



## Water Supply Conditions and Outlook

Based on Conditions as of May 1, 2024

Prepared By: Flow Forecasting and Operations Planning – Water Security Agency

## Overview

- The winter of 2023-24 was generally warmer than normal, with many thawing events that resulted in the consolidation and depletion of much of the snow.
- An early March snowstorm improved the runoff potential in most of southern and central Saskatchewan.
- Prior to spring runoff, most areas across the province had a below normal to well below normal snowpack. The exception was east-central, in the Yorkton area, where a near normal snowpack was present.
- The runoff across the province in spring 2024 generally varied from well below to near normal. The exception is across much of the Assiniboine River Basin where, due to a fast melt and the presence of ice layers, the runoff was well above normal and some localized flooding did occur.
- In April, the precipitation received ranged from below to well below normal in the Regina area and east through Yorkton, and in northeastern portions of the grain belt as well.
- Significant late April precipitation in the Moose Jaw to Outlook areas helped improve soil moisture conditions in this area.
- Above normal precipitation was received throughout the South Saskatchewan River Basin in both Alberta and Saskatchewan and across most of the southwest corner of the province.
- Precipitation over the past month helped improve conditions across the province; however, conditions still generally remain drier than normal.
- Drought conditions are most prevalent in the west, covering an area from Leader north to Lloydminster and west to Saskatoon, the area around Regina, and in the north central area around Reindeer Lake.
- Northern rivers are experiencing very low flows with very little improvement expected with runoff, which has not yet occurred.
- Most major water supply reservoirs are at or near normal levels for this time of year.
- Surface water supply concerns may arise in the south if dry conditions intensify.
- In the Southwest, the Big Stick Lake Basin has implemented restrictions for irrigation use due to the lower water levels.
- A spring operating plan that focuses on storing water is in place at Lake Diefenbaker to ensure an adequate water supply for all users on the system.
- The current snowpack accumulation in the Rockies currently varies significantly from well below to near normal. With the conservative winter plan implemented, the water levels at Lake Diefenbaker are currently above normal for this time of year.
- In the Souris River Basin, Grant Devine is near full. Boundary and Rafferty reservoirs did not fill but are within their normal operating ranges.
- All lakes within the Qu'Appelle River Basin are at near normal levels for this time of year and are expected to remain in the normal operating range.
- Flows are well below normal for this time of year across the Churchill River Basin.
- Long-range forecasts predict near-normal precipitation and warmer than normal temperatures across Saskatchewan from March to May.
- Indicators suggest that there is a higher risk of agricultural and hydrological drought this year. The Water Security Agency will monitor landscape conditions and water supply reservoirs closely to allow for a timely response to dry conditions.
- The agency continues to work internally and across government to identify opportunities and programming to support residents in times of drought.

Cover Photo: Red Deer River near Archerwill, April 26, 2024  
(Jenna Coates, Water Security Agency)

## 2024 Spring Conditions

### Winter 2023-24

#### Summary:

- The winter of 2023-24 was generally warmer than normal, with many thawing events that resulted in the depletion of much of the snow.
- An early March snowstorm improved the runoff potential in most of southern and central Saskatchewan.
- Prior to spring runoff, most areas across the province had a below normal to well below normal snowpack. The exception was east-central, in the Yorkton area, where a near normal snowpack was present.

Unseasonably warm temperatures throughout November and December as well as late in January across the province caused much of the early snowpack to be lost to sublimation (where the snow evaporated without melting into the soil). On February 1, the runoff potential was classified as well below normal in all areas of the province, except for portions of the southeast where soil moisture was slightly higher in the fall and the snowpack was not as depleted as other areas. An early March snowstorm brought 5 to 45 cm of snow to most of southern and central Saskatchewan, which improved the runoff potential in these areas. Due to the presence of ice layers and with the heavier snow received in March, areas in central Saskatchewan including North Battleford and Saskatoon and an area on the southern part of the eastern edge of the province were classified as having near normal snowmelt runoff potential at that time. Prior to snowmelt runoff in spring 2024, the snowpack generally ranged from below to well-below normal in most areas of the province.

## Spring 2024 Precipitation Summary

#### Summary:

- Spring 2024 precipitation has been below normal to well below normal in the Regina area and east through Yorkton, and in northeastern portions of the grain belt as well.
- Significant late April precipitation in the Moose Jaw to Outlook areas helped improve soil moisture conditions in this area.
- Above normal precipitation was received throughout the South Saskatchewan River Basin in both Alberta and Saskatchewan and across most of the southwest corner of the province.
- WSA is closely monitoring the early May rainfall event and will update once the system passes.

Figure 1 shows the per cent of average precipitation received across the province over the past month. In April, there were two major precipitation events that occurred in the province. The first was a rainfall/snow event that mainly hit the northern region of the grain belt and into northeastern Saskatchewan. The second event occurred at the end of the month and into the beginning of May. During this event, the Moose Jaw to Outlook area and surrounding areas received 30 to 50 mm, which improved soil moisture conditions across the area.

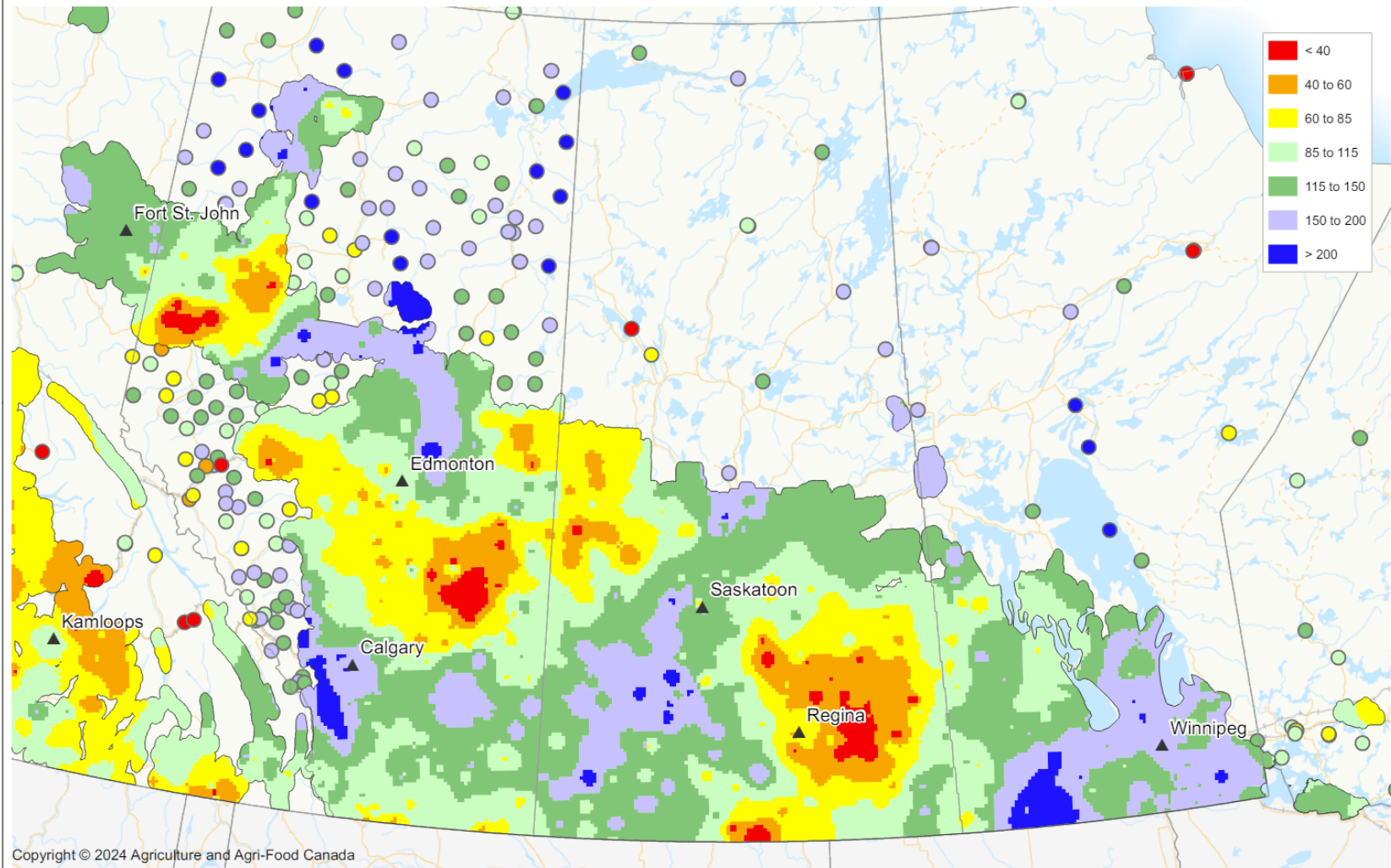
The area encompassing Regina east through Yorkton received the lowest percentage of normal precipitation during April, only recording 40 to 60 per cent of normal accumulations. The northwestern area of the grain belt also received below normal precipitation during April.

The South Saskatchewan River Basin in both Alberta and Saskatchewan and the southeast corner of the province received above normal precipitation throughout the month of April.



# Percent of Average Precipitation

April 1, 2024 to April 30, 2024



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Prepared by Agriculture and Agri-Food Canada's Science and Technology Branch. Data provided through partnership with Environment Canada, Natural Resources Canada, Provincial and private agencies. Produced using near real-time data that has undergone some quality control. The accuracy of this map varies due to data availability and potential data errors.

Created: 2024-05-02  
[www.agr.gc.ca/drought](http://www.agr.gc.ca/drought)

Figure 1: Per Cent of Average Precipitation – April 1 to 30, 2024  
Map courtesy of Agriculture and Agri-Food Canada

## 2024 Spring Runoff Summary

### Summary:

- The runoff across the province has generally varied from well below to near normal. The exception is across much of the Assiniboine River Basin where, due to a fast melt and the presence of ice layers, the runoff was well above normal.

Preliminary estimates of runoff frequencies, based on peak mean daily flows, are provided in Figure 2. Warm temperatures throughout the winter resulted in the loss of the snowpack, with much of southern Saskatchewan being snow free in February. A significant snowstorm impacted much of Saskatchewan in early March, depositing 5 to 45 cm of snow in central and southern regions, which helped improve conditions particularly in eastern areas.

In the southwest, runoff responses generally ranged from near normal to above normal, with both the Denniel and Battle Creek recording 1:5 year flows this spring. The Battle, Middle and Lodge creeks saw higher than expected flows due to some late season precipitation and a fast melt.

In the southeast, the runoff response was mostly near normal in the Souris River and Moose Mountain Creek. Within the Qu'Appelle River Basin, the Upper Qu'Appelle experienced below normal runoff yields, and, due to the additional precipitation, the Lower Qu'Appelle observed near to above normal yields. Particularly noteworthy was Cutarm Creek, which encountered a 1:10 year flow event, contributing to a 1:5 year peak flow in the Qu'Appelle River at Welby.

The highest peak flows this spring were recorded in the eastern areas of the grain belt, particularly in the Assiniboine River Basin.

Here, due to a decent snowpack, frozen soils, and a fast melt in early April, peak flows generally ranged from 1:5 to 1:25 year events.

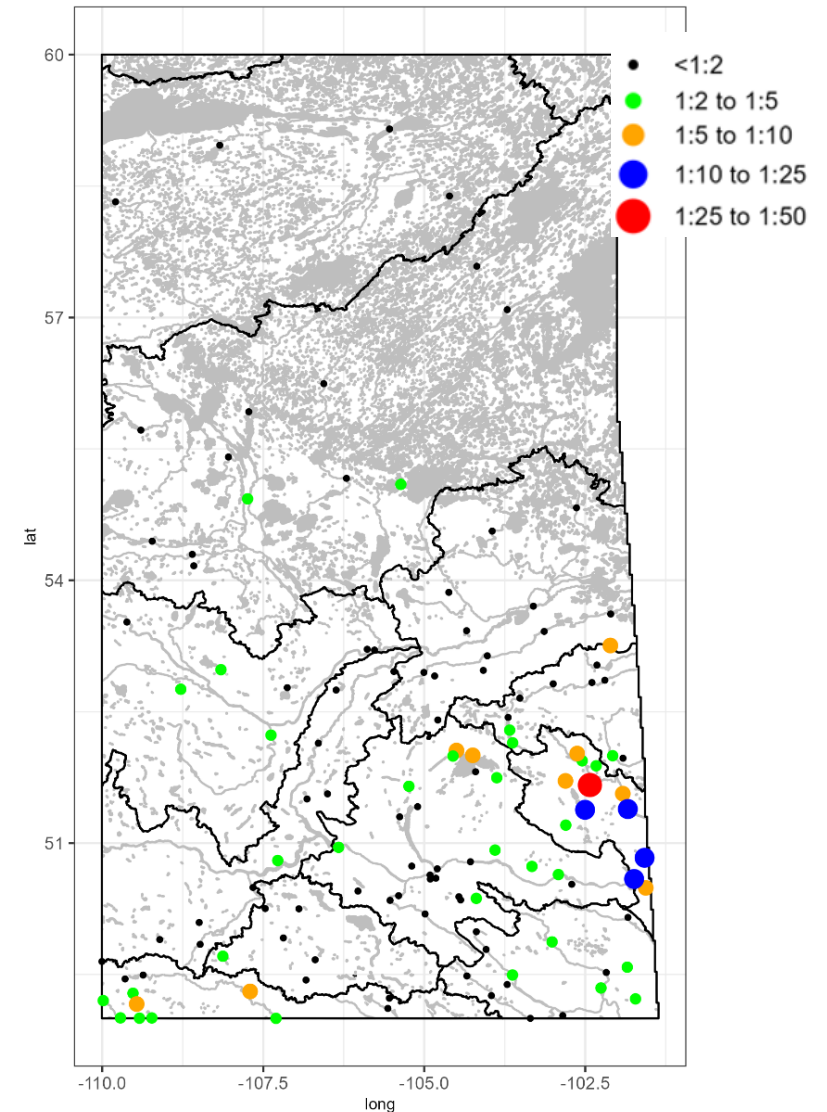


Figure 2: 2024 Peak Runoff Frequencies

## Soil Moisture Conditions

### Summary:

- Soil moisture conditions generally range from near to well below normal.
- Soil conditions are driest in west-central Saskatchewan.

Figure 3 shows the satellite-derived root zone soil moisture as of April 29, defined as moisture in the top one metre of soil, shown as a percentile relative to the period 1948 to 2012. The map shows that soil moisture conditions generally remain drier than normal across the province. Conditions are driest in central and eastern areas of the grain belt region of the province, and in parts of northern Saskatchewan. Due to some heavier precipitation events, soil moisture conditions have improved in southwestern Saskatchewan, where conditions are now closer to near normal. In the north, the snowmelt runoff is not yet complete.

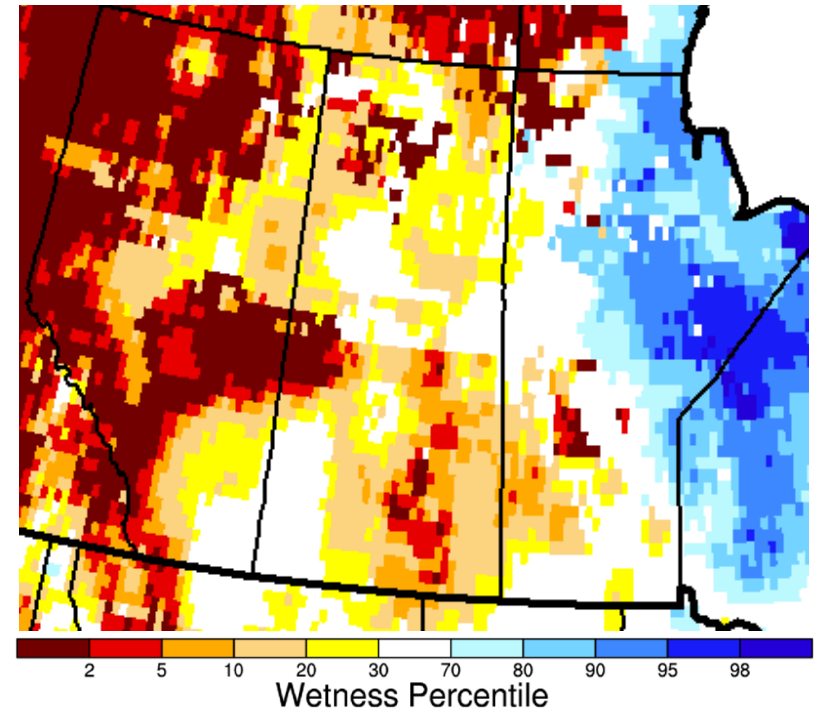


Figure 3: GRACE-Based Root Zone Soil Moisture Drought Indicator  
April 29, 2024  
(Map courtesy of NASA)

## Drought Risk

### Summary:

- Precipitation over the past month helped improve conditions across the province; however, conditions still generally remain drier than normal.
- Drought conditions are most prevalent in the west, covering an area from Leader north to Lloydminster and west to Saskatoon, the area around Regina, and in the north central area around Reindeer Lake.
- Northern Saskatchewan is experiencing drought conditions ranging from moderate to severe.
- Most major water supply reservoirs are at or near normal levels for this time of year.

The Canadian Drought Map from Agriculture and Agri-Food Canada defines drought conditions based on a number of different data sources, including factors such as temperature and precipitation indicators. The categories in this product range from abnormally dry, which signifies conditions that historically occur about once every three years, to exceptional drought conditions, which historically only occur about once every 50 years.

The Canadian Drought Map for April 30 is shown in Figure 4. This map shows that drought conditions remain across the province. Conditions are driest in the western portion of the grain belt where severe to extreme drought conditions are prevalent. Severe drought conditions are also present in the Regina area, and in north central Saskatchewan around Reindeer Lake.

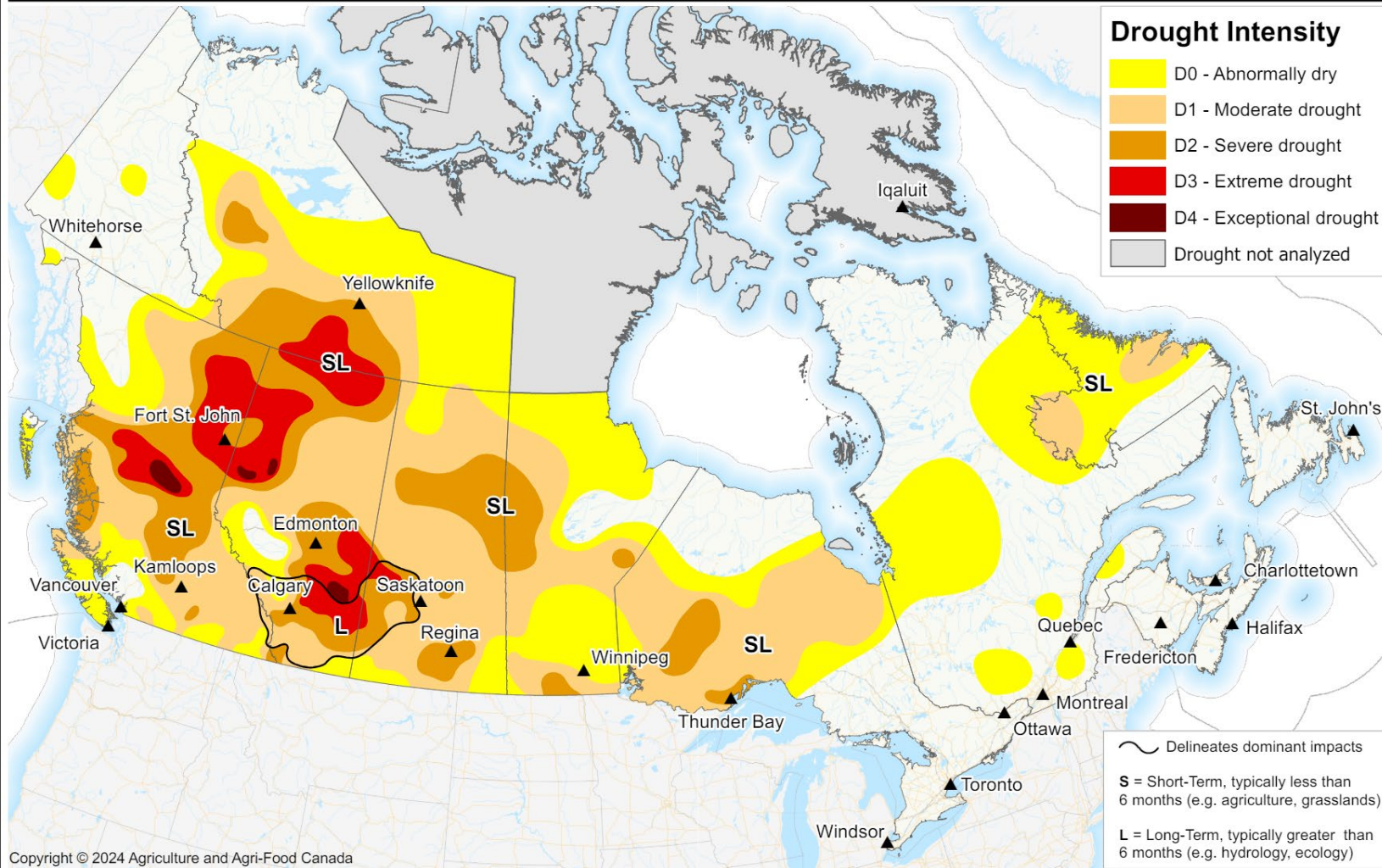
The six-month SPEI (Standardized Precipitation-Evapotranspiration Index) map is shown in Figure 5. SPEI is a normalized drought index that uses climate data to identify areas where drought conditions exist. The SPEI values are a relative measure of surface water surplus (positive values) or deficit (negative values) in an area. The values take the current precipitation minus the potential evapotranspiration and compare it to the average value at a location. The result is normalized, so the higher the negative number, the drier the conditions are. This map shows that over the past six months, prior to freeze-up, conditions had been warmer and drier than normal across most of the province.

Drought is monitored through multiple precipitation indicators including the six-month Standardized Precipitation Evapotranspiration Index (Figure 5), the per cent of normal precipitation (Figure 1) and the precipitation percentile indicator. Another factor taken into consideration when assessing drought conditions is the reservoir or lake water level percentiles (Figures 6 to 9).



# Canadian Drought Monitor

Conditions as of April 30, 2024



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Prepared by Agriculture and Agri-Food Canada's National Agroclimate Information Service. We also acknowledge various provincial, territorial and non-government organizations whose reports and assessments are consulted. The Drought Monitor focuses on broad-scale conditions. Regions in northern Canada may not be as accurate as other regions due to limited information.

Created: 2024-05-07  
[www.agr.gc.ca/drought](http://www.agr.gc.ca/drought)

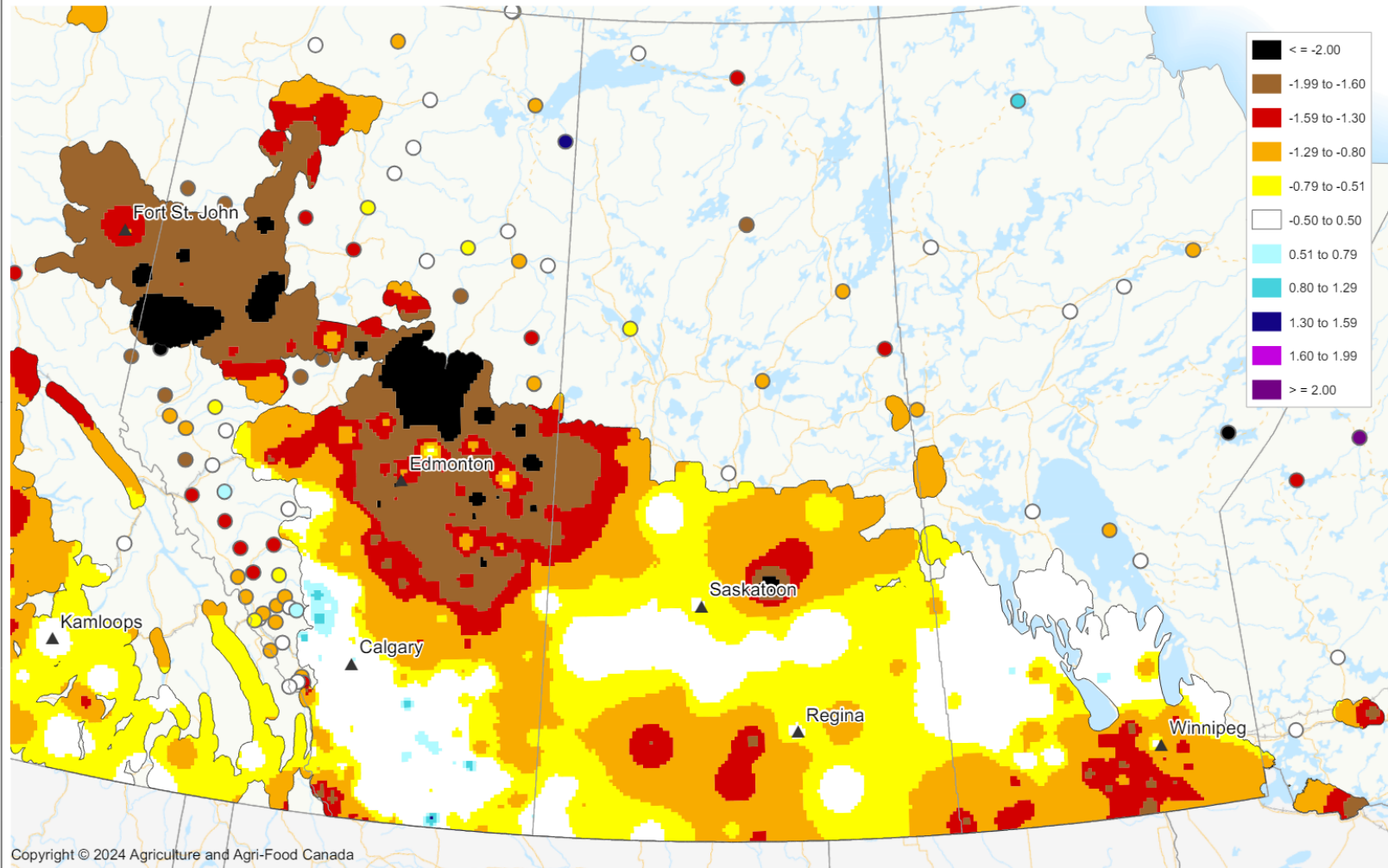
Figure 4: Canadian Drought Monitor – April 30, 2024  
(Map courtesy of Agriculture and Agri-Food Canada)





### 6 - Month Standardized Precipitation Evapotranspiration Index (SPEI)

as of April 29, 2024



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Prepared by Agriculture and Agri-Food Canada's Science and Technology Branch. Data provided through partnership with Environment Canada, Natural Resources Canada, Provincial and private agencies. Produced using near real-time data that has undergone some quality control. The accuracy of this map varies due to data availability and potential data errors.

Created: 2024-04-30  
[www.agr.gc.ca/drought](http://www.agr.gc.ca/drought)

Figure 5: Six-Month Standardized Precipitation-Evapotranspiration Index (SPEI) for April 29, 2024 (Map courtesy of Agriculture and Agri-Food Canada)

## Water Supply Conditions

### Summary:

- Most major reservoirs are at or above their normal operating ranges for this time of year. The exception is some reservoirs in the Big Stick Basin near Maple Creek which generally remain below normal.
- Surface water supply concerns may arise in the south if dry conditions intensify.
- A spring operating plan that focuses on storing water is in place at Lake Diefenbaker to ensure an adequate water supply for all users on the system.

Due to some well-timed precipitation events, and a fast melt in some areas of the province, the reservoirs in southern Saskatchewan are either at or above the normal operating levels for this time of the year. Figures 6-9 illustrate the status of various reservoirs in the southern region compared to their historical averages as of April 30. Almost all reservoirs in the south are near or above their historical average levels for this time of year. Some reservoirs in the southwest, particularly in the Big Stick Basin, are below normal due to minimal runoff. As such, there are still restrictions on non-intensive projects.

WSA is currently prioritizing water retention efforts at Lake Diefenbaker. Limited releases during the winter and spring have resulted in Lake Diefenbaker's elevation being slightly above normal for this time of the year. No water supply issues are anticipated at Lake Diefenbaker.

Table 1: Conditions at Major Water Supply Reservoir as of April 30, 2024

Reservoir	Date of Observation	Elevation (m)	Full Supply Level (m)	Departure from Full Supply (m)	Current Storage (dam <sup>3</sup> )	Current Per cent Full	Lower Quartile Elevation (m)	Median Elevation (m)	Upper Quartile Elevation (m)
Altawan	April 30, 2024	899.86	899.71	0.15	6,870	104%	897.45	899.38	899.89
Avonlea	April 30, 2024	597.87	597.90	-0.03	8,790	99%	597.39	597.68	597.90
Boundary	April 30, 2024	560.42	560.83	-0.41	58,400	96%	559.14	560.37	560.80
Buffalo Pound	April 30, 2024	509.34	509.47	-0.13	90,100	96%	509.35	509.49	509.71
Cookson	April 30, 2024	752.37	753.00	-0.63	36,400	89%	751.50	752.24	752.96
Cypress	April 30, 2024	975.16	975.97	-0.81	108,000	85%	971.99	973.41	975.12
Diefenbaker	April 30, 2024	553.00	556.87	-3.87	7,860,000	82%	550.63	551.58	552.61
Downie	April 29, 2024	876.93	878.89	-1.96	7,620	62%	N/A*	N/A*	N/A*
Eastend	April 30, 2024	918.58	918.06	0.52	3,500	138%	917.69	918.12	918.45
Grant Devine	April 30, 2024	561.93	562.00	-0.07	105,000	99%	561.00	561.11	561.98
Highfield	April 30, 2024	722.16	722.99	-0.83	10,800	72%	N/A*	N/A*	N/A*
Huff	April 30, 2024	815.68	815.72	-0.04	4,220	98%	814.63	815.73	815.82
Junction	April 30, 2024	755.08	757.28	-2.20	5,320	41%	N/A*	N/A*	N/A*
Newton	April 30, 2024	803.25	803.28	-0.03	12,200	99%	802.50	803.13	803.37
Nickle	April 30, 2024	563.03	563.00	0.03	13,400	101%	562.54	562.94	563.14
Rafferty	April 30, 2024	549.74	550.50	-0.76	404,000	92%	548.18	549.40	549.94
Reid/Duncairn	April 30, 2024	807.89	807.72	0.17	108,000	102%	N/A*	N/A*	N/A*
Thompson/Laflech	April 30, 2024	714.72	714.76	-0.04	36,900	99%	N/A*	N/A*	N/A*

\*Insufficient historical data available to compute statistics.

# Current Reservoir Conditions

April 30, 2024

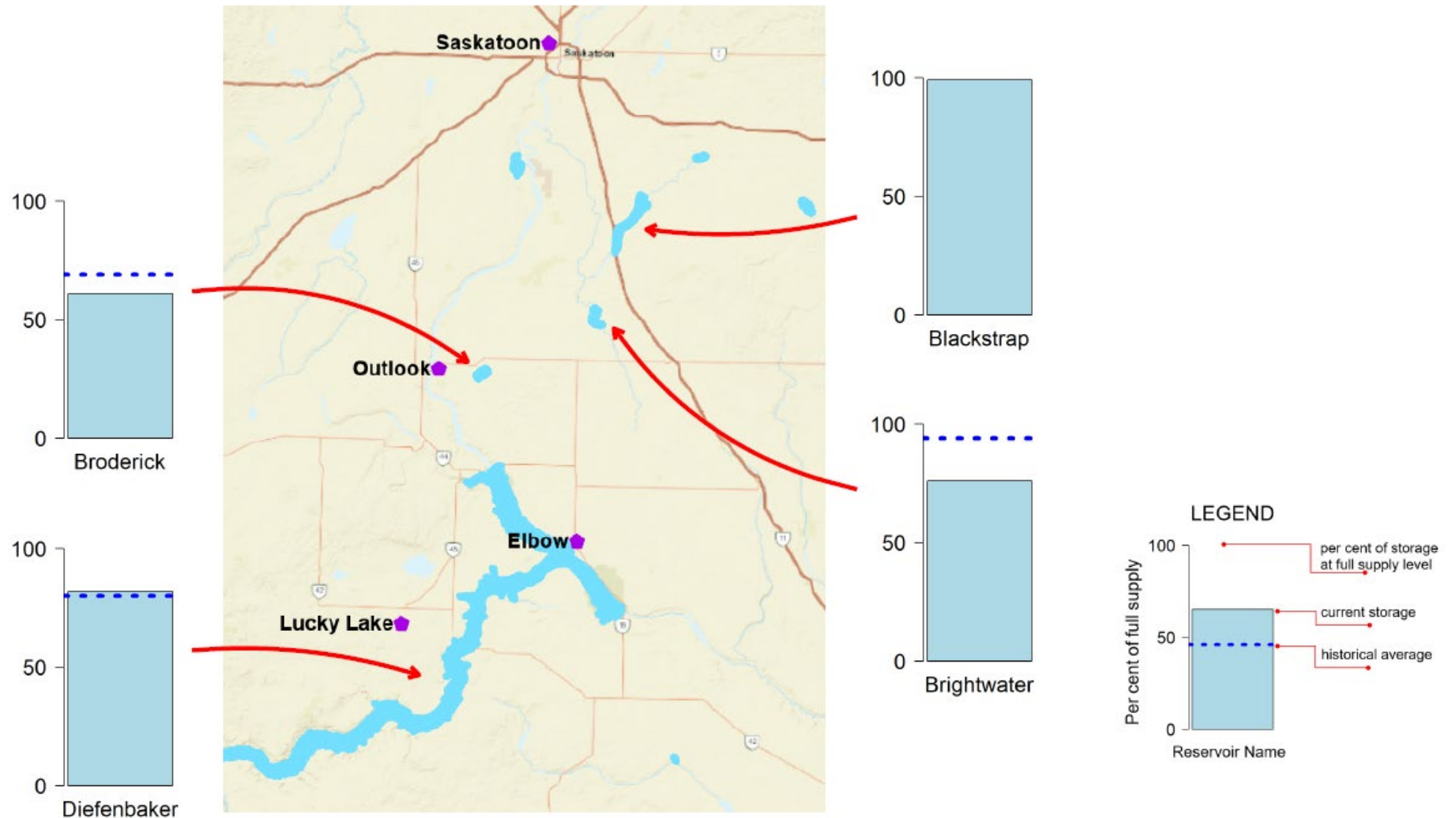


Figure 6: Reservoir Conditions in Central Saskatchewan as of April 30, 2024

# Current Reservoir Conditions

April 30, 2024

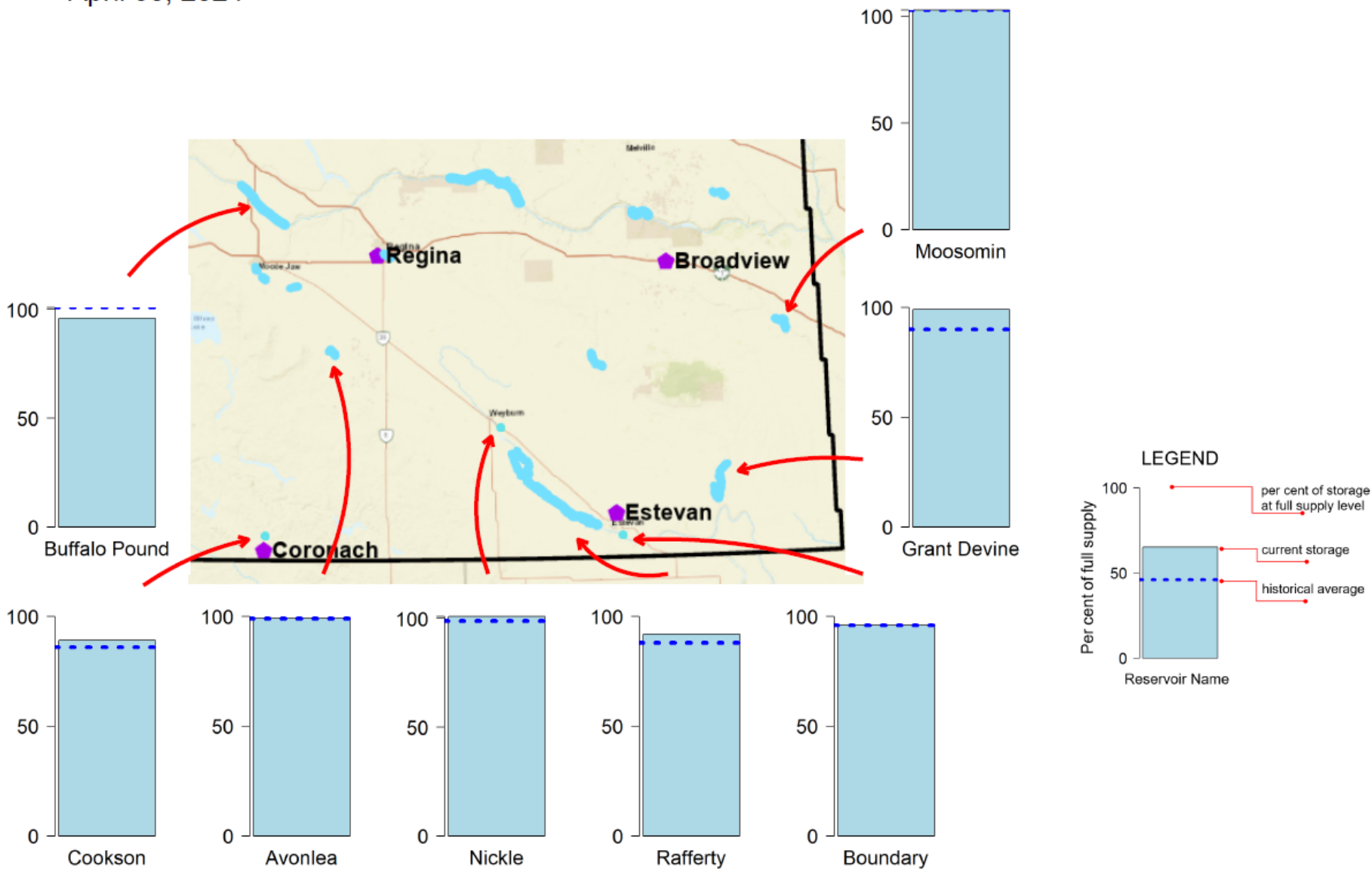


Figure 7: Reservoir Conditions in Southeastern Saskatchewan as of April 30, 2024

# Current Reservoir Conditions

April 30, 2024

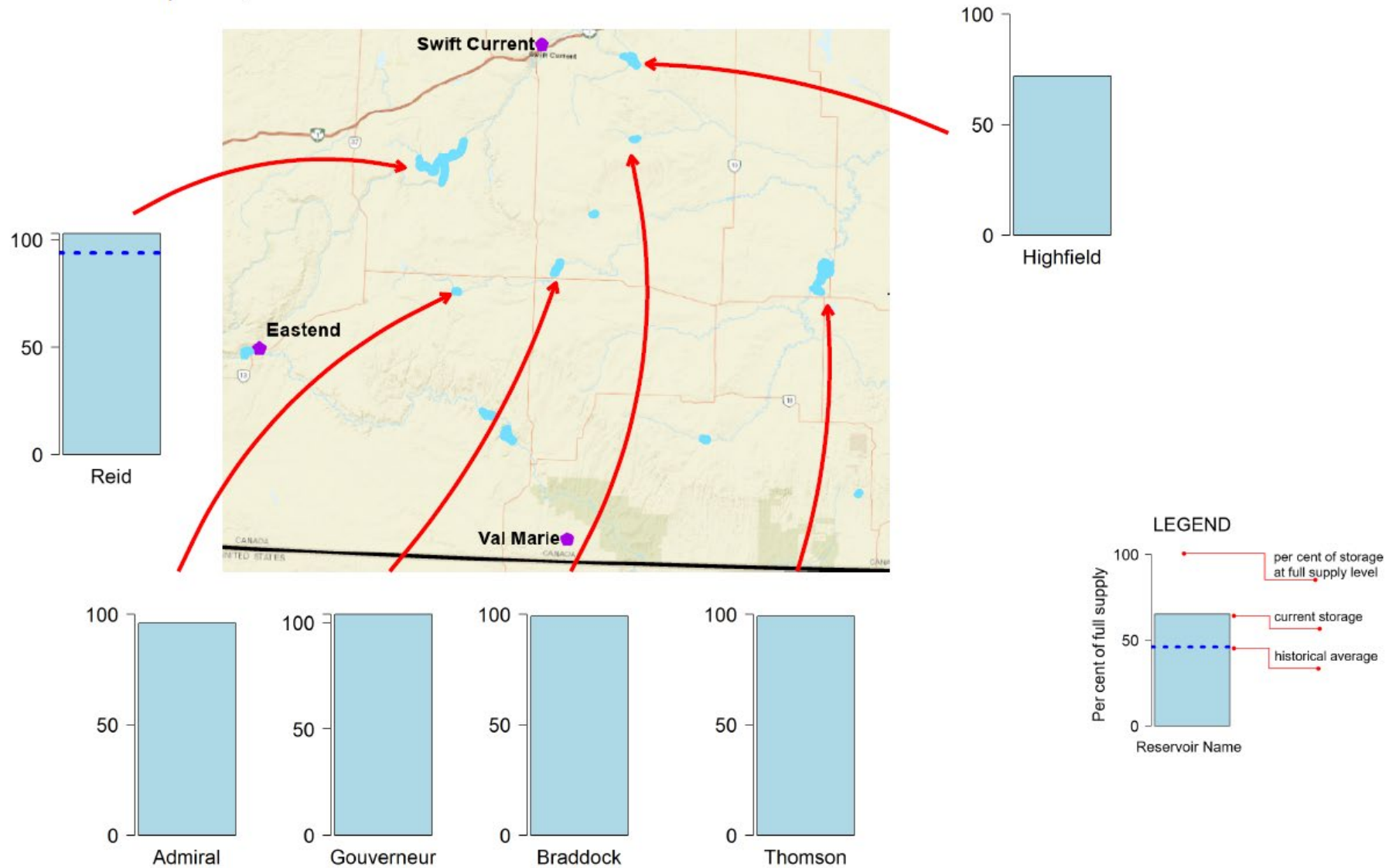


Figure 8: Reservoir Conditions in Southcentral Saskatchewan as of April 30, 2024

# Current Reservoir Conditions

April 30, 2024

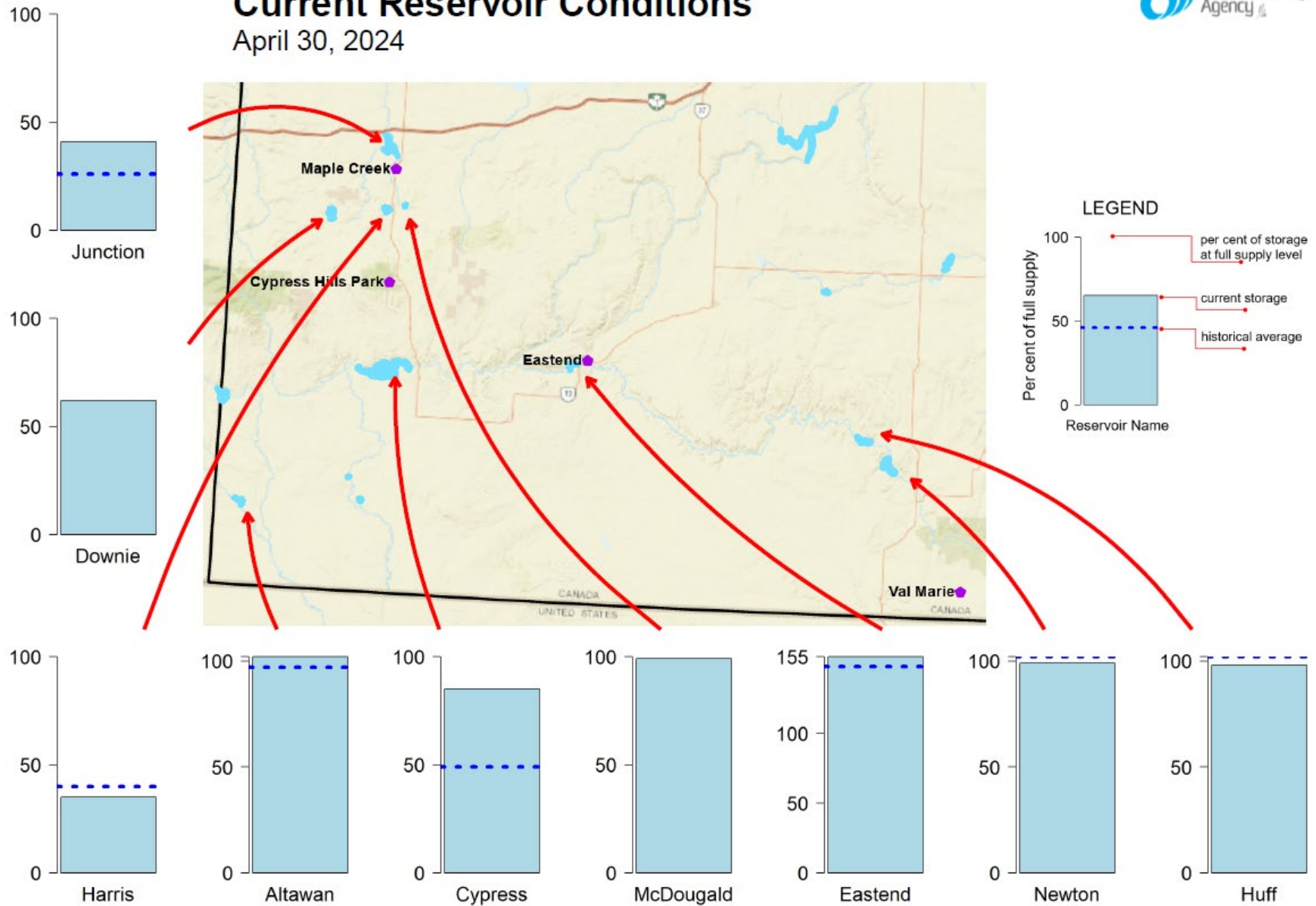


Figure 9: Reservoir Conditions in Southwestern Saskatchewan as of April 30, 2024

## Summary of Major River Systems

### Summary:

- Lake Diefenbaker is being monitored and operated based on mountain snowpack and precipitation. In anticipation of potential dry summer conditions, the spring plan still focuses on retaining water supplies to ensure an adequate water supply for all users on the system.
- In the Souris River Basin, Grant Devine is full. Boundary and Rafferty reservoirs did not fill but are within their normal operating ranges.
- All lakes within the Qu'Appelle River Basin are at near normal levels for this time of year and are expected to remain in the normal operating range.
- Flows are well below normal for this time of year across the Churchill River Basin.

### Saskatchewan River Basin

Currently, Lake Diefenbaker is at 553.0 m, which is between median and upper quartile levels for this time of year. Prairie snowmelt runoff this year was well below normal with the peak being observed in early April of about 300 m<sup>3</sup>/s. Currently, inflows are about 83 m<sup>3</sup>/s, which is below the lower quartile for this time of year. Plots of the historical statistics of the observed and forecasted reservoir inflows, elevations and outflows for Lake Diefenbaker are shown in Figures 10 through 12.

Since March, precipitation in the prairie has been above normal, which has improved soil moisture conditions in southern Alberta. From April 30 to May 1, 20 to 90 mm of precipitation fell across the foothills and mountain region in Alberta. The heaviest precipitation occurred southwest of Calgary in the Bow River Basin. With the basin being dry prior to the event, no significant impact is expected.

In anticipation of potential dry spring conditions, throughout this past winter, WSA implemented a conservative operating plan that focused on limiting the draw down on Lake Diefenbaker to ensure an adequate water supply for all users in the system. This resulted in the lowest winter releases since the dam was constructed. Throughout April, releases were generally maintained in the 60 to 70 m<sup>3</sup>/s range.

In the short term, about 30 to 60 mm precipitation is in the forecast for much of the South Saskatchewan River Basin. If the rain that is in the forecast materializes as expected, releases could be increased early in May.

Snow water equivalent observations within the alpine headwaters varies. Recent precipitation has brought additional snow to the headwaters. Currently, the snowpack in the headwaters of the Oldman River and the Bow River basins ranges from below average to near average. The May and June rains significantly influence the runoff we see from the mountain regions; however, based on the current snowpack in the mountains and the low water supply levels in Alberta, there is a higher probability that the inflows into Lake Diefenbaker this spring and summer will be below normal. The current target lake level for Lake Diefenbaker in mid-May is 553 m to 553.15 m.

The breakup of river ice on the North Saskatchewan River occurred on April 10 in Prince Albert; however, the breakup progress varied along the reach due to temperature fluctuations and limited local runoff. Following the ice breakup, flows on both the North Saskatchewan and Saskatchewan rivers has been below normal.



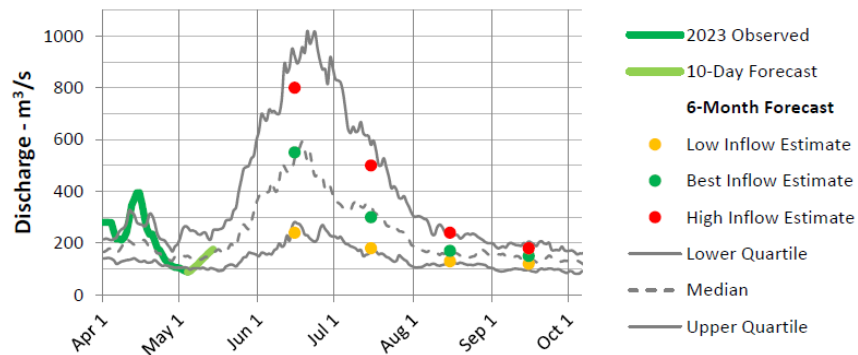


Figure 10: Lake Diefenbaker Observed and Forecasted Inflows

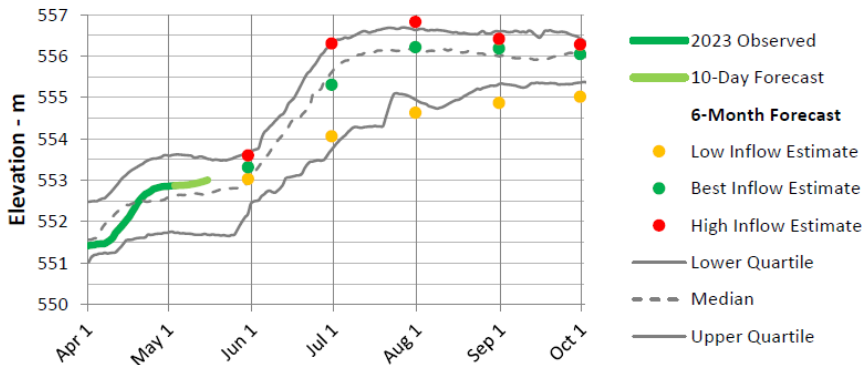


Figure 11: Lake Diefenbaker Observed and Forecasted Elevations

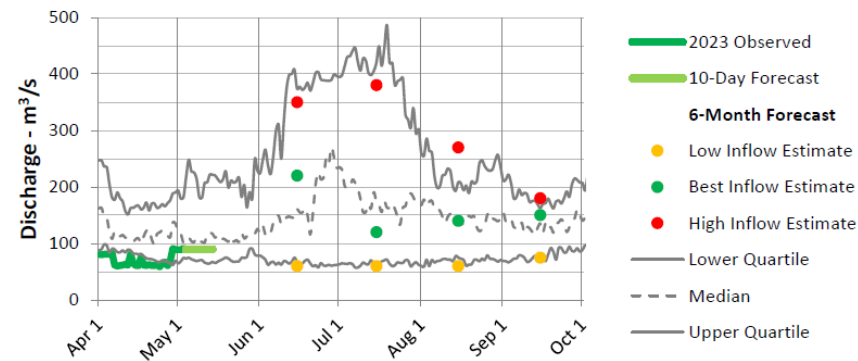


Figure 12: Lake Diefenbaker Observed and Forecasted Outflows

### Souris Basin

Runoff in the Souris Basin ranged from well below normal in the Long Creek Basin to near normal in the Moose Mountain River Basin. All major lakes and reservoirs in the Souris River are in their operating ranges following the spring runoff. Due to some late season snow and a quick melt, the spring runoff was sufficient to fill Grant Devine Lake. Currently, the release is being held near 2 m<sup>3</sup>/s to keep the reservoir near its full supply level.

### Churchill Basin

Flows throughout the Churchill and Reindeer River basins continue to be well below normal for this time of year. Flows on the Churchill River are between 10 and 20 per cent of normal. Inflows into Reindeer Lake are less than 10 per cent of normal for this time of year.

Water levels on Reindeer Lake rose slightly late in April, although still remain near the bottom of the operating range. A late winter operation was undertaken at Reindeer Lake to limit the releases and ensure lake levels would slowly start to rise. No operation changes are planned for Whitesand Dam at this time.

### Quill Lakes

Snowmelt inflow to the Quill Lakes Basin was near to slightly above average with gauged tributaries seeing peaks that ranged from 1:2 to 1:5 year events. The Quill lakes have peaked at the current elevation of 519.73 m. Thus far, water levels at the lake have increased by about 0.14 m from pre-runoff levels. The current level is also about 0.15 m lower than the peak observed in 2023. Assuming normal net evaporation in 2024 and normal precipitation going forward, the lakes are expected to continue to decline throughout the year. The current level is 1.73 m below the spill point and 1.2 m below the historical high observed in 2017.

## Qu'Appelle Basin

All lakes within the Qu'Appelle River Basin are currently at near-normal levels for this time of year, except for Pasqua-Echo Lake, which are slightly below normal. Early structure operations were undertaken to capture much of the limited spring runoff in the upper Qu'Appelle River System. Releases from the Qu'Appelle River Dam are expected to bring Pasqua-Echo lakes into their normal operating levels over the next couple of weeks.

During the winter of 2023-24, the basin experienced generally below-normal precipitation leading up to the freshet event. Thawing temperatures in early March started the runoff. This was followed by a significant snow event predominantly in the Lower Qu'Appelle and Last Mountain Lake area, and a drop in temperatures which halted the runoff. The second runoff started in early April when the rest of the melt occurred. The runoff yield ranged from below normal in the Upper Qu'Appelle Basin to above normal in the Lower Qu'Appelle Basin. Flows were particularly high in Cutarm Creek, where a 1:10 year peak flows were observed. This resulted in the Qu'Appelle River at Welby seeing peaks near a 1:5 year event.

The spring runoff response from the Moose Jaw River and Wascana Creek ranged from below to well below normal. As runoff began, the Craven control structure was operated to divert most of the runoff into Last Mountain Lake. The release was increased to 3.5 m<sup>3</sup>/s through the Craven control structure in the first week of April once the runoff from the Upper Qu'Appelle was through the system. The release was further increased to 4.5 m<sup>3</sup>/s early in May to push more water into the Lower Qu'Appelle system.

The release from the Qu'Appelle River Dam (QRD) was increased from 2.5 m<sup>3</sup>/s to 8 m<sup>3</sup>/s on April 30. The intention is to move

water through the Upper Qu'Appelle to the Lower Qu'Appelle system and improve and maintain water level conditions of the lakes in the Lower Qu'Appelle system including Last Mountain Lake. Buffalo Pound Lake is expected to gain from QRD diversion, increasing the water level to 509.45 m, the targeted summer operating level, by mid-May.

Pasqua-Echo Lake is currently at 478.80 m, and with the increased release from the QRD, and the recent installation of more logs into the structure, the water level is expected to increase at a faster rate. Mission-Katepwa lakes are currently at 478.34m which is in the middle of the operating range.

Operations took place at Crooked Lake throughout April to bring up the lake level. With this operation and local flow, the lake gained at a faster rate and achieved a water level close to the targeted summer operating level of 451.65 m by the second week of April. The current water level of Round Lake is at 441.77 m. Round Lake is expected to remain below desirable levels throughout the summer due to ongoing maintenance issues.

Table 2: Observed and Forecasted Qu'Appelle Lake Levels

Lake	2024 Spring Peak (m)	Projected June 1, 2024	Desirable Summer Operating Range
Buffalo Pound	509.58	509.45	509.17 - 509.47
Last Mountain	490.18	490.15	489.66 - 490.27
Pasqua-Echo	478.80	479.10	478.84 - 479.15
Mission-Katepwa	478.34	478.23	478.08 - 478.38
Crooked	451.65	451.65	451.41 - 451.71
Round	442.02	441.70	442.11 - 442.42

## Southwest

Most of the southwest experienced dry fall conditions followed by near normal to below normal winter precipitation. Above-zero temperatures throughout the winter resulted in thawing and consolidation of a lot of the snowpack and created ice layers across a lot of the area. The snow received across the southwest in early March, combined with relatively fast melt, led to some areas of the southwest seeing a higher runoff volume than was expected. The lower portion of the Frenchman River Basin and the lower portion of the Battle Creek Basin recorded peak mean daily flows near a 1:5 year event. The Lodge Creek Basin generated sustained high flows crossing the international boundary as well. Other areas of the southwest saw peak flows that were well below normal.

Following spring runoff, most reservoirs across the southwest are at normal operating levels in anticipation of flood irrigation deliveries, which will begin in early to mid-May. No irrigation water shortages are expected except for in the Big Stick Lake Basin near Maple Creek, where water deliveries to intensive irrigation projects will be limited to half of licensed allocations.

Table 3 contains May 1 water levels for a cross section of Saskatchewan lakes.

Table 3: Lake/Reservoir Level Summary

Lake/Reservoir	May 1, Level (m)	Summer 2024 Projected Level (m)	Normal Summer Level (m)	Recorded Historical Extreme	
				Level (m)	Year
Anglin	515.44	515.40	515.35	515.99**	2013
Big Quill	519.73	519.70	515.00	520.93**	2017
Boundary	560.42	560.25	560.50	561.15	1979
Buffalo Pound	509.33	509.45	509.47	511.45	1974
Candle	494.14	494.20	494.40	495.25	1973
Cookson	752.37	752.30	752.50	753.35	1979
Crooked	452.63	451.65	451.65	454.40**	2014
Echo and Pasqua	478.77	479.10	479.10	480.98	2011
Fishing	530.34	530.30	528.50	530.92	2011
Good Spirit	484.57	484.55	484.60	485.68**	2010
Grant Devine	561.93	561.90	561.50	556.58**	2011
Jackfish	529.39	529.30	529.40	530.00	1985
Katepwa and Mission	478.22	478.30	478.30	479.58	2011
La Ronge	364.10	364.25	364.30	364.98**	2011
Last Mountain	490.19	490.15	490.20	492.09	1955
Moose Mountain	620.50	620.30	620.30	621.90	2011
Rafferty	549.74	549.74	550.50	554.05**	2011
Round	441.78	441.70	442.4***	445.70**	2014

\*\*Occurred after spring runoff during summer precipitation event(s)

\*\*\*With outlet structure operated. Without the outlet structure, the normal summer level is 441.3m.

## Long Range Forecasts

### Summary:

- Below to near normal precipitation is forecast for the next three months.
- Above normal temperatures are expected over the next three months.

The three-month spatial anomalies maps for precipitation (Figure 13) and temperature (Figure 14) covering the May 1 to July 31 forecast period show the expected long-range precipitation and temperature trends in relation to climate normals.

Most long-range precipitation forecasts are predicting near normal precipitation accumulation across most of the province for May, June and July. The exception is the northeast, where below normal precipitation accumulations are expected. All long-range models are predicting warmer than normal temperatures across the entire province during this period.

It is important to note that seasonal weather forecasts are statistically unreliable, and their skill is particularly poor for predicting precipitation. However, good agreement among various long-range products indicates a higher degree of confidence.

## Ongoing Water Supply Outlook

Up to date flows and lake levels are available at [wsask.ca](https://wsask.ca).

WSA will issue Water Supply Conditions Reports monthly until November 2024.

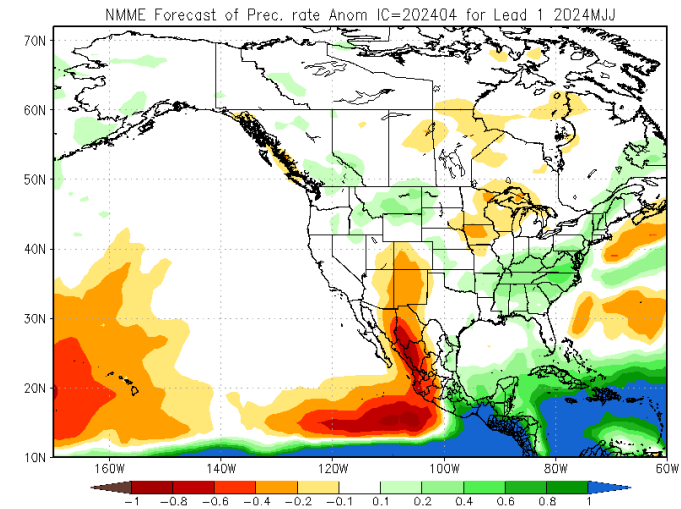


Figure 13: Multi Model Ensemble Precipitation Anomaly Forecast (May 1 to July 31, 2024) (Map Courtesy of the US National Weather Service)

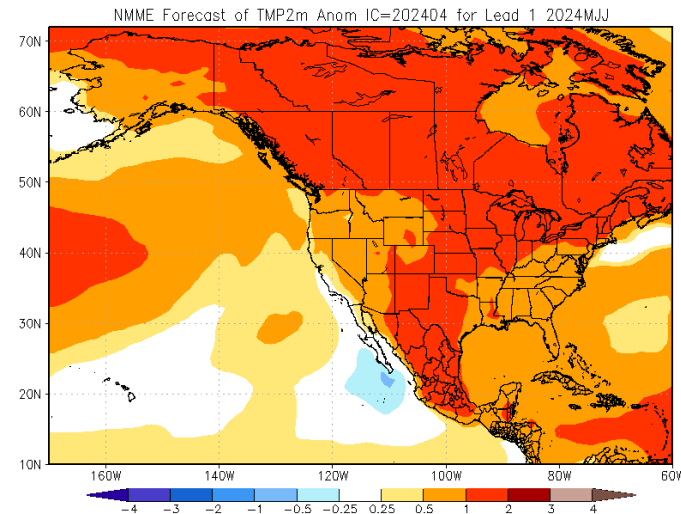


Figure 14: Multi Model Ensemble Temperature Anomaly Forecast (May 1 to July 31, 2024) (Map Courtesy of the US National Weather Service)