National Fire Plan

Myrtle Creek Fire Emergency Stabilization and Rehabilitation Project

What do you get when you combine effects of drought, 90 years of fire suppression, a long hot summer, an unknown fire source, and a municipal watershed? A not-so-typical late summer fire in northern Idaho that quickly and severely impacted water supply for the City of Bonners Ferry.

The Myrtle Creek Fire started September 2, 2003, and quickly burned 3,600 acres of heavy fuel laden forest in the municipal watershed for the City of Bonners Ferry. The fire burned hot, leaving behind layers of ash which rapidly slid down steep terrain and into the city's water source. The city responded quickly and shifted to their secondary water source, the Kootenai River.

Up until about 15 or 20 years ago, "good" forest management included full suppression of most fire starts. Fire was thought to be mostly destructive and ecologically unsound. Most of us can remember seeing and hearing Smokey saying, "Only you can prevent forest fires." In recent years land management agencies recognized ecological ramifications of suppressing all wild fires and are now implementing new approaches under National Fire Plan guidelines.

Revegetation efforts: Contractors planting shrubs and fire resilient tree species in April 2005.

As a result of full suppression philosophy, natural fuels built to alarming levels, especially in stands where fires naturally burned at seven to 30 year intervals in low-severity areas and every 35 to 100 years in mixed-severity areas. The stage had been set for the 2003 wildfire in Myrtle Creek's drainage.

Of 3,600 acres burned in the Myrtle Creek Fire, the majority is managed by Idaho Panhandle National Forest. Bureau of Land Management Coeur d'Alene Field Office, manages 210 acres while the remaining land is either private or managed by U.S. Fish and Wildlife Service.

Due to the small, scattered nature of BLM public lands in northern Idaho, the U.S. Forest Service or Idaho Department of Lands has responsibility for wildfire suppression. A Type 1 Incident Management Team was called in for the Myrtle Creek fire due to complexities, size and issues involved.

Even before control of the fire was achieved, the U.S. Forest Service formed a Burned Area Emergency Rehabilitation Team, which recommended immediate stabilization

efforts to minimize soil movement, sedimentation into Myrtle Creek, and impact to habitat for threatened and endangered species within the watershed.

Approximately $1.2 million was appropriated for emergency measures on both forest service and BLM lands. Stabilization measures implemented on BLM lands were contracted through the forest service. In an attempt to stabilize the area prior to onset of fall rains and snows, funding was used for applying aerial straw mulch and aerial and ground hydro mulch, planting brush, treating noxious weeds, installing straw check dams and new culverts, and hardening road surface for ephemeral stream crossings.

Based on subsequent implementation monitoring, stabilization efforts were successful in minimizing excess sediment loads moving into the creek. Other than a for a short time immediately after the fire, Myrtle Creek has been able to supply high-quality potable water to satisfy city needs.

A 40 acre parcel of BLM land with a southern aspect was severely burned due to a chimney effect of flames moving upslope and through draws. Unfortunately, many large old ponderosa pine trees were killed on steep slope due to extreme heat and flame lengths generated by heavy fuel levels.

BLM initiated efforts to salvage merchantable timber during fall and winter of 2003-2004. Since ponderosa pine begins to decline in value shortly after trees are killed, there was a sense of urgency to remove them while they had merchantable value.

The Myrtle Creek drainage lies within a grizzly bear management unit requiring forest activities to be completed by April 1, a time of year when bears begin emerging from dens. With the clock ticking, the Coeur d'Alene Field Office implemented a salvage sale that ultimately removed approximately 750,000 board feet of dead and dying ponderosa pine and Douglas fir.

One of many new seedlings planted after the Myrtle Creek

Following the sale, remaining slash and natural forest fuels were mechanically treated during summer of 2004. A local contractor used a small, tracked excavator to pile fuels into windrows, which were burned during February and March of 2005. The larger diameter downed woody material was not piled and left on-site to provide habitat for wildlife and to decompose naturally.

In addition to emergency stabilization efforts implemented immediately after the fire, BLM identified longer term rehabilitation measures including seeding native grasses and planting shrubs and fire resilient trees.

During fall of 2004, seeds of two native grasses, Idaho fescue and blue bunch wheatgrass, were aerially broadcast over a 40 acre south-facing parcel. About 50 acres of the most severely impacted area were reforested with ponderosa pine, western larch and western white pine in April 2005. In addition, native shrubs consisting of thimbleberry, ninebark, Oregon grape, red-stemmed ceanothus and Scouler willow were planted on the 40 acre piece.

A small business contractor planted trees produced from locally collected seed to ensure maximum seed viability and site-specific survival of seedlings. Shrub species were selected for site-specific viability and to mimic natural vegetative communities. Although winter of 2004-2005 was drier than average, the onset of plentiful spring rains provided almost optimum planting conditions. The Coeur d'Alene Field Office provided two to three project inspectors during all contract phases to ensure project specifications were followed.

It has been almost two years since wildfire initially impacted Myrtle Creek watershed in Boundary County. Conditions are vastly improved as a result of interagency efforts to stem accelerated surface runoff of sediment and to rehabilitate forest service and BLM lands.

Though BLM rehabilitation efforts are winding down, the U.S. Forest Service Bonners Ferry Ranger District in collaboration with its Kootenai Valley Resource Initiative partners are developing a strategy to protect the watershed from future catastrophic wildfire. With stabilization and rehabilitation measures in place and ongoing planning effort, the City of Bonners Ferry can rest easier knowing their domestic water supply will be less susceptible to effects of catastrophic wildfire.

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