



**BIG THOMPSON
WATERSHED FORUM**

2017 Watershed Conference

Sustaining the Health of a Working River



November 1, 2017 8:00am – 4:00pm

**Fireside Café/Group Publishing
1515 Cascade Avenue
Loveland, CO**

8:00 Registration and Continental Breakfast

8:40 Opening Remarks | Tim Bohling, Chair, Big Thompson Watershed Forum Board

8:50 Welcome | Eric Wilkinson, General Manager, Northern Water

9:00 From Source to Treatment: Public Perception of Water Quality

Bob Kimbrough, Associate Director for Data, USGS Colorado Water Science Center

Through the Forum's Cooperative Monitoring Program, the USGS has collected water-quality samples from the Big Thompson River for 17 years. This effort, combined with monitoring from volunteers and other agencies, has produced a wealth of information that is used to evaluate the state of water quality in the river. Summaries of this information are available on the USGS web site, enabling the public to stay informed about relevant water-quality issues in the Big Thompson Watershed.

Tim Bohling, Water Quality Supervisor, City of Loveland

Algal blooms can lead to taste and odor events that may have negative impacts on treatment processes, and persistent issues can erode customer confidence in a utility. In 2015 and 2016, the City of Loveland experienced the most significant algal blooms and taste and odor events on record. These events led to a comprehensive study on causations and solutions. Learn what algae is, what causes taste and odor, and what solutions the city has implemented.

Al Paquet, Senior Project Manager, CH2M

The unprecedented source water algae blooms and the resulting taste and odor complaints in 2016 mandated that the City of Loveland evaluate the cause, mitigate the potential for reoccurrence, optimize the current facilities, and define limitations of current treatment process. Al will discuss how he works with the city to manage the impacts of taste and odor events through watershed protection, reservoir management, algae monitoring, and treatment optimization.

Andy Fayram, Monitoring Project Manager, Big Thompson Watershed Forum

The Forum produces annual water quality reports that summarize current water-quality conditions, evaluate trends and changes in water quality, and compare Forum data to applicable Colorado water-quality standards. Andy will present the findings of the Forum's 2016 Water Quality Report, including results from data collected in the Big Thompson River from the headwaters to the confluence.

10:00 Abandoned Mines: A Watershed at Risk

Lauren Duncan, Abandoned Mine Restoration Project Manager, Trout Unlimited

Lauren will discuss the impacts of abandoned mines on water quality and TU's Abandoned Mine Lands program, including its current restoration of abandoned hardrock mine sites across Colorado. She will also share TU's push to extend restoration efforts through Good Samaritan legislation.

Peter Barkmann, Senior Hydrogeologist, Colorado Geological Survey

By some estimates, there are more than 20,000 abandoned mine features in Colorado. CGS has developed an Abandoned Mine Land (AML) data hub that will provide access to statewide AML information, including the general location, types of features, agency involvement, status of restoration efforts, and the prioritization of AML sites for restoration.

10:45 Break and Raffle Prize #1 (must be present to win)

11:00 Highway 34: Protecting a River Ecosystem

Larry Rogstad, Area Wildlife Manager, Colorado Parks and Wildlife

With many competing post-flood needs in the Big Thompson Canyon, planning and implementation of restoration efforts has been a complex process. Ensuring viability and health of fish and wildlife populations is essential for ecosystem management, recreation, tourism, and canyon ethos for residents and visitors alike. The highly collaborative effort to repair the road and river has been successful in striking the balance between many competing needs, including our ability to ensure healthy fish and wildlife populations to be enjoyed by the public, now and in the future.

Megan Wood, Environmental Manager, Kiewit

Megan will discuss Kiewit's approach to environmental compliance and stewardship during the construction of the US Highway 34 Big Thompson Flood Repair Project. This discussion will highlight stakeholder coordination efforts, river and revegetation construction plans, and environmental protection measures and practices implemented on the project.

Tracy Wendt, Project Manager, Big Thompson Watershed Coalition

The Big Thompson Watershed Coalition works to protect and restore the ecological health of the Big Thompson Watershed, incorporating the needs of both community and the ecosystem. Tracy will highlight the BTWC's collaborative approach to river projects that address a wide range of needs and stakeholder interests.

12:10 Buffet Lunch

1:10 Environmental Scholarship Award Presentation | Laurie Schmidt and Ed Young, BTWF

1:20 Ripple Effects of the 2016 Fish Kill Event

Ben Swigle, Aquatic Biologist, Colorado Parks and Wildlife

Following the flood of 2013, monitoring sites that underwent substantial channel alterations during emergency reconstruction showed an average change in trout abundance of -95%. Post-flood channel reconstruction was the primary conduit responsible for the diminished abundance. Ben's discussion will incorporate post-flood fisheries data collected immediately after the flood, as well as 1-4 years post-flood data collected in 2013-2017. He will also discuss in-stream construction activities that can lead to fish kills and associated impacts.

Johanna Kraus, Research Ecologist, U.S. Geological Survey

Rivers are integrated systems that can ecologically link the fate of organisms both within and near the water. Long-term effects of stressors on fish can be underlain by changes in food sources that can cascade to impact riparian consumers, such as birds and bats. Johanna will describe some of the ecological and food web consequences of stressors on aquatic and terrestrial organisms, with the goal of broadening the discussion about fish kill events.

Andy Fayram, Monitoring Program Manager, Big Thompson Watershed Forum

Fish kills result from many diverse causes; some of these causes are preventable, and some are not. River ecosystems and their fisheries have a substantial economic impact on local communities. Understanding the economic value of recreational fisheries and the common causes of fish kill events can aid in prioritizing efforts to prevent their occurrence.

2:30 Break and Raffle Prize #2 (must be present to win)

2:45 Wildfires and Watersheds: Lessons Learned

Jill Oropeza, Utilities Water Quality Services Manager, City of Fort Collins

The 2012 High Park Fire burned approximately 87,000 acres in the Poudre River and neighboring watersheds. The resulting changes to Poudre River water quality presented significant challenges for the City of Fort Collins and other providers that depend on the Poudre as a source of high-quality drinking water. As the Poudre River Watershed continues to progress toward recovery and water quality issues become less apparent, Fort Collins has turned its focus to preparing for future wildfires.

Benjamin Gannon, Research Associate, Colorado Forest Restoration Institute

The downstream effects of recent Colorado Front Range wildfires highlight the important connections between forest conditions, wildfire, and water resources. Ben's discussion offers a framework that couples fire, erosion, and sediment transport models to assess forest management effectiveness at reducing wildfire risk to water infrastructure. He will demonstrate how these models can be used to spatially prioritize forest management in the Big Thompson and Cache la Poudre watersheds.

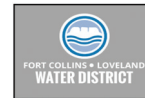
Heather Schinkel, Director, Peaks to People Water Fund

The Peaks to People Water Fund is a watershed investment fund that matches donors and investors with land stewards interested in implementing best practices to ensure forest health and water quality and safety. These investments include funds for fire mitigation in the Big Thompson Watershed.

3:55 Closing Remarks | Tim Bohling, Chair, Big Thompson Watershed Forum Board

4:00 Adjourn

Special thanks to the Forum's financial contributors:



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Big Thompson Watershed Forum Staff

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Monitoring Program Manager

Laurie Schmidt

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With your tax-deductible financial support, we can continue to collect a wide array of water quality monitoring data, produce periodic assessment reports, and be involved in more community outreach and education efforts.

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