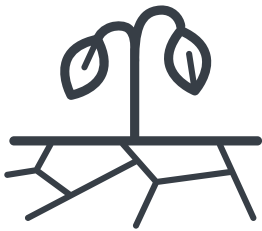


# Building Resiliency to Drought and Extreme Heat

In Alberta, conditions can swing from extremely dry to extremely wet during the same season. Impacts of drought and extreme heat can be just as significant as other disasters, while beginning slowly. Reactive measures and emergency services during or after droughts are costly and often only short-term solutions. That's why it is important to build proactive risk management to prepare for short-term and long-term extreme weather events. Drought is a risk that must be managed<sup>1</sup>.

## What is drought?



Drought is considered a deficiency of moisture when compared to normal or expected amount over an extended period<sup>2</sup>.

One way to proactively manage the risk of drought is to protect and repair riparian areas, also known as shorelines. Riparian areas are the lands found along water bodies. These areas help to mitigate drought conditions by slowly releasing stored water during drought or extremely heat events<sup>3</sup>.

The Athabasca Watershed Council and Highway 2 Conservation have helped landowners with riparian restoration projects, including tree plantings, fencing off riparian areas, and installing offsite waterers. Projects are eligible for funding through programs like ALUS (Alternative Land Use Services). Consider preparing your land for a drought by keeping riparian areas and wetlands intact. Learn more:



[alus.ca/alus\\_community/barrhead-westlock-athabasca/](https://alus.ca/alus_community/barrhead-westlock-athabasca/)



[awc-wpac.ca](https://awc-wpac.ca)



[www.highway2conservation.com](https://www.highway2conservation.com)

1 <https://www.awchome.ca/projects/building-resiliency-multi-year-drought-6/>

2 <https://www.alberta.ca/drought.aspx>

3 Judy Stewart, Alberta's Riparian Land Governance System, Canadian Institute of Resources Law, 2021 CanLII Docs 1568, <<https://canlii.ca/t/t999>>, retrieved on 2022-12-02

## Riparian Areas and Drought Mitigation<sup>4</sup>

Riparian areas are useful to have when drought or flood occur because they provide both forage and water during drought and extreme heat events.

Riparian areas can:

- Store water
- Reduce flood damage
- Build and maintain banks
- Recharge underground aquifers
- Reduce flow and ice energy
- Maintain or improve water quality

## Repairing and Protecting Riparian Areas<sup>5</sup>

How can you help with repairing and protecting riparian areas?

- Keep riparian areas (shorelines) as natural as possible.
- Keep native plants that are adapted to living in riparian areas like cattails, sedges, shrubs, and trees.
- Minimize compaction of riparian areas by livestock, vehicles, and equipment.
- Leave wetlands intact rather than draining and/or cropping them.
- Retain the full riparian area, and add a buffer between riparian areas and cropland.

## Additional Resources



Agriculture and  
Agri-Food Canada



Agriculture Drought and  
Excess Moisture Risk  
Management Plan for Alberta



Agricultural  
Moisture Situation  
Updates



Alberta River Basins



Canadian Drought  
Monitor

<sup>4</sup> <https://cowsandfish.org/ecology-function/>

<sup>5</sup> [https://cowsandfish.org/wp-content/uploads/crops\\_creeks\\_sloughs.pdf](https://cowsandfish.org/wp-content/uploads/crops_creeks_sloughs.pdf)

