

# BLACK GORE CREEK SEDIMENT TOTAL MAXIMUM DAILY LOAD

The construction, operation, and maintenance of Interstate-70 at Vail Pass, along 10 miles of Black Gore Creek has caused significant sediment to flow into this once pristine headwaters stream. The excess hundreds of thousands of tons of sediment are impairing aquatic life. The creek was listed in 2002 on the state 303d list for impaired waters.

In 2004, RiverRestoration was retained by the Eagle River Watershed Council to assist with the development of a TMDL that would move the creek off the impaired waters list. The Black Gore Creek Steering Committee needed new ideas for watershed restoration and to create a TMDL that would build consensus among stakeholders as well as identify implementable action. Coordinating with the US Forest Service, Colorado Department Of Transportation, CO Dept of Health and Environment and local governments, RiverRestoration identified the water quality impairments, defined stream health targets, and led the authorship of the TMDL. In addition, RiverRestoration developed and implemented an annual Sediment Source Monitoring plan; established the capacity of the creek to assimilate sediment; furthermore, RiverRestoration created calculations for annual "Sediment Budget" and "Load Allocation" that informs basin management and prioritizes stabilization projects.



*Failing fill slope culvert*

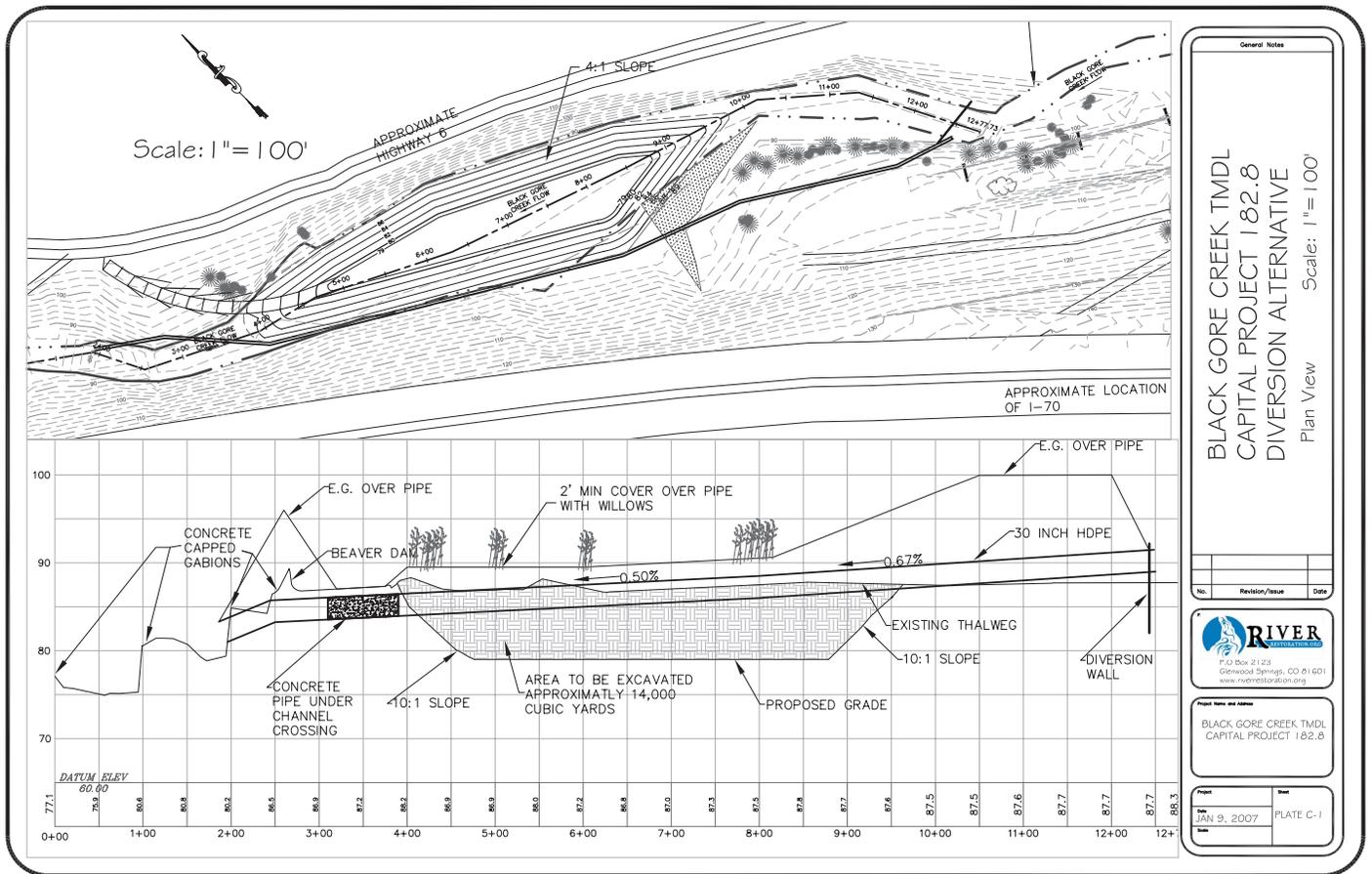


*RiverRestoration surveys sediment accumulation along Vail Pass*

*Black Gore Creek TMDL*

**Location:** Black Gore Creek of the Eagle River Watershed  
**Project Budget:** \$238K Project Development  
**Client:** Eagle River Watershed Council  
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**Date:** 2004-Current





Sediment mitigation alternative at Black Gore Creek

RiverRestoration bi-annually identifies prioritizes and engineers restoration projects within Black Gore Creek. Efforts include sediment source stabilization, channel restoration, and watershed health improvement. A monitoring plan for both environmental targets and sediment sources was developed. Annual monitoring is used to track sediment loading conditions and gauge the delayed watershed response to changes in highway maintenance practices and implemented watershed restoration projects. Monitoring data is then prepared in an annual best management practice and adaptive management recommendations report. These recommendations can be used for adjusting current practices, modifying existing projects, or prioritizing future improvement projects. RiverRestoration recommendations have included innovative techniques and creative solutions for reducing the impact of sediment on the watershed such as sand wanding, sediment basins, log cribbings, stormwater improvements, and biostabilization. Ongoing monitoring is showing that the approach is working and the environmental targets are responding favorably.



Black Gore Creek TMDL