MINISTRY OF FORESTS, LANDS AND NATURAL RESOURCE OPERATIONS,

POST-WILDFIRE RISK ANALYSIS – PRELIMINARY REPORT

NOTE: The results given on this form are preliminary in nature and are intended to be a warning of potential hazards and risks. It is not a final risk analysis and further work may alter the conclusions. Please contact the author for more information.

FIRE: N50196 Perry Ridge	**FIRE YEAR: 2013**	**DATE OF REPORT:** 15 August 2013
AUTHOR: Peter Jordan		
REPORT PREPARED FOR: Selkirk Resource District (Arrow-Boundary FD), and Southeast Fire Centre		
FIRE SIZE, LOCATION, AND LAND STATUS: 64.5 ha. Fire is on upper part of Perry Ridge, 5 km west of Winlaw. Crown land.		
VALUES AT RISK: Several houses on upper part of Benninger Creek fan are vulnerable to debris flow hazard. Water intakes on Benninger Creek (10 domestic licenses, 9 irrigation licenses)		

WATERSHEDS AFFECTED:	**TOTAL AREA**	**AREA BURNED**	**BURN SEVERITY**
Benninger Creek	557 ha	64.5 ha	12% H, 33% M, 55% L (of the burned area)

SUMMARY OF HAZARDS AND RISKS:	**HAZARD** [1]	**RISK** [2]
Hazard: There is a pre-existing moderate hazard of debris flows on Benninger Creek. Incremental hazard due to the fire is low. (See attached report for details.)		
Risks:		
1. Risk to houses near apex of fan – consequence is high, as houses could be directly impacted by a debris flow. The pre-existing (pre-fire) risk is high; the incremental risk due to the fire is moderate.	L	M
2. Risk to houses and other development lower on fan – consequence is moderate; if a debris flow were to divert creek at fan apex, flooding could occur along abandoned channels on fan. Incremental risk due to the fire is low.	L	L
3. Risk to water intakes – could be buried or destroyed by a debris flow. Effects on water supply and quality would be temporary. Incremental risk due to the fire is moderate.	L	M
1. Hazard = P(H), the probability of occurrence of a hazardous event		
2. Risk = Partial risk P(HA) = P(H) × the probability of it reaching or affecting an element at risk		

FURTHER ACTIONS:
Residents of the Benninger Creek fan should be advised of possible risks from debris flows.

POTENTIAL MITIGATION:
none

COMMENTS:
The risk table above gives the incremental hazard and risk due to the fire. There is already a moderate hazard (and high risk) to houses and water intakes on the upper part of the fan, from possible debris flows. The fire increases the hazard only slightly, because of limited burn area and mostly low burn severity.
Debris flow hazard could occur during intense summer thunderstorms, or during spring snowmelt.

SIGNATURE:	**ATTACHMENTS:**
Peter Jordan, P.Geo.	See attached report and map for further details.