



Forest Appeals Commission

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APPEAL NO. 96-12

In a matter of an appeal under section 131 of the *Forest Practices Code of British Columbia Act*, R.S.B.C. 1996, c. 159.

BETWEEN: International Forest Products Ltd. **APPELLANT**

AND: Government of British Columbia **RESPONDENT**

AND: Forest Practices Board **THIRD PARTY**

BEFORE: A Panel of the Forest Appeals Commission
David Ormerod, Panel Chair

DATE OF HEARING: Written submissions concluded on July 7, 1997

APPEARING: For the Appellant: James W. Rodney
For the Respondent: Frank Falzon, Counsel
For the Third Party: John Pennington, Counsel

APPEAL

This appeal was filed by International Forest Products Ltd. ("Interfor") against an administrative review decision made on December 27, 1995 that upheld the October 20, 1995 determination that Interfor contravened section 11 of Part 3 of the Timber Harvesting Practices Regulation. Interfor seeks a reversal of the determination.

The Forest Practices Board (the "Board") was a party to the review held in December of 1995 and was added as a Third Party to this appeal.

At the request of the Appellant and Respondent and with the consent of the Board, this appeal has been conducted by way of written submissions.

BACKGROUND

The Appellant, through its contractor Elaho Logging, was carrying out yarding operations on Block 12-71 of Cutting Permit No. 2 on Tree Farm Licence No. 18 in the Squamish Forest District, on or about August 23, 1995. In the course of clean-up of the logging site a log, or some other material, caused disturbance to the bank of a watercourse running down the hillside (the subject watercourse). On August 30, 1995, a routine inspection of the completed logging area was made by Stuart McDonald of the Squamish Forest District, who observed the disturbance to the

watercourse's bank. Mr. McDonald visited the site again on September 13, 1995, and took photographs of the area of disturbance. On the same date Paul Kuster, Squamish Forest District Manager, sent a registered letter to the Appellant advising that the Appellant was in contravention of section 11 of Part 3 of the Timber Harvesting Practices Regulation for "disturbing stream bank stability" in respect of the subject watercourse, and that a determination would be made after giving them an opportunity to be heard.

On September 19, 1995, Mr. McDonald was in the area with Mr. Jeff Morgan, a Forest Ecosystems Specialist with the Ministry of Environment, Lands and Parks, and they inspected the subject watercourse. Mr. Morgan subsequently wrote a memorandum to Mr. McDonald suggesting that some "gullies" in Block 12-71 had been scoured by the method of debris cleaning, and that hydroseeding and planting may be required.

A joint Ministry of Forests and Interfor visit to the site was made on September 27, 1995 by Stuart McDonald and Mark Anderson of the Squamish Forest District, Dave Miller and Bob Cooper of Interfor, and Randy Braumberger, of Elaho Logging. A further meeting was held with Interfor on October 13, 1995 with Paul Kuster, Stuart McDonald, Mark Anderson, and Dave Miller in attendance.

On October 20, 1995, Paul Kuster sent a registered letter to the Appellant, making a determination that the Appellant contravened section 11 of Part 3 of the Timber Harvesting Practices Regulation in that the subject watercourse was a stream and that its bank had been destabilized. He levied a penalty of \$500 against Interfor pursuant to section 117 of the *Code* and required Interfor to conduct "creek cleaning" training courses for its yarding crews.

On November 9, 1995, T. Lungdren of Interfor wrote to the Vancouver Forest Region requesting an administrative review and reversal of the determination on the ground that the evidence was insufficient to support the conclusion that a contravention had occurred. The Review Panel conducted the review by way of written submissions and upheld the original determination.

Interfor appealed this decision to the Commission on January 16, 1996.

In the following months, the parties provided written submissions and closing arguments to the Commission. These submissions included affidavits from Stuart McDonald, Mark Anderson, Dave Miller, Bob Cooper and Dan Hogan, which together form most of the factual evidence submitted in this appeal.

On November 7, 1996, the Commission requested additional submissions from the parties as the submissions received were insufficient to allow a decision to be made. Further submissions were made, after dealing with the Respondent's concerns that such a request may be procedurally incorrect.

In April, 1997, the Commission became aware that the cut-block containing the subject watercourse was captured in British Columbia Government aerial photographs taken on July 28, 1994. On April 22, 1997 the Commission wrote to

the parties requesting submissions to be made on this evidence. The purpose of the Commission's request was to obtain submissions on this additional photographic evidence which might clarify whether or not the subject watercourse is a "stream" as defined by the Regulation, and to allow comparison of the subject watercourse with other watercourses that may have been identified in the immediate vicinity.

JURISDICTION

Under section 138(1) of the *Code*, the Commission has broad decision-making powers, including the power to "make any decision that the person whose decision is appealed could have made". As stated by the Commission in *Tolko Forest Products and Forest Practices Board v. Government of B.C.* (Appeal No. 95/02)(November 12, 1996), "these are all powers associated with a *de novo* hearing...". The broad decision-making powers, in conjunction with the expertise of the Commission, its power to admit any relevant evidence (section 137(1)), call and retain expert witnesses (section 137(4)) and to summon and enforce the attendance of witnesses and order the production of documents (section 135), clearly indicates that a new hearing or hearing *de novo* was intended by the Legislature.

ISSUES AND LEGISLATION

Section 11 of the Timber Harvesting Practices Regulation is entitled "Maintaining stream bank stability" and reads:

A person carrying out a timber harvesting operation on applicable land or a stream cleaning operation, must not remove stable natural material that is in streams or is embedded in stream banks, or root systems that contribute to stream bank stability and fish habitat, unless specifically allowed to do so by a logging plan.

It is common ground that the Appellant was carrying out a timber harvesting operation. The Appellant argues however, that the other elements of section 11 were not met and therefore the Respondent erred in making the determination. Specifically, the Appellant argues that neither "stable natural material" nor "root systems" were "removed".

In its later submissions, the Appellant also raised the question of whether the watercourse is, in fact, a stream as defined in section 1 of the Regulation. Section 1 states:

"Stream" means a watercourse, having an alluvial sediment bed, formed when water flows on a perennial or intermittent basis between continuous definable banks.

The Commission will address both of these arguments in turn.

EVIDENCE AND ARGUMENT

1. The Damage

The Appellant's original submission opens with the position "as the facts are not in dispute...", the appeal is made on the basis that the facts do not constitute a contravention of section 11 of the Regulation. However, the "facts" that are not in dispute are not re-stated, and the Commission has to surmise them from the ensuing discussion. In essence, the Appellant appears to be saying that, during the creek cleaning operation in which eight logs and one windfall were removed, some disturbance of the bank of the watercourse took place. However, the Appellant disputes that this disturbance contravened section 11 of the Regulation as determined by the Ministry.

The submissions of the Respondent suggest that, based on interviews with the logging crew at the time, damage to the watercourse was done by a "stump", which may have been attached to the windfall, and which was dragged down the watercourse by a yarder. Perhaps this is more accurately described as a windfall with roots attached. Mr. Miller's affidavit suggests that one of the logs, including the "windfall log", upended and caused damage to the watercourse. The Commission is of the view that how the damage occurred in this case is not germane—what is at issue is whether the or not the resultant damage is a contravention of section 11 of the Regulation.

Mr. McDonald's photographs clearly show significant disturbance to a section of the watercourse. This disturbance has been described as "scouring" in the inspection report written by Mr. McDonald.

Mr. Cooper's photographs, which were taken some months later, also show an area of exposed mineral soil in the area of concern to the Ministry, and are generally consistent with the descriptions given.

Section 11 of the Regulation prohibits the removal of "stable natural material that is in streams or embedded in stream banks, or root systems that contribute to stream bank stability." The Appellant contends that such material was not removed. It seems clear from the photographs and the descriptions provided by witnesses that part of the watercourse's bank and bed was knocked out and moved down the slope. This is the likely outcome of a turn of logs or other matter being yarded and hitting the ground.

It is reasonable to believe that yarding of the windfall, if it still had roots attached, would disturb and move the soil as it was pulled out of the ground. If this windfall had been rooted in or near the bank of the watercourse, such removal would have created damage consistent with the descriptions given. Mr. Kuster, in his original determination of contravention, asserted that the Appellant "did remove stable natural material that was in the stream and root systems that did contribute to stream bank stability." The Appellant has argued that this determination was in error because logs were not "natural" and that the root system of the windfall was not in the bank of the watercourse. However, they did admit that the bank had been scoured and that this had disturbed bank stability. The essence of their argument is that this scouring and disturbance is not in contravention of the Regulation.

In the administrative review of the determination, the Review Panel accepted the Appellant's position that the windfall roots were not embedded in the bank of the watercourse, but deemed that the admitted scouring and consequent disturbance of the bank constituted a violation of section 11. The Review Panel upheld the original determination, penalty, and the ruling that remedial work was not necessary.

It is clear that the purpose of section 11, as with all other sections in Part 3 of the Regulation, is to protect the physical integrity of streams during harvesting and related operations. Maintaining stream and stream bank integrity may conserve and protect soil, water and other forest resources, thereby furthering the object of sustainable forest use. These are the basic tenets of the *Code*, and are set out in its preamble. The Commission is mindful of these basic tenets or principles when adducing the meaning of the words and phrases used in the Regulation.

Removal of material from a stream bed or bank must obviously include the movement of material from one part of a stream's profile to another as the result of mechanical disturbance. Any material moved from a stream bank as a result of a disturbance could jeopardize the stability of that bank.

There is substantial comment in the parties submissions that the damage done to the watercourse was minor, of no consequence to fisheries values, and the stream and its banks would likely re-stabilize without remedial action within a short period of time. At this point Mr. Kuster's original wording in his determination of contravention bears recall:

- (2) there are numerous examples of extremely good creek cleaning, both prior to and immediately following this isolated incident; and,
- (5) the creek is very small and no major environmental impact will result from the cleaning of the creek.

Mr. Kuster and Mr. Cooper agree that the damage was confined to the immediate area of disturbance, and will likely be fully stabilized within a growing season or two. Mr. Morgan, in his memorandum to Mr. McDonald suggested remediation in the form of "hydro-seeding" and tree planting, but Mr. Anderson, in his comments to the Region at the time of the review, states that the natural (herbaceous) regeneration will be superior to grass seeding and, as the area will be planted in the spring (of 1996) anyway, no specific remediation is required.

On review of the evidence the Commission concludes that stable natural material was removed from the bank and bed of the subject watercourse, in the yarding of the eight logs and one windfall from the watercourse. Further, the Commission concludes that tree root systems were not a factor in this disturbance of the watercourse, and that the materials removed were likely deposited a few metres downslope from the immediate area of disturbance.

However, the Commission cannot make a determination that there has been a contravention of section 11 until it first determines whether the watercourse is a "stream" as defined in the Regulation.

2. The Watercourse

As stated above, a stream is defined in section 1 of the Regulation as:

“Stream” means a watercourse, having an **alluvial sediment bed**, formed when water flows on a perennial or intermittent basis **between continuous definable banks**. [emphasis added]

This choice of words to describe a stream indicates there are some limitations on what can be considered a stream for the purposes of applying the Regulation. If the intent was to include all watercourses, then the definition could have been made more inclusive. As it reads, the definition excludes watercourses that do not exhibit an alluvial sediment bed, and which do not have continuous definable banks. Therefore, it is necessary that the evidence uncovered in this appeal show that these attributes exist for the subject watercourse.

Throughout the submissions, there is inconsistent use of the terms “stream”, “creek” and “gully” to refer to the subject watercourse. Such inconsistency in language would otherwise be acceptable, if it were not so pivotal to this appeal that we determine whether or not the subject watercourse is a “stream” as defined in the Regulation. Some of this inconsistency in terminology derives from the multitude of disciplines that are involved in forest management, and more specifically, administration of the *Code*.

After consulting a number of dictionaries and glossaries of technical terms it would appear that “stream” and “creek” have essentially the same meaning in common North American usage, and for the purposes of this appeal, we will consider them synonymous. However, this does not establish that the subject watercourse is a stream as intended by the Regulation.

Mr. Morgan’s use of the word “gully” to describe the watercourse confuses interpretation of the hydrological significance of the watercourse. The Regulation does not use this term and, in the context of this appeal, the term is irrelevant. This is not true of other areas of the *Code*, such as the Operational Planning Regulation, where the word “gully” has particular significance.

The term “alluvial sediment bed” also requires clarification as it is not defined in the Regulation. The common dictionary definition of “alluvium”, as found in the Random House dictionary, is “a deposit of sand, mud, etc. formed by flowing water”. The definition found in the McGraw Hill Dictionary of Scientific and Technical Terms is “detrital materials eroded, transported, and deposited by streams”. The Commission is of the view that the latter definition is preferable in the context of this Regulation. It is a geological description which is more precise than the dictionary definition and is the type of definition that influences stream classification in the context of other Regulations under the *Code*.

The Commission notes that the geological definition emphasizes mechanical scouring (detritation) of underlying soil and rock as part of the process of

"alluviation". Consequently, an "alluvial sediment bed" in a stream should be distinctive in appearance.

Both the Appellant and the Respondent submitted written descriptions of the bed of the watercourse. Both parties also tendered photographs of the watercourse. None of the photographs clearly show an alluvial sediment bed to exist generally along the reach of the watercourse within the block. Mr. McDonald's site photographs are taken in the immediate vicinity of the disturbance, and clearly show mineral matter exposed in that part of the watercourse that was gouged, as well as a significant amount of tree branch and other logging debris within the bed of the watercourse.

Attached to the affidavit of Bob Cooper, the Appellant's Contract Supervisor in the Squamish area, is a 1:4800 topographic map with the subject watercourse plotted on the map, and two photographs of the watercourse and its surroundings, one of which highlights the area of "disturbance". These photographs show more of the reach of the watercourse in the block, but they do not show a clearly defined mineral bed. Rather, they show a bed which appears to be made up of forest litter with an admixture of rocks and gravel. However, the description in his affidavit is "the watercourse was created by erosion", and this clearly is part of the process of alluviation. He does not elaborate on whether or not this erosion occurred in the past, or is of recent and active occurrence.

The Appellant submits that the watercourse was intermittently evident in the aerial photographs, but appears to start at an upper road level in the block and disappear before it reached the lowest level of road. This observation is somewhat inconsistent with Mr. Cooper's annotated photographs that show the watercourse running to the lower level of road, but perhaps becoming indistinct thereafter.

At the time that the aerial photographs were taken, the block had been felled, the roads were in place, and yarding was most likely underway (Mr. McDonald's harvest inspection report indicates that falling commenced in March of 1994). Given the resolution of the photographs and the presence of "felled and bucked" timber on the ground, the Commission allows that some features may have been more apparent had yarding been complete at the time of the aerial photography.

In their initial submissions on this appeal, which were essentially the same as those submitted to the administrative review, the Appellant does not contest the watercourse being called a stream, but in general refers to it as a creek. They allow that the soil of one of the banks of the creek was disturbed in the cleaning process. Most of their argument in this submission contests that material was removed, or the bank was destabilized.

In the Appellant's rebuttal submissions to the initial points raised by the Respondent, they again do not contest the reference to a stream but themselves refer to the watercourse as a creek with a "...flowing watercourse...50 centimeters wide, while the creek channel was no more than one metre wide". This was the description given in the affidavit of Dave Miller.

It is only in the Appellant's submission of August, 1996, and in subsequent submissions, that it specifically questions whether the watercourse is a stream and asks the Commission to decide if "...the creek in question is a "stream" within the meaning of section 1 of the Regulation" because it has "intermittently defined banks" and "does not have a sedimentary bed which was laid down by alluvial deposit".

The Respondent's response submissions to the appeal, with affidavits from Mr. McDonald and Mr. Anderson, deal mostly with the damage observed to the watercourse, how this likely occurred, and with the Appellant's argument that material was not removed and that the banks of the watercourse were not destabilized. However, the affidavits of McDonald and Anderson do address the physical characteristics of the watercourse in the context of possible fish habitat, which was a concern raised by the Review Panel. Mr. McDonald makes the statement:

The impact on fish habitat was considered negligible because the damaged stream (is) an ephemeral stream that is not fish bearing, and because the damage is located approximately 350 meters from the fish-bearing Ashlu. My assessment was that sedimentation from this damage would not reach the Ashlu (Creek).

Mr. Anderson's affidavit does not make it clear whether or not the watercourse exhibited the "alluvial sediment bed" characteristic that is required under the Regulation. In discussing the damage, and speculating on the cause, he says:

...confirmed my observation that in the process of dragging the stump down the hill, it gouged out the existing stream bank and bed—including all the grass, moss, vegetation, shrubs and woody debris that was supporting the stream and its bank - so that all that was left was exposed mineral soil and a new gouged gully where the natural one used to be.

We are left to speculate as to whether the stream bed was previously composed of mineral matter, or whether the water had been flowing over an essentially vegetative debris mat in the bed of the watercourse.

In Mr. Anderson's supplementary affidavit he asserts:

...water cannot flow down a mountain hill such as this one which has soil on it, and within a definable draw, without alluvium (i.e. sediment) being carried with it and helping form the creek bed...

This statement challenges the premise that there can ever be watercourses that do not have the attributes of a stream as defined by the Regulation.

However, in Mr. Anderson's original affidavit he takes a more benign view of the possible degree of alluviation occurring in the watercourse (emphasis added):

While the hillside has a significant grade, the area where the stream runs is approximately 30% side slope. It is an ephemeral or intermittent stream that carries water at different times of year, **runs partly underground**, and is not fish bearing.

In responding to the Appellant's initial submissions the Respondent makes the statement:

It is common ground that the watercourse in question is a "stream"

However, in this initial response, the Respondent does not support this statement by referencing any of the physical attributes of the watercourse.

In response to the April 22, 1997 request of the Commission, the Respondent provides an affidavit from Mr. Dan Hogan, a professional geoscientist employed by the Ministry. Mr. Hogan asserts that the subject watercourse can be seen in the aerial photographs, as one of the "linear depressions" visible in the cut-block area, but that the resolution of the aerial photographs is inadequate to determine whether or not the subject watercourse meets the definition in the Regulation. Mr. Hogan takes the position that the aerial photographs are not relevant to deciding the question. This is somewhat curious in that one of the requirements of the Regulation's definition of a stream is that it have "continuous definable banks", and as "linear depressions" can be seen, the question remains as to their continuity.

The Commission has been at pains to examine the presumption made by the Respondent, and initially unchallenged by the Appellant, that the subject watercourse is a stream. It is obviously critical to the application of the Timber Harvesting Practices Regulation that a distinction be made between watercourses that are large and active enough to be called streams, and those that are not. If this were not the case, then every watercourse, no matter how minor or intermittent, or how ephemeral the water flow, would be classified at least as a Riparian Class S6 stream under the Operational Planning Regulation (which applies the same definition of "stream"), and would have an associated Riparian Management Zone unless exempted by the District Manager. There has been no mention of such a classification, or exemption from the requirement from such a classification.

It seems clear to the Commission that the key to making a distinction between watercourses that are, and watercourses that are not, covered by the Regulation is the degree of alluviation that is present. As earlier described, there are two components to this: detrition, which is the wearing away (erosion) of underlying material in a watercourse, and sedimentation, which is the deposition of the detritus along the way where the velocity of water-flow is insufficient to keep the material in suspension. Furthermore, it appears that the geomorphological understanding is that alluvial deposits are generally mineral in nature, and hence, for the formation of an "alluvial sediment bed", the alluviation must be aggressive enough that the underlying mineral soil or rock will be exposed, scoured and deposited upon.

DECISION

The Commission has carefully reviewed the descriptions, maps and photographs of the watercourse given in the submissions of the Respondent, the Appellant, and the affidavits of McDonald, Anderson, Miller, Cooper, and Hogan. The Commission finds that the evidence and argument as to the existence of continuous definable banks, as required by the Regulation is inconclusive. In the photographs provided by Bob Cooper the subject watercourse does show a depression with gently sloping banks for at least the reach between the upper and lower roads. Mark Anderson's observation that the watercourse may be underground in some places suggests discontinuity, but this is not clear in the photographs that were provided. The Commission is not satisfied that the requirement of continuous definable banks is met.

Additionally, the Commission finds that the evidence does not adequately support the requirement that there be an alluvial sediment bed. While the descriptive and photographic evidence in the immediate vicinity of the damaged ground shows exposed mineral soil in the bed of the watercourse, in the area of the ground disturbance, there is insufficient evidence to show that the processes of alluviation that would normally have been occurring in this watercourse are sufficiently pronounced to scour underlying soil and rock and to generally form a sediment bed. Further, there is no evidence that the subject watercourse has been classified as a stream in a logging plan or some other operational document. Nor is there a survey of profiles along the extent of the watercourse to indicate that the watercourse has an alluvial sediment bed.

On the evidence before it, the Commission finds that the watercourse does not fit the definition of a "stream" found in the Regulation. Although the Appellant seemed unaware of the pivotal importance of the distinguishing characteristics of a stream as defined in the Timber Harvesting Practices Regulation, this is one of the key questions to be answered before making a determination under this section of the Regulation and the Commission would be remiss if it did not first answer this question. On a balance of probabilities, the Commission finds it is not a stream.

Further, it is the Commission's conclusion that this watercourse is of minor hydrological significance in the conservation of water and soil within the logged area, and that its role has been temporarily heightened as a result of the road construction and logging. The physical disturbance caused to the watercourse in the cleaning operation has unlikely resulted in transportation of mineral soil particles beyond the lower reach as seen in the photographs, and therefore soil conservation has not been jeopardized. This degree of disturbance will not likely compromise the sustainable use of the forest, as is generally understood under the *Code*.

The original and review determinations shall be reversed. There will be no costs awarded to any of the parties in the appeal.

David Ormerod, Panel Chair

Forest Appeals Commission

September 12, 1997