



Ducks Unlimited Canada
CANADA'S CONSERVATION COMPANY

Late Winter Habitat Conditions in Canada

February 23, 2007

Habitat conditions are good throughout much of British Columbia at this time and the coastal region continues to experience excellent conditions. Conditions in the parklands of the Prairie Provinces are also good or better and are especially good in Saskatchewan. Dry conditions persist in the prairies of Alberta and Saskatchewan and the potential for spring runoff in these areas is limited. Conditions are generally good in the Western Boreal Forest and in eastern Canada.

The snowpack is well above normal (160 per cent+) in the **British Columbia** coastal region, and near record highs in some areas. Frontal storms are still ongoing on the south coast and many low lying fields are still experiencing flooding. On the Fraser Delta, waterfowl, especially American wigeon and mallard have been taking advantage of any new shoot growth in cover crop fields. Trumpeter swans have been congregating in vegetable residue fields and relay and cover crops. As the energy in potatoes begins to decrease the waterfowl will also be looking for other energy sources, primarily agricultural seeds and intertidal eelgrass. Small numbers of snow geese are making their way back to the Fraser Delta from the Skagit valley. Diving ducks have begun to pair in anticipation of spring mating.

Winter temperatures have been slightly colder than average in the central Interior. Snowpack is well above normal (120-140 per cent) in the region, including low and middle elevations. There are record-high snowpacks in parts of the Bulkley and Nechako basins. The frost seal is likely now good in the central Interior thanks to a mid-winter warm spell. In the southern Interior the mid-winter snowpack is above average (100-120 per cent) and temperatures have been slightly below average. The frost seal is most likely average and the outlook for spring water is favourable. In the southeast Interior mid-winter snowpack is well above normal in Columbia drainage, but only just above normal in Kootenay drainage and above average (100-120 per cent) overall. The frost seal is average in the region.

In the Peace region snowfall is still categorized as "high" in most of northeast. The snowpack is well above normal (120-140 per cent), including at low and middle elevations. The frost seal is average in the Peace region and the outlook for spring water is favourable.

In **Alberta** fall precipitation totals for September 1 to October 31 were average to above average (150-200 per cent) for most of the prairie, aspen parkland, boreal transition zone (BTZ) and Peace parkland. Isolated areas of the southern prairie and northern Peace parkland received below average precipitation (60-85 per cent). As a result most areas in the agricultural zone of Alberta went into winter with a fair to good frost seal. This precipitation pattern has continued into the winter with the Peace parkland, BTZ, northeast and eastern aspen parkland, and southwest foothills receiving average to above average precipitation. Most of the prairie and central and western aspen parkland have received average precipitation. Areas of the prairie and northern Peace parkland have received below average precipitation this winter.

Current snow accumulations are 30-60 cm in the Peace parkland, 45-55 cm in the northern parkland and BTZ, 25-40 cm in the central parkland and northern prairie and 0-20 cm in the southern prairie. Periods of strong winds has drifted the snow into wetlands and other sheltered areas, which will improve potential spring runoff.

The February 2007 Alberta Environment water supply report predicts above average to well above average runoff for the northern prairie, aspen parkland, BTZ and southern Peace parkland. The prediction for the southern prairie and northern Peace parkland is for below average runoff. Runoff from mountain snowpack, which feeds the irrigation districts of southern Alberta, is forecast to be below average for the Milk River basin, below average to average in the Oldman River basin, near average in the Highwood and Elbow River basins, and average to above average for the Kananaskis River, Bow River at Banff and Calgary, and the Red Deer River.

The usual over-wintering waterfowl are present at open water sites on rivers and power plant cooling ponds.

Overall, snow conditions in the parklands of **Saskatchewan** are good to excellent while conditions are poor to fair in the prairies. Specifically, the southwest has very little snow and there are only about 10 - 12 inches of snow on the ground in the southeast. The Missouri Coteau has little to no snow cover and there is little chance of run-off in the spring. Most of the prairies were quite dry in the fall and it is likely that most of the snow (when it melts in the spring) will be soaked up into the soil and not produce any run-off. In contrast, the parklands had plenty of moisture going into the fall with frequent rainfall events and then above average snow this winter which should produce good to excellent run-off conditions. The priority target areas of the Thickwood Hills, Allan / Dana Hills and Touchwood Hills should all have good to excellent run-off. It has also been windy which will drift the snow into the willow rings around the wetlands and concentrate the water flow into the wetland basins. There is the potential to have quite a bit of flooding given the abundance of moisture in the parklands. Temperatures in Saskatchewan have been below normal but are now returning to seasonal averages.

In southwestern **Manitoba** habitat conditions have remain largely unchanged since the last report. Areas south of Brandon remain under good conditions and areas north remain slightly better at very good conditions. Snow accumulation has been modest in the last month with most areas reporting 5 to 10 mm. The exception to this is the area south of Riding Mountain National Park which has received up to 70 mm of snow in the past month. These snowfalls tailed off southward at the Minnedosa pothole area, which has slightly more snow than the other prime production areas. Total snow accumulations remain average south of Brandon and slightly above average to the north. Temperatures have been extremely cold since the last report, but have recently risen to single negative digits. These cold temperatures have maintained the original frost seal and snowpack as fields remain covered throughout southwestern Manitoba.

Snow accumulation is generally good in the **Western Boreal Forest** (WBF) although it is highly variable even at a local level. Conditions are good in the extreme north and south of the Yukon but are below average in central portions of the territory including Dawson City. Reports from weather stations in Whitehorse, Dawson City, Watson Lake, and Old Crow show snow accumulations of 38 cm, 40 cm, 75 cm, and 4 cm, respectively. The Yukon is forecast to have average temperatures and average to below average precipitation over the next three months.

In the Northwest Territories snow conditions are above average around Yellowknife and in the southwestern corner around the community of Trout Lake. Communities along the Mackenzie River (Inuvik, Norman Wells, Fort Simpson, Fort Good Hope) are reporting 60-85 per cent of their average precipitation. Norman Wells reports 30cm of accumulated snow, Yellowknife – 43 cm, Fort Simpson – 51 cm, and Fort Good Hope 38 cm. Over the next three months the Northwest Territories are predicted to have above average temperatures with below average precipitation.

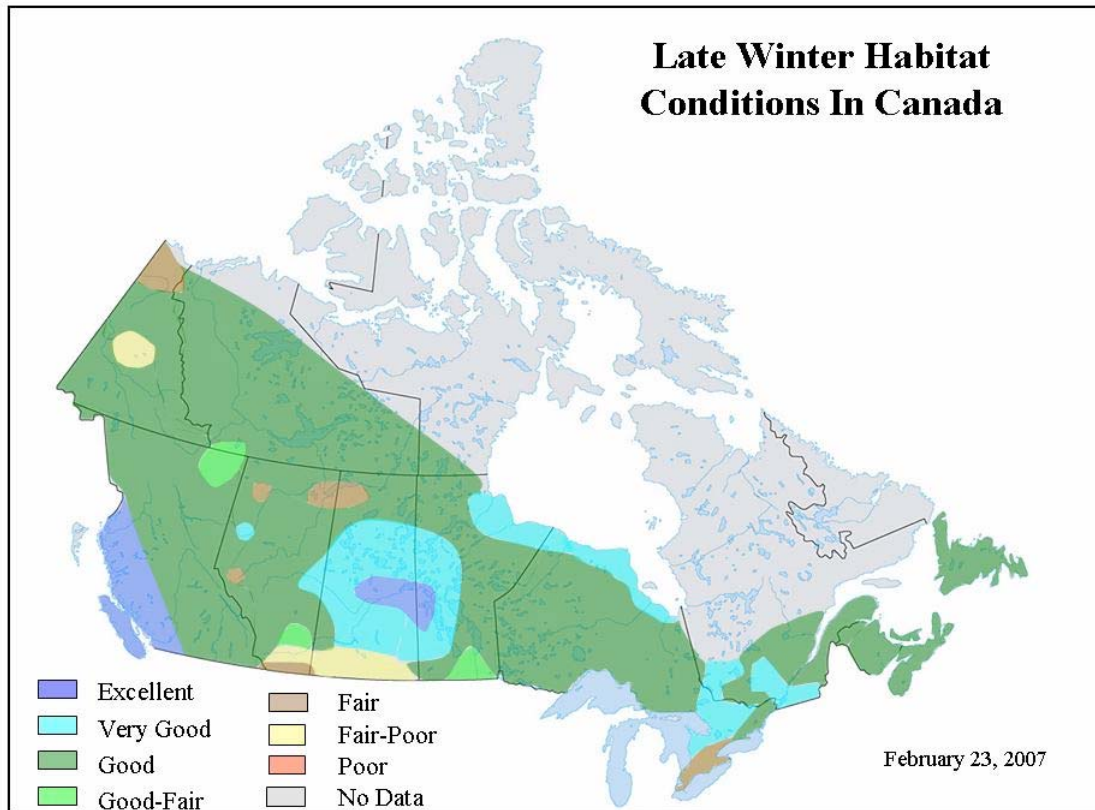
In northeastern British Columbia the mountain snow pack has been extremely high, with good snow accumulation around Fort St. John. Fort Nelson and Fort St. John are reporting 62 and 60 cm of snow – with more than 20 cm of snow accumulated since December's report. Above average temperatures and average precipitation are expected over the next three months in the region.

Levels of accumulated snow are very good in the boreal regions of Saskatchewan and Manitoba with much of this region receiving precipitation ranging from 115-200 per cent of average. In the boreal region of Alberta conditions improve in the northeast and northwest, but remain below average in central locations including Slave Lake and Fort Vermillion. The boreal transition zone remains very strong with above average snow conditions. Reports from weather stations in Elk Island National Park, Fort McMurray, Cold Lake, and Whitecourt report 45cm, 49cm, 42cm, and 56cm of accumulated snow, respectively. Buffalo Narrows, La Ronge, and Uranium City show snow accumulations of 49cm, 47cm, and 45cm, respectively, while The Pas and Thompson report 53cm and 45cm. Average temperatures are forecast for the next three months in the boreal portions of Alberta, Saskatchewan and Manitoba, while northern Alberta and northern Manitoba expect to receive below average precipitation. Saskatchewan is forecast to receive average amounts of precipitation during this period.

Wintry conditions have finally returned to **Ontario** with below average temperatures and snow squalls replacing the mild weather of December and early January. The frost seal and snowpack vary throughout the province, however, wetlands were generally at full supply prior to freeze-up and so habitat conditions are still considered to be good. Conditions across southern Ontario grade from fair in the southwest to good in the southeast with a relatively shallow frost seal. The traditional "snow belt" region of central Ontario, extending from the Bruce Peninsula to the upper Ottawa Valley has received some significant snowfall and is rated as very good. Conditions in both northwestern and northeastern Ontario continue to be good despite snow accumulations being well below seasonal norms. This lack of snow has led to a deep frost seal, which should bode well for any ensuing melt.

In **Quebec** January temperatures were 1-4°C above normal but returned to seasonal averages in early February. Precipitation was below average in Quebec in January except in Montreal where total precipitation was above average. Levels of accumulated snow generally range between 10-30 per cent of average as much of the precipitation in early January fell as rain. In mid-February, 25-50 cm of snow fell in areas along the St. Lawrence River but northern regions (Abitibi and Saguenay) were not affected by this storm. Additional snow will be needed to improve the outlook for spring habitat conditions in the province. The level of the St. Lawrence River at Sorel station was close to average in January and there is still some open water in the estuary. The St. Lawrence Gulf remains unusually ice-free in some places. At the moment, the frost seal is ensured by a spell of cold temperatures in northern and central regions of Quebec and habitat conditions remain good to very good.

Migratory waterfowl will be returning to their northern breeding grounds in **Atlantic Canada** in a few weeks. These birds will be joining the usual number of Canada geese and American black ducks that over winter across the Maritimes. The winter of 2007 has been similar to the previous year; temperatures are somewhat colder but snow cover over the entire region has been limited. Most coastal areas, estuaries and many inland rivers and wetlands have complete ice cover, with only small areas of open water. These conditions have the majority of the wintering waterfowl concentrated in those areas, making for easy winter surveys. Migrating waterfowl will be met with favourable habitat conditions in the weeks to come, as the long range forecast is calling for the warm weather to begin.



Prepared by Stacey Hay

Field Contacts:

British Columbia – Bruce Harrison
Alberta – Ian McFarlane
Saskatchewan – Michael Hill
Manitoba – Mark Francis
Western Boreal Forest – Darcy Falk
Ontario – Scott Muir
Quebec – Patrick Harbour
Atlantic Canada – Wade Lewis