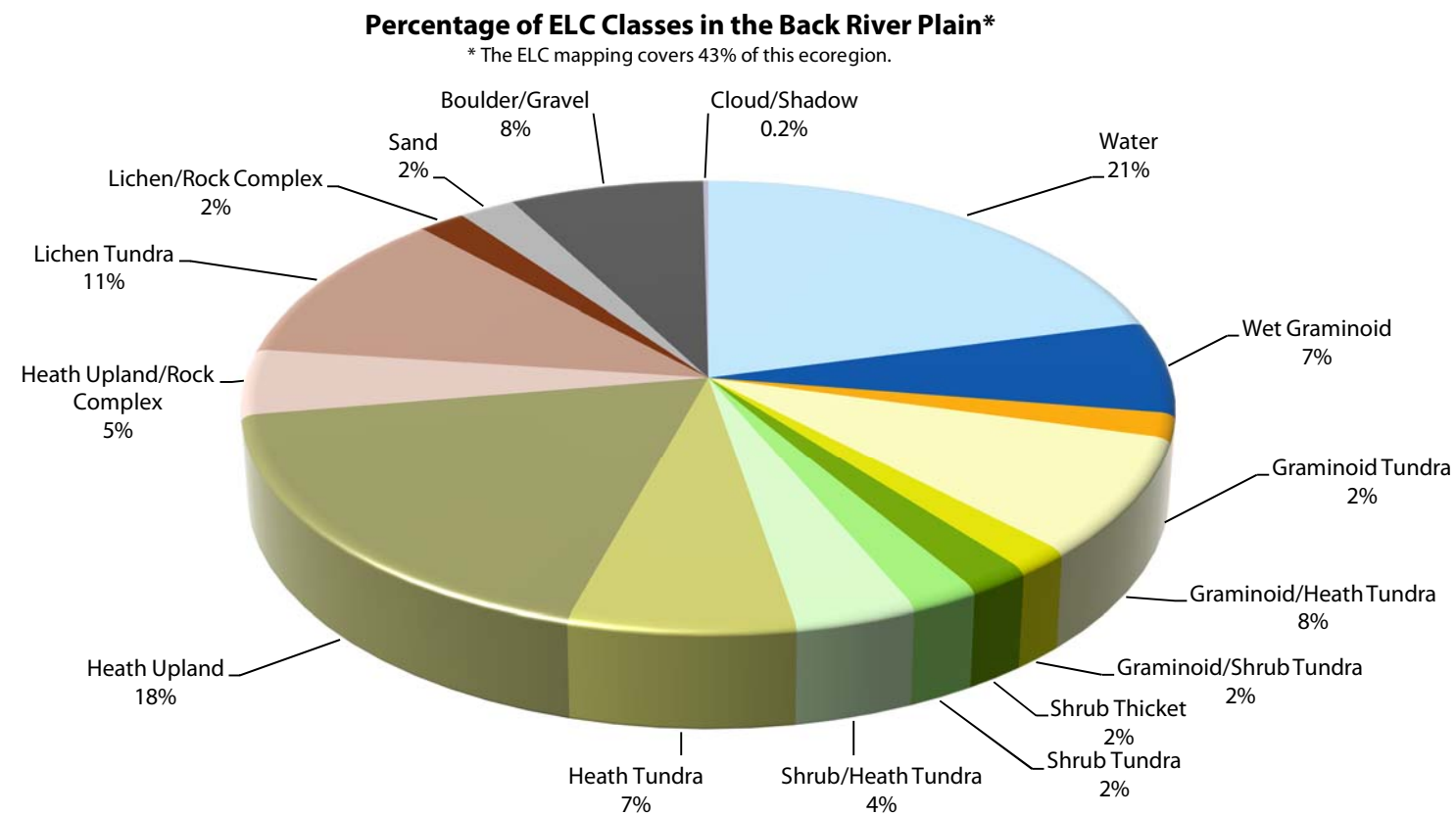
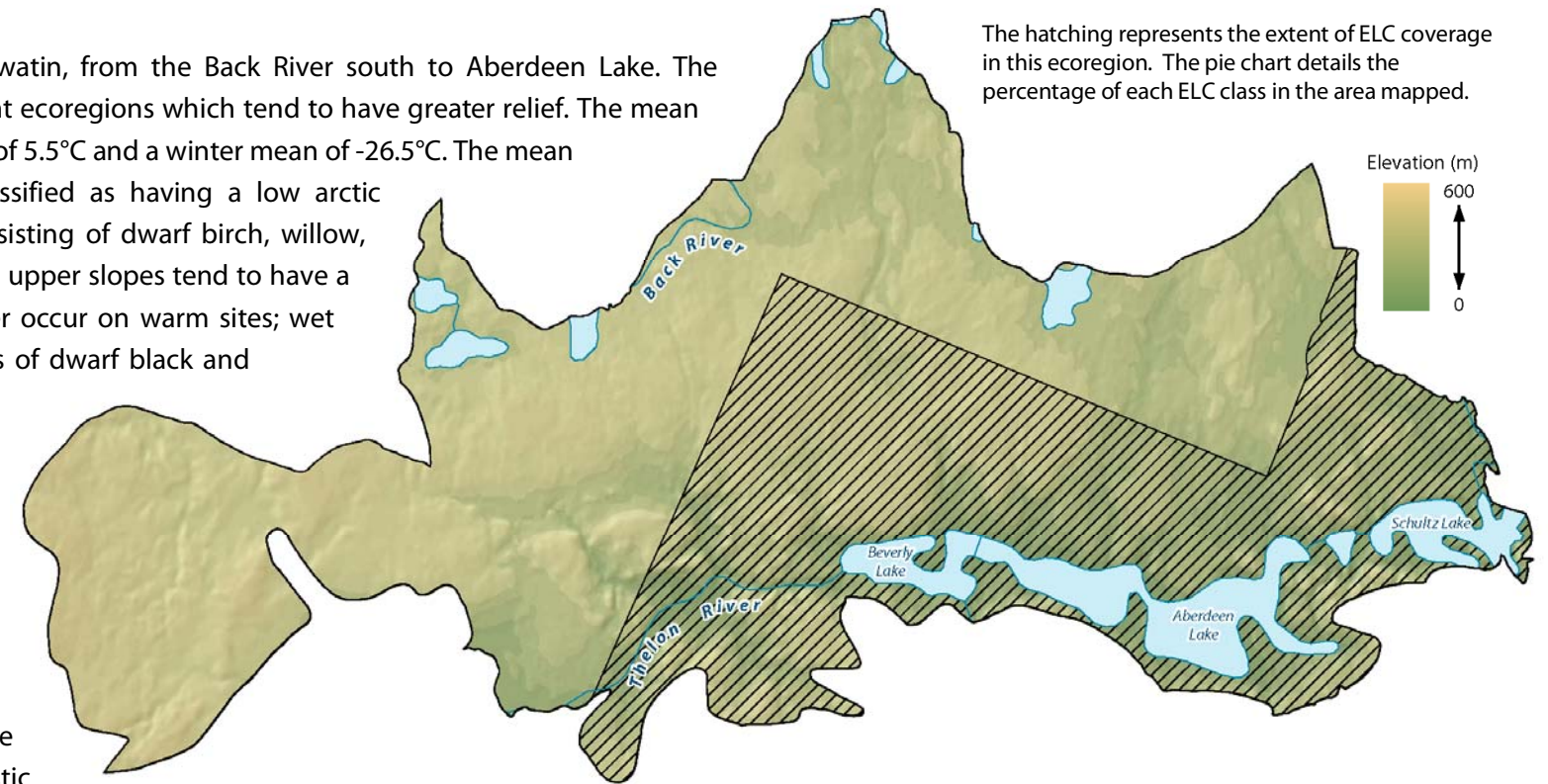
Percentage of ELC Classes in the Dubawnt Lake Plain/Upland\*





### BACK RIVER PLAIN

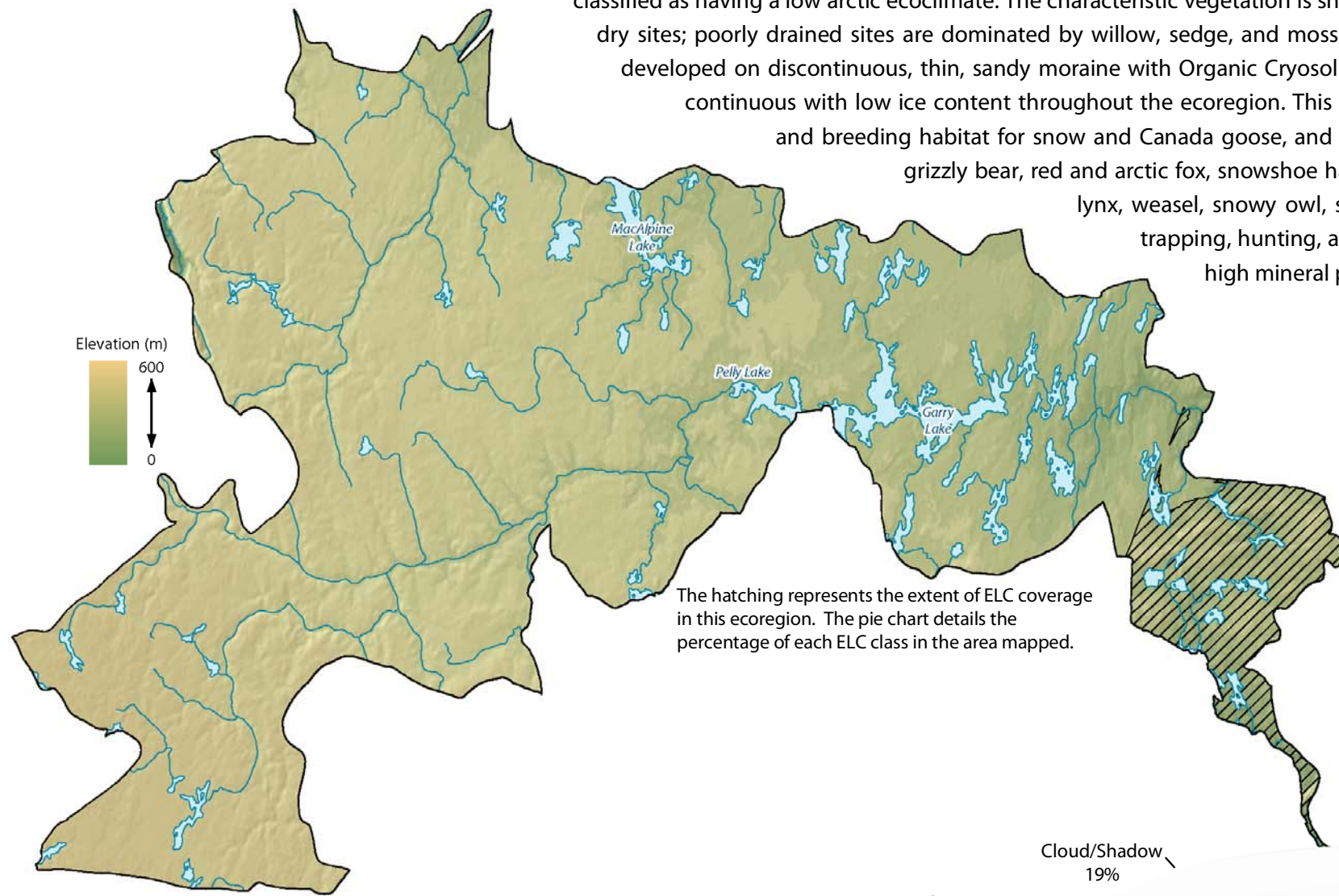
The Back River Plain ecoregion occurs in central District of Keewatin, from the Back River south to Aberdeen Lake. The ecoregion is characterized by relatively level terrain, unlike adjacent ecoregions which tend to have greater relief. The mean annual temperature is approximately -10.5°C with a summer mean of 5.5°C and a winter mean of -26.5°C. The mean annual precipitation ranges 200-300 mm. This ecoregion is classified as having a low arctic ecoclimate. The vegetation is characterized as shrub tundra, consisting of dwarf birch, willow, northern Labrador tea, *Dryas spp.*, and *Vaccinium spp.* Well-drained upper slopes tend to have a discontinuous vegetative cover. Tall dwarf birch, willow, and alder occur on warm sites; wet sites are dominated by willow, moss, and sedge tussocks. Clumps of dwarf black and white spruce and tamarack occur at lower elevations along the Thelon River in the southwest portion. The ecoregion includes areas of nearly flat-lying sandstones and volcanic rocks that are characteristically expressed on the surface by sandy flats sparsely covered with vegetation. Turbic Cryosols developed on level to undulating, discontinuous veneers of sandy morainal and fluvio-glacial material are the dominant soils in the ecoregion; Organic Cryosols are associated with polygonal wetlands. Permafrost is continuous with low ice content throughout the ecoregion. The ecoregion has high mineral potential. Characteristic wildlife includes caribou, muskox, moose, grizzly bear, wolves, arctic hare, arctic fox, raptors, rock ptarmigan, gulls, and waterfowl. Land uses include trapping, hunting, fishing, and mineral exploration and extraction.





## GARRY LAKE LOWLAND

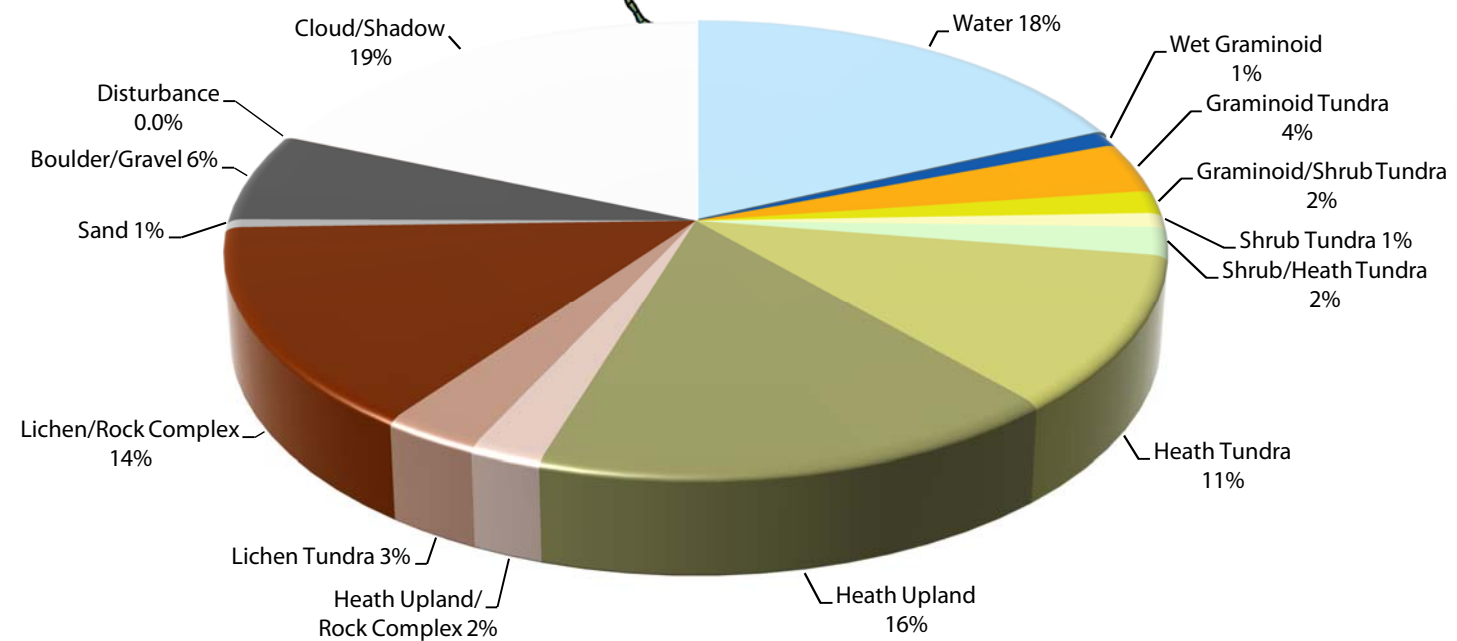
The Garry Lake Lowland ecoregion extends across a vast area of massive granitic Archean rocks, forming a broad, level to gently sloping plain that reaches about 300 m asl in elevation. The mean annual temperature is approximately -10.5°C with a summer mean of 5.5°C and a winter mean of -26.5°C. The mean annual precipitation ranges 200-275 mm. This ecoregion is classified as having a low arctic ecoclimate. The characteristic vegetation is shrub tundra. Dwarf birch, willow, and alder occur on warm, dry sites; poorly drained sites are dominated by willow, sedge, and moss. The lowland is composed of Turbic and Static Cryosols developed on discontinuous, thin, sandy moraine with Organic Cryosolic soils on level high-centre peat polygons. Permafrost is continuous with low ice content throughout the ecoregion. This ecoregion provides important summer range for caribou and breeding habitat for snow and Canada goose, and other waterfowl. Other wildlife includes muskox, moose, grizzly bear, red and arctic fox, snowshoe hare, arctic ground squirrel, masked shrew, lemming, wolf, lynx, weasel, snowy owl, shorebirds, and other raptors. Land uses include fishing, trapping, hunting, and mineral exploration and extraction. The ecoregion has high mineral potential.



The hatching represents the extent of ELC coverage in this ecoregion. The pie chart details the percentage of each ELC class in the area mapped.

**Percentage of ELC Classes in the Garry Lake Lowland\***

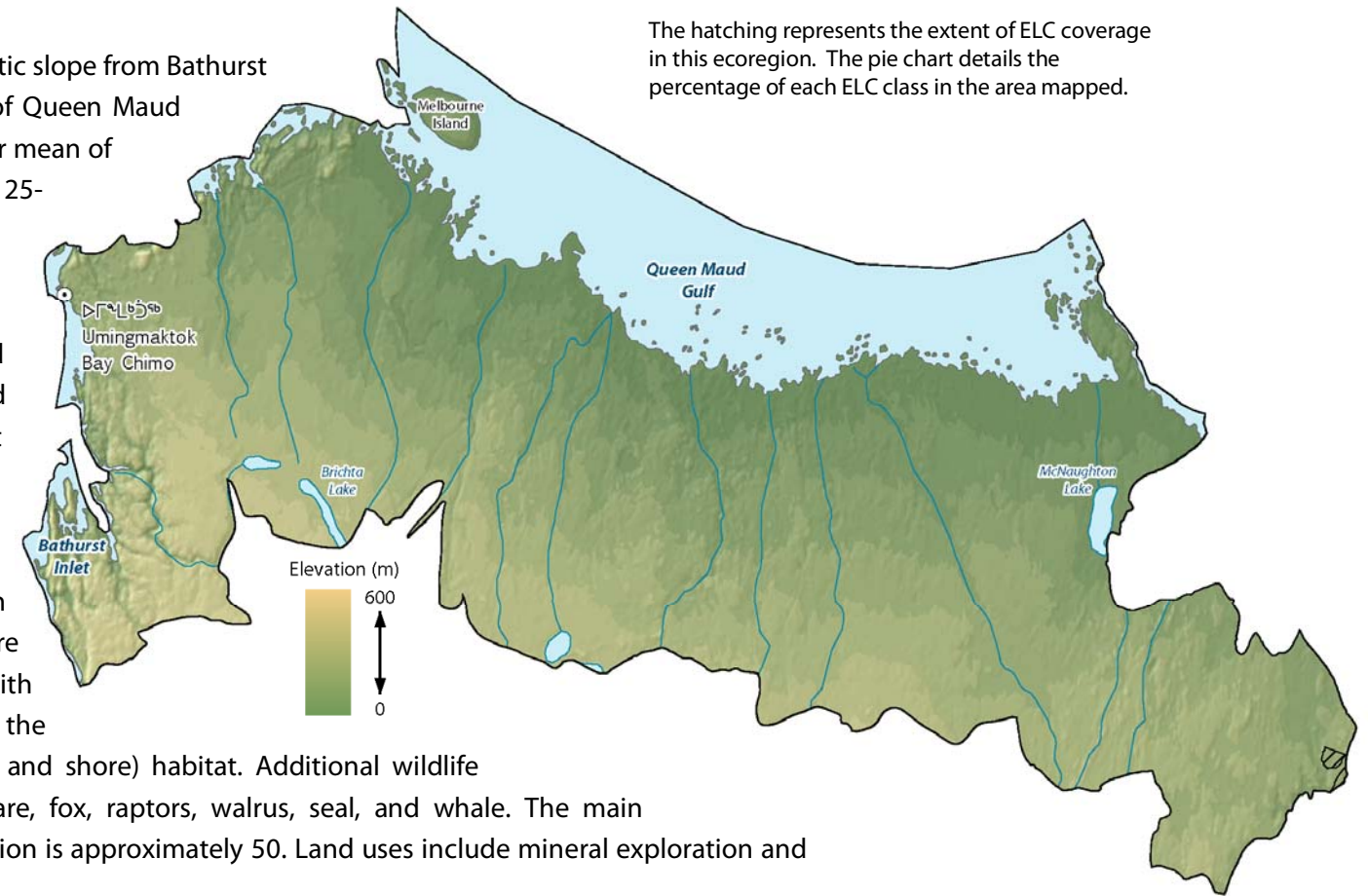
\* The ELC mapping covers 8% of this ecoregion.



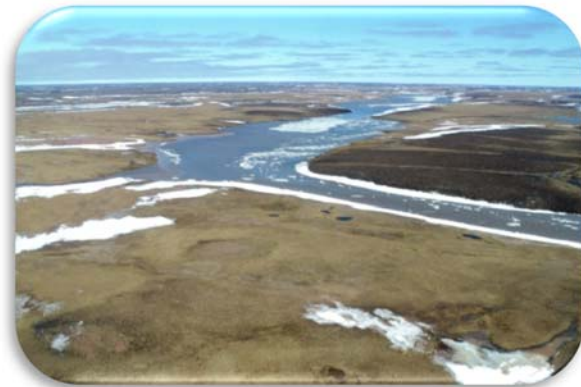


### QUEEN MAUD GULF LOWLAND

The Queen Maud Gulf Lowland ecoregion extends eastward along the arctic slope from Bathurst Inlet to near Chantrey Inlet and is associated with the lowlands south of Queen Maud Gulf. The mean annual temperature is approximately -11°C with a summer mean of 5.5°C and a winter mean of -27°C. The mean annual precipitation ranges 125-200 mm in the southern edge of the ecoregion. This ecoregion is classified as having a low arctic ecoclimate. It is characterized by a cover of shrub tundra vegetation, consisting of dwarf birch, willow, northern Labrador tea, *Dryas spp.*, and *Vaccinium spp.* Tall dwarf birch, willow, and alder occur on warm sites; wet sites are dominated by *Sphagnum spp.* and sedge tussocks. The region is composed of massive Archean rocks that form broad, sloping uplands that reach about 300 m asl in elevation in the south, and subdued undulating plains near the coast. The coastal areas are mantled by silts and clay of postglacial marine overlap. Bare bedrock is common, and Turbic and Static Cryosols developed on discontinuous, thin, sandy moraine, level alluvial, and marine deposits are the dominant soils in the ecoregion. Permafrost is continuous and deep with low ice content. The Queen Maud Gulf Bird Sanctuary covers most of the ecoregion. The sanctuary is an important migratory bird (duck, goose and shore) habitat. Additional wildlife includes caribou, muskox, polar bear, grizzly bear, wolf, wolverine, hare, fox, raptors, walrus, seal, and whale. The main settlement in the area is Umingmaktok and the population of the ecoregion is approximately 50. Land uses include mineral exploration and extraction.

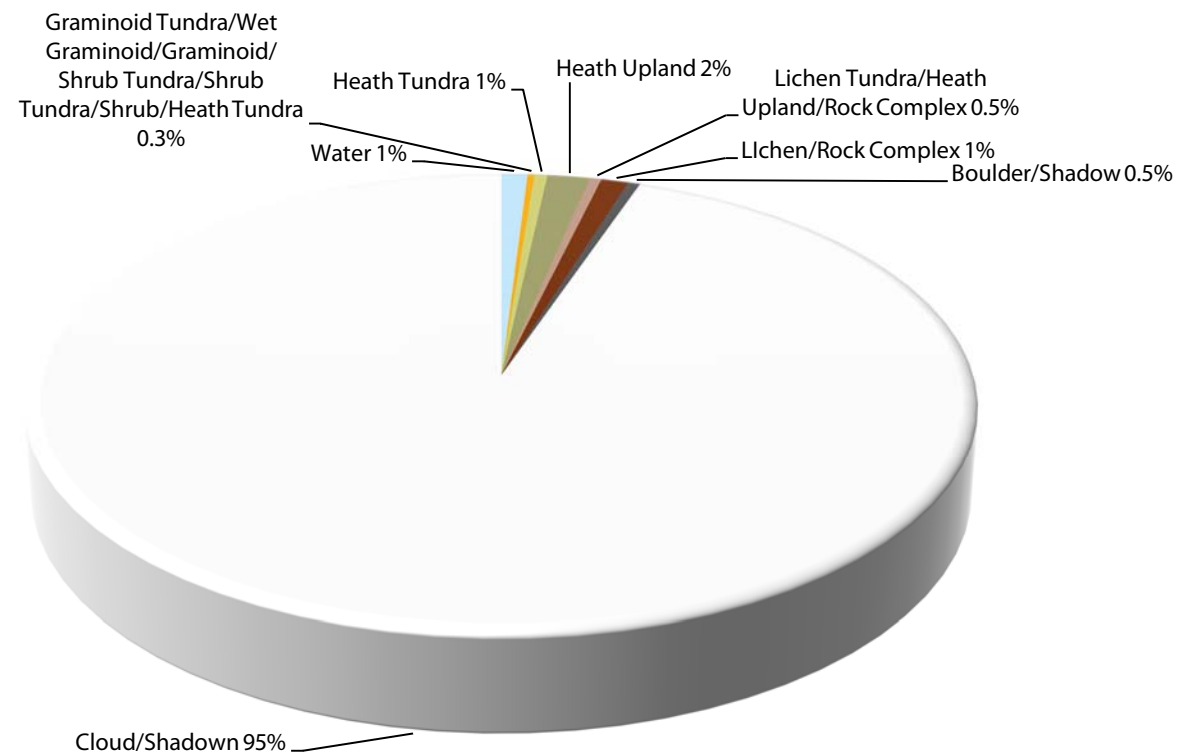


The hatching represents the extent of ELC coverage in this ecoregion. The pie chart details the percentage of each ELC class in the area mapped.



**Percentage of ELC Classes in the Queen Maud Gulf Lowland\***

\* The ELC mapping covers 2% of this ecoregion.

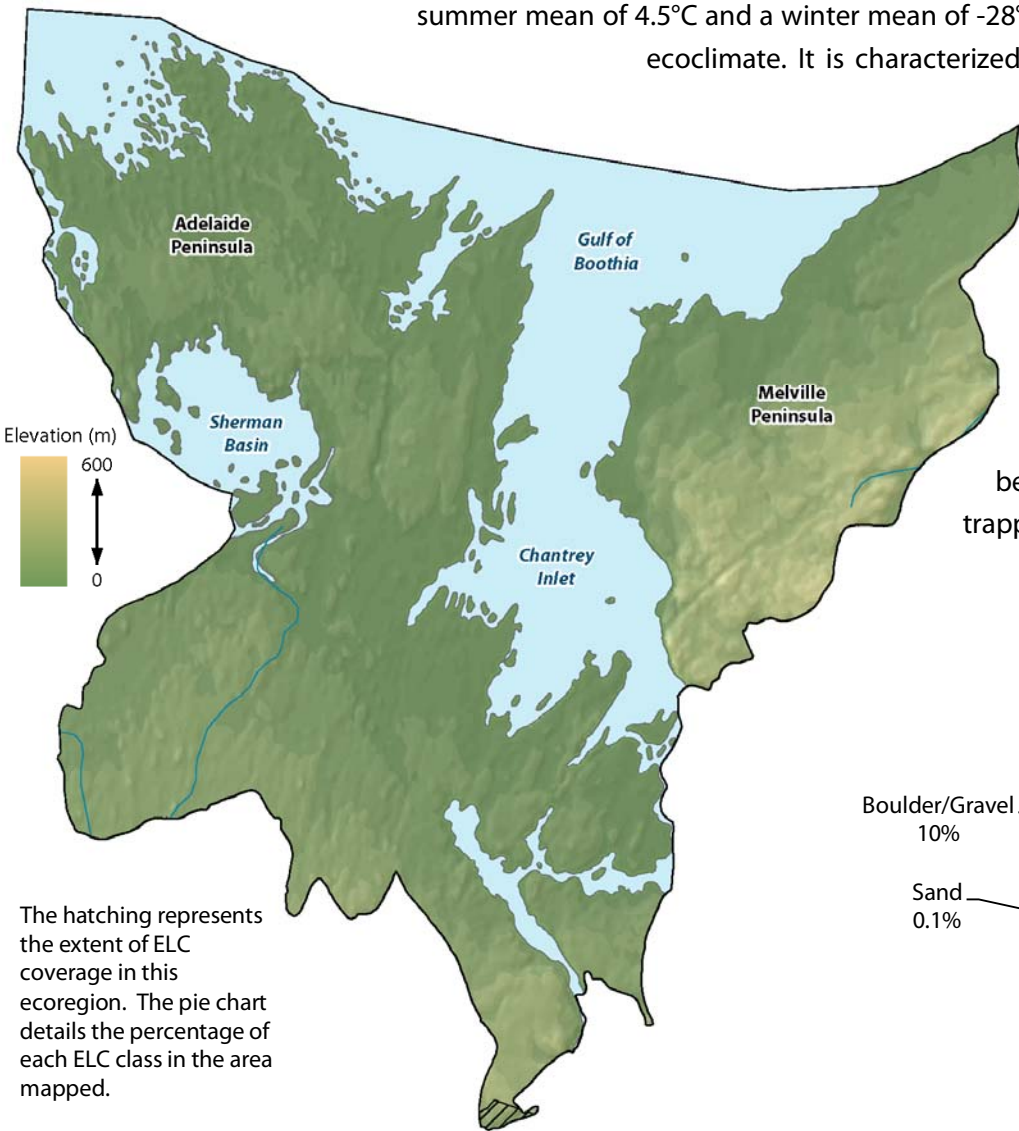




## CHANTREY INLET LOWLAND

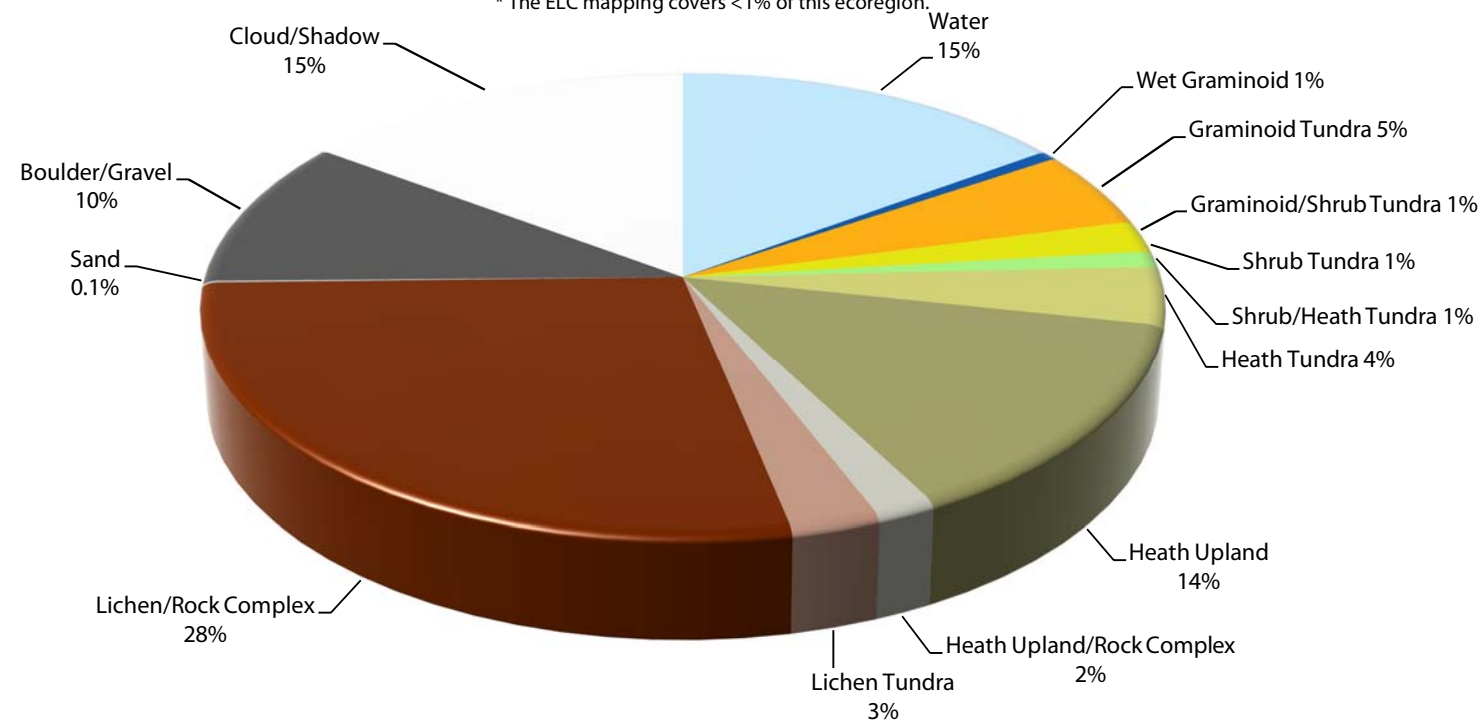
The Chantrey Inlet Lowland ecoregion is associated with lowlands surrounding Chantrey Inlet and Adelaide Peninsula. The mean annual temperature is approximately -12°C with a summer mean of 4.5°C and a winter mean of -28°C. The mean annual precipitation ranges 125-200 mm. This ecoregion is classified as having a low arctic

ecoclimate. It is characterized by large areas of exposed, sparsely vegetated bedrock, in association with shrub tundra vegetation consisting of dwarf birch, willow, northern Labrador tea, *Dryas spp.*, and *Vaccinium spp.* Tall dwarf birch, willow, and alder occur on warm sites; wet sites are dominated by *Sphagnum spp.* and sedge tussocks. Near the coast, the surface is mantled by silts and clay of postglacial marine overlap, and is underlain by massive Archean rocks that form a level to undulating plain that reaches about 300 m asl in elevation in its southern section. Turbic and Static Cryosols developed on discontinuous, thin, sandy moraine, level alluvial, and marine deposits are the dominant soils in the ecoregion. The east and west sides of Chantrey Inlet are underlain by continuous permafrost with low ice content. The northern half of the Adelaide Peninsula is characterized by continuous permafrost with medium to high ice content in the form of ice wedges and massive ice bodies. Characteristic wildlife includes caribou, muskox, polar bear, grizzly bear, wolf, fox, hare, raptors, shorebirds, waterfowl, walrus, seal, and whale. Land uses include trapping, hunting, fishing, and mineral exploration and extraction.



**Percentage of ELC Classes in the Chantrey Inlet Lowland\***

\* The ELC mapping covers <1% of this ecoregion.

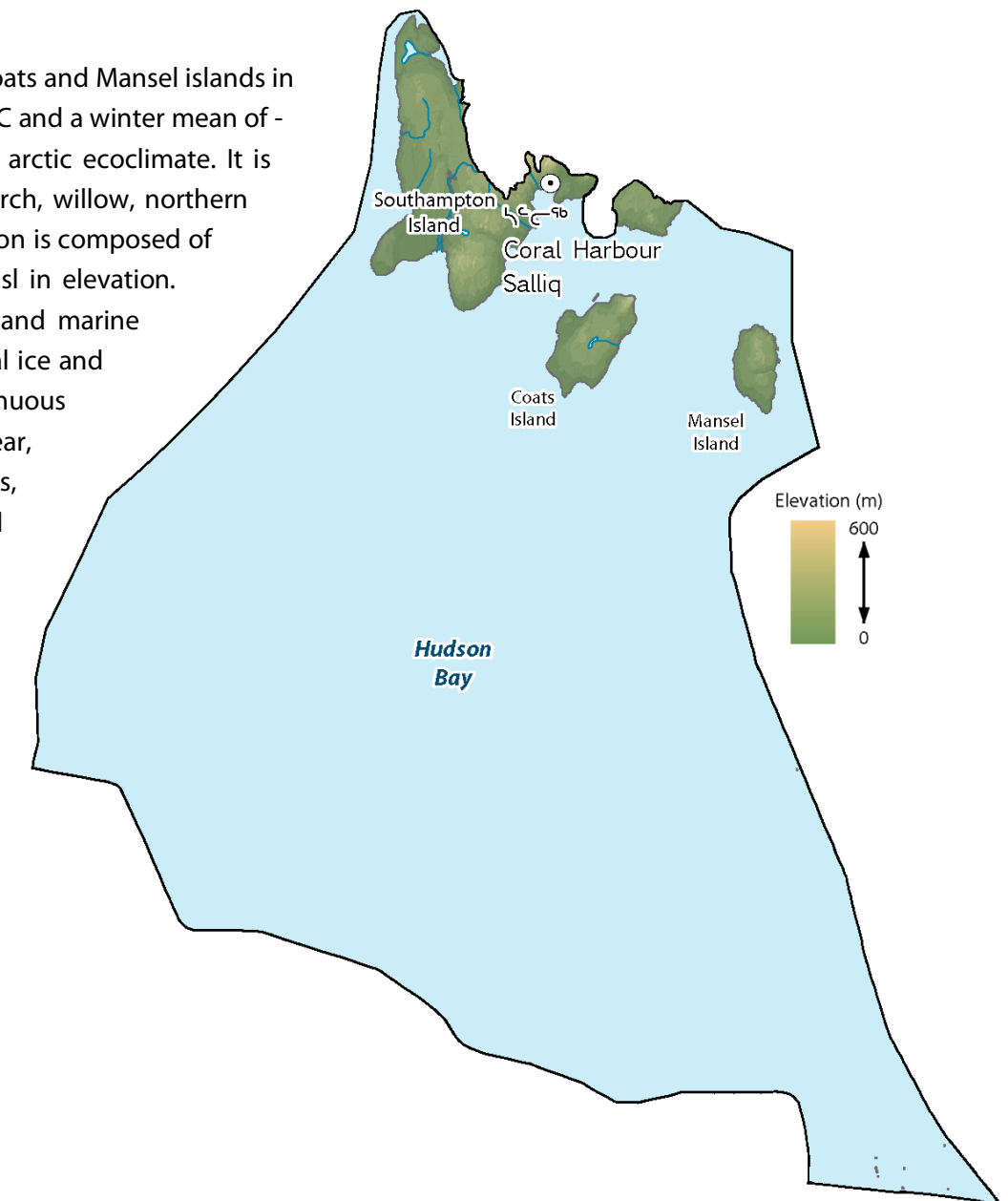




## SOUTHAMPTON ISLAND PLAIN

The Southampton Island Plain ecoregion includes the southern portion of Southampton Island as well as Coats and Mansel islands in the mouth of Hudson Bay. The mean annual temperature is approximately  $-11^{\circ}\text{C}$  with a summer mean of  $3^{\circ}\text{C}$  and a winter mean of  $-24.5^{\circ}\text{C}$ . The mean annual precipitation ranges 200-300 mm. This ecoregion is classified as having a low arctic ecoclimate. It is characterized by a nearly continuous cover of low arctic shrub tundra vegetation, consisting of dwarf birch, willow, northern Labrador tea, *Dryas spp.*, and *Vaccinium spp.*; wet sites are dominated by willow, sedge, and moss. The region is composed of the partly submerged blanket of flat-lying Palaeozoic carbonate rocks and is generally less than 90 m asl in elevation. Bedrock outcrops are common. Static and Turbic Cryosols developed on level to undulating morainal and marine deposits are the dominant soils. The maritime influence is limited to the late summer and early fall. Coastal ice and fog persist for long periods in the summer when the sea ice is absent. The ecoregion is underlain by continuous permafrost with medium ice content composed of ice wedges. Characteristic wildlife includes polar bear, arctic hare, fox, wolf, weasel, ermine, caribou, raptors, rock ptarmigan, gulls, seabirds, waterfowl, seal, walrus, and whale. Land uses include trapping, hunting, fishing, and mineral exploration and extraction. Coral Harbour is the largest settlement. The population of the ecoregion is approximately 600.

**\* There is no ELC mapping coverage for this ecoregion.**



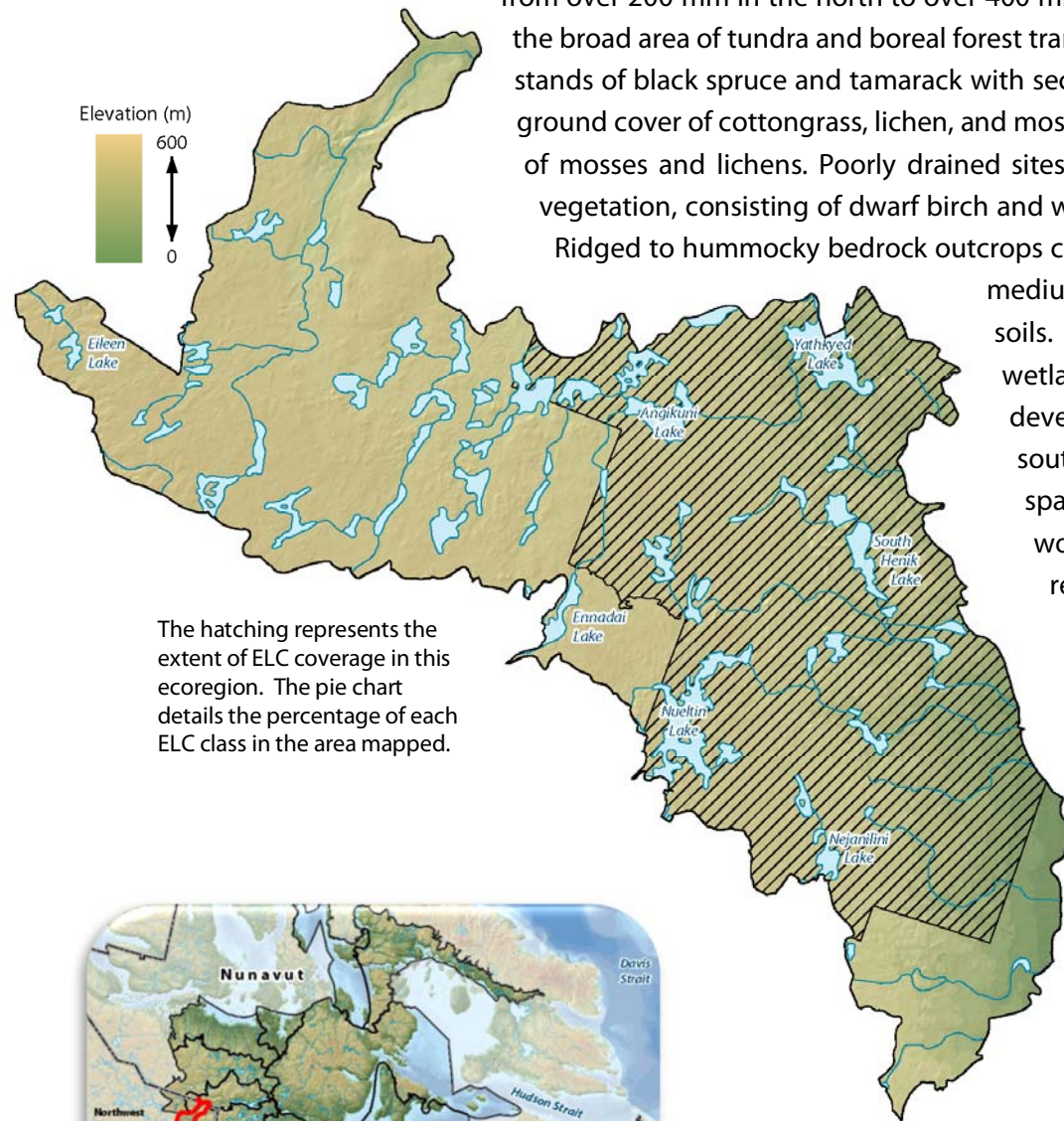


## KAZAN RIVER UPLAND

The Kazan River Upland ecoregion stretches westward from Seal River in Manitoba to near the East Arm Hills in the Northwest Territories. It is marked by cool summers and very cold winters. The mean annual temperature is approximately -8°C. The mean summer temperature is 8°C and the mean winter temperature is -24.5°C. The mean annual precipitation ranges from over 200 mm in the north to over 400 mm in northern Manitoba.

The ecoregion is classified as having a high subarctic ecoclimate. It is part of the broad area of tundra and boreal forest transition extending from Labrador to Alaska. The predominant vegetation consists of open, very stunted stands of black spruce and tamarack with secondary quantities of white spruce, a shrub layer of dwarf birch, willow, and ericaceous shrubs, and a ground cover of cottongrass, lichen, and moss. Drier sites can be dominated by open stands of white spruce, ericaceous shrubs, and a ground cover of mosses and lichens. Poorly drained sites usually support tussock vegetation of sedge, cottongrass, and Sphagnum spp.. Low shrub tundra vegetation, consisting of dwarf birch and willow, is also common. Crystalline, massive Archean rocks form broad, sloping uplands and lowlands. Rugged to hummocky bedrock outcrops covered with discontinuous acidic, sandy, granitic till are characteristic. Prominent eskers and small to medium-sized lakes are common. Dystric Brunisols commonly occurring on sandy eskers are the dominant soils. Turbic Cryosolic soils are common in permanently frozen sites. Organic Cryosols are typical of wetlands. Patterned ground is widespread, and mineral soils exhibit discontinuous or distorted soil horizon development. Permafrost is almost continuous and has low to medium ice content. It is only in the very southern margins of the ecoregion that it grades into extensive discontinuous permafrost. Ice wedges are sparse throughout. Characteristic wildlife includes barren-ground caribou, grizzly bear, muskox, arctic fox, wolf, moose, wolverine, weasel, otter, mink, snowshoe hare, and brown lemming. Bird species in the region include rock and willow ptarmigan, sandhill crane and waterfowl. Land use activities are limited to fishing, trapping, hunting, mineral exploration and extraction, and some recreation and tourism.

The hatching represents the extent of ELC coverage in this ecoregion. The pie chart details the percentage of each ELC class in the area mapped.

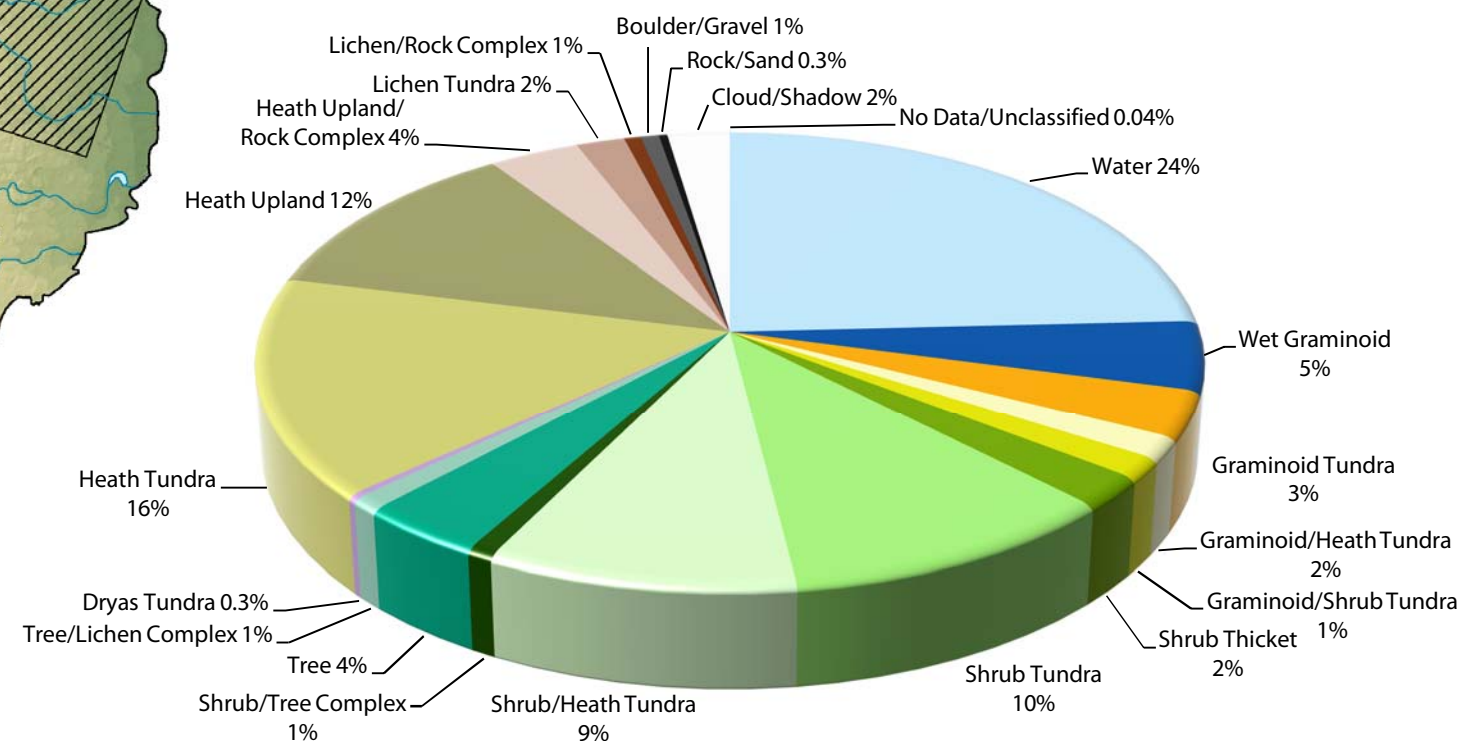


The hatching represents the extent of ELC coverage in this ecoregion. The pie chart details the percentage of each ELC class in the area mapped.



**Percentage of ELC Classes in the Kazan River Upland\***

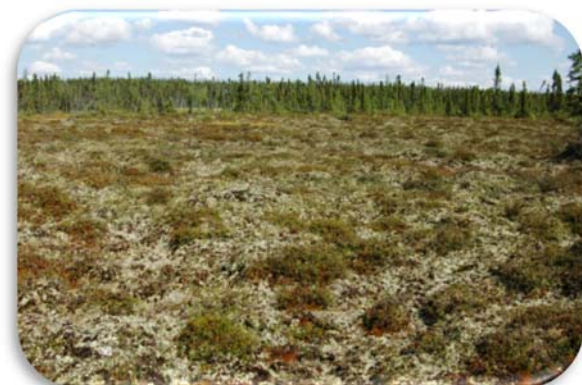
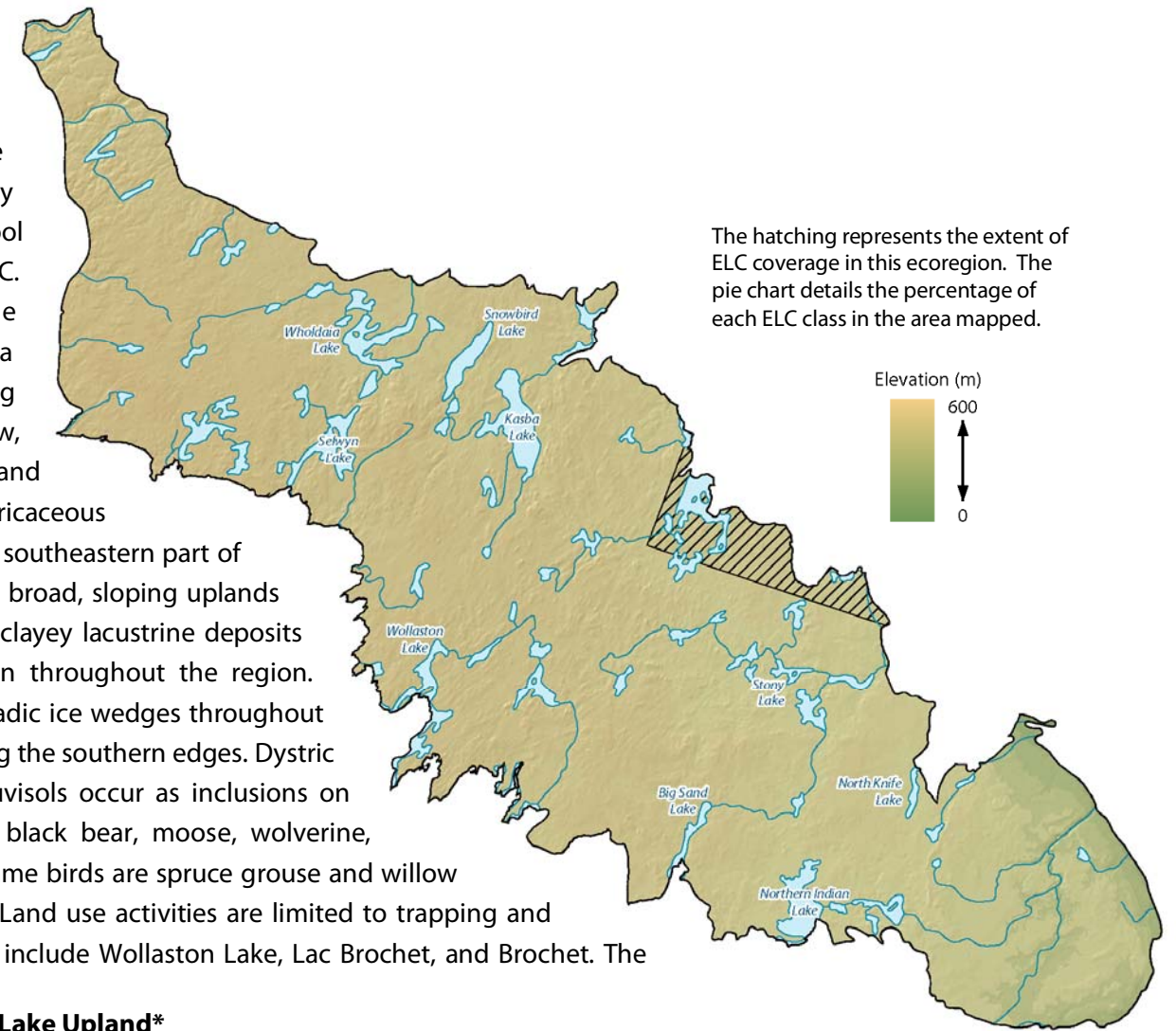
\* The ELC mapping covers 51% of this ecoregion.





### SELWYN LAKE UPLAND

The Selwyn Lake Upland ecoregion extends northwest from Churchill River in Manitoba to the East Arm Hills at the eastern end of Great Slave Lake. Most of the ecoregion is above 500 m asl. At the Saskatchewan/Manitoba border the surface gently slopes towards the Hudson Plains ecozone at 150 m asl. This ecoregion is marked by cool summers and very cold winters. The mean annual temperature is approximately -5°C. The mean summer temperature is 11°C and the mean winter temperature is -21.5°C. The mean annual precipitation ranges 250-400 mm. The ecoregion is classified as having a low subarctic ecoclimate. It is part of the tundra and boreal forest transition extending from Labrador to Alaska. Black spruce is the climatic species, and open stands of low, stunted black spruce with dwarf birch and Labrador tea, and a ground cover of lichen, and moss, are characteristic. Bog-fen sequences composed of stunted black spruce, ericaceous shrubs, and mosses dominate poorly drained wetlands. Wetlands cover 25-50% of the southeastern part of the ecoregion in Manitoba. Ridged to hummocky crystalline, massive rocks that form broad, sloping uplands and lowlands are covered with discontinuous acidic, sandy tills. Significant shallow, clayey lacustrine deposits occur at lower elevations. Prominent sinuous esker ridges and lakes are common throughout the region. Permafrost is extensive and discontinuous with low to medium ice content and sporadic ice wedges throughout most of the ecoregion, but grades to sporadic discontinuous with low ice content along the southern edges. Dystric Brunisols and Organic Cryosols are the most widely distributed soil types. Gray Luvisols occur as inclusions on exposed clayey sediments. Characteristic wildlife includes barren-ground caribou, black bear, moose, wolverine, marten, timber wolf, arctic fox, mink, snowshoe hare, and red-backed vole. Upland game birds are spruce grouse and willow ptarmigan, and other bird species include sandhill crane, waterfowl and shorebirds. Land use activities are limited to trapping and hunting, recreation, and mineral exploration and extraction. The major communities include Wollaston Lake, Lac Brochet, and Brochet. The population of the ecoregion is approximately 1,600.



**Percentage of ELC Classes in the Selwyn Lake Upland\***

\* The ELC mapping covers 3% of this ecoregion.

