

Palmerston Creek Main (West Palmerston Main) *Eve River Watershed (Palmerston Creek), Vancouver Forest Region*

Objectives

Road deactivation on Palmerston Creek Main was carried out to reduce the likelihood of landslides to a low level. Resources at risk consisted of downslope fish habitat on Palmerston Creek and the productive forest site downslope of the road.

FIA Information

Investment Schedule Number: COTFL396224
Project Number: 6224004

Recipient

Renewal Investment Corporation
Weyerhaeuser, North Island Timberlands
Campbell River Forest District

Authors

Mike Wise, P.Eng. GeoWise Engineering Ltd.
Brad Bodnar, Tricouni Forest Management

Name of Watershed / Sub-basin, & Location

Eve River (Palmerston Creek) is located approximately 75 kilometres North-West of Campbell River B.C.

Introduction

Palmerston Main was constructed about 1969¹, most likely with line shovels and bulldozers. No previous road deactivation was carried out. Terrain around Palmerston Creek Main varies from steep slopes with cohesive glacial till and overlying glaciomarine soils to flatter slopes with sandy till. Pre-deactivation landslides and tension cracks were observed along the sections of Palmerston Main located on steeper slopes.

Project Plans and Prescriptions

Signs of possible instability and disrupted drainage were noted during an aerial overview assessment conducted in 2001 by Allan Chapman, P. Geo and Brad Bodnar. Shortly afterwards, a detailed deactivation assessment of Palmerston Main was carried out by Mike Wise P. Eng and Brad Bodnar in the summer of 2001.

Table 1: Project prescription summary.

Total length of roads deactivated	1801 m
Heavy roadfill pullback	79 m
Medium roadfill pullback	153 m
Light roadfill pullback	62 m
Crossditches	16
Stream Crossings	1

Following deactivation, the site was revegetated with the following grass seed mix and 18-18-18 fertilizer.

<u>grass seed name</u>	<u>% seed weight</u>
Tall Fescue	28.5
Creeping Red Fescue	20
Perennial Ryegrass	15
Creeping Foxtail	5
Kentucky Bluegrass	4
Red Top	1.5
Single Cut Red Clover	20
Haifa White Clover	6

Description of Completed Work

Work on Palmerston Creek Main began on June 23rd, 2003 and finished on August 1st, 2003. The work was carried out as per the prescriptions developed for the sites. Darcy Spencer and Steve Daly of Garnet Contracting Ltd. carried out the work at the site. Neil Ferguson carried out intermittent inspections of the work. Mike Wise, P. Eng. and Brad Bodnar reviewed following deactivation.

Works were carried out as per the FIA Activity Standards Document (version 3, 2003/2004). Following deactivation, the level of landslide and sedimentation hazard was reduced to low in all but three isolated locations. Remedial work was carried out at two locations to reduce the hazards. Two sites were identified for future effectiveness monitoring inspections and evaluations, scheduled for the fall of 2004.

¹ Estimated from forest cover date of establishment.

Cost Summary

The work on this project was tendered as a lump sum, and specific activity costs are not applicable. Two excavators were employed for about 75% of the time. As well an articulated rock truck was used for end hauling pullback spoils for roughly 80% of the project time. Table 2 contains a breakdown of the time spent on road access and deactivation.

Table 2: Project time summary (1) for two excavators

Total project time (1)	23 days
Reactivation of road (includes haul truck)	3 days
Deactivation of road	20 days
End Hauling	6 days
Crew Labour: hand armouring, Cross ditch, placing erosion mats and Silt fence (person days)	4 days

Notes:

- (1) All equipment worked on a 10 hour shift schedule.

Photographs



Photo 1. Re-Established, S4, ephemeral stream, utilizing large Cw crib log and rock for armouring.

Contact Information

Mike Wise, P.Eng.

GeoWise Engineering Ltd.

523 – 1641 Lonsdale Ave.

North Vancouver, B.C. V7M 2J5

Tel: 604-983-3267 / Fax: 604-983-3201

e-mail: wise1@telus.net

Brad Bodnar, Forest Eng.Tech.

Tricouni Forest Management

121 McLean St.

Campbell River, B.C. V9W 2M2

Tel: 250-850-1508

e-mail: tfm01@telus.net

As Built Deactivation Key Map
Palmerston Main

