

Table 1. Results from City of Fort Collins Climate Change Adaptation Planning, presented in a vulnerability assessment format.

Target (resource, population, or service)	Exposure	Sensitivity	Adaptive Capacity
Water quantity for residents and businesses	Extended drought Higher evaporation and evapotranspiration leading to drier conditions, even if precipitation increases Lower snowpack – less storage, quicker runoff Lower summer stream flow	Current storage capacity limited and new storage is controversial. Demand expected to increase with c.c. Water rights may provide insufficient yields – use would be restricted. <i>Potential loss of business/revenue.</i>	Current reservoir storage can be increased. (?) New storage is expensive. Lack of diversity in supply increases vulnerability. Conservation measures allow some adaptive capacity.
Water quality for residents and businesses	Lower flows, extended drought Coupled with severe storms Flooding	Runoff following droughts or during floods will increase TOC and nutrients. <i>Potential loss of business/revenue.</i>	New treatment may be needed – currently not in place. Lack of diversity in supply limits adaptive capacity.
Wastewater return to the natural environment (“receiving”)	Lower flows, extended drought Coupled with severe storms Earlier spring snow melt; rain-on-snow events Flooding Higher temperatures affect water chemistry.	Low flows and severe storms could increase pollutants. Effluent likely to not meet water quality standards. Higher and more frequent peak discharges could lead to facilities damage. <i>Maintenance/repair costs could increase. Public perception an issue.</i> Could challenge required limits for NPDES, but there is some room for change.	DWRF has more adaptive capacity than MWRF (can divert). Designed for 50-yr. to 100-yr. floods. Collection system has some areas of poor condition. Current system built based on historical standards – needs to be upgraded to provide level of protection that is expected. Conservation measures to retain flow allow some adaptive capacity.
Energy supply	Higher temperatures	Increased demand (in summer?) <i>Goal to reduce GHG emissions a consideration. Need to have low carbon sources.</i>	Additional resources needed to increase capacity. Conservation measures allow some adaptive capacity.

Table 2. Vulnerability assessment applied to Fort Collins Utilities climate change impacts and implications information (Note: this is an example, and is not based on expert input).

		SENSITIVITY		
		Low	Med	High
ADAPTIVE CAPACITY	Low			Water quality
	Med		Wastewater return	Water quantity
	High			Energy supply

Red = highly vulnerable
 Orange = med-high vulnerability

Yellow = medium vulnerability
 Light green = med-low vulnerability

Dark green = low vulnerability

Prioritization

Very high priority = High community value (cultural, social, economic), large magnitude of expected impacts, near-term and/or mid-term impacts.

High priority = High community value. Severe impacts, but timing may be many decades in the future or projections may be especially uncertain.

Medium priority = Very specific impacts with limited geographic scope. Medium community value.