

## A Chance to Preserve the Future of the Upper Colorado River

The proposed Moffat Tunnel expansion project and Windy Gap Firming Project will each have serious impacts on the Colorado River and its tributaries like the Fraser River. While the recent Denver Water settlement with west-slope water interests has made strides to protect river resources, the deal did not include mitigation for the future impacts of these increased diversions. These projects should not go forward without complete mitigation of these diversions.

### An “Insurance Policy” for the River

To ensure that our “best laid plans” today continue to preserve the river tomorrow we are proposing a package of protections and oversight to maintain and restore our rivers. As we have learned from past experiences, our ability to guess what the future holds is limited. This package ensures that threshold requirements are met as we divert additional water, and that we set aside resources for the future, in case our best efforts to avoid serious impacts are thwarted. Elements of the package include:

- **Addressing Increases in Stream Temperature** - Reduce diversions if stream temperatures are near (within 1°C) the acute and chronic standards set by the Colorado Water Quality Control Commission to ensure the health of the river. Additional monitoring stations will be needed.
- **Maintaining Adequate Flushing flows** - To restore river habitat periodic flows which can scour streams of sediment and debris. This will provide long term benefits for the streams.
- **Implementing Robust Monitoring and Adaptive Management Plans** – Recognizing the uncertainty associated with multiple incremental projects, we must develop tools which can track the progress of the affected streams. Monitoring and evaluation of conditions will ensure we can protect the streams from overuses.
- **Building a “bypass” around Windy Gap** – Windy Gap Reservoir has been the source of significant problems in the Upper Colorado River, problems that are expected to be aggravated by the new projects. The benefits of bypassing the reservoir and reconnecting the Colorado to allow free movement of aquatic life and natural gravels should be studied and if beneficial, the bypass should be built.
- **Establishing a Mitigation Fund** – This fund would provide resources to complete stream work necessary to preserve stream health and fisheries in spite of reduced flows on nearly twenty-two miles of streams in the Fraser River watershed (including Ranch and St Louis creeks) and twenty miles on the Upper Colorado below Windy Gap Reservoir.

To be meaningful, this package must be included in an enforceable structure that provides accountability to the public – the package must be included in federal permits.

### A river on the brink....

The Upper Colorado River and its tributaries like the Fraser River, provide vital economic, cultural, and recreation benefits to all Coloradans. Water from these rivers sustains healthy populations of fish and wildlife, and supports outstanding fishing, boating, hiking, scenic and other outdoor opportunities, as well as Western Slope agriculture.

Across the Divide, Colorado’s Front Range cities also rely on these rivers and water resources - for indoor uses and outside irrigation. Through “trans-mountain” diversions, water is pumped from the Fraser and Upper Colorado Rivers across the Continental Divide passing through a series of elaborate tunnels, man-made channels, and reservoirs, eventually reemerging from taps and sprinkler heads along the Front Range.

**Existing diversions currently pump over 60 percent of the Fraser and Upper Colorado River’s natural flows to the Front Range.** Reduced flows have lead to diminished fish populations due to a loss of food and habitat. With additional river diversions proposed and growing future demands it is becoming increasingly difficult to balance the needs of ALL our communities. Some of the current impacts already observed throughout the Upper Colorado River Basin include:

- High stream temperatures that exceed state standards
- Oxygen-robbing algae blooms
- Declines in stonefly and macro invertebrates
- Declines in native fish populations (sculpin)
- Excessive sediment collection
- Whirling Disease and invasive species proliferation

**Moffat Project Mitigation Funds**

**Fraser and Colorado River Mitigation Fund: Minimum of \$6.85 million (2011 dollars)**

Fraser River: 9.5 miles @ \$200,000 per mile  
 Ranch Creek: 11.75 miles @ \$200,000 per mile  
 St. Louis Creek: 0.5 miles @ \$200,000 per mile

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**Total Fraser River Basin: \$4.35 million (2011 dollars)**

Colorado River: 20.2 miles @ \$500,000 per mile (25% share)

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**Total Colorado River: \$2.5 million (2011 dollars - rounded up)**

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**Total Mitigation Fund: \$6.85 million (2011 dollars)**

Cost of Mitigation Fund to Denver Water ranges from \$1.35 million to \$4.85 million, depending on allocation of “enhancement” funds – funds volunteered by Denver Water to address problems due to diversions by existing projects.

Estimated economic impacts to consumers:

\$0.53/household/yr per \$5 million if included in water rates  
 \$129 per tap (one-time fee) per \$5 million if included in tap fees

**Windy Gap Firing Project Mitigation Funds**

**Colorado River Mitigation Fund: \$7.5 million (2011 dollars)**

20.2 miles @ \$500,000 per mile (75% share)

Cost of Mitigation Fund to Northern is \$5 million assuming allocation of \$2.5 million in “enhancement” funds – funds volunteered by Northern to address problems due to diversions by existing projects.

Estimated Economic Impacts to Consumers:

\$1.60/household/yr per \$5 million if included in water rates  
 \$67 per tap (one-time fee) per \$5 million if included in tap fees