

REGISTERED MAIL

February 7, 2002

Mike Jenks
624765 BC Ltd.
RR#1 Site 2 Comp 11
Gabriola Island, BC V0R 1X0

NOTICE OF DETERMINATION

**Re: Actions of 624765 BC Ltd.
within Block 352 and 399 Malahat District**

INTRODUCTION

This is a determination by the chief executive officer of the Land Reserve Commission (LRC) concerning the actions of 624765 BC Ltd. (the company) within Block 352 Malahat District, Parcel Identifier Number 009-368-736 and within Block 399 Malahat District, Parcel Identifier Number 009-368-710 (the Blocks). It has been alleged by Mr. Ian DeLisle, RPF, Forest Practices Officer with the LRC in his investigation report dated December 18, 2001 (the report), that the company, by its actions adjacent to Arbutus Creek, has contravened section 6 (1) (a), 8 (3) and 9 (1) (b) of the Private Land Forest Practices Regulation B.C. Reg. 318/99 (the regulation).

As chief executive officer of the LRC, I am authorized under section 29.11 of the *Forest Land Reserve Act* (the Act) to levy a penalty against an owner of identified land if I determine that the owner has contravened the requirements of the Act or the regulations. I am further authorized under section 29.2 of the Act to make a remediation order if I determine that the owner has contravened a requirement of the Act or the regulations.

A hearing with respect to the allegations contained in the report was held at the office of the LRC on January 17, 2001. The hearing was attended by Mr. DeLisle, Mr. Kevin Telfer (via telephone), Habitat Protection Officer – Private Forest Land, Ministry of Water, Land and Air Protection, both representing government, and by Mr. Mike Jenks, representing the company. At the hearing Mr. DeLisle tabled the report and a document entitled “*Channel Suspended Sediment and Fisheries: A Synthesis for Quantitative Assessment of Risk and Impact*” written by Charles P. Newcombe and Jorgen O. T. Jensen. A copy of the report and document had been made available to Mr. Jenks on or about December 21, 2001.

In making this determination, I have considered the evidence presented by Mr. DeLisle and Mr. Jenks at the hearing on January 17th, 2002.

ALLEGED CONTRAVENTIONS

Relevant legislation

It has been alleged that the company has contravened sections 6(1) (a), 8 (3) and 9 (1) (b) of the regulation. These provisions state in part:

- 6 (1) *An owner of identified land who carries out timber harvesting activities must ensure that roads, landings and excavated or bladed trails are constructed and maintained in a manner that minimizes*

(a) *soil erosion,*

- 8 (2) *Subject to the Water Act, an owner of identified land who constructs, deactivates or rehabilitates a road, landing, excavated or bladed trail or other similar access structure on the identified land must ensure that the construction, deactivation or rehabilitation is carried out so as to meet all of the following requirements:*

(b) *soil erosion into streams is minimized;*

- (3) *Subject to the Water Act, an owner of identified land who constructs a road, landing, excavated or bladed trail or other similar access structure, or who uses any portion of a road referred to in subsection (4), must maintain it so that it meets the requirements of subsection (2) until it is deactivated or rehabilitated.*

- 9 (1) *An owner of identified land who carries out, adjacent to a stream, timber harvesting or related activities, silviculture activities, or road construction or deactivation activities, must ensure that those activities meet all of the following requirements:*

(b) *soil erosion into streams is minimized;*

Evidence

Mr. DeLisle and Mr. Jenks agree on the following evidence:

1. That the company is the owner of the Blocks;
2. That the Blocks are identified land under the Act;
3. That Arbutus Creek runs through the Blocks including the portion immediately upstream of Wigglesworth lake and the approximately 2 km portion immediately downstream of Wigglesworth lake;
4. That Arbutus Creek is a stream under the regulation;
5. That the portion of Arbutus Creek within the Blocks is not frequented by fish travelling to and from Saanich Inlet due to a barrier located downstream of the Blocks;

6. That Wigglesworth lake was not naturally fish bearing and had been stocked with cutthroat trout and bass by the previous owner of the Blocks;
7. That fish were present in the reaches of Arbutus Creek immediately downstream of Wigglesworth Lake and there was no significant barrier to the passage of fish to the portion of the stream where it is alleged that the sediment was entering the stream;
8. That the previous owner had constructed a road network throughout the Blocks and had carried out timber harvesting in the area for many years;
9. That the company primarily utilized existing road networks in the Blocks but did construct a landing near Arbutus Creek which is the subject of some of the allegations;
10. That on November 23, 2001 the company was carrying out timber harvesting activities in the Blocks and that no other person was carrying out timber harvesting activities either upslope or upstream of the company;
11. That before November 23, 2001 the company had made efforts to upgrade some of the road network in the Blocks but had not upgraded the roads in the area where timber harvesting was being carried out;
12. That the company had been carrying out timber harvesting activities in the Blocks for about 2 weeks immediately before November 23, 2001;
13. That unseasonably high levels of precipitation had fallen in and around the Blocks during the weeks leading up to November 23, 2001;
14. That on November 23, 2001 runoff water was running down (and in some places across) the roads in the Blocks, both in the areas where timber harvesting was occurring and in those portions that were inactive;
15. That on November 23, 2001 in those portions of the Blocks where harvesting was not being carried out, the water that ran down the road network was clear and did not appear to be carrying sediment;
16. That on November 23, 2001 the timber harvesting activities, including a rubber tired skidder with chains, a loader, logging trucks and other vehicles caused the roads to become more muddy than if no harvesting had been taking place;
17. That on November 23, 2001, in the areas where timber harvesting was occurring, sediment was being carried from the roads and landing in the Blocks and into Arbutus Creek;
18. That on or before November 23, 2001 runoff water containing large amounts of sediment began pooling on a landing constructed by the company that was located near Arbutus Creek and the company constructed a drainage structure to enable the water and sediment to be transported off of the landing and into Arbutus Creek;
19. That on November 23, 2001 sediment was actively being transported from the landing into Arbutus Creek along the drainage structure constructed by the

company and it was evident from the sediment deposits along the drainage structure that the water level had receded from its peak levels;

20. That water samples taken on November 23, 2001 at various locations along Arbutus Creek demonstrated that very small amounts of suspended sediment were present upstream of the harvesting activities and that significant amounts of sediment were entering Arbutus Creek as a result of the harvesting activities;
21. That after the company complied with instructions from Mr. DeLisle to improve the drainage structures and road surfacing in the affected area, the amount of sediment entering Arbutus Creek as a result of timber harvesting activities was very significantly reduced and came within acceptable levels.

Findings

With respect to the allegations that the company has contravened sections 6 (1) (a), 8 (3) and 9 (1) (b) of the regulation, I find as follows:

Re: section 6 (1) (a)

The allegation that the company contravened section 6 (1) (a) of the regulation relates to the actions and in-actions of the company with respect to the road network within the Blocks. The company was using the road network and therefore had an obligation to maintain that road network in accordance with section 6 (1) of the regulation. The company agrees that sediment was being carried down the road network it was using during its harvesting operations. The only issue to be determined is whether the company was minimizing the amount of soil erosion that was occurring.

I accept Mr. Jenks's evidence that by November 23, 2001 the company had expended considerable money upgrading the roads in other portions of the Blocks. Mr. Jenks said that the company chose to operate on roads that it knew had not been upgraded because it was felt that the roads did not represent a high risk.

The conditions of the Blocks on November 23, 2001 were unseasonably wet. Water was clearly running down and across roads. Still the company chose to continue operations on roads that clearly did not have adequate drainage structures for these very wet conditions. It was also clear from the mud being stirred up each time a vehicle traveled on the roads that the roads were fine textured and lacked sufficient surface materials for those conditions. In addition, the fact that the skidder was equipped with chains is evidence that the conditions were sufficiently muddy as to cause traction difficulties. As a result, the company knew or should have known that it was operating equipment on roads that had inadequate drainage structures, inappropriate surface materials for the conditions and that through its logging activities was exacerbating the muddy conditions.

Under drier conditions the timber harvesting on the area with the roads as they were may not have resulted in significant soil erosion. However, by choosing to operate in the area under very wet conditions, the company should have upgraded the roads to ensure that they were sufficient to minimize soil erosion resulting from the harvesting process. The company failed to do this and as a result significant amounts of soil erosion occurred. After the company carried out the measures specified by Mr. DeLisle to improve the drainage structures (including hay bales) and applied appropriate surface materials to the roads, the amount of erosion was dramatically reduced. Therefore, I find that on November 23rd, 2001 the company was not maintaining roads, landings and excavated and bladed trails in the Blocks in a manner that minimized soil erosion and, as a result, contravened section 6 (1) (a) of the regulation.

Re: section 9 (1) (b)

The allegation that the company contravened section 9 (1) (b) of the regulation relates to the actions of the company on the landing that the company constructed near Arbutus Creek. The landing was located at the bottom of a receiving slope. Consequently, much of the runoff and associated sediment from the nearby roads ended up on the landing. The company admits that no coarse surfacing materials were placed on the landing or its approaches. The activities on the landing, carried out in saturated conditions without proper surfacing or drainage structures, resulted in an extremely muddy situation with significant water accumulations that impeded harvesting operations.

To address the situation on the landing the company could have installed proper drainage on the adjoining roads to prevent the water ingress. In addition, the company could have used proper surface materials to avoid the creation of additional erodable materials. Lastly, the company could have shut down operations until generally more favorable conditions were present on the landing. Instead, the company excavated a channel leading from the landing to Arbutus Creek. As a direct result of this action, significant amounts of eroded soil were deposited directly into Arbutus Creek. Therefore, I find that on November 23rd, 2001 the company was not carrying out timber harvesting activities on the landing in a manner that minimized soil erosion into a stream and, as a result, contravened section 9 (1) (b) of the regulation.

Re: section 8 (3)

The allegation that the company contravened section 8 (3) of the regulation relates to the actions and in-actions of the company with respect to the road, landing and excavated and bladed trail network within the Blocks. It requires that an owner must maintain the access structures so that, in part, soil erosion into streams is minimized. I am of the opinion that the allegation under section 6 (1) of the regulation and my finding with respect to it adequately addresses the issue of soil erosion. Furthermore, I am of the opinion that the allegation under section 9 (1) of the regulation and my finding with respect to it adequately addresses the issue of eroded soil entering a stream. As a result, I do not feel that it is necessary to make a finding with respect to the allegation that the company has contravened section 8 (3) of the regulation.

ADMINISTRATIVE REMEDIES

Penalty

Having determined that the alleged contravention of section 6 (1) (a) and 9 (1) (b) of the regulation did occur, I may levy a penalty against the company, up to the amount specified in the regulation and in the manner specified in the regulation.

Section 32 of the regulation specifies that a maximum penalty of \$20 000 may be levied for contravening *each* of section 6 (1) (a) and 9 (1) (b). Section 32 also requires that before a penalty is levied, I must consider all of the following:

- (a) any previous contravention of a similar nature by the owner;
- (b) the gravity and magnitude of the contravention;
- (c) whether the contravention was repeated or continuous;
- (d) whether the contravention was deliberate;
- (e) any economic benefit derived by the owner from the contravention;
- (f) the owner's cooperativeness and efforts to correct the contravention;
- (g) the owner's efforts to prevent the contravention;
- (h) whether relevant forest management objectives specified in Schedule A of the regulation are being achieved.

These factors will be discussed separately for each contravention.

Re: contravention of section 6 (1) (a)

Any previous contravention of a similar nature by the owner

The company has not been the subject of any previous administrative penalty determination for having contravened a requirement of the Act or the regulations.

The gravity and magnitude of the contravention

The gravity element assesses the importance or seriousness of the contravention. The magnitude element assesses the size and extent of the contravention. Erosion was occurring from several sources along the access structures within the area: it was not limited to an isolated incident. In addition, there was clear evidence that the erosion events caused by the company were not limited to November 23rd, 2001. It is difficult to quantify the overall amount of sediment transported to the stream and any associated reduction in site productivity within the Blocks. However, I find that the gravity and magnitude of the contravention of section 6 (1) (a) of the regulation is significant.

Whether the contravention was repeated or continuous

The company had been carrying out timber harvesting activities within the Blocks for approximately 2 weeks before November 23rd, 2001. Significantly higher than normal levels of precipitation had been experienced in the area for much of that time. It is therefore likely that the saturated conditions with associated runoff down the road network had been present for many days prior to November 23rd. Throughout this period the company continued to use the roads in a manner which contravened section 6 (1) (a) of the regulation.

Whether the contravention was deliberate

The company deliberately operated on the Blocks without properly constructing or maintaining the roads, landings or excavated and bladed trails. While these actions were deliberate, I am persuaded that the company did not do them with the intent to contravene the regulation.

Any economic benefit derived by the owner from the contravention

Economic benefit may occur in either of the following cases:

- the owner receives additional revenue as a result of having committed the contravention, or
- the owner experiences lower operating costs as a result of committing or failing to prevent a contravention.

There is no evidence that the company received any additional revenue than it would have if it had complied with the regulation. The company did experience lower operating costs as a result of failing to prevent the contraventions of the regulation. These benefits include not experiencing a shutdown during the adverse operating conditions and the savings from failing to do any of the following: properly installing adequate drainage structures; incorporating mitigation measures such as sediment ponds, silt fences or hay bales; applying appropriate surfacing materials. Mr. DeLisle estimated the economic benefit associated with the inadequate construction and maintenance of access structures to be approximately \$3500/km with between 3 and 4 km of road in the relevant area. I therefore conservatively estimate the economic benefit to be approximately \$10 000. I note that the landowner did implement some of these mitigation measures after the fact.

The owner's cooperativeness and efforts to correct the contravention

The company did not report the presence of soil erosion entering Arbutus Creek to the LRC. However, the company has been cooperative with the LRC and other resource agency officials. The company has taken some remedial measures to prevent further soil erosion from the access structures.

The owner's efforts to prevent the contravention

The company made no visible effort to prevent either of the contraventions from occurring. In fact, it was the company's inaction with respect to the roads and other access structures that precipitated the contravention of section 6(1) (a) of the regulation.

Whether relevant forest management objectives specified in Schedule A of the regulation are being achieved.

The forest management objective specified in Schedule A of the regulation for soil conservation is potentially relevant.

Soil conservation

- 1 The forest management objectives with respect to conservation of soil, for areas where harvesting has been carried out, are*
 - (a) to retain the organic floor to the fullest extent possible if disturbance to the organic forest floor is likely to result in erosion of mineral soil from the area, if that erosion presents a significant risk of damage to human drinking water supplies or to aquatic habitats,*
 - (b) to restrict the amount of productive forest land that is converted to permanent roads, landings and excavated and bladed trails to the minimum necessary to safely and efficiently conduct forest practices, and*
 - (c) to protect soil productivity on areas other than those referred to in paragraph (b).*

Paragraph (a) has potential application as it concerns eroded mineral soil impacting human drinking water and aquatic habitats. For the provision to apply to this case, the soil erosion had to have been the result of the owner's failure to retain the organic forest floor to the fullest extent possible.

The contravention of section 6 (1) (a) of the regulation has resulted in eroded mineral soil being transported from the Blocks into Arbutus Creek. Most of the material appears to have originated from the fine textured material on the roads, landing and excavated and bladed trails. Some portion of the eroded material is also likely to have originated from the harvested area. However, since no conclusive evidence was presented on any of the material originating from this latter source, I find that the source of the material is the access structure network.

Since the company largely used existing road networks and insufficient evidence was presented with respect to any disturbance of the organic floor within the Blocks being the source of significant amounts of the eroded material, I find that the soil conservation forest management objective in Schedule A of the regulation is not relevant to this case.

Re: contravention of section 9 (1) (b)

Any previous contravention of a similar nature by the owner

The company has not been the subject of any previous administrative penalty determination for having contravened a requirement of the Act or the regulations.

The gravity and magnitude of the contravention

The contravention of section 9 (1) (b) directly resulted in significant amounts of sediment being discharged into a fish stream with down stream water users. In my opinion, the amount of suspended sediment would have a short-term deleterious impact on the fish habitat as well as a short-term negative impact on the quality of drinking water by downstream water users. I find that the gravity and magnitude of the contravention of section 9 (1) (b) is significant.

Whether the contravention was repeated or continuous

It is unclear as to when the company constructed the channel that encouraged the sediment laden water to leave the landing area and enter Arbutus Creek. However the presence of a well-defined high water mark along its length suggests that it had been in place for at least a few days before November 23rd. I therefore find that the contravention of section 9 (1) (b) of the regulation was continuous.

Whether the contravention was deliberate

The company deliberately built the channel to allow the sediment-laden water on the landing to reach Arbutus Creek. While this action was deliberate, I am persuaded that the company did not do them with the intent to contravene the regulation.

Any economic benefit derived by the owner from the contravention

The company did experience lower operating costs as a result of failing to prevent the contraventions of the regulation. These benefits include not experiencing a shutdown during the adverse operating conditions and the savings from failing to properly instal adequate drainage structures or applying appropriate surfacing materials. Mr. DeLisle was not asked to provide a separate estimate of the economic benefit associated with the inadequate construction and maintenance of the landing. However, I conclude that there was an economic benefit associated with the inadequate construction and maintenance of the landing.

The owner's cooperativeness and efforts to correct the contravention

The company did not report the presence of soil erosion entering Arbutus Creek to the LRC. However, the company has been cooperative with the LRC and other resource agency officials. The company has taken some remedial measures to prevent further soil erosion from the landing.

The owner's efforts to prevent the contravention

The company made no visible effort to prevent either of the contraventions from occurring. In fact, it was the actions of the company in and around the landing that caused the contravention of section 9 (1) (b) of the regulation.

Whether relevant forest management objectives specified in Schedule A of the regulation are being achieved.

The forest management objectives specified in Schedule A of the regulation for water quality and fish habitat is potentially relevant.

Water quality and fish habitat

- 2 *The forest management objective with respect to protecting human drinking water and fish habitat, both during and after harvesting, is to retain sufficient streamside mature trees and understory vegetation to sustain all of the following:*
- (a) a natural variation in water temperatures;*
 - (b) cover for fish;*
 - (c) a continual source of large woody debris for stream channel stability purposes;*
 - (d) a vigorous mass of roots capable of controlling stream bank erosion;*
 - (e) a filter to prevent the transport of sediment into stream channels;*
 - (f) woody debris sufficient for in-stream habitat;*
 - (g) a source of nutrients to the stream through litter fall.*

Paragraph (e) has potential application if the owner failed to retain sufficient understory vegetation to provide a filter to prevent the transport of sediment into stream channels.

The contravention of section 9 (1) (b) of the regulation has resulted in eroded mineral soil being transported from the Blocks into Arbutus Creek. Specifically, the company constructed a channel to allow the sediment laden water to leave the landing and enter Arbutus Creek. There is clear evidence of the presence of a machine having been within close proximity of the stream. From reviewing photographs 8,10, 11 and 12 of Appendix 1 of the report, it appears that a portion of the understory vegetation was disturbed by the machine. I am of the opinion that the company's disturbing of the understory vegetation adjacent to Arbutus Creek reduced the ability of the remaining vegetation in the area to act as a filter to prevent the transport sediment into the stream.

The portion of the stream where the sediment was discharged was a fish stream. The company's introduction of significant amounts of sediment into the fish stream is not consistent with the forest management objective of protecting fish habitat. The company was aware that people located downstream used Arbutus Creek for drinking water. Therefore, the company's introduction of significant amounts of sediment into Arbutus Creek is inconsistent with the forest management objective of protecting human drinking water. I am of the opinion that the actions of the company have resulted in a significant

short-term failure to meet the forest management objectives specified in Schedule A of the regulation.

Penalty Summary

In consideration of all the factors specified in section 32 (1) of the regulation, I hereby levy on the company the following penalties:

- \$6 000 for having contravened section 6 (1) (a) of the regulation;
- \$10 000 for having contravened section 9 (1) (b) of the regulation.

These amounts are due and payable to the LRC on receipt of this determination. All cheques should be made payable to the Minister of Finance and Corporate Relations.

Remediation order

The company has taken some steps to install proper drainage structures and surface materials on some of the road network. In addition, some temporary measures were carried out on the landing to prevent any additional sediment travelling from the landing to Arbutus Creek.

I am concerned that the measures taken to date may not be sufficient to prevent sediment entering Arbutus Creek in the future. Of particular concern is the adequacy of the drainage structures at the landing and the measures taken to ensure that offsite water is not channeled to the landing. I am therefore ordering that the company submit to me, within the next 30 days, a report prepared by a qualified registered professional that

- assesses the adequacy of the measures taken to date, and
- specifies any additional measures that are required to ensure that the amount of any further soil erosion entering Arbutus Creek as a result of timber harvesting activities is minimized.

Upon my acceptance of the remediation report, the company must promptly carry out the measures specified in that report to my satisfaction.

RIGHT OF APPEAL

Under section 29.61 of the Act and section 42 of the regulation, the company has a right of appeal to the LRC from this penalty determination and remediation order. The notice of appeal must be delivered to the chief executive officer not later than 3 weeks after the date of this letter. The notice of appeal must be signed by, or on behalf of, the company and must contain all of the following:

- (a) the name and address of the appellant, and the name of the person, if any, making the request on the appellant's behalf;
- (b) the address for service of the appellant;
- (c) the grounds for appeal;
- (d) the relief requested.

This determination does not relieve the company from any other actions or proceedings that the Province or other agency is authorized to take with respect to the contravention described above.

Yours truly,

LAND RESERVE COMMISSION

Per:

K. B. Miller, Chief Executive Officer

CS/sf

Bcc: Ian DeLisle, Nanaimo
Kevin Telfer, MWLAP, Nanaimo
Trevor Swan, Common Ground Forestry, Mill Bay, BC