



Friends of the Blindman Watershed Society
2025-2026 Annual Report

2025 was foundational for Friends of the Blindman! We formed a board and worked on all the background details that will allow us to operate in a more formal manner. As this is our first Annual Report, we would appreciate feedback, but we see it as a snapshot of the Blindman River watershed each year, with current conditions, changes and challenges. It also includes our activities in the past year as well as priorities for the upcoming year.

The Blindman River watershed stretches from its headwaters in the muskegs of Wetaskiwin County to its confluence with the Red Deer River, near Blackfalds. In between, the river meanders through the agricultural lands of Ponoka and Lacombe counties and connects the communities of Winfield, Bluffton, Rimbey and Bentley and Blackfalds.

2025 was a year of timely rains in the Blindman River watershed, with associated good crop yields and healthy pasture conditions, but there was not enough precipitation to begin the recharge of soil moisture or shallow groundwater. The effects of long-term drought can be seen everywhere in our watershed- dried up wetlands, dropping lake and pond levels, extremely low flows in the Blindman River. This has negative consequences for wildlife and aquatic life, as well as the quality of life of residents.

While the surface impacts are easy to see, our aquifers which also rely on precipitation for their recharge, are being affected as well. This is particularly concerning for many rural residents who rely on well water for domestic use as well as watering livestock.

Industrial demand for freshwater for hydraulic fracturing continues to grow, utilizing both groundwater and surface water. The Blindman River basin remains under the Water Shortage Advisory issued May 15, 2025. Since it was announced, no new surface water TDLs have been issued in the Blindman basin (those granted before May 15 remained valid) and conditions on existing licences limited diversions in 2025. Despite this, groundwater licences were still allowed to be issued. The large volume of groundwater allocated for hydraulic fracturing from the Paskapoo aquifer via TDLs in 2025 is very concerning as recharge rates and safe groundwater yield volumes are uncertain and ensuring priority of existing users can also be difficult. TDL applications also have less stringent notice and approval rules than term licences which makes large water allocations less transparent.

Water policy in Alberta is complex, with many competing interests and layers. The Friends of the Blindman was formed to raise awareness of our water resources, monitor emerging water issues in our basin, act as a liaison for residents and advocate for change. Our board is composed of volunteers from diverse backgrounds, but all with a shared concern with the overall health of our watershed and a desire to improve the current system of water management including licensing procedures, allocation and monitoring.

If you agree that freshwater is important, please support us with a donation or volunteering!

Board and Executive

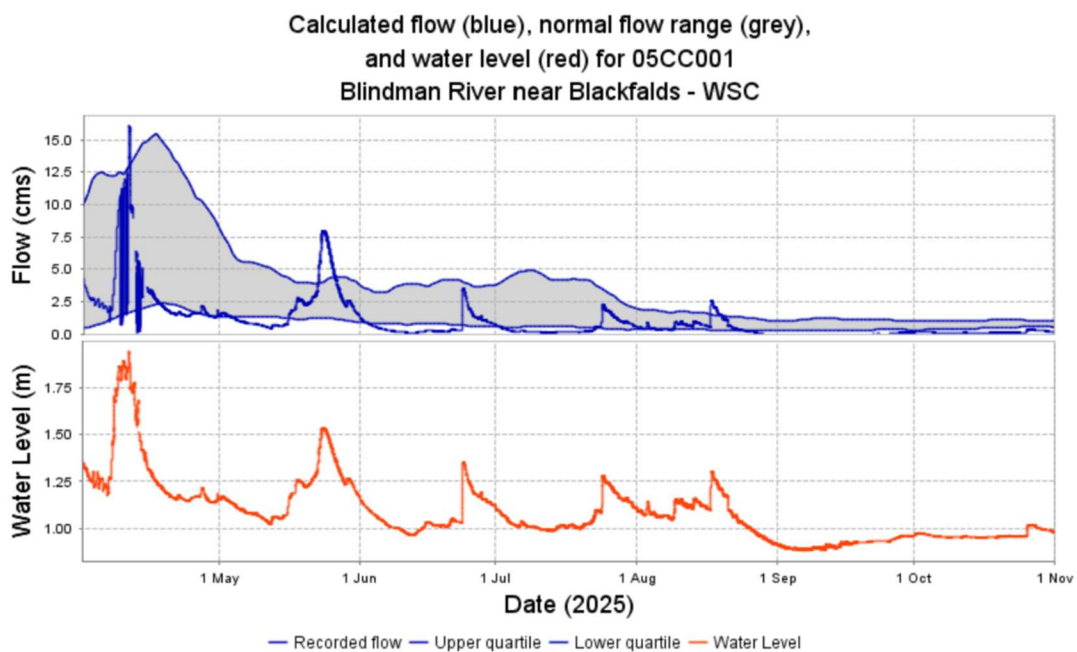
Assar Grinde – President
Connor Layton – Vice President
Ryan Nichol – Treasurer
Daniel Iseli-Otto – Secretary
Haleigh Sanderson – Communications Lead
Derek Hansen
Myrna Pearman
Kim Wiggins
Roger van Haren (Lacombe County representative)
(Allan Wilson past Lacombe County representative)

Our Waters

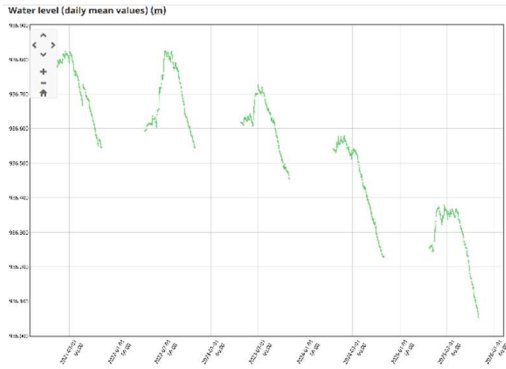
Water Supply

In 2025, the Blindman River flow was below the lower quartile for most of the year. This is the third year in a row where it has had exceptionally low flows.

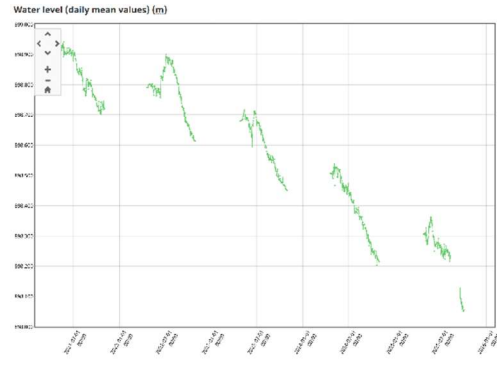
Blindman River near Blackfalds - WSC | Yearly Graph



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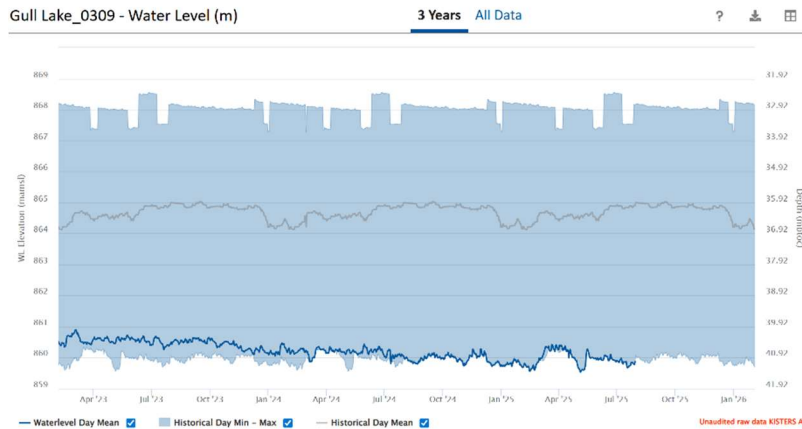


Sylvan Lake Water Levels (2021-2025)



Gull Lake Water Levels (2021-2025)

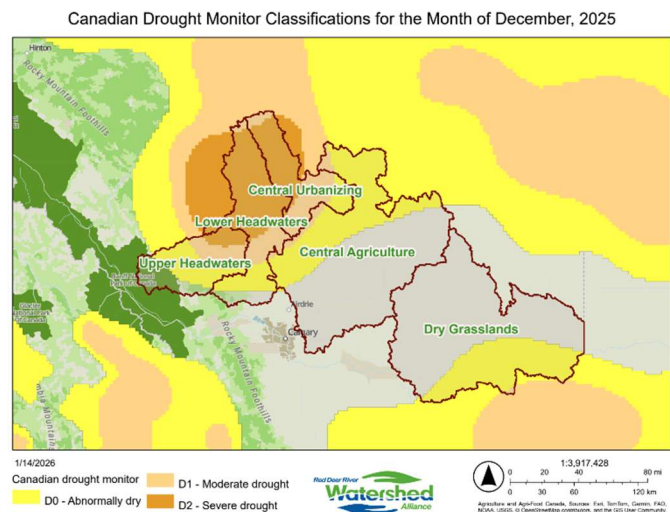
The region's wetlands, dugouts and lakes levels continued to drop, including both Gull and Sylvan Lake.



Groundwater Observation Network (GOWN) data, north end of Gull Lake

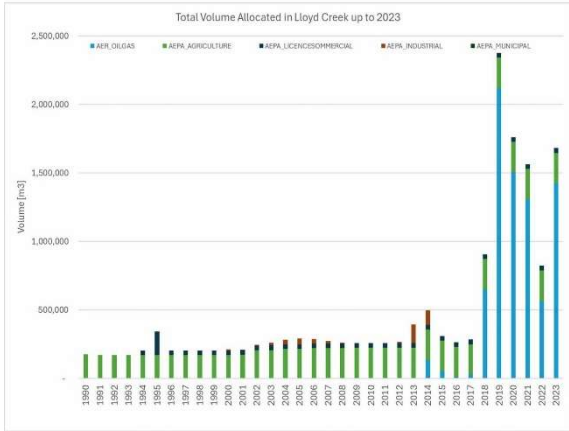
Lower groundwater levels have been reported throughout the basin, though variation exists depending on well location and production zone depth. There is only one GOWN well in the Blindman basin, located just north of Gull Lake.

Regional soil moisture conditions are very dry in our basin as can be seen in the map to the right. Many surface water bodies on the landscape are shrinking or drying up and this combined with the lower groundwater levels has resulted in lower baseflow for the Blindman River. All these changes are all an outcome of below average annual precipitation over a number of years and we will need to see a long period of above average annual precipitation to reverse the affects.

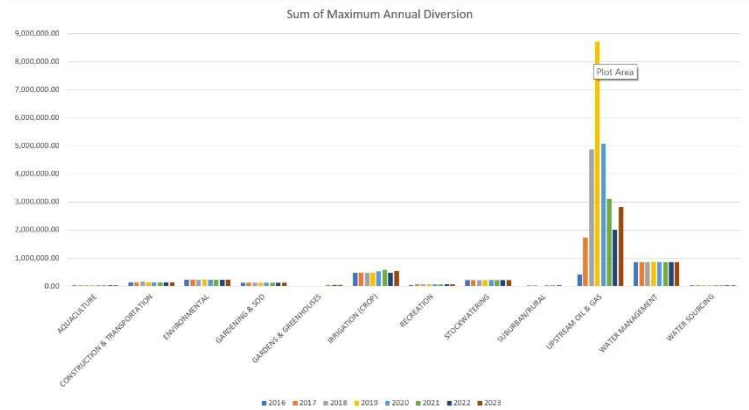


Water Demand

Water demand in our basin had been quite consistent until around 2017 when exploration of the Duvernay began. The large increase can be seen in the two charts below.

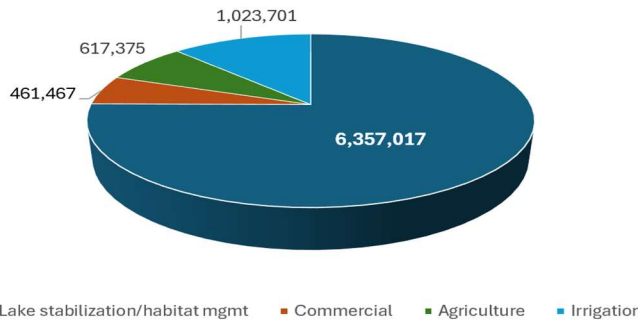


Illustrative chart showing the change in composition and scale of water allocations in Lloyd Creek

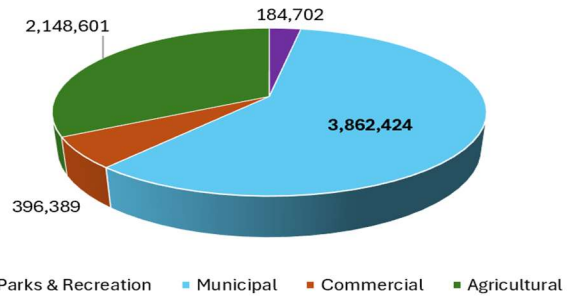


Surface water diversions from the Blindman 2016 to 2023

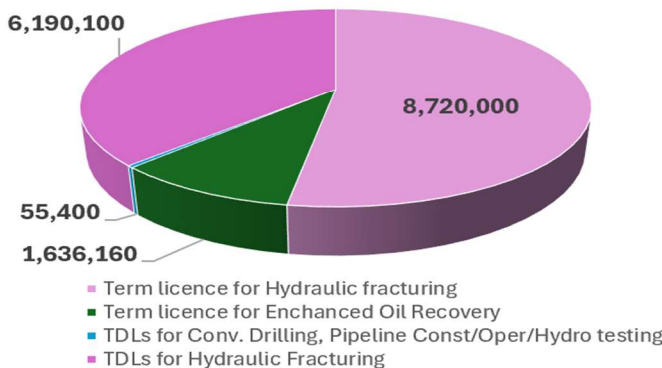
AEPA surface water term licences in the Medicine-Blindman Watershed (m³)



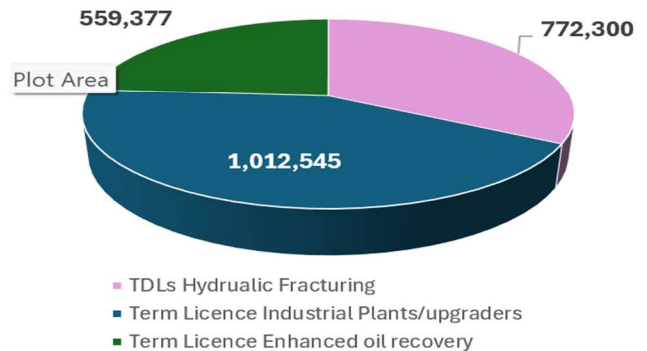
AEPA term Groundwater licences in Medicine-Blindman (m³)



AER Surface Water Licences (m³)



AER Groundwater Licences (m³)



The pie charts above represent a best effort to collate all licence data in the basin from Alberta Environment's Environmental Records Viewer to show general allocation breakdown. Numbers may not be 100% accurate.

The Blindman River basin is part of the Central Urbanizing Zone within the Red Deer River watershed, with many communities planning for growth over the next decade.

Municipalities with increasing populations will need access to freshwater and that will compete with other users including agriculture, commercial businesses and industry, as well the freshwater managed for recreation and to protect aquatic ecosystems. Awareness around water scarcity and proper management of our interconnected water resources will only continue to grow in importance. This is one of the main reasons we have decided to form Friends of the Blindman Watershed Society.

Our work



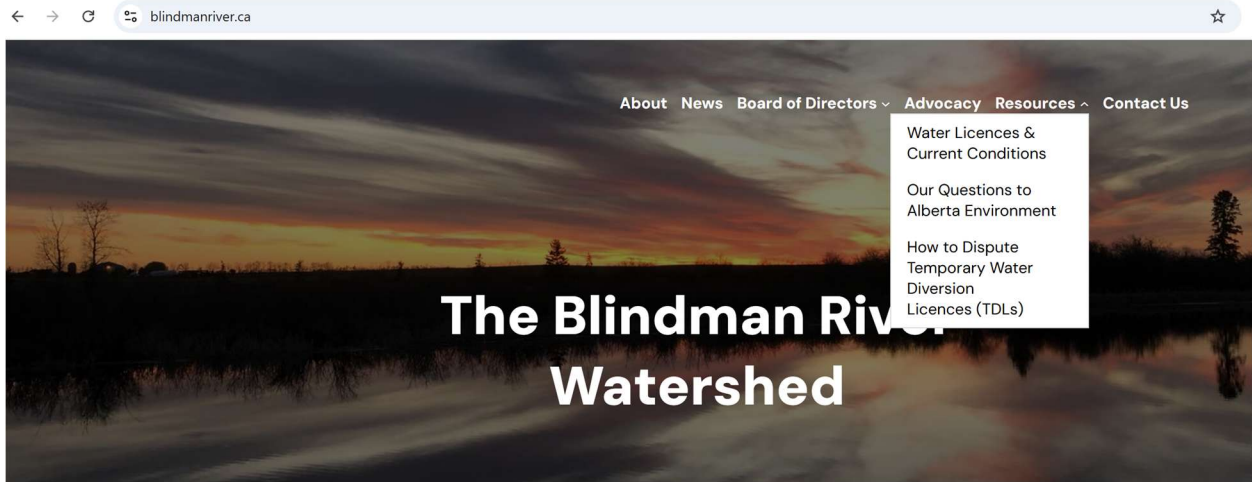
Vision:

A healthy Blindman River watershed supported by an informed and engaged community.

Mission:

Advocate for better protections and management of our watershed's ecosystems and groundwater resources through monitoring, education and outreach.

Organisationally, we developed a vision and mission, a logo and bylaws. We also submitted our not-for-profit society application in January 2026 and hope to receive official society status by March 2026.



Awareness

In early 2025, we created a website to share information and resources, including our correspondences with the Minister of the Environment, and a curated FAQs page containing responses to our many questions which we have collected from the AER and government. Our website also provides notice of events related to water as well as where we post board meeting dates, agenda and approved minutes.

We are on Facebook and Instagram also.

❖ Facebook:

- 120 followers to date
- From Jan 1 2025- Feb 1 2026
 - 7,832 views
 - 243 content interactions
 - 48 new followers

❖ Instagram (launched January 2026)

- 6 followers to date
- From Jan 1 2026 to Feb 1 2026
 - 10,455 reach
 - 536 views
 - 25 content interactions

Advocacy

Together with the Medicine River Watershed Society, we advocated for changes to licencing and allocation of freshwater, particularly around its use for hydraulic fracturing and responsiveness of the system to drought conditions. We met virtually with Minister Schulz as well as Amy Mannix, the Director of Policy for the Water & Waste division of Alberta Environment and Protected Areas. We also have a continuing dialogue with the AER on how to improve their licencing processes, including more transparency for; notices of application, licencing approvals and establishing licence conditions.

Our board approved the following set of advocacy points:

1. Advocate for better protections for rivers.
2. No freshwater for hyd. fracturing in Water Short & Potentially Water Short Areas.
 - a. Phased in over several years
 - b. Begin by moving large projects in PWS Areas into Tier 4 (Manual 25)
3. Stricter rules around TDLs so they can not be used to avoid term licences.
4. More transparent application and approvals process for TDLs.
5. Advocate for single licenser for all freshwater licences.
6. Public reporting of water use.
7. Improved groundwater monitoring.

For more details on the above points visit blindmanriver.ca/about

Monitoring

In conjunction with the Red Deer River Watershed Alliance, we installed 4 temperature probes in the Blindman river and tributaries in 2025. Water temperature is a key driver of dissolved oxygen, a vital quality for aquatic life and a temperature cut-off is listed on many surface water licences as a condition. We installed probes in the Blindman near Bentley, between Rimbey and Bluffton and in the headwaters NW of Bluffton as well as one in Lloyd Creek north of highway 611. Unfortunately, two probes were lost so we only have data from the Lloyd and the Blindman between Bluffton and Rimbey. We will attempt more in 2026. The temperature summary from the RDRWA follows.

Water Temperature in the Blindman River Subwatershed



Water Temperature

Water temperature tells us how warm or cool water is. More specifically, it reflects how much energy water molecules have as they move.

Why is monitoring water temperature important?

Water temperature changes with seasons and can vary depending on the time of day and depth. This parameter is a key indicator of water quality and ecosystem health because it affects dissolved oxygen, chemical toxicity and, therefore, aquatic life^{1,2}.

Dissolved Oxygen

The amount of oxygen available in water is influenced by temperature. As water warms, its ability to hold dissolved oxygen decreases. This affects which plants and animals water can support. For example, if water becomes too warm, oxygen levels may drop below what many aquatic organisms need².

Aquatic Life

Some species thrive in warmer waters, while others prefer cooler temperatures. For many species, prolonged exposure to water temperatures outside their preferred range can cause stress and disrupt metabolism, growth, reproduction, and migration^{1,3}.

Chemical Toxicity

The solubility of some compounds increases as water warms, which can make them more toxic. Warmer waters can also speed up nutrient cycling, promote algal growth, and change pH levels^{2,3}.

What affects water temperature?

Water temperature can be influenced by factors including weather conditions, degree of shading, riparian vegetation, stormwater runoff, dams, groundwater inputs, flow rates, and turbidity¹.

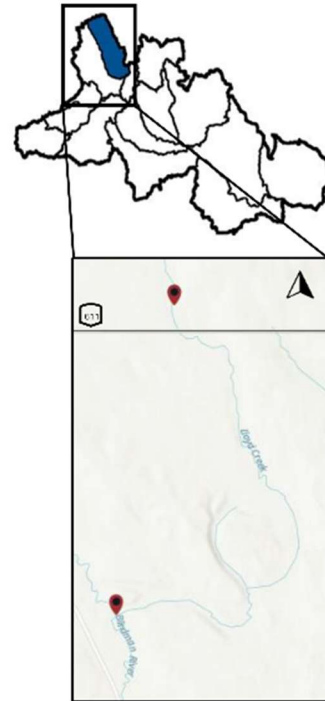


Fig. 1. Map of water temperature monitoring sites in the Blindman River Subwatershed.

Water temperature in the Blindman River Subwatershed:

From May to October 2025, in-situ sensors recorded water temperature at two locations within the Blindman River Subwatershed (Fig. 1). The sensors were supplied by the Red Deer River Watershed Alliance and installed by the Friends of the Blindman River. During this period, water temperatures ranged from 10 to 23°C in the Blindman River and from 7 to 21°C in Llyod Creek. The Blindman River consistently exhibited higher median water temperatures than Llyod Creek, with peak median values of 19°C and 17.5°C, respectively, in July (Fig. 2).

References:

1. Environmental Protection Agency. (2021). *Factsheet on Water Quality Parameters: Temperature*
2. Government of Canada. (2009). *Guidance on the Temperature Aspects of Drinking Water*
3. Canadian Council of Ministers of the Environment. (1999). *Canadian Water Quality Guidelines for the Protection of Aquatic Life (Marine)*

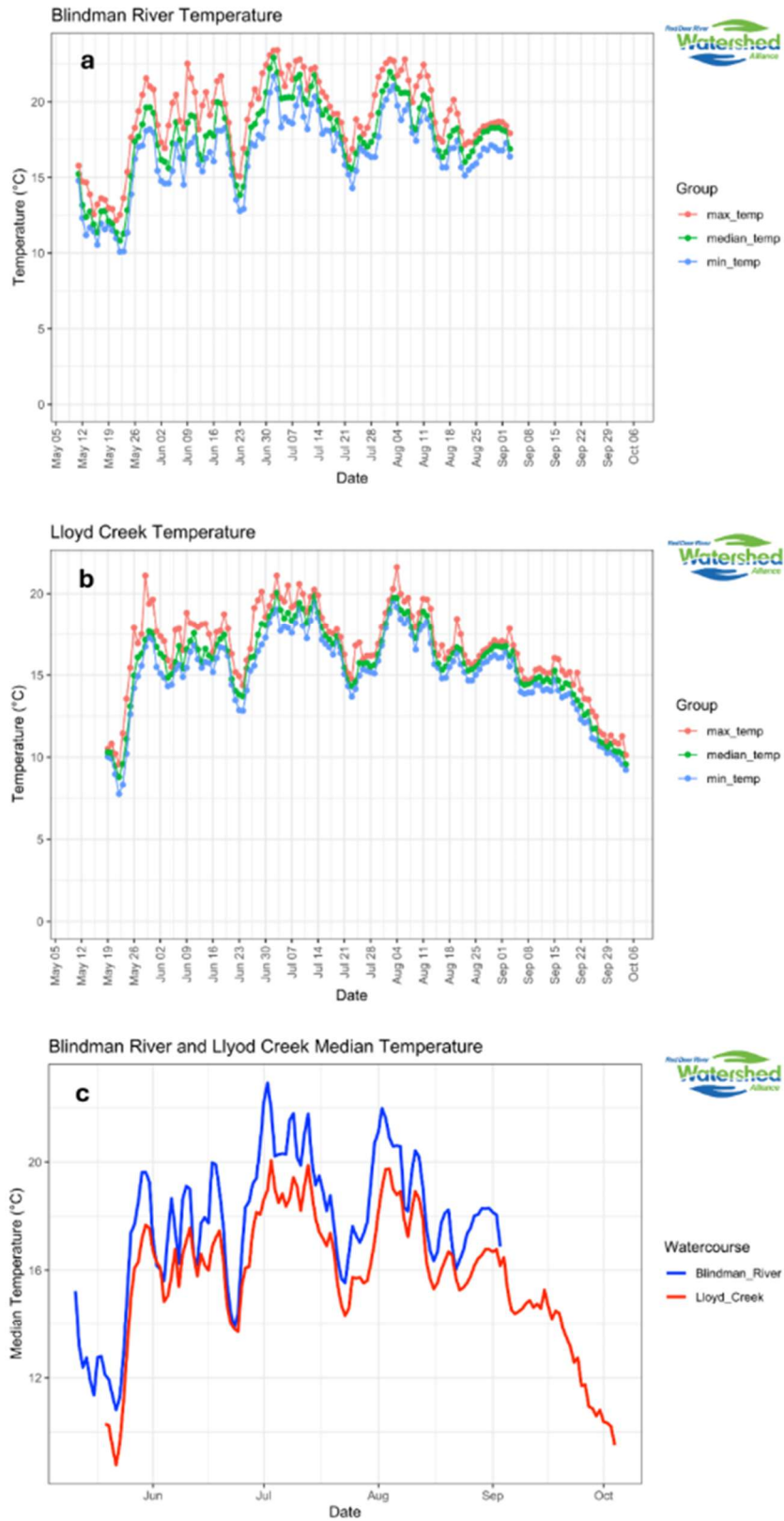


Fig. 2. Water temperature at two monitoring sites in the Bindman River Subwatershed during the May to October 2025 monitoring period. **(a)** Temperature recorded at the Blindman River monitoring site. **(b)** Temperature recorded at the Lloyd Creek monitoring site. **(c)** Median temperature of the Blindman River and Lloyd Creek monitoring sites.

2026 and beyond

With a lot of the background work behind us, we are excited to start working towards some of our longer term goals.

- ❖ Funding
 - Apply for grants, solicit donations.
- ❖ Outreach
 - Expand membership and raise awareness
 - Partner with schools or local groups to discuss water issues
- ❖ Monitoring:
 - Continue temperature monitoring at more locations
 - Perform baseline water quality sampling (chemistry, contaminants)
 - Perform baseline biological sampling (CABIN sampling in the fall)
- ❖ Advocacy
 - Partner with other water groups to continue advocating for a transition away from the industrial scale use of freshwater for hydraulic fracturing & our other advocacy points.

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www.blindmanriver.ca