



Proposal for a  
**MARINE LOG SALVAGE  
RECEIVING STATION**

A market-based  
solution for wood debris  
on the Fraser River



## PROPOSAL

Pursuant to section 123 of the Forest Act, the Western Log Sort and Salvage Cooperative (WLSSC) is applying to the Minister of Forests for a licence to operate a receiving station for marine salvaged wood in the Vancouver Log Salvage District. Operating under the provincial marine log salvage regulations, the station will receive salvaged wood from permitted log salvors (beachcombers), offer marked logs to mark holders, and market unmarked logs through open auction.

Proceeds from sales will be used to compensate log salvors, to conduct scaling and sorting, and to pay stumpage fees to the provincial Crown.

Surplus revenues will be used to maintain the operation, upgrade and expansion of the sort yard facilities, to compensate log owners, and to fund debris control such as the Fraser River Debris trap and other efforts for the benefit of the Fraser River and the marine environment.

**The Canadian Coast Guard reports numerous documented boating incidents each year in BC involving vessels striking floating logs or deadheads.**

The WLSSC was legally incorporated on January 20, 2004 as a producer co-op of log salvors.

## RATIONALE: THE COST OF WOOD DEBRIS

The Fraser River has the largest and most biologically productive estuary on the Pacific Coast of North America. This vital area provides critical habitat for hundreds of millions of waterfowl and shorebirds, and over 20 species of birds of prey, which all congregate at the mouth of this river at various times of the year.

Marshes in the Estuary also provide habitat for the 800 million juvenile salmon that migrate down the Fraser system every year.<sup>1</sup> However, less than 30% of the original marsh habitat in the Estuary has survived urbanization. Many of these remaining wetlands are severely degraded by accumulations of wood debris – the primary threat to these ecosystems.<sup>2</sup>

The Vancouver Aquarium Marine Science Centre and the River Works program have identified a number of ways that industrial wood debris is impacting remaining marsh habitat in the Fraser Estuary.<sup>3</sup> These negative effects include:

<sup>1</sup> PER COMM.. COLIN LEVINGS, FISHERIES AND OCEANS CANADA NOVEMBER 2003

<sup>2</sup> KISTRITZ, R., G. WILLIAMS, J. SCOTT. 1992. INSPECTION OF RED CODED HABITAT. FRASER RIVER ESTUARY MANAGEMENT PROGRAM. P. 5

<sup>3</sup> [HTTP://WWW.RIVERWORKS.ORG/THREATS.HTM](http://www.riverworks.org/threats.htm)



Many permit holders are inactive due to the poor economics of log salvage.

- **Physical injury to vegetation** | The movement of large pieces of industrial wood debris flattens, grinds and scours wetland vegetation.

- **Competitive exclusion** | Invasive plant species, such as purple loosestrife, will quickly invade wetlands that have been degraded by industrial wood debris. This prevents native plant species from growing.

- **Reduced primary production** | industrial wood debris can compact and scour sediments which can result in poor soil fertility, and will affect plants and habitat values. If the top layer of the sediments is removed then it can expose the underlying anaerobic layer and release hydrogen sulphide, which can reduce habitat quality.

- **Displacement** | Where industrial wood debris accumulations are heaviest, marsh vegetation can be completely displaced, resulting in loss of habitat for salmon, other fish and invertebrates.

- **Toxic chemicals** | Tannins can be released from industrial wood debris. Decomposition of debris can reduce oxygen concentrations and increase toxic accumulations of hydrogen sulphide.

The North Fraser Port Authority (NFPA) estimates that each year, over 80,000 m<sup>3</sup>/yr of wood debris accumulates on the highly productive marshes

<sup>4</sup> PER. COMM., R. E. TRYDAL.  
P. ENG. VANCOUVER PARKS  
BOARD

## ISN'T WOOD DEBRIS GOOD FOR FISH HABITAT?

In nature, stable woody debris such as logs plays a vital role in contributing to the complexity of fish habitat. For instance natural logs tend to have a root-wad, which typically becomes anchored into a river bank, creating pools and cover for juvenile fish.

However, most of the logs that accumulate in the lower Fraser originate from logging operations and cannot be considered to be "stable" because they have cut ends. Without a root-wad, these logs tend to move with boat wakes and tides, crushing and smothering wetland plants.

An inventory in 1992 of "red-coded" (critical) habitat in the Fraser Estuary stated:

"By far the greatest and most chronic threat to habitat quality in the productive marshes of the estuary is related to driftwood. Activities related to the forest industry such as log handling and storage is the main source for this driftwood... In the river marshes the movement of driftwood is very active due to a constant source of material and dynamic action of river currents, freshet and tides... Almost all marsh areas affected by log debris would benefit from its removal."<sup>4</sup>



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**Sorting charges are a major factor in salvors having no choice but to leave many potentially salvageable logs adrift.**

and shorelines of the Fraser River.<sup>5</sup> This volume of wood is roughly equivalent to 2,000 logging trucks.

Loose logs are also an obvious hazard to boats and navigation. An example in February of 2004 involved two boaters off Tsawwassen who narrowly avoided drowning when their fishing boat capsized after striking a deadhead in the water. While rapid response from a passing BC Ferries vessel averted loss of life, this most recent case illustrates how easily sunken logs can imperil human life. The Canadian Coast Guard reports more than 60 documented incidents in BC waters between 1999 and 2003 where vessels collided with stray logs and required either assistance or rescue.<sup>6</sup>

The NFPA reports that in recent years their patrol boat removed over 1,000 dead-heads annually from navigable waters in order to maintain safety of navigation.

Drift timber is also a significant cost to municipalities. Logs and other wood debris that accumulate on public beaches cost the City of Vancouver over \$200,000 annually.<sup>7</sup> In 2003, the City of Vancouver delivered 806 logs to Gulf Log Salvage Co-operative (GLSC) that had washed up on public beaches, revenues from which amounted to only \$4,474.11. Most of the logs that washed up on public beaches were not delivered to GLSC, but instead were loaded into dumpsters and landfilled.

Besides the obvious problems associated with drift timber, these losses also constitute an enormous waste of potentially valuable wood that could be put back into the marketplace to create local jobs and economic activity.

The importance of the lower Fraser as an international port partially explains the prevalence of human-derived wood debris. A large proportion of the wood logged on the coast is transported to the Fraser River due to the proximity to wood processing operations and shipping facilities. Log owners also prefer to store logs in fresh water where they are less susceptible to damage from marine borers such as teredos, also known as "ship-worms".

Currently, approximately 20 permitted log salvors work on the Fraser River. However, many permit holders are inactive due to the poor economics

<sup>5</sup> NORTH FRASER HARBOUR COMMISSION FIBRE RECOVERY FACT SHEET — [HTTP://WWW.NFPA.CA/ENGLISH/01NFHC/01ENVIRON.HTML](http://www.nfpa.ca/english/01NFHC/01ENVIRON.HTML)

<sup>6</sup> CANADIAN COAST GUARD RESCUE COORDINATION CENTRE STATISTICS. 1999-2003

<sup>7</sup> PER. COMM., R. E. TRYDAL. P. ENG. VANCOUVER PARKS BOARD



**Logs handled at a dry land sort can also be differentiated into many more “sorts”, according to potential end uses.**

of log salvage. The working salvors leave many logs adrift for the simple reason that the cost of recovery and delivery would exceed the compensation (i.e., they would have to operate at a loss), based on net revenue provided by the existing receiving station.

## THE CASE FOR COMPETITION

Log salvors in BC are governed by provincial regulations that stipulate that salvors must hold a valid permit issued by the Ministry of Forests in order to salvage wood within the Vancouver Log Salvage district.

Salvage permit conditions state that salvors may only return salvaged logs to a “licenced receiving station”, also governed by provincial regulation.

However, since 1954, there has only been one such receiving station – Gulf Log Salvage Co-operative (GLSC).

The lack of competition in the marketing of marine salvaged wood has contributed to a situation where many logs are simply left to drift because salvors would lose money picking them up, based on operating costs and current rates of compensation.

For instance, the existing receiving station currently charges \$12/ m<sup>3</sup> for sorting all delivered wood, plus an additional fee of \$0.25/m<sup>3</sup> for gear removal. These fees alone can seriously impact the economics of logs salvage.

For example, a parcel of 76 logs was delivered by a salvor in 2003. The net value placed on the logs was \$2118.20, but of that the salvor was then charged \$970.20 in sorting and gear removal charges – fully 46% of the assessed compensation. Log salvors are self-employed and therefore bear their own operating expenses. By impacting the salvor’s revenue so significantly, the sorting charges are a major factor in salvors having no choice but to leave many potentially salvageable logs to drift.

Furthermore, a general feeling exists among log salvors that the prices paid by the only existing receiving station are often far less than the true market value for recovered wood. For example, one salvor reported delivering a 4.4 cubic metre D grade spruce log in 2003 This log was sold for \$198.00, while Vancouver Log Market prices at the time indicated that such a log had a market price of over \$1,300.<sup>8</sup> The salvor was paid 40% of \$198, less

<sup>8</sup> [HTTP://WWW.FOR.GOV.BC.CA/HVA/TIMBERP/LLSP/3M\\_JUL03.PDF](http://www.for.gov.bc.ca/HVA/TIMBERP/LLSP/3M_JUL03.PDF)



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\$53.90 sorting and gear removal charges, resulting in a net return of only \$25.30.

These impediments to the marine log salvage industry are likely to continue in the absence of healthy competition in the marketing of marine salvaged wood.

### OUR COMPETITIVE ADVANTAGE

WLSSC will fill a valuable niche by marketing logs in a more innovative, transparent and user-friendly manner.

For instance, the current Fraser River receiving station lacks facilities to dewater salvaged logs. All logs must be stored, scaled and handled in the water. This is particularly limiting in the case of hemlock logs, which tend to float very low in the water and frequently to sink, or become “deadheads”. This lack of capacity to de-water logs also means that logs can only be differentiated by a small number of sorts prior to sale.

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In contrast, WLSSC will handle recovered logs on land. Scaling and handling of logs on land provides a number of important advantages. For instance, visual assessment of logs out of the water can far better assess defects, and determine how individual

logs should be bucked and/or sorted according to different end uses in order to maximize the selling price. There is also the obvious advantage that logs handled on land do not sink.

Logs handled at a dry land sort can also be differentiated into many more “sorts”, according to potential end uses. For instance, the Vernon Log Yard on which our log sort is modeled had logs sorted into over fifty sorts. This can be more appealing to customers that are buying wood for value-added or specialty mills, which may have very particular needs in terms of the species, grade and dimensions of logs they wish to purchase. While these customers often only require a relatively small volume of wood, due to the high value of their products they are willing to pay premium prices if their needs are met.

River and marine salvaged wood comes in a large variety of species, grades, dimensions and potential end uses. By bucking and sorting logs



according to their highest possible end use before marketing them through open auction, we will add value to recovered logs, thereby increasing our profit margin. By creating more value from salvaged logs, we plan to avoid the onerous sorting fees currently charged to salvors for delivered logs.

Furthermore, many salvors have stated that they would be more comfortable dealing with WLSSC, given the organizational structure as a producer co-op with strong representation from salvors themselves.

By introducing some much needed competition, we can improve the overall economics of marine log salvage. By putting otherwise wasted wood back into the marketplace, we can help create much-needed jobs, economic activity and tax revenue. We can also reduce the amount of wood debris that is currently damaging fish habitat, and imperiling navigation and public safety.

## POTENTIAL SUPPLY MARKET

The economics of this proposal depends to a large degree on the potential supply market of delivered wood. The existing receiving station handled 73,328 m<sup>3</sup> of logs in 2002; however, the potential volume of salvageable logs may be significantly larger.

For instance, many types of logs are not currently accepted for salvage. GLSC does not accept alder, maple or hardwoods of any kind. Typically, they do not accept deadheads, sunken logs, or logs shorter than 12 feet in length (regardless of diameter). Logs having a top diameter less than eight inches are sorted as pulp - regardless of length, species or grade.

The volume of un-recovered wood is indicated by volume of logs that is handled by GLSC in years of high pulp prices. For instance, in 1995, when pulp prices were high, GLSC handled 148,900 m<sup>3</sup> of wood. For the last number of years they have not handled more than 75,000 m<sup>3</sup>.

Log salvors routinely choose not to recover marginal logs either because they are simply not accepted for salvage, or because they would result in a net loss to salvors based on compensation paid to salvors and the handling and gear removal charges. In addition, figures from the NFPA indicate that 80,000 m<sup>3</sup> of logs and wood debris are un-recovered each year on the Fraser, most of which originates from logging operations.

Our business scenarios are based on a conservative figure of 45,000 m<sup>3</sup>,



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which assumes that the majority of the wood will come from the Fraser River. However, the Vancouver Log Salvage District extends from the US border through the Strait of Georgia to Cape Caution. Any logs recovered in these areas would potentially become volume that would contribute to the viability of our business.

### POTENTIAL WOOD BUYERS

As of 2002, there were 198 primary production mills operating within the Vancouver Forest Region, of which 82 are located in the Chilliwack Forest District. These Lower Mainland and Fraser Valley mills are summarized below:

MILL TYPE	ESTIMATED ANNUAL CAPACITY
32 lumber mills	2208 million board feet
5 chipping facilities	789,600 bone dry units
29 shake and/or shingle mills	2,915,600 roofing squares
2 veneer plants	256,800,000 square feet
2 pole operations	40,800 pieces
1 plywood plant	208,800,000 square feet
11 log home manufacturers	-n.a.

It is estimated that approximately 45% of the volume delivered by salvors will be pulp grade or less. A challenge for the success of this project is to find a dependable market for our pulp volume. Pulp prices have been low for many years, and while they recovered somewhat early in 2004, they currently remain soft.

We have had initial discussions with a number of forest companies, pulp buyers and log brokers who are supportive in principle of this project and have indicated an interest in becoming future customers of the log yard.

We have also had initial discussions with several local value-added mill operations that are supportive in of the project. Value-added and specialty mills typically lack a dedicated timber supply from logging on either Crown or private land. These operations must instead go to the marketplace to access log supplies that meet their milling requirements.



## CERTIFICATION

Recovering logs from the Fraser River provides environmental and social benefits, as well as preventing potentially merchantable wood from being wasted. We are engaged in promising discussions with SmartWood towards future certification of logs marketed through the proposed receiving station under their “Re-discovered Wood Program”. This program provides certification opportunities for “logs and trees recovered from rivers, lakes, and reservoirs”.

Such certification could both increase the economic value of recovered wood and open up potential new markets. A further advantage of SmartWood certification is that recovered logs could qualify under the “Leadership in Energy and Environmental Design” (LEED) program, a building requirement for many new public construction projects, as well as for facilities for the 2010 Olympic Games.

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It is also crucial to ensure that log recovery operations do not cause undue damage to sensitive habitat. A primary goal of this project is to ensure that floating logs and debris are recovered before they become embedded in sensitive habitat. Logs

that are embedded in marshes are often rotten and are not generally taken for salvage as have little or no market value. However, mandatory chain of custody protocols associated with certification will be developed to ensure that salvage operations are conducted in an environmentally responsible way.

## FRASER RIVER DEBRIS TRAP

This important facility is located near Hope and recovers approximately 100,000 cubic metres of natural wood debris from the Fraser River each year. The majority of this wood is currently being processed into chip and hog fuel for use in pulp mills.

The annual operating costs of approximately \$540,000 for this operation have been contributed by a number of sources including the BC Ministry of Forests, Western Diversification Canada, the coastal forest industry, Fisheries and Oceans Canada, BC Ferry Corporation, Fraser River Port Authority, Parks Canada, BC Ministry of Transportation, Translink/Albion Ferry, and the District of West Vancouver.

Obviously the continued operation of this facility is important to ensure



the safety of navigation and protection of remaining sensitive habitat downstream. However, funding for this operation in the past has been quite tentative. WLSSC plans to help diversify funding for the trap by contributing a portion of surplus revenues from the sale of unmarked logs for this purpose.

By recovering merchantable logs downstream that are currently now being left to drift, and generating increased revenues from the sale of those logs through innovative marketing, we can increase the overall funds available for debris control efforts in Fraser Basin and Georgia Strait.

## PRICING

Transparent pricing is key to ensuring that we are marketing salvaged logs for the highest possible price. Therefore, we propose to sell pre-sorted logs through regular open auction. This model was developed at the Vernon Log Yard, operated by the Ministry of Forests between 1993 and 2002. At this operation, logs were carefully scaled, bucked and sorted according to potential end use prior to weekly sale through open auction. Approximately 70% of wood was purchased by major licencees, and the remainder by smaller specialty mills that did not have cutting rights on public land.

**This project will increase the overall funding available for debris control and marsh clean-up projects.**

Our proposed receiving station will operate in a similar manner. A starting bid price for each sort will be set on a weekly basis. After viewing logs in individual sorts, potential customers will submit sealed bids. Log sorts that do not sell one week will be

re-tendered the following week(s) at a reduced bid price, until sold. A more detailed discussion of our proposed operational procedures is attached as an appendix.

## ECONOMIC ANALYSIS AND OPERATIONS

We have prepared an initial analysis of potential revenues and expenditures, as well as an overview of dryland sort operations (attached as appendix 1). Based on a recovered volume of 45,000 m<sup>3</sup> and average market prices, we project total revenues of approximately \$3,064,000 in the first year, generating net revenues of approximately \$491,000.

Projected expenditures are based on cost data collected over nine years at two interior log yards. The Ministry of Forests, Vernon Forest District, operated a log yard from 1993 to 2002, which averaged approximately 55,000m<sup>3</sup>



annually. Average costs associated with this yard over that time have been the major source of data for this plan. As well, the Creston Valley Forest Corporation in Creston operated a much smaller log yard from 1999 to 2002. Cost data from this yard have been used to confirm the data from the Vernon yard. We have also incorporated comments and feedback from several coastal log yard operators and log brokers.

## POTENTIAL SITE

A suitable location for the receiving station and dry land sort is key to the success of this project. It should have good water and road access, be approximately 3 ha in size, and be situated on the North Arm of the Fraser River.

We have entered into discussions with the North Fraser Port Authority, and presented our proposal to their Board of directors in June of 2004 regarding potential sites for a dry land sort operation. They have indicated in writing their support for this project, and have stated their intention to locate us at a suitable site, subject to regulatory approval from the provincial government.<sup>9</sup>

## Existing regulations preclude salvors from being represented in the operation of a receiving station.

More specifically, we have had preliminary discussions regarding a 3 ha parcel on the north side of Iona Island that might be made available for our purposes. This site is located in the North Arm of Fraser, has excellent river and road access, and is zoned for industrial use. Additional potential sites may also be identified pending discussions with other specific landowners.

As it is a regulatory requirement that a licensee operate a receiving station in Howe Sound, we intend to provide such a venue to which salvors in that area can deliver logs. We have made preliminary inquiries regarding a potential site on the west side of Howe Sound, which would be suitable for this purpose. We envision that this facility would be primarily used to bundle logs not sold locally in order to transport them by water to the Fraser River site.

## VISION FOR PUBLIC EDUCATION

A further aspect of this project is ensuring public access and education. Our vision is to incorporate an on-site interpretive centre that will educate the public on the ecological importance of the Fraser River Estuary, the ongoing efforts to protect vital habitat, and the many high-value uses for BC wood.

<sup>9</sup> JULY 6, 2004 LETTER FROM GLEN MACRAE, PRESIDENT AND CEO OF NFPA.



**We hope to create a showcase operation that is complementary to local parks and public spaces.**

The facility itself would incorporate examples of green building technologies and alternative energy generation. We hope to create a showcase operation that is compatible with, and complementary to, local parks and public spaces.

## **PROPOSED REGULATORY AMENDMENT**

While this project has the potential to provide a long-term market-based solution to the vexing problem of debris control on the Fraser River and beyond, some specific changes are required to existing regulations in order to allow this project to move forward.

The WLSSC is incorporated as a producer co-op of log salvors in order to ensure that the receiving station operates in a way that is both transparent and accountable. However, existing regulations appear to preclude salvors from being represented in the operation of a receiving station.

Specifically, section 4 of the *Log Salvage Regulations for the Vancouver Log Salvage District* deals with “Qualifications for a log salvage permit”, and states that:

*4. (1) Subject to subsections (2) and (3), the regional manager may grant a permit to a person who...*

*(f) is not engaged or the holder of an interest in a business that manufactures, utilizes or deals in timber or any forest product in British Columbia,*

Section 4(1)(f) would appear to prohibit permit holders from being members of a co-op that holds a receiving station licence, and would therefore prevent this project from moving forward. It is worth noting that the lack of representation by salvors in the existing receiving station is a source of much of the acrimony in the current marine log salvage situation.

We propose to the Minister that this obstacle be remedied with the following addition to s. 4 of the regulation:

*4(4) Despite paragraph 4(1)(f), a regional manager may grant a permit to a person who is a shareholder of a licensee.*

This proposed change would allow section 3 to remain intact, and thus maintain the regulatory safeguard against conflicts of interest in the gover-



nance of the receiving station. It would also allow active log salvors to be represented in the legal entity that holds the receiving station licence.

## SUPPORT FROM LOG SALVORS

WLSSC has canvassed permit-holding salvors to determine their level of support for this project. Virtually every salvor approached so far has signed a letter of support for this initiative, totaling over 30 letters thus far.<sup>10</sup> These letters have been provided separately to the Minister in order to protect the confidentiality of individual salvors, many of whom are concerned that expressing support for this initiative may adversely affect their relations with the existing receiving station.

**Strong support conveyed for this project indicates that this initiative is supported by virtually all active and inactive salvors.**

Because of this understandable reticence on the part of salvors to compromise their relationship with the only existing receiving station, much of the necessary co-op and business plan development must wait until regulatory approval has been

granted. However, the strong support conveyed for this project indicates that this initiative is supported by the vast majority of active and inactive salvors, and that the necessary organizational development will proceed briskly upon the issuance of a licence.

<sup>10</sup> MANY OF THESE SALVORS ARE CURRENTLY INACTIVE DUE TO THE POOR ECONOMICS OF BEACHCOMBING.



## PUBLIC SUPPORT

Many organizations recognize the need to improve debris control and have voiced their support to this innovative proposal, including:

- Ducks Unlimited
- Western Association of Salvors and Handloggers
- Western Canada Wilderness Committee
- Langley Environmental Partners
- City of Vancouver, Board of Parks and Recreation
- Baxter Aviation
- Langara College
- United Fishermen and Allied Workers Union
- ILWU, Local 400 (tugboat operators)
- Canadian Coast Guard
- VanCity Community Foundation
- Coast Capital Savings Credit Union
- Vancouver Aquarium
- Northwest Wildlife Preservation Society
- Eco-Lumber Co-op
- Gemini Marine Services
- Rivershed Society of British Columbia
- BC Ferries

## PARTNERS IN THIS PROCESS

The start-up phase of this project is being facilitated by the Labour Environmental Alliance Society (LEAS). LEAS is a charitable non-profit society with a mandate to protect the environment and to facilitate the creation of “green” jobs. Last year LEAS was the recipient of the prestigious Pollution Prevention Award, given annually by Canadian Council of Ministers of the Environment. LEAS and WLSSC share an interest in improving the current log salvage system, restoring the Fraser River marsh habitat and creating green jobs in our community.

LEAS has generously provided capacity in such critical start-up areas as fundraising, co-op and business plan development, and project coordination. We are very grateful for their support and will continue to work with them in the future.<sup>11</sup>

## NEXT STEPS

Following the issuance of a receiving station licence, and with the assistance of LEAS, WLSSC will move through a detailed co-op development and business planning process. Upon securing start-up capital, WLSSC will enter into a

<sup>11</sup> FOR MORE INFORMATION ON LEAS, VISIT THEIR WEBSITE AT: [WWW.LEAS.CA](http://WWW.LEAS.CA)



land lease agreement and will become operational in the spring/summer of 2005.

WLSSC would welcome representation from MoF, as well as from major licencees, in the operation of the receiving station.

Many funding agencies have thus far generously provided support, including the VanCity Community Foundation, Community Economic Development Technical Assistance Program (CEDTAP), the Mountain Equipment Co-op, the federal Co-operative Development Initiative, and the Coast Capital Savings Credit Union.

Several funders have further indicated that should this project be given regulatory approval by MoF, significant support could be forthcoming to carry this project forward through the remaining planning and start-up stages up to becoming operational.

## **SUMMARY**

We believe we have a practical, market-based solution to many of the outstanding issues regarding marine log salvage. We believe our proposed business activity will:

- Protect and restore vital habitat in the Fraser River Estuary
- Reduce the amount of wood debris fouling public beaches and shorelines
- Improve the safety of boat traffic
- Create direct and indirect jobs in the forest sector
- Increase revenues to the provincial government
- Increase overall funding available for debris management efforts
- Generate on-going funds for marsh restoration and other projects
- Create a unique opportunity for public education.

We very much look forward to working with the BC government and other stakeholders in order to make this exciting project a reality.



## OPERATIONAL OVERVIEW OF PROPOSED RECEIVING STATION AND DRY LAND LOG SORT

### INTRODUCTION

The following is an overview of the operation of a dry land log sort yard to be managed by a cooperative of log salvagers. It is a model for proposal purposes only, and may be subject to change depending on actual conditions should a station licence be granted.

### LOCATION

The model envisioned will have a location on the Fraser River somewhere downstream from New Westminster. It will require a minimum of 3 hectares of land with a suitable coarse-textured soil base and road access. As well, the location must have water access and a log booming ground capable of storing approximately 5000m<sup>3</sup> of logs. We have identified a potential site on Iona Island that meets these conditions, and are currently investigating other candidate locations.

### FACILITIES, EQUIPMENT AND PERSONNEL

Operational Facilities will include:

- Office, complete with water, sewer/septic, phone, Internet access.
- Storage shed for storing equipment and supplies (paint, fuel, tools, etc)
- Fire control equipment, including pump and hose
- Security (gates and fence, if necessary)
- Booming grounds.

The dry land sort yard would be organized into the following areas:

- Dewatering
- Sorting
- Scaling
- Log storage.

Major equipment requirements include:

- 1 Boom boat
- 1 Wheel loader (Cat 966 or equivalent)
- 1 Butt and Top loader (Cat 235 or equivalent)
- ATV.



Personnel will include:

- 1 Yard manager
- 2 Scalers
- 1 Clerk
- 1 Buckerman/Scaler
- 1 Boom boat operator
- 2 Machine operators.

Public education facilities will include:

- Interpretive centre and displays providing information on the importance of the Fraser River Estuary, and on the high-value uses of BC wood.
- Working examples of alternative energy generation, water conservation tools, and green building technologies.

## OPERATING PROCEDURES

**Booming Grounds** | Log salvors will deliver logs to the station booming grounds, where they will be water-scaled and then stored unsorted, rough-sorted, or moved directly to the dewatering facility. Logs with visible timber marks will be stored separately in order to give the mark holder the opportunity to claim them back, less the salvage fees as per provincial regulation.

**Dewatering** | logs will be removed from the water by Butt and Top loader and piled for transport to the scaling area.

**Coding and grading** | Logs will be moved from the dewatering site to the scaling area by wheel loader. There they will be spread approximately 30cm apart for inspection, paint-coded by product, and graded. All data will be entered into handheld computers for later transfer to the office computer.

**Processing** | If necessary, logs will be processed for highest value, coded, and sorted accordingly.

**Decking for sale** | The Butt and Top loader will pile the sorted logs into product piles as indicated by the paint codes. The wheel loader will then move the sorts into product bins. The product bins will accumulate volume until the manager determines that the bin has reached a marketable volume. The bin will then be closed and signed for sale.



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**Log sales** | Log sales will take place on a schedule, and bins will be offered for sale to the highest bidder. Bids will be received by sealed tender up to a closing time. The bids will be opened within two hours of the closing time, and the high bidder offered the appropriate bin(s). Bins will not be released until payment is made.

**Loading/watering/booming** | Sold bins will be watered and boomed or loaded on appropriate transportation under letter of authorization from the purchaser. The purchaser will be given a specific time to have the logs removed from the facility, or will pay a storage fee on a daily basis.

**Administration** | Scaling and grading will facilitate a record of the movement of each log from delivery until sale and removal. This will be accomplished by careful log handling and storage, and by downloading several times daily the data from handheld computers to the office computer, on which a customized program will track each log by salvager, product, volume, and purchaser.

The operation will run year-round.

**WESTERN  
LOG SORT  
AND SALVAGE  
CO-OPERATIVE**

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