



Environmental Appeal Board

Fourth Floor 747 Fort Street
Victoria British Columbia
Telephone: (250) 387-3464
Facsimile: (250) 356-9923

Mailing Address:
PO Box 9425 Stn Prov Govt
Victoria BC V8W 9V1

APPEAL NO. 1999-PES-09(c)

In the matter of an appeal to the Environmental Appeal Board under section 15 of the *Pesticide Control Act*, R.S.B.C., 1996, c. 360.

BETWEEN:	Raincoast Research Society	APPELLANT
AND:	Deputy Administrator Pesticide Control Act	RESPONDENT
AND:	International Forest Products Ltd.	PERMIT HOLDER
AND:	Tsawataineuk Band Council	THIRD PARTY
BEFORE:	A Panel of the Environmental Appeal Board Jane Luke, Panel Chair Dick Cannings, Member Jackie Hamilton, Member	

DATE OF HEARING: January 18-20, 2000
Concluded in writing February 11, 2000

PLACE OF HEARING: Port Hardy, B.C.

APPEARING:	For Appellant:	Andrea Finch, Counsel
	For the Respondent:	Dennis Doyle, Counsel
	For the Permit Holder:	Henry Barrett/Richard Gage
	For the Third Party:	Midori Nicholson

APPEAL

This is an appeal by the Raincoast Research Society ("Raincoast") from an April 23, 1999 decision by Dick Heath, the then Deputy Administrator, *Pesticide Control Act* (the "Deputy Administrator"), to issue Pesticide Use Permit No. 215-170-99/01 (the "Permit") to International Forest Products Ltd. ("Interfor"). The Permit allows Interfor to use the herbicide glyphosate ("Vision") on a number of cutblocks in and around Kingcome Inlet.

The Environmental Appeal Board has the authority to hear appeals under section 11 of the *Environment Management Act* and section 15 of the *Pesticide Control Act* (the "Act"). Section 15(7) of the *Act* provides:

- 15 (7)** On an appeal, the appeal board may
- (a) send the matter back to the person who made the decision being appealed, with directions,

- (b) confirm, reverse or vary the decision being appealed, or
- (c) make any decision that the person whose decision is appealed could have made, and that the board considers appropriate in the circumstances.

Raincoast seeks an order "that the Permit be cancelled in its entirety."

BACKGROUND

Interfor has Forest Licence FLA19238, which grants Interfor rights to harvest timber in the Kingcome Inlet area. After logging an area, Interfor is required under the *Forest Practices Code of British Columbia Act* (the "Code") to engage in silvicultural activities designed to reforest harvested areas. After the restocking of a harvested area, seedlings of commercially desirable conifers compete with other species, such as shrubs and deciduous trees. A variety of methods can be employed to control the undesirable competing species, such as pesticides or manual brushing, depending on the circumstances. Under section 6 of the *Act*, no one can apply a pesticide without a permit or approved pesticide management plan.

On March 3, 1998, Interfor applied to the Deputy Administrator for a permit to use the herbicide Vision to release conifer plantations on 29 regenerating cutblocks from the competition of target species, including salmonberry, elderberry, red alder, thimbleberry, and devil's club. In accordance with section 16(1) of the *Pesticide Control Act Regulation*, B.C. Reg. 319/81, Interfor also provided maps of the proposed spray areas (the "Application Maps").

On July 16, 1998, Many Vaartnou, a forestry herbicide applications inspector for the Ministry of Environment, Lands & Parks ("MELP"), provided a "Pre Site Inspection Report" to the Deputy Administrator. In that report, Mr. Vaartnou made the following comments:

- Biggest concern is the amount of H₂O. Blocks will need to be carefully walked and ribboned.
- Numerous S6 [streams] missed on [Block] 110. Questionable creek classification on [Block] 126.
- Secondary concern is loss of Grizzly forage – but there is lots in general vicinity. Might consider species restrictions in some ecosystem associations.
- Public concern re salmon loss.
- If all creeks and seepage areas correctly ribboned, there should be no concerns. Most of this should be a spot [backpack] treatment – thus little forage loss.
- Needs erosion warning.

On April 23, 1999, the Deputy Administrator issued Interfor the Permit pursuant to section 6(3) of the *Act*. The total area of land covered by the Permit is 746.2 hectares, of which 256.9 hectares are authorized to be treated with Vision between April 23, 1999, and December 31, 2001. Sites are approved for treatment using power hose/nozzle, backpack sprayer, and stem injection methods.

The Permit provides that Interfor must post signs for the information of the general public prior to any application of Vision. It also specifically requires Interfor to notify the Tsawataineuk First Nation, Kingcome Inlet, at least two weeks prior to the beginning of spray operations in each year of the Permit. If Interfor is notified of specific sites where traditional use of medicinal plants or wild berries have been verified, or in cases where treatment would threaten the overall use of these resources within the Permit area, foliar spraying is prohibited within 5 metres of berry-bearing and medicinal plants.

The Permit also creates 10-metre (horizontal distance) pesticide-free zones around all classes of flowing streams, some classes of dry streams, fisheries sensitive zones, wetland sites (all as defined in the *Code* regulations), lakes, and "non-classified flowing water that has periodic surface connectivity to streams, lakes or wetlands." Ground-based pesticide applications may be conducted up to 1-metre (horizontal distance) of immobile, confined water bodies, which are not fish habitat and do not have seasonal connectivity to fish habitat; direct application of a pesticide into the water body is prohibited. The Permit specifies that the boundaries of the pesticide-free zones must be clearly marked prior to application of the herbicide.

In order to protect grizzly bear forage, the Permit prohibits foliar treatment of certain shrubs in sites that have been previously identified as important grizzly bear habitat, unless those shrubs are directly competing with conifer crop trees.

To preserve slope stability, the Permit specifies that no applications of the herbicide shall be made to sites where removal of deciduous vegetation will threaten general terrain stability. Where stability is in question, Interfor is required to consult with a qualified geomorphologist prior to proceeding with the spray.

The Permit also contains many other conditions not directly relevant to this appeal.

On May 21, 1999, Raincoast appealed the Deputy Administrator's decision to grant the Permit on the grounds that the Permit makes inadequate provision for the protection of the environment, including but not limited to, the protection of fish, wildlife and riparian areas. Raincoast claimed that the restrictions set out in the Permit do not adequately prevent an unreasonable adverse effect on the environment, particularly fish. The hearing was originally scheduled for August 17, 1999. Raincoast also claimed the Permit authorized the spray to drip method and to release cedar from competition using Vision, both of which Raincoast claims is not allowed under the federally approved label for Vision.

On July 23, 1999, Raincoast requested a stay of the Permit to ensure that no spraying occurred prior to a decision on the merits of the appeal.

On August 6, 1999, the Board granted a stay of the entire Permit (*Raincoast Research Society v. Deputy Director, Pesticide Control Act*, Appeal No. 99-PES-09(a) (unreported)).

On August 9, 1999, the Tsawataineuk Band Council ("Band Council") requested Third Party status in the appeal, which was granted by the Board on August 10, 1999. The Band Council was added as a Third Party in the appeal because it may be directly affected by the Board's decision since the permitted spraying would take place in its traditional territory. The Band Council claims that it was not adequately consulted prior to issuance of the Permit.

The Board granted an adjournment of the appeal on August 30, 1999, and offered to reconsider its stay decision with respect to cutblocks described by Interfor as having "a high likelihood of failure" to meet free growing and/or regeneration delay deadlines due to the 1999 treatment window being missed. On September 13, 1999, the Board rescinded the stay for three of the cutblocks: 39E, 58E, and 118 (*Raincoast Research Society v. Deputy Director, Pesticide Control Act*, Appeal No. 99-PES-09(b) (unreported)).

The appeal was heard January 18-20, 2000, and concluded by way of written submissions on February 11, 2000. Dick Heath, the Deputy Administrator who issued the Permit, retired before the hearing. Conrad Berube, the current Deputy Administrator, replaced him and testified as the Respondent at the hearing.

At the hearing, the parties agreed that Block 122 did not need to be treated with herbicides. Therefore, this Block is not addressed in this decision. According to Condition BB of the Permit:

No pesticide applications shall be made where such treatments are not required to meet silvicultural obligations for the site.

LEGAL FRAMEWORK

The *Act*

- 6 (3)** The administrator
- (a) may issue a permit or approve a pest management plan if satisfied that
 - (i) the applicant meets the prescribed requirements, and
 - (ii) the pesticide application authorized by the permit or plan *will not cause an unreasonable adverse effect*, and
 - (b) may include requirements, restrictions and conditions as terms of the permit or pest management plan.

...

[emphasis added]

12 (2) The administrator has the powers necessary to carry out this Act and the regulations and, without limiting those powers, may do any of the following:

(a) determine in a particular instance what constitutes an unreasonable adverse effect;

...

Mr. Justice Legg, in *Islands Protection Society v. British Columbia Environmental Appeal Board* (1988), 3 C.E.L.R. (N.S.) 185 (B.C.S.C.), confirmed previous court decisions which indicated that the Board is required to engage in a two-step process to determine whether a pesticide application will cause an unreasonable adverse effect. The first stage is to inquire whether there is any adverse effect at all. If not, that is the end of the inquiry. However, if the Board finds that the application will cause an adverse effect, then it has to undertake a risk-benefit analysis to ascertain whether that adverse effect is reasonable or unreasonable.

ISSUES

As noted above, there was agreement by the parties that Block 122 did not need to be treated with herbicides. In relation to the remaining areas to be sprayed under the Permit, the Panel will address the legal test and the Third Party's concerns as follows:

1. Whether the use of Vision under the Permit will cause an adverse effect and, if so, whether the adverse effect is reasonable or unreasonable.
2. Whether adequate consultation occurred.

DISCUSSION AND ANALYSIS

1. Whether the use of Vision under the Permit will cause an adverse effect, and if so, whether the adverse effect is reasonable or unreasonable.

Section 1 of the *Act* defines "adverse effect" as "an effect that results in damage to humans or the environment". Raincoast argues that Vision is toxic to fish and will damage habitat essential to other wildlife, such as bears.

There is no dispute that Vision is a herbicide approved under the *Pest Control Products Act (Canada)* under registration number 19899, and has been approved for use in forestry applications since 1987. In *Canadian Earthcare Society v. Environmental Appeal Board* (1988), 3 C.E.L.R. (N.S.) 55, the British Columbia Court of Appeal agreed with the Supreme Court's finding that the Board can consider a registered pesticide to be generally safe when used in

accordance with the label. The Court of Appeal quoted the following with approval:

Common sense dictates that the fact that a federally registered pesticide that has undergone extensive testing must have some probative value. I have concluded that the Board did not commit a jurisdictional error by assuming a federally registered pesticide to be generally safe.

The Court of Appeal further agreed with the following comments of the Supreme Court:

It is important to bear in mind that the Board did not state that a federally registered pesticide could never cause an unreasonable adverse effect. The Board was willing to hear evidence on toxicity to the extent that the evidence showed that the specific site in question prevented safe application of the pesticide. They further heard evidence whether the proposed pesticide use was contrary to registration intent and restrictions or that the permit holder was unable to apply the pesticide safely.

Given these findings of the Court, the Panel in this case can assume that the herbicide Vision is generally safe and will not create an adverse effect, provided that it is used in accordance with its label, it can be safely applied to the specific sites in question, and the Permit Holder is able apply it safely.

Raincoast entered into evidence a study suggesting a link between the use of glyphosate based products and non-Hodgkins Lymphoma in humans. No evidence or argument was presented to the Panel about how the specific site prevents the safe application of Vision regarding human health, and so the concerns about human health will not be addressed further.

a. Is the proposed use of the pesticide contrary to registration intent and restrictions?

To evaluate whether the proposed use of Vision is contrary to the registration intent and restrictions, the Panel must (1) determine what the relevant restrictions are, and (2) compare them to the proposed use as authorized in the Permit.

During the appeal, three potential conflicts between the registration intent and the Permit were raised: application of Vision to water, the "spray to drip" method, and the use of Vision to release cedar from competition.

i) Application of Vision to water

As noted above, one of Raincoast's primary concerns is that Vision is toxic to fish and will cause an adverse effect on fish populations.

Raincoast presented several witnesses who testified as to the condition of the fish stocks in the Kingcome Inlet. One such witness was Glen Niedrauer, who compiles the information on fish stocks that becomes the official Department of Fisheries and

Oceans' (Canada) data for the area. He is also involved in efforts to rebuild the fish stocks in that area. Mr. Niedrauer testified that the fish stocks in Kingcome Inlet are in a fragile state. He also testified that Coho salmon can find themselves in very small water bodies, such as ditches and temporary streams, as a result of the hydrology of the area. The witnesses for the Band Council confirmed that the fish stocks had declined.

Raincoast provided maps showing ecological reserves at the confluence of the Kingcome and Atlatzi Rivers, downstream of the Permit area.

Raincoast also introduced evidence, including articles and testimony from John Werring, a registered professional biologist, as to the toxicity of Vision to fish. While the active ingredient in Vision, glyphosate, is only mildly toxic to fish, he submits that the surfactant in it is acutely toxic. Mr. Werring was qualified to give expert evidence on behalf of Raincoast in the areas of assessing and identifying fish and wildlife habitat, risks to fish and wildlife from pesticide treatment of cutblocks as allowed under the Permit, and stream classification and buffer zone requirements under the *Code*.

Raincoast provided evidence of sub-lethal effects of herbicides, such as loss of habitat through avoidance effects. Raincoast also raises questions about the ability of Vision to migrate from treatment sites to pesticide-free zones, and about the effects of small amounts of Vision on the ability of fish to carry out their normal life cycle. It submits that this is of particular concern in this case due to the fragile state of the fish stocks in the area.

Although neither Interfor nor the Respondent disagreed as to the toxicity of Vision to fish, both Mr. Berube and Richard Gage, a registered professional forester in charge of silvicultural activities for Interfor, testified that neither had heard of any adverse effects from the use of Vision in the over twenty years that it has been in use. Furthermore, both testified that when Vision reaches the soil it binds with soil and is not easily released, even with high water speed or pressure. Since Vision remains bound to the soil even when the soil moves, they submit that Vision does not "migrate" as suggested by Raincoast.

Regarding the state of the fish stocks in the area, neither the Respondent nor Interfor presented evidence refuting or casting doubt on the evidence given by Mr. Niedrauer. The Respondent merely pointed out that there was no evidence that the decline in the fish stocks was due to the use of Vision. However, Raincoast's argument is that, regardless of the cause, the fish stocks are seriously at risk in the area.

The label for Vision, which was approved by the responsible federal minister, states: "Do not apply directly to any body of water populated with fish or used for domestic purposes. Do not use in areas where adverse impact on domestic water or aquatic species is likely." This implicitly recognizes the potential harm to fish. Thus, the Panel finds that Vision can be toxic to fish. Further, the Panel accepts that fish stocks in Kingcome Inlet may be in a fragile state.

In his "Pre Site Inspection Report" to the District Administrator, Mr. Vaartnou stated that there is "lots of H₂O" in the blocks. There is no dispute that some of these water bodies are fish bearing. To address the label restrictions and protect fish stocks, the Permit provides for pesticide-free zones and does not allow for spraying a body of water populated with fish. Specifically,

- Condition J requires "10-metre (horizontal distance) pesticide-free zones along all flowing streams, dry S1 through S4 streams, fisheries sensitive zones, wetland sites, and lakes."
- Condition K states that "there must be adequate buffers to ensure that direct application of glyphosate into the dry streambeds does not occur."
- Condition M states that "ground-based pesticide applications may be conducted up to 1-metre (horizontal distance) of immobile, confined water bodies, which are not fish habitat and do not have seasonal connectivity to fish habitat; direct application of pesticide into the water body is prohibited."
- Condition N states that "applicators shall provide adequate buffers, in addition to the pesticide-free zones, to ensure pesticides are not applied to non-classified flowing water that has periodic surface connectivity to streams, lakes, or wetlands."

The Panel finds that the Permit is not contrary to registration restrictions regarding the spraying of Vision on water bodies populated with fish. Further, there is insufficient evidence before the Panel to support a finding that the buffer zones set out in the Permit will not provide sufficient protection against an adverse impact on fish.

ii) The "spray to drip" method

Raincoast also expressed concern about the "spray to drip" method of herbicide application, which is where foliage is sprayed to the point that the herbicide is dripping onto the ground. It argues that this method would increase the risk of Vision entering the streams.

The Panel notes that the label states that foliage is not to be sprayed to the point of runoff. The Permit does not specifically address the "spray to drip" issue.

Interfor's witness, Mr. Gage, stated that the method was not usually necessary and that, in any event, the pesticide would bind with the soil and not enter the water. He also advised that Interfor had not yet determined whether the spray to drip method was required on Kingcome Inlet cutblocks.

The Panel finds that the "spray to drip" method is not permitted under the label which specifically prohibits foliage from being treated to the point of runoff. Although the Permit does not specifically prohibit "spray to drip", the Panel notes that not using Vision in accordance with its label is an offence under section 11 of the federal *Pest Control Products Act* (see also section 45(1) of the *Pest Control*

Products Regulation, C.R.C., c. 1253). Further, as the Permit does not specifically allow this method to be used, there is no conflict with the label. Therefore, there is no need to amend the Permit.

iii) The use of Vision to release cedar from competition

To release a species from competition is to kill competing vegetation around it, which allows the released species to grow faster. Raincoast argued that cedar is not listed on Vision's legal label as a conifer that can be released from competition using Vision. The Respondent and Interfor argued that it could be inferred from the label that cedar could be released using Vision.

The legal label for Vision includes lists of tree and shrub species. Some lists are for species that can be controlled through the application of Vision to that species. Cedar is included in lists of species to be controlled. The label also contains lists of those species that can be released from competition through the application of Vision to surrounding vegetation. For example, the label states that "Use this product ... to release from competition the coniferous species listed below: douglas fir, pine, fir, spruce, hemlock". For direct spraying however, the label states that it is a "partial list." It is therefore reasonable to infer that other species can be released from competition as well where the direct spraying method is used.

The Panel therefore finds that the label allows the application of Vision to release cedar from competition where the direct spraying method is used. There remains some question as to what the label means by "direct" spraying. The Panel notes that the Permit allows power hose/nozzle, backpack sprayer foliar and stem injection methods of herbicide application; aerial spraying is not permitted.

Mr. Berube testified that he interpreted "direct" as "not aerial", while Mr. Gage for Interfor stated that he interpreted "direct" as including backpack spraying. The Panel agrees with Mr. Berube that "direct" should be interpreted as "not aerial".

The Panel, therefore, finds that Raincoast has not made the case that spraying in accordance with the Permit will be contrary to the registration and restrictions as specified on the label.

b. Does the specific site in question prevent safe application of the pesticide?

Raincoast argues that due to the weather conditions in the Permit spray area and the presence of certain wildlife, Vision cannot be safely applied.

i) Weather

Raincoast argued that the erratic weather patterns in the Kingcome Inlet area prevent the safe application of Vision. According to Raincoast, there is a high likelihood that, shortly after spraying, rain could wash the pesticide into streams and other watercourses, thereby causing an adverse effect on fish.

The Panel notes that Vision's legal label states:

Rainfall occurring soon after application may reduce effectiveness. Heavy rainfall within 2 hours after application may wash the product off the foliage and a repeat treatment may be required.

...

The product mixes readily with water.

Raincoast's witness, Mr. Niedrauer, testified as to the poor weather conditions in the Kingcome Inlet area, and about how the weather can vary in different parts of the Inlet area at the same time. He also spoke of the unpredictability of the weather patterns. Mr. Niedrauer expressed his concern that the pressure on contractors to get the job done without increasing costs will lead to spraying during questionable weather patterns.

Interfor did not dispute the evidence on weather directly, but rather stated that no spraying occurs unless there is a stable high-pressure system in place. There was no denial by Interfor that rain immediately after a spray program could move Vision into streams and watercourses that are actual or potential fish habitat.

The Panel notes that spraying only during a high-pressure system is not a condition of the Permit.

The Board addressed weather concerns in a previous appeal which also involved Raincoast, the Deputy Administrator and Interfor, as well as many of the same witnesses (see *Raincoast Research Society et al v. Deputy Administrator, Pesticide Control Act, (International Forest Products, Permit Holder)*, Appeal No. 98-PES-01, June 26, 1998) (unreported)). In that case the Board stated:

The Appellants were concerned that unpredictable weather patterns in the area could result in a rainfall soon after the time of spraying that would flood streams and raise the groundwater table. The Permit Holder submitted that no spraying takes place until there is a stable high-pressure system over the area to prevent such an occurrence.

The Panel accepts the Permit Holder's evidence and finds that, provided this is done, the weather conditions in the area can be adequately dealt with.

Raincoast has not presented additional evidence that would lead the Panel to decide differently in this case.

ii) Wildlife

Raincoast stated that there is no doubt that the areas to be sprayed are populated by bears. It submits that this is confirmed by its witness, Mr. Werring, who found bear signs such as scats, feeding areas, scratch trees, and trails. Interfor's site documents note the presence of bears and this was further confirmed in the

testimony of various witnesses, including some from the Tsawataineuk Band Council.

Raincoast argues that bears or other wildlife will eat vegetation or berries coated with Vision and that the spray program will target the food sources of bears and other wildlife, such as salmonberry. As a result, there will be an adverse effect on wildlife.

Neither the Respondent nor Interfor made submissions directly in response to this argument.

Mr. Vaartnou, in his "Pre Site Inspection Report" to the Respondent, cited concern about loss of Grizzly forage, but stated that there is a lot of forage in the general vicinity. The report also stated that "[The Respondent might want to] consider species restrictions in some ecosystem associations."

The Panel accepts that there are bears in the spray area and notes that Interfor's own report states that the area contains sensitive Grizzly habitat. Its Stocking Survey Report 1999 for Block 24B states "... in this sensitive Grizzly habitat area." Further, the Permit itself acknowledges that certain target species are used for food by bears. Condition DD of the Permit states:

To protect grizzly bear forage, unless limited broadcast treatments are silviculturally required for site preparation or conifer release, foliar treatment of the following shrubs will be avoided in treatment units which occur in those site series identified as important grizzly bear habitat in the Interim Grizzly Bear Habitat Guidelines (Hamilton 1993) unless they are directly competing with conifer crop trees: devil's club, red raspberry, salmonberry, *Vaccinium* spp., black twinberry, highbush-cranberry, red-osier dogwood, and thimbleberry.

While the Panel accepts that bears are present in the area, there was no evidence provided regarding wildlife eating patterns. Therefore, there is insufficient evidence for the Panel to rule that grizzly bears will be adversely affected by the loss of the spray area in question. The Permit conditions specifying avoidance of plant species known to be used for grizzly bear forage provides some assurance of limiting the impact on forage species.

Raincoast also provided an Australian government article on the acute toxicity of herbicide Roundup-360 on frogs.¹ Roundup-360 and Vision both contain glyphosate. The article, however, indicated that the surfactant, rather than glyphosate itself, is the problem. The Panel heard testimony that Roundup-360 probably contains a different surfactant than Vision, as Roundup-360 is formulated for direct application to water. On the basis of the evidence presented, the Panel is unable to find that there will be an adverse effect on frogs in the spray area. This

¹ Department of Environmental Protection, *Acute toxicity of a herbicide to selected frog species*, Technical Series 79, (Perth, Western Australia: Department of Environmental Protection, June 1995).

is particularly so given that Roundup-360 is not the herbicide under consideration in these proceedings.

c. Is this Permit Holder unable to apply the pesticide safely?

Raincoast argued that there are flaws with the mapping of streams done to date which will result in an unsafe application of the herbicide. Raincoast also asserted that Interfor has previously violated its permits and argued that this past behaviour suggests that it will not apply the pesticide in accordance with the Permit conditions in this case. Further, Raincoast argued that the Permit provides for insufficient monitoring of Interfor by either independent monitors or MELP to ensure that it adheres to the Permit conditions.

i. Inaccurate mapping

As noted in the background to this case, Interfor provided maps of the proposed spray areas when it submitted its permit application. These maps have been defined in this decision as the Application Maps.

Pursuant to Condition S of the Permit, additional maps are required prior to spraying (the "Condition S Maps"). Condition S states as follows:

Representatives of the permittee shall survey planned treatment areas prior to treatment and map the locations of all stream courses and to (sic) those seepage areas that lead directly to fish habitat. Copies of these maps shall be provided to the spray contractor and the Deputy Administrator, *Pesticide Control Act*. The maps shall be sent to the Deputy Administrator at least 3 weeks prior to commencement of the project in each year of the permit.

A Condition S Map was provided to the Deputy Administrator when Interfor was successful in having the stay vacated in relation to 3 cutblocks. Although Interfor was unable to spray because of a First Nation blockade, it earlier reviewed Block 58E and provided a revised map (Raincoast was concerned about all maps, but the Block 58E map was the only Condition S Map generated by Interfor).

Raincoast argued that Interfor produced inaccurate Application Maps for consideration by the Deputy Administrator prior to issuing the Permit, as well as an inaccurate Condition S Map. Raincoast further argued that, due to the inaccurate Application Maps, the Deputy Administrator had insufficient information to determine whether the issuance of a permit would lead to an adverse effect.-

Raincoast presented evidence that streams in the Permit area are either not identified on the Application Maps, or are misclassified. Mr. Werring testified that Charnaud Creek on Block 103 was misclassified as non-fish bearing, and that streams on Block 58E were incorrectly mapped, not identified or misclassified. Raincoast stated that Interfor's own maps, other than the ones included in the Permit application, show Charnaud Creek to be fish-bearing. Errors on other blocks were also pointed out.

Mr. Werring's evidence regarding misclassification is based on the stream classification system found in the *Code*. Mr. Werring noted that streams on the map were classified according to the *Code* system, and that the map stated that all streams and watercourses were "clearly marked" on the map. Raincoast argued that, for maps to be meaningful, the maps had to contain complete and accurate information, which they did not, since there were unmarked and inaccurately classified streams and watercourses.

Interfor emphasized that there are no legal requirements for the Application Maps to include all streams and watercourses or to use the *Code* stream classification system. Interfor stated that it went beyond the legal requirements and provided the Respondent with the best information it had available. Interfor also stated that, when the maps stated "clearly marked on the map", it meant that those streams and watercourses that were marked on the map were done so clearly; "clearly marked on the map" did not necessarily mean that all streams and watercourses were marked on the map. Interfor did acknowledge, however, that streams on Block 58E were misclassified, although this acknowledgement occurred subsequent to Raincoast filing this appeal. Interfor had no explanation for the discrepancy between the Application Maps and its other maps regarding the classification of Charnaud Creek.

Mr. Berube testified that he is not surprised that the maps were inaccurate, but he only expected the maps to include the best information available to Interfor at the time that the maps are created. Mr. Berube told the Panel that the Respondent considered Mr. Vaartnou's report, including the potential concern about the amount of water in the area and questionable stream classifications on Blocks 110 and 126. Additionally, the Respondent received information on fish values from representatives of the Mainland Enhancement of Salmonid Species Society, Alexandra Morton (who also is involved in Raincoast) and Kate Pinsonneault. Mr. Berube stated that Condition S of the Permit was designed to address the Board's recommendations in the previous appeal filed by Raincoast, 98-PES-01 (*supra*).

In that appeal, the Board found that Interfor should have provided the most complete maps to accompany its application and had not done so. The Board found several instances of unidentified streams and stream misclassifications. Consequently, the Board was not convinced that all of the streams were properly identified and could be properly marked in the field prior to spraying. It concluded that the application of glyphosate to certain blocks presented some unreasonable risk to the environment.

Mr. Berube further stated that the quality of the maps is not critical. He stated that he is not concerned with protecting mapped streams and objects, but rather on-the-ground streams and objects. The Respondent included Condition S to do so, and Mr. Berube believed this is adequate for that purpose. Under cross-examination Mr. Berube also agreed that the maps provided by Interfor are superior to those usually provided under other permit applications.

The Panel agrees with Interfor that the *Act* does not prescribe the information to be included with application maps, and does not require streams to be classified according to the *Code* classification system. The maps are required to show the location to be sprayed, not all of the features of that location. Furthermore, the Panel is aware that the blocks were mapped and logged prior to the *Code*, when the stream classification system was quite different. However, Interfor provided maps that used the *Code* classification system. It is reasonable to presume that, when the *Code* classification system is used, it is being used accurately. The Panel recommends that, to avoid confusion in the future, Interfor should be clearer about the intent and level of accuracy of its permit application maps.

The Panel finds that the Deputy Administrator had sufficient information to determine whether an adverse effect will occur. He was provided with:

- maps provided by Interfor that showed the accurate location of the cutblocks. The maps that identified watercourses were not intended to replace the more detailed maps that are to be provided for approval prior to spraying;
- descriptive information from Interfor in support of the application for each cut-block on the purpose of treatment, pesticide to be used and application rate, treatment method and timing, site history, vegetation, soils, water body information, measures to be taken to protect water bodies;
- information on fish values by the Mainland Enhancement of Salmonid Species Society; and
- the "Pre Site Inspection Report" from Mr. Vaartnou.

In addition, the Panel notes that the Deputy Administrator is a Registered Professional Forester with extensive experience in the application of pesticides in the mid-coast forest region.

Therefore, the Panel finds that, while permit application mapping may have been somewhat inaccurate and permit application requirements do not specify the level of accuracy required, the Permit requirements will rectify this. Accordingly, there is no need to deny or amend the Permit in this regard.

ii. Past violations

Mr. Werring, for Raincoast, testified as to a possible violation by Interfor of an earlier permit. Mr. Werring stated that, on a previously treated cutblock, he found evidence of spraying in what probably would have been 10-meter buffer zones on dry watercourses. Mr. Werring stated that he did not know if these were, in fact, permit violations, but that they were "a cause for concern." Mr. Niedrauer testified that, in previous cutblocks, the 10-metre required buffer was slope distance, not the horizontal distance required in the present Permit.

Mr. Berube testified that he knew of no confirmed pesticide violations by Interfor. However, he agreed that the testimony of Raincoast's witnesses are a cause for

concern, but that he would need more information before concluding that there were, in fact, past permit violations.

Interfor's witness, Mr. Gage, testified that, in the previous pesticide use permit, there were no pesticide-free zones around dry watercourses and this Permit was the first to specify horizontal distance.

A copy of the previous permit was not provided to the Panel.

The Panel finds there is insufficient evidence to support Raincoast's allegation of previous permit violations.

iii. Monitoring

Raincoast argued that Interfor's inability to produce accurate maps is evidence that it is unable to adhere to Permit conditions. Further, unless Interfor is monitored independently, the company is at risk of non-compliance with Permit conditions.

Mr. Berube acknowledged the risk of self-monitored spray programs, and stated that "if he were emperor" he would prefer to have third party independent monitoring, but those resources are currently unavailable. The Respondent included Condition HH in the Permit to address monitoring:

The permittee shall prepare a plan to monitor the spray program using a qualified contractor and submit the plan to the Deputy Administrator, Pesticide Control Act, at least 3 weeks prior to commencement of the project.

Interfor put into evidence a report by a monitor of a previous cutblock spray which found that Interfor went beyond the requirements of the pesticide use permit in that case. Interfor also testified that the Deputy Administrator had rejected the first monitor proposed by Interfor.

The Panel finds that the Deputy Administrator's rejection of the first proposed monitor is evidence that the Deputy Administrator takes the conditions he imposes in the Permit seriously. Given the monitor's report and the absence of substantiated evidence of previous permit violations, the Panel finds that the Permit monitoring requirement HH is sufficient to ensure that Interfor adheres to the Permit conditions.

Based on all of the evidence provided, the Panel finds that Raincoast has not established that the application of Vision, as approved by the Permit, will cause an adverse effect. Therefore, as stated by the Honourable Justice Legg in the *Islands Protection Society* case (*supra*), "that is the end of the inquiry" – there is no need to undertake a risk-benefit analysis to ascertain whether the effect is "unreasonable".

2. Whether adequate consultation occurred.

The Tsawataineuk Band Council argued that the Permit should not have been issued because it was not adequately consulted prior to its issuance.

Mr. Berube stated that MELP depends on the Permit Holder for information on whether consultation with the First Nation occurred. MELP received copies of correspondence from Interfor to the Band Council, but there was no response from the Band Council except that it has zero tolerance for pesticide use in its traditional territories. Mr. Berube also stated that the Respondent offered to send a MELP delegate to the Band Council. The Respondent reported that there was a meeting with the Band in June 1998.

On cross-examination by Midori Nicholson (for the Band Council), Mr. Berube testified that he understood the meaning of "consultation". He stated that there is a checklist for consultation, and the Band was given information on where and why the pesticides will be applied, as well as a response timeline. The Respondent requested information on the Band's traditional uses of the land. Mr. Berube stated that a response from the Band Council is not required, nor is it necessary to have the Band Council's consent.

Billie Robertson, a witness for the Band Council, told the Panel that the Band uses the entire valley to harvest berries. Since berries in different parts of the valley ripen at different times, Band members move up the valley as required.

Melissa Willie held the Band Council's Forest Portfolio at the relevant time. Ms. Willie testified that she received a call from Mr. Berube, but they did not speak about the present Permit. Rather, they discussed the general matter of the consultation process. She also told Interfor that the Band was not ready to meet with the company. Ms. Willie stated that, in her opinion, no meaningful consultation took place. The meeting that occurred was not with the Band Council, and did not amount to consultation, as that was not the point of the meeting. She stated there was no agreement as to the consultation process.

When the Panel asked Ms. Willie what would constitute "adequate consultation" in her mind, Ms. Willie answered that a different method of brush control would have to be used. Questioned further as to what would be adequate consultation if the Panel decided to uphold spraying under the Permit, Ms. Willie did not provide an answer.

Yvonne Gesinghaus, a member of the Tribal Council, also testified. The Tribal Council is the First Nations' governmental level above the Band Council, and includes four member tribes. The Tribal Council, along with all four of the member tribes, has a zero tolerance for pesticide use. Ms. Gesinghaus stated that they do not have enough information on pesticide use. The Tribal Council asked Interfor to come to the general meeting and make a presentation, but Interfor declined; no invitation was sent to MELP. Ms. Gesinghaus stated that there first needs to be an agreement on what consultation means before it can occur. When cross-examined by the Respondent, she stated that zero tolerance does not mean that they will not

talk about pesticides. Ms. Gesinghaus stated that the Tribal Council issues a Communication Protocol to industry operating on traditional lands, specifying that industry is to contact both the Tribal Council and the particular First Nation affected. When cross-examined by counsel for Raincoast, Ms. Gesinghaus stated that there is zero tolerance for a pesticide until it is proven safe to people and the environment. Asked by the Panel what would happen if they could not be convinced of safe use, Ms. Gesinghaus stated that there would be "total confrontation". Ms. Gesinghaus stated that, if not convinced that a pesticide is safe, the Tribal Council would not discuss details of pesticide use. Ms. Gesinghaus stated that she felt that the concerns of the First Nation were being ignored.

Ms. Nicholson testified as to what happened at the meeting between the Band Council and the Respondent. She stated that she had been assured the meeting was for information purposes only, and was not consultation. When asked by the Respondent, she stated that consultation is defined as meaningful discussion, not consent. Ms. Nicholson also stated that the Band is reluctant to give traditional use information because, in the past, anthropologists used that type of information against them.

The Permit has several conditions geared to addressing First Nations' concerns:

- B. Notice of planned project commencement dates and maps showing blocks designated for treatment must be provided to the Tsawataineuk First Nation in Kingcome Inlet at least 2 weeks prior to the beginning of spray operation in each year of the permit.

...

- W. When the permittee has been provided information of sites where traditional use of medicinal plants or wild berries has been verified or where treatment would threaten the overall use of these resources within the permit area, no foliar spraying shall occur in these sites within 5 metres (horizontal distance) of:
 - i) berry bearing plants (those with berries used for human consumption) between the time of flowering and the point at which berries would no longer be fit for picking.
 - ii) medicinal plants such as stink current, Alaskan blueberry, devil's club, balsam fir, bog cranberry and other such plants, which the permittee knows to be gathered in the area.

While witnesses for the Band Council, the Respondent, and Interfor testified as to the facts, none of the parties made legal argument as to what constitutes adequate consultation at law, or how the facts apply to the law. Without the benefit of argument on these points, the Panel is unable to make a decision on whether adequate consultation occurred. However, the Panel does have concerns about the amount of communication that occurred between the parties prior to the issuance of the Permit. There appears to be a certain amount of frustration experienced by

all parties. The Respondent stated that MELP had difficulty communicating with the Band. The Panel also heard evidence that the Band is located in a very remote location, which appears to make communicating with the other parties, as well as other bands, difficult.

Despite the Panel's inability to make a finding on whether adequate consultation occurred, the Panel is of the view that better communication should take place in the future. In this regard, the timelines for communicating with the First Nation, pre-permit and post-permit, must adequately take into consideration the remote location of the First Nation.

DECISION

In making this decision, the Panel of the Environmental Appeal Board has considered all relevant documents, evidence and submissions made at the hearing, whether or not they have been specifically reiterated here.

The Panel finds that there will not be an unreasonable adverse effect as a result of spraying under the Permit.

The appeal is dismissed.

Jackie Hamilton, Panel Member
Environmental Appeal Board

May 2, 2001