EXTENT OF CANADA'S WETLANDS

CANADIAN ENVIRONMENTAL SUSTAINABILITY INDICATORS



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CANADIAN ENVIRONMENTAL SUSTAINABILITY INDICATORS EXTENT OF CANADA'S WETLANDS

June 2025

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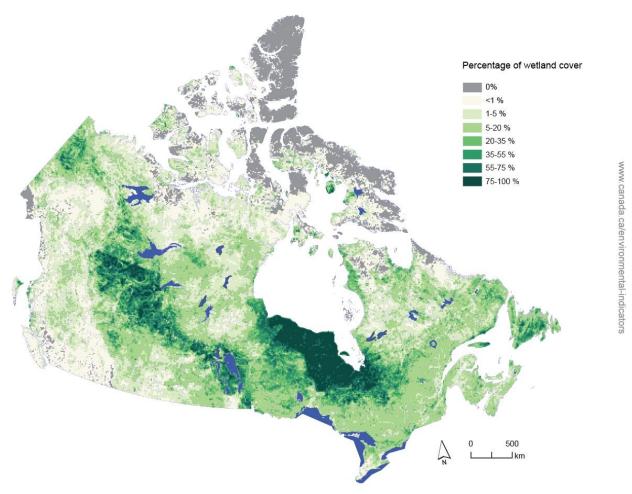
Extent of Canada's wetlands

Wetlands are among the most important ecosystems on the planet. They provide vital habitats for wildlife, filter pollutants, offer flood protection and drought mitigation, absorb and store carbon, and are important cultural sites for many Canadian communities. Wetlands are also one of the Earth's most endangered ecosystem types. This indicator reports the current known extent or area of land in Canada covered by wetlands and establishes a baseline to measure future changes over time in Canada's wetland extent.

Key results

Based on 2024 data, Canada had about 1.25 million km² of wetlands, covering about 13% of Canada's terrestrial and freshwater area

Figure 1. Wetlands in Canada, 2024



Note: Mapped values are the percentage of wetland found in each 10 km by 10 km grid cell. Boundary discrepancies may occur due to variations in the quality, resolution and availability of data from one province or territory to the next. Some areas may appear to lack wetlands as a result of gaps in data coverage rather than the absence of wetland features (see the <u>Caveats and limitations</u> section for more information).

Source: Environment and Climate Change Canada (2024) Canadian National Wetlands Inventory.

Wetlands are ecosystems where the soil is covered or permeated by water, either permanently or temporarily. They are characterized by plants adapted to very wet soil conditions. Any land area that can keep water long enough for wetland plants and soils to develop can be classified as a wetland. Examples of wetlands included in this indicator are fresh and saltwater marshes, wooded swamps, bogs, seasonally flooded forests, eelgrass beds, and types of grasslands (such as prairie potholes).

Wetlands in Canada, by ecological areas

Canada's landmass can be divided into 18 terrestrial ecozones and further divided into 215 terrestrial ecoregions. Ecozones are broad geographic areas with distinct climates and biodiversity, while ecoregions provide a finer classification based on regional differences in vegetation, soil, and landforms.

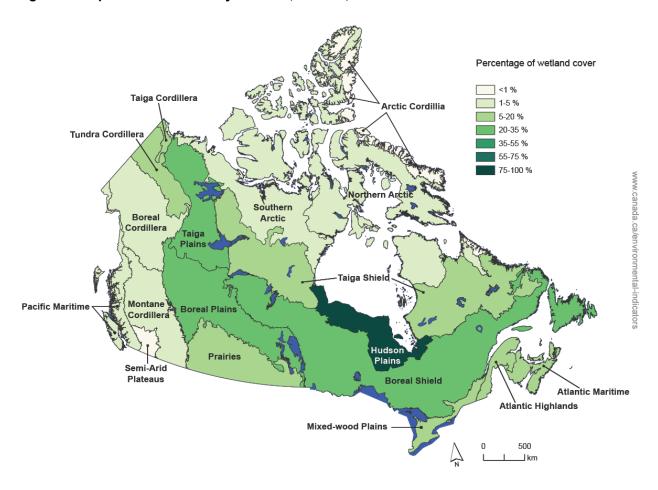
Wetlands in Canada, by ecozone

Key results

Based on 2024 data,

- The Hudson Plains ecozone had the highest proportion of area covered in wetlands (76%)
- Ecozones in the Arctic or mountainous areas had a low proportion of wetlands
- The Arctic Cordillera had the lowest proportion of wetlands (0.1%)

Figure 2. Proportion of wetland by ecozone, Canada, 2024



Data for Figure 2

Note: Mapped values are the percentage of wetland found in each ecozone. Some areas may appear to lack wetlands as a result of gaps in data coverage rather than the absence of wetland features (see the <u>Caveats and limitations</u> section for more information). **Source:** Environment and Climate Change Canada (2024) <u>Canadian National Wetlands Inventory</u>.

The proportion of land covered by wetlands varies greatly among ecozones. Ecozones that have the highest proportion of wetlands are associated with flat terrain, poor drainage, and cooler climates, such as the Hudson Plains and Boreal Shield. For example, the Hudson Plains have vast peatlands and marshes due to slow water movement and high rainfall relative to evaporation.

On the other hand, regions with rugged or mountainous terrain, better drainage, and warmer or drier climates tend to have fewer wetlands. For instance, the Montane Cordillera and Semi-Arid Plateau ecozones have fewer wetlands due to sloped landscapes or limited water availability.

Conservation efforts in Canada help to protect, restore and sustainably manage wetlands and their associated water systems at both community and national levels. In the Taiga Shield ecozone, the Thaidene Nëné National Park Reserve is a vast and ecologically significant protected area, encompassing boreal forests, tundra, and an extensive network of wetlands. As part of the greater Mackenzie River Basin, the wetlands of Thaidene Nëné are closely connected to larger water systems, highlighting their key role in maintaining the region's ecological health. Co-managed with Indigenous communities, the area highlights the connection between natural conservation and cultural heritage, where wetlands are not only key ecological assets but also integral to traditional practices and knowledge.

Wetlands in Canada, by ecoregion

Ecoregions are subdivisions of ecozones characterized by distinctive regional attributes. These include climate, landforms, vegetation, soil, flora and fauna.

Key results

Based on 2024 data,

- James Bay Lowlands had the highest proportion of wetland (almost 80% of the region, covering close to 200 000 km²)
- Mountainous and icy regions, such as the Chugach Mountains and Icefields, had no detectable wetlands

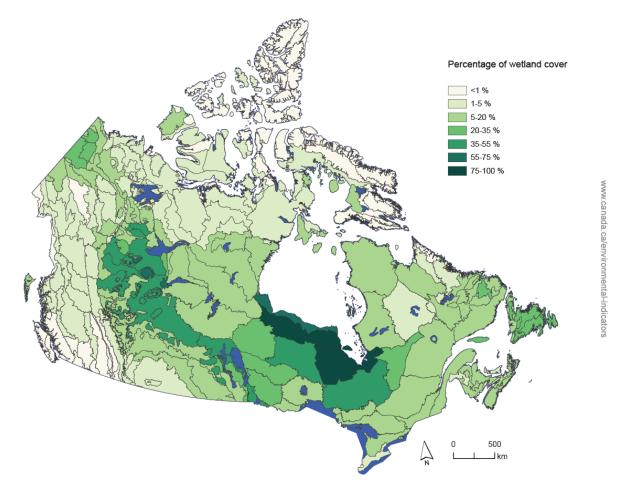


Figure 3. Proportion of wetland by ecoregion, Canada, 2024

Data for Figure 3

Note: Mapped values are the percentage of wetland found in each ecoregion. Some areas may appear to lack wetlands as a result of gaps in data coverage rather than the absence of wetland features (see the <u>Caveats and limitations</u> section for more information). **Source:** Environment and Climate Change Canada (2024) <u>Canadian National Wetlands Inventory</u>.

A band of ecoregions with relatively high proportions of wetlands (20% to 100% wetland coverage) closely aligns with Canada's boreal region, extending from the southeastern Hudson Bay and James Bay Lowlands, across northern Manitoba and Saskatchewan, and into northern Alberta and the Northwest Territories. The James Bay Lowlands (80% wetland coverage) and Hudson Bay Lowlands (77%) ecoregions have the highest wetland densities in Canada.

In contrast, low wetland coverage (less than 1% to 5%) is found in several regions where environmental conditions limit wetland formation:

- Steep terrain and rapid drainage prevent wetlands from forming in areas with mountainous landscapes, such as parts of the Rocky Mountains and highland regions
- Low precipitation, high evaporation, and poor water retention reduce wetland extent in regions characterized by dry grasslands

Additionally, agricultural activity and urban development have significantly reduced wetlands in heavily populated or farmed areas of southern Canada.

About the indicator

What the indicator measures

This indicator is a measure of the extent of Canadian wetlands and provides a baseline from which it will be possible to measure change. A wetland is defined as land that is saturated with water long enough to support aquatic processes as indicated by poorly drained soils, hydrophytic vegetation and various forms of biological activity that are adapted to a wet environment.¹

Why this indicator is important

Wetlands are one of Earth's most productive ecosystems, providing numerous ecosystem services (such as carbon storage) and supporting a disproportionately high number of species, including species at risk and significant numbers of migratory birds, fish, amphibians, and a wide diversity of plants. Wetlands have been recognized as important ecosystems because they

- reduce the impact of waves
- buffer droughts and floods
- · filter sediments and toxic substances
- absorb and store carbon from the atmosphere
- provide food and habitat for many species of fish, shellfish, shorebirds, waterfowl and mammals
- provide food (wild rice, cranberries, fish, wildfowl), energy (peat, wood, charcoal), building material (lumber), and clean water for people
- are valuable recreational areas for activities such as hunting, fishing and birdwatching

By some estimations, approximately 70% of wetlands in southern Canada were lost by 1990, with losses reaching up to 98% in densely populated areas nationwide.² In addition to urban areas, wetlands are also threatened by industrial expansion, agricultural activities and resource extraction. This indicator serves as a baseline which will be used to track changes over time and thereby help inform proper management of wetlands in Canada.

Related initiatives

The indicator contributes to the <u>Sustainable Development Goals of the 2030 Agenda for Sustainable Development</u>. It is linked to Goal 15, Life on Land and Target 15.1, "By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements."

The indicator is also used for reporting progress on Target 1 of <u>Canada's 2030 Nature Strategy</u>: "Spatial planning and effective management." This target is related to the <u>Kunming-Montreal Global Biodiversity Framework</u> (PDF; 374 kB) Target 1: "Ensure that all areas are under participatory integrated biodiversity inclusive spatial planning and/or effective management processes addressing land and sea use change, to bring the loss of areas of high biodiversity importance, including ecosystems of high ecological integrity, close to zero by 2030, while respecting the rights of indigenous peoples and local communities."

Related indicators

The <u>Ecological integrity of national parks</u> indicator reports on the condition of ecosystems, including wetlands within national parks, an important element of Canada's protected area network.

<u>Canada's conserved areas</u> indicators report the amount and proportion of Canada's terrestrial and marine area that is conserved.

¹ National Wetlands Working Group (1997) The Canadian Wetland Classification System. 2nd edition. Edited by BG Warner and CDA Rubec Wetlands Research Centre, University of Waterloo, Waterloo, Ontario.

² Environment and Climate Change Canada (2024) Wetlands.

Data sources and methods

Data sources

Environment and Climate Change Canada collected high-quality wetland inventory data from various sources, including federal, provincial and territorial governments, academia, Indigenous groups, private sector organizations and non-governmental organizations. These databases were compiled into the Canadian National Wetland Inventory (CNWI) geodatabase.

More information

Dataset selection criteria

Environment Climate Change Canada compiled 50 wetland database sources that varied in format, classification schema and spatial representation. Each dataset was evaluated against specific criteria to ensure its suitability for inclusion. To qualify, datasets were required to contain

- polygon features
- temporal information on polygon features and/or the source inventory to allow for future change detection analyses
- appropriate metadata and other information used in mapping

After the assessment, 32 datasets met the criteria to be included in the indicator (<u>Table A.3</u>). These datasets included sources that are contained within CNWI databases, CNWI candidate databases, and non-CNWI databases that were appropriate for this indicator but did not contain wetland class information so could not be included in the CNWI databases (indicated as "Non-CNWI" in Figure 4). Additional databases from Natural Resources Canada (NRCan) were used to fill in areas where high-quality data was not available (indicated as "NRCan Land Cover" and "NRCan CanVec" in Figure 4).

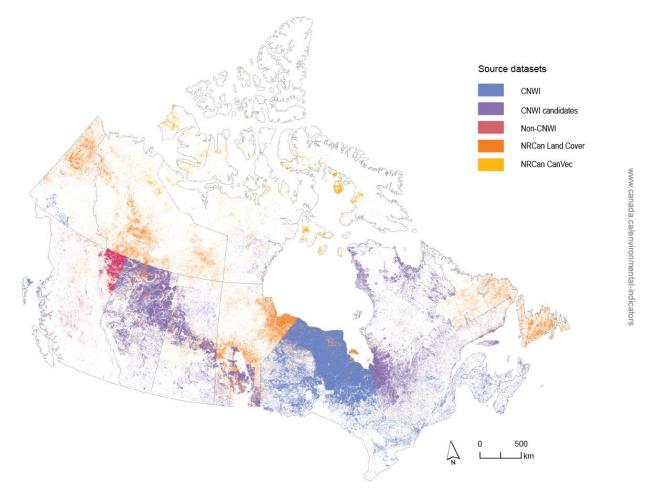


Figure 4. Datasets included in the Extent of Canada's wetlands indicator

Data for Figure 4

Note: CNWI datasets indicate datasets included in the Canadian National Wetlands Inventory (CNWI) database. CNWI candidates indicate datasets that meet CNWI standards but do not have licensing for publication. Non-CNWI indicate databases that do not contain wetland class information and therefore are not included in the CNWI database.

Source: Environment and Climate Change Canada (2024) Canadian National Wetlands Inventory.

Source dataset processing

Each source dataset was examined for consistency with CNWI Classification Schema and Metadata standards. Datasets selected for inclusion were then validated and cleaned. The dataset was checked for the type of geometry, coordinate system, mandatory fields, precision and length, and geometric issues. Any improperly formatted fields or other issues were resolved.

The datasets were then "cross-walked" into the standardized CNWI schema. This "crosswalk" involved translating the original dataset's classification system into a unified framework used by the CNWI, ensuring consistency across datasets that were developed using differing methodologies. Finally, the datasets were integrated into the CNWI geodatabase.

National boundaries

The national boundaries used in this indicator are from Natural Resources Canada's CanVec Series 1:1,000,000 Geopolitical Region, Administrative Boundaries (2019).

Ecozones and ecoregions

The ecozones and ecoregions presented in this indicator are from Environment and Climate Change Canada's National Ecological Framework of Canada (2024).

Methods

The extent of wetlands is estimated with geographical analysis of the Canadian National Wetlands Inventory (CNWI) database.

Wetlands were mapped as vector data, which were integrated into a national-scale geodatabase. The national wetland layer contains wetland data compiled from the best available data layer for each region. The proportion of wetland in a 10 km by 10 km grid was calculated to produce the national wetland map.

More information

Wetland extent, by ecological area

The database does not contain information on ecological areas. To generate an estimate of wetland extent within each ecozone and ecoregion, a geospatial analysis was conducted. For consistency with the projection used in the database, the ecozone layer was re-projected to Albers Equal Area Conic. The total area of each ecozone was then calculated from its geospatial boundaries. The wetland extent per ecozone was divided by the total area of the ecozone to generate a percentage.

Recent changes

Compared to the last publication in 2016, the indicator now uses the Canadian National Wetlands Inventory (CNWI) for estimating the wetland extent in Canada, which was first released in February 2024. In addition to CNWI data, the indicator also incorporates Land Cover and CanVec data from Natural Resources Canada (NRCan). The CNWI uses slightly different data sources and operates at a different scale compared to those used in previous publications of the indicator.

Caveats and limitations

The previous indicator published in 2016 and the current 2025 indicator use different methodologies so are not directly comparable and cannot be used to assess wetland change between those 2 years.

Areas may appear to have few or no wetlands in the figures as a result of a lack of wetland data (<u>Figure</u> 4).

Wetland extent is underestimated at the national level mainly due to the use of coarse resolution remote sensing data from Natural Resources Canada's Land Cover mapping, meaning that many smaller wetlands are not recorded. Boundary discrepancies may occur due to variations in the quality, resolution, and availability of data across provinces and territories. These differences, along with the use of different datasets across Canada, may result in irregular or imprecise delineations within and between areas.

More information

Wetlands are difficult to map because they vary seasonally and in vegetation structure and type. The lack of a consistent vegetation pattern can lead to errors when using automated or semi-automated methods designed for remotely sensed data such as aerial photographs or satellite imagery, and intensive ground campaigns are required to produce maps with low error rates. The indicator uses the highest quality datasets that are available, but accuracy varies regionally. The greatest uncertainty is in northern areas. Datasets that are less accurate and/or less current tend to underestimate wetland extent, so national estimates are likely conservative.

Resources

References

Environment and Climate Change Canada (2016) Water sources: wetlands.

National Wetlands Working Group (1997) <u>The Canadian Wetland Classification System, 2nd edition</u> (PDF; 20.5 MB).

Related information

<u>Canadian National Wetlands Inventory</u>
<u>Canadian National Wetlands Inventory (Dataset)</u>
<u>The Ramsar Convention on Wetlands</u>

Annex

Annex A. Data tables for the figures presented in this document

Table A.1. Data for Figure 2. Proportion of wetland by ecozone, Canada, 2024

Ecozone name	Ecozone code	Wetland area (square kilometres)	Proportion of ecozone that is wetland (Percentage)
Arctic Cordillera	CL01	182	0
Northern Arctic	CL02	19 603	1
Southern Arctic	CL03	36 529	4
Taiga Plains	CL04	101 227	21
Taiga Shield	CL05	89 460	7
Boreal Shield	CL06	390 502	21
Atlantic Maritime	CL07	8 373	7
Mixed-wood Plains	CL08	12 368	11
Boreal Plains	CL09	230 157	32
Prairies	CL10	32 887	7
Montane Cordillera	CL11	9 400	2
Pacific Maritime	CL12	3 810	2
Boreal Cordillera	CL13	18 645	4
Taiga Cordillera	CL14	30 065	14
Hudson Plains	CL15	255 603	76
Tundra Cordillera	CL16	3 183	12
Atlantic Highlands	CL17	7 191	8
Semi-Arid Plateaus	CL18	319	1
Total	n/a	1 249 505	n/a

Note: n/a = not applicable. The sum of the wetland area of the ecozones does not equal the overall total due to rounding and the generalization of boundaries at the national scale.

Source: Environment and Climate Change Canada (2024) Canadian National Wetlands Inventory.

Table A.2. Data for Figure 3. Proportion of wetland by ecoregion, Canada, 2024

Ecoregion name	Associated ecozone	Ecoregion code	Wetlands area (square kilometres)	Wetlands area (percentage)
Ellesmere and Devon Island Ice Caps	Arctic Cordillera	CL01R01	0	0
Baffin Mountains	Arctic Cordillera	CL01R02	25	0
Baffin Islands Coastal Lowlands	Arctic Cordillera	CL01R03	30	0
Torngat Mountains	Arctic Cordillera	CL01R04	53	0
Ellesmere Mountains	Northern Arctic	CL02R01	17	0
Eureka Hills	Northern Arctic	CL02R02	16	0
Polar Islands	Northern Arctic	CL02R03	137	1
Sverdrup Islands Lowland	Northern Arctic	CL02R04	490	2
Lancaster Plateau	Northern Arctic	CL02R05	170	0
High Arctic	Northern Arctic	CL02R06	246	1
Central Melville Upland	Northern Arctic	CL02R07	9	0
Parry Islands Plateau	Northern Arctic	CL02R08	176	0
Mid Arctic West	Northern Arctic	CL02R09	2 350	6
Mid Arctic East	Northern Arctic	CL02R10	1 593	2
Low Arctic North	Northern Arctic	CL02R11	175	2
Shaler Mountains	Northern Arctic	CL02R12	229	1
Amundsen Gulf Lowlands	Northern Arctic	CL02R13	675	1
Victoria Islands Lowland	Northern Arctic	CL02R14	1 974	2
Prince of Wales Island Lowland	Northern Arctic	CL02R15	119	1
Boothia Peninsula Plateau	Northern Arctic	CL02R16	61	0
Gulf of Boothia Plain	Northern Arctic	CL02R17	726	3
Borden Peninsula Plateau	Northern Arctic	CL02R18	36	0
Melville Peninsula Plateau	Northern Arctic	CL02R19	1 523	1
Baffin Island Uplands	Northern Arctic	CL02R20	106	0
Wager Bay Plateau	Northern Arctic	CL02R21	3 424	1

Ecoregion name	Associated ecozone	Ecoregion code	Wetlands area (square kilometres)	Wetlands area (percentage)
Foxe Basin Plain	Northern Arctic	CL02R22	4 261	8
Meta Incognita Peninsula	Northern Arctic	CL02R23	563	1
Pangnirtung Upland	Northern Arctic	CL02R24	19	0
Hall Peninsula Upland	Northern Arctic	CL02R25	130	0
Baffin Upland	Northern Arctic	CL02R26	52	0
Yukon Coastal Plain	Southern Arctic	CL03R01	257	6
West Lowlands	Southern Arctic	CL03R02	623	3
Central Lowlands	Southern Arctic	CL03R03	162	1
East Lowlands	Southern Arctic	CL03R04	40	1
East Highlands	Southern Arctic	CL03R05	222	1
Coronation Hills	Southern Arctic	CL03R06	1 877	3
Bathurst Hills	Southern Arctic	CL03R07	70	1
Takijua Lake Upland	Southern Arctic	CL03R08	1 530	1
Queen Maud Gulf Lowland	Southern Arctic	CL03R09	1 204	2
Chantrey Inlet Lowland	Southern Arctic	CL03R10	412	2
Garry Lake Lowland	Southern Arctic	CL03R11	1 693	2
Back River Plain	Southern Arctic	CL03R12	1 033	3
Dubawnt Lake Plain and Upland	Southern Arctic	CL03R13	2 885	6
Maguse River Upland	Southern Arctic	CL03R14	5 858	8
Southampton Island Plain	Southern Arctic	CL03R15	2 555	7
Ottawa Islands	Southern Arctic	CL03R16	0	0
Belcher Islands	Southern Arctic	CL03R17	2	0
Ungava Peninsula	Southern Arctic	CL03R18	15 528	7
Northern Labrador Highlands	Southern Arctic	CL03R19	1 164	3
Mackenzie Delta	Taiga Plains	CL04R01	351	4
Low Subarctic Northern Plains	Taiga Plains	CL04R02	5 203	10
Northern Uplands	Taiga Plains	CL04R03	2 441	5

Ecoregion name	Associated ecozone	Ecoregion code	Wetlands area (square kilometres)	Wetlands area (percentage)
High Subarctic Northern Plains	Taiga Plains	CL04R04	1 917	4
Central Highlands	Taiga Plains	CL04R05	1 781	5
Central Uplands	Taiga Plains	CL04R06	2 833	17
Central Plains	Taiga Plains	CL04R07	3 341	17
Lac Grandin Plain	Taiga Plains	CL04R08	2 127	9
West-central Uplands	Taiga Plains	CL04R09	1 801	18
Mackenzie Plain	Taiga Plains	CL04R10	2 656	15
Bulmer Plain	Taiga Plains	CL04R11	5 782	36
Horn Plateau	Taiga Plains	CL04R12	3 226	36
Great Slave Lake Plains	Taiga Plains	CL04R13	2 760	19
Northern Alberta Upland	Taiga Plains	CL04R14	13 594	46
Southern Uplands	Taiga Plains	CL04R15	5 100	34
Northern Mixedwood	Taiga Plains	CL04R16	28 899	39
Lower Boreal Highlands North	Taiga Plains	CL04R17	5 973	54
Boreal Subarctic	Taiga Plains	CL04R18	8 366	63
Slave Lowlands	Taiga Plains	CL04R19	2 640	25
High Subarctic West	Taiga Shield	CL05R01	1 238	2
Low Subarctic North	Taiga Shield	CL05R02	855	2
High Boreal	Taiga Shield	CL05R03	6 290	7
Slave Plain	Taiga Shield	CL05R04	809	11
Selwyn Lake Upland	Taiga Shield	CL05R05	14 176	8
Kazan River Upland	Taiga Shield	CL05R06	12 170	7
La Grande Hills	Taiga Shield	CL05R07	12 563	8
Nord-du-Québec Central Plateau	Taiga Shield	CL05R08	8 362	5
McPhayden Plateau	Taiga Shield	CL05R09	236	3
Ungava Bay Basin	Taiga Shield	CL05R10	11 681	11
Kingurutik-Fraser	Taiga Shield	CL05R11	1 894	4

Ecoregion name	Associated ecozone	Ecoregion code	Wetlands area (square kilometres)	Wetlands area (percentage)
Coastal Barrens	Taiga Shield	CL05R12	584	4
Michikamau-Smallwood	Taiga Shield	CL05R13	6 554	8
Nipishish-Goose	Taiga Shield	CL05R14	3 143	14
Mecatina River	Taiga Shield	CL05R15	5 165	13
Eagle Plateau – Mealy Mountains	Taiga Shield	CL05R16	3 440	20
Athabasca Plain	Boreal Shield	CL06R01	10 468	14
Churchill River Upland	Boreal Shield	CL06R02	17 839	10
Hayes River Upland	Boreal Shield	CL06R03	25 913	20
Big Trout Lake	Boreal Shield	CL06R04	67 287	47
Lake St. Joseph	Boreal Shield	CL06R05	26 649	30
Lake Wabigoon	Boreal Shield	CL06R06	15 465	21
Lake of the Woods	Boreal Shield	CL06R07	5 856	36
Lake Nipigon	Boreal Shield	CL06R08	15 691	19
Pigeon River	Boreal Shield	CL06R09	2 599	13
Abitibi Lowlands	Boreal Shield	CL06R10	84 745	40
Lake Temagami	Boreal Shield	CL06R11	4 121	10
Georgian Bay	Boreal Shield	CL06R12	7 950	10
Mistassini Highlands	Boreal Shield	CL06R13	24 033	25
Southern Laurentides Highlands	Boreal Shield	CL06R14	18 210	11
Central Laurentides Highlands	Boreal Shield	CL06R15	25 490	13
Lake Melville	Boreal Shield	CL06R16	1 992	12
Paradise River	Boreal Shield	CL06R17	2 986	18
Middle and Lower Côte-Nord Plateau	Boreal Shield	CL06R18	11 052	11
Anticosti Island	Boreal Shield	CL06R19	2 194	28
Strait of Belle Isle Barrens	Boreal Shield	CL06R20	230	13
Northern Peninsula Forest	Boreal Shield	CL06R21	1 100	13
Long Range Barrens	Boreal Shield	CL06R22	4 919	30

Ecoregion name	Associated ecozone	Ecoregion code	Wetlands area (square kilometres)	Wetlands area (percentage)
Western Newfoundland Forest	Boreal Shield	CL06R23	1 358	14
Central Newfoundland Forest	Boreal Shield	CL06R24	6 566	23
North Shore Forest	Boreal Shield	CL06R25	537	10
Maritime Barrens	Boreal Shield	CL06R26	9 867	26
Avalon Forest	Boreal Shield	CL06R27	97	17
Eastern Hyper-Oceanic Barrens	Boreal Shield	CL06R28	223	14
Valley Lowlands	Atlantic Maritime	CL07R01	1 709	8
Eastern Lowlands	Atlantic Maritime	CL07R02	3 368	8
Grand Lake Lowlands	Atlantic Maritime	CL07R03	425	11
Central Uplands East	Atlantic Maritime	CL07R04	49	3
Fundy Coast	Atlantic Maritime	CL07R05	162	4
Prince Edward Island	Atlantic Maritime	CL07R06	264	4
Îles-de-la-Madeleine	Atlantic Maritime	CL07R07	6	3
Avalon Uplands	Atlantic Maritime	CL07R08	206	4
Triassic Lowlands	Atlantic Maritime	CL07R09	40	3
Western Meguma Interior	Atlantic Maritime	CL07R10	1 292	7
Eastern Meguma Interior	Atlantic Maritime	CL07R11	464	7
Cape Breton Highlands	Atlantic Maritime	CL07R12	270	11
Cape Breton Taiga	Atlantic Maritime	CL07R13	82	27
Atlantic Coast	Atlantic Maritime	CL07R14	246	6
St. Lawrence Lowlands	Mixedwood Plains	CL08R01	5 567	12
Lake Simcoe	Mixedwood Plains	CL08R02	5 858	12
Lake Erie - Lake Ontario	Mixedwood Plains	CL08R03	882	4
Great Lakes	Mixedwood plains	CW31	0	0
Muskwa Plateau	Boreal Plains	CL09R01	3 177	13
Mid Boreal Uplands	Boreal Plains	CL09R02	116 056	39

Ecoregion name	Associated ecozone	Ecoregion code	Wetlands area (square kilometres)	Wetlands area (percentage)
Lower Boreal Highlands South	Boreal Plains	CL09R03	25 842	39
Upper Boreal Highlands	Boreal Plains	CL09R04	5 659	50
Dry Mixedwood	Boreal Plains	CL09R05	11 157	20
Peace River Parkland	Boreal Plains	CL09R06	185	6
Lower Foothills	Boreal Plains	CL09R07	8 633	17
Upper Foothills	Boreal Plains	CL09R08	2 514	12
Peace-Athabasca Delta	Boreal Plains	CL09R09	2 905	58
Boreal Transition	Boreal Plains	CL09R10	12 075	14
Mid Boreal Lowland	Boreal Plains	CL09R11	26 096	41
Interlake Plain	Boreal Plains	CL09R12	11 620	34
Aspen Parkland	Prairies	CL10R01	16 220	10
Foothills Parkland	Prairies	CL10R02	73	2
Foothills Fescue	Prairies	CL10R03	465	3
Moist Mixed Grassland	Prairies	CL10R04	4 729	6
Mixedgrass	Prairies	CL10R05	602	3
Dry Mixedgrass	Prairies	CL10R06	4 311	3
Cypress Mixedgrass	Prairies	CL10R07	106	1
Cypress Hills Montane	Prairies	CL10R08	3	1
Southwest Manitoba Uplands	Prairies	CL10R09	186	9
Lake Manitoba Plain	Prairies	CL10R10	5 002	17
Skeena Mountains	Montane Cordillera	CL11R01	378	2
Omineca Mountains	Montane Cordillera	CL11R02	1 120	3
Fraser Basin	Montane Cordillera	CL11R03	1 523	4
Central Canadian Rocky Mountains	Montane Cordillera	CL11R04	505	1
Eastern Hazelton Mountains	Montane Cordillera	CL11R05	336	3
Chilcotin Ranges	Montane Cordillera	CL11R06	251	2
Fraser Plateau	Montane Cordillera	CL11R07	2 816	4

Ecoregion name	Associated ecozone	Ecoregion code	Wetlands area (square kilometres)	Wetlands area (percentage)
Columbia Highlands	Montane Cordillera	CL11R08	374	1
Selkirk-Bitterroot Foothills	Montane Cordillera	CL11R09	16	0
Northern Columbia Mountains	Montane Cordillera	CL11R10	221	0
Southern Rocky Mountain Trench	Montane Cordillera	CL11R11	111	1
Purcell Transitional Ranges	Montane Cordillera	CL11R12	47	1
Western Continental Ranges	Montane Cordillera	CL11R13	140	1
Northern Continental Divide	Montane Cordillera	CL11R14	14	0
Eastern Continental Ranges	Montane Cordillera	CL11R15	1 414	3
Mount Logan	Pacific Maritime	CL12R01	5	0
Chugach Mountains and Icefields	Pacific Maritime	CL12R02	0	0
Boundary Ranges	Pacific Maritime	CL12R03	145	1
Nass Ranges	Pacific Maritime	CL12R04	315	1
Gwaii Haanas	Pacific Maritime	CL12R05	645	7
Coastal Gap	Pacific Maritime	CL12R06	1 866	4
Western Vancouver Island	Pacific Maritime	CL12R07	58	0
Eastern Vancouver Island	Pacific Maritime	CL12R08	70	1
Georgia-Puget Basin	Pacific Maritime	CL12R09	6	0
Lower Mainland	Pacific Maritime	CL12R10	24	1
Pacific Ranges	Pacific Maritime	CL12R11	469	1
St. Elias Mountains	Boreal Cordillera	CL13R01	337	2
Wellesley Lake	Boreal Cordillera	CL13R02	703	19
Ruby-Nisling Ranges	Boreal Cordillera	CL13R03	752	4
Klondike Plateau	Boreal Cordillera	CL13R04	1 988	6
Yukon Plateau-Central	Boreal Cordillera	CL13R05	479	2
McQuesten Highlands	Boreal Cordillera	CL13R06	1 654	7
Yukon Plateau-North	Boreal Cordillera	CL13R07	438	1
Selwyn Mountains	Boreal Cordillera	CL13R08	386	1

Ecoregion name	Associated ecozone	Ecoregion code	Wetlands area (square kilometres)	Wetlands area (percentage)
Mid-Boreal Highlands	Boreal Cordillera	CL13R09	720	3
High Boreal Highlands	Boreal Cordillera	CL13R10	1 792	8
High Boreal Lowlands	Boreal Cordillera	CL13R11	379	4
Yukon-Stikine Highlands	Boreal Cordillera	CL13R12	251	1
Yukon Southern Lakes	Boreal Cordillera	CL13R13	1 700	4
Pelly Mountains	Boreal Cordillera	CL13R14	691	2
Boreal Mountains and Plateaus	Boreal Cordillera	CL13R15	2 188	3
Liard Basin	Boreal Cordillera	CL13R16	1 323	5
Hyland Highland	Boreal Cordillera	CL13R17	1 222	7
Northern Canadian Rocky Mountains	Boreal Cordillera	CL13R18	1 569	4
Davidson Mountains	Taiga Cordillera	CL14R01	639	13
Old Crow Basin	Taiga Cordillera	CL14R02	3 018	21
North Ogilvie Mountains	Taiga Cordillera	CL14R03	11 502	30
Eagle Plains	Taiga Cordillera	CL14R04	6 605	32
Mackenzie Mountains	Taiga Cordillera	CL14R05	3 216	11
Low Subarctic Lowlands	Taiga Cordillera	CL14R06	4 201	10
High Subarctic Highlands	Taiga Cordillera	CL14R07	844	4
Low Subarctic Highlands	Taiga Cordillera	CL14R08	1 134	2
Coastal Hudson Bay Lowland	Hudson Plains	CL15R01	35 183	64
Hudson Bay Lowland	Hudson Plains	CL15R02	102 875	77
James Bay Lowlands	Hudson Plains	CL15R03	119 286	80
British-Richardson Mountains	Tundra Cordillera	CL16R01	3 183	12
Appalachian Mountains	Atlantic Highlands	CL17R01	5 857	8
Central Uplands West	Atlantic Highlands	CL17R02	571	5
Northern New Brunswick Uplands	Atlantic Highlands	CL17R03	551	6
New Brunswick Highlands	Atlantic Highlands	CL17R04	148	5
Interior Transition Ranges	Semi-Arid Plateaus	CL18R01	39	0

Ecoregion name	Associated ecozone	Ecoregion code	Wetlands area (square kilometres)	Wetlands area (percentage)
Northern Cascade Ranges	Semi-Arid Plateaus	CL18R02	30	0
Thompson-Okanagan Plateau	Semi-Arid Plateaus	CL18R03	247	1
Okanagan Highland	Semi-Arid Plateaus	CL18R04	4	0
Total	n/a	n/a	1 250 976	n/a

Note: n/a = not applicable. The sum of the wetland area of the ecoregions does not equal the overall total due to rounding and the generalization of boundaries at the national scale.

Source: Environment and Climate Change Canada (2024) Canadian National Wetlands Inventory.

Table A.3. Data for Figure 4. Datasets included in the Extent of Canada's wetlands indicator

Dataset type	Province/ territory or region	CNWI source title	Source organization	Mapping year	Availability of source dataset
CNWI	British Columbia	BC_BW2022	Government of British Columbia (Ministry of Water, Lands and Resource Stewardship)	2022	n/a
CNWI	British Columbia	BC_NWA2021	Government of Canada (Environment and Climate Change Canada, Canadian Wildlife Service)	2021	n/a
CNWI	British Columbia	BC_NTBC2022	Nature Trust of British Columbia	2022	n/a
CNWI	British Columbia	BC_NCC2022	Nature Conservancy of Canada	2022	n/a
CNWI	British Columbia	BC_DUC2022	Ducks Unlimited Canada	2022	n/a
CNWI	New Brunswick	BC_NWA2021	Government of Canada (Environment and Climate Change Canada, Canadian Wildlife Service)	2021	Download link
CNWI	Nova Scotia	NS_W2023	Government of Nova Scotia (Department of Natural Resources and Renewables)	2023	n/a
CNWI	Ontario	ON_LIO2022	Government of Ontario (Ministry of Natural Resources)	2022	<u>Download</u> <u>link</u>
CNWI	Quebec	QC_MH2022	Government of Quebec (Ministry of the Environment, Climate Change, Wildlife and Parks); Ducks Unlimited Canada	2022	Download link (in French only)
CNWI	Quebec	QC_MHPOT2019	Government of Quebec (Ministry of the Environment, Climate Change, Wildlife and Parks)	2019	Download link (in French only)

Dataset type	Province/ territory or region	CNWI source title	Source organization	Mapping year	Availability of source dataset
CNWI	Prince Edward Island	PE_W2023	Government of Prince Edward Island (Department of Environment, Energy and Climate Action)	2023	n/a
CNWI	Yukon	YT_IR2018	Government of Yukon (Department of Energy, Mines and Resources)	2018	n/a
CNWI	Yukon	YT_VEG2014	Government of Yukon (Department of Energy, Mines and Resources)	2014	Download link
CNWI Candidates	Alberta	AB_AMWI2021	Government of Alberta (Ministry of Environment and Protected Areas)	2021	Download link
CNWI Candidates	Alberta	AB_CWI2019	Ducks Unlimited Canada	2019	n/a
CNWI Candidates	Manitoba	MB_ATMRM201	Government of Manitoba (Conservation and Water Stewardship); Manitoba Habitat Heritage Corporation	2010	Download link
CNWI Candidates	Manitoba	MB_CWI2018	Ducks Unlimited Canada	2018	n/a
CNWI Candidates	Manitoba	MB_DUCW2004	Ducks Unlimited Canada	2004	n/a
CNWI Candidates	Manitoba	MB_LC2013	Government of Manitoba (Conservation and Water Stewardship); Manitoba Habitat Heritage Corporation	2013	Download link
CNWI Candidates	Manitoba	MB_SPWI2013	Government of Manitoba (Conservation and Water Stewardship); Manitoba Habitat Heritage Corporation	2013	Download link
CNWI Candidates	Manitoba	MB_WLWI2009	Government of Manitoba (Conservation and Water Stewardship); Manitoba Habitat Heritage Corporation	2009	Download link
CNWI Candidates	New Brunswick	NB_SM2000	Government of New Brunswick (Department of Environment and Local Government)	2000	n/a
CNWI Candidates	Newfoundl and and Labrador	NL_A2005	Government of Canada (Environment and Climate Change Canada, Canadian Wildlife Service)	2005	n/a
CNWI Candidates	Quebec	QC_CREDO2023	Ducks Unlimited Canada	2023	n/a
CNWI Candidates	Quebec	QC_MHPOT2019	Government of Quebec (Ministry of the Environment, Climate Change, Wildlife and Parks)	2019	Download link (in French only)

Dataset type	Province/ territory or region	CNWI source title	Source organization	Mapping year	Availability of source dataset
CNWI Candidates	Saskatche wan	SK_CWI2018	Ducks Unlimited Canada	2018	n/a
CNWI Candidates	Saskatche wan	SK_DUCW2004	Ducks Unlimited Canada	2004	n/a
CNWI Candidates	Saskatche wan	SK_GCWDM202	Government of Canada (Environment and Climate Change Canada, Canadian Wildlife Service)	2022	n/a
CNWI Candidates	Saskatche wan	SK_LC2020	Government of Saskatchewan (Ministry of Environment)	2020	Download link
Non-CNWI	British Columbia	BC_EVI2011	Government of Canada (Environment and Climate Change Canada, Canadian Wildlife Service)	2011	n/a
Non-CNWI	British Columbia	BC_FWAW2008	Government of British Columbia (GeoBC Base Mapping Cadastre)	2008	Download link
Non-CNWI	Nunavut	NU_ELC2012	Government of Nunavut (Department of Environment)	2012	n/a
CanVec Series - Land Features	National	CanVec2019	Government of Canada (Natural Resources Canada)	2019	Download link
CSRS Land Cover	National	LandCover2020	Government of Canada (Natural Resources Canada	2020	Download link

Note: n/a = not available. Datasets without a download link are datasets that have not been published and are not publicly available. Of the 13 source datasets included in the CNWI proof-of-concept publication (February 2024), 3 provinces (New Brunswick, Nova Scotia and Prince Edward Island) each had their own provincial dataset. For Yukon and Quebec, 2 datasets were integrated into 1 for each province/territory. For British Columbia, 5 datasets were combined into a single provincial dataset. For Ontario, the source dataset (LIO Wetlands 2022) was split into 2 separate datasets because of its large size. As a result, there are a total of 8 datasets in the CNWI publication package. The British Columbia Wetland datasets can also be found in the CNWI BC Supplement Data Publication (October 2024), which contains a spatial wetland dataset, metadata, templates for field data collection, guidance documentation, and reports.

Source: Environment and Climate Change Canada (2024) Canadian National Wetlands Inventory.

Additional information can be obtained at:

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