Project Completion Abstract

For Fish Passage Restoration Projects (engineering activities)

Fish Passage Culvert Inspections, Telkwa River Watershed, Northern Interior Forest Region

Objectives of the overall project

The objective of this project was to assess fish passage at selected culvert bearing road crossings within the Telkwa River watershed. The assessments were carried out at culvert crossings installed on fish bearing streams on roads constructed prior to the implementation of the Forest Practices Code in 1996. In an effort to expand the available habitat for various fish populations, PIR would like to identify known fish passage issues over the next several fiscal years.

FIA Investment Schedule Number, Project Number, and Fiscal Year

Investment Schedule #: NOTSA 032502
Project Number: 2502002
Fiscal Year: 2006 – 2007

Recipient Name and Division/ MoF District/ MoF Region

West Fraser Mills Ltd., PIR Division, Smithers, BC.
Skeena Stikine Forest District / NIFR.

Names/Affiliation of Registered Professionals Involved in the Project

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Name of Watershed / Sub-basin, & Location

Telkwa River Watershed (WSC 460-422700)

This watershed is located in the southern-region of the Bulkley TSA and within PIR's operating area. The Telkwa River watershed has its headwaters along the eastern portion of the Bulkley Ranges, which makes up the west and southwest boundary of the watershed. The Telkwa River has a stream length of 75.6 km from it's headwaters to its confluence with the Bulkley River at Telkwa, BC. The main access for the portion of this watershed within PIR's operating area is provided by the Telkwa River FSR (1000 Rd) which branches from the Coalmine Road approximately 5.5km from Telkwa. The Telkwa River watershed is a sixth order watershed.

Introduction

Pacific Inland Resources (PIR) a division of West Fraser Mills Ltd. is interested in committing Forest Investment Account funding allocated to them towards projects that will contribute to sustainable forest management within the Bulkley TSA. In an effort to expand the available habitat for various fish populations, PIR would like to identify known fish passage issues over the next several fiscal years. PIR has completed FPCIs throughout most of their operating areas in the northern portion of the Bulkley TSA. Their Telkwa operating area is one of PIRs few remaining operating areas for which Fish Passage Culvert Inpections (FPCI) have not been completed and which has a relatively large proportion of pre-Code roads. Roads to inspect were identified by one of PIR's Operations Foresters.

Description of Completed Work

Field work for the FPCI project began All culverts assessed were within the Telkwa River watershed. Starting at the beginning of the 1000 Road at the eastern end of the watershed, fish passage-culvert inspections were completed on selected spur roads off of the Coalmine Road and the Telkwa River FSR. Roads visited included the Goathorn Road, the 120 Road and spurs, the 103 and 103A Roads, the 116 Road, the 119 Road, 126 Road and spurs and the 128 Road and spurs. Many of the sites visited in the 2006 season for this report were not on confirmed fish bearing or non-fish bearing streams, consequently stream surveys and/or sampling for fish presence/absence were often required. Due to the unusually low water levels last summer and fall most stream reaches were classified using Category 1 Local Area Agreement guidelines. If sites were found to be fish bearing, a full Fish Passage Culvert Inspection (FPCI) was completed. The majority of the sites were found to occur on S6 streams or non-classified drainages and therefore no fish passage

assessments were done on these culverts. For the remaining sites that were classified as fish bearing, one was a High ranked partial barrier to fish passage, another a Moderate ranked full barrier to fish passage and the remaining four sites were Moderate ranked partial barriers to fish passage.

A total of 224 sites were visited but not assessed. Of the 224 sites visited but not assessed, 37 were on streams that were found to be non-fish bearing. Six full fish passage culvert inspections were conducted on the selected roads and their spurs within the Telkwa River watershed. All sites except one that ranked High were ranked Moderate for remediation of the crossing structure to provide safe fish passage and access new habitat. For the six sites, one was a High ranked partial barrier to fish passage, another a Moderate ranked full barrier to fish passage and the remaining four sites were Moderate ranked partial barriers to fish passage. Table 1 on the last page shows the results of the sites where FPCIs were conducted.

Outputs are a Fish Passage Culvert Inspection Report for the selected roads in the Telkwa River watershed. The completed report includes two electronic copies on CD-ROM (one word document version and another in PDF format) that will be submitted to Pacific Inland Resources Ltd. (a Division of West Fraser Mills, Ltd.). Three hard copies of the report and maps will also be produced and one each will be submitted to the project proponent (**PIR**), another to the **Ministry of Forests and Range - Skeena Stikine Forest District** and a copy will be submitted to the **local FOC** office. A fourth copy will remain with Silvicon Services Inc. Hard copies of the maps of each watershed accompany the reports and identify the location, degree of barrier and the priority ranking of each fully assessed culvert crossing and also identify sites that were visited but not assessed for fish passage.

Field work for the project started in July 2006 and was completed by early September 2006.

Cost Summary

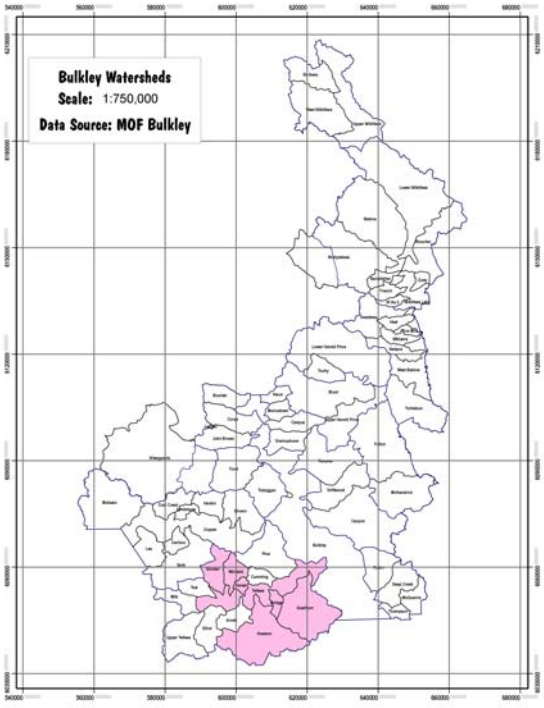
Project Work	$35,605.20
Total	$35,605.20

Post-construction Inspection

N/A

Photographs

Photo 1. One of the six FPCI sites.



Map 1. FPCI Watersheds

Table 1. Telkwa River Watershed, FPCI Summary.

Rank	Road	Site	Stream Width (m)	Fish Species	Habitat Value	Barrier	Barrier Descript[a]	Length of New Habitat	% Stream Barred	Limiting to upstream barrier	Total Score	Priority/ Ranking 39-55: High 26-38: Moderate 15-25: Low
1	**120**	**120-38**	2.04	DV	8	Partial	Culvert gradient & velocity	2000m	35	Yes	**39**	**H**
2	**103**	**103-74**	3.12	DV	8	Full	Outlet vert. Fall & gradient	1040m	39	No	**35**	**M**
3	**119**	**119-82**	2.00	CO,DV	10	Partial	Culvert gradient & velocity	380m	66	No	**34**	**M**
4	**120**	**120-69**	1.09	DV	7	Partial	Culvert gradient & velocity	460m	66	No	**32**	**M**
5	**116**	**116-6**	1.07	DV	8	Partial	Culvert gradient & velocity	550m	34	No	**30**	**M**
6	**120D**	**120D-14**	0.60	DV	6	Partial	Culvert gradient & velocity	400m	7	No	**28**	**M**