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TO: Mountain Village Town Council

FROM: Lauren Kirn, Sustainability & Grant Projects Manager

DATE: March 12, 2025

RE: Wetlands and beaver coexistence in the Telluride Region

Executive Summary

The Telluride Region has a long history of wetlands and beaver presence, which were established well before the mining era and the ski destination we know today. In his presentation, Dr. Rory Cowie of Alpine Water Resources will discuss this rich history, the importance of wetlands as wildfire defensible space and biodiversity havens, his expertise in managing human-beaver interactions, and examples of beaver impact mitigation projects from within the region.

Attachments

1. Alpine Water Resources (AWR) Mission and Background

March 20th Town Council Presentation

Dr. Rory Cowie is the President and Owner of Alpine Water Resources (AWR), a company that seeks to identify, understand, and provide innovative and effective solutions to environmental problems. With a PhD in Mountain Hydrology from the University of Colorado and a Bachelor of Arts in Ecology and Wildlife Biology from Colorado College, Dr. Cowie has extensive knowledge and firsthand experience in rural mountain ranges around the world. Over 20 years of this experience has been spent working on beaver management and monitoring in the San Juan Mountains. He is intimately familiar with the history of wetlands, beavers, development, and human-wildlife challenges within the Telluride Region. He will provide firsthand insight into a variety of projects that have been implemented over the years to resolve these challenges in a long-term, sustainable manner that benefits mountain ecosystems and their communities.

Moving Forward

Through conversations and feedback gathered as a result of this presentation, Town staff will work with AWR to develop a work plan targeting human-beaver conflict resolution within the Meadows area for the remainder of 2025.



https://alpinewaterresources.com/

Our Mission

Unravel environmental problems and to collaborate with businesses, agencies, and research teams to safely implement innovative and effective environmental solutions that benefit mountain ecosystems and communities.

Rory Cowie, PhD President and Owner

Bio

Rory has a PhD in Mountain Hydrology from the University of Colorado and a BA in Ecology and Wildlife Biology from Colorado College. Dr. Cowie has worked in remote mountain ranges around the world including projects on Mt. Kilimanjaro in Kenya, the Annapurna and Everest regions of Nepal, Mt. Blanc and the Italian Alps, and across the Rocky Mountains and Alaska Ranges in North America. Dr. Cowie's most extensive work has occurred in the San Juan Mountains of SW Colorado and is currently based in Silverton, CO.

Dr. Cowie's professional interests are focused on the processes controlling hydrologic fluxes in mountain regions and across greater earth systems. Specifically, he works on understanding surface water and groundwater interactions in natural and human altered environments. Dr. Cowie's work focuses on both the development of remediation strategies to improve water quality in disturbed settings and understanding how changing climate will impact water resource management practices across various spatial and temporal domains.

Alpine Water Resources uses physical hydrology principles combined with analytical chemistry analysis to unravel complex hydrogeology scenarios in mountain settings. Practical applications include identification of surface and sub-surface water flow paths connecting source waters to discharge points in natural (i.e. wetlands and fens) and anthropogenic (i.e. hard rock mining tunnels) locations across mountain watersheds.