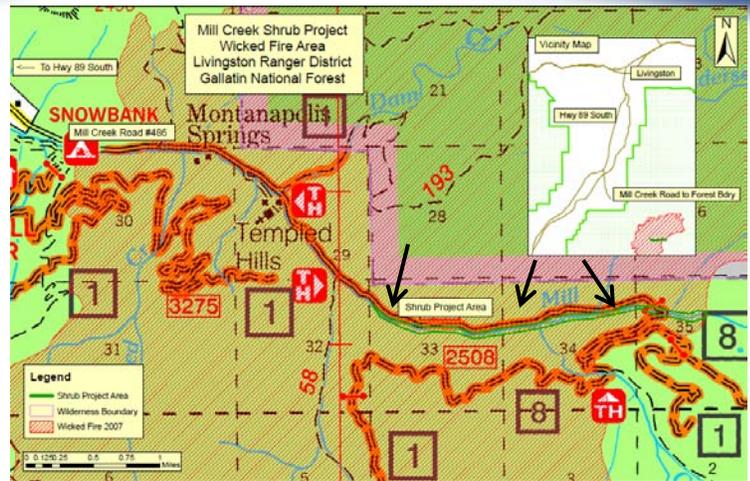


Mill Creek Shrub Post-Fire Planting within the Wicked Fire Area - Gallatin National Forest

2009 Accomplishments – submitted by Rachel Feigley

The project goal was to accelerate revegetation of dominant shrub communities in the Wicked Fire area. The Wicked Fire of 2007 burned approximately 26,500 acres within the greater Mill Creek drainage, a large 5th HUC drainage south of Livingston, Montana. The Wicked Fire burned at low, moderate, and high *intensity* and *severity* levels. These terms define the extent of vegetation removal and fire effects to soils and are critical factors in how well vegetation becomes reestablished post-fire. Approximately 55% of the area that burned at a moderate or high intensity also burned at a high soil severity. These areas of high severity occurred in large patches and included riparian zones. Many of the desired native shrubs sprout post-fire but this is strongly dependent upon the level of fire intensity. High severity fire killed the root crowns to a degree that sprouting did not occur in 2008. The summer of 2009 saw willow species sprouting but only in areas of high water availability.



Map of Mill Creek Shrub Project area

Vegetative recovery of grass and forb communities was robust during the summer of 2008 as expected. However, the riparian shrub vegetation that existed along the main stem of Mill Creek and in the lower reaches of its tributaries had shown little sprouting after one normal growing season. Streambank willow (*Salix exigua*), red osier dogwood (*Cornus sericea*), and Geyer willow (*Salix geyeriana*) cuttings, and seed from Sitka alder (*Alnus sinuata*) and water birch (*Betula occidentalis*) were collected from nearby locations and propagated in local nurseries. Approximately 20 acres will be planted with 15,000 shrubs as a long linear buffer along the stream edge in the spring of 2010. Baseline photo points were established to monitor the long term success of planting.



Photos post-fire in 2007 and 2009; planting to be completed in 2010

Year awarded: 2009

Project completion: 2010

Expenditures:

\$32,047 for shrub cutting, propagation, over-wintering

\$5,500 for shrub planting in the spring of 2010

Total funding expenditure = \$37,547

Partners/Contractors/Coop: Westscape Wholesale Nursery, Oasis Native Nursery, and Pacific Oasis, Inc.

Contact person & phone number:

Rachel Feigley, 406-823-6064



Gallatin National Forest
Livingston Ranger District
5242 Hwy 89 South
Livingston, MT 59047