



PEMBINA VALLEY WATER COOPERATIVE INC.

July 28, 2021

Pembina Valley Water Cooperative (PVWC) and its Supporting Member Municipalities Declare a “Drought State of Emergency” due to low Red River Level!

What’s Happening

In a meeting on July 27th, Pembina Valley Water Cooperative and its 14 Municipalities in South Central Manitoba declared a Drought State of Emergency. The meeting was attended by representatives from Manitoba Agriculture and Resource Development and Manitoba Emergency Measures Organization.

Background

The Canadian Drought Monitor reporting agency has designated Manitoba in a D3 – Extreme Drought (20 – 50 year) event as reported by the Manitoba Government. The US Drought Monitor expects this to continue past September.

Why is this a Problem

Water source levels and flows for PVWC at Stephenfield Lake and the Red River have had significant reductions over the past month. The concern is the Red River could dry up by the end of September at current weather projections or if flows are maintained, it will freeze at low levels thereby not allowing water to pass underneath the ice.

What’s Happening Now

For the four-week period of June 25 – July 27, the Red River flow at Emerson, was reduced from 1532 cubic feet per second to 752 cubic feet per second, a reduction of half. A similar reduction in the future would result in the river going dry. The river level is down 20.5 inches (520 mm).

The Stephenfield Lake has dropped 20 inches (508 mm) below the spillway. Of concern is that it dropped a foot (305 mm) in one week. It is stabilized with under flow changes but need continuous monitoring.

PVWC’s Letellier Water Treatment Plant intake is now above water and the reduced level on the Red River has required installation of temporary pumps to deliver water to our plant.

The Morris Water Treatment Plant intake has less than 10 inches (250 mm) over the screen.



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Response Plan

The objective is to regionally coordinate an “all in it together” effort to combat the water shortage.

Next Steps:

1. Designate a “Severe Stage” requiring a 15% reduction in water usage through conservation.
2. Investigate ways to store water that is currently flowing in the Red River today:
 - a. The Letellier plant has about 1.5 months of raw water storage.
 - b. The Morris plant has about 6 months of raw water storage.
 - c. Potentially have PVWC supply more water to Winkler to conserve the aquifer and have Winkler supply PVWC customers in the future if the Red River goes dry.
 - d. Potentially have PVWC supply more water to Morden to conserve Lake Minnewasta, and in the future have Morden supply PVWC customers.
 - e. Investigate other ways to store water to keep PVWC plants running.
 - f. Investigate other water sources within the province.
3. Encourage alternate water sources by using gravel pits, creeks & ponds and rain barrels.
4. Continue discussions with the Province to look for solutions.

Key Message

This is a serious situation. Although we would like a month-long rain to make it go away, we need community, agricultural and business support to reduce usage and are proactively planning for a potential long-term drought and its impact on our region.