

KEY								
Type of Vulnerability								
Agriculture	Buildings	Business, Recreation Tourism	Ecosystems	Emergency Preparedness and Response	Energy	Health	Land Use Planning	Water
		\$						
Severity of Vulnerability								
		Somewhat problematic						
		Extremely problematic						

Water Goals and Vulnerabilities Addressed			
Goal 1: Conserve water through water conservation plans, practices, regulations and strategic/guided growth.			
	A8		Increased cost for irrigation
	A22		Decrease in non-irrigated production (drought)
	H8		Less available drinking water due to drought (rural areas)
	P5		Inadequate water to support existing and future development
	P7		Increased tension between private and public interests (drought)
	W4		Increased system demand due to climate migrants
	W7		Availability of future water rights (drought)

	W8		Well contamination (flooding)
	W9		Increased wastewater treatment plant flows (flooding)
	W11		Unreliable water supply (drought)
	W12		Lack of dilution water for wastewater treatment (drought)

Goal 2: Enhance water storage opportunities and infrastructure to reduce incidence and impact of flooding and low streamflow events.

	A7		Increased soil pollutants due to flooding
	A16		Crop loss from flooding
	A17		Loss of topsoil due to flooding
	B5		Buildings vulnerability to flooding
	T4		Reduced tourism/spending due to flooding
	T7		Reduced tourism/spending due to reduced streamflow
	E5		Changes and reductions to instream/habitat quality
	E8		Increased water temperature
	E10		Hydrologic disconnections
	E12		Increased stress on aquatic species
	E14		Changes in hydrology/storage capacity

	E15		Increased evapotranspiration
	E24		Ecosystem effects of changes in amount and timing of water availability
	H5		Trauma/drowning due to flooding
	H7		Wastewater treatment plant overload/septic system failures due to flooding
	H16		Waterborne illness due to flooding
	H17		Vector borne illness due to flooding
	P1		Impacts to roads and bridges (floods and extreme weather)
	P2		Impacts to homes and property (floods)
	P3		Increased tension between private and public interests (wildfire, floods)
	W6		Stormwater system inundation (flooding)
	W7		Availability of future water rights (drought)
	W8		Well contamination (flooding)
	W9		Increased wastewater treatment plant flows (flooding)
	W10		Acute and chronic physical infrastructure damage (flooding)
	W11		Unreliable water supply (drought)
	W12		Lack of dilution water for wastewater treatment (drought)

Goal 3: Preserve water quality through efficient wastewater treatment, water delivery systems, education and regulation.

	H7		Wastewater treatment plant overload/septic system failures due to flooding
	H16		Waterborne illness due to flooding
	W4		Increased system demand due to climate migrants
	W8		Well contamination (flooding)
	W9		Increased wastewater treatment plant flows (flooding)
	W12		Lack of dilution water for wastewater treatment (drought)

Goal 4: Preserve water quality through improved stormwater management, prioritizing green infrastructure over traditional methods.

	B5		Buildings vulnerability to flooding
	T4		Reduced tourism/spending due to flooding
	H16		Waterborne illness due to flooding
	H17		Vector borne illness due to flooding
	P1		Impacts to roads and bridges (floods and extreme weather)
	P2		Impacts to homes and property (floods)
	W6		Stormwater system inundation (flooding)
	W8		Well contamination (flooding)

	W10		Acute and chronic physical infrastructure damage (flooding)
Goal 5: Balance competing water needs in the context of population growth.			
	A8		Increased cost for irrigation
	A22		Decrease in non-irrigated production (drought)
	T7		Reduced tourism/spending due to reduced streamflow
	P5		Inadequate water to support existing and future development
	P7		Increased tension between private and public interests (drought)
	W4		Increased system demand due to climate migrants
	W7		Availability of future water rights (drought)
	W11		Unreliable water supply (drought)
	W12		Lack of dilution water for wastewater treatment (drought)

DRAFT Guiding Principles for Prioritizing and Implementing Climate Adaptation Actions

- **Collaborate and think holistically.** Climate change touches all aspects of our lives, requiring us to collaborate in new ways, to work across sectors and silos, and to think beyond our geographic boundaries.
- **Balance immediate and long-term needs.** When prioritizing actions, select a combination of easy, quick wins and critical but challenging longer-term initiatives.
- **Build on past work.** Recognize, value, and integrate prior and ongoing work. Don't reinvent the wheel.

- **Value natural processes.** Learn from nature and protect and restore naturally resilient ecological processes.
- **Draw on tradition and culture.** Honor cultural values and draw on traditional ecological knowledge through collaborative partnerships. The Confederated Salish and Kootenai Tribes are key partners, especially given that Missoula County falls within the ancestral homelands of these tribes.
- **Act with, not for.** Maximize transparency and inclusivity in planning and implementation. Empower people with knowledge and tools to participate and take ownership of climate resiliency actions.
- **Don't exacerbate the problem.** Adaptation actions should avoid increasing our contribution to climate change or undermining the ability of other sectors or regions to adapt. Prioritize actions that reduce our contribution to climate change while building resilience.
- **Prioritize equity.** Adaptation actions should not increase inequity. Prioritize actions that build resilience while focusing on underrepresented and vulnerable groups and increasing equity.
- **Use science.** Make decisions based on the best available science while explicitly considering uncertainty.
- **Innovate and adapt.** Monitor and evaluate actions to learn what's actually working. Experiment with emerging solutions, be creative, and maintain flexibility as conditions change.
- **Focus on prevention.** When possible, prioritize actions aimed at avoiding problems rather than addressing them after they occur.