



## Late Winter Habitat Conditions in Canada

March 25, 2009

*Although winter precipitation has been low in some areas of British Columbia, conditions have improved in the Peace region, and waterfowl are arriving there as well as in other regions. The southern Yukon has received near record levels of snow and will be welcoming migrants shortly. Northern portions of the Northwest Territories have received less snow than normal, while Yellowknife and the northern prairies should have average spring conditions. In Alberta, an early spring has improved prospects for spring runoff in many areas and Canada geese, mallards and northern pintails have been observed. Canada geese and mallards are also arriving in Saskatchewan, where conditions vary but prospects for spring runoff have improved in some areas. Conditions range from good to excellent in southwestern Manitoba and Canadian geese have started to arrive. Conditions vary in Ontario and waterfowl arrivals are lower than expected given the early spring. Quebec received average to above average snowfall this winter, and average spring conditions are predicted. Conditions should also be good in Atlantic Canada, where initial reports from winter waterfowl surveys show strong numbers again this winter.*

### WESTERN REGION

#### **British Columbia**

Despite cold and wet conditions through early March, mid and high elevation snowpacks on Vancouver Island and the South Coast are well below normal. Colder temperatures have delayed the melting of wetlands and many waterfowl are still utilizing perennial grass fields for feeding and roosting sites. With pending migration, waterfowl are looking for food resources to store reserves for the long flight. Pacific herring are beginning to spawn in the Georgia Strait, and will provide an energy-dense food source for migrating sea ducks.

Much of the central Interior is still recovering from low water levels over the past several years, but some wetlands are expected to fully recharge. Snow

accumulation is above average or average in most of the region but some areas, such as the Chilcotin, are still below normal. Many waterfowl species have returned to the region despite the relatively cool weather.

In the southern Interior, many waterfowl species have returned over the last week, and ice-free water bodies are alive with the sounds of spring again. Snow accumulation is slightly below average in the Thompson basin, and well below average in the Okanagan. In the southeast Interior, snow accumulation is still below average in the Columbia and Kootenay basins.

Snow accumulation was above average this winter in the Peace region, and 6 to 8 “ of recent wet snow has improved the outlook for spring. Earlier estimates of frost seal were slightly negative due to dry conditions last fall, but runoff conditions should now be at least normal due to the combination of snowfall and cold late winter temperatures. Canada geese have recently arrived in the southwest portion of this region, which is an earlier arrival than usual.

### **Western Boreal Forest**

While the northern Yukon has experienced average snow accumulation, the southern Yukon sits well above average for snowfall, with near record levels in some areas and a possibility of flooding in southern communities. Whitehorse received almost 350% of its normal snowfall for February. As March turns into April, migrant birds should begin to appear around open water at lake outlets. The Celebration of Swans will occur in and around Whitehorse during April, as Trumpeter Swans pass through the area.

In general, northern regions of the Northwest Territories have had less than normal snowfall, while portions of the south have received higher than normal snowfall. Norman Wells and Fort Simpson received normal snowfall, and Yellowknife and Hay River received 150% and 70% of their average snowfall, respectively. The Yellowknife area should experience an average spring, although it may arrive late.

Spring conditions should be normal across much of the northern prairies, where snowfall accumulation has been below average to average. Temperatures have resulted in fluctuations between melting and freezing, so the thaw has been slow and is soaking into the ground so far. La Ronge, Saskatchewan received close to 160% of its average snowfall. Further north, Key Lake received almost 180% of its average snowfall. In Manitoba, the Pas has been cool and precipitation has been close to normal. Spring runoff and habitat conditions are forecast to be average with no flooding expected in this area. Flin Flon, Manitoba received almost 170% of its normal snowfall.

## **PRAIRIE REGION**

### **Alberta**

Alberta has experienced an unsettled March. There have been some significant snowfall events and periods of wind, in addition to temperatures ranging from below to above average. As a result of a storm on March 22, there is currently 10 to 30 cm of fresh snow on the ground in the southwest Foothills-Calgary-Red Deer-Rocky Mountain House and Wainwright-St Paul-Cold Lake areas. Temperatures are approximately 5 to 10 C below normal, but were 5 C above normal a week earlier.

Most of the province experienced more snow in March than in the previous four months of winter. This has broken the dry trend, which started in the fall of 2008. Snowfall has been accompanied by periods of wind, which consolidated the snow in road ditches, wetlands and field lines. A few days of warm temperatures in the Prairie and Aspen Parkland led to some melting and evaporation. As a result, most of the winter snowpack is now gone in the Prairie. In the northern Aspen Parkland, Boreal Transition Zone and Peace Parkland, melting has been limited.

Overall, winter precipitation totals have been average to above average in the Peace Parkland, Boreal Transition Zone and north Aspen Parkland, and spring runoff is anticipated to be fair to good in these areas. In the east and south Aspen Parkland, snow accumulations are below average and predicted runoff is fair to poor. Recent snowfall in the western Aspen parkland has raised snow accumulations to average and runoff is expected to be fair. Below average snow accumulations continue into the north Prairie and a poor runoff is anticipated. Most of the snow has melted in the south Prairie. Runoff is good in the south east, including Cypress Hills, but fair in most of the remainder of the Prairie. Snow remains in the Calgary area and recent snowfall has boosted the runoff potential there. Winter snowpack in the southern mountains is generally below average. Alberta Environment predicts a below average water supply in the South Saskatchewan River Basin, which supplies southern Alberta irrigation districts.

Through much of Alberta, spring habitat conditions are often a reflection of late winter and early spring precipitation events. So far, the early spring has significantly improved the prospects for spring runoff in many areas. With a rapid spring melt, and average or above precipitation in the remainder of March and April, wetland water levels will rebound from their poor state at freeze-up.

The spring migration has begun. Canada geese have started to move through the Prairie and into the Aspen Parkland, and can be observed standing

on the ice. This arrival is one to two weeks behind recent years. Small flocks of mallards and northern pintails have also been observed in the southern Prairie.

## **Saskatchewan**

Wetland habitat conditions vary across Saskatchewan. The southeast portion of the province has a good snowpack and an above average runoff is predicted, which hasn't occurred in three to four years. There is also a good potential for runoff in the Missouri Coteau, which has also not seen an average runoff in several years. The northwest part of the province, including the Thickwood Hills, also currently has good snow conditions and the potential for an above average runoff. North central and northeast portions of the province, including the Allan/Dana Hills, Touchwood/Beaver Hills and the Upper Assiniboine area, are expecting a normal to below normal runoff. The southwest and west central areas of the province have a below average snowpack and are expecting a below average runoff.

Across Saskatchewan, temperatures have been an average of 3 C below normal, so spring melting has been slow so far. Temperatures are expected to be above 0 C next week, so run-off should start in the coming weeks.

Canada geese arrived in the province last week and a few mallards have been observed in open areas along the Saskatchewan River. Migration should continue to build as the temperatures warm up.

## **Manitoba**

Although much of southwest Manitoba has received only average precipitation this past winter, prospects for spring conditions are improved due to a combination of factors. These include colder temperatures, a good snowpack, a late arrival of spring, and a layer of ice covered ground, which will create favourable runoff to fill wetlands.

A mid February rain event resulted in a frozen shield of ice over the ground, with a remaining snowpack throughout southwest Manitoba. This will create an excellent conduit for runoff to fill wetland basins. The average snowfall throughout most of the breeding range is now more than adequate for initial settling of birds, due to the fact that it has remained on fields and has been subjected to few melting periods throughout the winter. This has resulted in a good snowpack still remaining in the major pothole regions.

A recent melt from March 20 to 22, coupled with heavy rains, gave us a preview of things to come and resulted in many basins receiving good runoff.

This has since been slowed by colder temperatures and another major snow storm event, which brought at least 6 “ of wet snow to the entire pothole region.

All of these factors will maintain excellent breeding conditions for waterfowl in the Minnedosa/Shoal Lake pothole region. This has also improved conditions in the Killarney and Virden Pothole regions, where wetland and soil moisture were limiting factors going into the winter. The first Canada goose was observed on March 15, and by March 22 small flocks and pairs were becoming more common. This initial migration has since been halted with the recent storm event.

## **EASTERN REGION**

### **Ontario**

Warm temperatures and several rain events preceded the official arrival of spring and eliminated the remaining snowpack across southern Ontario. The thaw in mid February greatly reduced winter snow accumulations and as such, runoff and flooding from this recent mild spell was minor. Permanent wetlands throughout the southern region of the province are fully charged and most are ice-free with the exception of forested areas in south central and southeast Ontario. Unfortunately, the outlook for seasonal wetlands is not as encouraging. Many of these habitats have already dried-up or are receding quickly due to the poor frost seal, warm winds and limited runoff. These pairing habitats tend to be in slightly better condition in the southwest, which experienced wetter weather than the southeast. On the upside, soils are fairly saturated and these temporary habitats could rebound quickly if the rains return.

Spring habitat prospects continue to look promising from Muskoka northward to the Nichol Belt region over to North Bay, where snow still covers the ground, and wetlands and lakes remain iced over. The story is much the same for northeast Ontario, which received decent amounts of snow, except for parts of the Clay Belt. The habitat outlook remains fair for most of the northwest part of the province, which have experienced below normal amounts of precipitation this winter.

Waterfowl are beginning to arrive along the coast and at select inland sites, although numbers are lower than expected given the early spring.

## **Quebec**

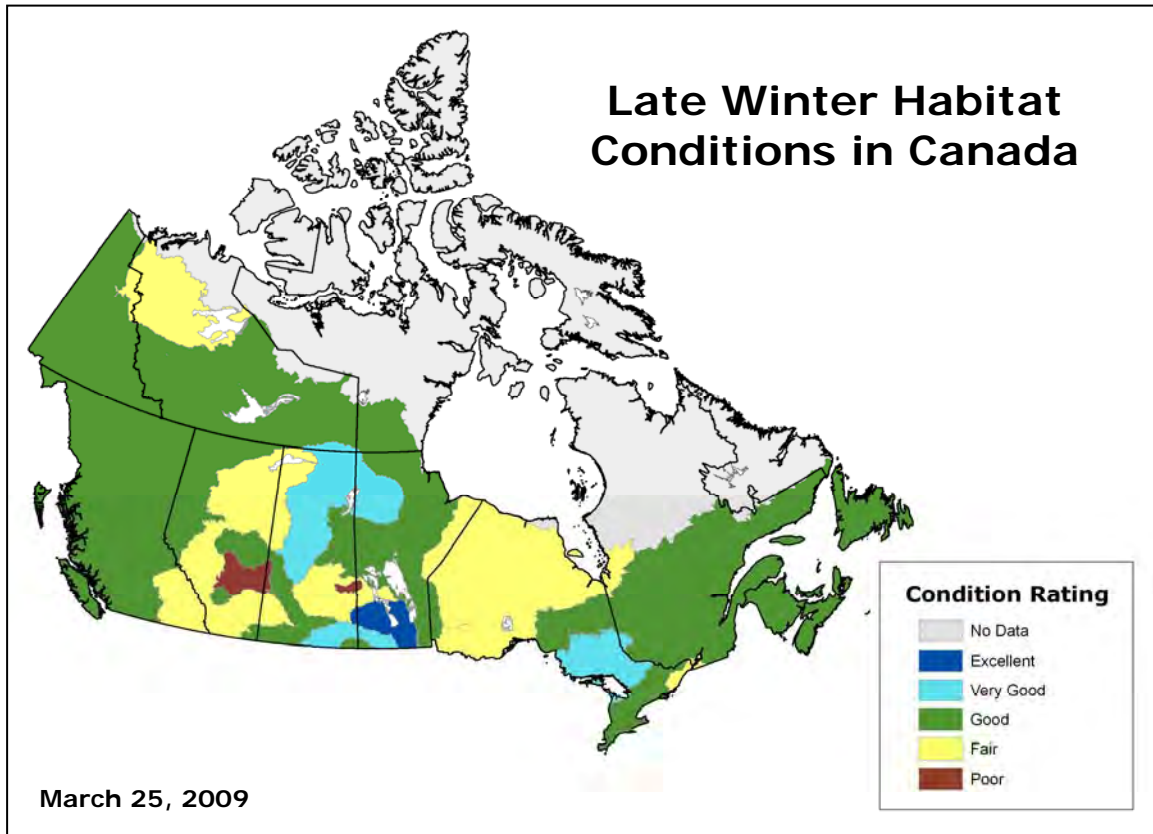
Conditions have been comfortably mild in Quebec this year. Average temperatures were higher than normal throughout the province, with the monthly average ranging from 1 to 3.2 C. Total monthly precipitation exceeded the norm for Montreal and Eastern Townships, and was exceptionally abundant for the Abitibi region, which experienced 40 cm more snow than normal this winter. In other regions, snow precipitation was close to or slightly below the norm.

Snowpack was below average throughout most of the province, except in the Abitibi region which had 10 cm more snow than normal. In the St. Lawrence Lowland, there is no more snow on the ground. This, coupled with mild weather, will result in an early spring in this region. Spring conditions should be good throughout the rest of the province.

## **Atlantic Canada**

Although the first day of spring was March 21, Atlantic Canada is still experiencing winter conditions. Temperatures are below the seasonable norm in most areas, and the region has experienced snow and high winds. However, the long range forecast is somewhat favourable, with warmer weather approaching. Winter waterfowl surveys have concluded and initial reports are showing strong numbers again this year.

Spring migration of Canada geese has started, with sightings throughout the entire region. For the most part, these migrants are experiencing cold temperatures and snow covered grounds. An early thaw in March has created open water in many of the rivers and streams, and temperatures will warm up soon and provide sufficient food supplies. Habitat conditions will improve as the seasonable weather arrives over the next few weeks and spring habitat projections are good overall.



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