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Environmental Appeal Board

DECISION NO. 1999-WAS-023(c)

In the matter of an appeal under section 44 of the *Waste Management Act*, R.S.B.C. 1996, c. 482, and continued under section 100 of the *Environmental Management Act*, S.B.C. 2003, c. 53.

BETWEEN:	City of Cranbrook	**APPELLANT**
AND:	Assistant Regional Waste Manager	**RESPONDENT**
AND:	Canadian Pacific Railway	**THIRD PARTY**
AND:	Arlene Ridge on behalf of the Fort Steele Residents	**PARTICIPANT**
BEFORE:	A Panel of the Environmental Appeal Board David H. Searle, CM, QC, Panel Chair Robert Gerath, Member R.G. Holtby, Member	
DATE:	September 2 - 5 and November 24 - 28, 2008; January 6 - 7 and February 2 - 4, 2009	
LOCATION:	Cranbrook, BC	
APPEARING:	For the Appellant:	James Yardley, Counsel
	For the Respondent:	Dennis Doyle, Counsel
	For the Third Party:	Robert Lonergan, Counsel
	For the Participant:	Arlene Ridge

APPEAL

[1] The City of Cranbrook ("Cranbrook") appeals the April 7, 1999, decision of the Assistant Regional Waste Manager (the "Assistant Manager"), Ministry of Environment, Lands and Parks (the "Ministry")[1], to amend Waste Permit PE-04148

[1] The Ministry is now known as the Ministry of Environment. The Ministry has had various names over the life of the Permit but will be referred to as the "Ministry" throughout this decision.

(the "Permit") held by Cranbrook. The amendments require Cranbrook to manage the water level in its sewage effluent storage lagoon #2 so that the level does not exceed 824 metres above sea level ("ASL."). The amendments also required Cranbrook to submit a management plan on or before April 23, 1999, detailing how the water level in lagoon #2 will be reduced and maintained at or below 824 metres ASL, including a schedule for implementation of the management plan.

[2] Section 103 of the *Environmental Management Act* (formerly section 47 of the *Waste Management Act*) provides that the Environmental Appeal Board may:

(a) send the matter back to the person who made the decision, 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.

BACKGROUND

[3] Treated effluent from Cranbrook's aerobic sewage treatment system is pumped into two sewage lagoons located about 10 kilometres northeast of Cranbrook, in a narrow valley that extends southeastwards from the St. Mary's River. After storage in the lagoons, the effluent is disposed via spray irrigation on agricultural fields located primarily southeast of the ponds. This operation is authorized by the Permit, issued to Cranbrook in 1975. Construction of the lagoons began in 1977, and they were first filled with treated sewage effluent in 1979.

[4] Sometime in the early 1970's, Canadian Pacific Railway ("CPR") constructed tracks on the upper portion of the steeply sloping south side of the St. Mary's River valley.

[5] From March to May of 1997, CPR experienced some instability at Mile 99 of the tracks, located approximately 3 kilometres north of Cranbrook's sewage lagoons which it took measures to address. CPR reports that in the fall of 1997, officials from the Ministry informed it that the instability of the track might be related to Cranbrook's sewage treatment system, and, in particular, the effect of the effluent lagoons on the flow of groundwater in the area. As a result, CPR retained the engineering firm Clifton Associates Ltd. to review the track instability problems and prepare a geotechnical report (the "Clifton Report") pertaining to the Cranbrook sewage facility and its impact on the local groundwater regime.

[6] The Clifton Report, completed on May 28, 1998, concludes that seepage from effluent lagoon #2 poses a risk to the stability of the tracks around Mile 99 when the elevation of the stored effluent in the lagoon reaches 824 metres ASL and higher because it causes the reversal of the groundwater flow towards the tracks (rather than its natural direction away from the tracks). The Clifton Report also concludes that the risk to the tracks can be mitigated by reducing the water level in lagoon #2 to a level below 824 metres ASL.

[7] On April 7, 1999, the Assistant Manager amended the Permit. The terms of the amendments are reproduced, in part, below:

1. Maximum Operating Level for Effluent Storage Lagoon #2

The permittee shall manage the water level in effluent storage lagoon #2 located approximately 3 kilometres south of Mile 99 Cranbrook Subdivision of the Canadian Pacific Railway so that the maximum water level in effluent storage lagoon #2 does not exceed an elevation of 824 metres above sea level.

2. Survey to Determine Elevation Above Sea Level

The permittee shall provide data confirming the water level in effluent storage pond #2 to the Regional Waste Manager on or before April 16, 1999.

3. Interim Effluent Storage Management Plan

The permittee shall submit an interim management plan for effluent storage to the Regional Waste Manager for approval on or before April 23, 1999. The plan shall contain details on how the water level in lagoon #2 will be maintained at or reduced to an elevation of 824 metres above sea level. The report shall contain a schedule for implementing the interim management plan.

4. Long Term Effluent Storage Lagoon Capacity

Effluent storage lagoons must contain sufficient storage capacity to contain the design average daily effluent flow occurring outside the growing season, plus an allowance from an analysis of the cumulative volume needed for a reduced irrigation season due to at least 5 years of wet weather equivalent to rainfall or snow melt events with a 5-year return period. Average precipitation, seepage and evaporation must be accounted for in the calculation of storage pond capacity.

On or before May 31, 1999 the permittee shall submit a report to the Regional Waste Manager complete with calculations determining the effluent storage lagoon capacity using the above criteria...

5. Effluent Storage Lagoon Leakage

Effluent storage lagoons must be designed, operated and maintained to minimize effluent leakage. Any leakage must not aggravate or produce soil or bedrock instability or erosion elsewhere or impact ground or surface water quality. This section supercedes and replaces section 4(c) of the existing permit.

6. Monitoring and Operating Data

The permittee shall submit all monitoring and operating data as requested by the Regional Waste Manager.

[8] On April 14, 1999, Cranbrook appealed the Assistant Manager's decision to amend the Permit. It seeks an order that the Permit amendment be cancelled. Alternatively, Cranbrook requests that the Permit be varied to increase the permitted maximum operating level or that it be varied to delay the time for implementation. It also requested a stay of the Order, which the Board denied on May 10, 1999 (*City of Cranbrook v. Assistant Regional Waste Manager,* Appeal No. 99-WAS-23(a) (unreported)).

[9] By a letter dated May 1, 2002, Ms. Ridge applied to the Board on behalf of the Fort Steele Residents (the "Residents") for participant status in the appeal, based on their concerns that the Cranbrook Spray Irrigation operation is loading the groundwater in the area, specifically on the west side of the Kootenay River.

[10] On August 20, 2002, the Board granted the Residents' application for participant status, subject to certain conditions (*City of Cranbrook v. Assistant Regional Waste Manager,* Appeal No. 99-WAS-23(b) (unreported)). Specifically, the Board directed that the Residents' participation in the appeal hearing would be limited to making a one-hour presentation. The Residents were not given the opportunity to make an opening or closing statement, or the right to cross-examine the witnesses tendered by the parties to the appeal.

[11] At the request of the parties, the hearing of this appeal has been adjourned on several occasions.

[12] On June 12, 2003, a Panel of the Board commenced a hearing of the appeal. Shortly after the hearing opened, the parties requested an adjournment in order to attempt to negotiate a settlement of the appeal.

[13] Ultimately, the parties were unable to reach an agreement to settle the appeal, and the appeal was heard by this Panel of the Board in late 2008 and early 2009.

[14] Cranbrook asks that Condition 1 of the Amendment be set aside. Condition 1 sets a maximum operating elevation of 824 metres ASL for the water level in lagoon #2. In the alternative, Cranbrook seeks to vary the Amendment so that the maximum permitted elevation for the water in lagoon #2 be increased to 827.5 metres ASL, or in the further alternative that Cranbrook be directed to construct a permanent outfall from the Lagoons.

[15] The Respondent submits that the appeal should be dismissed and the permit amendment confirmed as issued.

[16] CPR requests that:

a. The appeal of Cranbrook be denied; and

b. Cranbrook be required to:

i. Engage a firm of competent professional engineers to design a system capable of ensuring that lagoon #2 does not exceed 824 metres ASL in elevation, such system to be designed in accordance with generally accepted engineering principles;

ii. Commence, within 30 days, good faith discussions with the Ministry and any federal regulatory agencies over the terms under which the level control system may (be) constructed and operated; and

iii. Upon securing all applicable legal authority, ensure that the level control system is in full operation by 15 August 2009, or show cause why it is not.

[17] The Fort Steele Residents are hopeful that the Environmental Appeal Board will:

1) Enforce the intent of the original permit;

2) Restore their faith in law and government; and

3) Protect the environment.

RELEVANT LEGISLATION

[18] When the Assistant Manager issued his decision, the *Waste Management Act*, R.S.B.C. 1996, c. 482, governed the subject matter of the appeal and provided Cranbrook with a right of appeal. Also at that time, the *Environment Management Act*, R.S.B.C. 1996, c. 118, was in force and established the Board's statutory powers and procedures. On July 8, 2004, both of those enactments were repealed. The discharge of waste and the appeal provisions are now both contained in the *Environmental Management Act*, S.B.C. 2003, c. 53, which came into force on the same day.

[19] These appeal proceedings were continued under the new *Environmental Management Act*; the relevant procedures are identical to those in the former *Environment Management Act*. However, the provisions of the *Waste Management Act* in force when the Assistant Manager made his decision apply for the purposes of considering the merits of the appeal. (For further clarification, see the discussion under issue 4.)

[20] The *Waste Management Act* regulates waste disposal by setting out a general prohibition against the introduction of waste into the environment, and then providing specific exceptions to the general prohibition. For instance, a person may introduce waste into the environment in accordance with a permit, approval or regulation.

[21] The following sections of the *Waste Management Act* are relevant to this appeal:

Waste disposal – strict liability

3 (2) Subject to subsection (5), a person must not, in the course of conducting an industry, trade or business, introduce or cause or allow waste to be introduced into the environment.

(3) Subject to subsection (5), a person must not introduce or cause or allow to be introduced into the environment, waste produced by any prescribed activity or operation.

(4) Subject to subsection (5), a person must not introduce waste into the environment in such a manner or quantity as to cause pollution.

(5) Nothing in this section or in a regulation made under subsection (3) prohibits any of the following:

(a) the disposition of waste in compliance with a valid and subsisting permit, approval, order or regulation, or with a waste management plan approved by the minister;

Amendment of permits and approvals

13 (1) A manager may, subject to this section and the regulations, and for the protection of the environment,

(a) on the manager's own initiative if he or she considers it necessary, or

(b) on application by a holder of a permit or holder of an approval,

amend the requirements of the permit or approval.

ISSUES

[22] The following issues were identified by the Panel:

1. Whether the Board has jurisdiction in this appeal to make findings regarding Cranbrook's spray irrigation system.
2. Whether the Board may apply a "precautionary approach" in deciding the appropriate maximum elevation of lagoon #2.
3. Who has the burden of proof regarding the appropriate maximum elevation of lagoon #2?
4. Whether the *Waste Management Act* or the *Environmental Management Act* applies to this appeal, particularly regarding whether the Board may amend the permit by adding terms and conditions that would authorize Cranbrook to discharge effluent to a stream.
5. Whether 824 m ASL is the appropriate maximum elevation for lagoon #2.

DISCUSSION AND ANALYSIS

1. Whether the Board has jurisdiction in this appeal to make findings regarding Cranbrook's spray irrigation system.

[23] Cranbrook argues that the Board should give no weight to the Residents' presentation and written submission. Cranbrook argues that the written submission

was provided after the close of evidence, and that it should be excluded from the hearing record. Cranbrook also submits that the written submission and the presentation contain hearsay, opinion, and matters outside the scope of the hearing. Further, Cranbrook maintains that the submissions are on matters not properly before the Board in this hearing, not within the Board's jurisdiction, and which lack a basis in evidence.

[24] The Board is a statutory body, and its jurisdiction is limited to that which is set out in its enabling legislation. Section 102(2) of the *Environmental Management Act* ("*EMA*"), formerly section 46(2) of the *Waste Management Act* ("*WMA*") gives the Board the authority to conduct an appeal "by way of a new hearing." Section 93(2)(d) of the *EMA* (formerly section 11(13)(d) of the *Environment Management Act*) states that a party in an appeal "may ... make submissions as to facts, law and jurisdiction" [emphasis added]. Together, sections 102(2) and 93(2)(d) of the *EMA* indicate that the legislature intended the Board to have the jurisdiction to consider new evidence, i.e. evidence that was not before the Assistant Manager.

[25] The Board has adopted this approach in many of its previous decisions. For example, in *British Columbia Railway Company et al. v. Director of Waste Management* (Appeal No. 2000-WAS-018(b), March 3, 2004), the Board held as follows at paragraphs 56 and 66:

> ... the Legislature has given the Board hybrid powers. The Board may, in its discretion, choose to conduct a narrower review of the decision below, or, alternatively, it may opt to conduct a hearing de novo and take a fresh look at what it considers to be the relevant issues and evidence.
>
> Moreover, the principle of curial deference is not applied where the Legislature clearly intended the appellate tribunal to examine the evidence anew and, if it deems appropriate, to make its own findings of fact.
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> [underlining added]

[26] Although the present Panel is not bound by the Board's previous decisions, the Panel finds the Board's previous decisions to be relevant and helpful in the present case.

[27] In summary, the legislation provides for a "hybrid" appeal process that empowers the Board to hear new evidence that was not before the Assistant Manager, and make findings of fact based on the evidence before it.

[28] The Board also has discretion in deciding whether to admit specific evidence submitted by the parties. Before discussing admissibility, it is important in this case to distinguish between "evidence" and arguments. "Evidence" is anything that has the potential to establish or prove a fact. Evidence includes oral testimony, written records, photographs, etc. It does not include argument or submissions made for the purpose of persuading or convincing the Board to decide the appeal in a particular way. The Residents' presentation did contain evidence regarding the spray irrigation system.

[29] In terms of "admissible" evidence, it is important to note that the Board is not bound by strict rules of evidence. Contrary to Cranbrook's submissions, the Board may admit hearsay and circumstantial evidence if the Board considers the evidence to be relevant. Relevance is the Board's primary consideration when deciding whether to admit evidence. Relevant evidence may be described as evidence that sheds some light on a disputed matter or tends to prove or disprove a fact in issue. The Board may exclude evidence that is of minimal relevance, is unreliable, may confuse the issues, may prejudice the other parties or is repetitious. In addition, the Board may be obligated to exclude evidence that is privileged or is restricted by a statute, such as the *Evidence Act*.

[30] In the present appeal, any evidence that the Residents submitted after the close of evidence may be inadmissible, to the extent that Cranbrook and the Respondent did not have an opportunity to respond to it. Admitting such evidence may be prejudicial to the parties – in other words, it would be unfair for the Panel to consider evidence if the parties were not given an opportunity to respond to it. The parties were given an opportunity to respond to the Residents' presentation, but they declined to do so. It would not be unfair to consider the relevant portions of that evidence.

[31] Regarding the "relevance" of evidence, evidence is relevant to this appeal if it goes to the merits of the decision to amend the Permit. The relevant evidence need not be limited to that which is relevant to Cranbrook's arguments. Given the Board's *de novo* powers, the Board may examine merits of the Amendments to the Permit, including aspects of the Amendments that pertain to the spray irrigation system and any potential adverse effects that it may have on ground or surface water quality. On the other hand, the appeal process is not an appropriate forum for the Residents (or the parties) to ask the Board to comment on matters that are beyond the purview of the appeal, such as Cranbrook's behaviour towards the Residents or whether the Ministry has been properly enforcing the Permit.

[32] This is consistent with the Board's findings at page 6 of its decision to grant the Residents participant status:

> The Panel has considered these submissions and is satisfied that the Residents may have evidence that is relevant to the appeal. Given their local knowledge of surface and groundwater, the Residents have a relevant perspective that may be of assistance to the Panel in the appeal. However, the Panel notes that the Residents are not experts in environmental or sewage or water quality issues. What the Board stands to gain from the participation of the Residents is a local perspective on the impacts of the lagoons on water and water quality in the area. The Panel finds that this goes to Cranbrook's challenge to the inclusion of section 5 of the Permit amendments dealing with effluent leakage impacting ground or surface water quality and its challenge to the appropriateness of the issuance of the Permit amendments generally.
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> [underlining added]

[33] In summary, the Board has jurisdiction to consider new evidence presented by the Residents, to the extent that the evidence is relevant to the appeal, and as long as the parties were given a fair opportunity to respond to it. In this case, relevant evidence includes that which relates to the Permit amendments dealing with the impact of the lagoons and the spray irrigation system on ground and surface water quality.

2. Whether the Board may apply a "precautionary approach" in deciding the issue of the maximum elevation of lagoon #2.

[34] Cranbrook argues that evidence must be provided to show with "reasonable certainty" that allowing the effluent in lagoon #2 to rise above 824 metres ASL causes harm to the environment.

[35] The Assistant Manager argues that the legal threshold for exercising his discretion to amend the Permit is not "reasonable certainty". He further submits that the law does not require evidence of the specific mechanism from which protection of the environment is required. In other words, the Assistant Manager submits that he may make amendments to protect the environment even if there are gaps in the scientific knowledge with respect to the actual mechanism whereby a discharge causes an adverse effect on the environment.

[36] Essentially, the Assistant Manager is arguing that a cautious approach that seeks to prevent environmental harm may inform his decision to amend the Permit, whereas Cranbrook maintains that the amendment is unreasonable because there is insufficient evidence to prove that allowing the effluent in lagoon #2 to rise above 824 metres ASL will cause harm to the environment.

[37] The decision to issue or amend a permit is an exercise of discretion. Discretion must be exercised in a manner that is consistent with the purposes and objectives of the legislation that empowers the decision-maker.

[38] The "precautionary principle" and "precautionary approach" are phrases used in international treaties, and some Canadian statutes[2]. However, these phrases have not been consistently defined in treaties or Canadian statutes. Further, neither the phrase "precautionary principle" nor "precautionary approach" is found in the *WMA* or *EMA*. Without a clear understanding of what "precautionary principle" or "precautionary approach" means, it is difficult to determine how statutory decision-makers would apply those concepts.

[39] In *Rolf Bettner v. Director*, *Environmental Management Act* (Appeal No. 2005-EMA-007(a), March 20, 2006), the Board reviewed the provisions in *EMA* that relate to the issuance of permits, and found that *EMA* contains no indication that a "precautionary approach" must be taken when issuing permits to authorize the open burning of wood waste.

[40] However, the relevant provisions of the *EMA* (and its precursor, the *WMA*) indicate that a preventative or "cautious" approach is central to decisions involving

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[2] For example, see: *Canadian Environmental Protection Act, 1999*, S.C. 1999, c. 33; Nova Scotia *Endangered Species Act*, S.N.S. 1998, c. 11; federal *Oceans Act*, S.C. 1996, c. 31.

permits and permit amendments that authorize the discharge of waste into the environment.

[41] The permit in this case authorizes Cranbrook to do something that is otherwise prohibited under the statute; namely, to introduce waste into the environment. "Waste" is defined in section 1 of both the *EMA* and *WMA* to include "effluent". Although the parties dispute the actual harm that may be caused by allowing the elevation of lagoon #2 to exceed 824 metres ASL, the parties agree that the discharge is "effluent" within the meaning of the legislation. "Effluent" is defined in section 1 of the *WMA* as follows[3]:

> **"effluent"** means a substance that is discharged into water or onto land and that
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> (a) injures or is capable of injuring the health or safety of a person,
>
> (b) injures or is capable of injuring property or any life form,
>
> (c) interferes with or is capable of interfering with visibility,
>
> (d) interferes with or is capable of interfering with the normal conduct of business,
>
> (e) causes or is capable of causing material physical discomfort to a person, or
>
> (f) damages or is capable of damaging the environment;

[42] Thus, in order for a substance to fall within the scope of the definition of "effluent", the substance need not actually injure, interfere, or cause damage in the ways described above. Rather, a substance is "effluent" if it is "capable" of doing the things listed above. This implies that a preventative approach should be taken when regulating the discharge of effluent into the environment.

[43] Furthermore, section 13 of the *WMA* (now section 16 of *EMA*) empowers managers (now directors) to amend a permit "for the protection of the environment". This indicates that a primary objective of an amendment is to proactively protect the environment from the harm that the discharge may cause.

[44] Together, these provisions indicate that the legislature recognized that the discharge of effluent may cause harm to the environment, and that a permit amendment should seek to prevent or mitigate harm to the environment before harm occurs.

[45] The Board has previously considered the nature of the discretion to authorize the discharge of effluent, and whether the Board should take a "cautious" approach

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[3] The definition of "effluent" is virtually unchanged between *EMA* and the *WMA* – the only difference is use of the word "introduced" in the *EMA* instead of "discharged".

in deciding an appeal of an approval issued under the *WMA*. In *Myrus James et al. v. Regional Waste Manager* (Appeal Nos. 2003-WAS-021(b), 2003-WAS-022(a), 2003-WAS-023(a), November 17, 2004), the Board held as follows at page 21:

> Given the statutory provisions discussed above, the Panel finds that, in considering whether to issue an approval, a regional manager should consider the risk that the effluent will damage the environment, injure the safety or health of persons, injure property or life forms, or do any of the other things listed in the definition of "effluent". The Panel also agrees with the CSA that the process of deciding whether to issue an approval must be consistent with the preventative policy underlying the *Act*, which is discussed in *BC Minister of Environment, Lands and Parks (MELP) v. Alpha Manufacturing* (February 13, 1996), Vancouver Registry No. C960444 (hereinafter *Alpha Manufacturing*) as follows:
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> > … it is abundantly clear from the *Waste Management Act* as a whole that it represents the legislative policy of controlling, ameliorating and where possible, eliminating the deleterious effect of pollution on the environment in a broad sense. The means adopted are in great measure the provision of permits and approvals before potentially polluting activities can be undertaken.
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> The Panel notes that *Alpha Manufacturing* was upheld on appeal, and the Court of Appeal expressly agreed with the conclusions above (*British Columbia (Minister of Environment, Lands and Parks) v. Alpha Manufacturing Inc.*, [1997] B.C.J. No. 1989 (B.C.C.A.) (Q.L.), at para. 24).
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> [underlining added]

[46] The Board concluded at page 22 of that decision that the circumstances required "a cautious and technically rigorous approach in assessing the potential risks associated with the effluent discharge".

[47] Similarly, the Board held that a "a prudent and cautious approach is warranted" when considering the potential risks associated with the discharge of biosolids on farmland, especially when discharged to land in a floodplain adjacent to a stream and there is evidence that local residents obtain their domestic water from nearby groundwater sources: *Organic Producers Association of Cawston and Keremeos et al. v. Assistant Regional Waste Manager* (Appeal Nos. 2000-WAS-024 and 2000-WAS-025, April 11, 2002).

[48] As stated above, this Panel is not bound by the Board's previous decisions, but the Panel finds those previous decisions to be relevant and helpful.

[49] In conclusion, it is consistent with the relevant statutory provisions, and previous Board decisions, to take a "cautious" approach in assessing the potential risks associated with the elevation of lagoon #2, aimed at proactively preventing harm to the environment.

3. Who has the burden of proof regarding the appropriate maximum elevation of lagoon #2?

[50] Cranbrook argues that the onus to show that an amendment for the protection of the environment is required lies with the party asserting the need for environmental protection. Cranbrook also argues that it must be shown with "reasonable certainty" that allowing the effluent level in lagoon #2 to rise above 824 metres ASL causes harm to the environment, and therefore, the restriction is necessary to protect the environment from that harm.

[51] The Assistant Manager argues that the evidentiary threshold for exercising his amending powers is not "reasonable certainty", but rather a "balance of probabilities". He submits that the unauthorized and unanticipated release of large volumes of effluent from lagoon #2 "must be presumed to present substantial and unacceptable risk" to the environment.

[52] The Board has consistently held that the standard of proof in an appeal is the civil standard of a "balance of probabilities". The Board has applied this standard in countless previous decisions, and the Supreme Court of Canada recently confirmed the application of this standard in civil cases: *F.H. v. McDougall*, 2008 SCC 53. In that case, the Court concluded as follows at paragraph 49:

> … in civil cases there is only one standard of proof and that is proof on a balance of probabilities. In all civil cases, the trial judge must scrutinize the relevant evidence with care to determine whether it is more likely than not that an alleged event occurred.
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> [underlining added]

[53] Regarding which party bears the burden of evidence in an appeal, the Board's *Procedure Manual* states as follows:

> The general rule is that the burden or responsibility for proving a fact is on the person who asserts it. The fact is to be proved on a "balance of probabilities".

[54] The Board has elaborated on the question of the appellant's evidentiary burden in previous decisions. For example, the Board has stated as follows:

> … the Appellants bear the burden of evidence in an appeal. It is not open to an appellant to simply state its objection to an order, sit down and require the respondent to justify the order as though no order had ever been made.
>
> … an appellant's obligation in proceedings such as these is to lead some evidence that either the order made was wrong in law or fact, or that the process leading to the order was flawed in some way. The Board does not necessarily require the appellant to always demonstrate that the decision was wrong in law or fact, but if the appellant is not going to assert that there is some legal flaw in the decision or lead evidence that the Board could consider as sufficient to conclude that the [Respondent] should have made another decision based on the facts, then the appellant must at least lead some

> evidence that the process which lead to the decision was flawed in some way.
>
> Were it otherwise, respondents could be subjected to frivolous appeals and put to the expense and bother of defending an appeal without any indication that there was a flaw in the process or in the decision itself. Simply put, it is not enough to come to this Board with the mere complaint that the appellant does not like the decision that was made.
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> [see: *David Avren et al. v. Regional Water Manager*, Decision Nos. 2006-WAT-003(a); 2006-WAT-004(a); 2006-WAT-005(b), June 29, 2007, at paragraphs. 53-55; followed in *Gordon Planedin v. Deputy Comptroller of Water Rights*, Appeal No. 2006-WAT-012(a), October 31, 2007, at paragraphs. 58-59]

[55] Similarly, the Board has previously held that an appellant does not meet the burden of proof by simply attempting to discredit the Respondent's evidence, or by arguing that a third party has failed to prove its case against the appellant. Rather, an appellant has the initial burden of proof, i.e. the appellant has the responsibility to prove, on a balance of probabilities, the facts that he or she asserts are true. The onus then shifts to the other parties: *John W. Zahradnik v. Assistant Regional Water Manager* (Appeal No. 2003-WAT-009(a), February 27, 2004).

[56] Consequently, in the present appeal, Cranbrook has the responsibility to prove the truth of the facts it asserts, on a balance of probabilities. In other words, Cranbrook is responsible for leading sufficient evidence for the Board to conclude that it is more likely than not that allowing the elevation to exceed 824 metres ASL (or, alternatively, setting a maximum of 827.5 metres ASL) will not create an unreasonable risk of harm to the environment. It is insufficient for Cranbrook to simply seek to discredit the Assistant Manager's evidence, or argue that CPR has not proved its case.

4. Whether the *Waste Management Act* or the *Environmental Management Act* applies to this appeal.

[57] The parties raised an issue regarding the governing legislation in this appeal. This issue was raised in the context of Cranbrook requesting that the Board amend the Permit by authorizing Cranbrook to install an outfall to discharge effluent to the Kootenay River. Cranbrook argued that an outfall would be necessary for Cranbrook to manage the elevation of lagoon #2 at 824 metres ASL, if the Board confirms the 824 metres ASL maximum.

[58] As noted above, when the Assistant Manager issued his decision, the *WMA* governed the subject matter of his decision and provided Cranbrook with a right of appeal to the Board. Also at that time, the *Environment Management Act*, R.S.B.C. 1996, c. 118, was in force and established the Board's statutory powers and procedures. On July 8, 2004, the *Environment Management Act* and the *WMA* were

repealed[4] and the *Environmental Management Act*, S.B.C. 2003, c. 53, was brought into force. Provisions that regulate the discharge of waste, and set out the Board's statutory powers and procedures, are now contained in the *EMA*.

[59] For reasons discussed below, these legislative changes did not have a substantive effect on most of the statutory provisions that are relevant to this appeal. However, they do have substantive implications with regard to "new" discharges of effluent that were not previously authorized by the amended Permit, such as an outfall discharging to a stream.

[60] The Assistant Manager's submissions on this issue may be summarized as follows:

- the *WMA* has been repealed and replaced by the *EMA* since the Permit was amended, and the *Municipal Sewage Regulation* came into force on July 15, 1999, a few months after the Permit was amended;
- when one Act is repealed and replaced by another, section 36(1) of the *Interpretation Act* requires the proceedings commenced under the repealed Act to be continued in conformity with the new Act, to the extent possible;
- the Board's powers on this appeal are subject to the *EMA*, and the *WMA*'s provisions no longer apply;
- the Appellant's rights on appeal are procedural rather than substantive, because the appeal provisions give an appellant a right to a process, not to a result;
- Cranbrook's request that the Board amend the Permit by authorizing an outfall should not be granted in the absence of an evaluation of the environmental impact followed by public notice and an opportunity for public input, as provided for under the *EMA*;
- the Assistant Manager's duties have been assumed by directors acting under *EMA*, and therefore, this appeal should be governed by the powers of a director under *EMA*;
- a director's powers to amend a permit under section 16 of the *EMA* are subject to section 14(3) (subsection (c) is most relevant), which states, "… a director may not… amend, a permit authorizing the introduction of waste into the environment if the introduction is governed by… a regulation, unless the regulation requires that a permit be obtained in relation to the discharge…";
- given that the discharge of effluent under *EMA* is governed by the *Municipal Sewage Regulation*, a director, and thus the Board, has no authority to amend the Permit to provide for additional discharges.

[61] In reply, Cranbrook argues that section 36 of the *Interpretation Act* applies only to procedural matters, and not substantive remedies.

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[4] The *Environment Management Ac*t and *WMA* were "repealed", as opposed to "repealed and replaced", according to the legislation (see *EMA* ss. 146, 147, 174), but the practical effect of their repeal together with simultaneously bringing *EMA* into force was their repeal and replacement.

[62] CPR did not directly address this issue in its written submissions, but it did refer to the provisions of the *WMA* only.

[63] The Panel finds that this issue is relevant in terms of identifying the legislation that governs the appeal process (including the Board's powers in the appeal), and the legislation that applies when assessing the merits of the Permit amendments.

[64] Although the parties did not expressly refer to them, the transitional provisions in subsections 140(2) and (3) of the *EMA* provide guidance:

140 (2) A decision of a manager under the Waste Management Act is deemed to be a decision of a director under this Act.

(3) A decision of the Environmental Appeal Board in relation to an appeal under the Waste Management Act is deemed to have been made under Division 2 *[Appeals from Decisions under this Act]* of Part 8 of this Act.

[65] Section 140(3) indicates that the Board's powers on this appeal are found in Division 2 of Part 8 of the *EMA*. Section 140(2) indicates that the Assistant Manager's decision is deemed to be a decision of a director under the *EMA*, but it is important to bear in mind that section 140(2) took effect after the appeal was filed. Section 140 does not clearly address the present situation: an appeal of a decision made under the *WMA*, in an appeal proceeding that commenced when the *WMA* was in force but was not completed until after the *WMA* was repealed.

[66] These transitional provisions must be read together with the relevant sections of the *Interpretation Act*. Pursuant to section 2(1) of the *Interpretation Act*, the provisions of the *Interpretation Act* apply unless a contrary intention is indicated in that Act or in section 140 of the *EMA*. Sections 35 and 36 of the *Interpretation Act* state as follows:

Repeal

35 (1) If all or part of an enactment is repealed, the repeal does not ....

(c) affect a right or obligation acquired, accrued, accruing or incurred under the enactment so repealed, ...

(e) affect an investigation, proceeding or remedy for the right, obligation, penalty, forfeiture or punishment.

(2) Subject to section 36(1), an investigation, proceeding or remedy described in subsection (1)(e) may be instituted, continued or enforced and the penalty, forfeiture or punishment imposed as if the enactment had not been repealed.

Repeal and replacement

36 (1) If an enactment (the "former enactment") is repealed and another enactment (the "new enactment") is substituted for it, ...

> (b) every proceeding commenced under the former enactment must be continued under and in conformity with the new enactment so far as it may be done consistently with the new enactment,
>
> (c) the procedure established by the new enactment must be followed as far as it can be adapted in the recovery or enforcement of penalties and forfeitures incurred under the former enactment, in the enforcement of rights existing or accruing under the former enactment, and in a proceeding relating to matters that happened before the repeal, …
>
> [underlining added]

[67] Section 36 focuses on "procedures" used to enforce rights and "proceedings" that commenced before the repeal, whereas section 35 focuses on "proceedings and remedies" in relation to "rights" and "obligations" that were "acquired, accrued, accruing or incurred" under the repealed Act.

[68] Based on section 36(1) of the *Interpretation Act* and section 140(3) of the *EMA*, the appeal procedures in the present case, which commenced when the *WMA* was in force, are continued under the *EMA*, and the Board's powers on the appeal are also found in the *EMA*. However, based on section 35 of the *Interpretation Act*, any rights or obligations that Cranbrook acquired or incurred under the amended Permit, were subject to the *WMA* when the amendments were made, and are not affected by the repeal of the *WMA*. Consequently, it is logical to assess the merits of the amendments based on the provisions of the *WMA* that were in force at that time.

[69] This approach is consistent with the Board's decision in *Houweling Nurseries Ltd. v. District Director of the GVRD* (Appeal No. 2003-WAS-004(b), January 11, 2007). In that case, the Board held that the provisions of the *WMA* in force when the appealed decision was made apply for the purposes of the Board considering the merits of the decision, and the provisions in *EMA* apply to the appeal process and the Board's powers on appeal.

[70] Given that an outfall would be a new form of effluent discharge that was not previously authorized by the amended Permit, no rights or responsibilities were accruing to Cranbrook in that regard before the *WMA* was repealed. Consequently, any authorization for an outfall would be governed by the *EMA*. A director's powers to amend a permit under section 16 of the *EMA* are subject to section 14(3)(c) of the *EMA*, which provides that a permit may not be amended to authorize discharge via an outfall unless the *Municipal Sewage Regulation* requires that a permit be obtained in relation to the discharge. The *Municipal Sewage Regulation* relies primarily on approved waste management plans, as opposed to permits, to regulate the discharge of municipal liquid waste. Consequently, it is beyond the scope of the Board's jurisdiction in this appeal to amend the Permit to provide for an outfall. Cranbrook should apply for authorization under the current legislation if it wishes to install and operate an outfall.

5. Whether 824 m ASL is the appropriate elevation for lagoon #2.

[71] In the presentation of evidence relating to its appeal, Cranbrook first called Jamie Hodge, Director of Engineering Services for Cranbrook. Mr. Hodge summarized the operations of the lagoons and irrigation system as they relate to the municipal sewage system.

[72] Cranbrook's second witness was Dr. Gilles Wendling of GW Solutions, who was qualified as an expert. Dr. Wendling provided evidence as to his previous work for EBA Engineering. He provided an opinion that there was no obvious correlation between the slope failures and the operation of the lagoons. As such he did not believe that the leakage from lagoon #2 extended past the gravel pit.

[73] Bob Patrick from EBA Engineering provided evidence for Cranbrook as to the calculated factors of safety built into the construction of the track by the CPR.

[74] The presentation of the Residents by Arlene Ridge provided evidence of leakage from lagoon #2 and the allegation of over-irrigation in the system. The Residents expressed concern that the irrigation was contaminating the land that was being irrigated, and that the ground water and surface water in the area were similarly being compromised. Under the terms of the Board's decision respecting the participation of the Residents, dated August 20, 2002, there was no cross examination of her presentation. However, as noted above, the other parties were given an opportunity to reply to the Residents' presentation but declined to do so.

[75] The Respondent called Barry Wood, the retired Municipal Section Head for the Ministry in Nelson. Mr. Wood issued the amended permit in 1999. He provided evidence as to the chronology for the issuance of the permit amendment

[76] The Respondent's other witness was Ric Baker who retired as the Environmental Management Section Head for the Ministry. Mr. Baker provided evidence as to the management of the amended (and unstayed) permit as well as the background that led to the discharge of effluent from the lagoons to Hillbarr Creek. He was critical of Cranbrook's lack of cooperation with the Ministry.

[77] The CPR's opening witness was Dr. D.A. Birkholz who provided evidence as to the laboratory finding of caffeine and cholesterol within samples taken from boreholes and seeps at the tracks.

[78] Dr. Chris Bunce Manager of Geotechnical Engineering for CPR provided evidence on the history of slope failures on the track and the railroad's efforts to remediate the drainage and stability of the track.

[79] Wayne Clifton of Clifton Associates Ltd was called by the CPR and was qualified as an expert witness. Mr. Clifton provided evidence regarding leakage from lagoon #2 that was accepted at 330,000 m^3 per year. His evidence was summarized as finding that when lagoon #2 is operated at an elevation above 824 metres ASL, the flow of natural groundwater south to the lagoon (which was Standard Lake) is inhibited, increasing groundwater levels northward and, eventually causing the natural water to flow north toward the CPR track. Based on the water chemistry and the change in vegetation, he concluded that water from lagoon #2 has reached the tracks.

[80] Paul Bauman was called by the CPR and was qualified as an expert in geophysics. His concluded that there was evidence of a buried Ice-Age channel between the area north of the gravel pit and the CP Rail line.

[81] The CPR also called Dr. Leslie Smith, who was accepted as an expert in hydrogeology. He gave evidence that his analysis of nitrates provided a pattern that was consistent with the existence of a hydraulic connection between lagoon #2 and the CPR track.

[82] The CPR's concluding witness, Dr. N.R. Morgenstern, was qualified as an expert in geological and geotechnical engineering with a particular expertise in landslides and related phenomena. While he confirmed the work done by various parties, he concluded that the instability that occurred between Mile 99.0 and 99.5 was caused by high groundwater levels as a result of both elevated groundwater levels due to pond leakage and due to infiltration arising from precipitation and snowmelt. While he accepted that operating lagoon #2 at a level below 824 metres ASL would eliminate impact on the right of way, he opined that if there are compelling reasons to operate the lagoon above that level any concerns over doing so could be resolved by implementing a comprehensive monitoring program while increasing the elevation level in small steps.

[83] The Panel notes that none of the expert witnesses, called by either the Appellant or Third Party, provided any statistical analysis in support of their conclusions. Consequently, the Panel is left to consider the evidence without the significance that such analysis could provide.

[84] By way of analysis of the evidence, the Panel accepts, as sensible, the concept of a sewage treatment and disposal system such as is currently in use at Cranbrook, consisting of two aerobic treatment ponds plus a third polishing pond, two large storage lagoons and a spray irrigation distribution system. While conceptually acceptable, the implementation by Cranbrook has been far from acceptable. What this Panel has determined is that components of the sewage treatment system have been seriously flawed for many years and that Cranbrook has done very little to correct them. For reasons not clear to the Panel, the Ministry has not enforced its Permit. The Panel had hoped for a presentation from Cranbrook that would demonstrate a determination to find an engineered solution, but what the Panel received, can only be regarded as "too little too late." While compliance and enforcement of the Permit are not the responsibility of the Board, non-compliance and non-enforcement, have been so overwhelmingly consistent that the perception from the evidence before this Panel is that Cranbrook has been "thumbing its nose" at the regulators.

[85] At the out set of the hearing, it was determined that the single issue for resolution by the Panel, was the matter of the maximum effluent elevation in lagoon #2. However, the presentation by Ms. Ridge, on behalf of the Residents, (many of whom attended throughout the four weeks of the hearing) invited the Panel to go further, specifically to review the spray irrigation system; the operation of which they felt was particularly flawed. Based on the presentation made by Ms. Ridge, the Panel is prepared to include a comment on the spray irrigation system in its findings. Specifically, the Panel is recommending that the Ministry review the

use of the spray irrigation system that is being used to control the elevation of the effluent in the sewage lagoons. In particular, the Panel recommends that the Director investigate whether the spray irrigation system is causing pollution and whether the acquisition of additional lands for irrigation would remedy that problem.

[86] On the main issue of the maximum operating level for effluent storage in lagoon #2, set by the Assistant Manager in the Permit amendment at 824 metres ASL, the evidence clearly establishes, on a balance of probabilities, that absent a proper engineered solution to the many problems facing Cranbrook's system, the elevation set by the Assistant Manager at 824 metres ASL, is justified. The evidence is overwhelming that effluent is escaping from lagoon #2 at approximately 330,000 m^3 annually. The distance the effluent travels outside lagoon #2 is increased when lagoon #2 elevation is above 824 metres ASL.

[87] It should be noted that the evidence from Mr. Baker, which the Panel accepts, was that the elevation has regularly exceeded 824 metres ASL, and in particular, during 2007, did so 70 per cent of the time. While Cranbrook's performance improved in 2008, it did so only because Mr. Baker allowed several emergency by-passes. Even if the effluent travels only as far as the gravel pit, as Dr. Wendling contends, the amendment is justified, because **effluent**, by definition, damages or is capable of damaging the environment such that any significant unauthorized discharge is contrary to law. If the effluent travels as far as the CPR right of way, then the amendment is further justified. In the Panel's view, it is not necessary to go farther than to find that, on the evidence, effluent escaping lagoon #2 amounts to approximately 330,000 m^3 annually and that some of it finds its way to the gravel pit, to make the case for justification for the amendment. However, the evidence also clearly supports, on a balance of probabilities, that at elevations exceeding 824 metres ASL, effluent finds its way to the CPR right of way and manifests itself through the existence of seeps[5] in the railway slopes. One such seep at Mile 99 has caused water dependent grasses to establish themselves that would not otherwise be there. Another seep tests positive for caffeine and cholesterol, both being clear indicators of a discharge from lagoon #2. The Panel notes that the only probable source of caffeine and cholesterol would be from the sewage lagoon. Again, while it is not necessary for the Panel to go further than the above, it is clear from the evidence of Dr. Morgenstern, which the Panel accepts, that certain of the CPR slope failures have been caused by a combination of both unusual events of high precipitation and high ground water. The consequence of such failures is severe and the risk should be reduced by operating lagoon #2 so that the discharge to the right of way is eliminated. Accordingly, the Panel is directing the Director to review the amendment to clause 5 of the Permit regarding the use of the term "minimize effluent leakage". More specific language should be used to control the leakage of effluent from lagoon #2.

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[5] "Seeps" are points where water escapes from the railway slopes such that the water can be identified and analyzed.

[88] As to the "outfall" request made by Cranbrook of the Panel, the Panel's view is that the Board has no jurisdiction to grant the request, as explained under issue #4. An outfall to the Kootenay River is new and must for that reason be made pursuant to the provisions of the *Municipal Sewage Regulation*, which among other things, requires registration and an environmental assessment. Apart from this last minute request to the Panel, there is no evidence to support the request. Clearly, much more information is needed as a basis for such a request. Consequently, even if the Board has jurisdiction to grant Cranbrook's request, this Panel would decline to do so because of the absence of information sufficient upon which to base such a decision.

[89] It should be noted that the Panel received evidence from Mr. Hodge regarding water consumption. The Panel was advised that Cranbrook, with a population of 18,500, is consuming water at a rate that would be expected of a much larger city. In the Panel's view, this use of water by Cranbrook is having an impact on the water that is being released to the sewage lagoons. Accordingly, the Panel finds that Cranbrook and the Ministry should review Cranbrook's water consumption to determine if water conservation would reduce the amount of effluent being released to the sewage lagoons.

[90] As explained above, many of the requests made of the Board on behalf of the Residents are not within the jurisdiction of the Board. However, this Panel recommends that the Director review the spray irrigation system to make sure it meets compliance standards and to determine if additional lands are required for that system.

[91] As explained at the outset of the hearing, the Board may, pursuant to section 103 of the EMA, (a) send the matter back to the person who made the decision, 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. While tempted to exercise its jurisdiction under subsection (c), the Panel has decided instead that, in view of the complicated nature of what must be done, the public interest is best served by returning this matter to the Director, with directions.

DECISION

[92] In making this decision, the Panel has considered all of the evidence and submissions before it, whether or not specifically reiterated herein.

[93] For all of the reasons set out above, the Panel's findings are:

1) The Appeal is dismissed

2) The 824 metre ASL elevation is confirmed.

3) This matter is remitted back to the Director with the following directions:

    a) To further amend the permit to remove, substitute, or clarify, the words "minimize effluent leakage" found in Clause 5 thereof.

b) To direct Cranbrook to review water conservation methods with a view to their implementation to control water input to the sewage lagoons.

c) To direct Cranbrook to undertake and complete an engineering review (the Study) of the sewage lagoons within a reasonable period of time to minimize leakage and to address the Scope of Work.

d) To set the Scope of Work for the Study so as to include works to allow effluent to flow between lagoons and such other matters as the Director may deem appropriate.

e) To direct Cranbrook to undertake and complete such works as may flow from the Study within such time frame as the Director may determine.

f) To legitimize the discharge to ground from leakage from lagoon #2 whenever the lagoon level is below 824 metres ASL and attach whatever terms and conditions are deemed appropriate.

4) In addition, the Panel makes the following recommendations to the Director.

a) To review the spray irrigation system to ensure the beneficial use of the effluent as defined in the *Municipal Sewage Regulation*.

b) To make appropriate recommendations to Cranbrook and other agencies to make sufficient land available to Cranbrook for spray irrigation.

"David H. Searle"

David H. Searle, CM, QC, Panel Chair
Environmental Appeal Board

"Robert Gerath"

Robert Gerath, Member
Environmental Appeal Board

"R. G. Holtby"

R.G. Holtby, Member
Environmental Appeal Board

April 9, 2009