

## ALBERTA WATER COUNCIL

### *Building Resiliency to Multi-Year Drought in Alberta*

#### BACKGROUND

- Drought is a natural phenomenon in Alberta, and multi-year droughts have occurred frequently throughout the province's history. Over the last 120 years, at least five major droughts have occurred in the Canadian Prairies, some of which have lasted close to a decade. Projections using climate models and emission scenarios point to an increased risk of droughts with greater intensity, duration, frequency, and over larger areas in the Canadian Prairies in the future.
- Multi-year droughts are especially damaging because their impacts on the environment, economy, and society are cumulative. Because we do not know in advance whether a drought will become a multi-year event, building resiliency to drought is critical.
- A new guide, *Building Resiliency to Multi-Year Drought in Alberta*, includes the most current information, tools, and resources organized into four modules as a reference for communities to use in planning for multi-year drought. The modules are as follows:
  - Definitions
  - Multi-year droughts in Alberta: past, present, and future
  - Roles and responsibilities
  - Management objectives, strategies, tools, and resources
- This work will help Watershed Planning and Advisory Councils (WPACs) empower municipalities and communities within their watershed to undertake activities that contribute to drought resiliency.
- A companion document *Building Resiliency to Multi-Year Drought: Tools for Small Urban and Rural Municipalities* summarizes the key findings of a workshop hosted by the Battle River Watershed Alliance to test the guide and supporting documents. Feedback from workshop participants was incorporated into the project deliverables.
- Supporting appendices include case studies outlining examples of best practices for small urban and rural municipalities to consider when planning for, responding to, and recovering from multi-year drought. An interview report illustrates historical examples of multi-year drought in Alberta and the lessons learned from them.

- A drought-resilient municipality is one in which its institutions, communities, businesses, and individuals are able to “survive, adapt and grow” in response to drought.<sup>1</sup> On a practical level, this means being able to proactively prepare for, respond to, and recover from drought. A drought-resilient municipality will also be able to learn from experience and adapt, thus improving its capacity to withstand future drought events.
- These new resources support the *Water for Life* strategy; *Our Water, Our Future: A Plan for Action*; as well as regional planning and other initiatives.
- Municipalities, the provincial government, WPACs, and local organizations all play a role in planning for, responding to, and recovering from drought. The guide includes an overview of the various actors and how they can play a role in supporting a municipality before, during, and after a drought.
- The final module comprises the bulk of the guide and is focused on strategies to prepare for, mitigate, respond to, or recover from drought. Strategies are organized into 12 key themes: monitoring and data, planning for drought, supply management, demand management, land-use planning, agriculture, ecological systems, community and health, public education, collaboration, emergency management, and funding.

Copies of the documents will be posted online in the coming months. Additional information on the Alberta Water Council and the Building Resiliency to Multi-Year Drought in Alberta Project Team can be found at <https://www.awchome.ca/projects/building-resiliency-multi-year-drought-6/>.

*The Alberta Water Council is a collaborative partnership that provides leadership, expertise, and sector knowledge and perspectives to help governments, Indigenous Peoples, industry, and non-governmental organizations to advance the outcomes of Water for Life. It advises the Government of Alberta on matters pertaining to the successful achievement of the outcomes of the Water for Life strategy and on effective water management policies, practices, and tools.*

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<sup>1</sup> <http://prairieclimatecentre.ca/wp-content/uploads/2017/04/pcc-brief-climate-resilient-city-transformational-adaptation.pdf>