

# Environmental Appeal Board

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## APPEAL NO. 2001-PES-003(a)

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:	Josette Wier		APPELLANT
AND:	Deputy Administrator, Pesticide Control Act <b>RESPONDEN</b>		
AND:	Minister of Forests, Morice Forest District <b>PER</b>		PERMIT HOLDER
BEFORE:	A Panel of the Environmental Appeal Board Alan Andison, Chair		
DATE:	June 17-20, 2002		
PLACE:	Smithers, B.C.		
APPEARING:	For the Appellant: For the Permit Holder:	Thomas R. Buri, Q.C., Counsel Susan Ross, Counsel	

#### APPEAL

Josette Wier appeals the decision of the Deputy Administrator, Pesticide Control Act, to issue Pesticide Use Permit No. 402-582-01/03 (the "Permit") to the Minister of Forests, Morice Forest District (the "Permit Holder"). The Permit authorizes the use of monosodium methane arsenate ("MSMA"), sold under the trade name "Glowon", to control spruce bark beetle and mountain pine beetle in the Morice Forest District (the "District") and Tweedsmuir Provincial Park.

The Environmental Appeal Board has the authority to hear the appeals under section 11 of the *Environment Management Act*, R.S.B.C. 1996, c. 118, 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.
- Ms. Wier requests that the Permit be rescinded.

#### BACKGROUND

On November 10, 2000, the Permit Holder applied for the Permit as part of its strategy for controlling and containing the spread of bark beetles, including the spruce bark beetle and the mountain pine beetle in the District and Tweedsmuir Provincial Park. Bark beetles are small insects that kill mature trees by boring into the tree and laying eggs under the bark, in the area known as the phloem. After they hatch, the larvae mine the phloem area, eventually cutting off the tree's supply of water and nutrients. Once the beetles mature, they emerge and fly to neighbouring trees to lay their eggs. In recent years, bark beetle populations in the central interior of British Columbia have increased dramatically.

Before the Permit was issued, the Permit Holder sent information concerning its application for the Permit to various local groups and individuals, and local First Nations bands. A notice of the application was also published in local newspapers. Parties were also invited to attend workshops and meetings. A field tour was also conducted with elders of the Wet'suwet'en First Nation.

The Permit was issued subject to a number of conditions. Under condition "E" of the Permit, the Permit Holder is authorized to apply MSMA to individual bark beetle infested trees using the injection method. This involves injecting the pesticide into cuts made at the base of the tree. The pesticide is then transported upwards in the tree through the tree's natural processes of moisture and nutrient flow. The pesticide kills bark beetle larvae present in the injected tree.

Condition "C" of the Permit allows MSMA to be applied at a maximum rate of "0.25 ml per 2.5 cm" for spruce bark beetle, and "1 ml per 2.5 cm" for mountain pine beetle. A maximum quantity of 3315.84 kg a.i. (kilograms of active ingredient) of the pesticide may be applied over a total area of 312.5 hectares. (A hectare is considered to contain 480 trees. Accordingly when 312.5 hectares is multiplied by 480 the result is 150,000 trees that have been approved for treatment under the Permit.) Condition "F" allows the pesticide applications to occur during the period from May 14, 2001 to October 31, 2003, subject to limitations in the pesticide label.

The following Permit conditions are also relevant to this appeal:

- A. The permittee shall without delay post a copy of the permit with relevant maps at the premises of the permittee to allow inspection by the public. The posted permit and maps shall remain for at least 30 days.
- B. Signs shall be posted on each tree that is treated with pesticide.

...

I. All pesticide use shall be carried out by or under the direct supervision of an individual with a valid British Columbia Pesticide Applicator Certificate in the forest management category.

...

L. Applicators shall provide adequate buffers to ensure that the pesticide-free zone is established and maintained.

•••

- N. A minimum 10 metre pesticide-free zone shall be established and maintained adjacent to the high water perimeter of all stream courses and waterbodies. The pesticide-free zone shall be clearly marked prior to treatment.
  Applicators shall establish and maintain whatever size buffer zone that the topography and climatic conditions require to ensure that the minimum 10 metre pesticide-free zone is achieved. It is recognized that the permit holder will voluntarily apply a minimum 30 metre no treatment zone adjacent to all waterbodies.
- O. No pesticide application may be conducted unless all domestic water intakes and wells within 30 metres of the treatment area have been identified by the permittee and mapped.
- P. A minimum 30 metre pesticide-free zone shall be established and maintained around all intakes or wells used for domestic or irrigation purposes.
- Q. Prior to commencing pesticide application, the Permittee shall notify all persons using or known to use domestic or irrigation water intakes and wells within 30 metres of a proposed treatment site of the proposed treatment location(s) and time of treatment.
- R. MSMA treatments shall not be conducted within any Riparian Reserve Zone, as defined in the Forest Practices Code or in any Protected Area. If treatments are necessary in the Riparian Reserve Zone, approval of a Designated Environment Official is required prior to commencing treatment. If treatments are necessary within a Protected Area, approval from BC Parks is required prior to commencing treatment.

Ms. Wier contends that the use of MSMA in accordance the Permit will result in adverse effects on the environment and human health. During the hearing, counsel for Ms. Wier also argued that the Supreme Court of Canada's decision in *114957 Canada Ltee. (Spraytech, Societe d'arrosage)* v. *Hudson (Town)*, [2001] S.C.J. 42, affects the two-step test which has generally been applied by the Board in determining whether there is an adverse effect as defined in the *Act*.

The Permit Holder submits that the Permit should be confirmed and the appeal dismissed.

The Deputy Administrator takes no position on the appeal and did not appear at the hearing.

# ISSUES

This appeal raises the following issues:

- 1. Whether the majority decision in *114957 Canada Ltee. (Spraytech, Societe d'arrosage)* v. *Hudson (Town)*, [2001] S.C.J. 42 affects the legal test applied by the Board in pesticide appeals.
- 2. Whether the use of pesticides authorized by the Permit will have an adverse effect on human health or the environment and if so, whether that adverse effect is unreasonable in the circumstances.

# RELEVENT LEGISLATION

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

- **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 *Pesticide Control Act Regulation*, B.C. Reg. 319/81 (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."

#### **EVIDENCE AND ARGUMENT**

#### Appellant's evidence

The Appellant submits that the application of MSMA to control mountain pine and spruce bark beetles will have an unreasonable adverse affect on humans and the environment.

In support of that submission Dr. William R. Cullen, Ph.D. Chemistry and a Professor Emeritus in the Chemistry Department at the University of British Columbia, gave expert evidence about the toxicology of arsenic in general and MSMA in particular. Dr. Cullen explained that arsenic is naturally present in the environment. However, Dr. Cullen explained that recent scientific studies have shown that the arsenic compounds found in MSMA are acutely and chronically toxic. In particular, Dr. Cullen gave evidence that when the arsenic compounds found in MSMA are methylated in humans the results are carcinogenic.

Dr. Cullen referenced studies that reported very high levels of arsenic found in the urine of forestry workers who had applied MSMA during the 1970's in the United States. He further referenced recent studies regarding the effects of arsenic on humans and specifically a study entitled *Recent Advances in Arsenic Carcinogenis* authored by Kirk T. Kitchen in 2001, which he described as an important paper. That paper concludes that when arsenic is methylated in the human body "it is known to cause cancer – skin, lung, urinary bladder, liver and kidney."

Dr. Cullen further explained that arsenic would enter the human body by being ingested or through an open sore. It is not absorbed through the skin. He submitted that with sufficient protective clothing it can be applied safely but that further studies are needed on the impacts of MSMA on workers who work with it.

Dr. Cullen concluded that arsenic is a major problem and is considered the number one toxin of concern in the United States. He stated that, in his opinion, the use of this product poses a risk to human health or the environment.

Ms. Wier, who is a medical doctor by training, also gave evidence in support of her appeal. Much of Ms. Wier's evidence involved her attempts to have the Pesticide Management Regulatory Agency reconsider its decision to register MSMA in Canada. In addition, she described her discussions with provincial government officials respecting the approval of this Permit.

Ms. Wier expressed concern that toxic substances move through the environment once they have been applied. She is concerned that wild animals may be exposed to the arsenic. In particular, she spoke of mountain goats and woodpeckers. However, Ms. Wier had no evidence of site specific concerns arising out of the use of MSMA as authorized under the Permit.

She also submitted that the volumes of MSMA allowed under the Permit are excessive for the areas to be treated. She advised that she had recently flown over the treatment area and could see little evidence of beetle damage.

Finally, Ms. Wier stated her concern about the effects of pesticides, and MSMA in particular, on children should they be exposed to these toxic substances.

Dr. Arthur Partridge also gave expert evidence on behalf of the Appellant. Dr. Partridge holds a Ph.D. in Forestry, specializing in plant pathology and entomology. Dr. Partridge explained that he takes a holistic approach to forestry. He submitted that bark beetles attack trees that are pre-disposed to being invaded. These are trees that are already weakened by such causes as a high water table, fungus, root insects, climate change and rust.

Dr. Partridge stated that, in his opinion, the program for beetle control that is being carried out under the Permit is missing baseline information that should have been determined before the Permit was issued. Specifically, he was concerned that there was insufficient information regarding the condition of the forest before the beetles arrived, a lack of information regarding when the beetles arrived in the area, no information about the pre-disposition of the forest to beetle attack, no information regarding the predators in the area, including parasites and woodpeckers.

Dr. Partridge further explained that bark beetle infestations occur in cycles of three to ten years. He expressed concern that there was insufficient information about where in the cycle the current infestation is. This is important because treatment of the beetles after the cycle has peaked will be ineffective because the beetle population will decline on its own. He also noted that up to 40% of trees will survive an attack.

Dr. Partridge acknowledged that MSMA can be part of a beetle control strategy. However, he stated that it should only be used in very localized situations. He also expressed concern that the use of MSMA would affect other predators and parasites of the bark beetle.

Finally, Dr. Partridge recommended that the best way to control bark beetle infestations is through proper management of the forest. This can be accomplished by spacing trees, 18 feet apart for lodge pole pine trees, and keeping the forest floor in a healthy condition.

## Permit Holder's evidence

The Permit Holder did not contest the evidence from Dr. Cullen regarding the chemical affects of arsenic.

However, Dr. Laszlo Safranyik gave expert evidence on insect population dynamics, forest entomology and insect management. Dr. Safranyik holds a Ph.D. in Zoology and Forestry, and wrote his Ph.D. dissertation on the sampling of mountain pine beetle populations in lodgepole pine.

Dr. Safranyik explained that spruce beetles and mountain pine beetles are different and must be managed differently. The spruce bark beetle emerges in the spring and the mountain pine beetle emerges in the summer. The similarities between these two types of beetles are that they are injurious to mature forests, they emerge over a short period of time and attack single trees en masse thus preventing the tree from combatting the attack, they attack the largest part of the stem and, under epidemic and endemic situations, they attack the trees that are most able to combat an attack.

Dr. Safranyik stated that for each tree that is attacked and left untreated, three other trees will be attacked when the beetles next emerge. He explained that it is difficult to track where the beetles will attack as they rise above the canopy of the forest and drift with the wind for many kilometres. When they land they quickly recolonize a new area of the forest.

Dr. Safranyik agreed with Dr. Partridge that long term management of the forest is the best method of beetle control. However, Dr. Safranyik stated that when landscape level infestations occur, long term management won't work. He was of the opinion that the current infestation was a landscape level infestation. In such circumstances, it is necessary to control the beetle population to save the trees. He compared it to a forest fire situation.

In Dr. Safranyik's opinion, under these circumstances there are three methods of control including logging, MSMA treatment and fall and burn. He stated that MSMA is 90% effective on the trees to which it is applied.

Dr. Safranyik also explained that natural enemies of the bark beetles are ineffective during an epidemic situation. In particular, he noted that woodpeckers are effective predators but, because they are very territorial, they are unable to control the beetles when there is a population explosion. He also noted that woodpeckers feed on the natural enemies of the bark beetles.

Three Ministry of Forests employees also gave evidence on behalf of the Permit Holder: Peter Hall, Provincial Forest Entomologist; Ken White, Prince Rupert Region Regional Forest Entomologist and Dave Nakashoji, Morice Forest District Field Operations Supervisor.

Mr. Hall explained that the Ministry has a province wide strategy to respond to bark beetle infestations. He noted that extensive bark beetle infestations kill timber, impact forest management, result in loss of wood from the AAC (Allowable Annual Cut), impact wildlife corridors, impact forest hydrology and increase fire hazard if the trees are left standing.

Mr. Hall advised that there are 800,000 hectares of beetle infested forest in the province and that the District has the largest outbreak, with patches of varying levels of infestation. He explained that there are generally three zones of infestation which he described as the extreme zone, the sanitation zone and the aggressive management zone. The extreme zone receives no treatment except that the forest is salvaged for as much timber as possible. The sanitation zone is managed through harvesting and some single tree treatment (MSMA treatment and fall and burn). The aggressive zone is managed through all manners of treatment

including harvesting, MSMA treatment and fall and burn. He stated that most of the District is covered by the two lower zones.

Mr. Hall advised that, of the three means of treatment, harvesting is the preferred method. Single tree treatment represents only a small percentage of the treatment program.

Mr. White gave evidence that the spruce bark beetle is found in the north part of the District and that the mountain pine beetle is found in the south part of the District and in Tweedsmuir Park. According to Mr. White, the District is approximately 1.5 million hectares in size and the bark beetle infestation is on the increase in the District.

He advised that a "Bark Beetle Strategy" was prepared for the District in June 2001 and that the District is broken up into 22 bark beetle management areas. Each of these areas is considered to be in the aggressive management zones. He further noted that Tweedsmuir Park now has heavy infestations of bark beetles and is no longer being considered for single tree treatment, including the use of MSMA.

Mr. White stated that during 2001, 20,000 trees equalling 14,000 cubic metres were treated with MSMA under the Permit. During the same period, 2 million cubic metres of infected trees were harvested in the District and 5,000 trees equalling 2,500 cubic metres were treated using the fall and burn method. He further advised that 100% of the harvest allowed in the District during 2001 was directed toward beetle infested trees.

Mr. White explained that treatment with MSMA costs the Ministry \$30.00 per tree, while treatment with the fall and burn method costs the Ministry \$75.00 per tree. Mr. White advised that MSMA treatment must be applied within 3 weeks of a tree being infected. This is generally in August or September for mountain pine beetles as the temperature must be above 18 degrees centigrade before the beetles fly. The MSMA treatment period for spruce bark beetles is between April and June of each year. He advised that the fall and burn method is used during winter so as not to cause a fire hazard. He described the fall and burn method as being more dangerous for workers as they are working on steep slippery slopes in the middle of the winter.

The fall and burn method involves cutting down the infected trees and then burning them to ensure that the beetle larvae are killed.

Mr. Nakashoji gave evidence that independent contractors are hired by the Ministry to carry out the application of MSMA. He explained that these contractors must comply with the safety standards set out on the pesticide label, as well as any safety conditions set out in the contract and in the Permit. He noted that the label is attached to the contract and the contractors are given a copy of the Permit. In addition, the Ministry holds pre-work meetings with the contractors at which time contractors are made aware of the specific requirements set out in the label and other safety requirements of the Ministry. Mr. Nakashoji advised that the pre-work meetings are also a term of the contract.

Mr. Nakashoji advised that he has been a certified pesticide applicator in the past and it is his experience that MSMA is only used in isolated spots such as rocky ridge tops and hills. He stated that he recommends that harvesting be used where possible to control beetle infestations but that some areas are not accessible to harvesting. In those instances single tree treatment is required.

Mr. Nakashoji stated that the Ministry's budget is also a concern when considering which treatment method to use. He advised that, due to his budget for 2002, less trees will receive MSMA treatment this year than those that received treatment in 2001.

Finally, Mr. Nakashoji provided the Panel with copies of notices that are posted when MSMA is used in a particular area. In addition, a notice is posted on each tree that receives MSMA treatment. These notices are printed on water proof paper. Mr. Nakashoji advised that during May of 2002, he saw one posting on a tree that dated back to 1989.

# DISCUSSION AND ANALYSIS

# 1. Whether the majority decision in *114957 Canada Ltee. (Spraytech, Societe d'arrosage)* v. *Hudson (Town)*, [2001] S.C.J. 42 affects the legal test applied by the Board in pesticide appeals.

The Board applies a two-step legal test in appeals of pesticide use permits and pest management plans issued under the *Act*. First, the Board determines whether the use of the pesticide in accordance with the permit or plan will cause an adverse effect on human health or the environment. If so, then the Board considers whether the adverse effect is unreasonable. The second step involves a risk-benefit analysis to determine whether the adverse effect is unreasonable. The test is site specific. For example, the Board may consider evidence of whether the pesticide can be used safely at a particular site.

The test is based on judicial interpretations of provisions in the *Act* and the *Regulation* which require the administrator of the *Act*, and the Board on appeal, to determine whether a proposed pesticide use will cause an "unreasonable adverse effect." The relevant cases are: *Canadian Earthcare Society* v. *Environmental Appeal Board* (1988), 3 C.E.L.R. (N.S.) 55 (B.C.C.A.) (hereinafter *Canadian Earthcare Society*); and, *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*).

Both cases involved judicial reviews of Board decisions in pesticide appeals. *Islands Protection Society* was issued shortly after *Canadian Earthcare Society*. The issues in *Canadian Earthcare Society* included whether the Board erred in assuming a federally registered pesticide to be generally safe if used in accordance with its label. Thus, the Court of Appeal considered both the provincial legislation and the federal *Pest Control Products Act*, R.S.C. 1985, c. P-9 (the "*PCPA*"), which regulates the sale and use of pesticides in Canada through a system of product registration.

In *Canadian Earthcare Society*, the Court of Appeal agreed with Landers, J., the judge below, that the Board "did not commit a jurisdictional error by assuming a federally registered pesticide to be generally safe." However, the Court also agreed that the Board should still consider whether a federally registered pesticide could cause an unreasonable adverse effect in a particular situation. The Court summarized the test as follows: "Should the Board find an adverse effect (i.e. some risk) it must weigh that adverse effect against the intended benefit" to determine if "the anticipated risk is reasonable or unreasonable." In *Islands Protection Society*, Legg, J. adopted the findings in *Canadian Earthcare Society* and reiterated the two-step test based on his interpretation of those findings.

In this case, the Appellant submits that the Board should re-visit the two-step test in light of the Supreme Court of Canada's decision in *114957 Canada Ltee. (Spraytech, Societe d'arrosage)* v. *Hudson (Town)*, [2001] S.C.J. 42 (hereinafter *Spraytech*). The Appellant submits that *Spraytech* indicates that the administrator should apply the "precautionary principle" in deciding whether a proposed pesticide use will cause an unreasonable adverse effect. The precautionary principle had not yet emerged in international or domestic law when the B.C. cases were decided.

The Appellant also submits that *Spraytech* confirms that the federal government does not "occupy the field" in terms of regulating pesticide use. The Appellant submits that the Deputy Administrator has broad discretion under the *Act* to determine whether a proposed pesticide use will cause an unreasonable adverse effect, and this discretion should not be "fettered" by the fact that a pesticide is registered for use in Canada under federal legislation. The Appellant submits that *Islands Protection Society* incorrectly reads down the *Act*, effectively making it a manual for compliance with federal pesticide labels. However, the Appellant submits that *canadian Earthcare Society* is consistent with *Spraytech* because it states that "some risk" may constitute an adverse effect, and sets out how to assess risk, which suggests that the administrator can ignore a pesticide's federal registration.

In response, the Permit Holder argues that *Spraytech* is a constitutional case that focuses on the division of powers between federal and provincial governments, and as such, is not relevant to *Islands Protection Society* or *Canadian Earthcare Society*.

In addressing this issue, the Panel has considered two sub-issues:

Whether the decision in *Spraytech* affects the two-step test on the basis that:

- a. the administrator is obligated to apply the precautionary principle when deciding whether to issue a pesticide use permit, and
- b. *Islands Protection Society* incorrectly reads down the *Act* and leads the administrator to fetter his or her discretion by relying on the federal registration of a pesticide.

a. Whether the decision in *Spraytech* affects the two-step test on the basis that the administrator is obligated to apply the precautionary principle when deciding whether to issue a pesticide use permit.

### What does Spraytech say about the precautionary principle?

Before examining the Court's discussion of the precautionary principle, it is important to consider the factual and legal context of that discussion. The appellants in *Spraytech* were landscaping and lawn care companies that used pesticides approved under the *PCPA* and held licences under Quebec's *Pesticides Act.* In 1991, the Town of Hudson, Quebec, adopted By-law 270, which restricted the use of pesticides within its boundaries to specified locations and for enumerated activities. The appellants brought a motion for a judicial declaration that By-law 270 was inoperative and *ultra vires* the Town's authority. The Quebec Court of Appeal upheld the Superior Court's decision to deny the motion.

The Supreme Court of Canada considered two issues: (1) whether the Town had the statutory authority to enact By-law 270; and, (2) even if the Town had that authority, was By-law 270 rendered inoperative because of a conflict with federal or provincial pesticide legislation. The Court was unanimous in finding that the Town had authority to enact the by-law, and that the by-law was not in conflict with the federal *PCPA* or the Quebec *Pesticides Act*. However, the Court split 4:3 in its reasons, with L'Heureux-Dubé, J. writing the majority decision. Notably, the majority's analysis of the first issue refers to the precautionary principle, while the minority's does not.

On the first issue, the majority found that the Town had authority to make the bylaw because the by-law's purpose is to regulate pesticide use, and this purpose falls within the "health" component of section 410(1) of the Quebec *Cities and Towns Act.* The majority then held that "reading section 410(1) to permit the Town to regulate pesticide use is consistent with" international law's precautionary principle. The majority noted that this principle has been incorporated into a number of international treaties and some Canadian statutes concerned with environmental matters, and as a result, there "may be" sufficient state practice "to allow a good argument" that the precautionary principle is a principle of customary international law. The majority noted that, in statutory interpretation, there is a presumption that the legislature respects the values and principles enshrined in customary and conventional international law. Thus, interpretations that reflect those values and principles are preferred. To conclude its analysis of this issue, the majority stated that "In the context of the precautionary principle's tenets, the Town's concerns about pesticides fit well under their rubric of preventive action."

The majority decision marks the first time that the Supreme Court of Canada has recognized that the precautionary principle may be a principle of customary international law, and may therefore provide guidance in interpreting Canadian environmental statutes, including those that regulate pesticide use. However, it is important to note that the majority does not make a conclusive finding that the precautionary principle is currently a principle of customary international law. The

majority simply states that there "may be" sufficient state practice to make a "good argument" that it is a part of customary international law. Therefore, the majority decision does not stand for the proposition that there should be a presumption that Canadian legislators intend their environmental statutes to reflect the precautionary principle.

Further, even if one were to accept that there is a presumption of compliance with the precautionary principle in interpreting Canadian statutes, the presumption of compliance with international law is rebuttable. Clear statutory provisions must be followed even if they are contrary to international law. As stated in *Driedger on the Construction of Statutes* (3<sup>rd</sup> ed.) 1994, at p. 333:

... Canadian legislatures are not bound by international law and in any given case may choose to disregard it in pursuit of some other value or goal. In the event of a conflict between domestic legislation and international law, whether customary or conventional, domestic legislation prevails.

When considering the potential implications of this decision, it is also important to consider what is meant by the "precautionary principle." Without a clear understanding of what the principle means, it is difficult to determine how it should be applied by decision-makers.

The "precautionary principle" has not been consistently defined in treaties or Canadian statutes. In *Spraytech*, the Court adopted the definition of precautionary principle found at para. 7 of the *Bergen Ministerial Declaration on Sustainable Development* (1990) (the "*Bergen Declaration*"):

In order to achieve sustainable development, policies must be based on the precautionary principle. Environmental measures must anticipate, prevent and attack the causes of environmental degradation. <u>Where there</u> <u>are threats of serious or irreversible damage, lack of full scientific</u> <u>certainty should not be used as a reason for postponing measures to</u> <u>prevent environmental degradation.</u> [underlining added]

However, the Court also stated that the principle has been "codified" in several Canadian statutes, citing two federal statutes and one provincial statute.

One was the *Canadian Environmental Protection Act, 1999*, S.C. 1999, c. 33. Its preamble states:

... the Government of Canada is committed to implementing the precautionary principle that, where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing <u>cost-effective</u> measures to prevent environmental degradation. [underlining added]

The *Bergen Declaration* and the *Canadian Environmental Protection Act, 1999* use a similar definition of the precautionary principle, except that the latter uses the

words "cost-effective" to qualify the types of measures that may be used to prevent environmental degradation. The *Bergen Declaration* is silent in that regard.

The Court also cited the Nova Scotia *Endangered Species Act*, S.N.S. 1998, c. 11. Section 2(1) states the *Act's* purpose and recognizes (under subsection (h)) that:

the precautionary principle that a lack of full scientific certainty must not be used as a reason for postponing measures to avoid <u>or minimize</u> the threat of a species at risk in the Province" [underlining added].

This language is similar to the *Bergen Declaration*, but differs in that it refers to measures to "avoid or minimize" rather than to "prevent" harm to the environment.

Finally, the Court also cited the *Oceans Act*, S.C. 1996, c. 31. Although it does not use the words "precautionary principle," the preamble states:

Canada promotes the wide application of the <u>precautionary approach</u> to the conservation, management and exploitation of marine resources in order to protect these resources and preserve the marine environment" [underlining added].

The meaning of "precautionary approach" is not defined in the Oceans Act. However, the Panel notes that this Board considered the "precautionary approach", as stated in Principle 15 of the *Rio Declaration on Environment and Development* (1992), in *Shuswap Thompson Organic Producers Assn.* v. *British Columbia* (*Ministry of Environment, Lands and Parks*), (Appeal Nos. 97-PES-04/05 & 06) [1998] B.C.E.A. No. 24 (Q.L.) (hereinafter *Shuswap Thompson Organic Producers Assn.*). It stated as follows:

In order to protect the environment, the <u>precautionary approach</u> shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing <u>cost-effective</u> measures to prevent environmental degradation. [underlining added]

Based on these treaties and statutes, there appears to be more than one possible meaning of the "precautionary principle" or the "precautionary approach." In particular, some authorities are explicit in allowing only cost-effective measures where full scientific proof is lacking, while others are silent on the role of economic considerations. Consequently, even if it were clearly accepted as a principle of customary international law, it is uncertain what formulation of the principle would apply for the purpose of interpreting domestic environmental legislation that is silent concerning the precautionary principle. In the absence of clear statutory direction regarding the applicability and meaning of the precautionary principle, there is no guarantee that the principle would be applied consistently.

In summary, *Spraytech* does not impose an obligation to interpret Canadian environmental statutes, including the *Act*, consistently with the precautionary principle, as the Court did not find that the principle is clearly a principle of

customary international law. Therefore, any obligation for Canadian statutory decision-makers to consider or apply the precautionary principle must currently be found in domestic legislation. In the present appeal, any obligation on the part of the administrator and the Board to consider the precautionary principle as part of the two-step test must be clearly expressed in the language of the *Act*.

# Does the Act impose a requirement to consider or apply the precautionary principle?

The phrases "precautionary principle" and "precautionary approach" are not used in the *Act* or the *Regulation*. However, the *Act* and the *Regulation* indicate that, in issuing a permit, the administrator has discretion to include the "precautionary measures" that he or she considers necessary. Section 17(1) of the *Regulation* states:

17 (1) A permit shall specify, as may be appropriate and available,

- ..
- (h) the <u>precautionary measures</u> or other terms that are considered necessary by the administrator under section 6 of the Act.

[underlining added]

The inclusion of precautionary measures in a permit (there is no similar provision with respect to pest management plans) is clearly discretionary despite the use of the words "shall specify" in section 17(1) of the *Regulation*. Under section 6(3) of the *Act*, the administrator "may include" requirements, restrictions and conditions as terms of a permit or plan. Under section 12(2)(a) of the *Act*, the administrator "may determine in a particular instance what constitutes an unreasonable adverse effect." There is no obligation for the administrator (or the Board on appeal) to impose precautionary measures.

When all of those provisions are considered together, they could be interpreted as being consistent with a precautionary approach in certain respects. For example, the language in sections 6 and 12 of the *Act* suggests that precautionary measures may be imposed to prevent or reduce potential adverse effects associated with a proposed pesticide use. However, there is no mandatory obligation to impose such measures, or to consider or apply the "precautionary principle" when deciding whether to issue a permit or plan under the *Act*. Furthermore, in interpreting these provisions, it is important to note that section 17 the *Regulation* came into force in 1981, well before the precautionary principle first emerged in international treaties. Therefore, the legislature could not have intended the words "precautionary measures" to have any connection to the "precautionary principle."

The Board has held that the two-step test that is based on these statutory provisions does, in some respects, take into account the "precautionary approach" as defined in the *Rio Declaration* above. In *Shuswap Thompson Organic Producers* 

*Assn.*, the appellant argued that the Board should consider the precautionary principle as a basis for rescinding three pesticide use permits. The Board stated:

It is well-established law that the Board can assume that a federally registered pesticide is generally safe...

The test for "adverse effect", however, must be site specific and application specific - it must be shown that at a specific site the application of the herbicides by the applicant will cause damage to the environment. While there may be a presumption that if the pesticide is used in accordance with the label that there will not be an "adverse effect", an inquiry must be made into whether or not at the specific site, the particular applicant will be able to use the pesticide in accordance with the label directions.

The Board in determining whether there is an "adverse effect" does not require proof of "scientific certainty". In this respect, the precautionary approach, as set out in the *Rio Declaration*, is taken into account.

[underlining added]

Similarly, in *Resident Advisory Board et al.* v. *British Columbia (Ministry of Environment, Lands and Parks)*, (Appeal No. 98-PES-03(b)), [1998] B.C.E.A. No. 19 (Q.L.), one of the appellants argued that the precautionary principle was a part of customary international law and would require the permit holder and the deputy administrator "to show that they carefully assessed the risks to health and biodiversity [associated with the pesticide use] and chose the least destructive alternative measure to deal with the risk." The Board found that "the weighing of risks and benefits is the very task the Board undertakes in determining whether there is an unreasonable adverse impact in issuing a permit."

The Board's findings in those appeals are consistent with the finding in *Canadian Earthcare Society* that the first stage of the test (whether the pesticide use will cause an adverse effect) involves finding "some risk", and that the second stage requires the Board to "weigh that adverse effect against the intended benefit" to "determine if the anticipated risk is reasonable or unreasonable." The Appellant's submissions in the present appeal provide no reason to deviate from the Board's findings in those appeals.

In summary, the majority decision in *Spraytech* does not indicate that there should be a presumption that the legislature intended the *Act* or the *Regulation* to reflect the precautionary principle, and there is no clear indication of such intention in the statutory provisions themselves. Therefore, there is no basis for concluding that the administrator and the Board are obligated to consider or apply the precautionary principle in applying the two-step test. However, the two-step test does, in some respects, take into account the "precautionary approach" as defined in the *Rio Declaration*.

b. Whether the decision in *Spraytech* affects the two-step test on the basis that *Islands Protection Society* incorrectly reads down the *Act* and leads the administrator to fetter his or her discretion by relying on the federal registration of a pesticide.

The Appellant cites *Spraytech* in support of the proposition that the federal *PCPA* does not "occupy the field" in regulating pesticide use, and therefore, the fact that a pesticide is federally registered should not "fetter" the administrator's discretion to decide whether a pesticide use will have an unreasonable adverse effect.

The *PCPA* establishes a registration system that focuses on the general safety of the products. A chemical manufacturer wishing to sell a pesticide in Canada must follow the registration process set out in the *Pest Control Products Regulations*, C.R.C., c. 1253 (the *"PCP Regulations"*). For a new product, section 9(2)(a) of the *PCP Regulations* requires the applicant to provide the *"results of scientific investigations"* concerning:

- (i) the effectiveness of the control product for its intended purposes,
- (ii) the safety of the control product to persons occupationally exposed to it when it is manufactured, stored, displayed, distributed or used,
- (iii) the safety of the control product to the host plant, animal or article in relation to which it is to be used,
- (iv) the effects of the control product on representative species of non-target organisms relative to the intended use of the control product,
- (v) the degree of persistence, retention and movement of the control product and its residues,
- (vi) suitable methods of analysis for detecting the active ingredient and measuring the specifications of the control product,
- (vii) suitable methods of analysis for detecting significant amounts of the control product, including its residues in food, feed and the environment under practical conditions of use,
- (viii) suitable methods for the detoxification or neutralization of the control product in soil, water, air or on articles,
- (ix) suitable methods for the disposal of the control product and its empty packages,
- (x) the stability of the control product under practical conditions of storage and display, and
- (xi) the compatibility of the control product with other control products with which it is recommended or likely to be mixed.

The onus is on the applicant to show that the product meets these criteria. Specialists in the federal departments of Agriculture, Health, Environment, and Fisheries and Oceans review the information submitted by the applicant, and the process is administered by the Pest Management Regulatory Agency of Health Canada.

If the pesticide is approved, it receives a *PCPA* registration number that must be displayed on the product label, along with the product's trade name, active

ingredient and concentration, directions for use, rates of application, personal safety, first aid, poisoning response, storage and disposal. Registration is valid for up to 5 years, and may be renewed for additional periods of up to 5 years. All products are subject to re-evaluation, with provision for suspension or cancellation. Under the *PCP Regulations*, the Minister of Agriculture may cancel or suspend the registration of a pesticide "when, based on current information available to him, the safety of the control product or its merit or value for its intended purposes is no longer acceptable to him."

The majority decision in *Spraytech* indicates that the *PCPA* is not exhaustive in regulating pesticide "use" in Canada. In deciding the second issue, the majority stated:

Federal legislation relating to pesticides extends to the regulation and authorization of their import, export, sale, manufacture, registration, packaging and labelling. The *PCPA* regulates which pesticides can be registered for manufacture and/or use in Canada. <u>This legislation is permissive, rather than exhaustive, and there is no operational conflict with By-law 270.</u>

#### [underlining added]

The majority then found that the Quebec *Pesticides Act* "establishes a permit and licensing system for vendors and commercial applicators of pesticides and thus compliments the federal legislation's focus on the products themselves. Along with By-law 270, these laws establish a tri-level regulatory regime."

The majority's findings with regard to the function of the *PCPA* vis-à-vis the Quebec *Pesticides Act* and the by-law are relevant to the issue raised by the Appellant concerning the role of a pesticide's federal registration vis-à-vis the test under the *Act*. Like the Quebec *Pesticides Act*, the *Act* creates a licensing/certification regime for commercial applicators and vendors of pesticides. Similar to the bylaw, the *Act* restricts the use of pesticides for certain purposes and in certain places in the province, subject to the issuance of a permit or approval of a pest management plan. Specifically, section 6(1) of the *Act* states that "Except as provided in the regulations, a person must not apply a pesticide to a body of water or an area of land" unless the person holds a permit or an approved pest management plan, and applies the pesticide in accordance with the terms of the permit or plan. Section 10(2) of the *Regulation* states that no person shall use a pesticide:

(a) on public land,

- (b) on or in a body of water that is not a man made self contained body of water on private land, or
- (c) on private land that is used for forestry, transportation or public utility purposes or otherwise for the commercial transmission of electricity, natural gas, oil or water to or for the public or a corporation.

"Public land" is defined in section 1 of the *Regulation*, and does not include provincial Crown land that is leased for agricultural, grazing or other farming purposes.

Consequently, the Court's finding that the regulatory measures imposed by the bylaw and the Quebec *Pesticides Act* compliment the registration system imposed by the *PCPA* may apply equally to the *Act*. For example, the *Act* compliments the *PCPA* in that it imposes area and activity-specific restrictions on the use of federally approved pesticides. In addition, it is an offence under both the *PCPA* and the *Act* (sections 5(a), 10(1)(a), and 46(1)) to use any registered product inconsistently with its label. Although sections 5(b) and 10(1)(b) of the *Regulation* contemplate the use of unregistered pesticides in accordance with a "special use permit" issued by the administrator, those provisions are applied in a manner that compliments the *PCPA*. As a matter of policy, special use permit.<sup>1</sup> Such research is typically conducted to obtain additional data on a product being considered for registration.

Thus, it is clear that the *Act* and *PCPA* have different but complimentary objectives and means. The next question is whether the two-step test as set out in the B.C. case law is consistent with the fact that the *PCPA* is not exhaustive in regulating pesticide use, and more specifically, whether the administrator and the Board fetter their discretion under the *Act* if they apply the test as directed in *Islands Protection Society*.

In *Canadian Earthcare Society*, the Court of Appeal considered how a pesticide's federal registration should be taken into account when deciding whether a pesticide use will cause an unreasonable adverse effect. At paras. 16-18, the Court of Appeal noted that, Landers, J. reviewed the federal registration process and:

... went on to point out that there is no similar provision in the British Columbia legislation. The Judge then said:

Common sense dictates that the fact that a federally registered pesticide that has undergone extensive testing must have some prohibitive value. I have concluded that the Board did not commit a jurisdictional error by assuming a federally registered pesticide to be generally safe. It is important to bear in mind that the Board did not state that a federally registered pesticide could never cause an <u>unreasonable adverse effect</u>. 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. [underlining added]

<sup>&</sup>lt;sup>1</sup> Ministry of Environment Policy Manual, Volume 9, Section 8.01, Permits - Granting of Use Permits and Special Use Permits, February 1, 1988.

I agree with that. It is a correct interpretation, in my view...

The Court also agreed with Mr. Justice Lander's analysis of whether the Board erred by declining jurisdiction to consider silviculture practices and alternative methods of vegetation control. At paras. 22-23, the Court agreed with the following statements by Landers, J.:

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 risk method would be considered unreasonable.

... If the Board found no adverse effect there would be no need for the Board to hear evidence on silvicultural practices and alternative methods.

These findings indicate that a pesticide's federal registration should not be the deciding factor in determining whether a pesticide use under a specific permit or plan will have an unreasonable adverse effect. While the administrator and the Board may assume a federally registered pesticide to be "generally safe," that clearly does not mean that a federally registered pesticide could never cause an unreasonable adverse effect, and the first stage of the test involves a site-specific inquiry into the risks associated with the proposed pesticide use.

In summary, the findings in *Canadian Earthcare Society* do not lead the administrator or the Board to fetter their discretion. Further, the findings are consistent with *Spraytech* insofar as *Canadian Earthcare Society* states that the *PCPA* and *Act* play different but complimentary roles in regulating pesticide use.

The next question is whether the judge in *Islands Protection Society* misinterpreted the findings in *Canadian Earthcare Society*, such that the judge "reads down" the *Act* in a manner that leads the administrator and the Board to consider the federal registration in a manner that fetters their discretion.

In Islands Protection Society, the grounds for appeal included:

Ground 3: The Board erred in deciding that its jurisdiction was limited to deciding whether the pesticide was used and applied safely in accordance with the permit and the pesticide label and whether the specific site would lend itself to a safe application.

Ground 4: The Board erred in deciding that the Federal government had granted the citizens of Canada the right to use pesticides provided they did so in a safe manner and in accordance with the pesticide label.

In deciding those issues, Legg, J. quoted paras. 16-18 from the decision in *Canadian Earthcare Society*, and then stated:

In my view, the Court of Appeal's approval of Mr. Justice Lander's judgement answers grounds 3 and 4...

In other words, Legg, J. dismissed grounds 3 and 4 based on the reasons provided in *Canadian Earthcare Society*, and refused to quash the Board findings on which those grounds were based. The disputed findings of the Board included a statement that the federal government "has granted the citizens of Canada... the right to use registered pesticides throughout the length and breadth of this country provided they do so in a safe manner and in accordance with the pesticide label."

It is established law that administrative tribunals such as the Board are bound by decisions of the courts, but not by their own past decisions. It is also trite law that decisions of the British Columbia Court of Appeal are binding on the Supreme Court of British Columbia. Therefore, the approach taken by Landers, J. and approved by the Court of Appeal takes precedence over both *Islands Protection Society* and the Board's statement. In other words, although the Board's statement was not quashed in *Islands Protection Society*, the Board is bound by *Canadian Earthcare Society*.

The two-step test set out in *Canadian Earthcare Society* and summarized in *Islands Protection Society* does not adopt the approach suggested by the Board's statement. *Canadian Earthcare Society* clearly indicates that a pesticide's federal registration, and whether the proposed pesticide use is contrary to registration intent and label restrictions, are only factors in a site-specific inquiry. Therefore, the Board's statement cannot stand insofar as it conflicts with *Canadian Earthcare Society* by suggesting that the *PCPA* grants a "right" to use federally registered pesticides anywhere in British Columbia as long as the pesticides are used safely and in accordance with their labels.

#### Conclusion

The majority decision in *Spraytech* does not affect the legal test applied by the Board in pesticide appeals. Specifically, the majority decision does not indicate that Canadian legislation should be presumed to be consistent with the precautionary principle, unless that intention is clearly indicated in the language of the statute. The language of the *Act* and the *Regulation* does not indicate that the administrator and the Board should consider the precautionary principle when deciding whether a pesticide use will cause an unreasonable adverse effect. However, the two-step test applied in pesticide appeals is consistent with a precautionary approach.

The Panel finds that the two-step test as set out in *Canadian Earthcare Society* and adopted in *Islands Protection Society* is consistent with the findings in *Spraytech* with regard to the function of the federal *PCPA*. The two-step test does not lead the administrator or the Board to consider a pesticide's federal registration in a manner that fetters their discretion under the *Act*. Although the judge in *Islands Protection Society* did not quash certain statements by the Board that are

inconsistent with the two-step test, the judge adopted the reasoning in *Canadian Earthcare Society*, and the Court of Appeal's findings in that case are binding on the Board and the B.C. Supreme Court.

# 2. Whether the use of pesticides authorized by the Permit will have an adverse effect on human health or the environment and if so, whether that adverse effect is unreasonable in the circumstances.

The Board has considered the issue of adverse effect and whether it is reasonable in numerous past decisions. Recently, in *Matz et al.* v. *Deputy Administrator, Pesticide Control Act* (Environmental Appeal Board, Appeal Nos. 2001-PES-005/006/007/011 and 2001-PES-010, May 29, 2002) (unreported)) the Board made the following findings which this Panel adopts regarding the test that must be followed:

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...* 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.

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

## <u>Findings</u>

The Panel accepts the uncontroverted evidence of Dr. Cullen that the arsenic compounds found in MSMA will have acute and chronic affects on the human body if they are ingested or otherwise introduced into the human body. However, the Panel is not satisfied that any evidence has been put forward that would lead to the conclusion that the application of MSMA under the Permit poses such a risk to workers who apply this pesticide. The sole evidence of such exposure is from a United States study from the 1970's, where the only protective clothing required for workers applying MSMA were cotton gloves.

The Panel accepts the evidence of Mr. Nakashoji that contractors that apply MSMA are required to follow the label and the terms of the Permit when applying MSMA. In particular, the Panel notes that the safety equipment required by the Ministry when applying MSMA includes unlined rubber gloves, face shields (avoid splashing and skin exposure), and rain gear. It also requires water and soap to be on site in case of exposure. Further, the Panel notes Dr. Cullen' s evidence that MSMA does not pose a risk of dermal exposure as it will not be absorbed through the skin. Additionally, the Panel notes that any person applying MSMA must be under the direct supervision of a person who is a Certified Pesticide Applicator in British Columbia and must be in visual or auditory contact at all times. The Panel finds that the safeguards that have been placed around the application of MSMA under the Permit and by the Ministry preclude any unreasonable adverse risk to workers from the application of MSMA.

Ms. Wier expressed concern that the application of MSMA would move through the environment and cause a risk to wild animals such as mountain goats or woodpeckers. However, she provided no direct evidence of how such a risk could occur. No evidence was provided that MSMA, when properly applied, would cause an external risk to any animals. In fact, the only evidence respecting exposure of MSMA to woodpeckers was in a memorandum dated July 3, 1990, that was attached to the Technical Report prepared by the Respondent when considering the permit application. That memorandum prepared by Allan Edie, a Regional Wildlife Biologist with the then Ministry of Environment, concluded that there was no risk to woodpeckers from consuming bark beetle larvae that had been exposed to MSMA.

Further, the Panel notes that the terms of the Permit provide generous setbacks to waterbodies and sources of domestic water. In addition, the Technical Report prepared by the Respondent states that, "No studies have shown that water courses are contaminated following standard hack and squirt application." The Report goes on to say that, "Animals that lick numerous tree trunks or the ground, with drips of MSMA, could possibly consume harmful quantities of the pesticide. However, such exposure can be prevented by proper and careful application by trained, certified applicators." The Panel finds that there is no evidence that when MSMA is properly applied that it will cause any unreasonable risk to wild animals. Indeed, as with all pesticides, care must be taken to ensure that exposure is directed at the target only. The application of MSMA is no different.

Ms. Wier further expressed concern about the exposure of MSMA to children. However, no evidence was led in this regard, except that children exposed to contaminants may be susceptible to greater risk of harm. In this instance, there is no indication that children will be exposed to MSMA under the terms of this Permit. This is particularly so given Mr. Nakashoji's evidence that MSMA will only be applied in isolated locations such as rock ridge tops and hills. This requirement was further confirmed in the "Application For Pesticide Use Permit" that was published in local newspapers by the Ministry of Forests when it applied for the Permit. Under the circumstances, the Panel finds that the use of MSMA under the terms of the Permit does not pose a risk to the health of children.

Ms. Wier also stated her concern that the volumes of MSMA allowed under the Permit were excessive. The Panel notes that the Permit Holder applied for and received authorization to apply MSMA to 150,000 trees in the District and Tweedsmuir Park. The Panel further notes that Mr. White's evidence was that only 20,000 trees received MSMA treatment in 2001. The Panel also notes Mr. Nakashoji's evidence that, due to budgetary restrictions, less trees will receive treatment in 2002 then did so in 2001. The Panel also notes that no treatment will now be made to trees in Tweedsmuir Park in spite of the fact that treatment of trees in the northern vicinity of the park were clearly contemplated in the permit application which was later reflected in the Permit.

The Panel finds that the Permit, as drafted, will allow the application of MSMA on approximately 130,000 trees during 2002 and 2003, as only 20,000 trees have been treated to date in addition to any trees that were treated for spruce bark

beetles this past spring. Additionally, if less than 20,000 trees are treated in 2002, as is contemplated, this would allow the Permit Holder to treat 110,000 trees in 2003 over an area that is smaller than the one that is permitted. The Panel finds that this is excessive and could lead to harmful results. In particular, there is a limited time frame for the application of MSMA. Care must be taken when applying this pesticide. If a treatment program were undertaken that is more than double the size of the one that was considered by the Respondent when he issued the three-year Permit, there is a greater chance of mistakes and risk to the environment and workers who apply the MSMA. The Panel finds this risk to be unreasonable. Even if it is not a risk, it is unnecessary in the circumstances.

Counsel for the Permit Holder submits that it would be reasonable to decrease the volume of MSMA under the Permit by 30,000 trees, to cover the 30,000 trees that were not treated in 2001. Additionally, counsel submits that the Permit Holder would be prepared to have the volume reduced by a further 10,000 trees for each of 2002 and 2003. This would result in a one-third reduction of the volume of MSMA allowed under the Permit and would allow the Permit Holder to treat 80,000 trees during 2002 and 2003.

Ms. Wier submits that if the volume of MSMA in the Permit is going to be reduced, it should also be reduced by the volume of MSMA that was intended for use in Tweedsmuir Provincial Park.

The Panel has reviewed the Permit and the permit application and can find no breakdown of the number of trees or the number of hectares that were intended for treatment in Tweedsmuir Provincial Park, except for a map that is attached to the permit application. That map identifies 6 spots within the Park that may have been targeted for treatment. The map also shows over 100 spots within the District and outside of the Park that appear to have been targeted for treatment. Based on this map, a conservative estimate is that, at most, 5% of the intended volume of MSMA was intended for use in Tweedsmuir Provincial Park.

The Panel has concluded that the volume of MSMA allowed under the Permit should be reduced by 1/3 or the 50,000 trees that has been agreed to by the Permit Holder. In addition, the volume should be reduced by 5%, or an additional 7,500 trees, to account for the trees that would have been treated in Tweedsmuir Park. Finally, the Panel finds that the reference to the application of MSMA in Tweedsmuir Provincial Park should be deleted from the Permit.

With these amendments, the Panel is satisfied that the application of MSMA under the Permit will not cause an unreasonable adverse affect. Under these circumstances it is unnecessary to review the second part of the test to determine if the same benefits could be achieved through alternate risk free methods. That being the case, it is unnecessary to further consider the very helpful evidence that was given by Dr. Partridge and Dr. Safranyik.

#### Other Issues

Counsel for the Appellant submits that the application form used by the Respondent should be amended so that it reflects the number of trees that are being treated rather than the number of hectares being treated. Counsel for the Permit Holder explained that the Permit Holder considers the number of trees that will be treated within a hectare to be 480 stems. The Panel agrees that it would be useful if the Respondent required the number of trees, and the area to be treated to be noted on future permits and permit applications. This would allow members of the public to better understand the terms of a permit. However, this Panel is without jurisdiction to make such an order or further comment on this request.

Counsel for the Appellant also requested that the Notice that is posted in the forest when MSMA has been applied have a skull and cross bones logo placed on it. The Panel is without jurisdiction to make such an order.

#### DECISION

The Panel has carefully considered all of the evidence before it, whether or not specifically reiterated here.

For the above reasons, the Panel confirms the decision of the Deputy Administrator to issue the Permit. In accordance with the above, the Panel directs the Deputy Administrator to reduce the total volume of MSMA approved for use under Paragraph C of the Permit by the equivalent of 57,500 trees, or approximately 38.3%. The Panel further directs the Deputy Administrator to remove Tweedsmuir Provincial Park from Paragraph E of the Permit.

The appeal is dismissed.

Alan Andison, Chair Environmental Appeal Board

July 23, 2002