

Get Wild: How de-icers affect our water

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Get Wild



A Colorado Department of Transportation plow truck drives toward the entrance of the Eisenhower Tunnel during the start of a snowstorm Feb. 1.

Jason Connolly/For the Summit Daily News

We can see our watershed boundaries by looking up to the high peaks lining our towns. Through this delicate and unique system, where no water enters except that falling as snow or rain, we have engineered and blasted road access to allow passage across our rugged landscape. In winter, salt and sand are spread to increase safety. This action comes at an environmental cost.

Locally, the common de-icers are sodium chloride and magnesium chloride, applied as either a solid or a liquid often in conjunction with sand. Road salts and de-icers encourage rapid melting of snow and ice by lowering the freezing temperature of the treated area. The freezing point of water is lowered from 32 to downward of minus 6, changing the ice crystals of the snow into liquid water.

The resulting solution is high in salinity. Runoff may be captured in vegetation and absorbed into the soil or groundwater, flow into the nearest creek or travel into storm drains, which direct runoff into the river. Unlike septic and sewer systems, stormwater is not filtered or cleaned prior to its return to the natural water system.

The region of our watershed that appears to be the most impacted by de-icers is the Interstate 70 mountain corridor. Preliminary samples indicate Straight Creek and its neighboring stormwater outfalls have elevated, even toxic, chloride concentration levels related to road salts. Straight Creek is listed as impaired by the Colorado Department of Public Health and Environment due to I-70



sediment.

For over 20 years, the Colorado Department of Transportation has measured the heightened salinity in the waterways alongside I-70. Colorado Parks and Wildlife is tracking the effects on fish populations and documenting the trending decline of the health of the wetlands and fisheries below the Eisenhower-Johnson Memorial Tunnels.

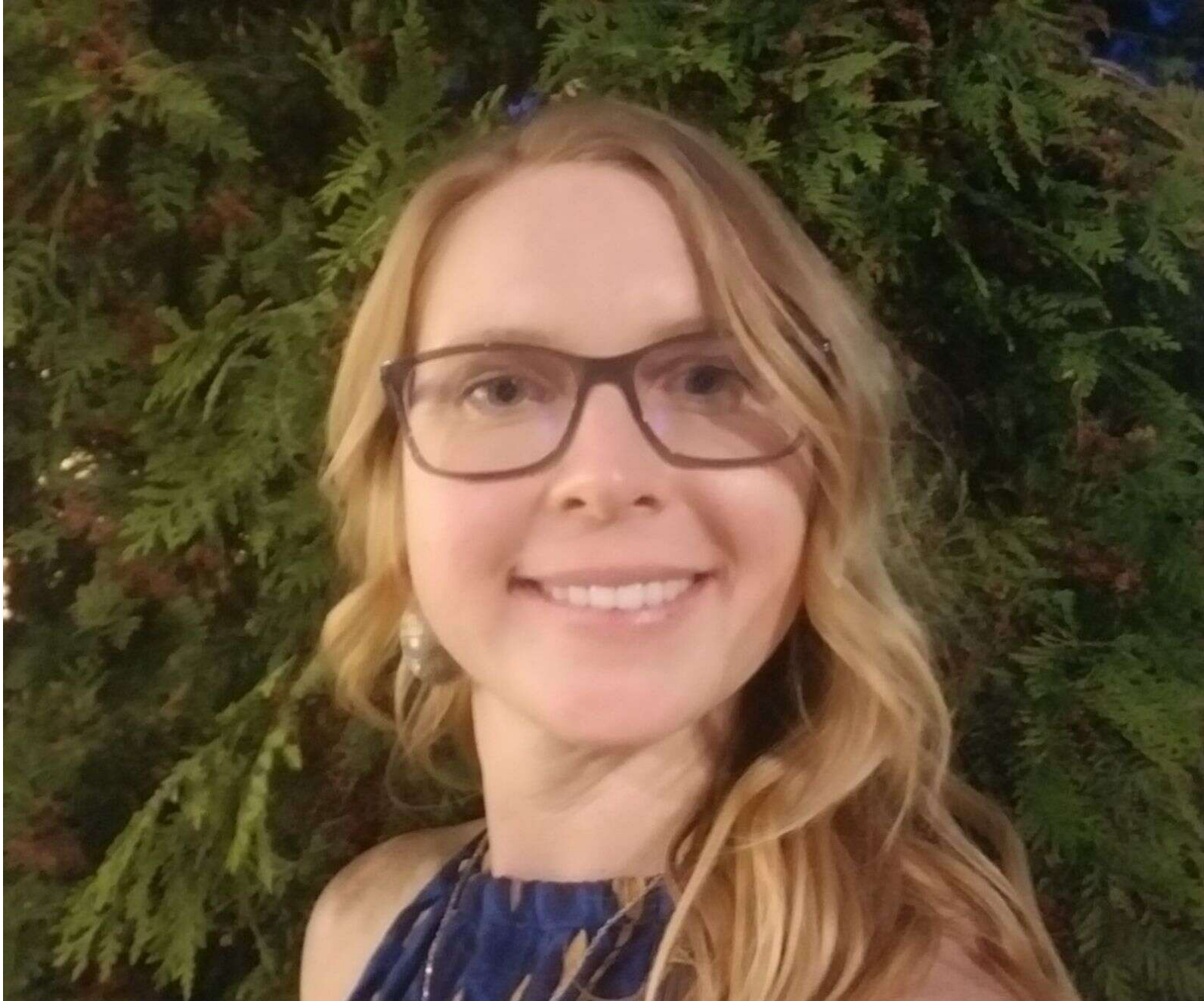
The consensus of diverse stakeholders is that of concern for the health of the river. It's our community's responsibility to be a watershed steward. While the local Blue River Watershed Group works to initiate mitigation efforts and restoration plans, individuals can reduce the environmental cost of winter travel by taking small yet meaningful actions.

Here is how you can help:

- If possible, choose sunny days to travel. Wait for plows to remove snow before walking or driving, to reduce compaction and ice formation. Shovel snow from walkways before applying de-icer to reduce the amount needed to be effective. Let the sun's power melt the snow when you can.
- Choose to use sand over chemical de-icers or salts. Sand is a natural material that can be swept up and reused. De-icers should be used sparingly and thoughtfully. Avoid using them near storm drains and waterways.
- Snow pile locations should be thoughtfully chosen away from sloped impervious surfaces, rivers or wetlands. Piles on vegetated areas will allow the melt to percolate into the ground instead of overwhelming storm drains.
- Recreationists can do their part by packing out their trash, which may wash into the river in spring when left in the snow. Maintain snowmobiles and other motorized recreational vehicles to reduce oil and gas leaks. Enter or cross frozen waterways at designated locations to reduce erosion and maintain valuable waterside vegetation. Remove dog waste as it can be a big pollutant during melt events.

Balancing short- and long-term risk as it relates to human safety is challenging. By educating ourselves with the true cost of winter travel, we can make choices to reduce our impact on the neighboring aquatic environment. As you travel through our beautiful landscape, remember that the snow we drive on, play on, plow and shovel becomes our drinking water and the foundation of our ecosystem.





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“Get Wild” publishes on Fridays in the Summit Daily News. Kendra Fuller is the executive director of the Blue River Watershed Group, a nonprofit that restores and protects a healthy Blue River watershed through education, stewardship and resource management.



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The logo features the text "BEIJING 2022" in a bold, italicized black font, followed by a stylized red and white swoosh with three blue stars above it. Below this is the text "XXIV WINTER OLYMPIC GAMES" in a bold blue font. The background of the banner shows a snowy winter sports facility with ski jumps.

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