



Legend

- Ecoregion 1: Short Grass**
Common wetlands are shallow basin marshes associated with fresh to saline shallow waters. Seasonal ponds and semi-permanent open shallow water lakes with high salinity are common. Peat development is absent.
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| 1.01 Hemaruka Plain | 1.18 Tilley Plain |
| 1.02 Sounding Creek Valley | 1.19 Enchant Plain (north) |
| 1.03 Sibbald Plain | 1.20 McAlpine Plain |
| 1.04 Richters-Cassford Plain | 1.21 South Saskatchewan River Valley |
| 1.05 Red Deer River Valley | 1.22 Enchant Plain (south) |
| 1.06 Alkali Creek Plain | 1.23 Taber - Bow Island Plain |
| 1.07 Acadia Plain | 1.24 Chin - Foremost Plain |
| 1.08 Walsh Plain | 1.25 Etzikom Plain |
| 1.09 Middle Sand Hills Plain | 1.26 Lodge Benchland |
| 1.10 Schuler Plain | 1.27 Milk River Valley |
| 1.11 Fincastle Plain | 1.28 Murray Lake Plain |
| 1.12 Kininiv Plain | 1.29 Bullshead - Cavan Lake Plain |
| 1.13 Lower Berry Creek Plain | 1.30 Pakowki Lake Plain |
| 1.14 San Francisco Lake Plain | 1.31 Corney - Onour Plain |
| 1.15 Medicine Hat Plain | 1.32 Lost River Plain |
| 1.16 Chappie Lake Plain | 1.33 Verdigris Plain |
| 1.17 Sutherland Plain | 1.34 Chin and Etzikom Coulees |
- Ecoregion 2: Mixed Grass**
Wetlands are similar to those of the Short Grass Ecoregion. Peat development is absent.
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| 2.01 Oyen Plain | 2.14 Little Bow Plain |
| 2.02 Neutral Hills (south) | 2.15 Bow River Valley |
| 2.03 Grassy Island Plain | 2.16 Claresholm Plain |
| 2.04 Monitor Hills | 2.17 Three River Plain |
| 2.05 Kirkpatrick Lake Plain | 2.18 Travers - Coaldale Plain |
| 2.06 Hand Hills Upland | 2.19 Keho Lake Plain |
| 2.07 Coleman Lake Plain | 2.20 Red Deer River Valley |
| 2.08 Rosebud - Drumheller Plain | 2.21 Milk River Ridge & Del Bonita Upland |
| 2.09 Wintering Hills | 2.22 Oldman River Valley |
| 2.10 Deadhorse Lake Upland | 2.23 Mackie Creek - Milk River Plain |
| 2.11 Crawling Valley Upland | 2.24 Elkwater Benchland |
| 2.12 Blackfoot Plain | 2.25 Little Bow River Valley |
| 2.13 Vulcan Upland | |
- Ecoregion 3: Fescue Grass**
Wetlands are similar to those of the Short Grass and Mixed Grass Ecoregions. Peat development is absent.
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| 3.01 Rosebud Plain | 3.07 Pincher Creek Plain |
| 3.02 Ghostpine Plain | 3.08 Waterton Reservoir Upland |
| 3.03 Frank Lake Plain | 3.09 St. Mary Plain |
| 3.04 Willow Creek Plain | 3.10 Beazer Upland |
| 3.05 Oldman River Plain | 3.11 Del Bonita Plain |
| 3.06 Chokio Upland | |
- Ecoregion 4: Aspen Parkland**
Shallow basin and silt marshes associated with fresh to saline shallow water and encircled by tall shrubs or hardwood typify this ecoregion. Locally, grass and shrub filled depressions occur. Saline shore marshes may border larger lakes. There is limited development of well-humified peat, usually less than 50 cm thick. The north and northwest margins of this region are transitional to the Boreal regions to the north. Basin fens, bogs, swamps and marshes occupy depressions in about equal proportions. Average peat thickness is 2-3 m in bogs, but less in fens, and minimal in swamps and marshes.
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| 4.01 Pickardville Plain | 4.18 Sullivan Lake Plain |
| 4.02 Edmonton Plain | 4.17 Aik Upland |
| 4.03 Wetaskiwin Plain | 4.18 Gull Lake Plain |
| 4.04 Beaverhill Lake Plain | 4.19 Medicine River Plain |
| 4.05 Hay Lakes Upland | 4.20 Rosebud River Plain |
| 4.06 Birch Lake Plain | 4.21 Bashaw Upland |
| 4.07 Hazeldine Plain | 4.22 Cremona Upland |
| 4.08 Vermilion Plain | 4.23 Noeshill Benchland |
| 4.09 Battle & Vermilion River Valleys | 4.24 Strathmore Plain |
| 4.10 Killam Plain | 4.25 Dogpound Benchland |
| 4.11 Ribstone Plain | 4.26 Elkwater Lake Upland |
| 4.12 Edgerton Plain | 4.27 Red Deer River Valley |
| 4.13 Prosser Upland | 4.28 Calgary City |
| 4.14 Neutral Hills (north) | 4.29 Edmonton City |
| 4.15 Neutral Upland | |
- Ecoregion 5: Montane**
Flat bogs, horizontal fens, floodplain marshes and shallow basin marshes occur in some valleys. The peat thickness is usually 1 m or less.
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| 5.01 Athabasca River Valley | 5.07 Todd Creek Upland |
| 5.02 North Saskatchewan River Valley | 5.08 Crownset Pass |
| 5.03 Ghost - Waiparous Upland | 5.09 Beauvais Lake Upland |
| 5.04 Bow River Valley | 5.10 Belly River Upland |
| 5.05 Livingstone Ridge Upland | 5.11 Lower Porcupine Hills |
| 5.06 Upper Porcupine Hills | |
- Ecoregion 6: Subalpine**
Horizontal and basin fens, floodplain marshes and shallow basin marshes occur with some horizontal and basin bogs. Slope fens and spring fens may occur in some lower to mid slope positions. The peat thickness is usually 1 m or less.
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| 6.01 Torrens - Copton Foothills | 6.08 Highwood - Livingstone Ranges |
| 6.02 Upper Kakwa Valley | 6.09 Castle River Ranges |
| 6.03 Muskog - Rock Lakes Valley | 6.10 Waterton Lake Subalpine |
| 6.04 Luscar - Cardinal Front Ranges | 6.11 Smoky River Subalpine |
| 6.05 Chungo - Ram Front Ranges | 6.12 Athabasca Subalpine |
| 6.06 Clearwater - Panther Front Ranges | 6.13 North Saskatchewan River Subalpine |
| 6.07 Elbow - Sheep Front Ranges | 6.14 Bow River Subalpine |
- Ecoregion 7: Alpine**
Small basin fens and basin bogs occur in the valleys. The peat thickness is usually 1 m or less.
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| 7.01 North Smoky Alpine | 7.05 North Banff Alpine |
| 7.02 North Jasper Alpine | 7.06 South Banff Alpine |
| 7.03 South Jasper Alpine | 7.07 Highwood - Livingstone Alpine |
| 7.04 Icefields Ranges Alpine | 7.08 Flathead - Waterton Alpine |
- Ecoregion 8: Boreal Mixedwood**
Southern Boreal Mixedwood - Tread bogs and fens occurring on broad flats and in confined basins characterize this subregion. Horizontal and ribbed or net fens occur somewhat more commonly than flat bogs and basin bogs. Northern plateau bogs occasionally occur within larger fens. Marshes can be found along gently sloping lake shores. Narrow peat margin swamps may border larger fens and bogs. Permafrost is rare. The average peat thickness is approximately 2 m. Northern Boreal Mixedwood - Large horizontal fen complexes, shore fens, stream fens, and string fens occur commonly. Bogs are more common than in the Southern Boreal Mixedwood, and consist of flat bogs, basin bogs, and northern plateau bogs. Peat plateau bogs (i.e., with permafrost) also occur and increase in abundance from the southern to the northern part of the region. The amount of collapsing decreases in the northern areas. The active layer ranges from 0.4 to 0.6 m in the north to 1 m on the southern fringe. Stream swamps are locally common. The average peat thickness is 2 to 3 m.
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| 8.01 Zama Lake Plain | 8.41 Athabasca River Valley |
| 8.02 Rainbow Lake Plain | 8.42 Chipewyan Lake Plain |
| 8.03 High Level Plain (west) | 8.43 Calling Lake Plain |
| 8.04 Boyer River Plain | 8.44 Fort Hills |
| 8.05 High Level Plain (east) | 8.45 Johnson Lake - Keart Lake Plain |
| 8.06 Lake Claire (west) | 8.46 Muskeg Mountain Upland |
| 8.07 Lake Claire (east) | 8.47 Steepbank Plain |
| 8.08 Peace - Athabasca Delta | 8.48 Hangingstone Plain |
| 8.09 Embarras Plain | 8.49 Garson Plain |
| 8.10 Harrison River Plain | 8.50 House Plain |
| 8.11 Richardson Hills Upland | 8.51 Chinchaga River - Hay River Plain |
| 8.12 Birch Mountains Escarpment | 8.52 Logan River Plain |
| 8.13 Suckton Plain | 8.53 Zama Lake - Hay Lake |
| 8.14 Lower Peace River Valley | 8.54 Winefred - Cold Lake Plain |
| 8.15 Mikwaw River Plain | 8.55 Barrehead Plain |
| 8.16 Bear River Plain | 8.56 Finshurst Lake Plain |
| 8.17 Carcajou Plain | 8.57 Misewauke Lake Plain |
| 8.18 Keg River Plain | 8.58 North Buck Lake Dunes |
| 8.19 Nina Lake Plain | 8.59 Athabasca Plain |
| 8.20 Bison Lake Plain | 8.60 Lawrence Lake Plain |
| 8.21 Manning Plain | 8.61 Thorhill Plain |
| 8.22 Hotchkiss River Plain | 8.62 Whitefish Upland |
| 8.23 Worsley - Bonanza Plain | 8.63 Bonnyville Plain |
| 8.24 Waliso - Falher Plain | 8.64 Frog Lake Upland |
| 8.25 Rycroft Plain | 8.65 Redwater Plain |
| 8.26 Clairmont - Kleskun Plain | 8.66 Cooking Lake Upland |
| 8.27 Smoky Plain | 8.67 Devon Dunes |
| 8.28 Birch Hills | 8.68 Pigeon Lake Upland |
| 8.29 New Fish Creek Plain | 8.69 Drayton Valley Plain |
| 8.30 Lesser Slave Lake Plain | 8.70 Paddle River Plain |
| 8.31 Lesser Slave Lake Plain | 8.71 Lac Ste. Anne Plain |
| 8.32 Winagami Lake Plain | 8.72 Chip Lake Plain |
| 8.33 Utkuma Ridge Upland | 8.73 Fort Assiniboine Plain |
| 8.34 Peace River Valley | 8.74 Lake Athabasca |
| 8.35 Utkuma Plain | 8.75 Lake Claire |
| 8.36 Buffalo Head Hills | 8.76 Smoky River Valley |
| 8.37 Cadotte - Leon Lake Plain | 8.77 North Saskatchewan River Valley |
| 8.38 Peorless Lake Upland | 8.78 Pembina River Valley |
| 8.39 Wabasca Lake Plain | 8.79 McLeod River Valley |
| 8.40 Kamistokiw Lake Upland | 8.80 Little Smoky River Valley |
- Ecoregion 9: Boreal Foothills**
Characteristic peatlands are similar to those of the Southern Boreal Mixedwood Ecoregion with horizontal, ribbed and net fens being common and flat and basin bogs occurring less commonly.
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| 9.01 Chinchaga Plain | 9.18 Fickle Lake Plain |
| 9.02 Bassett Hill | 9.19 Lendrum Creek Plain |
| 9.03 Clear Hills | 9.20 Pembina River Plain |
| 9.04 Blueberry Plain | 9.21 Cynthia Upland |
| 9.05 Saddle Hills | 9.22 O'Cheese Benchland |
| 9.06 Beaverlodge Plain | 9.23 Brazeau Plain |
| 9.07 Wapiti Plain | 9.24 Crimson Lake Plain |
| 9.08 Puskwaskau Hills | 9.25 Buck Lake Upland |
| 9.09 Josephin Plain | 9.26 Burnstick Benchland |
| 9.10 Snipe Lake Benchland | 9.27 Little Red Deer River Plain |
| 9.11 Freeman Benchland | 9.28 Elbow - Sheep Foothills |
| 9.12 Palcan Mountains | 9.29 Fox Creek Benchland |
| 9.13 Red Deer River Valley | 9.30 Blairidge Benchland |
| 9.14 North Saskatchewan River Valley | 9.31 Windfall Plain |
| 9.15 Athabasca River Valley | 9.32 McLeod River Plain |
| 9.16 Redwillow River Plain | 9.33 Cypress Hills Plateau |
| 9.17 Simonette Benchland | |
- Ecoregion 10: Boreal Uplands**
Horizontal, ribbed and net fens are characteristic peatlands while flat bogs and basin bogs occur relatively infrequently. In steep terrain, these peatlands may be confined to valley bottoms while slope and spring fens may occur in lower slope positions.
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| 10.01 Cutback Benchland | 10.07 Kakwa Benchland |
| 10.02 Swan Hills Upland | 10.08 Grande Cache Plain |
| 10.03 Little Smoky Plateau | 10.09 Muskeg - Wildhay Foothills |
| 10.04 Berland Benchland | 10.10 Gregg - Brazeau Foothills |
| 10.05 Maybena Benchland | 10.11 Nordegg - Ram Foothills |
| 10.06 Shunda Benchland | 10.12 James - Red Deer Foothills |
- Ecoregion 11: Boreal Northlands**
Characteristic peatlands are horizontal and ribbed fens, and peat plateau, veneer, flat and basin bogs. Bogs are relatively more widespread than fens as compared to the Boreal Mixedwood Ecoregion, and permafrost is somewhat more widespread. The active layer in veneer and peat plateau bogs generally ranges from 0.4 to 0.6 m. The average thickness of peat is 2 to 3 m.
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| 11.01 Zama Lake (north) Plain | 11.10 Hay River (north) Plain |
| 11.02 Hay River (east) Plain | 11.11 Haverson Ridge Upland |
| 11.03 Mt. Watt | 11.12 Upper Notkewin River Plain |
| 11.04 Caribou Mountain Escarpment | 11.13 Buffalo Head Hills |
| 11.05 Buffalo Lake Plain | 11.14 Ninisith Hills |
| 11.06 Knights Creek Plain | 11.15 Birch Mountains (north) Upland |
| 11.07 Salt River Plain | 11.16 Birch Mountains (Namur) Upland |
| 11.08 Slave River Plain | 11.17 Milligan Hills |
| 11.09 Tazin River Plain | 11.18 Chinchaga River Plain |
- Ecoregion 12: Boreal Subarctic**
Peat plateau and veneer bogs associated with ribbed fens and horizontal fens are common. Permafrost occurs under bogs but not under fens. The active layer is about 0.6 m deep at its maximum development. The average peat thickness is 2 to 3 m.
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| 12.01 Cameron Hills Upland | 12.03 Birch Mountains Upland |
| 12.02 Caribou Mountains Upland | |

Percentage Cover of Peatlands

0 - 5%
6 - 25%
26 - 50%
51 - 75%
76 - 100%

— Ecoregion boundary
— Subregion boundary
— Physiographic boundary

Explanation
Peatlands are landscapes that have peat accumulations of at least 40 cm thickness. Their formation is strongly controlled by climate and is favoured by cool, wet, anaerobic environments. Landforms influence the shape, size and distribution of peatlands, largely through control of drainage. Climate and its expression through vegetation are recognized on this map by the use of ecoregions as the primary stratification. The second subdivision reflects landform. These primary data sources were modified to create a wildlife habitat map for Alberta Forestry, Lands and Wildlife. This map was adopted as the peatland base with an additional modification to recognize the occurrence of permafrost. Information about peatland properties and distribution within these subdivisions was derived from soil survey, surficial geology, forest cover and Canada Land Inventory maps, and from the references below.

Definitions
PEATLANDS are landscapes which have peat accumulations of at least 40 cm thickness. Definitions of other peatland terms were taken from sources 1 and 4 below. Peatland information was compiled from soils, geomorphic and forest cover maps, and from the following sources:

Sources

1. National Wetlands Working Group, Canada Committee on Ecological Land Classification (1987): Canada's Wetlands; Energy, Mines and Resources Canada, Ottawa.
2. Pedocan Land Evaluation Ltd. (1984): Preliminary Wildlife Habitat Regions/Subregions of Alberta; Prepared for Fish and Wildlife Division, Alberta Forestry, Lands and Wildlife, Edmonton.
3. Pettapiece, W.W. (1986): Physiographic subdivisions of Alberta; Land Resource Research Centre, Agriculture Canada, Ottawa.
4. Strong, W.L. and K.R. Leggat (1981): Ecoregions of Alberta; Resource Evaluation and Planning Division, Alberta Energy and Natural Resources, Edmonton.
5. Zolai, S.C. and F.C. Pollett (1993): Wetlands in Canada: Their classification, distribution, and use; in A.J.P. Gore (ed.), Mires: swamp, bog, fen and moor, Ecosystems of the world 4B; Elsevier Publishing Co., Amsterdam, pp. 245-268.

Peatland Distribution in Alberta

L.W. Turchenek and M.E. Pigot.

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ALBERTA RESEARCH COUNCIL

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Natural Resources Division
Terrain Sciences Department
Alberta Dept. of Energy, Lands and Services

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