



Environmental Appeal Board

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APPEAL NOS. 2001-PES-05/06/07/11 and 2001-PES-010

In the matter of appeals under section 15 of the *Pesticide Control Act*, R.S.B.C.
1996, c.360.

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| BETWEEN: | Rianne Matz | APPELLANT |
| AND: | Lindy LeBlanc | APPELLANT |
| AND: | Deputy Administrator, Pesticide Control Act | RESPONDENT |
| AND: | Weyerhaeuser Company Limited and Weyerhaeuser Company Limited, doing business as Northwest Hardwoods Delta | PERMIT HOLDERS |
| BEFORE: | A Panel of the Environmental Appeal Board Alan Andison, Chair Jo Dunaway, Member Fred Henton, Member | |
| DATE: | January 21, 2002 | |
| PLACE: | Powell River, B.C. | |
| APPEARING: | For the Appellant Rianne Matz: Rianne Matz For the Permit Holder: Rod Tysdale | |

APPEAL

Rianne Matz appealed the decisions of H.G. Maxwell, Deputy Administrator, *Pesticide Control Act* (the "Deputy Administrator") to issue four pesticide use permits (the "Permits") to Weyerhaeuser Company Limited ("Weyerhaeuser"). Pesticide Use Permits 240-071-01/03 and 240-072-01/03 were issued to Weyerhaeuser on July 24 and 31, 2001, respectively. Pesticide Use Permits 574-017-01/03 and 574-018-01/03 were issued to Weyerhaeuser, doing business as Northwest Hardwoods Delta, on August 7 and 21, 2001, respectively. The Permits authorize application of the pesticides Vision (active ingredient glyphosate) and Release (active ingredient triclopyr) to vegetation in a number of cutblocks located near Powell River, B. C., for silviculture purposes.

The jurisdiction of the Environmental Appeal Board to hear these appeals is found in section 15 of the *Pesticide Control Act* (the "*Act*"), and section 11 of the *Environment Management Act*. The Board's authority under section 15(7) of the *Act* is as follows:

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.

Ms. Matz requests that the Board reverse the decisions to issue the Permits. Alternatively, she requests that the Board send the matter back to the Deputy Administrator with directions to amend the Permits.

Lindy LeBlanc also appealed Permit 574-018-01-03. However, Ms. LeBlanc did not appear at the appeal hearing, nor did she submit a Statement of Points in advance of the hearing. Accordingly, the Panel will not consider her appeal further.

BACKGROUND

Weyerhaeuser is required under the *Forest Practices Code of British Columbia Act* (the "*Code*"), to reforest areas where it has harvested timber. After a harvested area has been restocked with seedlings of commercially desirable conifers, the seedlings compete with other plants, such as shrubs and deciduous trees. Reforestation must meet standards set out in silviculture prescriptions and the *Code*. Competing vegetation can cause seedlings to grow too slowly or die, which may result in failure to meet the restocking standards or timelines set out in a silviculture prescription. Failure to meet reforestation objectives can result in monetary penalties and a reduction in future timber supply. A variety of methods, including pesticide treatments or manual brushing, may be used to control the undesirable competing vegetation, depending on the circumstances.

Under section 6 of the *Act* and sections 10(1)(a) and (2) of the *Pesticide Control Act Regulation*, B.C. Reg. 319/81 (the "*Regulation*"), no one may apply a pesticide to a body of water or an area of public land unless the person holds a pesticide use permit or an approved pesticide management plan, and applies the pesticide in accordance with the terms of the permit or plan. Pesticide use permits are issued for a period of three years or less, and authorize the use of pesticides in specific areas.

On January 18, 2000, Weyerhaeuser (doing business as Northwest Hardwoods Delta) applied for Permits 574-017-01/03 and 574-018-01/03, for the purposes of site preparation and brush control in cutblocks near Okeover Inlet and Theodosia River, respectively.

Notices of the two permit applications were published in the Powell River Peak newspaper on February 5, 2000. In addition, the Deputy Administrator circulated the permit applications to representatives of the Regional Pesticide Review Committee, which consists of technical experts from various federal and provincial ministries and agencies. The Ministry of Forests' Sunshine Coast Forest District office in Powell River stated that it had no concerns about the permit applications. In a letter dated March 22, 2000, the Coast Garibaldi Health Services Society requested that the Deputy Administrator include standard conditions to ensure that the pesticides are not allowed to contaminate drinking water or food used for human consumption, and are not applied in a manner that could result in external or respiratory exposure to humans. No specific responses were received from Environment Canada or Habitat Protection staff with the Ministry of Environment, Lands and Parks (now the Ministry of Water, Land and Air Protection) (the "Ministry"). However, the Pesticide Management Technical Reports for the permit applications, which were prepared by Jeff Fournier, R.P.F., a Pesticide Management Officer with the Ministry, indicate that the "standard pesticide free zone establishment guidelines" previously provided by Environment Canada should be used. The Pesticide Management Technical Reports also indicate that the "default for input" from Habitat Protection staff is the Ministry's *Draft Regional Guidelines for Forest Herbicide Applications*.

The two permit applications were also circulated to the Sliamon First Nation. The Pesticide Management Technical Reports indicate that Weyerhaeuser met with Chief Maynard Harry, and no site-specific potential impacts on traditional aboriginal activities were identified.

The Pesticide Management Technical Reports also indicate that a number of local individuals and groups sent letters to both the Deputy Administrator and Weyerhaeuser. These letters expressed various concerns about the permit applications, but the Pesticide Management Technical Reports indicate that they did not provide site-specific reasons for rejecting the permit applications. The Deputy Administrator also received one petition (containing over 100 signatures) opposing both permit applications, and two petitions (together containing over 125 signatures) opposing the application for Permit 574-018-01/03 (Okeover Inlet). In addition, Ms. Matz sent a letter expressing her concerns to the then Minister of Environment, Lands and Parks. Citizens also voiced their concerns with a local MLA, who discussed the permit applications with the Minister. A public protest also occurred at the Sunshine Coast Forest District office in Powell River concerning Weyerhaeuser's proposed pesticide use.

The Pesticide Management Technical Reports for the permit applications indicate that Weyerhaeuser consulted with a number of concerned citizens, including Ms. Matz, in an attempt to address their concerns, and offered to take citizens on field inspections of the areas to be treated. The Pesticide Management Technical Reports indicate that citizens participated in a joint inspection of the Okeover Inlet area (Permit 574-018-01/03), but declined to participate in an inspection of the Theodosia River area.

On February 4, 2000, Weyerhaeuser applied for the other two pesticide use permits that are the subject of these appeals: Permits 240-071-01/03 and 240-072-01/03. Both permit applications were for the purposes of site preparation and brush control in harvested areas within Weyerhaeuser's Stillwater Division.

Notices of the permit applications were published in the Powell River Peak on March 18 and 25, 2000. As with the previous two permit applications, the Deputy Administrator circulated the two permit applications to representatives of the Regional Pesticide Review Committee. Again, no specific responses were received from Environment Canada or the Ministry's Habitat Protection staff, but the standard guidelines developed by those agencies were considered by the Deputy Administrator. Representatives from the Sunshine Coast Forest District indicated they had no concerns about the permit applications. The Coast Garibaldi Health Services Society asked whether First Nations' comments were expected.

The Pesticide Management Technical Reports for these permit applications indicate that Weyerhaeuser contacted representatives of the Sliammon First Nation, Klahoose First Nation and Sechelt Indian Band, and no site-specific impacts on traditional aboriginal uses were identified by these groups. The Sechelt Indian Band expressed opposition to any pesticide use. However, it was later determined that the area covered by Permit 240-071-01/03 is outside of the Sechelt Band's traditional territory.

With respect to responses from the general public, the Pesticide Management Technical Reports indicate that the Powell River Regional District passed a motion that it had no objection to issuance of the two Permits. In addition, a number of community members, including Ms. Matz, wrote letters to the Deputy Administrator, expressing various concerns about the proposed pesticide use. However, the Pesticide Management Technical Reports indicate that these letters did not provide site-specific reasons for rejecting the permit applications. The Deputy Administrator also received a petition with "hundreds" of signatures opposing the use of pesticides in Weyerhaeuser's Stillwater Division operating area. Ms. Matz wrote to the then Minister of Environment, Lands and Parks to express her concerns about the permit applications.

On September 29 and 30, 2000, Weyerhaeuser sponsored a public open house to provide information and discuss the community's concerns about all four permit applications. The open house included a display, an information session about the company's brushing practices, and a forum where technical experts with opposing perspectives on pesticide use made presentations and answered questions from the audience.

On July 24 and 31, 2001, respectively, the Deputy Administrator issued Permits 240-071-01/03 and 240-072-01/03. Permit 240-071-01/03 applies to 10 cutblocks in the Goat Island, Olsen, Powell Daniels and Theodosia Inlet areas. It authorizes the use of Vision on five of those cutblocks (total treatment area: 107.4 hectares), and the use of Release on nine cutblocks (total treatment area: 208 hectares). Permit 240-072-01/03 applies to 14 cutblocks in the Goat Lake, Powell Lake and

Lois Lake areas. It authorizes the use of Vision on five cutblocks (total treatment area: 101 hectares), and the use of Release on 12 cutblocks (total treatment area: 285.3 hectares).

The other conditions and restrictions listed in these 2 Permits are virtually identical. Under condition I of both Permits, the use of Vision is to be "primarily directed towards control of *Rubus spp.*, bracken fern, fireweed and red alder." Under condition J, the use of Release is to be "primarily directed toward the control of Bigleaf maple, cherry and red alder." Under condition L, Vision may be applied only by using ground foliar (power nozzle and backpack) techniques. Vision shall only be applied within 1.5 metres of crop trees during brushing, and within 1.5 metres of crop trees or potential planting spots during site preparation (condition M). Release shall be applied only by using basal bark techniques (condition O).

On August 7 and 24, 2001, respectively, the Deputy Administrator issued Permits 574-017-01/03 and 574-018-01/03. Permit 574-017-01/03 applies to four cutblocks in the Theodosia River area. It authorizes the use of Vision on all 4 cutblocks (total treatment area: 52.7 hectares), and the use of Release on 3 cutblocks (total treatment area: 60.2 hectares). Permit 574-018-01/03 applies to 1 cutblock in the Okeover Inlet area. It authorizes the use of Vision on a 13.9 hectare treatment area, and the use of Release on a 34.5 hectare treatment area.

Under both Permits, the use of Vision is to be "directed towards control of *Rubus spp.*, red alder, elderberry and Bigleaf maple" (condition I), and the use of Release is to be "directed toward control of Bigleaf maple and red alder" (condition J). Vision may be applied only by using ground foliar backpack techniques (condition M). Vision shall only be applied within 1.5 metres of crop trees during brushing, and within 1.5 metres of crop trees or potential planting spots during site preparation (condition N). Release shall be applied only by using basal bark techniques (condition O).

All of the Permits expire on December 31, 2003. Other relevant terms of all 4 Permits are as follows:

- B. To allow inspection by the public, the permittee shall, within 7 days of permit issuance, post a copy of the permit with relevant maps at the permittee's office at.... The posted permit and maps shall remain at that location until the pesticide use has been completed.
- C. Notification of intent to commence pesticide use shall be provided to the Deputy Administrator at least three working days immediately prior to the commencement of the pesticide use in each calendar year of the term of the permit.
- E. Prior to pesticide use, the applicant shall provide pesticide applicators with maps of sufficient detail that accurately describe the location of any water intakes and waterbodies that could potentially be impacted by pesticide use. These maps should also

contain the location of pesticide-free zones or buffers that are needed to protect water quality.

- F. All personnel involved in pesticide use shall be notified of the terms and conditions of the permit, and any permit amendments, prior to pesticide use.
- G. Prior to pesticide use, signs shall be posted at main access points to the pesticide use area advising of the use and shall be maintained for a period of one week from the date of the pesticide use...

(Condition G of Permit 574-018-01/03 contains the additional requirement that "Signs shall also be posted and maintained on the Okeover Trail at points where trail initially comes within 10 metres of areas where pesticide use is planned or has occurred.")

- P./Q. A minimum 10 metre (horizontal distance) pesticide-free zone shall be established upland from the high water mark of all wet or dry S1-S4 streams, wet S5 and S6 streams, wetlands, lakes (as defined in the *Forest Practices Code of British Columbia Act – Operational Planning Regulation*) and wet surfaces of seepage areas. In areas where Release is to be used, pesticide free zones are required on dry S5 and S6 creeks.
- Q./R. Pesticides shall not be used within 2 metres of the high water mark of temporary freestanding water that does not otherwise drain into creeks, lakes or wetlands areas.
- R./S. Pesticides shall not be applied within the riparian reserve zone of any water-body unless authorized in writing by a designated environment official per the *Silviculture Practices Regulation – Forest Practices Code of British Columbia Act*.
- S./T. A minimum 30 metre pesticide-free zone shall be maintained around all domestic or agricultural water intakes or wells.
- T./U. The boundaries of pesticide-free zones, riparian reserve zones or buffer zones directly adjacent to areas where pesticide use is proposed shall be clearly marked before pesticide use commences.

(Condition V of Permit 574-018-01/03 contains the additional requirement that "The Okeover Trail, including the trail surface and 3.0 m on either side of the surface, shall be established as a pesticide-free zone. During periods of pesticide use and for a period of 1 week following use, an alternate trail location shall be provided so that persons may avoid the general pesticide use area.")

- U./V./W. Pesticides shall not be applied to any vegetation that has water flowing off its foliage or down its stem.

V./W./X. Adequate buffer zones shall be established to protect all pesticide-free zones.

W./X./Y. Pesticides shall not be applied to seepage areas that are greater than 20 metres by 20 metres in size that are dominated by skunk cabbage and Indian hellebore plant communities or that are otherwise unlikely to support crop trees.

Permits 240-071-01/03 and 240-072-01/03 contain the following condition:

W. Foliar application of pesticides shall not be used when wind speeds exceed 8 km/hr.

Permits 574-017-01/03 and 574-018-01/03 contain the following conditions:

X./Z. Foliar application of pesticides is limited to vegetation foliage that is within 2.5 metres above the ground and conditions when wind speeds are less than 8 km/hr.

Y./AA. Pesticide use may only occur in areas where all creeks, within or directly adjacent to the proposed pesticide use area, have been clearly mapped with wet and dry sections delineated.

On August 22, 2001, Ms. Matz appealed Permits 240-071-01/03, 240-072-01/03 and 574-017-01/03. On September 11, 2001, she also appealed Permit 574-018-01/03.

By a letter dated December 11, 2001, the Deputy Administrator advised the Board that he would not be participating in the appeals.

On January 18, 2002, Weyerhaeuser advised Ms. Matz that in 2001, it had applied Release on 68.7 hectares in 3 cutblocks under Permit 240-071-01/03, and 83.1 hectares in 6 cutblocks under Permit 240-072-01-03. Weyerhaeuser also advised that it had applied Vision on 11.2 hectares in 1 cutblock under Permit 574-017-01/03.

In her submissions, Ms. Matz raises a number of concerns about the Permits, which may be summarized as follows:

- The Permits are flawed because they allow pesticide treatments to begin "immediately" despite the 30-day appeal period.
- These pesticides are due for re-registration by the federal government in 2002 and 2003, but the Permits extend beyond the time for re-registration.
- The use of pesticides under the Permits will have adverse effects on human health and the environment.

- These adverse effects are unreasonable, and alternative methods of vegetation control are available.
- Weyerhaeuser has ignored community values that oppose pesticide use.
- Weyerhaeuser refused to provide Ms. Matz with copies of internal documents that guide its decision-making in silviculture matters.

Weyerhaeuser opposes the appeals and requests that the Permits be upheld.

RELEVANT LEGISLATION AND CASE LAW

The following provisions of the *Act* are relevant to this appeal:

Pesticide must be applied in accordance with permit or approved plan

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.

Powers of administrator

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;

...

In addition, section 2(1)(a) of the *Regulation* states that no person shall "use a pesticide in a manner that would cause an unreasonable adverse effect." Section 1 of the *Act* defines "adverse effect" as "an effect that results in damage to humans or the environment."

Vision and Release are commercial herbicides registered under the federal *Pest Control Products Act*, R.S.C. 1985, P.-9. Under that Act, a pesticide must be registered before it can be sold, used, or imported into Canada, and a registered pesticide must be used in accordance with its label.

The British Columbia Court of Appeal has ruled that the Environmental Appeal Board can consider a registered pesticide to be generally safe when used in accordance with the label (*Canadian Earthcare Society v. Environmental Appeal Board* (1988), 3 C.E.L.R. (N.S.) 55) (hereinafter "*Canadian Earthcare Society*"). However, it is also clear that the fact that a pesticide is federally registered does not mean that it can never cause an unreasonable adverse effect.

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.) (hereinafter "*Islands Protection Society*") found that the Board should engage in a two-step process to determine whether a pesticide application would cause an unreasonable adverse effect. The first stage is to inquire whether there is any adverse effect at all. The second stage is, if the Board decides that an adverse effect exists, then the Board must undertake a risk-benefit analysis to ascertain whether that adverse effect is reasonable.

The Court of Appeal in *Canadian Earthcare Society* agreed with the following comments of the Supreme Court:

Should the Board find an adverse effect (i.e. some risk) it must weigh that adverse effect against the intended benefit. Only by making a comparison of risk and benefit can the Board determine if the anticipated risk is reasonable or unreasonable. Evidence of silvicultural practices will be relevant to measure the extent of the anticipated benefit. Evidence of alternative methods will also be relevant to the issue of reasonableness. If the same benefits could be achieved by an alternative risk free method then surely the use of the risk method would be considered unreasonable.

It is clear that the test for "unreasonable adverse effect" is site specific and application specific.

ISSUES

In deciding these appeals, the Panel has considered the following issues:

1. Whether all of the issues or concerns raised by Ms. Matz are relevant to the decisions under appeal and fall within the Board's jurisdiction.
2. Whether Weyerhaeuser breached the *Act*, the *Regulation*, or the Permits by applying pesticides before the end of the 30-day appeal period.
3. Whether the use of Vision, as authorized by the Permit, will cause an adverse effect on human health or the environment, and if so, whether the adverse effect is unreasonable.

DISCUSSION AND ANALYSIS

1. Whether all of the issues or concerns raised by Ms. Matz are relevant to the decisions under appeal and fall within the Board's jurisdiction.

Before considering the merits of these appeals, the Panel considered whether all of the issues or concerns raised by Ms. Matz relate to the decisions under appeal, and fall within the Board's jurisdiction. Section 15 of the *Act* sets out the Board's jurisdiction as follows:

15 (1) For the purpose of this section, "**decision**" means an action, decision or order.

(2) Any person may appeal a decision of the administrator under this Act, or of any other person under this Act, to the appeal board.

The "decisions" that have been appealed in this case are the Deputy Administrator's decisions to issue the Permits. Therefore, in deciding these appeals, the Panel will consider submissions that are relevant to those decisions. In particular, the Panel must determine whether the use of pesticides under the Permits will cause an unreasonable adverse effect on humans or the environment, as indicated by the relevant legislation and the decisions in *Canadian Earthcare Society* and *Islands Protection Society*, described above. Further, as noted above, a pesticide must be registered under the federal *Pest Control Products Act* before it can be used in Canada, and must be used in accordance with its label. There is no dispute that Vision and Release are registered under that Act. Accordingly, the registration of Vision and Release are federal matters, and the Board has no jurisdiction to consider submissions concerning the merits of their registration or their labels.

In light of those considerations, the Panel finds that some of the concerns raised by Ms. Matz are irrelevant to the decisions under appeal, or are otherwise outside of the Board's jurisdiction. First, Ms. Matz alleges that Weyerhaeuser refused to provide her with copies of internal documents that guide its decision-making in silviculture matters, but there is no information before the Panel to establish that these documents are relevant to the Deputy Administrator's decisions to issue the Permits. Second, Ms. Matz asserts that Weyerhaeuser ignored community values, but there is no information before the Panel to establish that Weyerhaeuser's attitudes towards community values had any bearing on the Deputy Administrator's decisions.

Finally, Ms. Matz asserts that the Permits are flawed because the federal re-registration for Vision and Release is due to occur before the Permits expire. However, the Panel notes that, if the re-registration process led to new restrictions in the labels for Vision or Release, and the new labels came into effect before the Permits expired, the new restrictions would apply to any use of those pesticides. Further, if the pesticides were de-registered, they could not be used in Canada under a pesticide use permit, and the Permits would no longer be valid in respect of these pesticides.

In summary, the Panel finds that the above issues or concerns raised by Ms. Matz are irrelevant to the appeals, or are otherwise outside of the Board's jurisdiction. Accordingly, the Panel will not consider those matters further.

2. Whether Weyerhaeuser breached the *Act*, the *Regulation*, or the Permits by applying pesticides before the end of the 30-day appeal period.

Ms. Matz submits that the Permits are flawed because they allow Weyerhaeuser to use pesticides "immediately" after receiving a permit. She submits that the purpose of the 30-day period for filing an appeal with the Board is to allow members of the public to become aware of the issuance of a permit and file an appeal. She submits that that purpose is undermined if treatments are allowed to occur during the 30-day period for filing an appeal.

Weyerhaeuser acknowledges that it applied pesticides under Permits 240-071-01/01, 240-072-01/03, and 574-017-01/03 in 2001.

Section 6(1) of the *Act* provides that, except as provided in the regulations, a person must not apply a pesticide unless the person holds a permit or an approved pest management plan. The Panel notes that neither the *Act* nor the *Regulation* restricts a permit holder from applying pesticides before the 30-day appeal period has expired. Further, under section 15(8) of the *Act*, an appeal "does not act as a stay or suspend the operation of the decision being appealed unless the appeal board orders otherwise." In this case, none of the parties requested a stay of the Permits, and no stay was issued by the Board. In addition, section 6(3)(a) of the *Act* provides that the Deputy Administrator "may include requirements, restrictions and conditions as terms of the permit." Therefore, in this case, Weyerhaeuser was authorized to apply pesticides under a particular Permit as soon as it received that Permit, subject to any Permit conditions indicating otherwise.

Although the Permits contain conditions requiring Weyerhaeuser to give notice of the Permits and its intention to use pesticides, none of the Permits contain a condition that requires Weyerhaeuser to wait until the end of the 30-day appeal period before applying pesticides. Condition B of the Permits requires that, "To allow inspection by the public, the permittee shall, within 7 days of permit issuance, post a copy of the permit with relevant maps at the permittee's office," but does not restrict Weyerhaeuser's ability to use pesticides after receiving a Permit. Condition C of the Permits requires Weyerhaeuser to notify the Deputy Administrator of its intent to use pesticides under a particular Permit, at least three days before the commencement of annual pesticide treatments under that Permit.

Ms. Matz submitted copies of three letters from Weyerhaeuser notifying the Ministry of its intention to commence pesticide treatments under two Permits in 2001. In a letter dated July 24, 2001, Weyerhaeuser advised that it intended to commence pesticide treatments in certain areas under Permit 240-071-01/03 on July 27, 2001. Given that Permit 240-071-01/03 was issued on July 24, 2001, the Panel concludes that Weyerhaeuser complied with condition C of that Permit.

In a letter dated July 27, 2001, Weyerhaeuser advised that it intended to commence pesticide treatments under Permit 240-072-01/03 on August 1, 2001. Although that Permit was not issued until July 31, 2001, Weyerhaeuser advised in a subsequent letter dated August 2, 2001, that it intended to commence pesticide treatments under that Permit on August 7, 2001. Based on this evidence, and in the absence of evidence to the contrary, the Panel is satisfied that Weyerhaeuser complied with condition C of that Permit.

There is no evidence that Weyerhaeuser breached condition C with regard to Permit 574-017-01/03.

Further, there is no evidence that Weyerhaeuser breached condition B of the Permits.

In summary, the Panel finds that Weyerhaeuser did not breach the *Act*, the *Regulation*, or the Permits by applying pesticides before the 30-day appeal period expired. Further, the pesticide treatments that occurred in 2001 did not render the appeal process moot, because the Permits are valid until December 31, 2003, and only some of the areas covered by the Permits were treated in 2001.

3. Whether the use of Vision, as authorized by the Permit, will cause an adverse effect on human health or the environment, and if so, whether the adverse effect is unreasonable.

The case law and legislation referred to above indicate that Ms. Matz must first show that, at a specific site, the application of Vision or Release in accordance with the Permits will cause an adverse effect on human health or the environment. If the Panel decides that an adverse effect exists, then Ms. Matz must show that the adverse effect is unreasonable. Evidence of alternative methods is relevant to the issue of reasonableness.

Ms. Matz submits that the use of Vision and Release under the Permits will have adverse effects on humans and the environment. With respect to the environment, she submits that harm to the target vegetation itself is evidence of an adverse effect. She also maintains that the labels for the pesticides indicate that they are toxic to fish, aquatic plants, and aquatic invertebrates. She submits, therefore, that the "precautionary principle" should be in effect for all treatment areas around streams and water bodies. In addition, she submits that deciduous trees and berry-producing plants that are targeted for pesticide treatment provide forest diversity, as well as food sources and nesting sites for wildlife.

With respect to human health, Ms. Matz submits that the pesticides can cause skin and eye irritation, and members of the public could be harmed if they unknowingly entered an area that has been treated to pick berries or mushrooms. She also submits that potable water is drawn from Powell Lake.

Ms. Matz submits that these adverse effects are unreasonable because Weyerhaeuser can achieve the same results by using lower or no risk alternative methods, such as mechanical brushing and goat brushing.

In support of Ms. Matz's submissions with respect to adverse effects on aquatic species, John Keays testified that during the past two years, he has studied midge larvae in streams and lakes in B.C. and the Yukon. His observations of midge larvae in the Powell River area revealed a high level of deformity and a lack of diversity, with one species dominating. In his opinion, chemicals play a role in the declining health of the midge larvae. While he agreed that glyphosate and triclopyr are not carcinogens or mutagens, he is concerned about the effects of the surfactant chemicals in Vision and Release. He stated that a surfactant is a surface activated reagent that creates a physical effect upon contact. In the case of Vision, the surfactant reduces the surface tension between a droplet of herbicide spray and the surface of the plant that is sprayed, thereby facilitating the uptake of glyphosate by the plant. Mr. Keays is concerned that this process enables carcinogens and mutagens to enter organisms. However, Mr. Keays was unable to provide any evidence that herbicides have been detected in water bodies in the areas managed by Weyerhaeuser.

In support of Ms. Matz's submissions with respect to human health, Janet Blair gave evidence that, in summer 2001, a rash appeared on her legs several hours after she walked across a municipal lawn that had been sprayed with pesticides. The Panel was provided with photographs showing the rash. According to Ms. Blair, her doctor agreed that the rash was a result of contact with a pesticide sprayed on the lawn. However, Ms. Blair was unable to name the pesticide that was sprayed on the municipal lawn, and it is not known whether it was Vision or Release.

Lori Kemp testified in support of Ms. Matz's submissions concerning alternative methods. Ms. Kemp described a goat brushing pilot project that she had participated in with Weyerhaeuser in November 2001. She stated that goat brushing is a natural, non-chemical method that is employed around the world.

Weyerhaeuser submits that it applies pesticides in accordance with all relevant federal, provincial, and municipal laws and policies. It also submits that its foresters typically visit treatment sites two or three times before pesticide treatments occur, to assess whether the pesticides can be safely applied at that site. Weyerhaeuser described the procedures it follows to ensure that all permit conditions are followed and site-specific concerns are addressed during pesticide treatments.

Weyerhaeuser acknowledges that shifts in the vegetation in cutblocks occur as a result of pesticide use, but submits that these shifts are not permanent, and occur whether pesticides or some other method of brushing is used. Weyerhaeuser also submits that, while the effect on vegetation in a particular treatment site may be significant, it is important to consider that pesticides are used annually in only a small portion (0.001 per cent) of the area managed by the company.

Weyerhaeuser submits that it makes use of various methods of brush control, and bases its decisions for each year's brushing program on the characteristics of the sites being reforested, the treatment costs, the time of year, public concerns, and worker safety. Weyerhaeuser maintains that it has been proactive in investigating

and using alternatives to pesticides, such as manual girdling to control alder, and sheep and goat grazing, where appropriate. Weyerhaeuser provided statistics showing that it has greatly increased its use of manual brushing over the past 20 years.

Paul Kutz, a Registered Professional Forester with Weyerhaeuser, testified in support of Weyerhaeuser's submissions.

The Panel has considered whether the proposed use of Vision and Release is in accordance with label restrictions concerning water and aquatic species. The Panel has compared the relevant label restrictions to the pesticide use authorized in the Permits. The label for Vision 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.

Similarly, the label for Release states:

Release Silvicultural Herbicide is not registered for application to water surfaces including lakes, ponds and streams and is highly toxic to fish, aquatic plants and aquatic invertebrates. Do not overspray in such areas. In order to reduce the hazard of drift to sensitive areas... ensure that appropriate buffer zones are maintained...

These label restrictions recognize that Vision must not to be applied to water bodies inhabited by fish or used by humans for drinking water, and Release must not be applied to any water surfaces. The restrictions also indicate that both pesticides are harmful to aquatic species.

The Permits contain a number of conditions designed to prevent pesticides from entering water bodies that are inhabited by aquatic species or are used by humans for domestic or agricultural purposes. Specifically:

- Condition E requires Weyerhaeuser to provide pesticide applicators with maps showing the locations of water intakes and water bodies that could be affected by pesticide use, and the locations of pesticide-free zones or buffers. Further, condition Y or AA of Permits 574-017-01/03 and 574-018-01/03 specify that pesticide use may only occur in areas where creeks within or adjacent to treatment areas have been clearly mapped.
- Conditions P, Q, R, S, T, U, V, and in some cases W, X, and Y (depending on the lettering used in the Permit) require that: pesticide-free zones and buffer zones be established to protect water bodies, seepage areas, dry stream beds, and domestic or agricultural water intakes and wells; no pesticide shall be applied in the riparian reserve zones of any water body unless otherwise authorized by an environment official; the boundaries of pesticide-free zones, riparian reserve zones, and buffer zones must be clearly marked before

pesticide use; and, no pesticides shall be applied to vegetation that has water flowing off its foliage or down its stem.

- Condition W of Permits 240-071-01/03 and 240-072-01/03, and condition X or Z of Permits 574-017-01/03 and 574-018-01/03 prohibit foliar pesticide applications where wind speeds exceed 8 km/h.

The Panel finds that those conditions are consistent with label restrictions noted above. The Panel further finds that Ms. Matz has provided no evidence to establish that those Permit conditions will not provide adequate protection against the risk of Vision or Release entering water bodies through spray drift or direct application. Mr. Keays' evidence with respect to midges is not specific to the areas covered by the Permits, and does not establish that there is a causal link between the use of Vision or Release and his observations of declines or deformities in midge populations. Thus, in the absence of evidence to the contrary, the Panel is satisfied that these Permit conditions protect humans and the environment from any adverse effect that could occur as a result of these pesticides entering water bodies.

The Panel has also considered whether the permitted pesticide use may cause an adverse effect on the environment as a result of the loss of habitat or food plants for wildlife. The Panel finds that Ms. Matz has provided no site-specific evidence to establish that the permitted pesticide use will have an adverse effect on wildlife. The Panel accepts Weyerhaeuser's evidence that a very small proportion of the areas it manages is treated with pesticides in any year. Further, all four Permits contain conditions that restrict the area to which pesticides may be applied. Specifically, Vision may be applied only by using ground foliar backpack techniques within 1.5 metres of crop trees during brushing, and within 1.5 metres of crop trees or potential planting spots during site preparation. Release is to be applied using only basal bark techniques. These conditions ensure that only vegetation that directly competes with conifer seedlings will be treated. Accordingly, the Panel concludes that Ms. Matz has not established that the use of Vision and Release under the Permits will have an adverse effect on wildlife.

The Panel has considered whether the permitted pesticide use may cause an adverse effect on humans as a result of skin contact or people unknowingly entering a treated area to pick berries or mushrooms. The Panel finds that Ms. Blair's evidence provides no assistance because it does not relate to the Permits, and Ms. Blair did not know what pesticide she was exposed to. In addition, the Panel notes that the Permits contain conditions that are specifically designed to allow people to avoid areas where pesticides are used, both during treatments and for a reasonable period after treatments have concluded. Condition G of the Permits requires that, prior to pesticide use, signs must be posted at the main access points to pesticide treatment areas. The signs must be maintained for one week after pesticide use is completed. Further, conditions G and V of Permit 574-018-01/03 require that: a 3 metre pesticide-free zone must be established around the Okeover Trail; signs must be posted on the Trail where it approaches areas that have been or will be treated; and, an alternate path must be provided during, and for one week after, pesticide use. Thus, in the absence of evidence from Ms. Matz

to the contrary, the Panel finds that the use of pesticides in accordance with the Permits will not have an adverse effect on human health.

Finally, the Panel notes that Ms. Matz provided no evidence that Weyerhaeuser is unable to apply the pesticides in accordance with their labels or the conditions of the Permits.

For all of these reasons, the Panel concludes that Ms. Matz has failed to establish that the use of pesticides in accordance with the Permits will cause an adverse effect on the environment or humans. Therefore, as stated by the Honourable Justice Legg in *Islands Protection Society*, "that is the end of the inquiry," and there is no need for the Panel to undertake a risk-benefit analysis to ascertain whether any adverse effect is "unreasonable," including determining whether alternatives to pesticide use are available in this case.

DECISION

In making its decision, the Panel has carefully considered all the evidence presented to it during the hearing of this appeal, whether or not specifically reiterated here.

For the reasons given above, the Panel confirms the Deputy Administrator's decisions to issue the Permits. The appeals are dismissed.

Alan Andison, Chair
Environmental Appeal Board

May 29, 2002