

**ROADS to NOWHERE**

**TECHNICAL REVIEW of ECOLOGICAL DAMAGE & PROPOSED RESTORATION**

**RELATED to B.C. MINISTRY OF FORESTS**

**CONTROL ACTIONS - 2003 CHILKO WILDFIRE, B.C.**

**RE: BULLDOZED FIREGUARDS & ACCESS ROADS & PEAT MEADOW DAMAGE**

**Brittany Triangle and Nunsti Provincial Park, B.C.**

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## ABSTRACT

Field research, monitoring and interviews were carried out for Friends of Nemaiah Valley (FONV) on the ecological impacts caused by the Ministry of Forests (MOF) mechanized containment efforts of the 2003 Chilko Lake wildfire. The burned zone was B.C.'s largest that year, some 29,200 hectares. The general study area was the northern Brittany Triangle (approximately 155,000 ha) within the traditional territory of the Xeni Gwet'in First Nations in the Chilcotin region of British Columbia.

My study shows that despite some noteworthy deactivation and rehabilitation efforts by MOF after the Chilko wildfire, the extensive network of bulldozed roads/fireguards and clearings for safe areas/heli-pads related to suppression efforts had a devastating impact on the ecological integrity, pristine wildlife habitat, a protected Class A provincial park, a core area for an aboriginal horse preserve, and tourism values of this formerly pristine and mostly roadless wilderness. In 2004 the on-rush of commercial morel mushroom harvest in the burned area increased the roading and motorized access damage. The area is now almost totally open to various forms of motorized access. Recovery is highly recommended and considered quite feasible at a nominal cost of about \$90,000 to deactivate all of the roads and seed to lodgepole pine. Funding should be borne by the province and the agency that created the damage. The road deactivation estimates require more expert review. The Xeni Gwet'in First Nations need to be consulted at all stages and be involved in the recovery efforts. The rehabilitation/recovery should be monitored after implementation

## KEY FINDINGS

- Overall in the fire suppression efforts heavy machinery was used to build an estimated 141 km of bulldozed fireguards/roads (15 – 50 m width), 22 km of bulldozed trails, and approximately 93 large cleared areas (about 125+ m square) for safe escape and helicopter access. The fire road network extends completely across the Brittany Plateau in several places and entirely rings Nunsti Provincial Park. Not only this, but the bulk of access available is MOF style roadbeds with the south fireguard suitable for heavy vehicles. Many of the bulldozed guards did not appear to deter the main front of the fire but did help contain it on the flanks. The total roading (141 km) related to the fire is approximately the distance of the main road between Nemaiah and Williams Lake or between Vancouver and Hope, B.C.
- Studies have identified a very high biodiversity and Xeni Gwet'in heritage/cultural values in the Brittany. Biological values include healthy populations of salmon runs, exceptional wildlife, and wild horses numbering about 200 – 250. A tourism study has identified high economic values of local lodges in the region that are dependent on pristine wilderness including the Brittany Triangle. There are two traplines and a guide/outfitter's territory. In recognition of these high wilderness and wildlife values, a large park (Nunsti) was created by the province in 1996. In 2002, the Xeni Gwet'in First Nations established the “**Elegesi Qiyus Wild Horse Preserve**” (“Eagle Lake Henry Cayuse Wild Horse Preserve”) over their whole territory. All of these values are considered severely compromised by the extensive fire roading damage.
- Overall, roading and access increased in formerly pristine Nunsti Provincial Park by 500%; which bore the brunt of the wildfire and was about 80 – 90% burned. Nunsti is a legislated Class A provincial park of some 20,898 ha in which motorized access is prohibited. Fire roads now ring the whole park and also traverse the entire width of the Brittany Plateau.

- The increase in motorized access venues in Nunsti was from about 15 km lineal access lanes pre-fire to 84 km lineal access lanes post-fire. Other ecological damage included extensive subsurface peat fires that the Ministry of Forests allowed to burn uncontrolled without any sound ecological information that this would not cause excessive loss to critical wildlife and wild horse habitats. In the fall of 2003 volunteers suppressed about 100 peat fires in the core area. Subsequent anecdotal observations showed that none of the peat burns were growing back in 2004 and there was no evidence of previous burn history permanently burning out peat meadow depositions on the scale that occurred from the 2003 fire.
- Besides this overall cumulative burn access damage in the park, other impacts in and out of the park included bulldozer and vehicular damage to natural meadows, a new All Terrain Vehicle (ATV) – four-wheel drive (4 x 4) crossing of Chinook salmon spawning beds on Elkin Creek, and new ATV trails over active sphagnum bogs and wet meadows.
- Although a good attempt was made by MOF post-fire in September/October 2003 to deactivate and rehabilitate fireguards and block motorized access, only 5% of the fire roads were blocked making it easy for the public to build bypasses by chain sawing new trails for 4 x 4s and ATV trails because of the easy terrain. Aerial grass seeding efforts by MOF in October 2003 was only partially successful but also clearly represented the wrong and unnatural treatment in a provincial park and natural wilderness by attempting to create extensive lineal corridors of grasses through the pine forest plateau. The 141 km of fire roads/guards need to be restored to natural lodgepole pine.
- Extensive collateral motorized access damage occurred in 2004. No one anticipated and planned that the fire zone would become an intensive and lucrative morel mushroom harvest zone for an estimated 200 commercial pickers with about 50 camping areas. Our surveys after the 2004 harvest showed that all of the deactivated fire guards/roads (on the east side of the Tsuniah road) were violated by the cutting of bypass routes for 4 x 4s and ATVs. Old overgrown wagon trails and new ATV roads were also opened up to access mushroom picking areas. In the fall of 2003 and 2004 some motorized hunting access was also becoming evident.
- Prior to the big fire, primitive motorized access available in Nunsti Park was limited to about 10 km of very rough 4 x 4 road (old wagon trail) and 5 km of crude ATV trails. After the fire, morel mushroom pickers and possibly some hunters opened about 20 km of new ATV/4x4 access thus at least doubling this type of access within the park. This was in addition to the 32 km of bulldozed wide fireguards/roads, 17 km of bulldozed trails and 26 (large) cleared areas for escape and helicopter access built by MOF within the park.
- I am recommending a program of complete restoration through a combination of deactivation of all the roads/fireguards along with reseedling of the bulldozed areas with lodgepole pine. Based on a site damage review, a silvicultural contractor has presented several options. A program to plant lodgepole pine seedlings on the fire roads/guards would cost an estimated \$164,976. A program to seed the damaged sites with lodgepole pine would cost about \$29,585. The silvicultural contractor recommends the seeding option. A crude guess at deactivation of all of the roads/fireguards/bulldozed trails using a backhoe would be about \$30,000 but this requires a more expert opinion. This should include constructing deep cross-ditching and boulder blockages, especially in terrain where it would be difficult to bypass. This should also include cleanup and proper vegetation restoration of the fireguards/horse trail areas on the west side of the Chilko River. We are thus looking at a range of total costs

of between \$88,685 and \$194,976, depending on a more accurate estimate of backhoe work. Any rehabilitation should be monitored.

- Recovery should include more natural restoration and visual quality improvement of road deactivation on the west side of the Chilko River where tourism horse trails occur.
- I concur with B.C. Parks that any further rehabilitation programs should realistically wait until after the morel mushroom harvest is over, either in 2005 or 2006. However, the south and north guards appeared not to be used by mushroom harvesters and work should begin on these specific sections in the spring of 2005.
- The Xenigwet First Nations Government should be fully consulted and be part of the rehabilitation plan and efforts, including being considered for the actual work/contracts.