

BC Coastal Hem-Fir Initiative – 2012/13

Project Title	Evaluate the Costs and Benefits of Water Transportation Versus Truck-based Transportation
Project Number	H.14
Project Leader	Mihai Pavel
Project Team	Jack MacDonald
Total Budget	\$50,000

Need(s)

Towing log booms is an integral part of the coastal transportation network, partly because its direct cost is lower than alternative methods. However, the cost savings may not be realized for all logs if the logs spend too much time in inventory before they accumulate in sufficient volume for a typical towing package. This project will extend development of software to determine the optimal towing schedule that minimizes transportation cost and maximizes delivered log value in consideration of the planned log deliveries from the trucking network.

Road and water transportation networks evolved over years, in response to the supply chains of the day. Evolving corporate structures may cause alternative networks such as backhauls or unique combinations to be more cost effective. There is a need to identify such locations where non-traditional transportation approaches using modified networks have lower costs than traditional trucking/towing methods.

Objectives & Approach

Extend the existing transportation alternative software to optimize the interface between log deliveries by truck and rail with the log boom towing schedule to minimize towing costs and maximize delivered log value.

Analyze one additional location where a traditional road/water transportation network is replaced by an alternative network to achieve lower cost.

Benefits

The cooperating company estimates that cost savings of \$0.50/m³ are achievable through optimal tow scheduling. If the savings were applied to 25% of its annual volume of 2.7 M m³, the annual savings would amount to over \$300,000.

Project Tasks and Outputs – Current fiscal year

Tasks / Outputs	Expected Delivery Date
Work with cooperating company to define the software design.	June 2012
Develop and test optimization software for log-boom scheduling.	September 2012
Analyze alternative transportation network in one new location.	March 2013

Status and Major Accomplishments – Previous year

Developed software to compare transportation costs using traditional network with a hybrid road/rail/water network. Identified annual costs savings of \$300,000.

Performance Measures

Key Success Factor	Key Performance Indicator	Target	How the outcome of the Project supports the Program objectives
Ability to examine viable alternative transportation networks.	Identify cost savings and/or value improvements on new transportation networks	\$300,000 savings per year	Reduced operating costs leads to more viable industry.
Ability to optimize boom cut-offs to maximize log value and minimize transportation and inventory costs.	Operational use of optimizing software by one company.	\$300,000 savings per year	Reduced operating costs leads to more viable industry.

Communication Strategy for Information Dissemination

Work with cooperating company to develop and test methods and software. Software will be made available to the cooperating company. Overview articles written for coastal bulletin and FPInnovations Forest Operations newsletter.

Collaboration – Research Partners

Western Forest Products Ltd.