

Climate Vulnerability Assessment & Resiliency Strategy Plan

How Bozeman is Leading the Community

The City of Bozeman developed a Climate Vulnerability Assessment & Resiliency Strategy to plan, prepare for, absorb, respond to, recover from, and more successfully adapt to the effects of climate change hazards. Anticipating the need to adapt to the risks associated with changing local climate conditions, the City conducted a climate vulnerability assessment of its municipal facilities and developed strategies to better withstand a changing climate while building resilience in delivering its services.

Addressing a Changing Climate

Over the past decade, the Bozeman community has changed rapidly due to a growing population and bustling economy leading to increased urbanization and stress on the area's natural resources. Another major factor that will continue to shape the community's future is the changing climate. Evidence of climate change is well documented throughout the United States and Rocky Mountain West region, and the impacts of climate change in Bozeman are significant. Climate hazards and their potential impacts to the Bozeman community are:

Extreme Heat	Rising average and annual seasonal temperatures, and an increase in the number of extreme heat days impacting human health and well-being, such as through heat stress and air quality.
÷ Floods	Shifting of snowfall to rain precipitation with earlier snowmelt runoff resulting in increased flood risk and damage from flood events.
	More frequent and intense periods of drought impacting the ability to accommodate growth and meet the needs of water users.
Mountain Snowpack	Decline in snowpack volume with shifts toward earlier snowmelt impacting the management and availability of local water resources.
& Wildfire	Increased wildfire frequency and severity due to warmer and drier conditions, particularly in the summer months.
🗱 Winter Storms	Increased severity of winter storm events hampering community functions and access to resources.



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Key Takeaways

A vulnerability assessment is the process of defining, identifying, classifying, and prioritizing systems that are susceptible to or unable to cope with the impacts of a changing climate. In total, 24 municipal buildings and facilities were considered, and the following summarizes the key takeaways of the assessment, organized by building function:



Critical City Facilities

Critical City facilities generally provide or support operations and services for common public benefit. The climate hazards of concern for critical City facilities are extreme heat, drought, flood, reduced mountain snowpack, winter storms, and wildfire.



Community Centers

Community centers are meeting places for social, educational, or recreational activities for all in the community. The climate hazards of concern for community centers are extreme heat, drought, flood, reduced mountain snowpack, winter storms, and wildfire.



Critical Infrastructure

Critical infrastructure delivers resources that make the community livable and underlies economic function. The climate hazards of concern for critical infrastructure are drought, reduced mountain snowpack, and wildfire.

What the City Will Do

The City of Bozeman has a clear role in leading the community to reduce identified key vulnerabilities of its municipal facilities and services. Building a resilient City and community is a continuous process of compiling many efforts, steps, and projects, beginning with the following strategies:

Infrastructure & Capital Planning

The City will plan for critical facility infrastructure hardening and capital projects to limit damage community-wide and improve its operational resilience during and after hazard events.

2 Hazard Event Protocols & Training

The City will continue to develop its internal training and operational protocols to improve response capability in the face of hazard events.

3 Public Policies & Programs

The City will pursue policies and standards that build individual, organizational, and community resilience.

4 Climate Resilience Planning & Integration

The City will integrate climate resilience within all policy and planning efforts to build resilience from the inside out.

5 Inter-agency Community Partnerships

The City will play an important role in building resilience by partnering and coordinating with community organizations.

6 Awareness & Education

The City will prioritize proactive education within City operations to build individual, organizational, and community resilience.

7 Ongoing Climate Monitoring & Risk Assessment

The City will adapt its operations to weather by conducting an evidence-based assessment of the City's vulnerability and risk to climate variability.