



Theme B: Planning for Drought

Drought planning is an important means of facilitating management actions before, during, and after drought to reduce associated risks.

Strategies

Conduct a Risk Assessment

- Before Drought
- Warning Signs
- During Drought
- After Drought

Develop a Water Shortage Response Plan

- Before Drought
- Warning Signs
- During Drought
- After Drought

Develop a Drought Management Plan

- Before Drought
- Warning Signs
- During Drought
- After Drought

Water Shortage Indicators

- Condition of storage reservoirs in the basin
- Precipitation records (rainfall and snowpack)
- Water supply forecast from Alberta Environment and Parks
- Ground water table levels in the basin
- River/creek flow in the basin vs. Water Conservation Objective/ Instream Objective minimum flows
- Extended weather forecasts
- River water quality
- Water demand

Key Supporting Tools

- The Adapt-action Tool (Miistakis Institute)
- Municipal Flood and Drought Action Planning Primer (Miistakis Institute)
- Drought Preparedness and Response, Manual of Water Supply Practices (American Waterworks Association)
- Guide for Preparing Water Shortage Response Plans (AEP)
- Climate Resilience Express Action Kit



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Example

The City of Camrose developed a Water Shortage Response Plan (WSRP) based on AEP's guide Preparing Water Shortage Response Plans which includes triggers to indicate a water shortage is developing or becoming more severe. The water shortage stages for the WSRP are outlined below:

Trigger Point: Reservoir Storage (Days until "Available Storage" reaches zero)	Water Shortage Stage	Response Target: Water Use Reduction Goal (as %)
> 120 days	Stage 1 – Watch	0 to 5%
60–120 days	Stage 2 – Warning	5 to 15%
30–60 days	Stage 3 – Critical	15 to 25%
< 30 days	Stage 4 – Emergency Measures	25 to 33%

The WSRP further outlines actions that could be implemented by the City under each stage, including water conservation education, incentive-based programs, and water restrictions.