



Medicine River Watershed Annual Report 2025-2026



The Medicine River Watershed

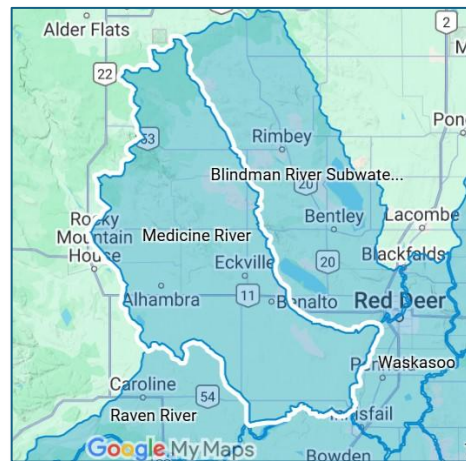
A healthy watershed provides and conserves clean water, and provides habitat for fish, wildlife, and native plants. It replenishes the aquifer which is where the majority of rural homes, villages and towns obtain their drinking water and water for their livestock.

The health and quantity of water in the Medicine River watershed, which intersects the rural Counties of Clearwater, Lacombe, Ponoka and Red Deer is facing challenges that are amplified by ten years of drought, and the significant volume of freshwater use required by industry to meet the increasing demands of the energy sector. Not only is the water level in our rivers, streams and lakes low, there are indicators that our aquifer is becoming stressed.

The Medicine River Watershed Society (MRWS) is a group of volunteer community members who work on the community's behalf to advocate for the responsible use of water by individuals and industry.

Executive and Directors

- President- Dana Kreil – Lacombe County
- Vice President- Connor Layton- Community Member
- Treasurer- Rick Anderson- Community Member
- Secretary- Debbie Leitch – Community Member
- Bettinna Van Nieuwkerk – Clearwater county
- Nancy Hartford- Ponoka County
- Carly Hanson- Red Deer County
- Karin Engen- Town of Eckville
- Ian Oostinde- Town of Sylvan Lake
- Devin Dewey- Town of Bentley
- Beulah Philpott- Community Member
- Helge Nome- RDWSA Liaison- Community Member
- Jerry Silbernagel- Gilby Ag Society- Community Member
- John Fletcher- Community Member
- Janina Carlstad- Community Member
- Keith Pregoda- Community Member
- Mary Bugbee- Community Member
- Hazen Letwin- Clearwater County



Our Mission:

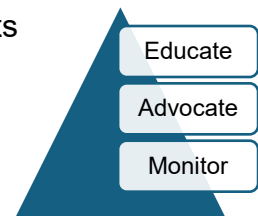
The Medicine River Watershed increases community awareness of the importance of water quality, riparian health and the natural beauty of the Medicine River. We participate in the monitoring of the health of the watershed and advocate for community, industry and government partnership and involvement for its protection and conservation so there is clean and accessible water for generations to come.

Our Vision:

The Medicine River Watershed and associated aquifers are healthy and able to sustain the fresh water needs of the people, communities and its riparian life forms that rely upon it.

Our Priorities:

- **Monitor** the health of the Medicine River Watershed,
- **Advocate** for actions to support sustainability of the watershed and its aquifer,
- **Educate** the general public and students to ensure awareness of importance of the watershed and the risks to its health and sustainability.
- **Fundraise** to support the continuing work of the society.



This year has seen the committee put significant effort into fundraising so we could more independently and cost effectively monitor the Medicine River, its tributaries and the Paskapoo aquifer for indicators of health or risk. Thanks to the support and sponsorship from Lacombe County, Clearwater County, Ponoka County, Red Deer County and the municipalities of Eckville, Rimbey, Bentley and Sylvan Lake along with grants and donations from environmental groups and local industries, we have been able to purchase equipment and have established two pilot projects: river monitoring and water well static level assessments.

Although there are up front costs to taking on the role of actively monitoring the river and water wells in the area, it is anticipated that the cost will be less and the reporting of data more consistent in subsequent years. Consistent and reliable data over time will validate concerns regarding decreasing water accessibility put forth by community members. This data will be shared with all levels of government so that decisions made about the distribution, diversion and utilization of fresh water by industry are well informed and support the continued sustainability of this fresh water source for the people who live here.

This has also been a year in which the Society has increased advocacy efforts, petitioning to all levels of government for stricter oversight and management of Temporary Diversion Licenses (TDLs) of fresh water from the river and its aquifer.

Our message has been clear: “The use of fresh water for fracking needs to be limited and strictly monitored if we are to have accessible water for future generations.”

We continue to promote public education and awareness about the concerns regarding the sustainability of our water. Our AGM and community presentations are well attended; and our social media platforms have increasing numbers of visitors. As peoples concerns about their wells, dugouts and access to water starts to hit home, they are becoming more aware of the hoses stretching along the highway from numerous river sites- transporting millions of cubic meters (one cubic meter of water is = to 1000 litres) of fresh water to massive holding ponds to be used for fracking. This is fresh water that will never be returned to the ecosystem and is lost forever. The people are right to be concerned.



Photos of hoses diverting water as seen on Highway 12 and Twp Rd 761. The hose is pumping from a source upstream. The picture of the creek is the typical result of what fracking causes on the downstream route.



This is a picture of a moose family along side a beaver dam on a Blueberry Creek tributary. This is what healthy wetlands look like.

Priority #1 Monitoring

In June 2026 the MRWS embarked on two major monitoring projects to track and report on indicators of watershed health and conditions: **river monitoring and water well static level assessments.**

These projects while still in the “pilot” phase mark a crucial pivot in the society’s function as our small community group takes on an independent and active role in ensuring that relevant indicators are collected and reported to various levels of government at the county, municipality and provincial levels.

The goal of these two projects include:

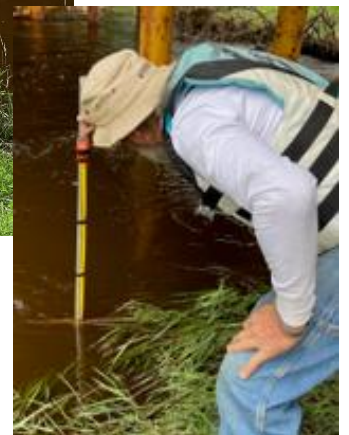
- To track changes in ground water levels and condition as well as static well water levels over time.
- To support local and provincial decision making on water use and conservation
- To support public education on the need for conservation and protection of water sources.

River Monitoring

A project to measure and report crucial changes to the Medicine River and its tributaries

Location selection:

- Gilby Hall and Highway 12
- Rainy Creek and Highway 766
- Horseguard and Twp 392
- Highway 11 and the Bridge
- Markerville Highway 54 and 781
- Highway 53 and Last West



Indicator Selection

Water temperature and dissolved oxygen content are the two most significant predictors of any fresh water source's ability to preserve aquatic life. (PAL)

A water temperature of greater than 21 degrees Celsius and a dissolved oxygen level of less than 5mg/L or greater than 9.5 mg/L will not sustain aquatic life over time.

River and stream measurements started in June with 3 simple measurements at 6 sites: water temperature, dissolved oxygen and depth. As lowering water levels are known to contribute to increased water temperature, and community members are concerned about the lowering water levels in our rivers, we also began measuring the depth of the river at each site.

In September we expanded the tests on river sampling to include pH, ammonia, nitrate, chloride, CO², alkalinity, hardness and Barometric Pressure.

Canadian and Provincial Standards

Both Canadian and Alberta standards and parameters for fresh water river, streams and ground water were compared and it was noted that Alberta regulatory parameters are slightly higher for acceptable Dissolved Oxygen content and ammonia concentrations. Where there was discrepancy the parameters for concern follow the Alberta Regulatory parameters.

Acceptable Values are:

Water Temperature <21°C		Dissolved Oxygen Levels 5 to 9.5 mg/L or ppm	
Nitrite 0 mg/L	Ammonia <0.05 at 20°C	Chloride < 120 mg/L	CO² <20 mg/L
pH 6.5-9			

Implementation

Equipment and testing supply acquisition.

As the associated costs of partnering with the Red Deer Watershed Society Alliance and the ability to consistently coordinate and help with water testing was becoming onerous for a small non-profit society dependent upon volunteers, donations and sponsorships. MRWS decided to purchase our own testing equipment and supplies and to contract individuals to test the water monthly throughout the summer. With the support of donors, we were able to purchase a digital Dissolved Oxygen and Temperature Meter as well as a scientific lab measurement test kit. We began collecting samples in June and with a few learning bumps along the way feel that we are ready to take on this role more fully in 2027. We were also fortunate to have 14 in situ water temperature probes that could be installed in a number of locations along the river so that we could report on changes in water temperature throughout the summer months.



Process for data collection/reporting.

MRWS registered with Water Rangers, an international program that supports the reporting of data on water conditions across Canada and 7 other countries and ensures integrity of data across sectors and testing modalities. We also created a private data base for the collection and sharing of data as we work out the kinks with equipment and testing modalities.

Hiring of work



Two individuals- John Fletcher and Janina Carlstad were contracted to do the river testing from July- October (rain or shine!) to ensure consistency in collection and reporting processes.

Reporting

June and July saw an unusual amount of rainy weather with many hoping this would signal the end of a ten-year drought in Central Alberta. River depth measurements along with temperature and dissolved oxygen recordings were positive at all locations in July. August was a drier month and there was significant fracking occurring at Gilby and Highway 11.

Indicators in critical range found at 4 Sites

September measurements saw elevated temperatures at the Gilby, Horseguard and Markerville locations (at 21⁰ Celsius) and dissolved oxygen concentrations at or below 4 mg/L, at Gilby, Rainy Creek and Horseguard locations. There was increased ammonia detected at Gilby at the upper acceptable range of 0.05 mg/L., as well as an elevated CO² level at the upper acceptable range of 20 mg/L.

September 2026

Indicators	Gilby Hall & H12	Rainy Creek & H766	Horseguard and Twp 392	H54 & 781 (Markerville)
Air Temp	21	22	21	22
H2O Temp	21	18	21	21
Dissolved Oxygen	4 ppm	3.5 ppm	4 ppm	5.0 ppm
ph	9	9	9.5	8.5
Ammonia	0.05	0.05	0	0
Nitrite	0	0	0	0
Hardness	200 ppm	200ppm	190ppm	190 ppm
Alkalinity	140 ppm	148 ppm	180ppm	160 ppm
Chloride	18 ppm	20	20	24
CO ²	20	17	14	17
Barometric Pressure	1002	1001	1001	1001

For detailed reporting on all sites see website: <https://medicineriverwatershed.ca>

Water Well - Static Level Assessments

A project to measure static well water levels and compare to level at time of well drilling to help assess changes to aquifer

Numerous land owners in the Medicine River Watershed have been reporting that their drilled water wells are going dry, not pumping at the same rate or they were needing to drop the level of their pump. Farmers who have relied upon dugouts to water cattle needed to dig deeper dugouts or transport water to the fields for their cattle. Assessing the static water level of drilled wells and comparing to the level at the time of drilling is one way to determine if indeed water levels in the Paskapoo aquifer, which supports hundreds of farms and various municipalities in the Medicine River geographical area, is dropping.

To support this pilot project, Torrent Fluid Solutions donated \$3000 to purchase an optical digital water depth meter. John Fletcher has been contracted to provide this service to any individual who resides in the Medicine River catchment area.

After public consultation, a fee of \$100/assessment was established to cover the hourly rate and necessary mileage of the contractor to visit each land location.

This has been a pilot year, enabling us to start small as we consider travel, coordination, risk, and reporting. Of the wells tested to date- it is alarming to note that there has been a drop in static water levels ranging from 12-23 feet since the time of original drilling.



Priority 2: Advocacy

This year the Society played a strong role in the area of advocacy to inform the government and industry about communities concerns regarding lowering water levels, increasing temperatures and declining health of the watershed and its aquifers. The goal of our actions was to have the government review the Water Act and Policy and restrict the use of freshwater for fracking purposes during times of drought, but we felt while we were listened to, we were not being heard.

Step 1- Expand Membership with community Elected Officials

To be effective advocates for the watershed we required the participation and engagement of elected officials who represent the communities who rely upon water from the watershed, at both county and municipal governing levels. We lobbied to get elected councillors on our board to be actively involved in our lobbying and so that our advocating efforts, might be more successful.

We currently have representation and strong participation on the board from all counties (Lacombe, Ponoka, Clearwater and Red Deer) and four municipalities (Eckville, Sylvan Lake, Rimbey and Bentley) who rely on the Medicine River watershed for their fresh water needs, both directly and indirectly. Elected officials representing the voices of thousands of people have a stronger voice at the provincial level than a small group of concerned citizens alone.

8 Elected Officials- representing

4	Counties	4	Towns	64,000	People
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Not only did the counties and municipalities support us with membership, they also sponsored our work through financial donations, actively participating in meetings and advocacy initiatives.

Step 2: Letters, Meetings, Presentations, & Resolutions

Jan 20, 2026

A request for a meeting with Brian **Jean**, Alberta Minister of Energy, **Grant Hunter**, Alberta Minister of Environment; **Todd Loewen**, Alberta Minister of Forestry and Parks; **Jason Nixon**, MLA- Rocky Mountain House, Sundre, Eckville, Rimbey; **Jennifer Johnson**, MLA- Lacombe/Ponoka; and **Devin Dreeshen**, MLA- Innisfail/Sylvan Lake was put forth by the MRWS Board, county reeves and municipal mayors. The intent of the meeting was to discuss concerns about the watershed and the establishment of a balanced approach to the approval of water diversion licenses along the Medicine River and the Paskapoo aquifer until such time as the water shortage advisory issued by the province of Alberta has been lifted.

Meeting- March 16, 2026 meeting with Ministers at legislature occurred

The 4 major outcomes requested included:

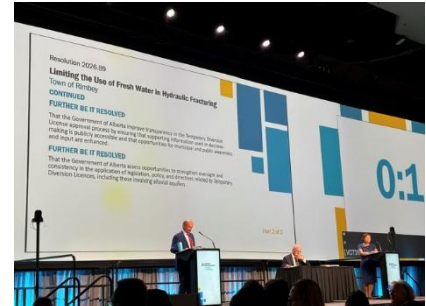
1. A mandate for oil companies to use alternatives to fresh water sources for fracking and collaborate on produced water re-use.
2. Implementation of a process for accurate data collection of water levels and flow within the Medicine River, its tributaries and the Paskapoo aquifer.
3. Establishment of a balanced approach to the approval of water diversion licences that follows drought cycles- (water is not taken when there is not adequate water available)
4. Increased oversight of fresh water withdrawal especially during times of drought.

There were no agreed to actions by government following the meeting, but the minister suggested that there be a resolution go forward to Alberta Municipalities Convention and the Rural Municipalities of Alberta Convention.

Step 3: Resolutions to Regional Municipal Authorities

Resolutions requesting government accountability to support the sustainability of the Medicine River Watershed by limiting the use of fresh water for hydraulic fracking have been or are in process of being submitted to Regional Municipal Authorities.

- Mountain View County put forth a resolution in 2024 but to date, have not received a response.
- Sylvan Lake and Rimbey put forth resolutions at the Alberta Municipalities Convention in Sept 2026 with 77.3% in favor.
- Lacombe and Mountain View counties will present a resolution to be addressed at the RMA convention in November.



Priority #3- Education

Social Media

In 2025/26, the society made a concerted effort to utilize social media as a method for informing members of the community about the work of the society. It has proven to be an effective means for engaging the community as in the past 12 months there have been 742 visitors (an increase of 32% since last year) and 1.6 thousand views!



Visit [www.https://Medicineriverwatershed.ca](https://Medicineriverwatershed.ca)

Public Engagement and Community Presentations

October 2025 Annual General Meeting was well attended with over 100 community members in attendance and the Gilby Agricultural Society donated money to supply supper for all.

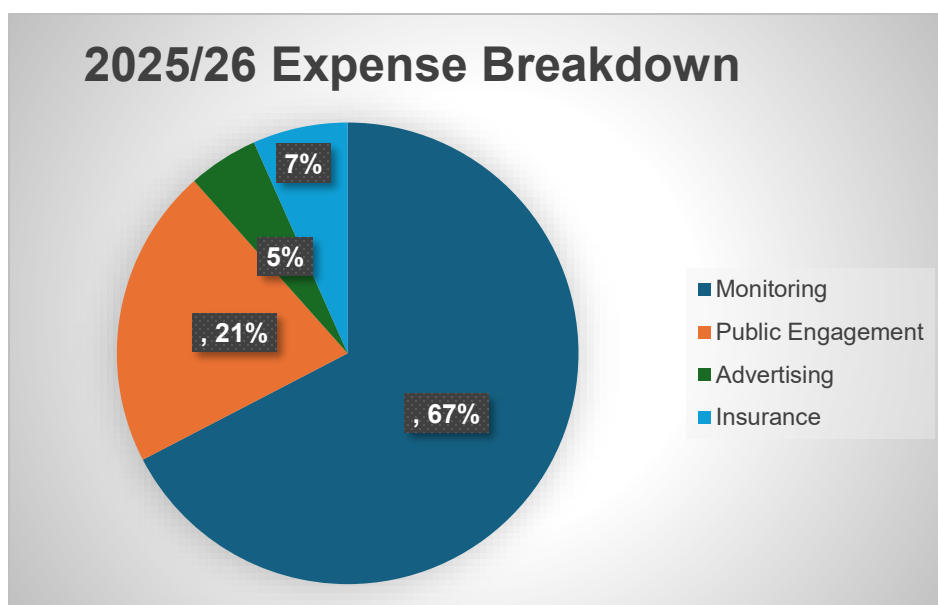
October 2025- Plein Air Painting Event – Was well attended with many artists painting lovely interpretations of the river that paid homage to the beauty of the Medicine River. Unfortunately we were not able to host the event in 2026 because of low number of artist registrants (for a variety of factors), but we will try again next year!

May 21, 2026 Gilby Hall– Community Presentation had 84 community members in attendance. The purpose of this community presentation was to keep the community informed of the work being done by the society and to share the results of 2024-25 river monitoring and testing and to engage the community in determining the actions and focus for the society. Abisola Allison from the Red Deer Watershed Alliance provided a report on the health and status of the Medicine River, Todd Shipman provided a presentation on understanding induced seismicity (earthquakes) and Dana Kreil led the discussion regarding ongoing concerns about the impact of the drought and what the society's plans to start monitoring various locations on the river. The group was surveyed regarding interest in having their well water wells static levels assessed as another measure to determine the status of the aquifer.

Community Awareness Booth at 2026 Sylvan Lake Earth Days
Ian Oostindie and John Fletcher manned a booth at the April 22, 2026 Sylvan Lake Earth Day to help to increase public awareness regarding concerns about the health and sustainability of the MRWS



Funding & Expenses



Breakdown of Monitoring Expenses- \$7469

River Monitoring	Well Water Static Level Measurements
• 2025 contract with RDRWA- \$ 2800 • 2025 Creek watch kit- \$1500 • Purchase of DO meter- \$ 693 • Purchase of Chemistry tests- \$1481	• Purchase of Digital Water Depth meter- (sponsored by Torrent Fluid Solutions) - \$2498
Total \$ 6474	Total \$2498

Breakdown of Public Engagement and Meeting Expenses- \$2333

Public Engagement activities	Administrative Meetings
October 2025 Plein Air Painting event- \$377 October 2025 AGM \$1000 (meal sponsored by Gilby Ag Society) June 21 Community Awareness Meeting- \$704	March 19 Directors meeting- \$157 June 18 Directors Meeting \$95
Total: \$ 2081	Total: \$252

Thanks to the generosity of the following donors/sponsor and grants MRWS was able raise \$ 20,314 to enable us to continue to work to monitor the health of the watershed and advocate for its sustainability. The work we do would not be possible without their support and we are extremely grateful!

- Lacombe County
- Trans Canada Pipeline
- Gilby Ag Society
- Torrent Fluid Solutions
- Red Deer River Naturalists
- Town of Sylvan Lake
- Clearwater County
- Town of Eckville
- TC Energy
- Ponoka County
- AGM attendee donations

What's next?

- Continue to monitor and report on the status of the Medicine River Watershed
 - Report findings to counties and municipalities and utilize data in presentations to government and public
 - Continue to advocate strongly that fresh water diversion be closely regulated and monitored
 - Consider public education- post signs at locations indicating we are measuring
 - Request Lacombe County to include sites in chronology photo tracking
 - Develop educational materials, posters and cards to be shared at public forums about the amount of water used in fracking compared to the amount used by family/year or number of cattle/year etc.
-

A HUGE Thank you to all our sponsors
supporters and volunteers!!



Red Deer County



EST **PC** 1952
PONOKACOUNTY

Town of
Rimby



Town of
Bentley
the place to be


Sylvan Lake