
June Drought Update

Mighty Peace Watershed Alliance AGM

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Drought Emergency Operations Centre
Environment and Protected Areas
June 17, 2024



Agenda

1. Current Situation
2. GOA Response
3. Outreach



Smoky River near Highway 43, June 2024

Current Situation

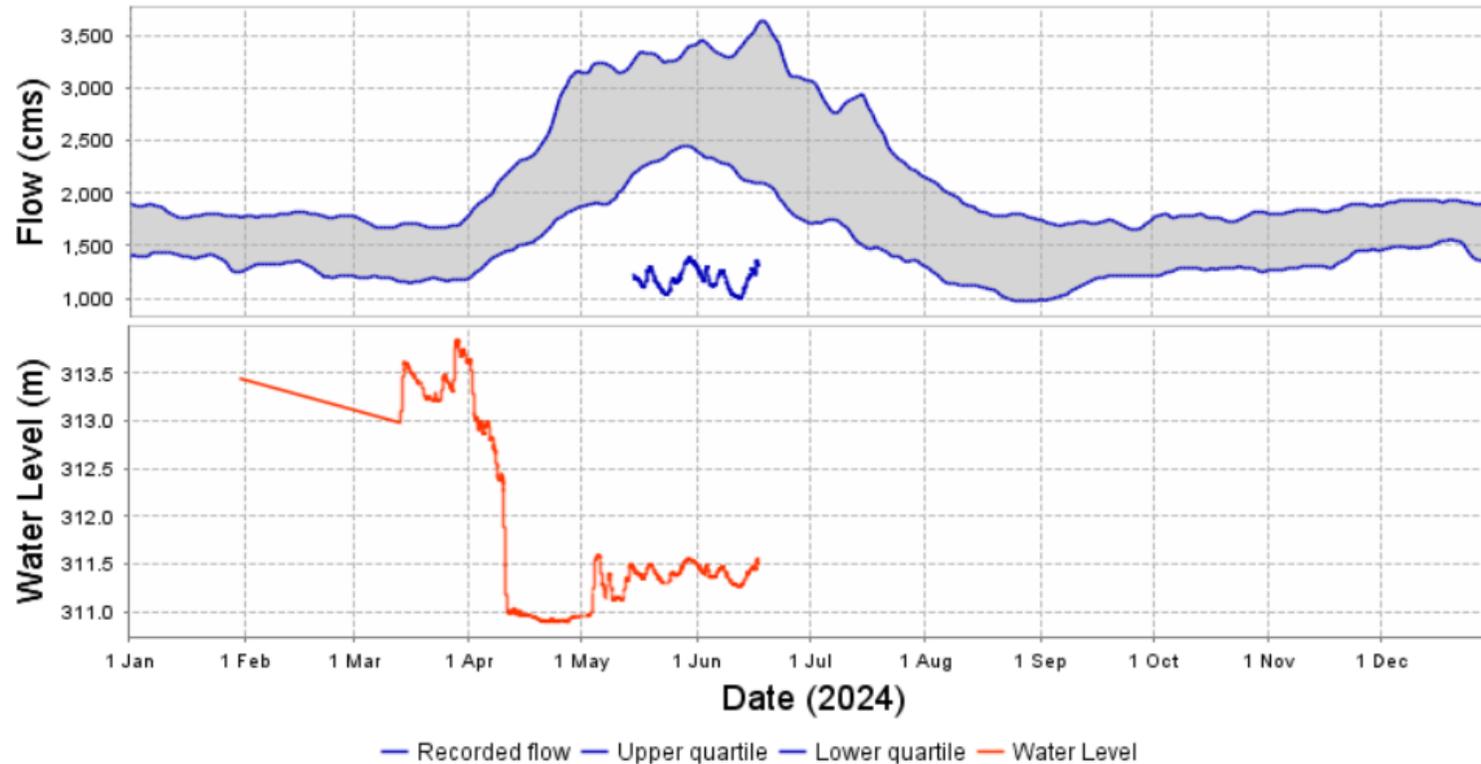
River Levels, compared to normal

River	Flow	Compared to normal
St. Mary River at the international boundary	40.3 m ³ /s	below the normal range for this time of year.
Oldman River near Lethbridge	20.2 m ³ /s	below the normal range for this time of year.
South Saskatchewan River at Medicine Hat	159 m ³ /s	below the normal range for this time of year.
Bow River at Calgary	116 m ³ /s	below the normal range for this time of year
Red Deer River at Red Deer	48.2 m ³ /s	within the normal range for this time of year.
North Saskatchewan River at Edmonton	254 m ³ /s	within the normal range for this time of year.
Wapiti River near Grande Prairie	137 m ³ /s	below the normal range for this time of year.
Peace River at Peace River	1,169 m³/s	below the normal range for this time of year.
Athabasca River below Fort McMurray	964 m ³ /s	within the normal range for this time of year.

As of June 6, 2024

Peace River Flow at Town of Peace River

Calculated flow (blue), normal flow range (grey),
and water level (red) for 07HA001
Peace River at Peace River - WSC



2024 River Flow

June 1: 1285 m³/s

June 15: 1204 m³/s

Previous Years

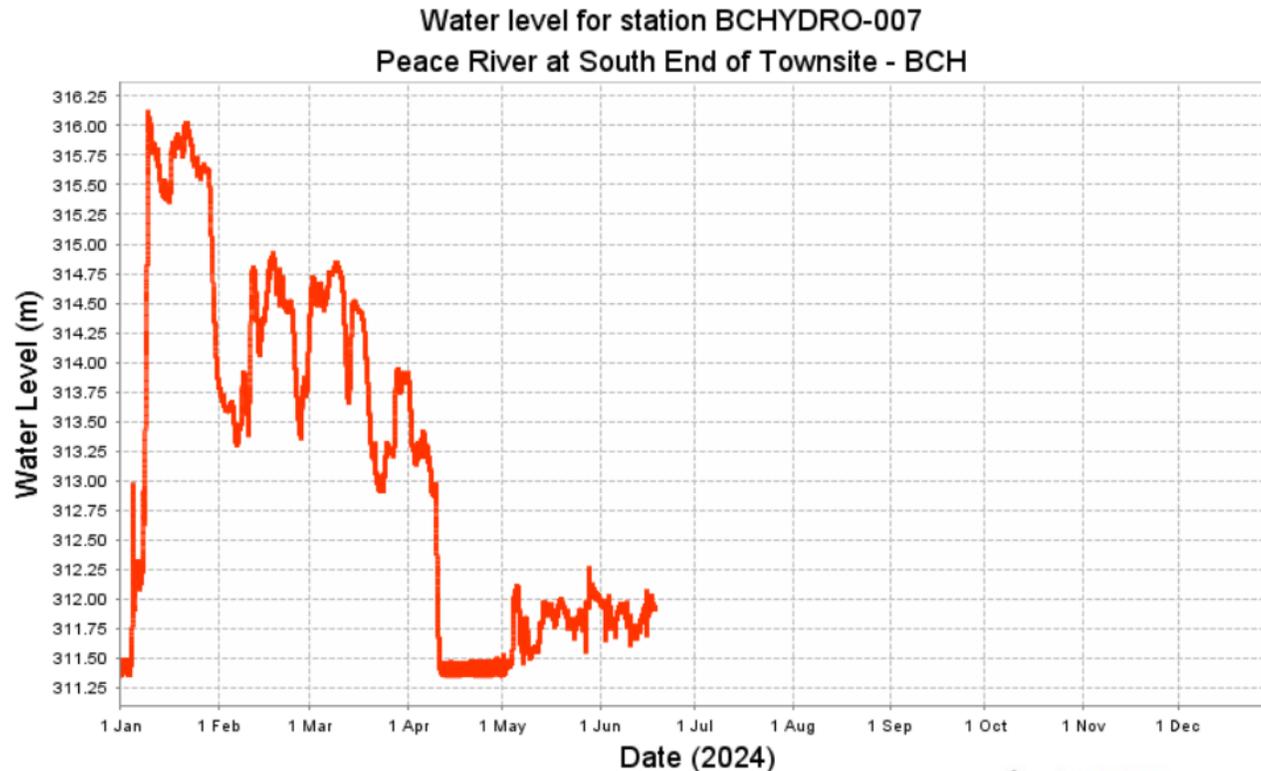
June 15, 2023: 1090 m³/s

June 15, 2022: 3068 m³/s

June 15, 2021: 1855 m³/s

Peace River Level at South end of townsite

Peace River at South End of Townsite - BCH | Yearly Graph



2024 Water Level

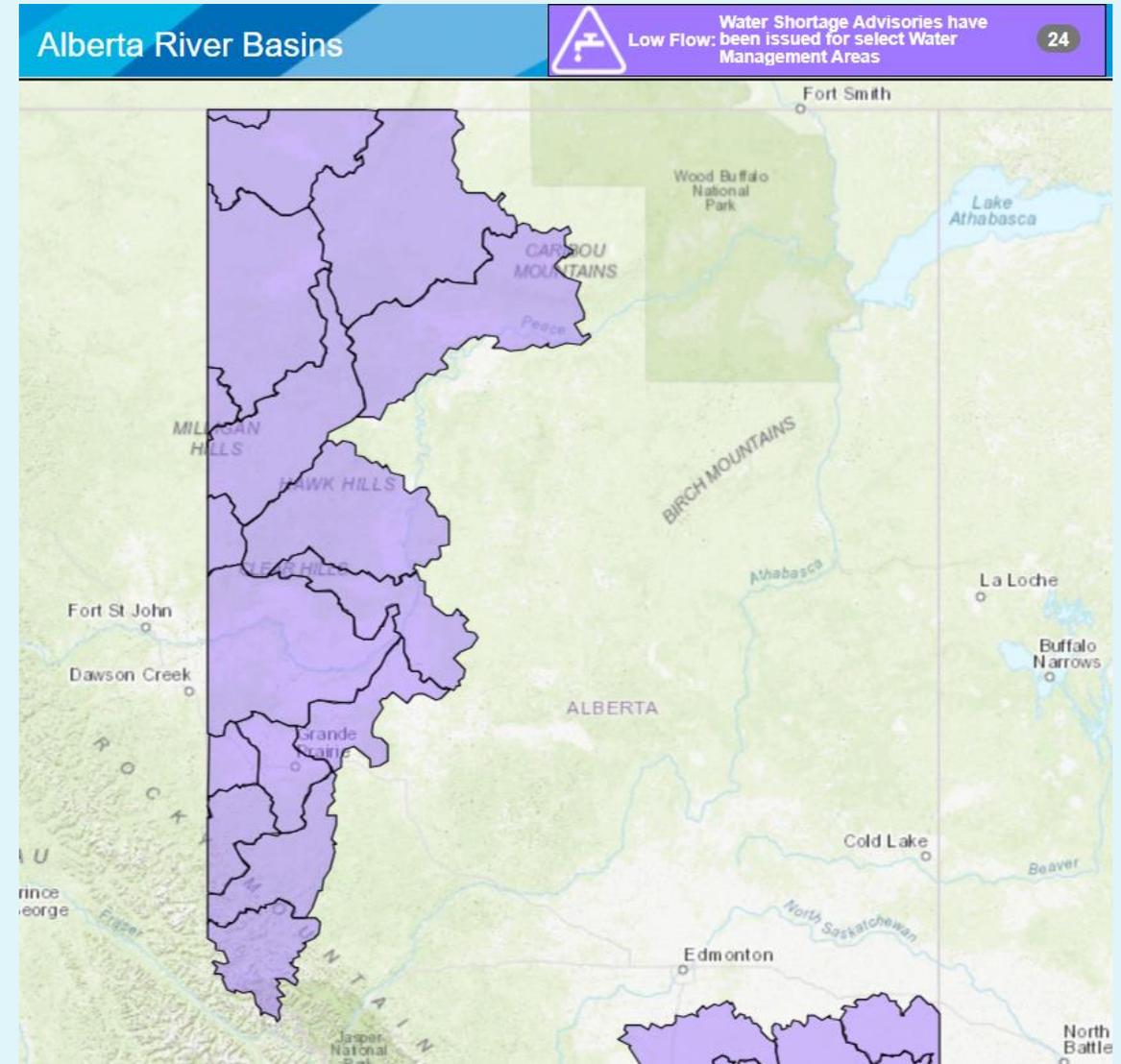
May 15, 2024: 311.96 m
June 1, 2024: 311.97 m
June 15, 2024: 311.88 m

Previous Years

June 15, 2023: 311.82 m
June 15, 2022: 312.28 m
June 15, 2021: 312.48 m

Drought Conditions – Northern Alberta

- Peace and Hay River Basins are areas of greatest concern in Northern Alberta.
 - This week, 1 water shortage advisory was removed
- Most communities in the northwest utilize tributaries to the Peace River. Few have alternative sources.
- The flow of the Athabasca river is within the normal range.



Impacts on Communities

Nature of Concern	Actions Being Taken
Intake poorly positioned	<ul style="list-style-type: none"> A major municipality's current water intake is nearing the surface with low flow conditions of the Peace River. They have a strong relationship with BC Hydro but has no raw water storage and depends on continuous draw. To secure water access, the Town may need to build a reservoir and/or move their water intake deeper.
Intake has run dry	<ul style="list-style-type: none"> Where possible communities are moving water from alternative reservoirs to fortify current water access. In other cases, communities are being issued Temporary Diversion Licence(s) (TDL) to access an alternative water source to fill reservoirs. Others have multiple licenses to access alternative supply.
Intake may run dry	<ul style="list-style-type: none"> next steps are dependent on spring precipitation levels. New sources may need to be found, or water be trucked in from a nearby community or investigating groundwater as source for long-term availability.
Key water transportation routes impacted	<ul style="list-style-type: none"> EPA has contacted the Little Red River Cree Nation for information on the ferry and required water levels for safe operation.

Impacts on Key Industries

Sectors	Updates
Forestry	<ul style="list-style-type: none"> ▪ EPA meets with the AFPA monthly. There are some concerns over low flow advisories in NW Alberta that have the potential to impact International Paper on the Wapiti River. ▪ Access to water for fighting fires is a high priority item
Agriculture	<ul style="list-style-type: none"> ▪ Seeding is estimated to be 96.9% complete across all regions and major crop types. This is on par with the 5-year average of 96.4%. ▪ Provincially, surface soil moisture is rated as Good to Excellent in 74.9% of agricultural lands. Only 3.5% is rated as Poor or Excessive. ▪ Soil moisture deficits relative to the long term normal exist in the Central and Peace regions.
Oil and Gas	<ul style="list-style-type: none"> ▪ Recent questions from the sector relate to whether O/G facilities supplying power to the province's grid through co-generation fall under the definition of "critical infrastructure" in the DRP. ▪ DEOC is working closely with AER on water licences and communication
Aggregate	<ul style="list-style-type: none"> ▪ Continued concerns with access to surface water TDL's in closed basins.
Tourism and Outdoor Recreation	<ul style="list-style-type: none"> ▪ Fisheries team has developed a drought management plan. A webinar is being planned to engage fisheries/angling sector.

GOA Response

Drought Response Plan

- Released publicly on May 2, 2024
- Objectives are to:
 - Protect the health and safety of Albertans from impacts of drought
 - Reduce impacts of drought
 - Implement a proactive response
 - Ensure Albertans take appropriate action to conserve water and work together

Water-sharing agreement activation

For large water licence holders in the South Saskatchewan River Basin

Activated MOUs

- Oldman River Basin and Southern Tributaries
 - Signatories activated the agreement on May 9, 2024 due to low water conditions

Not activated MOUs

- Bow River Basin
- Red Deer River Basin
 - recent precipitation has led to increased supply, improving soil conditions and low demand from all senior water licence users
 - No reporting of issues from non-signatories.

Flood and Drought Protection program

- \$125-million funding announced for municipalities and Indigenous communities
 - \$25 million available for work this year
 - \$100 million available for next four years
 - Accepting applications annually
- Improve drought and flood resilience and adapt to severe weather through:
 - Critical infrastructure
 - Structural measures
 - Purchase of Property
 - Bio-retention infrastructure

Low flow water quality

- Monitoring rivers to ensure low water levels are not causing impacts to aquatic ecosystems and communities
- Working with municipalities who have wastewater lagoons
- Request for them to tell us if, when, and where they are planning to release effluent.
 - Data will be used to conduct a risk analysis
 - EPA may request that a planned release is altered if it is determined to have potentially high risk of negative impacts to aquatic environment or other water users.
 - Letter was sent to all lagoon operators (May 3, 2024, reminder June 3, 2024)

Water licence - expedited process

- Helping those impacted by drought quickly navigate the licence and approval processes.
- Expedited processes and trained staff are available for:
 - *Water Act* approvals support (intake cleanouts, water storage)
 - Surface Water diversions (TDLs, licence transfers, licence amendments)
 - Groundwater diversions
 - *Environmental Protection and Enhancement Act* (EPEA) processes (drinking water treatment, stormwater reuse, wastewater effluent irrigation/reuse or release)
- [Alberta.ca/drought](https://alberta.ca/drought) – Information for licence holders and municipalities

Northern Community Outreach

- General information campaign sent out June 10th, 2024
 - Resources List
 - Guidance Document to develop a Water Shortage Plan
- Presentations or meetings are available on demand
- Letters and information packages sent to Indigenous communities

Resources and Next Steps

- EPA is available to meet with communities concerned about drought
- We continue to monitor the situation and work with communities and stakeholders who are dealing with water shortage.
- Stay up to date with drought and flood advisories at:
www.rivers.alberta.ca
- Additional information available at: www.alberta.ca/drought
- Contact us at: epa.drought@gov.ab.ca

Questions?
