

SNOW RESERVOIR

E L D O R A



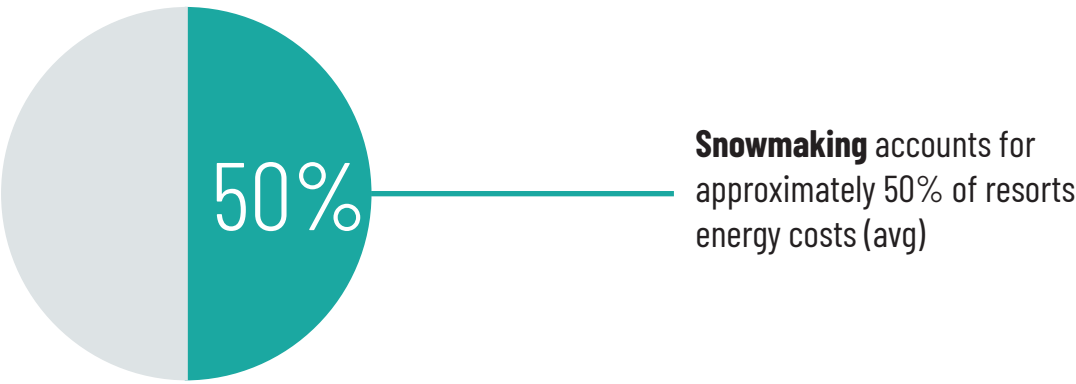
BRINGING WATER TO THE FOREFRONT

The ski industry may all but disappear in the coming decades. As climate change progresses the industry has seen little innovation. In response to our changing climate, **snowmaking** has become a common and problematic practice.

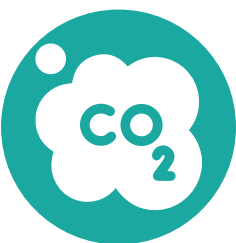
Ski resorts similar to Eldora use ~250 million gallons of water over a single season. Snowmaking requires substantial water and energy. This use ultimately takes water away from downstream communities.

While snowmaking can extend winter recreation, these practices aren't sustainable. Replacing impermeable infrastructure will allow Eldora to effectively manage water. Permeable pavement, snow fences, strategic snow collection, and additional reservoirs can improve snowmaking practices.

Energy Consumption Allocation



Vulnerability



Emissions
Co2 emissions from pumping and transport of water



Fire-prone
Extensive water use leaves resort fire-prone



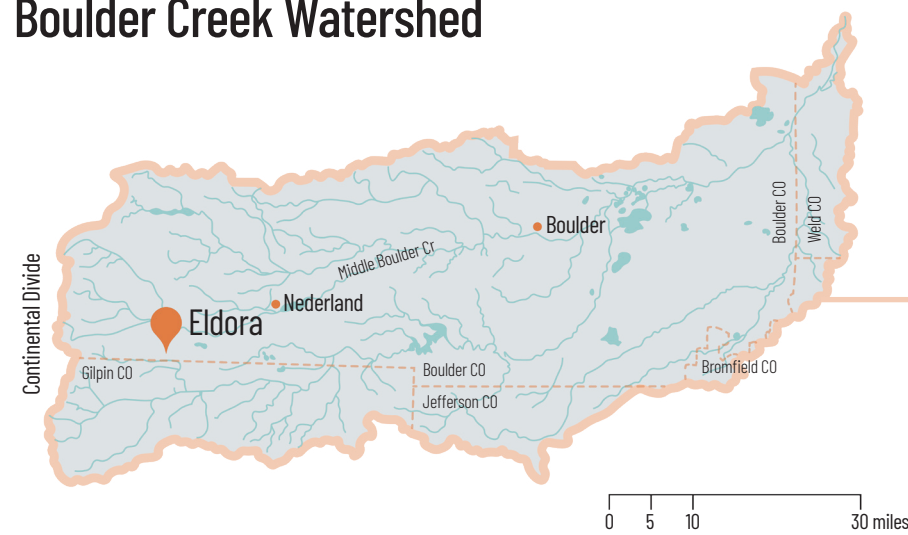
Drought
Watershed drainage creates downstream drought

250 MILLION
Gallons of water used during a single season at a resort

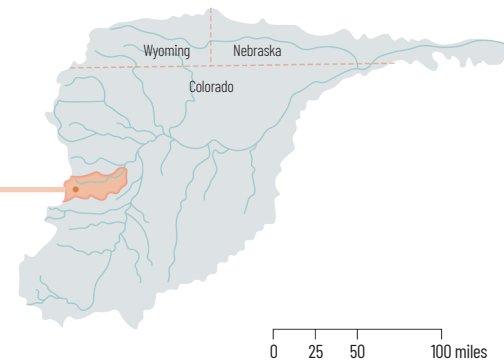
200 THOUSAND
Gallons of water to cover an acre of terrain with a foot of snow

680 ACRES
Total terrain, 53 trails, and snowmaking Oct-Feb at Eldora

Boulder Creek Watershed



South Platte Watershed



Western Water Law

The use of Colorado's water is determined by the **Prior Appropriation System**. This system controls who uses how much water, the types of uses allowed, and when water can be used.

Colorado water rights are unique to the state and restrictive to those who don't own water rights. Water rights are not easily acquired, therefore improving water management can be difficult to implement.

WHAT DO WE DO?





Increased fire protection



More water returned to watershed

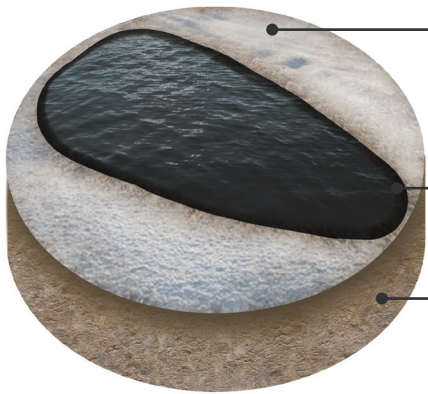


Increased erosion control



Reduces emissions

EXISTING

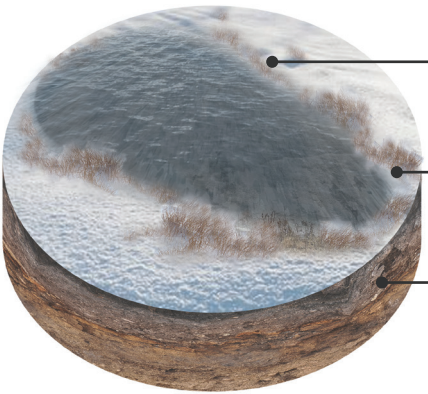


Black plastic liner

Limited water capture

Limited permeability

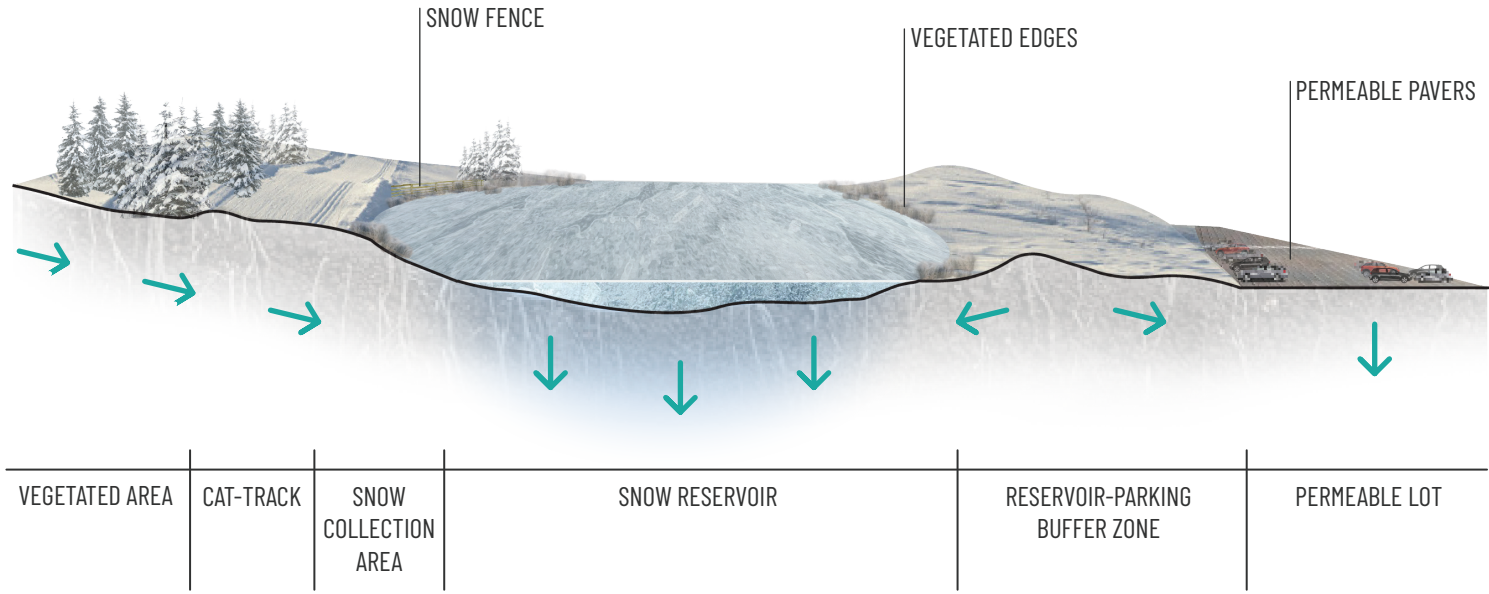
PROPOSED



Vegetated edges

Maximize water capture

Allow permeability



Snow Fences



Permeable Pavement



Snow Collection



Permeability

