

# **Bioengineering Trials at Noname Creek: Post-Fire Evaluation**

by Stu Withers

## **Non-technical Summary**

In the fall of 2001, live willow cuttings were used for stabilizing an erosion gully on a permafrost slope at Noname Creek in the Big Creek drainage. These structures (gully breaks and pole drains) were upgraded in the fall of 2003 and the early spring of 2004. In the early summer of 2004, the Noname Creek valley was burned in a wildfire. In order to assess the effects of this fire on the erosion control structures, the site was revisited in the summer of 2005.

The black spruce forest on the slope above Noname Creek had been completely burned. Although the above ground sections of the pole drains and gully breaks had been scorched, the structures remained intact and most of the lower cuttings were sprouting new growth. Falling trees had damaged a few of the structures. The willow cuttings staked in the gully between the structures had also been scorched. Although many of these staked willows were apparently dead, the older ones (staked in 2001) were sprouting new growth at ground level.

It is expected that the erosion control structures, although partially damaged, will survive and continue to function. It is also anticipated that the flow of water in the gully will increase as a result of the escalated melting of permafrost on the slope above Noname Creek.