

Developing a Comprehensive Understanding of Metal Impacts on Stream Ecosystems in Colorado

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Abstract:

Metal pollution from historical mining operations is a ubiquitous stressor in Colorado and is generally recognized as one of the most significant environmental problems in the west. Six of the 15 U.S. EPA 'Superfund' sites in Colorado are associated with mining pollution and the cost for remediation of mine-impacted streams in the U.S. is expected to exceed \$15 billion. A serious criticism of stream restoration projects in North America has been the inability to quantify effectiveness of these activities. This research will contribute to our understanding of factors that influence restoration success of metal-contaminated streams and provide water managers with guidelines regarding the effectiveness of different treatments and an integrated ecosystem perspective of potential outcomes for recovering watersheds.