

WILDFIRES AND FOREST HEALTH

Autumn 2016

Colorado Big-Thompson (C-BT) Project water supplies are nearly entirely dependent upon snowmelt from high elevation watersheds along the Continental Divide in Northern Colorado. Forest health and wildfires within these watersheds can have dramatic effects on the quality of watershed runoff and the ability of C-BT water supplies to meet municipal, industrial and agricultural water uses.

This information sheet provides an overview of response efforts to past wildfire activity affecting Northern Colorado water supplies, and steps being taken to protect those supplies in the future.

Wildfire Readiness, Response and Recovery

Northern Water has recently developed a Wildfire Readiness, Response, and Recovery Plan to guide internal activities and responses prior to, during and immediately following wildfires within or adjacent to C-BT and Windy Gap watersheds and infrastructure. The plan describes how Northern Water pro-actively engages in pre-fire planning and fuels management activities, engages during wildfire suppression efforts, and coordinates and implements post-wildfire response.

As a result of extreme weather conditions and declining forest health, 2012 produced a devastating wildfire season throughout Colorado. In Northern Colorado, the 2012 wildfire season included the second largest wildfire in Colorado’s recorded history at the time and a rare late-season high-elevation wildfire that burned into early summer, while the 2013 season started with a quick-moving wildfire during March on the West Slope. Wildfires affecting C-BT watersheds during this time included:

- High Park Fire:** 87,284 acres, Poudre River watershed
- Hewlett Gulch Fire:** 7,685 acres, Poudre River watershed
- Fern Lake Fire:** 3,498 acres, Lake Estes watershed
- Galena Fire:** 1,348 acres, Horsetooth watershed
- Big Meadows Fire:** 617 acres, Grand Lake watershed



Lory State Park above Horsetooth Reservoir – Grasses in this area have regenerated as a result of seeding and mulching following the High Park Fire.

Northern Water assisted and remains committed to assisting local, state and federal agencies in response to these fires. Responses to 2012/2013 wildfires were aimed at protecting watershed health and included:

- Funding seeding and mulching to promote vegetation growth and reduce erosion
- Placing wattles and constructing sediment basins to capture debris and sediment above reservoirs
- Installing more water quality equipment to provide real-time data
- Developing multiagency baseline sampling and studying rainfall/runoff from fire affected areas
- Evaluating options to modify operations to minimize water quality impacts

Since the devastating 2012/2013 fire seasons, several smaller and lower intensity fires have occurred within C-BT watersheds and near C-BT infrastructure. Northern Water has followed the response and recovery procedures outlined in our plan for these fires.

C-BT Headwaters Partnership

The 2012 fire season was a wake-up call to water supply agencies in Northern Colorado that watershed health is paramount to delivering clean, reliable water to customers. This, along with other Western water suppliers’ experiences responding to wildfire and forest health planning led to the formation of the C-BT Headwaters Partnership.

Description

The U.S. Forest Service, Colorado State Forest Service, U.S. Bureau of Reclamation and Northern Water signed an MOU in 2012 creating the C-BT Headwaters Partnership. The goal of the partnership is to

proactively restore forest and watershed health, and to preplan post-wildfire response to protect C-BT infrastructure and water supplies. Watersheds include 355,000 acres on the West Slope in the headwaters of the Colorado River, and 300,000 acres on the East Slope in the headwaters of the Big Thompson River.

Due in part to tree mortality caused by the mountain pine beetle epidemic and increased fuel loading; forests in C-BT watersheds on both the West and East Slopes are becoming more susceptible to high-intensity wildfires that create poor water quality runoff conditions. Protection of C-BT water quality has been and will continue to be of utmost importance to Northern Water.

Planning Activities

One of the immediate goals of the C-BT Headwaters Partnership is to develop a five-year operating plan that can be used by agencies to develop individual levels of funding for cooperative efforts.

Utilizing procedures developed by the Front Range Watershed Protection Data Refinement Workgroup, which built upon recommendations by the Pinchot Institute for Conservation, J.W. Associates developed Zones-of-Concern priorities and a small watershed analysis, which serve as the technical backbone of the operating plan.

The operating plan, currently being developed by the partnership, develops treatment goals for overall watershed health, prescribes types and levels of treatments within each watershed, and estimates costs for treatments. Timelines for treatment will largely depend on the level of funding available from each entity. Projects will complement over 16,000 acres of treatments already completed within C-BT watersheds by the U.S. Forest Service, National Park Service, Larimer County, and private landowners in conjunction with the Colorado State Forest Service, and others.

Watershed and Fuels Reduction Projects

The C-BT Headwaters Partnership has utilized planning documents to begin implementing fuels reduction projects throughout C-BT watersheds.

The Wildfire Risk Reduction Grant program, administered by the Colorado Department of Natural Resources, has been a key source of funding and coordination for treatments on non-Federal land within C-BT watersheds. Northern Water (on behalf of the CBTHP) has received three grants through the program totaling nearly \$234,000 for treatments on



Willow Creek Timber Sale in Grand County – Dead lodgepole pine and other timber was cut, removed and utilized by a local timber contractor, while Aspen regeneration was stimulated.

more than 700 acres of forested lands. Projects are administered in coordination with the Colorado State Forest Service, and have included the Willow Creek timber sale on land owned by Northern Water, private land treatments in conjunction with landowners on both the west and east slopes, and treatments in the Chimney Hollow, Pinewood, and Horsetooth Mountain areas in conjunction with Larimer County.

Other funding mechanisms used by the C-BT Headwaters Partnership include a grant to Larimer County from the Colorado State Forest Service for additional work at the Chimney Hollow and Pinewood area, an agreement between Northern Water and the U.S. Forest Service to cost-share a project to treat 205 acres in the Kawuneeche Valley on the West Slope, a joint project with the Colorado Conservation Exchange, and agreements between various partners to cost-share nearly 1,000 acres of projects around critical C-BT infrastructure and within C-BT watersheds. In total, nearly \$2 million in projects on nearly 2,000 acres are currently being implemented by the partnership.

Projects focus on fuels reduction and forest restoration. The work includes the removal of dead, dying and disease infected trees, thinning, creating patch cuts in unnaturally dense stands, and creating fuel breaks. Biomass is utilized for commercial or other uses where reasonable. All projects are leveraged with other funding and services to implement landscape-level treatments.

QUESTIONS/ADDITIONAL INFORMATION

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