

2015 FIRST SPRING FLOOD OUTLOOK FOR MANITOBA

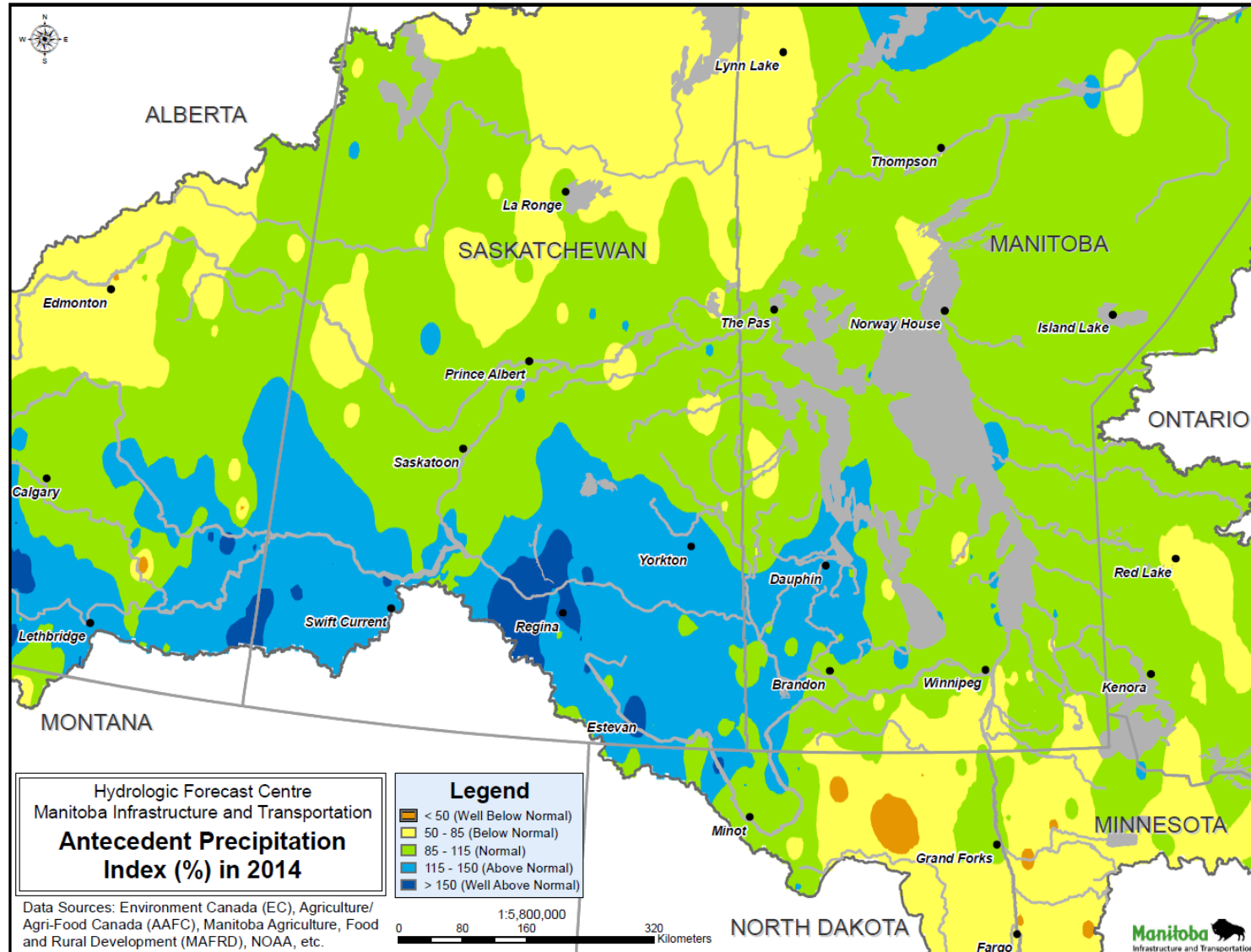
**Hydrologic Forecast Centre
Manitoba Infrastructure and Transportation
Winnipeg, Manitoba**

February 27, 2015

Base Flow and Level Conditions

- **Lakes**
 - All major lakes are well above normal
- **Rivers**
 - All major rivers flow well above normal for this time of the year
 - The exception is the Red River which is near normal
- Above normal base flow indicates significant amount of moisture in the soil

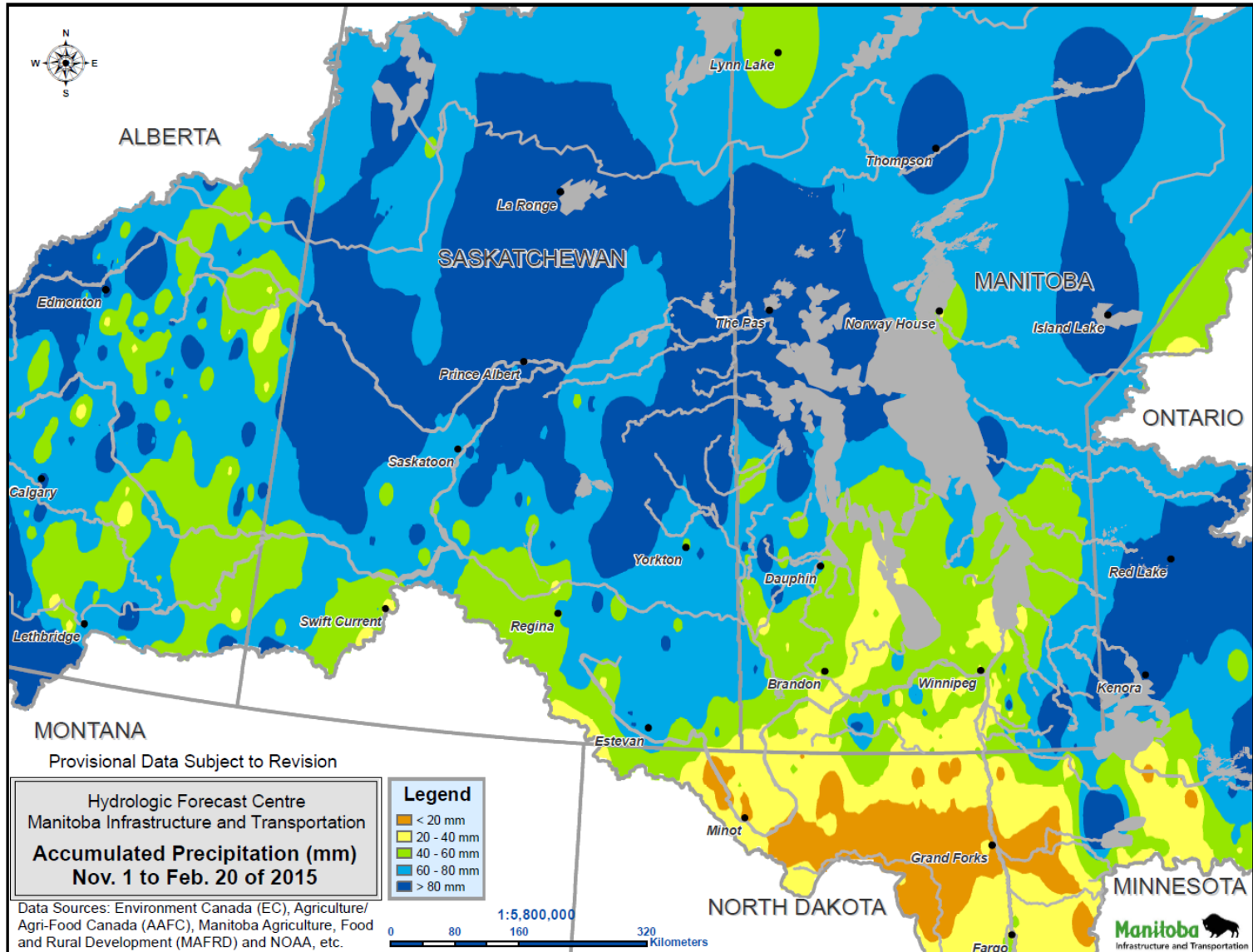
Soil Moisture at Freeze-up



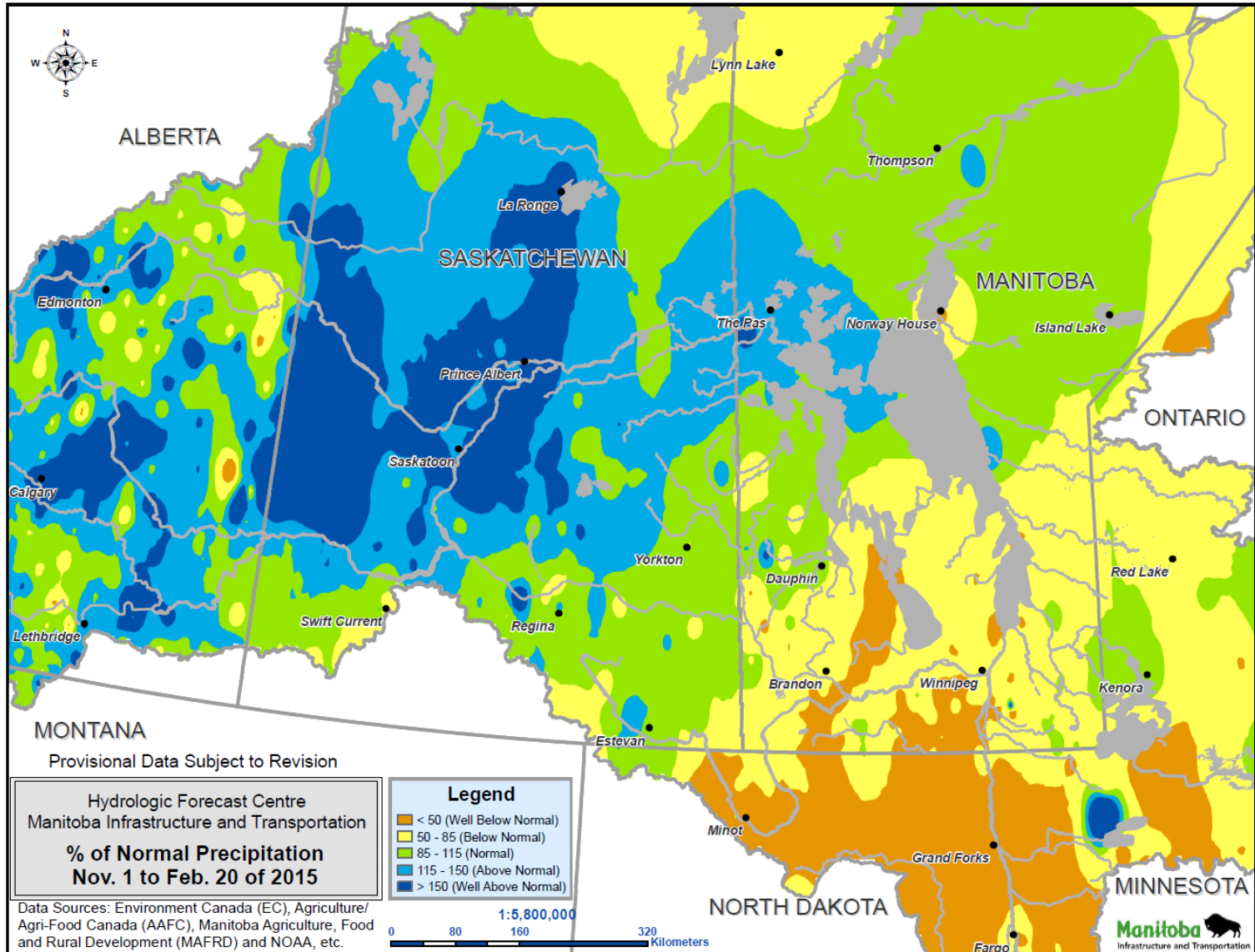
Frost Depth

- **Sothern and South Western Manitoba (Red River, Pembina River, etc)**
 - **Deeper than Normal**
- **The rest of the province**
 - **Near normal (1.7 m to 2.2 m)**
- **Generally, frozen soil prevents infiltration and recharge, thereby causing an increased runoff Potential**

Winter Snowpack/SWE - mm

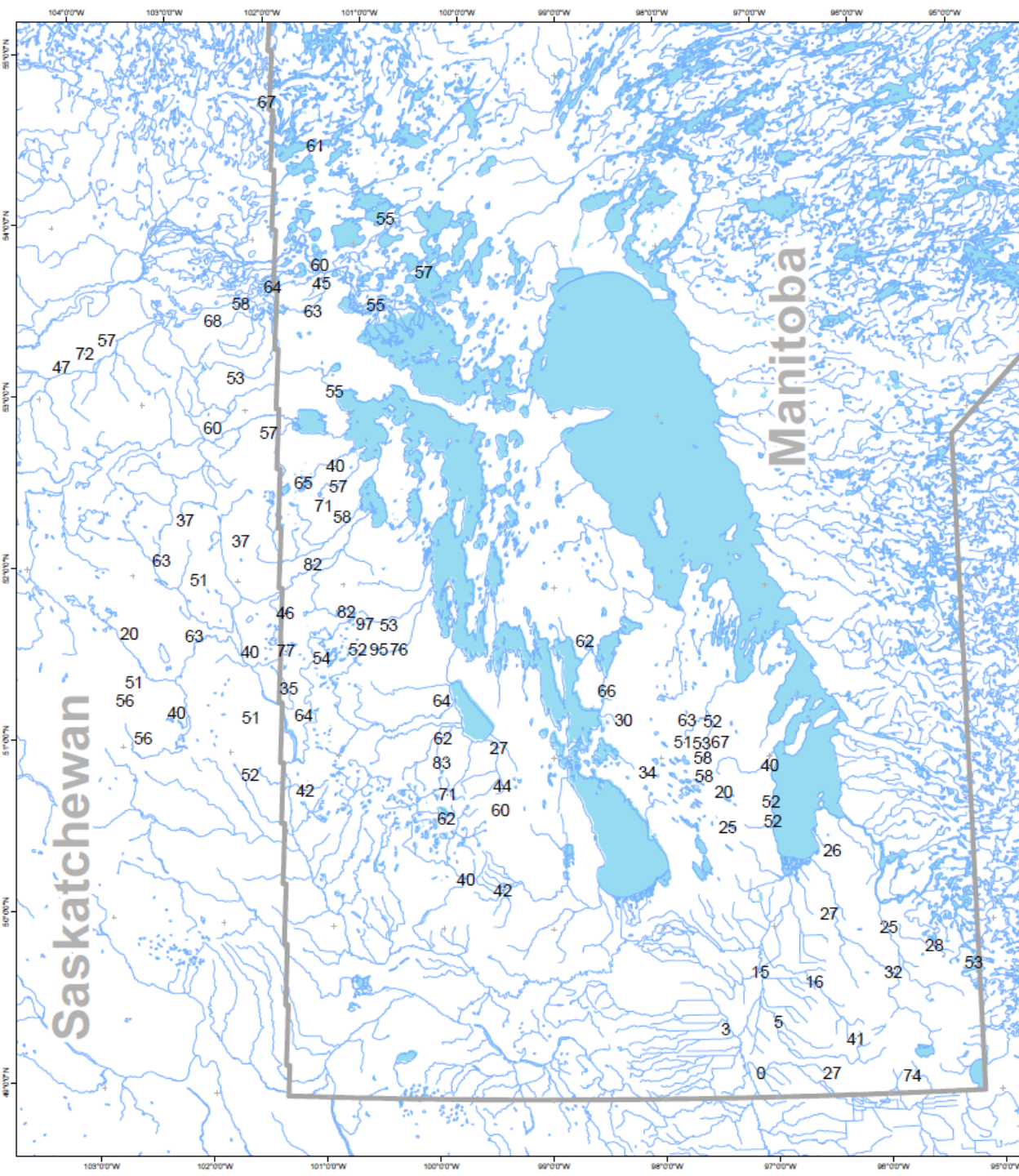


Winter Snowpack/SWE - %

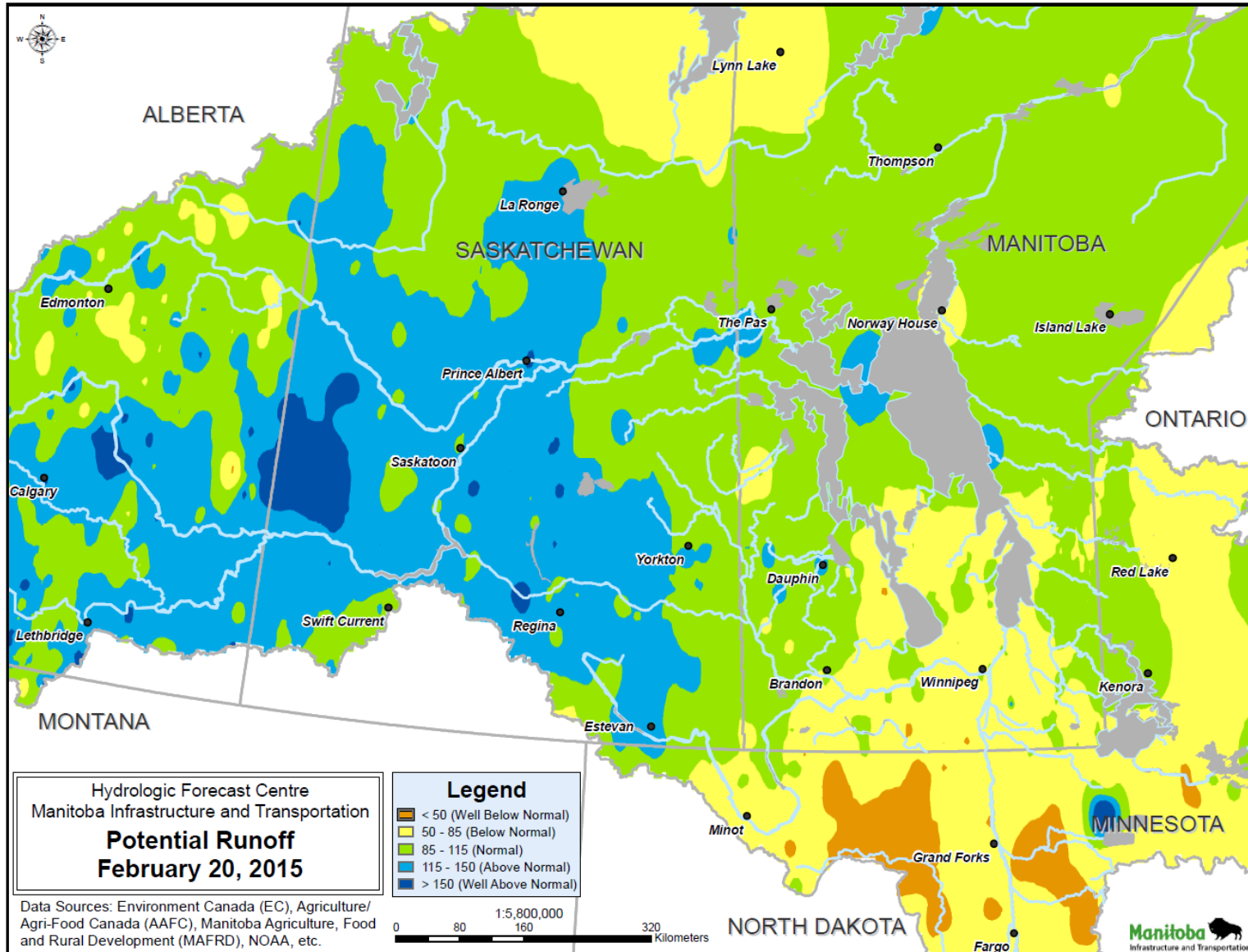


Snow Survey Map

Water Content in mm
Feb 13- 15, 2015



Spring Outlook



Risk for Potential Flooding

	Risk of Flooding (Unfavourable)	Analog Year
Red River	Minor	2008
Pembina River	Minor	2010
Roseau River	Minor	2010
Assiniboine River	Moderate to Major	2005
South West Region (Souris River, etc)	Moderate to Major	2001
Interlake Region	Minor to Moderate	
Northern Manitoba and The Pas Regions	Minor to Moderate	2010
Lakes	-	-

***Minor Risk – There is 90% chance that levels are below the river bank**

By the Numbers:

- **Red River**
 - **At James Avenue:** 9.8 ft - 14.9 ft
 - **Flow at Ste. Agathe** 6,000 cfs - 27,000 cfs
- **Assiniboine River**
 - **At Brandon:** 4,000 cfs - 14,000 cfs
 - **At Portage:** 4,500 cfs - 17,000 cfs
- **Souris River:**
 - **At Wawanesa** 1,400 cfs – 6,700 cfs
- **Shellmouth Dam:** 1408.5 ft (Spillway Level)